

THE USE OF THE SIPD APPLICATION IN THE EFFECTIVENESS OF REGIONAL PLANNING AND BUDGETING

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A B S T R A C T

The background of this research is the importance of implementing the Regional Government Information System (SIPD) in supporting effective, transparent, and accountable regional planning and budgeting processes. SIPD is a system used by local governments to integrate the planning, budgeting, implementation, and reporting processes of regional development. The purpose of this research is to determine the effectiveness of using the SIPD application in regional planning and budgeting in Regional Apparatus Organizations (OPD) in Central Buton Regency and to identify the obstacles faced in its use. This research uses a descriptive quantitative method. The research population is all employees who use SIPD in OPD in Central Buton Regency, with a sample of 50 respondents selected using simple random sampling techniques. Data collection techniques are carried out through questionnaires, interviews, and documentation. Data analysis uses descriptive analysis, validity tests, and reliability tests with the help of the SPSS version 26 program. The results show that all statement items are declared valid because they have a calculated r value greater than r table (0.279), with the calculated r value of the SIPD variable ranging from 0.640-0.823 and the effectiveness variable ranging from 0.749-0.858. The reliability test results showed a Cronbach's Alpha value of 0.877 for the SIPD variable and 0.883 for the effectiveness of regional planning and budgeting. The results indicate that the use of SIPD in OPDs in Central Buton Regency has been running well and effectively in supporting the regional planning and budgeting process, although several technical challenges remain, such as internet network disruptions and systems that require continuous improvement.

INTRODUCTION

Entering the era of globalization, the development of information technology has progressed very rapidly and provided various conveniences in every aspect of life, including in the administration of government. In an effort to support electronic-based governance (e-government), the Ministry of Home Affairs launched the Regional Government Information System (SIPD) based on Minister of Home Affairs Regulation Number 70 of 2019. SIPD is an integrated platform that manages regional development information, regional finance, and various other aspects of governance, and serves as the basis for decision-making in the process of planning, budgeting, implementation, and evaluation of local government performance. Through Circular Letter of the Minister of Home Affairs Number 130/736/SJ concerning the Acceleration of SIPD Implementation, all local governments are required to use the SIPD application in managing regional development and financial information (Kumalasari & Fanida, 2024).

Regional financial management is the entirety of activities covering the planning, implementation, administration, reporting, accountability, and oversight of regional finance, which must be carried out accountably, transparently, and measurably so that the budget can be performance-oriented (Mahmudi, 2020). In practice, this process requires various planning documents such as the RPJPD, RPJMD, RKPD, KUA, PPAS, and RKA-SKPD, up to the APBD, all of which require good coordination as well as support from an adequate information system so that the planning and budgeting process can run effectively and efficiently. The implementation of SIPD is expected to facilitate the preparation of planning and budgeting documents, improve data accuracy, accelerate reporting, and strengthen the transparency and accountability of regional financial management, thereby becoming a strategic step toward realizing more modern, digital-based governance (Jiwandono, 2024).

However, in practice, the implementation of SIPD still faces various obstacles, such as limited human resource capacity in operating the system, insufficient training for users, internet network disruptions, and limited supporting facilities and infrastructure, so that research is needed to determine the extent to which the use of the SIPD application is effective in supporting the regional planning and budgeting process, particularly within the Central Buton Regency Government (Napu, 2025). Before the implementation of SIPD, the Central Buton Regency Government used the Regional Financial Management Information System (SIMDA), which was not yet fully integrated and often caused

problems in data synchronization and reporting. Facts in the field show that the transition from SIMDA to SIPD has not been fully optimal, with continued dependence on a few key operators, limited user understanding, and technical obstacles that affect the speed and accuracy of the regional financial administration process (Abidin et al., 2025).

Various previous studies have shown that the implementation of e-government, including the use of SIPD, has great potential to improve the transparency and accountability of regional financial management; however, the effectiveness of its implementation is greatly influenced by the readiness of human resources, the quality of technological infrastructure, and organizational policy support (Chinda Aqhni Adisi & Abdul Sadad, 2022). Based on the above description, this study aims to determine and analyze the effectiveness of using the SIPD application in planning and budgeting in the Central Buton Regency Government, as well as to determine and analyze the efforts made to overcome the obstacles that occurred after the implementation of the SIPD application (Abidin et al., 2025).

METHODOLOGY

The method used in this study is a descriptive study with a mixed methods approach, combining quantitative and qualitative approaches to obtain a comprehensive understanding of the use of the SIPD application in the effectiveness of regional planning and budgeting (Creswell, 2019). Primary data were obtained through questionnaires and interviews, while secondary data were obtained from documents, archives, and documentation of the Central Buton Regency Government office (Munandar, 2022).

The location and time of this research covered all Regional Apparatus Organizations (OPD) in Central Buton Regency, and the research was carried out from January to April 2026. The population consisted of all OPD employees who use SIPD in carrying out their duties and managing government data. The research sample consisted of 50 respondents selected using the simple random sampling technique, with the criteria of being employees of Central Buton Regency Government agencies who use or have used the SIPD application, are involved in the process of inputting, managing, or using data in the system, and are willing to complete the research questionnaire. The documentation technique refers to the act of searching for data on matters or variables in the form of notes, transcripts, books, newspapers, magazines, inscriptions, meeting minutes, ledgers, agendas, and so on; this technique was used to collect data from sources related to the purpose of the observation without disturbing the object being observed (Sari & Rahma, 2025). Interviews were used as a data collection technique for preliminary studies and to strengthen information obtained from the questionnaire findings. The questionnaire was used as a data collection tool to determine respondents' responses regarding the effectiveness of using the SIPD application in regional planning and budgeting (Sugiyono, 2022).

The data analysis technique used was descriptive and quantitative analysis. Descriptive analysis was used to describe the condition of the research variables based on the mean value of each indicator. The questionnaire instrument used a 1-5 Likert scale (Strongly Disagree to Strongly Agree) to measure the variables of SIPD Application Usage (X) and the Effectiveness of Regional Planning and Budgeting (Y) (Widagdo et al., 2020). The validity test was carried out by comparing the calculated *r* value with the table *r* value (0.279 at a 5% significance level for *n*=50), while the reliability test used the Cronbach's Alpha coefficient with a threshold of 0.60. Interviews and documentation were used as supporting data to strengthen the questionnaire findings.

RESULTS & DISCUSSION

Uji Validitas

Menurut Sugiyono (2014), uji validitas adalah pengujian untuk menentukan keabsahan suatu instrumen penelitian, memastikan bahwa instrumen tersebut mengukur dengan tepat sesuai tujuan yang diinginkan. Instrumen dianggap valid jika memiliki nilai probabilitas (*sig*) < 0,05 dan menunjukkan nilai Pearson Correlation yang positif (Fatmala et al., 2023).

Table 1. Validity Test Results

Indicator		Calculated <i>r</i>	Table <i>r</i>	Description
Use of the SIPD Application (X)	X.1	0,640i	0,279	Valid
	X.2	0,823	0,279	Valid
	X.3	0,80i1	0,279	Valid
	X.4	0,775	0,279	Valid
	X.5	0,785	0,279	Valid
	X.6	0i,761	0,279	Valid
Effectiveness of Regional Planning and Budgeting (Y)	Y.1	0i749	0,279	Valid
	Y.2	0,858	0,279	Valid
	Y.3	0,838	0,279	Valid
	Y.4	0,843	0,279	Valid
	Y.5	0,80i9	0,279	Valid

Source: Data processed with SPSS 26

The validity test results presented in Table 1 show that all statement items on the Use of the SIPD Application (X) variable have calculated r values ranging from 0.640 to 0.823, while the Effectiveness of Regional Planning and Budgeting (Y) variable has calculated r values ranging from 0.749 to 0.858. All of these calculated r values are greater than the table r value (0.279), so all statement items are declared valid.

Reliability

The reliability test is used to determine the extent to which the research instrument can be trusted and is consistent in measuring the research variables. The test was carried out using Cronbach's Alpha. The research instrument is considered reliable if the Cronbach's Alpha value is > 0.60 .

Table 2. Reliability Test Results

Variable	Cronbach's Alpha	Standard Coefficient	Description
Use of the SIPD Application (X)	0,877	0,60	Reliable
Effectiveness of Regional Planning and Budgeting (Y)	0,883	0,60	Reliable

Sumbeir: Peingolahan Data deingan SPSS 26

Based on Table 2 above, it is known that the SIPD Application Usage variable obtained a Cronbach's Alpha value of 0.877, and the Regional Planning and Budgeting Effectiveness variable obtained a value of 0.883. Both values are greater than 0.60, so it can be concluded that all variables in this study are declared reliable.

The results of the descriptive analysis show that the Use of the SIPD Application (X) variable obtained a total score of 1,116 from 50 respondents, with a mean value of 4.46 and a percentage of 89.3%, thus falling into the very good category within the interval 4.21-5.00 (Sugiyono, 2013). The highest value was found in the information-quality indicator, namely the statement "The information generated by the SIPD application is relevant, accurate, and easy to understand," with a score of 226, a mean of 4.52, and a percentage of 90.4%. Conversely, the lowest values were found in the indicators "The SIPD application helps employees carry out the regional planning and budgeting process more easily and in a more structured manner" and "Employees make use of the features available in the SIPD application," each of which obtained a score of 222, a mean of 4.44, and a percentage of 88.8%. Although these are the lowest values, the figures remain within the very good category, indicating that OPD employees in Central Buton Regency have optimally utilized SIPD features in supporting their daily work.

For the Effectiveness of Regional Planning and Budgeting (Y) variable, a total score of 1,323 was obtained, with a mean value of 4.41 and a percentage of 88.2%, which also falls into the very good category (Sugiyono, 2013). The indicator with the highest value was "Employees understand the purpose and procedures for using the SIPD application," with a score of 224, a mean of 4.48, and a percentage of 89.6%, indicating that employees' understanding of the purpose and procedures for using SIPD is already very good. Conversely, the lowest value was found in the indicator "The use of the SIPD application helps in preparing regional development programs and activities so that they are more targeted," with a score of 217, a mean of 4.34, and a percentage of 86.8%. Although this is the lowest value compared to the other indicators, the figure is still classified as very good, so it can be concluded that SIPD remains effective in helping to prepare development programs, even though there is still room for improvement in the accuracy of program targeting. The other three indicators — SIPD's support for achieving planning and budgeting objectives, the improvement of planning quality, and its benefits for the effectiveness of local government task implementation — each obtained a score of 221, a mean of 4.42, and a percentage of 88.4%.

Table 3. Descriptive Analysis of Percentages and Categories of SIPD Application Usage

NO	Statement	Total Score	Mean	Percentage	Category
1	The SIPD application helps employees carry out the regional planning and budgeting process more easily and in a structured manner	222	4,44	88,8%	Very Good
2	The information generated by the SIPD application is relevant, accurate, and easy to understand	226	4,52	90,4%	Very Good

3	Users receive good support or assistance when experiencing problems using the SIPD application	223	4,46	89,2%	Very Good
4	Employees make use of the features available in the SIPD application	222	4,44	88,8%	Very Good
5	Users are satisfied with the use of the SIPD application	223	4,46	89,2%	Very Good
Total		1116	4,46	89,3%	Very Good

Source: Primary data processed, 2026

Based on Table 3, the Use of the SIPD Application variable obtained a total score of 1,116, with a mean value of 4.46 and a percentage of 89.3%. This mean value falls within the interval 4.21-5.00, thus falling into the very good category. This result indicates that respondents gave a very positive assessment of the use of the SIPD application in supporting the regional planning and budgeting process in Central Buton Regency.

Table 4. Descriptive Analysis of the Effectiveness of Regional Planning and Budgeting Variable

No	Pernyataan	Total Skor	Rata-Rata	Persentasi	Kategori
1	Employees understand the purpose and procedures for using the SIPD application	224	4,48	89,6%	Very Good
2	The use of the SIPD application helps in preparing regional development programs and activities so that they are more targeted	217	4,34	86,8%	Very Good
3	The use of the SIPD application helps the regional planning and budgeting process to be completed on time	219	4,38	87,6%	Very Good
4	The use of the SIPD application supports the achievement of regional development planning and budgeting objectives	221	4,42	88,4%	Very Good
5	The use of the SIPD application brings real change to improving the quality of regional planning and budgeting	221	4,42	88,4%	Very Good
6	The use of the SIPD application provides benefits in improving the effectiveness of local government planning and budgeting	221	4,42	88,4%	Very Good
Total		1323	4,41	88,2%	Very Good

Source: Primary data processed, 2026

Based on Table 4, the Effectiveness of Regional Planning and Budgeting variable obtained a total score of 1,323, with a mean value of 4.41 and a percentage of 88.2%. This mean value falls within the interval 4.21-5.00, thus falling into the very good category. This result indicates that the effectiveness of regional planning and budgeting in Regional Apparatus Organizations (OPD) in Central Buton Regency falls into the very good category after the implementation of the SIPD application.

Use of the SIPD Application in the Effectiveness of Regional Planning and Budgeting

Overall, the comparison between the percentage of SIPD application usage (89.3%) and the percentage of regional planning and budgeting effectiveness (88.2%) shows a relatively small difference of 1.1 percentage points. This small difference indicates a strong alignment between the level of system use and the level of effectiveness achieved, so it can be said that the more optimal employees' use of the SIPD application is, the higher the effectiveness of the regional planning and budgeting process that is achieved, in line with the information systems success theory (DeLone & McLean, 2019), which states that system use contributes to the net benefits produced. This quantitative finding is further reinforced by the following interview results.

The research results were reinforced by interview results with informants within BAPPEDA and BKPSDM of Central Buton Regency. One informant explained that SIPD is the only application used in the regional planning and budgeting process, in which all programs, activities, and the unit prices of goods are handled through the system. Another informant added that the use of SIPD has made the data management process more integrated, thereby facilitating the preparation of regional development programs, while also improving coordination among OPDs as well as transparency and accountability,

because the entire planning and budgeting process is documented and can be monitored according to each party's respective authority.

According to Kumalasari & Fanida (2024), the use of SIPD is able to improve the quality of budget planning through an integrated system, along with research by Ekaputra (2021), which found that the implementation of SIPD improves the effectiveness of preparing RKPD documents. Research by Chinda Aqhni Adisi & Abdul Sadad (2022) found that the effectiveness of SIPD use is influenced by system quality, information quality, and user support for the system. These findings are consistent with the information systems success theory (DeLone & McLean, 2019), which states that the success of an information system is influenced by system quality, information quality, service quality, system use, user satisfaction, and the net benefits generated.

Efforts to Overcome Obstacles After the Implementation of the SIPD Application

Although the use of SIPD has generally run well, the interview results show that obstacles still exist, generally originating from external factors, particularly internet network disruptions and central server issues, which cause delays in the process of data entry as well as in the preparation of planning and budgeting documents. Informants explained that the most frequently occurring obstacle is network problems, and that when disruptions occur in the central system, the regions are also affected. To address this, agencies coordinate with the system manager when disruptions occur, conduct periodic technical guidance (bimtek) for SIPD user employees, and propose the development of application features, particularly the reporting feature, which is considered not yet fully meeting user needs.

According to Hasanah (2025), improving employee competence, information technology support, and continuous system development are important factors in improving the effectiveness of SIPD implementation. Based on the results of the quantitative research and interviews above, it can be concluded that the use of SIPD plays an important role in improving the effectiveness of regional planning and budgeting in Central Buton Regency, with efforts to overcome obstacles carried out through improved coordination, the implementation of technical guidance, and the development of application features in accordance with user needs.

CONCLUSION

Based on the research results, it can be concluded that the use of the Regional Government Information System (SIPD) in government agencies in Central Buton Regency has been going well and has positively contributed to the effectiveness of regional planning and budgeting. This can be seen from the quality of the system, information quality, service quality, system usage, user satisfaction, and the benefits of SIPD, which are in the good category. SIPD helps employees manage data drafting programs and activities, as well as carrying out the planning and budgeting process in a more integrated, targeted, and timely manner. However, its implementation still faces obstacles such as network disruptions, system technical issues, and limited abilities of some users.

Therefore, the Central Buton Regency Government needs to improve the quality of networks and supporting devices, provide regular training and assistance, and enhance technical services so that the use of SIPD becomes more optimal. With these improvements, SIPD is expected to be able to support regional planning and budgeting that is more effective, efficient, transparent, and accountable. It is suggested that future researchers expand the research objects and increase the number of respondents so that the results regarding the effectiveness of SIPD can be more comprehensive.

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