

Challenge SPBE Development In Central Sulawesi

Sudaryano R Lamangkona¹, Syahrudin Hattab¹, Ani Susanti¹

¹University Tadulako

Corresponding author: srlamangkona@gmail.com

Abstract: This study aims to analyze the challenges in developing SPBE in Central Sulawesi Province. This study uses a qualitative research type with a qualitative approach. The qualitative descriptive research method is a research method that uses qualitative data and is described descriptively. The types of data used in this study are Primary Data and Secondary Data, Data collection techniques carried out using purposive sampling techniques through interviews, participant observation, and documentation. The results of the study indicate that although the facilities and infrastructure at the Communication, Informatics, Cryptography, and Statistics Office of Central Sulawesi Province are good, their use and management are not optimal. This shows that the success of SPBE depends not only on technology, but also on the ability of human resources to utilize the technology effectively. This study provides recommendations for improving training and development of human resources to be crucial to ensure that each OPD can adapt well to this system.

Keywords: e-Government, SPBE, Central Sulawesi

1. INTRODUCTION

The Industrial Revolution 4.0 or also called the technological revolution that greatly affects our lives includes how we can easily interact with other people who are far away and how we work using technology to prioritize efficiency and effectiveness. With this situation, the government provides a new innovation in the form of e-Government as an effort to face the challenges of the industrial revolution 4.0 era in realizing good governance.

The concept of public service refers to the principles, values, and practices related to how government and public institutions provide services to the public. This concept is an important aspect of good governance and healthy democracy. Widodo, (2001) said, theoretically there are at least three main functions that must be carried out by the government regardless of its level, namely the public service function, development function and protection function.

SPBE is a form of innovation carried out in government in order to carry out more effective service activities by utilizing information and communication technology in providing services to the public as SPBE users (Oktarina, 2023; Rachmawati et al., 2022). As stated in Presidential Regulation Number 95 of 2018 concerning the Electronic-Based Government System. SPBE aims to realize clean, effective, transparent, and accountable governance as well as quality and reliable public services. To improve integration in an electronic-based government system, SPBE management and governance are needed in it, which means that SPBE is not only the implementation of application system services or information systems in daily government administration, but more than that, SPBE also has various domains in its application, namely, the domain of government activities, the domain of technology and information, and the domain of services. In the domain of government activities, there are several scopes in its application including the SPBE master scope plan, business processes, SPBE budget and spending, and electronic-based information data.

SPBE offers information and services to the Indonesian people including Government to Citizen (G2C) is a partnership between the government and the community that seeks to increase engagement and make it easier for the public to obtain government information; Government to Business (G2B) is a classification of ties or connections between the government and the business world. This relationship is very crucial in building a good connection relationship between the government and the business world with the aim of facilitating business transactions; Government to Government (G2G) is a kind of relationship between two governments (Iyer et al., 2006; Faiz & Faiza, 2017). The purpose of this relationship is to meet the information needs of international organizations while facilitating and facilitating collaboration between the countries involved; Government to Employees (G2E) is a classification of the connection network between the government and employees. The target of this relationship is to develop and improve the skills and prosperity of employees or government officials who work in government agencies; Government to Non-Profit (G2N) is a type of relationship between the government and non-profit organizations or institutions such as NGOs, political parties and the like. This

relationship is intended so that non-profit organizations or institutions can be managed well according to the mandate and mandate to achieve their goals (Prawira and Paraniti in Choirunnisa et al., 2023).

Existing conditions moment This is on the use, implementation and utilization System Government Based on Electronics in Government Central Sulawesi Province is : development of SPBE independently result in waste budget , SPBE not yet applied in a way comprehensive and optimal implementation government and services public, reach infrastructure Not yet throughout region Central Sulawesi Province , and the number of ASN who have ICT competency is still limited .

Based on background Behind the above, the author is interested in conducting research on the challenges in developing SPBE in Central Sulawesi Province.

This research is this inspired from previous research, namely Obstacles In Implementation Service System Government Based on Electronics (SPBE) in Regional Government (Arifin La Adu, Rudy Hartanto and Silmi Fauziati , 2022) The research results show that obstacles faced by the Government Central Maluku Regency in apply SPBE services can categorized into 4 obstacles / aspects, namely policy / regulation, planning and budget, resources Power humans, and IT infrastructure. These obstacles can become reference for government area to do repair in implementation SPBE services so that quality service public in society become more Good.

Further research that is Electronic-Based Public Service Innovation at DPM PTSP Bandung City (Rindri Andewi Gati, 2022). The results of the study showed that service licensing at DPM-PTSP Bandung City shows existence innovation service public. From the side innovation product, delivery documents to the applicant is new and nothing in old procedures. Process innovation emphasizes processes that use minimal paper, integrated, and online. Innovation method service seen from service web and application-based gadgets that can accessed with easy. Innovation strategy policy shown with existence deregulation as guarantee protection Law. Innovation system shown with existence rearrangement and use system electronic make aspect duties and responsibilities answer become clearer. The research results are expected can become a lesson learned for government other areas in implementation of SPBE so that can increase quality implementation of SPBE in government the area each.

2. METHOD

This study uses a qualitative research type with a qualitative approach. Qualitative descriptive research method is a research method that uses qualitative data and is described descriptively. The types of data used in this study are Primary Data and Secondary Data, Data collection techniques carried out using purposive sampling techniques through interviews, participant observation, and documentation. The informants in this study were Novalina, Regional Secretary of Central Sulawesi Province, and Wahyu Agus Pratama, Head of Application and Informatics Division of the Communication, Informatics, Cryptography and Statistics Service of Central Sulawesi Province.

3. FINDINGS AND DISCUSSIONS

The biggest challenge in developing Information and Communication Technology (ICT) infrastructure for the implementation of Electronic-Based Government System (SPBE) in Central Sulawesi includes several important aspects, namely the lack of understanding and skills of human resources (HR). Many Regional Apparatus Organizations (OPD) still do not fully understand the mechanism and technical implementation of SPBE, thus hampering the effectiveness of implementation. Misunderstanding of the purpose of SPBE causes OPDs to compete to submit application development without a clear understanding and mechanism. The following is a statement from Novalina, Regional Secretary of Central Sulawesi Province :

"I want to see all Regional Apparatus Organizations (OPD) in Central Sulawesi connected in one integrated SPBE system. With this integration, data and information can be managed better, and services provided to the community become more holistic and coordinated"

The issue of system integration is also a significant challenge. Although various electronic services are available, many of them are not well integrated. This lack of integration hinders the efficiency and effectiveness of public services. In addition, the lack of specific regulations to regulate the implementation of SPBE at the local level also worsens this situation, causing each region to have different approaches in implementing this system.

Another inhibiting factor is that functional technical officials who know and are responsible for the management of SPBE implementation are transferred or moved to another place of duty. When the

official is transferred, it is not followed by a transfer of knowledge or information to the replacement official. In fact, it is often found that the replacement official does not understand the technical aspects of SPBE, thus weakening the SPBE implementation system and management.

On the other hand, the Communication, Informatics, Cryptography and Statistics Office annually conducts training and technical guidance on the implementation of SPBE which is attended by staff/operators from each regional apparatus. The training also brings in speakers or resource persons from related Ministries, for example the Ministry of PAN/RB, the Ministry of Communication and Digital as well as resource persons from institutions outside the Government and ICT practitioners who have national capacity. This causes stagnation in the development and implementation of SPBE, because the replacement must start from the beginning, so that commitment from the leadership and consistency in the implementation of SPBE are very much needed so that this process can run more smoothly. Novalina's further statement:

"Eliminate the barriers between OPDs. Remember that the common goal is to provide the best service to the community"

To support the effective implementation of SPBE, adequate infrastructure and work equipment that meet the required standards are required. Without good infrastructure support, all efforts in ICT development will be in vain. This requires serious attention from the local government to ensure that all OPDs have access to the necessary facilities. Collaboration between OPDs is very important to improve the SPBE index in Central Sulawesi. Synergy between various government agencies is needed so that every step in the implementation of SPBE can be carried out in a coordinated and efficient manner. The responsibility for improving the SPBE index is not only in the Communication, Informatics, Cryptography and Statistics Service but is a shared responsibility of all OPDs. Thus, strong collaboration will help identify obstacles and formulate appropriate solutions to achieve the goal of developing better ICT infrastructure in Central Sulawesi.

Effective policy implementation is a major challenge in developing ICT infrastructure in Central Sulawesi. Although there have been various policies formulated to improve internet infrastructure and empower communities in the digital sector, the effectiveness of these policies is often hampered by the lack of synergy between the central and local governments. Without good collaboration, the resulting policies can be irrelevant to local needs, which in turn reduces the expected positive impacts of ICT infrastructure investments.

Uncoordinated policies have the potential to cause duplication of investment and waste of resources. For example, if local and central governments develop the same infrastructure project without clear communication, this can result in wasted budget and time. As happened in the BTS Development by Bakti Ministry of Communication and Informatics which did not carry out further coordination when carrying out activities in the field, so that data on the number and location of targets was only owned by the Ministry. Meanwhile, the Provincial Government and Regency Government in this case the Communication, Informatics, Cryptography and Statistics Service did not know and did not have the data.

In this context, it is important to have an effective coordination mechanism between the two levels of government. With coordination, each project can be planned and implemented by considering the specific needs of the region and avoiding overlapping in the use of resources. The importance of preparing a systematic master plan for the development of information technology cannot be ignored.

To strengthen the implementation of the Development and Development of electronic systems, a master plan document is needed. The document includes clear guidelines for all stakeholders as an ecosystem of SPBE implementation, such as government, universities, communities and the private sector. The master plan document contains the objectives and direction of SPBE which are integrated, directed and sustainable. The Regional SPBE Master Plan at least contains the vision, mission, objectives and targets of SPBE, SPBE policy directions, SPBE strategies and SPBE strategic plan maps. In order for the Development and Development of ICT in Central Sulawesi to overlap with the direction of the national ICT Development policy, the SPBE master plan document is prepared based on the Regional Long-Term Development Plan (RPJPD) and the Grand Design of Regional Bureaucratic Reform and is guided by the National SPBE Master Plan. In addition, the master plan document must be in accordance with the provisions and regulations.

In its preparation, it is coordinated with the regional apparatus that carries out tasks and functions in the field of Regional Development Planning (Bappeda) and a review is carried out every 5 (five) years or at any time based on the results of monitoring and evaluation of the implementation of the Regional SPBE

Master Plan or changes in national and/or regional strategy policies. While monitoring and evaluation are coordinated by Bappeda.

Seeing the interrelationship of authority, tasks and functions of ICT development and development that are mutually coordinated, the role of each stakeholder needs to be improved through the role of the Regional Secretary as a catalyst for communication between regional devices as well as in the function as the Regional Government Budget Team (TAPD) in leading the allocation of budgets for each program and activity related to the implementation of ICT.

As a guideline, the master plan becomes a direction and guide for each party to have the same understanding of the objectives, strategies, and concrete steps that need to be taken in implementing ICT programs. This will help ensure that all efforts can be integrated, connected, collaborated and mutually supportive in achieving the objectives of ICT infrastructure development within the Central Sulawesi Provincial Government.

In addition to the ICT infrastructure development and construction plan, the master plan document must also pay attention to aspects of human resource development (HRD) and increasing digital literacy for the community. Good ICT infrastructure will not provide maximum benefits if it is not supported by HRD who have the knowledge, capacity, experience and skills as well as community groups who do not have the ability to utilize the technology. Therefore, training and education programs must be an integral part of the ICT development master plan. By improving HRD skills, the community will be better able to participate in the digital economy and utilize electronic-based public services effectively. The following is an explanation from informant Wahyu Agus Pratama, Head of the Application and Informatics Division of the Communication, Informatics, Cryptography and Statistics Service of Central Sulawesi Province :

"The Communication, Informatics, Cryptography and Statistics Office of Central Sulawesi Province through the Aptika Sector in the Development and Development of ICT has collaborated to increase the capacity of technical human resources and programmers with the Communication, Informatics Office of West Java Province. The goal is to transfer knowledge through an internship system for infrastructure development and implementation of the SPBE domain. In addition, it has also collaborated with the Human Resources Training and Research Agency (BPSDMP) of the Ministry of Communication and Digital to carry out GTA (Government Talent Academy) and TDS (Talent Digital Scholarship) training targeting government officials, business circles (UMKM), high school students, vocational school alumni and students. Meanwhile, for community empowerment, we have also collaborated with the Common Room Institute, Community Internet School, Roa Jaga Roa and ICT Watch as a working group from the Digital Access Program (DAP) which is under the coordination of the British Embassy, in the community-based Digital Village development program in Ngata Toro Village, Kulawi District, Sigi Regency, as well as a pilot village. In fact, Central Sulawesi Province has been designated as a national pilot province for Digital Village Development for the period 2025-2027 by DAP".

The statement shows the efforts of the Central Sulawesi Province Communication, Informatics, Cryptography, and Statistics Office in improving the capacity of technical human resources (HR) and programmers through various collaborations with other agencies, such as the West Java Province Communication and Informatics Office, the Human Resources Training and Research Agency of the Ministry of Communication and Digital, and non-governmental institutions. This collaboration is in line with the principles in Thomas Smith's theory of effectiveness which emphasizes the importance of achieving clear goals through coordination and collaboration between various parties to create optimal results. In this case, the main focus is on the transfer of knowledge and development of information and communication technology (ICT) infrastructure, which is an important factor in increasing the effectiveness of the implementation of the Electronic-Based Government System (SPBE).

In addition, when analyzed using the DeLone and McLean Information System Success model , the statement shows the application of several dimensions of the model, such as system quality, information quality, and system use. In the context of digital village development and community empowerment, collaboration with institutions such as Common Room and ICT Watch aims to improve the quality of ICT use at the village level, with a focus on education and training for the community, MSMEs, high school students, and college students. The success of this collaboration can be measured by the level of user satisfaction with the training and programs provided, as well as its impact on improving the community's digital skills, which in turn will encourage increased productivity and the local economy.

The achievement of Central Sulawesi Province as a national pilot province in Digital Village Development

also reflects the success in implementing a more comprehensive effectiveness model, such as in the Information System Success theory. DeLone and McLean who assessed the overall impact of the system on organizational performance. By becoming a pilot village in the development of community-based digital villages, Central Sulawesi not only optimizes technology to improve public services, but also empowers the community directly. This is in line with Thomas Smith's theory of effectiveness which sees the importance of the influence of synergy between various components in the system to achieve effective and sustainable results.

Regular evaluation of the implementation of ICT policies and programs is essential to ensure their sustainability and effectiveness. The government needs to conduct regular monitoring to assess the impact of the policies implemented and identify areas that need improvement. With a systematic and coordinated approach, the development of ICT infrastructure in Central Sulawesi can run more effectively, support the growth of the digital economy, and improve the quality of public services through the Electronic-Based Government System (SPBE). This will contribute to more inclusive social and economic development in the region.

Furthermore, the biggest challenge in developing ICT infrastructure in Central Sulawesi is rooted in complex geographical conditions and limited accessibility of internet networks. This area has many rural areas that are difficult to reach, so that the development of ICT infrastructure is uneven. According to researchers' observations, one of the main obstacles is the availability of network infrastructure that has not reached most areas, especially in remote areas. This causes a digital divide between urban and rural areas, which hinders people's access to digital services.

Based on the description above, the researcher is of the opinion that the Implementation of the Electronic-Based Government System (SPBE) in Central Sulawesi has shown significant progress, although it still faces various challenges. The latest evaluation results noted that the SPBE index value of Central Sulawesi Province reached 2.84 points in 2023, an increase from 2.26 points in the previous year. This increase reflects the efforts of the local government in meeting the established indicators, including internal policies, SPBE management, and electronic-based public services. However, despite the progress, there are still aspects that need to be improved to achieve higher effectiveness in the implementation of SPBE.

One of the main challenges in the effectiveness of SPBE implementation is the quality of human resources (HR) and supporting infrastructure. Research shows that although the facilities and infrastructure at the Communication, Informatics, Cryptography, and Statistics Office of Central Sulawesi Province are good, their use and management are not optimal. This shows that the success of SPBE does not only depend on technology, but also on the ability of HR to utilize the technology effectively. Therefore, improving HR training and development is crucial to ensure that each SKPD can adapt well to this new system.

Sustainability and collaboration between agencies are also important factors in increasing the effectiveness of SPBE. Synergy between all Regional Apparatus Organizations (OPD) within the Central Sulawesi Provincial Government is needed to ensure that the implementation of SPBE runs in a planned and sustainable manner, and periodic evaluation and monitoring from related parties will help identify areas that need to be improved and ensure that all SPBE indicators are met. With the right strategic steps, it is hoped that the implementation of SPBE can provide a real positive impact on public services and government efficiency in Central Sulawesi.

4. CONCLUSION

The implementation of the Electronic-Based Government System (SPBE) in Central Sulawesi has shown promising progress, but still faces significant challenges, especially in terms of limited ICT infrastructure, low human resource capacity, lack of system integration between OPDs, and suboptimal coordination between the central and regional governments. Although the SPBE index has increased, the effectiveness of its implementation is still hampered by the rotation of technical officials without adequate knowledge transfer and the uneven distribution of internet network access in remote areas. Therefore, cross-sector synergy is needed, the preparation of an integrated and sustainable SPBE master plan, and strengthening of human resource training and empowerment so that each regional apparatus is able to manage and utilize technology effectively. With the support of clear regulations, adequate infrastructure, and commitment from all stakeholders, SPBE in Central Sulawesi is expected to realize efficient, transparent, and inclusive public service-oriented governance.

1. Arifin La Adu, Rudy Hartanto, dan Silmi Fauziati. 2022. Hambatan-Hambatan Dalam Implemetasi Layanan Sistem Pemerintahan Berbasis Elektronik (SPBE) Pada Pemerintah Daerah. JIKO (Jurnal Informatika dan Komputer) 5, no. 3.
2. Choirunnisa,dkk. 2023. Peran Sistem Pemerintah Berbasis Elektronik (SPBE) Dalam Meningkatkan Aksesibilitas Pelayanan Publik di Indonesia. Sosio Yustisia: Jurnal Hukum dan Perubahan Sosial 3, no. 1.
3. DeLone, W. H., & McLean, E. R. 2003. The DeLone and McLean model of information systems success: a ten-year update. *Journal of management information systems*, 19(4), 9-30.
4. Faiz, R., & Faiza, R. N. (2017, December). Accelerating E-government implementation in indonesia through focuses-based G2G interaction: A legal perspective. In *1st International Conference on Administrative Science, Policy and Governance Studies (ICAS-PGS 2017) and the 2nd International Conference on Business Administration and Policy (ICBAP 2017)* (pp. 224-232). Atlantis Press.
5. Gati, Rindri Andewi. 2022. Inovasi Pelayanan Publik Berbasis Elektronik di DPM PTSP Kota Bandung. *Journal of Business Administration Economic & Entrepreneurship*
6. Iyer, L. S., Singh, R., Salam, A. F., & D'Aubeterre, F. (2006). Knowledge management for Government-to-Government (G2G) process coordination. *Electronic Government, an International Journal*, 3(1), 18-35.
7. Kencono, B. D., Putri, H. H., & Handoko, T. W. 2024. Transformasi Pemerintahan Digital: Tantangan dalam Perkembangan Sistem Pemerintahan Berbasis Elektronik (SPBE) di Indonesia. *JlIP-Jurnal Ilmiah Ilmu Pendidikan*.
8. Oktarina, D. (2023). Implementation of an electronic-based government system (spbe) at the Muaro Jambi regency communication and information service. *Sustainability (STPP) Theory, Practice and Policy*, 3(2), 133-143.
9. Rachmawati, R., Anjani, D. F., Nurwidiani, T., & Almasari, H. (2022). Electronically-based governance system for public services: implementation in the Special Region of Yogyakarta, Indonesia. *Human Geographies*, 16(1), 71-86.
10. Setyasih, E. T. 2022. Transformasi digital pemerintah daerah di era society 5.0: studi kasus di Provinsi Jawa Barat. *PAPATUNG: Jurnal Ilmu Administrasi Publik, Pemerintahan Dan Politik*.
11. Widodo, Joko. 2001. *Good Governance - Telaah dari Dimensi: Akuntabilitas dan Kontrol Birokrasi pada Era Desentralisasi dan Otonomi Daerah*. Surabaya: Insan Cendekia.