


Electronic-Based Government System Governance Through Digitalization In The Sabang City Government

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| Article Info | ABSTRACT |
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| Keywords: SPBE Governance, Digitalization of Government, Sabang City, Electronic-Based Government System | The implementation of the Electronic-Based Government System (SPBE) in Sabang City faces various obstacles, such as lack of adequate human resources and technology, limited infrastructure, and minimal coordination between agencies. In addition, socialization to the community and the absence of regulations related to data security are also major challenges. This study aims to analyze the governance of SPBE in Sabang City, identify supporting and inhibiting factors for the implementation of SPBE, and formulate efforts to overcome these obstacles in order to support effective and efficient government digitalization. This study uses a descriptive qualitative approach, with data collection techniques through interviews, observations, and documentation studies. Data were analyzed using NVivo software for exploration, coding, and interpretation of results. The study found that SPBE governance in Sabang City is still in the early stages (pilot level) with many indicators not yet met. The main obstacles include limited human resources, lack of government commitment, and geographical challenges. The proposed solutions include strengthening technological infrastructure, increasing digital literacy, developing data security regulations, and optimizing human resources through training and collaboration between parties. |
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INTRODUCTION

Technology has so far greatly influenced human life. Its existence is able to provide a major impact of change in aspects of life. Almost all aspects are currently influenced by the use of technology, be it economic, socio-cultural, health, education, even government aspects. The development of global technology to date requires the government sector to be able to provide public services that can serve and provide convenience for its people through technology. Of course, as the most important element in the life of a society, the government is required to follow the development of the times but must not conflict with the ideology of the country itself.¹

The Indonesian government is currently faced with technological developments that require the programs they run to be the latest programs in terms of providing public services. Ease of obtaining information is an effort to realize a bureaucracy with good governance that is in accordance with the principles of good governance itself. The implementation of an electronic-based government system or commonly known as e-

government is one form of the government's seriousness in responding to current technological developments. The Indonesian government is currently echoing digital-based public services known as digital serving (Dilan).²

The implementation of an electronic-based government system or commonly called SPBE in Indonesia refers to Presidential Regulation of the Republic of Indonesia Number 95 of 2018 concerning the Electronic-Based Government System. This is also in line with Presidential Instruction Number 3 of 2003 concerning the National Policy for the Development of e-Government. Judging from the direction in accelerating digital transformation in Indonesia, it is carried out through 5 steps, namely accelerating the development of digital infrastructure and the provision of internet services, preparing a digital transformation roadmap in strategic sectors, accelerating the integration of national data centers, developing human resources and digital talents, and preparing various regulations and financing schemes to support the digital ecosystem. These five steps are the foundation for the development of the digital Indonesia roadmap.

The Ministry of Communication and Information has mapped out the Vision of Digital Indonesia in 2045. Based on the publication document, there are several pillars in achieving Digital Indonesia in 2045, namely digital infrastructure, digital economy, digital society, and digital government. In the digital government indicator, the government focuses on implementing more effective and efficient SPBE. So what the government wants to achieve to realize digital government in 2045 is through the E-Government Index (EGDI) ranking and the Global Cybersecurity Index (GCI) value.

Governance is an important activity to be carried out in an organization. Management activities if carried out in accordance with the principles will facilitate the achievement of an organization's goals. It is undeniable that organizations in achieving their goals require maximum governance as well as the government. To achieve effective and efficient SPBE implementation, integrated and integrated SPBE implementation governance is needed. In addition to strengthening SPBE governance, it must also be maximized in increasing the capacity of the SPBE implementation coordination team in the government. This is one of the visions and missions in the implementation of SPBE 2018-2025. One of the elements that must be possessed by the regional government in implementing SPBE is marked by the existence of SPBE architecture. SPBE architecture is a basic framework that describes the integration of SPBE business processes, infrastructure, applications, and security to produce integrated services.

Aceh Province, as an integral part of the Republic of Indonesia, has an important role in the implementation of SPBE which aims to improve efficiency, transparency, and public services through the use of information and communication technology at the regional level. With its special autonomy status, Aceh has the advantage in implementing innovative policies that are tailored to local needs, including in the implementation of SPBE itself. One of the areas that implements SPBE in providing public services is Sabang City. As an island city that attracts many tourists from both within and outside the country, the Sabang City government is required to be able to provide services not only to the local community but also to tourists.

Based on the results of the evaluation and monitoring of the implementation of SPBE in Indonesia conducted by the Ministry of State Apparatus Empowerment and Bureaucratic Reform and the SPBE coordination team, the local government of Sabang City has received a predicate of less every year with a value ranging from 1.43 in its first year to reaching a value of 2.44 in the last year. One of the domains that has the most influence on the increase in the SPBE evaluation index is the SPBE internal policy domain.

Innovation in the implementation of SPBE in Indonesia, both at the central and regional levels, is expected to create an effective and efficient government environment in the current digitalization era. The Sabang City Government as the organizer of the implementation of SPBE at the city level has not yet shown maximum results. Apart from the level of maturity of the implementation of SPBE which is still at the pioneering level, the Sabang City government service application is also still not integrated, which is spread across several regional devices.

Through job analysis (ANJAB) and workload analysis (ABK) of DISKOMINFOTIKSA and the number of employees based on education level as seen in the table above. The number of employees needed by DISKOMINFOTIKSA Kota Sabang is 60 employees while the realization of employee availability is 34 employees. This means that there are still 26 employees needed by DISKOMINFOTIKSA Kota Sabang to meet the existing workload. The limited human resources in carrying out tasks will certainly affect the services that will be received by the community. In addition, the level of education available will also affect the performance and quality of the employee's performance. In this case, human resources are needed who have expertise in organizing SPBE, especially in terms of governance.

In addition to human resources, the organizational structure of regional apparatus also aims to improve the effectiveness and productivity of the implementation of regional government affairs. Based on Qanun of Sabang City Number 2 of 2016 concerning the Formation and Composition of Regional Apparatus of Sabang City, Article 5 states that the Communication, Informatics, Statistics and Cryptography Service of Sabang City is a type B service in organizing government affairs in the fields of communication and informatics, statistics and cryptography.

The purpose of this study is to analyze and describe by collecting data and information directly related to the governance of SPBE implementation in Sabang City, then this can later have an impact in terms of digitalization on the Sabang City government. Through the formulation of the problem above, the objectives to be achieved in this study are as follows: To identify and explain how the governance of the Electronic-Based Government System (SPBE) through digitalization in the Sabang City government, Aceh Province. To identify and explain the supporting and inhibiting factors of Electronic-Based Government System (SPBE) governance through digitalization in the Sabang City government, Aceh Province. To identify and explain what efforts are being made to overcome the inhibiting factors in the governance of the Electronic-Based Government System (SPBE) through digitalization in the Sabang City government?

METHODOLOGY

This study uses qualitative research with a descriptive approach method. The descriptive approach used aims to provide a deeper understanding and examine problems related to the governance of electronic-based government systems through digitalization in the Sabang City government. Based on the source, the data is classified into two groups, namely primary data and secondary data. In qualitative research, the position of the informant is very important, not just giving a response, but also as the owner of the information. Therefore, he is called an informant (a person who provides information, a source of information, a source of data) or also called a subject of research. Because he is also an actor or perpetrator who helps determine the success or failure of the research based on the information provided with a total of 12 informants. The snowball sampling technique is a sampling technique in qualitative research where researchers start looking for informants with a small number that are relevant to the research problem and then ask them to recommend other individuals who also meet the research criteria.

Data collection technique

- a. Interview
- b. Observation
- c. Study Documentation

In this study, researchers used NVivo software. NVivo is the most powerful software for processing data in qualitative research. The steps for analyzing data using NVivo can be seen as follows:

1. Document data management
2. Data exploration analysis
3. Coding
4. Data visualization
5. Thematic data analysis
6. Interpretation of data analysis results
7. Discussion of data analysis results

RESEARCH RESULTS AND DISCUSSION

Electronic-Based Governance of Government Systems in Sabang City

Electronic-Based Government System (SPBE) is a continuous effort of the Indonesian government in realizing the development of state apparatus to create a competitive nation. One of the principles contained in the implementation of SPBE is the guidance and connectivity between central agencies and regional agencies. With the integrated SPBE, it is hoped that it will create an integrated government business process so that it will form a whole and comprehensive government unit and produce a high-performance government bureaucracy and public service.

The implementation of SPBE in local government agencies, especially the Sabang City government, can be a key driver or pilot project for digital transformation that aims to strengthen governance and electronic-based public services towards the highest peak of public satisfaction as SPBE users. In line with the achievement of the governance domain in

the Sabang City government as stated in Presidential Regulation Number 95 of 2018 concerning the Electronic-Based Government System. The implementation of SPBE governance is carried out by strengthening the management capacity and coordination system to build an integrated SPBE both within and between agencies.

Based on the objectives to be achieved through the implementation of SPBE in Sabang City, it is in line with the objectives of SPBE in Indonesia, namely to realize clean, effective, efficient, transparent, and accountable governance. In addition, it also aims to realize quality and reliable public services. And aims to realize an integrated electronic-based government system. So that the vision of the implementation of SPBE is "the realization of an integrated and comprehensive electronic-based government system to achieve high-performance bureaucracy and public services". This vision has so far become a reference in realizing the implementation of integrated SPBE in every agency, both central and regional agencies, to produce an integrated, dynamic, transparent, and innovative government bureaucracy, as well as improving the quality of integrated, effective, responsive, and adaptive public services.

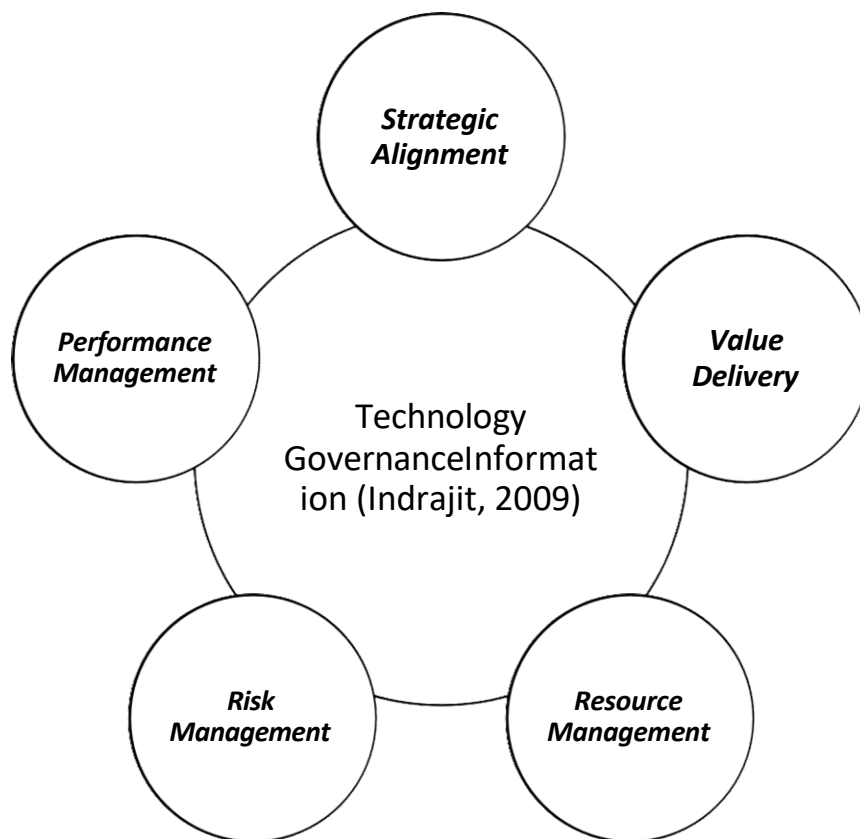
Based on the 2023 SPBE evaluation report conducted by the SPBE coordination team nationally, the Sabang City government obtained an index value of 2.44 with a sufficient predicate. The description of the evaluation results of the implementation of the SPBE, namely in the internal policy domain, the Sabang City government obtained a value of 3.00, then in the SPBE governance and management domains, each obtained a value of 1.10 and 1.00. Furthermore, for the SPBE service domain, the Sabang City government obtained a value of 3.54. Seeing the acquisition of these index values, it can be seen that the implementation of SPBE in Sabang City is still not optimal, especially in the SPBE governance domain. This domain is the domain with the second lowest acquisition in the Sabang City government. For more details regarding the analysis of the achievement of the Sabang City government domain index value, see the table below:

interview results with several informants in the Communication and Information Technology Service, namely the Head of the Communication and Information Technology Service, Head of Division and E-government Organizer Staff and Head of the Infrastructure and Technology Section. In the SPBE governance domain of the Sabang City government, there are 3 aspects (SPBE planning aspect, information and communication technology aspect and SPBE organizer aspect) and 10 indicators as listed in the table above. From this domain, there are 10 indicators that must be met, but only 1 indicator has been met, namely the maturity level of the SPBE coordination team in the Sabang City government. This level of maturity is proven by the existence of the Decree of the Mayor of Sabang concerning the SPBE Coordination Team. This means that there are still 9 indicators that have not been met and hinder the implementation of SPBE in the Sabang City government.

The low achievement of SPBE implementation index value in Sabang City government is certainly influenced by various factors that become obstacles in achieving SPBE implementation in accordance with its objectives. Budget limitations and the availability of adequate human resources are one of the key factors in achieving integrated SPBE implementation. In addition, geographical factors and the quality of existing infrastructure

have also not been met properly in terms of SPBE implementation in Sabang City.

This study analyzes the elements of governance contained in Presidential Regulation Number 95 of 2018 concerning Electronic-Based Government Systems and looks at the facts that occur in the Sabang City government. As stated in Presidential Regulation Number 95 of 2018 concerning Electronic-Based Government Systems, the implementation of SPBE governance is a series of frameworks that ensure the implementation of regulations, direction and control in the implementation of SPBE in an integrated manner. Furthermore, in this study, researchers used NVivo 14 software with the aim of making it easier for researchers to analyze data and interpret results that utilize data sources in the form of interviews, documentation, and social media. The first stage that researchers will do is import interview transcripts into NVivo 14.



Source: Processed by Researchers, 2024

Figure 1 Technology Governance (IT Governance) According to Indrajit (2009)

It is important for an organization to ensure governance in creating integration and integration of activities between one organizational unit and another. To achieve this integration, of course, maximum governance is needed. In this study, which discusses the implementation of SPBE in Sabang City, the author uses information governance as stated by Indrajit (2009). Further discussion regarding the application of this theory to the implementation of SPBE in Sabang City is as follows.

Strategic Alignment

Strategic planning can be said as a dynamic process to realize adaptation to environmental changes and uncertainties. If the goal is achieved by the organization, it cannot last long because of environmental change factors that always affect the strategic planning activities of the organization and the environment. Thus, strategic planning always includes aspects both within the organization and outside the organization. Strategic planning in terms of information and communication technology certainly also includes other things such as organizational institutions that will affect the decision-making process of the organization itself.

The process of developing information technology in an organization is important to ensure that all available resources are directed towards the interests and needs of the organization. Alignment between organizational goals and the information technology programs being implemented is very important to ensure a high level of effectiveness and efficiency. Therefore, it is necessary for a leader to know the needs of the organization that are in accordance with the goals of achieving the organization itself so that the implementation of the information technology program does not deviate from the goals of the organization.

For government organizations, both central and local governments, it requires mature planning in order to bring the direction of the organization to achieve the desired goals. In this case, the implementation of SPBE must have strategic planning and requires complete and adequate documents as a guide for all stakeholders in implementing SPBE. Planning documents must of course have a relationship between the central government and local governments and SPBE implementation documents must not only be owned by the central government, in fact these documents are very influential for the implementation of SPBE at the regional level.

SPBE Architecture Maturity Level Sabang City Government

Through the implementation of SPBE architecture which regulates the integration and harmonization of business implementation, data and information needed and produced, applications developed, information and communication technology infrastructure needed, security applied and what services will be produced later. For that reason, the national SPBE architecture becomes a very important tool for running government business processes well in an effort to improve government services to the public and government administration services.

Presidential Regulation Number 132 of 2022 Concerning The Electronic-Based Government System Architecture explains that the SPBE Architecture is a basic framework that describes the integration of business processes, data and information, SPBE infrastructure, SPBE applications, and SPBE security to produce integrated SPBE services.

Maturity Level of Sabang City Government SPBE Plan Map

Based on the results of interviews with the SPBE Coordination Team at BAPPEDA and BPKD, until now the Sabang City government does not have an SPBE plan map that is used as a guideline in implementing SPBE. Indeed, planning to create the SPBE plan map has been carried out, but it is constrained by the lack of budget and the lack of commitment

of the Sabang City government in improving the implementation of SPBE in this Sabang City.

Maturity Level of Integration of SPBE Plans and Budgets

Based on the results of observations and interviews with one of the budget planning staff at the BPKD and BAPPEDA of Sabang City, it was stated that so far the coordination has been going well between SPBE planning and budgeting. However, of course this has not been able to be implemented due to budget deficiencies and lack of adequate human resources to implement it. The Sabang City Government has so far attempted to meet the various needs of SPBE implementation, especially since the limited budget capacity has caused them to have little to realize the various plans that have been planned.

SPBE Business Process Innovation Maturity Level of Sabang City Government

Government Agency Business Process Map is a whole series of interconnected workflows in order to achieve the vision, mission, and objectives. The preparation of the business process map starts from the vision, mission, and objectives which are then broken down into functions and business processes to achieve them. Each identified business process map is then further described into the next level of business process map which is a series of logical activities in one business process. The number of levels of the business process map is highly dependent on the complexity of each business process.

Value Delivery

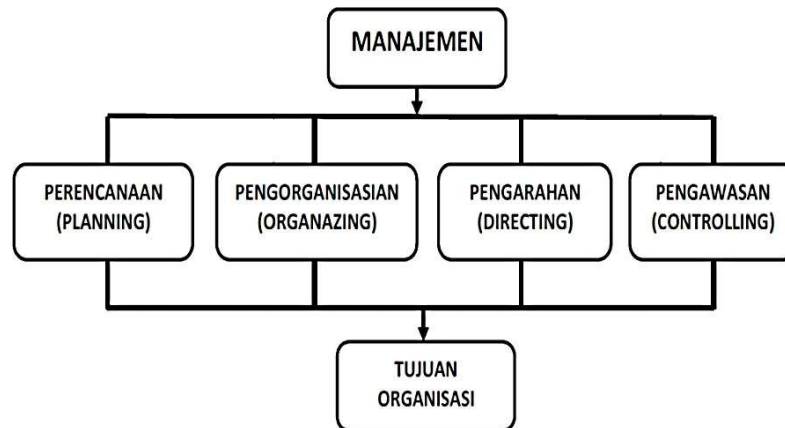
Various programs run by the government are useless if they are unable to provide benefits in the form of direct impacts for the community as important actors in a policy. This also applies to the implementation of SPBE, of course the implementation of SPBE must provide direct benefits for all sectors, especially for the community. If no party benefits from the implementation of SPBE, of course it can be said that the policy is ineffective and has failed. What determines the extent of the benefits obtained from the implementation of SPBE is not the government, but from the community itself (demand side).

The implementation of SPBE in the Sabang City government, if we look at it objectively, will certainly have many benefits that arise from achieving these objectives. However, in fact, until now, many people in Sabang City still do not have an understanding of SPBE itself. Based on the results of interviews and observations that have been carried out, many informants admitted that socialization has not been carried out to the community, only for the Sabang City government itself. This is as conveyed by one of the PPID service users at the Sabang City Communication and Information Service. Socialization is still very minimal, even for the government itself, there are still many employees who feel very unfamiliar with the applications contained in SPBE.

In contrast to the benefits felt directly by business actors and academics. According to community informants who are also business actors in Sabang City, they admitted that they were greatly helped by the application available on SPBE, namely the Online Single Submission (OSS) application. According to him, as a businessman, this application is quite efficient in helping with licensing problems that require a short time when compared to making it manually. In addition, one of the academics at Syiah Kuala University who was interviewed said that when you want to make a research permit, you don't have to come

directly to the office, just through the application.

Resource Management



Source: Rumawas (2018), Processed by Researchers

Figure 4.15 Management Process

Resource management has proven to be an important asset for organizations in achieving their desired goals. In managing the resources within an organization, it certainly requires actors who understand the concepts and stages that must be carried out in managing it.

In the Sabang City government, technology resource management is still not effectively implemented. This can be seen from the use of cloud computing and shared services that are still not optimal. In addition, human resource management at the Kominfotiksa Service is still not optimal. This can be seen in job analysis and workload analysis that do not match the availability of employees in the service.

The availability of technological resources in the Sabang City government is currently fulfilled as stated by Indrajit such as networks, applications, hardware, human resources, and budget resources. However, in terms of utilizing these technological resources to support the implementation of SPBE, it is still ineffective and very limited, making it one of the inhibiting factors that has a very influential effect.

Team Implementation Maturity Level Coordination of SPBE Sabang City Government

In accordance with the objectives of implementing SPBE, namely to achieve clean, effective, transparent, and accountable governance. Therefore, to achieve these goals, seriousness is needed and the need for the formation of an SPBE coordination team both nationally and regionally. This SPBE coordination team is tasked with coordinating and implementing SPBE policies in government agencies in order to improve the integration of the implementation of SPBE governance, SPBE management and information and communication technology audits as well as monitoring and evaluation of SPBE nationally. To support the strengthening of the role of the national SPBE coordination team, this is done by stipulating the Decree of the Minister of PANRB Number 965 of 2021 concerning the Duties and Work Procedures of the National SPBE Coordination Team.

The existence of the SPBE coordination team in Sabang City is regulated by the Decree of the Mayor of Sabang Number 000.8 / 158/2023 Concerning the Establishment of

the Electronic-Based Government System Coordination Team of the Sabang City Government. In terms of existence, the coordination team already exists, but the form of coordination carried out between regional devices is still minimal. This is as stated by the SPBE coordination team at BAPPEDA and the SPBE coordination team at BPKD.

Maturity Level of Development of SPBE Application of Sabang City Government

Special applications as explained in Presidential Regulation Number 95 of 2018 concerning Electronic-Based Government Systems are the development and advancement of applications based on the SPBE architecture of central agencies and the SPBE architecture of each regional government.

As explained in the background of the study, the overall use of applications in the implementation of SPBE certainly requires supporting and adequate technological infrastructure. In the Sabang City government, the application integration center is at the Communication and Information Technology Service. However, until now there are still many applications spread across various regional devices that have not been integrated and still stand alone. Here are some lists of SPBE applications in the Sabangsaat City government, including the following:

Table 1 Number of SPBE Applications in the Government Sabang City

| N o. | Regional Devices | Application Name |
|------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | Regional Secretariat | Legal Data and Documentation Network (JDIH), LPSE, SIRUP, SIKAP, SIIUKPBJ. |
| 2. | Service Education and Culture | DAPODIK, OMSDAN, BOS SALUR, SIM ALLOWANCE PROFESSION, SIM Payment of Allowances, SIMPKM, Dapodik Management, HR.DATA.MINISTRY OF CULTURE, VERVAL PD PTK, NPSN (Application WEB), National Identity Number (WEB Application). |
| 3. | Service Health And Family planning | Healthy Family2.0, COMDATKESWAS, e-PPGM, SITKO, SIPGAR, PROMKES, SITB, SIHA, SIHEPI, SILACAK, SIS MAL, SKDR, PWS Immunization, SMILE, SIPTM, SIMKESWA, SISKOHATSES, SIPNAP, SI SDMK, RENBUT, SIPPBPJS, SIMDA, ASPAK, E-SAKIP, SIMPONI. |
| 4. | Department of Social Services, Community and Village Empowerment, Women Empowerment and Child Protection | Village Economic System, Village Economic System, Village Economic System-NG. |
| 5. | Service Planting Service Integrated | SIRAJA, IKLH, PTSP, menlhk.go.id , NATURAL DATA, OSS, SISNAKER. |
| 6. | Service Communication, Informatics, | Cloud Storage, OpenData, PPID. |

| N | Regional | Application Name |
|----|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| o. | Devices | |
| | Statistics and Cryptography | |
| 7. | Department of Transportation | OSSTransportation Licensing. |
| 8. | Human Resources Development and Personnel Agency | Application SIMPEG, E-Mutation, WebDOUDIGITALBKN, WEBSIJAPTI, WEB SIASN, WEBDPDDMinistry of Home Affairs. |
| 9. | Regional Financial Management Agency | SIPD, SIMDA, KRISNA, ONSPAM. |

Source: Sabang City Communications and Information Technology Service, processed by researcher, 2024

Until now, various applications have been used by the Sabang City government, both general applications and special applications that are spread across several regional devices. Based on the researcher's observations, the Sabang City government does not yet have a special application developed to facilitate service interaction between the Sabang City government and the community. On average, the applications used are general applications that must be used by every agency, both central and regional.

Risk Management

The Sabang City Government has so far made efforts to improve data security and other risks that will be faced during the implementation of SPBE. However, from the results of the interview it was found that the Sabang City Government still cannot guarantee the security of the data so that it can be said that there is still no risk management used. Furthermore, as an island city, of course there are many possibilities of damage caused by natural disasters. For example, floods, landslides, earthquakes, fires, heavy rain and wind will certainly affect the quality of the network so that if they do not have good risk management it will hinder the performance of the Sabang City Government at the Kominfortiksa Service.

Performance Management

performance management can help organizations in two ways, namely the ability of information technology to help organizational leaders in supporting the process of achieving expected performance. Then the ability of information technology to help organizational leaders in monitoring, supervising, and assessing organizational performance. There are various features that can be used to improve performance management, including:

- a. Dashboard management system that functions to show the situation and condition of the business seen from the key indicators of success or objective achievement. Management information system that contains a set of graphics to provide an overview of the development of community needs.
- b. Decision support systems provide complete data and information for organizational leaders' needs in making decisions.
- c. Executive information system is a reporting system for organizational leaders to find

out about organizational developments.

Maturity Level of Intra-Governmental Network Services in Sabang City

According to the confession to the e-government organizer of the Sabang City Communication and Information Service, one solution is to use a third-party network, namely the metro network. However, again, the budget for using the metro network is not yet available so it has not been done until today. In addition, a solution that is more feasible and more affordable is to carry out a point-to-point network using a radio tower. However, not all regional devices have done this, so that for the level of maturity itself, if expressed as a percentage, it is only around 12% or 7 regional devices out of 34 regional devices that have been connected. The regional devices that have been connected to the Communication and Information Service are the Transportation Service, BPKD, Disdukcapil, Health Service, Social Service, BKPSDM and RSUD Kota Sabang.

Level of Maturity of Use of the Sabang City Government Service Linkage System

The service connection system (SPL) in the Sabang City government is also currently not optimally implemented. There is no system that connects one network or application to another application in the Sabang City government. Although the Sabang City government currently has the tools, until now there is no integrated application. This was stated by the head of the e-government implementation division at the Sabang City Communication and Information Service.

Maturity Level of Collaboration in the Implementation of SPBE in Sabang City Government

Based on the level of maturity of the collaboration, the implementation of SPBE is currently still at level 2 (managed). At this level, the Sabang City government has collaborated on the implementation of SPBE between work units/regional devices and has prepared a plan, but has not been formally determined. This was conveyed by the staff of the e-government organizers. After analyzing and interpreting the results of several domains of technology governance using NVivo. In order to facilitate the translation of the results of this study,

Then, the strategic alignment domain is the dimension with the largest square after the resource management domain. Not only resources are important in the implementation of SPBE, but commitment, support, achievement of goals and a clear vision and mission from the regional head have a great influence on achieving the success of the implementation of SPBE itself.

Factors Inhibiting Governance of Government Systems Electronic Based in Sabang City

The various conditions and actual circumstances that have been explained above are findings from research results that have been conducted previously. Therefore, based on these findings and based on the results of coding carried out through NVivo. Below are the results of the Mind Map on NVivo which illustrate that there are several inhibiting factors in the governance of SPBE implementation in Sabang City. These factors are presented in the form of a Mind Map, including the following:

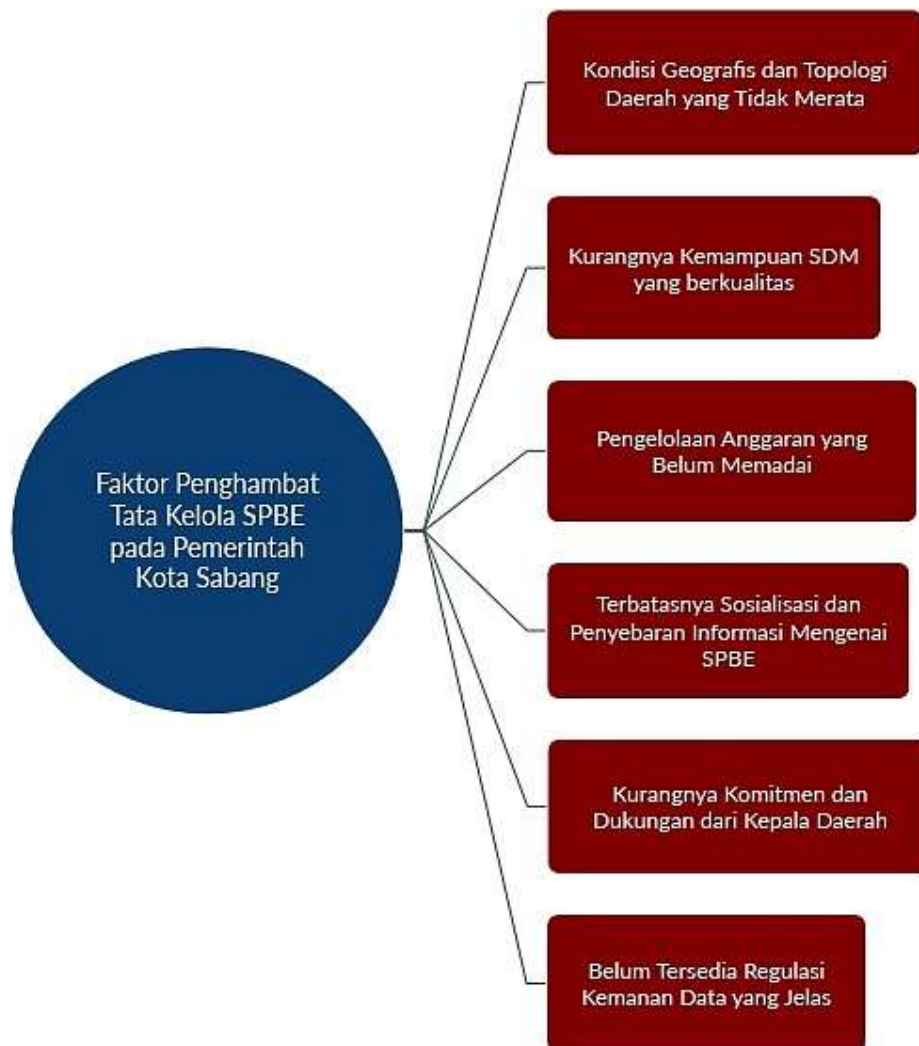


Figure 2 MindMapInhibiting Factors from NVivo

Uneven Geographical and Topological Factors of Sabang City Area

Uneven geographical and topological factors play a significant role in inhibiting the implementation of the Electronic-Based Government System (SPBE), especially in areas such as Sabang City, which is an archipelago in the western tip of Indonesia. Uneven geographical and topological conditions of the region will make it difficult for the government to integrate one regional apparatus with another. As stated by one of the informants who is the Head of the e-government Implementation Division, the integration of applications spread across various regional apparatuses is hampered. The inhibiting factors are caused by the distance between one regional apparatus and another being quite far and the uneven topological conditions, causing the Sabang City government to have difficulty connecting them.

Lack of Adequate Technological Resources

The Sabang City Government does not yet have the capability to manage technological resources. Both human resources, finance, infrastructure, and technological resources. Not only the capability to manage resources but also the capability to manage

process activities in the implementation of SPBE in Sabang City itself. In addition that, according to the Head of Division's admissionThe organizer-Government at the Sabang City Communication and Information Service said that currently the quality and quantity of human resources in the Sabang City government, especially in mastery of IT, are very lacking. Not to mention the many vacancies that can certainly hinder the performance of the Sabang City government itself. In addition to human resources, infrastructure and document readiness are also still inadequate. Starting from the intra-government network, government service connection system to system integration that has not been carried out. Then in terms of data security, the Sabang City government still relies on the national data center managed by the central government, so that the Sabang City government has not done anything to guarantee the security of the data.

Limited Socialization and Dissemination of Information on the Implementation of SPBE

Based on the results of research through interviews and observations that have been conducted in the field, there are still many people who have not received socialization regarding the implementation of SPBE in the Sabang City government. In addition, the community also still does not know the term SPBE itself. This was obtained when the author wanted to conduct interviews with the community using an accidental sampling approach. Many people refused to be interviewed because they did not know about the implementation of SPBE in the Sabang City government.

The confession of one of the informants on the staff of the PPID service users of the Sabang City Communication and Information Service stated that so far the socialization and focus group discussions conducted were only for the internal government of Sabang City itself, not for the community. This was also reinforced by one of the arguments of the academic informant who admitted that many people did not know about SPBE.

Lack of Commitment and Support from Regional Heads

The commitment of the Sabang City government itself in the implementation of SPBE is still not optimal, especially in the Department of Communication and Information Technology. This was explained directly by one of the informants at the Department of Communication and Information Technology, that the Mayor of Sabang still does not focus enough on the implementation of SPBE so that the existence of the SPBE coordination team is ineffective. Apart from the lack of coordination, it is also proven that the Sabang City government until now still does not have important documents that are the basis for the implementation of SPBE such as SPBE architecture, SPBE roadmap, even regulations governing SPBE in Sabang City have only been running for a year. It can also be seen from the level of maturity of SPBE in the Sabang City government which is still low, namely at the pioneering level (level 1).

Lack of clear data security regulations

The implementation of the Electronic-Based Government System (SPBE) at the regional level requires specific regional regulations (Perda) to ensure data security. This is important because SPBE involves the management of sensitive data, including personal data of the public, strategic government information, and electronic transactions. Perda on

data security provides a strong legal basis for regulating how data is collected, stored, accessed, and protected from threats such as data theft or leaks. Without a clear Perda, the implementation of SPBE in the regions is vulnerable to privacy violations, cyber attacks, and data misuse that can damage public trust in digital government services.

In addition, the Regional Regulation on data security also serves to ensure alignment with national policies related to SPBE, such as Presidential Regulation No. 95 of 2018 concerning SPBE and other data protection regulations. This Regional Regulation can include the obligation of regional governments to adopt information technology security standards, provide training to employees, and build infrastructure that is resistant to cyber threats. With this Regional Regulation, regional governments are not only able to increase the efficiency and transparency of public services, but also ensure that the privacy rights of the community are protected, thereby creating trust and active participation from citizens in the SPBE implementation process.

Efforts to Overcome Inhibiting Factors in Electronic-Based Government System Governance in Sabang City

The Use of Wireless and Satellite Technology in Overcoming Geographical Barriers

Wireless and satellite technologies offer effective solutions to overcome physical infrastructure limitations in areas with difficult topologies, such as mountains, small islands, or remote areas. This technology can be used to support the implementation of Electronic-Based Government Systems (SPBE) without the need for expensive and difficult-to-install cables or underground networks. For example, the use of Very Small Aperture Terminals (VSAT) allows internet connections using satellites, which are very suitable for areas with minimal internet access.

In addition, fixed wireless or point-to-point wireless networks can be used to connect various locations in the Sabang area at a lower cost than building a cable network. This technology is not only more flexible, but also faster to implement in hard-to-reach areas. By using wireless and satellite technology, people in remote areas can more easily access digital government services, so that geographical disparities can be reduced and the implementation of SPBE can be more evenly distributed throughout Sabang City. As a city with the characteristics of an island surrounded by the ocean, Sabang City is vulnerable to various natural disasters. Of course, the Sabang City government must pay more attention to these geographical factors so that the implementation of SPBE in Sabang City becomes more effective.

Conducting Adequate Technology Resource Management in Sabang City

The existence of technological resources in the Sabang City government is currently very limited. Moreover, the existence of human resources can be said to be very minimal, causing overlapping authority in the same unit. The Sabang City Government can prepare adequate technological resource management to support SPBE.

This effort not only increases the operational efficiency of government, but also provides direct benefits to the community through faster, more transparent, and more accessible public services. Collaboration between the government, the private sector, and the community is also the key to the success of sustainable technology resource

management. To create quality technology resources, the Sabang City government can do the following:

- a. Infrastructure Technology Improvement
- b. Human Resource Development (HRD)
- c. Optimization of Technology Systems and Processes
- d. Strengthening Information Security
- e. Technology Policy Development and Governance
- f. Innovation Technology and Digitalization

Improving Education Regarding Digital Literacy of SPBE Implementation in Sabang City

Socialization and information dissemination activities can be carried out in various ways by the Sabang City government, for example by utilizing the use of social media platforms and websites that are widely used by local governments today. Then the Sabang City government can also conduct seminars, socialization, focus group discussions, training, and technical guidance that can provide understanding to the community about SPBE. In addition, direct counseling to communities in remote areas can help reach groups that have difficulty accessing digital information. With an inclusive approach, the Sabang City government can ensure that information about SPBE is received by the entire community regardless of geographic location or level of technological literacy. This will encourage wider adoption of SPBE, thereby increasing the efficiency, transparency, and accountability of government services.

Increasing Commitment and Support of Sabang City Government in Implementing SPBE

In the context of digitalization, capability refers to an organization's ability to adopt new technologies and integrate them into business processes. For example: technological capability is carried out by developing a cloud-based system to store data. In addition, human resource capability is also carried out through employee training to operate the adopted digital technology. According to Indrajit, technological capability includes infrastructure readiness, human resource quality, budget availability, and connectivity quality.

To improve technological capabilities in the Sabang City government, it is necessary to identify every opportunity and challenge faced. Therefore, the strategy to improve the government's capabilities and commitment can be done in various ways, for example by clearly establishing the regional vision and mission regarding SPBE, conducting training, comparative studies or cooperation with universities that can improve the quality of human resources regarding technology management. Then the Sabang City government can also develop technological infrastructure through data centers and expand the internet network in Sabang City.

Creating Regulations or Regional Regulations Regarding Data Security for SPBE Implementation

Data security is the main foundation for the successful implementation of the Electronic-Based Government System (SPBE). Regulations or Regional Regulations (Perda) regarding data security provide a clear legal basis for regional governments to protect people's personal data and strategic government information from cyber threats. Without

these regulations, the risk of data leaks, misuse of information, and cyber attacks can increase, which not only harm individuals but also threaten the integrity of the government system. This Perda also functions to ensure that each regional agency has standard technical and procedural guidelines in managing data safely and responsibly.

In addition, regional regulations on data security in SPBE support alignment with national policies, such as Presidential Regulation No. 95 of 2018 concerning SPBE, as well as other data protection regulations. With the Regional Regulation, regional governments can set security standards that must be followed by all agencies, including the use of encryption, access restrictions, and real-time monitoring of system activity. This regulation also allows regional governments to impose sanctions on parties who violate data security policies, thus providing a strong deterrent effect against potential violations. This is in line with the technology governance domain proposed by Indrajit, namely the risk management domain. Regional regulations on data security are also one of the tools to prevent unwanted things from happening.

CONCLUSION

Based on the research results and data analysis results that have been explained in the previous section regarding "Electronic-Based Government System Governance Through Digitalization in the Sabang City Government". By using the theory of technology governance put forward by Indrajit (2009). The author draws several conclusions to be used as suggestions in this writing. The conclusions are as follows: The governance of the Electronic-Based Government System through digitalization in the Sabang City government when viewed from the technology governance domain approach put forward by Indrajit is still not running as it should. There are various obstacles and challenges faced in various technology governance domains. This has caused the Sabang City government to not fulfill several of these technology governance domains. The domains in question are as follows: Strategic alignment; The implementation of SPBE in the Sabang City government is still not aligned between the objectives of implementing SPBE nationally with the vision and mission of the Mayor of Sabang and the work program of the Sabang City Communication and Information Technology Office. Value delivery; In terms of delivering value to the community through the implementation of SPBE, it can be felt by various groups of people and other stakeholders. And it has been proven to facilitate the Department of Communication and Information Technology in carrying out its performance related to public services. Resource management; The utilization of budget resources and human resources in the Sabang City government has not been maximized to support the implementation of SPBE. Human resources in the Department of Communication and Information Technology are still very minimal both in terms of quantity and quality. And the very limited budget capacity of the Sabang City region is one of the obstacles in the implementation of SPBE itself. Risk management; The level of data security and risk management of the Sabang City government is still relatively low, and cannot guarantee the security of the data so that it can be said that there is still no risk management used. Performance management; In the Sabang City government itself, the performance

management that has emerged is still very far from what Indrajit put forward. In the decision-making process, the regional head of Sabang City has not yet been based on the information and data contained in the SPBE itself. And there are still many obstacles experienced in the process of providing intra-government networks, service connection systems, cloud computing and outsourcing/insourcing. Inhibiting factors in the governance of the Electronic-Based Government System through digitalization in the Sabang City Government, namely the geographical and topological factors of the Sabang City area which are uneven. Then the lack of availability of adequate technology resource management in the Sabang City government. The lack of commitment and support from the Sabang City government, lack of socialization and dissemination of information regarding the implementation of SPBE in Sabang City. And there is no regulation regarding data security that can guarantee the protection of internal data and user data. Efforts that can be made by the Sabang City government in terms of reducing the inhibiting factors in the implementation of the Electronic-Based Government System, include: Using wireless and satellite technology to overcome geographical barriers, Carrying out adequate technology resource management in Sabang City, Increasing the commitment and support of the Sabang City government in implementing SPBE, Increasing education, regarding digital literacy in the implementation of SPBE in Sabang City, Making Regulations or Regional Regulations Concerning Data Security in the Implementation of SPBE

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