

Analysis of Benefits and Obstacles From E-Budgeting Implementation in Educational Organizations

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Abstract—This paper reviews theoretically which aims to provide insight into how management information system (MIS) e-budgeting information systems are implemented, what are the benefits and obstacles in their implementation, and why is e-budgeting important for an educational organization? This is important to discuss because one of important elements in implementing the education process is the existence of funds. Fund budgets need to be managed and used appropriately to produce quality education. Educational providers are required to be able to carry out education properly, they are also demanded by the advancement of the times in order to be competitive. This is what triggers the emergence of technological determinism and its application in the management of education funding, that is, with the was of an MIS e-budgeting. Discussion of the study can be an evaluation of information systems development policies for governments in the world of education. As a result of the study in this paper is the benefits of implementing e-budgeting in financing management education funds in educational organizations is increased transparency and accountability compared to conventional financing management systems, use of funds and clear supervision and shorten the time. Then the part that needs special attention, the author's group into three, which if ignored can make a boomerang for this information system in terms of: technical, organizational and social. In this section, the author describes the translation and offers several options for dealing with problems in this segment, and if it has been done on how to strengthen it.

Keywords: *e-budgeting, financing management, technological determinism, benefits, obstacles*

I. INTRODUCTION

Educational organizations (in this case school) as one of the places of education according to Government Regulation (PP) No. 19 of 2015 concerning National Education Standards [26] and Number 65 of 2005 concerning Minimum Service Standards [24], requires schools to improve the quality of education. A quality educational organization is

inseparable from the state of education funding in it, because basically the quality of education is directly proportional to the education costs incurred.

Then what is the relationship between the cost of education and the quality of education, so that costs can have an impact on quality. Relationships occur if the quality design increases, the costs usually increase. As increased quality suitability increases, reductions in rework, and complaints result in a significant reduction [9]. Quality is an activity to do the main thing and satisfy customers. But quality is also about costs, income, and profits [12]. Quality plays a key role in maintaining low costs, high income, and high profits. From the various opinions, it can be concluded that the cost of education greatly influences the quality of schools.

To achieve good quality means that it requires the management of good education funds, in order to finance these educational activities. Good education funding is financing that is able to meet all needs based on the budget that has been made. To be able to meet the needs according to the budget that has been made, good management skills are needed.

Funding education is basically a process of allocating resources to activities or programs implementing operational education or in the teaching and learning process in the classroom. Matters relating to this include; implementation of the education budget, accounting and financial accountability of education, and examination and supervision of the education budget [17]. Besides the government, the community must also participate in overseeing the course of funding education in schools to run by following the stated objectives.

The education operational budget still has debated, on the one hand, school managers feel the education fund is still lacking, therefore the school still collects funds to parents of students. Various complaints about education funds also came from the community, community complaints about the use of school funds,

including school operational costs (BOS) funds from the government, therefore the Minister of National Education requested school funds to be managed transparently [6]. From this, a system is needed that demands a more transparent and accountable education funding management process in accordance with the demands of the current industrial age 4.0.

The role of technology at this time has penetrated into all aspects of life, almost we can never free ourselves from technology in everyday life, a phenomenon that is happening now like "nothing is untouched by communication technology" because all things almost use and there is a role for technology [11]. We cannot deny the determination of technology like this from the past until now, besides giving a helpful influence in human life.

In the aspect of education, the role of technological progress is applied to: management of infrastructure, learning methods, resource management, and administrative systems. As previously explained, the progress of the times and technology also affects the world of education, the global demands for education will always and always adjust technological developments to businesses in improving the quality of education, especially adjusting the application of technology to the world of education [2].

Along with changes in the environment and technological developments, people's needs are also increasing so that new demands arise. In an effort to meet these community needs, the government is demanded to be more responsive and transparent in providing services to the community. One form of government service innovation and also now applied to the world of education in Indonesia is an electronic budgeting or e-Budgeting system. This system can also shorten the process of drafting a budget because it is done electronically, so that it addresses the problems that occur in manual budgeting that are still done with face-to-face meetings. E-Budgeting is also considered as a form of accountability and transparency of local government in managing finances.

Budget reporting technology can now be supported by the use of information and communication technologies such as computer devices and software. This has been supported since the issuance of Presidential Instruction No.3 of 2003 concerning Indonesian E-Government Development Policy and National Strategy [23], namely, the use of communication and information technology in government processes (e-government) that can improve efficiency, effectiveness, transparency and accountability. The advancement of information technology provides the greatest benefit for the benefit of society in all fields, one of which is the field of public services to provide good and accountable public services.

Information technology is a development rather than an information system by combining telecommunications with computer technology. Educational institutions in Indonesia are now competing to use Information and Communication

Technology (ICT), starting with the procurement of hardware infrastructure, internet networks, as well as the creation and development of software, all of which are done in an effort to meet the needs of an education system that is more targeted, effective and efficient.

At the same time, the adoption of the latest and most innovative technologies for all schools has become the main thing to be considered by educators and members of the school board [8]. One of the innovations and also the development of management information systems in the field of education is the presence of e-budgeting that helps in the budgeting system. This change in demands makes the world of education requires creativity and innovation in its management process. Based on the above problems, the purpose of this article is to find out the role of e-budgeting information systems in managing financing systems in educational organizations (schools). This is also a renewal of this research, because previous research on e-budgeting has not been conducted in educational organizations. Based on this, the authors want to examine how the implementation of e-budgeting in educational organizations?

II. WRITING METHOD

The method of writing carried out in this paper is to use the library study method. The collection of information and data is done by looking for data from research results that have been carried out by others before. Then the author analyzes various research findings and other literature sources to find answers to the questions raised earlier.

III. RESULTS AND DISCUSSION

In clause 59 PP No. 48 of 2008 concerning Education Funding is clearly written that the general principle in the management of education funds is based on the principles of justice, efficiency, transparency and accountability [25]. This indicates that the best management of education funding is the one who uses this principle, because if the financing management is managed properly, it will be able to finance operational education activities, in order to achieve the vision of national education. School financing activities include activities ranging from planning, obtaining costs and managing income and expenditure budgets to accountability [34]. Budgets can be defined as financial plans for the future, usually for one year but maybe a longer or shorter period of time [13].

Education financing is a major problem in the implementation of education even in the USA. In the early 1930s, the local government covered around 82.7% of the cost of education. In 1999 the proportion of financing shifted to the Federal Government (center) 6.1%; State 43.9%; local government 39.9%; and other sources 10.2%. However, the amount of funds provided varies between states. For example, in New Jersey for US\$ 9,318 and in Utah US\$ 3,670/student/year [15]. Here it can be seen that how the USA manages education funds, because education

funds are not only the responsibility of the central government but also impose a decentralized education fund system by imposing a few percent of the total budget on the state to fund regional education. How can educational funds originating from these various sources be managed properly and certainly need the right system and management.

The management system is absolutely needed by every organization, whether it's an educational organization (school). Technological advancements in telecommunications and information technology make changes to organizational structures and social and community relations that require organizations to continually develop improvements and changes. This has caused a change in the activities of people's lives in various sectors. One of them is the public sector that occurs in educational organizations that can give birth to a public service model, which is carried out through electronic systems [27]. And, with the development of information and communication technology that has created the right financial system model and facilitates organizational performance through e-budgeting [10].

E-budgeting is an information system used for budgeting to improve efficiency and effectiveness in the budgeting process. The system is able to shorten the time needed in the budgeting process because it is done online and can be accessed anywhere. This system also functions as a work supervision tool that can monitor the poses in budgeting. In addition, the procedure in e-budgeting can also anticipate the potential for mark-up with a system of mutual oversight [22].

E-budgeting can be the answer to the problems of the conventional education finance administration system which often raises several problems, such as unexpected activities, improper accounting and negligence are the main issues in the problem of education budget administration [32]. Because this is not functioning properly and there is a lack of trained fiscal officers, a basis for non-accrual accounting, inadequate audits and weak parts of the education system that make the budget out of control.

The e-budgeting system began when the government realized that the preparation of a long budget, the unit price of shopping items was not standardized so that fraud was very likely to occur [28]. The purpose and objective are to facilitate the budget team in budgeting and to improve the quality of the revenue and expenditure budget in terms of conformity with the activity plan, the accuracy of values and accounts and accountability for expenditure allocations. This system has the following benefits, there are:

- 1) Transparent process [16]
- 2) A short and timely adjustment process [7]
- 3) Budget according to needs in activities [14]
- 4) Clear budget chronology [28]
- 5) Appropriate reporting [28]

As for the challenges and obstacles to the implementation of e-budgeting in educational organizations that can delay the progress of e-

budgeting implementation. The complexity of e-government implies the existence of various challenges and obstacles to implementation and management. This section, the author will present the most important and common challenges and obstacles to e-budgeting implementation, which are grouped into 3 parts, namely, technical, organizational and social:

1) Technical

a) Infrastructure

The lack of ICT infrastructure is one of the main challenges for e-budgeting implementation. The internet network is needed to enable the sharing of the right information and open channels for communication and service delivery [20]. For the transition from the manual to the electronic reporting model, a set of principles is needed, namely the guiding model and standard. Conditions at present are still many developing countries suffering from the digital divide [21]. Problems that can be a significant obstacle are the lack of financial support, because the costs for driving licenses in addition to being able to be implemented also require support for maintenance [19] [4].

b) Security

Security means the protection of all information and systems against unauthorized access or modification [35]. This refers to the protection of information systems, assets and control of access to information itself. Security issues can be the biggest obstacle to the development of government services. Thus, security policies and standards that meet organizational expectations are important steps towards overcoming this problem [31].

2) Organization

a) Top Management Support

E-budgeting implementation requires support from leaders and top management (government) for successful implementation. Top management support refers to the promise of leaders to accept, support and adopt the system and application. Therefore, top management plays an important role in implementing and implementing e-budgeting [1]. In fact, leadership is one of the main driving factors in any new and innovative project or initiative [18]. Support from the leadership is very important for cooperation and coordination between partners and stakeholders for the successful implementation of e-budgeting.

b) Electronic Work Methods

E-budgeting is a new phenomenon which means the transformation from manual work methods to electronic ones. These new changes will create a new sophisticated environment that is completely different from what has been used for years in organizations. Many employees see the implementation of this new information system as a threat to their position and fear of losing their jobs and power [29]. However, to reduce resistance, employees must understand the importance and significance of system

performance and ensure that they will not endanger their work.

3) Social

a) HR and Training

Lack of ICT skills is a major challenge for SIM implementation, especially in developing countries. E-budgeting systems can be implemented successfully if qualified personnel are available to take on the role of initiating and developing e-government systems [31]. In general, it is very important to focus on training and educational programs to improve the progress of government projects.

b) Culture

Culture is difficult to learn partially because this is not an easy concept to define [5]. Cultural differences and individual behavior patterns play a role in the acceptance and use of new technologies. Cultural problems have had a negative impact on the acceptance and adoption of management information systems in government organizations even in some developed countries such as Britain and Japan [34]. The results of the discussion above can be a reference in discussing various research findings on the analysis of e-budgeting implementation in educational organizations. If entered into the tables about points of any of the obstacles faced in e-budgeting implementation, are:

TABLE I. IMPLEMENTATION OBSTACLES IN E-BUDGETING

Category	Obstacles
Technical	Infrastructure
	Security
Organization	Top Mangement Support
	Electronic Work Methods
Social	HR and Training
	Culture

IV. CONCLUSIONS

From the description in above about of findings and research on the analysis of e-budgeting implementation in educational organizations can be a reference in conclusions in this section. The success of achieving the initial goals has created transparency and accountability of the budget at the education institution, the implementation of e-budgeting can also improve the quality of conformity with planning documents and activities and reporting. The implementation of e-budgeting information systems in educational organizations is an appropriate step that provides benefits to financing management but still has weaknesses that need to be considered in the availability of infrastructure, security, organizational support, work systems, human resources and local cultural factors. Determination of technology that is now increasingly evident in the industrial era 4.0 has become a necessity for an organization to survive is to

make adjustments and improvements to changes and demands.

The results of the study in this paper have not revealed how this e-budgeting works at every level of the educational organization and how the e-budgeting management process works. For this reason, it is expected that further research and studies can reveal aspects that have not been answered in this paper.

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