E-Government Optimization Strategy at The Ministry of Villages, Development of Disadvantaged Regions, and Transmigration

Hary Lasmana[1]*, Mani Festati Broto[2], Neneng Sri Rahayu[3]
[1]Faculty of Law, Social and Political Sciences, Indonesia Open University, Indonesia
[2]Faculty of Law, Social and Political Sciences, Indonesia Open University, Indonesia
[3]Administration of State Development, National Institute of Public Administration, Indonesia
*Email: hlasmana@gmail.com

ABSTRACT

This paper focuses on the e-Government optimization at The Ministry of Villages, Development of Disadvantaged Regions, and Transmigration as eGovernment has become one of the strategic issues of Bureaucratic Reform. This study aims to identify the aspects of an organization's environment, to analyze, and formulate strategies for e-government optimization. Evaluation tools use the design-reality gap analysis through seven dimensions of ITPOSMO to assess the level of eGovernment implementation success and identified the critical success and failure factors. Strategy formulation techniques are using three stages of the strategy formulation analytical framework. Results from this study, by measuring the design-reality gap across seven dimensions show eGovernment project is likely to partially fail unless action is taken to correct the gap. Using three stages of the strategy formulation analytical framework defines four strategy recommendations: forward integration, related diversification, backward integration, and product development. Findings from this research will serve to reduce the risks that may affect e-governance success in The Ministry of Villages, Development of Disadvantaged Regions, and Transmigration.

Keywords: e-Government, Strategic Management, ITPOSMO

INTRODUCTION

Nowadays, there are various challenges in the strategic environmental issues of governance due to the influence of the global, national, and local environment in the implementation of government bureaucracy (Rusfiana & Supriatna, 2021). To face these challenges, the Government of Indonesia is implementing bureaucratic reforms aimed at realizing good governance. One of the strategic issues in the Bureaucratic Reform Road Map 2020-2024 is the use of technology to provide electronic-based government (e-Government) services to realize self-service, flexible, borderless, mobile services, and smart services in public services (Indonesia, 2020).

The utilization of information and communication technology (ICT) in the Government of Indonesia is regulated in Presidential Regulation Number 95 of 2018 concerning e-Government (SPBE). The implementation of SPBE has a strategic role in realizing the achievement of bureaucratic reform goals through good and clean government, capable and accountable bureaucracy, and excellent public services by providing electronic-based services in government administration and public services (Indonesia, 2018).

Dewia & Kusumastuti (2019) said SPBE is an integrated information system consisting of various separate components used to meet data processing needs and support organizational activities. SPBE is part of the management system to achieve organizational goals. According to Aquinas (2007), a system is a set of interconnected and interrelated elements or parts to achieve certain goals. A system is a series of goals setting and plans, managing resources as inputs, processing, and outputs (Figure 1). The system produces outputs as a result of processing affected by inputs.
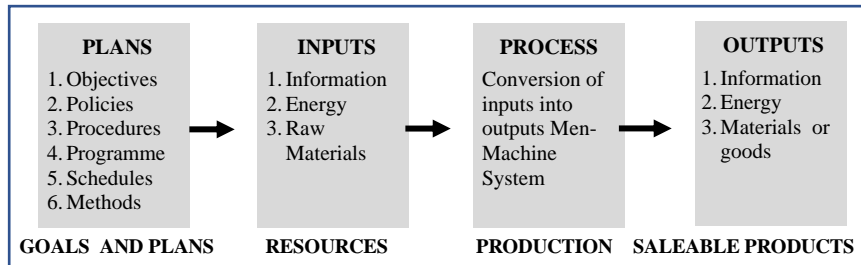
PLANS	INPUTS	PROCESS	OUTPUTS
1. Objectives 2. Policies 3. Procedures 4. Programme 5. Schedules 6. Methods	1. Information 2. Energy 3. Raw Materials	Conversion of inputs into outputs Men-Machine System	1. Information 2. Energy 3. Materials or goods
GOALS AND PLANS	**RESOURCES**	**PRODUCTION**	**SALEABLE PRODUCTS**

Figure 1. The Design of Basic System
Source: Aquinas, 2007

The quality of SPBE implementation is assessed using an index that represents the overall implementation of SPBE. The SPBE Index is an aggregate value based on the maturity level of SPBE process capability and SPBE service capability. The maturity level of SPBE process capability measures the maturity level of SPBE policy, governance, and management, while the maturity level of SPBE service capability measures the maturity level of SPBE services consisting of electronic-based government administration services and electronic-based public services which are the result of the SPBE process. In 2021, the evaluation of the Ministry of Rural Development and Transmigration (KemendesaPDTT) SPBE resulted in an SPBE Index of 2.75, which means that it has a good predicate (Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi, 2021). The SPBE Index consists of the e-Government policy domain scored 3.00, e-Governance domain scored 2.30, e-Government Management Domain scored 1.18, and e-Government Service Domain scored 3.50.

The results of the 2021 SPBE evaluation in the implementation of SPBE in KemendesaPDTT show a misalignment between the basic theory of system design and the facts. The system flow consists of goal setting, planning, inputs, and processes to produce quality outputs, but the results of the evaluation of SPBE in Kemendesa PDTT show that the process input scores for the Policy Domain, Governance Domain, and Management Domain have lower scores than the Service Domain - as the output of the process. The mismatch of the system flow in the implementation of SPBE in KemendesaPDTT indicates a problem due to misalignment between theory and practice.

Heeks (2003) said that every SPBE implementation project has the potential for failure and success. According to Indrajit (2016), there are 3 challenges in developing SPBE, challenges related to the creation and determination of digital access channels to be used effectively by the public and government, challenges related to the involvement of non-governmental organizations for the needs of SPBE infrastructure and superstructure development, and challenges related to the preparation of institutional strategies, especially about investment and operational issues so SPBE project development goals can be achieved as expected.

In the case of the implementation of SPBE in KemendesaPDTT, inconsistencies between theory and practice indicate problems that lead to potential failure. For this reason, it is necessary to have comprehensive information about the implementation of SPBE in KemendesaPDTT that can provide an overview of the gap between the design and reality of the system that is built to improve. Significant design-reality gap across the board deserves full attention to be addressed. Action is taken to avoid failure. The availability of design-reality gap information will define the potential failure of the implementation of SPBE in KemendesaPDTT to be mitigated as soon as possible (Heeks, 2006).

Having information about the gap between design and reality is essential for identifying the factors that cause the gap. SPBE is not a stand-alone system, it is an integration of various parts of internal and external organizations. Previous research empirically proves the influence of the strategic environment such as infrastructure support, governance and management, quality of human resources, leadership, institutions, community participation, and so on, on the quality of SPBE implementation (La Adu et al., 2022, Ramanda et al., 2019, Rozikin et al., 2020, Rudi & Prasetia, 2018, Susilo, 2021). Therefore, it is important to measure the impact of the strategic environment in the implementation of SPBE in KemendesaPDTT. By knowing the gaps and identifying the factors that cause them, the information will be useful in data analysis to formulate various alternative strategies to recommend the best strategy to optimize SPBE performance in KemendesaPDTT.

METHOD

This study uses a descriptive analysis method with a case study approach. Primary data is obtained from informants or based on direct observation of the object of research. The main informants are policymakers or official staff that are responsible for the implementation of SPBE in KemendesaPDTT. Secondary data is obtained in various forms of documentation such as regulations and legislation, reports, notes, archives, records, etc of the implementation of SPBE in KemendesaPDTT.

The evaluation process consists of Wheelen & Hunger's (2012) five steps evaluation and control process:

1. Determine what to measure: the quality of the implementation of SPBE in KemendesaPDTT
2. Establish predetermined standards: SPBE guidelines, public service information systems standards, and the principles of public service
3. Measure performance: the reality of the implementation of SPBE in KemendesaPDTT
4. Does performance match standards?
5. Take corrective action by a design-reality gap analysis to measure the distance, strategic environmental situation analysis to identify and assess supporting or inhibiting factors in the implementation of SPBE, and strategy formulation.

Congruence analysis assesses the quality of the implementation of SPBE in Kemendesa PDTT according to SPBE elements and the quality of electronic-based public services meets the standards for organizing public service information systems, the principles of public services, and the satisfaction of users of electronic-based public services. Design-reality gap assesses 7 dimensions of information, technology, processes, objectives and values, staffing and skills, management systems and structures, and other resources: time and money (ITPOSMO). Napitupulu dan Kawan-kawan (2017) grouped the 7 dimensions of ITPOSMO into three the

technical domain, the human domain, and the organizational domain. The Technical domain consists of information, technology, and process dimensions; the human domain consists of goals, values, motivation, staffing, and skills; and the organizational domain consists of management and structure; and other resources.

Strategy formulation analysis framework techniques are integrated into a three-stage decision-making framework (input stage, matching stage, and decision stage) to identify, evaluate, and select strategies (David, 2011). Stage 1 summarizes the basic input information needed to formulate strategies. Stage 2 focuses on generating feasible alternative strategies by aligning key external and internal factors. Stage 3 involves Quantitative Strategic Planning Matrix reveals the relative attractiveness of alternative strategies and thus provides an objective basis for selecting specific strategies.

RESULTS AND DISCUSSION

Results

The implementation of SPBE in KemendesaPDTT is regulated by the Minister of Villages, Disadvantaged Regions, and Transmigration Regulation Number 22 of 2019. The implementation of SPBE in KemendesaPDTT aims to improve the quality of governance that utilizes ICT effectively, efficiently, and continuously; carry out its duties and functions professionally; meet the needs of access to data and/or information in real-time; ensure synchronization of the planning process, preparation, implementation, monitoring, and evaluation of public services in an integrated manner; increase transparency and accountability in government administration; and support the process of monitoring and auditing the implementation of SPBE in KemendesaPDTT (Indonesia, 2019). Based on the results of the identification of the implementation of SPBE in KemendesaPDTT, in general, it has not implemented adequate SPBE governance, and the implementation of SPBE management has not been comprehensively directed and planned. Electronic-based services are carried out online at the static, interactive, and transaction levels.

The results of the gap analysis show that the highest gap is in the Technical Dimension 5.11, the Human Dimension 3.39, and the Organizational Dimension 2.69.
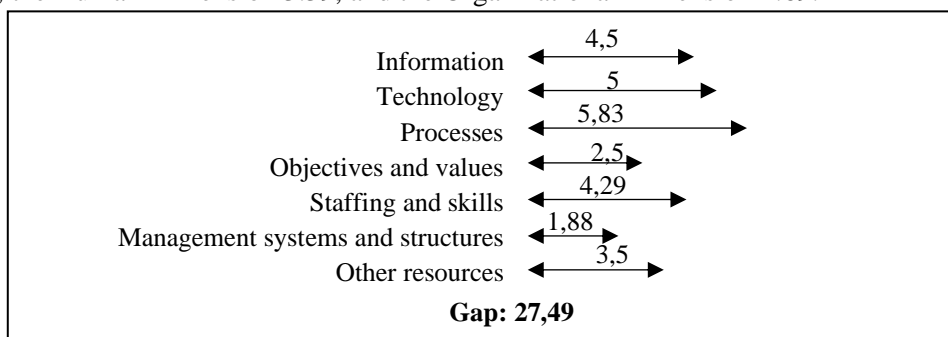

Figure 2. Design-Reality GAP of the implementation of SPBE in KemendesaPDTT
Source: Data processed by researchers, 2023

The three-stage decision-making framework, stage 1, input stage:

Table 1. Matriks Internal Evaluation (IFE)

Key Internal Factors	Weight	Rating	Weighted Score
Strengths			
1. The strategic issues in bureaucratic reform	0,07	3	0,22
2. e- Government policy	0,14	1	0,14
3. e-Government budget	0,09	4	0,37
4. e-Government software use	0,10	1	0,10
5. Collaboration in the implementation of e-Government	0,09	1	0,09
Weaknesses			
1. e-Governance has not been implemented comprehensively	0,09	2	0,19
	0,10	3	0,30
2. Poor e-Government management	0,09	2	0,19
3. Low human resources	0,12	1	0,12
4. Partial data and information	0,10	4	0,40
5. Low digital work habits			
Total	1,00		2,10

Source: Data processed by researchers, 2023

Table 2. Matriks Eksternal Evaluation (EFE)

Key External Factors	Weight	Rating	Weighted Score
Opportunities			
1. Strategic issues of national bureaucratic reform	0,08	3	0,23
2. Guidelines for e-Government implementation are available	0,10	1	0,10
3. Digital habits grow	0,08	4	0,33
4. Flexible public service needs	0,10	1	0,10
5. ICT developments provide many options according to needs and budget	0,10	1	0,10
Threats			
1. Confidential data security	0,09	2	0,19
2. Limited ICT infrastructure, devices, and internet access	0,08	3	0,25
3. Digital literacy skills of users	0,13	2	0,26
4. e-Government strategic plan is not entirely available	0,11	1	0,11
5. Impact of policy changes on e-Government implementation	0,12	4	0,48
Total	1,00	3,00	2,16

Source: Data processed by researchers, 2023

Stage 2, matching stage:

a.   The calculation of the IFE and EFE at IE Matrix, the intersection points is in cell V.

Table 1. Internal dan Eksternal Matrix

Source: Data processed by researchers, 2023

b.   The total of key internal factors is (S-W) 0.92-1.20 = -0.73. The total of key external factors is (O-T) 0.86-1.29 = -0.43. The SWOT quadrant position is in quadrant 4.
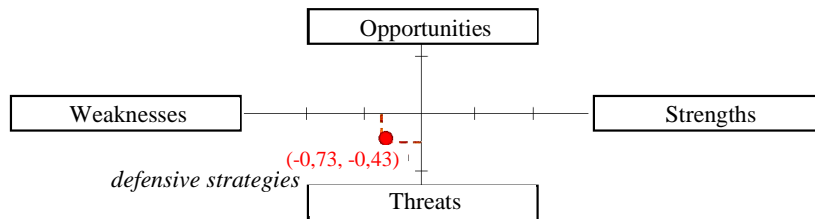

Figure 2. SWOT Diagram
Source: Data processed by researchers, 2023

c.   The internal strategic position has an average Financial Strength score of 2.56 and an average Competitive Advantage score of -3. The external strategic position has an average Environmental Stability of -2.33 and an average Industrial Attractiveness of 4.11. The sum of the two average values of internal and external factors results in a coordinate point in Quadrant I.
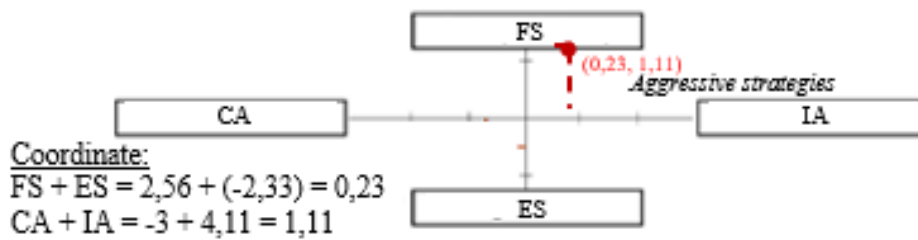
Figure 3. SPACE Diagram
Source: Data processed by researchers, 2023

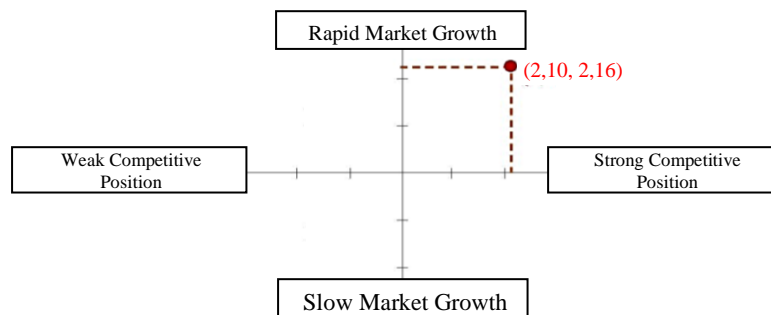d. The intersection points of the IFE and the EFE on the Grand Strategy Matrix in Quadrant I

Figure 4. Grand Strategy Diagram
Source: Data processed by researchers, 2023

Stage 3, Decision stage:

The comparison between the SWOT matrix, SPACE matrix, IE matrix, and GS matrix resulted in four dominant alternative strategies: forward integration, backward integration, related diversification, and product development. The QSPM analysis in Table 7 show that the alternative strategies with the highest scores are forward integration with a TAS value of 6.5, related diversification with a TAS value of 5.67, backward integration with a TAS value of 5.54, and product development with a TAS value of 5.14.

Discussion

Based on the identification results, the implementation of SPBE in KemendesaPDTT has not implemented adequate SPBE governance, and the implementation of SPBE management has not been comprehensively directed and planned. Electronic-based services are carried out online both at the static, interactive, and transaction levels and use various types of applications that allow stakeholders to conduct online transactions even though they are not fully integrated. It shows that the implementation of SPBE is at the transaction level (Al-Hashmi & Darem, 2008).

Design-reality gap analysis is 27.49. It means that the implementation of SPBE at KemendesaPDTT has the potential for partial failure unless actions are taken to correct the gap.

Gap improvement focused on each design that had the highest gaps in each dimension and had linkages with others. The technical dimension is caused by the lack of alignment and integration between systems and processes to achieve the objectives of SPBE implementation. The technical dimension has the highest gap due to the lack of alignment and integration between systems and processes to achieve SPBE implementation goals. The improvements include aspects of coordination and collaboration between working units and between electronic working systems through data and information interoperability to produce quality information, telecommunications network, and to compile and implement the standard operating procedures in network security and electronic-based service processes integration. In the human dimension, the lack of the number and level of technical ability is the cause, and the organizational dimension has a low score because of the suitability of the time in implementing SPBE following the plan. The quality of human resources is a determining factor in all dimensions. The low quality of human resources affects policy-making and technical implementation in the implementation of SPBE at KemendesaPDTT.

The three-stage strategy formulation analysis framework, in the first stage, the IFE score identifies that the organization's internal weaknesses in SPBE implementation are higher than the organization's internal strengths. The EFE score identifies that SPBE implementation has a greater level of external threats than the level of opportunity utilization. The results of this study are in line with Indrajit's opinion that the biggest challenges faced by the government in developing SPBE effectively are related to the internal and external environment, including determining digital channels, inter-agency linkages, and financing. The momentum of bureaucratic reform and government policy support are key factors in SPBE implementation, including budgeting and determining digital channels for SPBE services. External opportunities have not been optimally utilized due to internal weaknesses of strategic organizations such as the absence of a digital work culture, weaknesses in SPBE governance and management, inadequate quality and quantity of human resources, and partial data management.

The matching stage uses IE Matrix, SWOT Matrix, SPACE Matrix, and Grand Strategy Matrix. The IE Matrix shows that the intersection points of IFE and EFE are in cell V, which recommends a stability strategy. This means that KemendesaPDTT has the potential to succeed in the implementation of SPBE but needs to be vigilant and reduce external threats that have a negative impact on the quality of SPBE implementation and eliminate internal weaknesses that weaken the quality of SPBE services. The results of the IE matrix analysis are in line with the results of the gap analysis, which indicate that the implementation of SPBE in the KemendesaPDTT is the potential for partial failure if no action is taken to eliminate the gaps.

SWOT analysis shows the dominance of external threats and high internal weaknesses in the implementation of SPBE as the intersection point is in quadrant 4. In this quadrant, the choice of strategy supports a defensive strategy through efforts to reduce internal weaknesses and avoid external threats that have the potential to disrupt the implementation of SPBE in KemendesaPDTT. SPACE analysis shows the sum of Financial Strength and Environmental Stability produces a positive value as well as the results of the sum of Competitive Advantage and Industrial Strength and the intersection point is in Quadrant I. Quadrant I is a favorable position generally, which means that the implementation of SPBE in the Ministry of Villages can follow aggressive strategies including product development, forward integration, backward integration, and related diversification which are influenced by the dominance of Industrial Strength based on the intersection point in the SPACE matrix. Quadrant I of the SPACE matrix indicates that the implementation of SPBE in KemendesaPDTT is strongly influenced by financial

factors (budget), therefore it is important to ensure the sustainability of the SPBE budget, effectiveness and efficiency of the budget spent with a priority scale.

As the intersection point on the Grand Strategy Matrix, Quadrant I show an excellent strategic position. Alternative strategies that can be chosen in quadrant I are to take advantage of internal strengths to overcome weaknesses and at the same time take advantage of opportunities and minimize external threats. The strategy options chosen are product development, forward integration, backward integration, and related diversification.

The comparison between the SWOT matrix, SPACE matrix, IE matrix, and GS matrix resulted in four dominant alternative strategies: forward integration, backward integration, related diversification, and product development. The four alternative strategies, based on strategic environmental analysis, are interpreted as:

- forward integration is a strategy that aims to improve the quality of the implementation of SPBE in KemendesaPDTT by reducing internal weaknesses through coordination between working units and SPBE teams to integrate data and information, create a digital culture, and ensure the quality of SPBE human resources
- backward integration is a strategy that aims to improve the quality of the implementation of SPBE in KemendesaPDTT by coordinating between Ministries and Institutions of the National SPBE coordinator to produce policies that are beneficial to the implementation of SPBE KemendesaPDTT
- related diversification is a strategy that aims to improve the quality of the implementation of SPBE in KemendesaPDTT by creating innovations through a connected system that integrates various applications between working units
- product development is the strategy of creating new e-service products

CONCLUSION

This study found empirically the implementation of SPBE in KemendesaPDTT has a partial chance of failure unless actions are taken to correct the gap. The results of this study are similar to several previous studies related to the limitations of employee capabilities on the quality of SPBE implementation as a part of internal strategic weaknesses. Therefore, the human resource needs to be improved to meet the needs. To be focused and organized, KemendesaPDTT should immediately design a comprehensive SPBE architecture and SPBE roadmap as soon as possible as a guidance of the implementation of SPBE. The author acknowledges that the study has data limitations due to the research time. Therefore, as a dynamic system, updating SPBE data will result in different conclusions including the ratification of the latest national SPBE policy which has an impact on SPBE implementation. For future research, it is recommended to conduct more in-depth research by involving stakeholders and their expectations for the implementation of SPBE in KemendesaPDTT.

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