Performance Evaluation Of Programs And Activities In The Aspect Of Information And Communication Technology With A Logic Model Approach

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How to Cite:

ARTICLE HISTORY
Received [13 December 2023]
Revised [25 March 2024]
Accepted [26 April 2024]

KEYWORDS
ICT, Logic Model, Program and Activity Performance Evaluation, SPBE

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INTRODUCTION
A comprehensive performance assessment of Central and Regional Government Agencies (IPPD) in the current era of digitalization cannot be separated from the role and support of information and communication technology (ICT). The aim of utilizing ICT is to improve the quality of electronic-based government services, which are currently better known as Electronic-Based Government Systems (SPBE) (Mustari, 2023). SPBE is a concrete form of the government’s efforts to implement digital transformation in government administration so that it can provide public services that refer to the principles of effectiveness, integration, continuity, efficiency, accountability, interoperability and security (Rusli, 2023).
One of the Regional Governments that has consistently implemented and developed SPBE in the East Kalimantan Province region is the Kutai Kartanegara Regency Government (Pemkab Kukar) through the Communication and Information Service (Diskominfo) (Anggraini & Islami, 2021). The implementation of SPBE every year will be monitored and evaluated by the National SPBE Coordination Team guided by Presidential Regulation Number 95 of 2018 concerning SPBE and Ministerial Regulation of PAN and RB Number 59 of 2020 concerning Monitoring and Evaluation of SPBE with output in the form of the SPBE Index Value (Hajar et al., 2022).

Based on the 2021 and 2022 SPBE monitoring and evaluation results report documents issued by the Ministry of PAN and RB, it is known that there has been a significant decrease in the Kukar Regency Government SPBE Index Value from 2021 (2.48 with a Fair predicate) to 2022 (1.94 with sufficient predicate) which is marked by a decrease in the ranking of the Kukar Regency Government from first position in 2021 to eighth position in 2022 for the East Kalimantan Province region. The greatest decline in scores was experienced by the Information and Communication Technology (ICT) aspect of 1.00 points with an assessment weight of 10% (Law et al., 2014).

This significant decrease in value indicates that SPBE's performance in the ICT aspect has not been effective. The performance of SPBE cannot be separated from the support of programs and activities that will support the implementation of SPBE in an organization. The performance of the Kukar Regency Government SPBE has been determined through regional strategic planning documents as the Main Performance Indicator (IKU) of Diskominfo (Maharani et al., 2023). Therefore, research on evaluating the performance of programs and activities related to ICT aspects is important to carry out in order to assist the Kukar Regency Government in improving the performance of SPBE implementation through programs and activities, as well as overall organizational performance (NURRAHMAN, 2022).

In this research, the process of measuring the performance of programs and activities related to the ICT aspect will use a logic model approach to answer the problem formulation related to how the program and activity performance of the ICT aspect at the Kukar Regency Government Communication and Information Center (RQ 1), as well as how the outcome sequence chart is in accordance with the evaluation results (RQ 2). This research aims to evaluate the performance of ICT aspects of programs and activities at the Kukar Regency Government Communication and Information Office based on a logic model approach, as well as providing recommendations in the form of an appropriate outcome sequence chart according to the results of the evaluation (Gatiningsih et al., 2022).

The logic model approach is used to measure routine performance against predetermined outcomes and the efficiency of citizen-oriented services or programs (Cuganesan et al., 2014). The use of logic models can help identify and provide an overview of the sequence of expected final results from activities, programs and outputs produced. A logic model will describe the sequence of relationships between performance information, such as inputs, processes or activities, outputs, and outcomes to make it easier for an organization to measure the performance of programs and activities that have been determined (Astanto et al., 2019). However, according to (Knowlton & Phillips, 2013), the component of performance information in the logic model approach is other performance information, namely impacts, which is the sixth performance information after outcomes (D. Kurniawan & Akbar, 2021).

Research on measuring the performance of programs and activities using a logic model approach has also been carried out by several previous studies (Ohkubo et al., 2015). The first research which became the basis of reference for this research was carried out by (Sari, 2022) who took as a case study the object of the Directorate of Railway Traffic and Transportation (DLLAKA). The second research was by (Prayudi et al., 2020) which took as its object a case study of the regional government of Klungkung Regency, Bali. The first research focuses on discussing performance evaluation by redesigning planning and budgeting for programs and activities. Meanwhile, the second research focuses on discussions related to evaluation of performance.
indicators and motivation (Moynihan & Beazley, 2016). This research will discuss performance information based on the 4 indicators in the SPBE ICT Aspect. By mapping and evaluating the performance of these programs and activities, it is hoped that this research can focus more on improving the performance of programs and activities related to the SPBE ICT Aspect.

LITERATURE REVIEW

Theoretical Basis

According to Hatry (2006), performance measurement is a routine measurement of predetermined outcomes and the efficiency of customer- or citizen-oriented services or initiatives. A logic model will define the sequence of links between multiple kinds of performance information, such as inputs, actions, outputs, and outcomes, to help an organization measure the performance of previously determined programs and activities. However, according to Knowlton and Phillips (2013), the components of the logic model consist of 5 performance information, namely resources, activities, outputs, outcomes, and impact.

Input performance information describes how many resources are used and is typically related to results to provide efficiency or productivity indicators. Activities performance information states how much work or activities in a program are being carried out. Output performance information states how many products and/or services are delivered or completed during a reporting period. Outcomes performance information states anything that describes progress towards the mission and objectives of a program, such as changes in attitudes or behavior, conditions, or certain incidents or occurrences. Meanwhile, impact performance information is a change that is expected by the organization for a longer period.

In each Central and Regional Government Agency, the logic model method should have been employed in the process of preparing strategic planning, where the link between performance information should be in harmony and have a logical relationship. In this research, the logic model approach was used to analyze or describe the logical relationship between the action plans that have been carried out (Do) by the Kukar Regency Government Communication and Information Office compared to the targets to be achieved (Get) based on performance information of programs and activities that had been developed.

Related Regulations

The first regulation that serves as the basis for analysis is the President of the Republic of Indonesia Number 95 of 2018 concerning Electronic-Based Government Systems. The regulation states that SPBE is a government administration that uses information and communication technology to provide services to its users. Meanwhile, SPBE services are outputs from one or more SPBE application functions that have beneficial values. SPBE is implemented by Central Agencies and Local Governments (IPPD) by adhering to the principles of effectiveness, integration, continuity, efficiency, accountability, interoperability, and security. One of the scopes discussed in the regulation is about SPBE governance where the ICT aspect is one of the elements discussed (Lubis, 2019).

The next regulation is Regulation of the Minister of Administrative Reform and Bureaucratic Reform Number 59 of 2020 concerning Monitoring and Evaluation of Electronic-Based Government Systems. This regulation states that SPBE is the administration of government by utilizing information and communication technology to provide services to Central Agencies, Regional Governments, State Civil Apparatus (ASN) employees, individuals, communities, businesses, and other parties that utilize SPBE services. This regulation will focus on the SPBE monitoring and evaluation process carried out by all IPPD. SPBE monitoring is a systematic assessment process through verification of information on the results of self-assessment to measure the maturity level of SPBE implementation. Meanwhile, SPBE evaluation is a systematic assessment process through verification and clarification of information that can
be followed by validation of information against the results of a self-assessment to measure the maturity level of SPBE implementation (B. Kurniawan, 2022).

**Previous Research**

Some studies related to measuring or evaluating performance using a logic model approach in government agencies have been carried out by many researchers. This research used a study by Sari (2022) as a main reference. This study employed a case study at the Directorate of Railway Traffic and Transportation. The study found that all performance information did not yet have a logical relationship due to activity components that were not related to outcomes. Additionally, some performance indicators that were not in line with the strategic targets of Ministries/Agencies and Echelon 1 Key Performance Indicators were observed (Parhusip, 2016).

Another study that serves as a reference in this research was conducted by Prayudi et al. (2020) which employed a case study in Klungkung Regency Regional Government, Bali. The findings of this study show inconsistencies in performance indicators in performance planning and reporting documents, that the measurements used in performance indicators differ from those used in performance planning and reporting documents, and that targets without performance achievement programs are still found (Van Dooren et al., 2015).

The two previous studies are comparable to this research in that they use a logic model method to evaluate the success of programs and activities in government organizations, hence they were used as a reference in analyzing. What makes this study different from the previous studies is that it observed EBGS Aspect objects in mapping programs and activities to measure their performance (Santosa, 2015).

Other research used as a reference is research by Ramadhan & Nordiawan (2022) which takes the object of a case study at one of the central government agencies. The results of the study said that the evaluation of performance information is still not effective and the strategies used in its implementation are not optimal. The last research by Chen et al. (2018) which took the object of a case study on learning communities in Taiwan. The results of the study were that the programme plan was relatively easy to implement and was successful in identifying performance information to monitor the progress of its implementation.

**METHOD**

This research is qualitative research using an evaluation process based on case studies. This research is discussed descriptively, namely detailing the results of the performance evaluation and conditions of the case study object. Qualitative research is research that collects and uses empirical data as a basis for analysis (Winarno, 2022). Furthermore, according to Nordquist (Chen et al.) case study research is a type of research that discusses something or a group of objects in depth. Meanwhile, according to (Siregar & Harahap, 2019) descriptive research is research with the aim of describing in detail a particular phenomenon.

Data menurut Saunders et al. (2019) terdiri dari dua jenis yaitu data primer dan sekunder. Data primer adalah data yang secara khusus dikumpulkan untuk mendukung penelitian yang akan dilakukan. Sementara data sekunder adalah data yang perlu dianalisis lebih lanjut agar dapat memberikan pengetahuan atau kesimpulan tambahan bagi penelitian. The data used in this research consists of 2 types, namely secondary data and primary data. Secondary data used in this research is data obtained from documentation related to programs and activities consisting of the Kukar Regency Government RPJMD for 2021-2026, Kukar Regency Government RKPD for 2022-2023, Diskominfo Strategic Plan for 2021-2026, Renja Diskominfo for 2022, and RKA and DPA 2022 to see the alignment of vision, mission, goals, strategic targets, program and activity targets, as well as performance indicators. Apart from that, documentation of the 2021 and 2022 Diskominfo Government Agency Performance Reports (LKjIP) to see the results of
external party evaluations and recommendations provided, as well as the 2021 SPBE Evaluation Report and 2022 SPBE Monitoring Report to see the progress of SPBE implementation for the ICT Aspect which is the focus of the research This.

The primary data used in this research was obtained from interviews with respondents related to the implementation of ICT aspects of programs and activities at Diskominfo, namely the ICT sector and the E-government sector. The selection of respondents from these two fields was based on the RACI principles, namely responsible, accountable, consulted, and informed (Indrajit, 2014). This mapping was carried out to clarify the involvement of each respondent in decision making and responsibility for a program and activity. Respondents consist of 13 people who will be coded into R1 to R13, consisting of 1 echelon 2 official as responsible, 2 echelon 3 officials as accountable, 3 functional officials equivalent to echelon 4 and 1 echelon 4 official as consulted, and 6 technical implementers as informed. Meanwhile, interview questions are prepared by referring to both previous research and the results to be achieved based on information obtained from the theoretical basis used. Several interview questions originating from previous research were not adopted in full because they had to be adapted to the characteristics of the study object and research objectives. All data and information obtained are then analyzed using the following stages:

1. Analysis of documentation results to evaluate the logical relationship between "Do" and "Get" using a logic model approach.
2. Analysis of the interview results is then compiled into a transcript and grouped into key ideas that will be used to compile the evaluation results.
3. Descriptive analysis of the overall results of points 1 and 2 to prepare recommendations for improvements to the performance of programs and activities related to ICT aspects that are in accordance with the characteristics of Diskominfo.

RESULTS
Evaluation Logic Model

This first evaluation uses a logic model approach to evaluate performance measurements of programs and activities related to ICT aspects in the District Communication and Information Department. Kukar. This evaluation will consist of evaluation of information and performance indicators. The results of this evaluation will be used to prepare an outcome sequence chart that will be recommended for the study object.

Evaluation of Performance Information

As previously mentioned, performance information consists of inputs or resources, activities, outputs, outcomes, and impact. All performance information is obtained from planning and budgeting documents, namely RPJMD, RKPD, Strategic Plan, Renja, RKA, and DPA for the study object (Arisa & Yuningsih, 2023). Then, in accordance with what was done by (Sari, 2022), the performance information was analyzed using a logic model ("do" and "get") approach. Looking at the time sequence for preparing planning documents and according to information from R12, the preparation of performance information starts from the "results" stage, namely by determining impacts and outcomes which are formulated first in the Strategic Plan document, then to the "get" stage, namely by determining outputs, activities, and inputs formulated and adjustments made in the Renja, DPA and RKA documents.

Based on the results of documentation analysis from planning and budgeting documents, it is known that Diskominfo Kab. Kukar has compiled performance information from inputs to impacts, but outcomes are no longer divided into short term, intermediate and long term according to the logic model approach (Knowlton & Phillips, 2013). The results of the logic model analysis of programs and activities related to ICT aspects at Diskominfo will be depicted in Figure 1 below.
Based on Figure 1 above, it is known that all performance information compiled has a logical relationship and is in accordance with applicable regulations. However, its implementation is still not optimal and is still unable to support the achievement of the IKU Diskominfo target.

Source: Secondary Data (2022)
Based on the identification results in Figure 2 above, it is known that there are inconsistencies in activity performance indicators between the performance indicators listed in the Diskominfo planning document and the Kukar Regency Government (Amalia et al., 2022). Then, in the government agency performance evaluation document prepared by Diskominfo, activity performance indicators are not included in the content of the report prepared.

The inconsistencies found were caused by a lack of involvement from each field in preparing performance planning documents, including in determining performance indicators. Most still hand over this task entirely to the program and finance subsection alone. "The fields best explain what is technically to be achieved in the field according to the IKK and IKU. "Later, friends in the program and finance sub-section will explain it in the form of a Strategic Plan and OPD Plan." (R3)" As for the preparation of the Strategic Plan, that is actually in the program and finance sub-division, we didn’t go there, we only prepared the RKA and filled it in at the SIPD." (R4)

Based on the explanations above, it can be concluded that the performance indicators set by Diskominfo do not have a logical relationship or are not in harmony with the performance indicators set by the Kukar Regency Government. This can lead to differences in assessments when measuring and evaluating the performance of regional apparatus. So it is really necessary to have qualified human resources in preparing existing programs and activities in each regional apparatus, in order to avoid the risk of inconsistencies as has occurred.

Outcome Sequence Chart

Based on the evaluation results shown in Figure 4.1, it is known that performance information has a logical relationship from inputs to impacts. However, its implementation is still unable to support the achievement of the performance targets of IKU Diskominfo. Then, based on the evaluation results shown in Figure 4.2, there are still inconsistencies in the performance measurement indicators. Apart from that, the mapping of programs and activities at Diskominfo has not yet reached the mapping per indicator in SPBE, so that the implementation of programs and activities has not been specifically integrated with SPBE performance indicators. Based on the explanations above, it is necessary to prepare an outcome sequence chart which will describe the mapping of programs and activities that will be integrated with the 4 indicators in the ICT Aspect. This integration is carried out in order to make it easier to measure the performance achievements of each program and activity as well as measure the performance achievements of the SPBE Index. The integration of the programs and activities in question will be depicted in Figure 3 below.

**Figure 3 Outcome Sequence Chart**

Source: Secondary Data (2022)
Based on the evaluation results according to Figure 3 above, it is known that there is 1 SPBE indicator that has not been accommodated in budgeting, namely the 18th SPBE indicator, namely the level of maturity in the use of the regional government service liaison system (SPLP). Meanwhile, the sub-activities that should support these indicators are listed in Minister of Home Affairs Decree Number 050-5889 of 2021, namely the SPLP implementation sub-activities, but are not yet listed in the Diskominfo planning and budgeting document.

"As far as I know, there isn't one for SPLP itself, for now we'll just include it in the data center management sub-activity." (R4)

"When I look at it, it looks like SPLP, sis, SPLP seems like something that is very urgent now, but right now there are no activities like that." (R8)

The SPLP implementation sub-activity is an activity that will connect Central Agency network services, in this case the Ministry of Communication and Information, and Regional Government network services. So regional governments really need to include these sub-activities in their planning and budgeting documents.

The changes to the impacts listed in Figure 3 are also to bring about harmony with the development plans that have been determined by the Kukar Regency Government. Digitalization of Public Services (DISAPA) is a priority program for the Kukar Regency Government for 2023 and is included in the RKPD for the Kukar Regency Government for 2023. So that integration and logical relationships can be seen more clearly between planning and budgeting determined by Central Agencies, District Regional Government, Kukar, and Diskominfo.

**DISCUSSION**

The results of this study illustrate that it is in line with research conducted by (Sari, 2022) and (Prayudi et al., 2020) in terms of performance information that has been compiled still not fully showing a logical relationship. In addition, there are still differences between the performance indicators included in the planning document and in the performance report document. So it is necessary to improve the formulation of performance information and performance indicators so that they have a logical relationship and are in line with the strategic planning that has been determined by the Kukar District Government and the Ministry of Communication and Information. The logical relationship and alignment are expected to increase the effectiveness of the performance of programs and activities related to the ICT aspect.

**CONCLUSION**

This research aims to evaluate the performance measurement of programs and activities related to ICT aspects using a logic model approach at the Diskominfo Kutai Kartanegara Regency. The results of the logic model evaluation obtained from this research are that there is a logical relationship or harmony between the 5 performance information, but its implementation is still not optimal, so it does not have an impact on improving performance on the Diskominfo KPI, namely the SPBE Index Value. The next result is that there are still inconsistencies in performance indicators between the planning documents prepared by the Kukar Regency Government and the performance indicators prepared by Diskominfo, so there is the possibility of differences in performance measurements on the indicators that have been determined. The final result is that Diskominfo has not yet mapped programs, activities and sub-activities based on the indicators in the SPBE, so there is still 1 SPBE indicator which should also be supported by programs and activities, but has not been included in the Diskominfo planning and budgeting document.

However, this research still has limitations that need to be corrected for further research. The first is data that can be used for measurement in the 2021-2022 period because there was a change in regulations at the end of December 2021 regarding the mapping of sub-activity and activity indicators, so the conclusions formulated are still very limited because there is still an
adaptation process. Future research can use a longer data range so that the analysis and conclusions can be more stable. Second, this research only analyzes 4 measurement indicators in the ICT aspect which experienced the greatest decline in value. Future research can use other indicators and assessment aspects so that SPBE implementation performance can be more comprehensively improved.

**SUGGESTION**

Based on the conclusions above, Diskominfo needs to reformulate performance indicators and performance information so that they are more in line with the SPBE assessment indicators and strategic planning that have been determined by the Kutai Kartanegara Regency Government. This also requires qualified human resources to compile and provide good information and assistance to all parties in Diskominfo, so that it will minimize the impact of errors or inconsistencies in preparing expenditure details for each sub-activity that has been determined.

**REFERENCES**


