A New Application of School Budgets: Utilization Perspective

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Abstrak

The School Activity Plan and Budget Application (ARKAS) is an information system that utilizes advances in Information Communication and Technology (ICT) to carry out the functions of the system of budgeting, implementing, administering and accountability of school operational assistance funds in primary and secondary education units nationally. This application was created to handle school financial management problems whose process is still done manually and has not been integrated with one system. With the support of integrated technology, schools can use it to manage finances and the Ministry of Education and Culture and Technology can monitor the accountability of each school. The purpose of this study is to analyze the use of ICT for school budget management. Data collection in this study through observation, interviews and documentation. Data analysis techniques are carried out by data reduction, data presentation, data analysis and conclusions to the results. From the research, it was concluded that the average use of ICT in each region in managing school installments is still low so that the decision of the Ministry of Education and Culture in creating applications to integrate the system is very appropriate to increase the use of ICT in managing school budgets

Keywords:
ICT, ARKAS

1. Introduction

Based on Permendiknas number 19 of 2007 concerning Management Standards for Primary and Secondary Education, it is explained that in the process of preparing School Work Plans (RKS) and School Activity Plans and Budgets (RKAS) must be carried out by every school. One of the substances of school management is implementing a financial management process which is an important factor that determines the course of educational activities in school. The school budget plan is made to make it easier for schools to know the activities to be carried out by the school so that the initial goals expected to be achieved and school obligations can be achieved are fulfilled in accordance with the rules. In terms of participation, school budget plans and activities can provide an overview of what stakeholders need in developing the school (George et al., 2010). According to

Sangiumvibool & Chonglerttham (2017) By making budget plans for all school activities, this can make it easier for the government to monitor and evaluate the progress of the school.

In the field of education, financial management must be improved and adjusted to the needs and development of all school areas both in terms of educational facilities and infrastructure, workplace facilities and teacher welfare in schools. To achieve this goal requires costs and administrative regulations. One form of funding provided by the government, in this case the Ministry of Education and Culture and Research and Technology to schools, is assistance in the form of School Operational Assistance funds or BOS funds.

In managing the school budget, there is still a separation between the management of the school budget and the financial management system in the agency. Previously, schools still planned and reported budgets manually through the local government system and central system, so a lot of time, energy and costs were wasted in completing the administrative reports. In the regions, there are still differences in each reporting application, which makes it difficult for the center, in this case, the Ministry of Education and Culture to verify and reconcile these financial statements, especially the School Operational Assistance (BOS) fund. With these conditions, the government wants to integrate or combine the budget management system in schools with the management of finances in the regions.

KemendikbudRistek tries to create a system to create an integration or merger of systems in managing school budgets with finances in the regions. In early 2021, the Ministry of Education and Culture created a School Activity Plan and Budget Application system, namely the RKAS application system. The ARKAS system utilizes Information, Communications and Technology (ICT) in the process of budgeting, implementing, administering and reporting accountability of BOS funds in primary and secondary education units nationally. The guidelines for using ARKAS (2021) explain that ARKAS is an information system designed or created to overcome problems in financial management in schools, the process starts from planning, organizing, directing, coordinating, supervising or controlling. With the use of an integrated and distributed system, it is expected that the users of the system can coordinate well. The final result of ARKAS is reporting in accordance with the format determined by the government or the Ministry of Education and Culture and Research and Technology.

1. **Literature Review**

Information Concepts and Communication Technology

Educational technology, also called instructional technology, information and communication technology (ICT) in education, Ed Tech, and learning technology is the study and ethical practice of facilitating learning and improving performance by creating, using and managing appropriate technological processes and resources. Technology in education is used by learners and educators

in homes, schools, and businesses. In educational technology includes both material objects, namely machines and network hardware, as well as theories such as instructional theory and learning theory (Kaware & Sain, 2015). Lloyd (2020) revealed that until recently most individual action monitoring systems relied on human controllers to identify and target specific people. Information technology (IT) includes all the tools that collect, store, process, exchange, and use information. The IT sector includes computer hardware such as mainframes, servers, laptops, and handheld computers; software such as operating systems and applications to perform various functions; networks and related equipment such as modems, routers, and switches; and databases to store important data (George et al., 2010).

The use of Information Communication and Technology (ICT) in integrating data is a mandatory process in the current era of digitalization. Especially in the field of education, ICT was created to facilitate data integration. Some of the problems faced by school management especially in terms of planning, organizing, coordinating, directing, supervising or controlling can be overcome with technology. The RKAS application information system was created to overcome problems that have been faced by schools in reporting school operation assistance funds. It is hoped that this system can facilitate the integration of these data.

Understanding and concept of budgeting and budgeting

Budgets are a method used by governments to allocate scarce resources to demand services. As a result, budgets can be an effective tool and one of the most important governance processes. A school budget is a detailed document of anticipated school expenditures and revenues in a given fiscal year, along with data and information on past and other project related fiscal elements in accordance with the educational mission, organization, policies, programs, and outcomes (Hartman, 2003). Robbins et al., (2014) The goals set by the school have an influence in budget planning because budget planning involves organizational goals and setting strategies to achieve organizational goals. While budgeting is the sequence of activities in educational planning, programs, taking into account the expenditures and revenues needed to implement planned programs, obtaining the necessary approvals and using the budget to help manage school operations. Making a budget document itself is a detailed and complex job, requiring considerable time and effort on the part of school employees (Hartman, 2003).

Understanding and Concept of School Budget Activity Plan (RKAS)

School leaders have an obligation to determine several types of school budgeting processes to follow school quality improvement principles by conducting cost benefit analysis and to utilize the benefits of performance-based budgeting processes to obtain optimal productivity (Poston, 2011). Every school at all levels of education, including high schools, must prepare a School Work Plan (RKS) and a School Activity Plan and Budget (RKAS). In Indonesia, in the School Operational Assistance (BOS)

program, there is a planning process which includes two main activities carried out by the principal as a co-leader with the School Operational Assistance Management Team, namely when identifying school needs and the second in preparing the School Activity Plan and Budget (RKAS). In educational institutions in the United States, all institutions are active in budgeting most effectively in achieving institutional goals and objectives with a budgeting tool centered on responsibility for educational institutions (Zierdt, 2009).

2. Method, Data, and Analysis

Research using qualitative methods that are exploratory, Qualitative research methods are essential to provide descriptions of complex phenomena, track unique or unexpected events, illuminate experiences and interpretations of events by actors with different risks and roles, voice their rarely heard views, conduct initial exploration to develop theories and produce and even test hypotheses, And moving towards explanation, good qualitative research is systematically unbiased and can identify evidence that refutes the initial hypothesis or emerging hypothesis (Sofaer, 1999). Qualitative methodology is increasingly used in research to lead and support ergonomics and human factors studies in a variety of contexts, qualitative research is concerned with understanding meaning, qualitative researchers are interested in how people understand their world and how they interpret and experience different events (Hignett et al., n.d.). Qualitative methods consist of three types of data collection, in-depth and open interviews; direct observation; and written documents, including sources such as open writings on questionnaires, personal diaries, and program notes (Patton, 1987). The type of data used in this study used primary and secondary data. Primary data in this study were obtained directly through the process of interviews, observations, triangulation, surveys and questionnaires. Meanwhile, secondary data is obtained through coordination with the data team of the Ministry of Education, Culture, Research and Technology.

The subject of this study is ICT data operators. While the object of research is data on the use of ICT for State School Budget Management. The main source of data in qualitative research is words, and the rest of the actions are additional data such as documents and others and describe the research subject as an informant which means people who are in the situation and conditions of the research place to provide information to the research (Sociologist & 1974, n.d.).

Data collection techniques are carried out by participatory observation, interviews, reviewing documents, and the results of triangulation or the results of combining data collection techniques that the author uses. Data collection techniques in this study through primary data collection. The observation process includes observing the system used in school budget reporting, listening to directions on school budget reporting measures, and reviewing documents related to school budget reporting. According to (Oun et al., 2014) There are various techniques for performing data analysis procedures with three main methods namely interpretive, recursive abstraction, and mechanical

techniques. Activities in qualitative data analysis are carried out interactively and take place continuously until complete, so that the data is saturated. Miles and Huberman offer a general pattern of analysis by following an interactive model as follows.

3. Result and Discussion

The data from this study comes from formal education data of public schools assisted by the Ministry of Education and Culture that utilize ICT for budget management. The school level consists of elementary, junior high, high school, and vocational levels. The school data is 165,815 which is data from state schools that have sent progress in the use of ICT in budget management with details of elementary schools totaling 130,739 schools, junior high schools totaling 24,121 schools, high schools totaling 7,292 schools and vocational schools totaling 3,663 schools as shown in the table 1.

Table 1. Formal Education Data of Ministry of Education and Culture Assisted Public Schools

Jenjang	Total
SD	130.739
SMP	24.121
SMA	7.292
SMK	3.663
Grand Total	165.815

Sources: Data in Processed

Meanwhile, the percentage of ICT utilization for budget management is shown in figure 1. Percentage Diagram of ICT Utilization for budget management of public schools assisted by the Ministry of Education and Culture which is the result of data processing entered from city districts.

Figure 1. ICT Utilization Percentage Diagram for Budget Management
(Ministry of Education and Culture Assisted Public Schools)
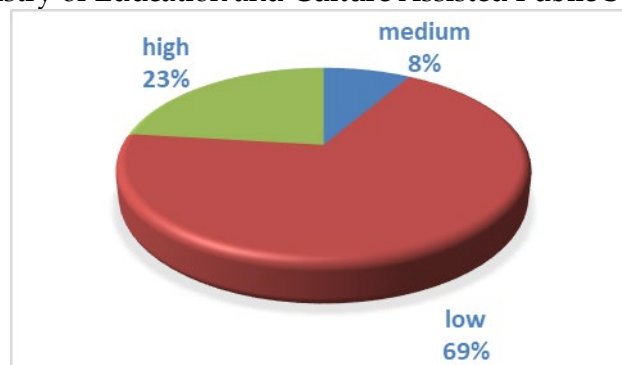
Sources: Data Kemendikbudristek

Based on the data obtained, out of 165,815 formal public schools that submitted data, there were around 154,525 schools that had submitted data. From this data, data was obtained that 69% of

schools that use ICT for budget management are still low, 8% of schools are sufficient and 23% are high in the application of ICT for school budget management, the results are based on the calculation of standard values on the indicators of assessment of ICT utilization for budget management. To conduct further analysis related to the use of ICT for budget management which is generally still low in all provinces, researchers took data samples from public schools in DKI Jakarta to find out how far the use of ICT is in budget management, sample selection using purposive sampling techniques with consideration of the most appropriate data and representative of the problems that occur and with consideration of time and cost in research.

Based on data on the use of ICT for public schools in the Ministry of Education and Culture's assisted city districts obtained, in general, there are still 69% of schools that are still low in using ICT to manage school budgets or around 105,938 schools out of a total of 154,525 schools while those that are already high in using ICT in managing school budgets are only around 23% of schools. Based on these data, the population in DKI Jakarta province was taken to find out how far the use of ICT to manage school budgets. Then the school sample was taken with a sampling elimination technique based on the tables of Isaac Newton and Michael Faraday with an error rate of 5%.

Figure 2. Number of Public Schools Utilizing ICT for School Budget Management in DKI Jakarta
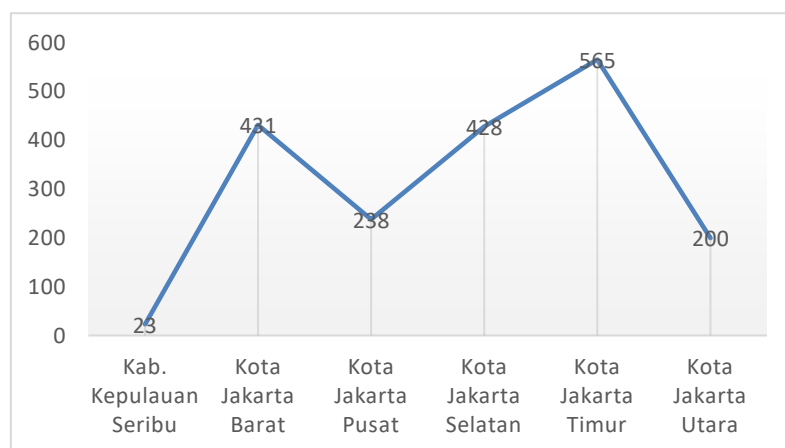
Sources: Data Kemendikbudristek

The number of schools that have sent progress on ICT utilization based on the data obtained is 1,885 public schools in DKI Jakarta that have sent ICT utilization data as shown in graph, namely Kepulauan Seribu Regency 23 schools, West Jakarta City 431 schools, Central Jakarta City 238

schools, South Jakarta City 428 schools, East Jakarta City 565 schools and North Jakarta City 200 schools. Based on the table of Isaac Newton and Michael Faraday, from the total population (N) of 1,885 public schools in 6 city districts in DKI Jakarta with an error rate of 5%, samples were obtained in each city district with a total value obtained as many as 903 samples so that in this study 903 public schools were analyzed for ICT users for budget management in DKI Jakarta. The results of the analysis with data processing based on indicators measuring the use of ICT regarding schools using applications in spending school operational costs online, timeliness in the delivery of reporting and completeness of reporting.

Table 2. Percentage of Sample of Public Schools Using ICT for School Budget Management in DKI Jakarta

Category	Sample	Percentage
Low	811	90%
Medium	52	6%
High	40	4%
Total	903	100%

Sources: Data Kemendikbudristek

Figure 2. ICT Utilization Percentage Diagram for Budget Management
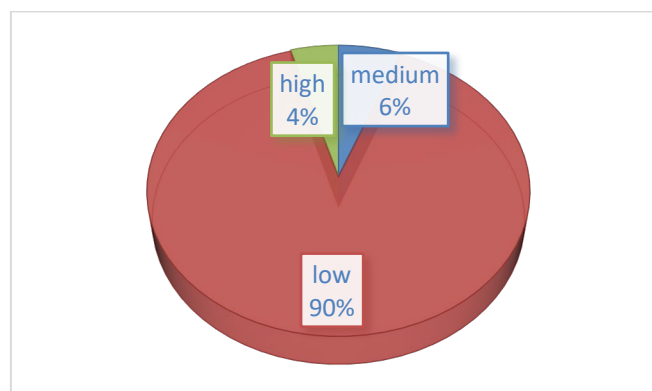
Sources: Data Kemendikbudristek

Based on data processing of each sample of city districts in DKI Jakarta, it was found that 90% of public schools were still low or around 811 schools in the use of ICT for school budget management, 6% or around 52 schools that were quite good and 4% or around 40 schools that were already high in the use of ICT for school budget management. The data is shown in table 2 and figure 2.

4. Conclusion and Suggestion

Based on the analysis that has been carried out that in general the use of ICT in school budget management in each province is still low, with a sample of schools in DKI Jakarta province to find out how far the use of ICT is obtained on average each school in the city district is still low in the use of ICT for school budget management. This indicates that there are still differences in the system in each school in managing school budgets, causing differences in reporting and timeliness in school budget reporting. Therefore, the Ministry of Education and Culture makes an application for activity plans and school budgets to integrate or combine systems in managing school budgets so that later reporting similarities and timeliness of reporting will be obtained. From this analysis, it is concluded that the decision of the Ministry of Education and Culture in creating an application to integrate the system is very appropriate to increase the use of ICT in managing school budgets.

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