Analysis of Jakarta Provincial Government Budget System Implementation

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Abstract: Technology has now reached its fourth stage, known as the Industrial Revolution 4.0, which is marked by the development of sensor technology and the digitalization era. One of the innovations made by the Provincial Government in the era of the Industrial Revolution 4.0, was the implementation of ERP using e-Monev and LPSE. This type of research uses a qualitative approach with a descriptive research design. Data collection was carried out trough in-depth interviews and document analysis. Data analysis used a content analysis approach. Understanding of budget allocations made by the DKI Jakarta Provincial Government, experiences and views of stakeholders regarding the implementation of the DKI Jakarta Provincial Government budget system, efficiency and effectiveness of the budget system in managing public finances, as well as supporting factors, obstacles, and challenges in the preparation and implementation of the system budget. A significant budget allocation for priority sectors, namely education and infrastructure. There are also challenges in controlling operational spending, and the need to improve performance indicators to more accurately measure the achievement of regional development goals. The implication of this research is to increase transparency, accountability, and effectiveness of budget management in the Provincial Government of DKI Jakarta.

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1.   Introduction

With the rapid development of science and technology around the world, the industrial revolution is also developing. The development of this industrial revolution has gone through several stages. The first stage or better known as the industrial revolution 1.0 began in the 18th

century with the discovery of the steam engine to increase productivity which was much higher. The second stage or industrial revolution 2.0 began in 1900 which was marked by the discovery of electricity. The third stage or industrial revolution 3.0 began in 1970 which was marked by the development of a fairly complex work automation process, and technology has now reached the fourth stage which is often referred to as the industrial revolution 4.0 which is marked by the development of sensor technology and the digitalization era (Alamsyah, 2018).

The impact of the industrial revolution 4.0 is that various activities can be carried out via the internet or wireless networks as well as various digital systems which of course make it easier and faster for various human activities. All elements of life have been influenced by technological developments, including private organizations and public organizations. Private organizations and public organizations are required to follow technological developments in providing services to the community, because currently the term industrial revolution is not only used in the industrial sector but also in the world of government or bureaucracy. Digitalization has entered and influenced the delivery of services and government throughout the world, including in Indonesia.

Enterprises Resource Planning (ERP) is a set of information system packages that are built and implemented as a facilitator for the realization of the ERP concept in an organization (Dhewanto et al., 2007).

ERP as an integrated application that becomes a framework for changing and assisting the process of building an information system foundation within an organization, whether implemented on a large scale or in stages. ERP implementation must be supported by an appropriate and coordinated Business Process Re-engineering (BPR) process (Widjaya, 2012).

Enterprise information system is an integrated enterprise information system to coordinate key internal processes regarding the company, integrating data from manufacturing and distribution, sales, finance, and human resources. Enterprise systems provide a technology platform for organizations to integrate and coordinate their key internal business processes. Enterprise systems are capable of addressing problems in terms of organizational inefficiencies created by isolated areas of information, business processes, and technology. Large organizations usually have various types of information systems that support various functions, organizational levels, and business processes.

As the national capital, DKI Jakarta is of course the center of attention and an example for various regions in Indonesia in managing regional finances. One form of innovation carried out by the government in the current era of the industrial revolution 4.0 is the implementation of ERP. This system is expected to be a system that is truly able to increase transparency in every government, both central and regional. As the area with the largest population in Indonesia, the

Provincial Government of DKI Jakarta has a big responsibility to provide good and adequate public services for its citizens. Therefore, we need a system that is able to allocate funds effectively and efficiently to meet these needs. The budget system is one of the most important things in the financial management of a region. In this context, the Provincial Government of Capital Special Region (Daerah Khusus Ibukota – **DKI**) Jakarta also has a budget system that must be implemented properly so that financial management can run effectively and efficiently.

The budgeting process aims to form a Regional Revenue and Expenditure Budget (Anggaran Pendapatan dan Belanja Daerah – **APBD**) for a period of 1 (one) fiscal year. APBD as the basis for regional governments to manage regional finances in one budget period. Prior to approval and implementation of budget activities, they must obtain approval through the Regional House of Representatives (Dewan Perwakilan Rakyat Daerah – **DPRD**), so that this is what makes the nature of the budget as oversight and accountability to the public. By reviewing the function of the budget, the budget should be a power relationship between the executive, legislature and the people themselves. The Provincial Government of DKI Jakarta with a special law has Provincial autonomy, which means that all policy processes are at the Provincial level including the budget management process.

DKI Jakarta Provincial Government's budget management uses the Smart Planning Budgeting (SPB) application. SPB is an ERP system that operates online using the web (https://apbd.jakarta.go.id/umum/index). SPB is an application portal, namely **e-Monev**, **LPSE** (Layanan Pengadaan Secara Elektronik – Electronic Procurement Services), **e-RKBMD** (Perencanaan kebutuhan Barang Milik Daerah – Planning for Regional Property Needs), **e-Harga**, **e-Order**, and other standalone applications such as **musrenbang** (Musyawarah Perencanaan Pembangunan – Development Planning Forum), e-**Reses**, **e-Hibah** and several other applications that are still under development. The SPB system is also integrated with the DPRD and the Regional Development Planning Council (Badan Perencanaan Pembangunan Daerah – **Bappeda**), so that all data can be monitored transparently by the DPRD and Bappeda, so that any irregularities in the input will be monitored immediately and must be corrected immediately.

The business process starts from inputting the budget in detail in the Activity application (https://activity.bapedadki.net), then seeing its utilization in the LPSE application where the budget used for procurement will appear in the LPSE application (https://sirup.lkpp.go.id) It can be seen whether the procurement is done directly or through an auction and how far the process has gone. Then in the e-monev application (https://public.bapedadki.net) budget realization data for each region can be monitored and if necessary the inspectorate can reprimand or remind regions with low budget realization.

In this journal, the authors limit the discussion of ERP implementation between e-Monev and LPSE applications as described in the business processes in the previous paragraph.

2. Literature

The theoretical basis is taken from a journal entitled Implementation of E-Budgeting as an Effort to Increase Transparency and Accountability of the Regional Government of Binjai City. Using performance-based budgeting theory to analyze the role of E-Budgeting in increasing government accountability and transparency, especially the Surabaya city government. His contribution to further research is implementing the e-budgeting application for the Government Regional Work Units (Satuan Kerja Perangkat Daerah – SKPD) / (Unit Kerja Perangkat Daerah – UKPD) and analyzing whether this e-budgeting can create organizational accountability and transparency. (Nasution, 2019)

Journal "Antecedents of Behavioral Use of E-budgeting: Cases of Village Financial Information Systems in Banyuwangi, Indonesia". (Andriyanto et al., 2019), Using the theory of the Unified Theory of Acceptance and Use of Technology (UTAUT) model which consists of several variables, namely performance expectations, business expectations, social influence, facilitating conditions, behavioral interests, user behavior, gender, age, experience, and user volunteerism. (Venkatesh, et al, 2003) Research contributions will be used to check the people / people who input E-Budgeting.

E-budgeting budgeting policy with the spirit of fighting various forms of fraud in the local government, Surabaya City Government Case Study. However, the journey is not easy due to several factors that hinder the implementation of e-procurement. The research conducted aims to explain the implementation of e-budgeting in the City of Surabaya, East Java Province, and look at several factors that become obstacles in the implementation of e-budgeting. On the other hand, the success of several e-budgeting implementation indicators has become a benchmark for creating good governance in the Surabaya City Government. (Khoirunnisak et al., 2018).

E-budgeting Information System Using an Object-Oriented Approach (Case Study: UIN Suska Riau). Every period, all faculties and units in State Islamic University of Sultan Syarif Kasim Riau (Universitas Islam Negeri Sultan Syarif Kasim – UIN Suska) Riau propose a program of budgetary activities aimed at the Planning Section. After that the planning section discussed it with the leaders. The problems that often arise are that there are budgetary activities that do not appear, without the knowledge of study programs and faculties, the realization of low budget achievements and financial reports that have not been optimally achieved. All suggestions proposed by units and faculties will be discussed by the Planning Section, several times misunderstandings occur, the Planning Section is often found to omit activity budgets without prior confirmation, so the impact is that faculties and units are forced to carry out these activities. In addition, monitoring of budget implementation has also not been carried out

optimally, so that the treasurer or the Finance Department has difficulty accumulating budgets that have been absorbed or those that have not been absorbed. Difficulties in reports also experience problems, because reports are done manually. Anticipating the problems above, an application or system is needed to help with the planning. The Planning Section and the Finance Section must be mutually sustainable and coordinate well in planning budget activities, so that proposed activities are achieved in accordance with the proposals and can be realized in real terms, then the application or system to be built is e-budgeting, an object-oriented method, to be used The unified modeling language (UML) Diagrams to visualize business processes, such as Use Case Diagrams, Class Diagrams, Sequence Diagrams and Activity Diagrams. This system has the hope of being able to overcome all financial problems that are in UIN Suska Riau. (Zarnelly, 2017)

Good Governance Aspect in Implementation of The Transparency of Public Information Law (Good Governance dalam Implementasi Transparansi Hukum Informasi Publik) in the case studies of Surakarta and West Lombok. (Prasetyo, 2016) Using policy implementation theory which includes Policy output from implementers, how target groups obey the policy output, real life impact of policy output, perception impact of policy output, Basic improvements in the law, the theory used (Mangan et al., 2006) does not discuss the impact of implementation, so it is less relevant. For this reason, policy implementation requires an analysis of the impact of the policy.

The research method used is descriptive with a qualitative approach used to analyze what are the challenges in implementing e-budgeting as a form of governance in the era of the industrial revolution 4.0 through literature studies / literature reviews conducted by the author by analyzing several scientific articles and journals related to the implementation of e-Budgeting in several regions in Indonesia (Khotimah et al., 2020)

3. Methods
3.1. Types of Research
This study uses a qualitative approach to analyze the implementation of the DKI Jakarta Provincial Government's budget system. A qualitative approach was chosen because the aim of this study was to understand the context, processes, and factors that influence the implementation of the budget system at the provincial level.

3.2. Research Design
This study uses a descriptive research design. Data was collected through in-depth interviews with budget officers at DKI Jakarta Provincial Government's and analysis of documents related to the budget system. This research design allows researchers to gain a comprehensive understanding of the implementation of the budget system.

3.3. Data Collection

Data were collected through two main methods, namely in-depth interviews and document analysis. In-depth interviews were conducted with budget officers who were involved in the process of preparing and managing the budget at DKI Jakarta Provincial Government's. In addition, documents related to the budget system, such as governor regulations, financial reports, and budget implementation guidelines, are analyzed to gain further understanding of the implemented budget system.

3.4. Data Analysis

Data collected through interviews and document analysis were analyzed using a content analysis approach. Interview transcripts and documents were analyzed thematically to identify patterns, themes and differences in the application of the budget system. These findings are then grouped and presented in the form of narratives and tables.

3.1. Validity and Reliability

To ensure data validity, triangulation was carried out by comparing findings from interviews with document analysis. In addition, research participants were also given the opportunity to provide feedback on initial findings to strengthen data validity. Data reliability is obtained through the use of systematic methods in data collection and analysis as well as detailed documentation of the research process.

4. Results And Discussion

APBD is the regional government's annual financial plan approved by the Regional People's Representative Council. Where the APBD budget period is 1 year, starting from January to December.

In budget management, DKI Jakarta Provincial Government uses the SPB system, which is a web application for presenting data and analysis that is open to the public with an interactive and user-friendly platform to explore and get more in-depth about the APBD. The SPB system was built to accommodate planning and budgeting processes within the Provincial Government of DKI Jakarta. The SPB system is also a refinement of the previously used e-Budgeting system.

Based on Regulation Number 29 of 2007 concerning DKI Jakarta Provincial Government, DKI is a special area so that DKI Jakarta as an autonomous region has flexibility in managing the budget. In managing the DKI Jakarta Provincial Government's budget, it involves the lowest elements, namely Neighborhood Association (Rukun Tetangga – RT) / Citizens Association (Rukun Warga – RW) which acts as a collector of the aspirations of the citizens / community to find out what needs are needed. Aspirations are one of the ingredients for inputting the budget through the Village / District apparatus submitted by each RT / RW.

The next stage is the stage of Musrenbang starting from the lowest level of government, namely Village, District, Mayor / Regent Administration, Province. This phase is the input stage for Smart Planning & budgeting. After the Musrenbang stage is completed, a deliberation will be held again with stakeholders to provide information regarding the proposed needs. The needs of each proposed regional unit / apparatus from the RT / RW are different from each of the proposals where these differences will be discussed again through a sharpening forum. This discussion was carried out together with the Governor and DPRD with the aim of mapping priority activities.

The results of this sharpening will be stipulated through the Governor's Regulation (Peraturan Gubenur – Pergub) on Regional Development Work Plans (Rencana Kerja Pembangunan Daerah – RKPD) where this will form the basis for the formulation of the General Budget Policy-Provisional Budget Ceiling Priorities (Kebijakan Umum Anggaran - Prioritas Plafon Anggaran Sementara – KUA-PPAS). The KUA-PPAS phase is the stage of submitting activity needs to the Governor and DPRD through each SKPD head to obtain approval from the Governor and DPRD. The governor makes a circular letter (Surat Edaran – SE) regarding the guidelines for the preparation

The Budget Work Plan (Rencana Kerja Anggaran – RKA) and SKPD input RKA. After all, SKPD heads input the activity budget, the total amount of the DKI Jakarta APBD will be obtained in the form of the APBD Regional Regulation (Rancangan Peraturan Daerah – RAPERDA) which is material for submission to the DPRD for approval. During the approval stage by the DPRD, all SKPD activities to become APBD must also be evaluated and approved by the Ministry of Internal Affairs (Kementerian Dalam Negeri – Kemendagri). In this phase, Kemendagri looks at all the activities proposed by the Provincial Government of DKI Jakarta, if there are activities that are not suitable, they will be returned. Evaluation of the Draft Regional Revenue and Expenditure Budget (Rancangan Anggaran Pendapatan dan Belanja Daerah – RAPBD) which was proposed to the Kemendagri and then revised by the Provincial Government of DKI Jakarta. During the discussion, the evaluation was carried out with the Governor of DKI Jakarta Province, DKI Jakarta Provincial DPRD and related SKPD. The discussion is an adjustment to the proposal of Kemendagri.

Next is the final phase, namely the ratification of the regional budget regulation by the Governor of DKI Jakarta Province and the DPRD which is then ratified through the establishment of the DKI Jakarta Provincial Regulation regarding the DKI Jakarta Province APBD.
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The process for preparing the DKI Jakarta Provincial Government APBD has been regulated in DKI Jakarta Provincial Governor Regulation Number 86 of 2018 concerning Guidelines for the Preparation of the Regional Revenue and Expenditure Budget / Changes to the Regional

Revenue and Expenditure Budget through Electronic Budgeting (Provincial Gazette of the Special Capital City Region of Jakarta of 2018 Number 61028). Input on the Smart Planning & Budgeting application system is carried out in the budget planning phase which is inputted by each SKPD / UKPD.
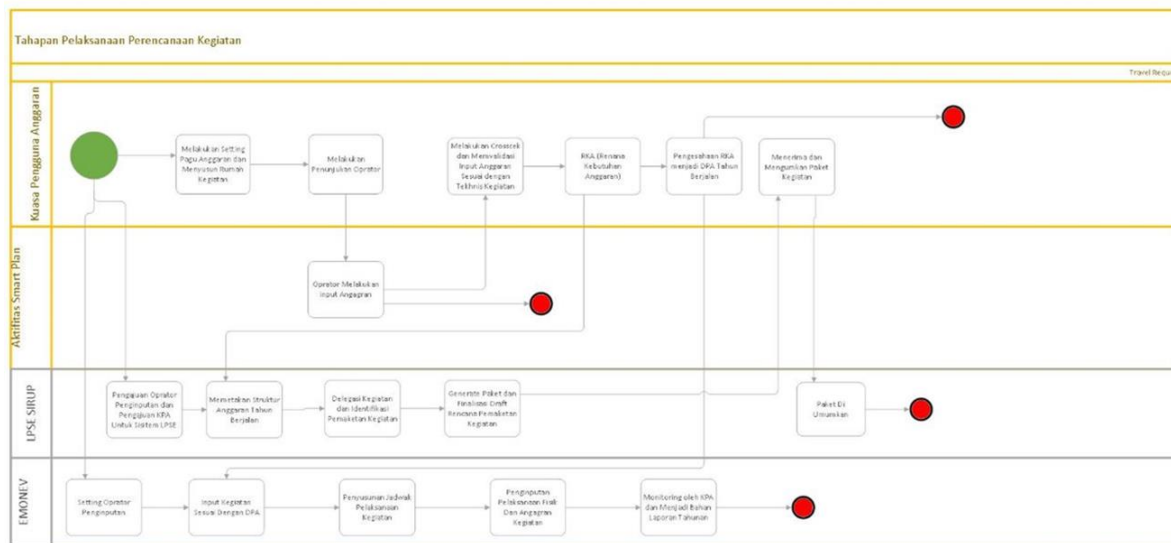

Figure 1. Stages of Budget Planning and System Linkages

Based on Figure 1, the stages of implementing activity planning can be described as follows:

➢ The Budget User Authority (Kuasa Pengguna Anggaran – KPA) will set the budget ceiling and arrange activity houses, then KPA will appoint operators for the operators to input the budget. The budget inputted by the operator will be cross-checked and validated in accordance with the technical activities of the budget input. The results of the validation become Budget Work Plan (Rencana Kerja Anggaran – RKA), then there will be approval of RKA to become Budget Implementation Documents (Dokumen Pelaksanaan Anggaran – DPA) in the current year

➢ LPSE SIRUP (Sistem Informasi Rencana Umum Pengadaan – General Procurement Planning Information System), submit input operator and submit KPA for LPSE system. Then map the current year's budget structure referring to the previously inputted RKA. Then do the delegation of activities and identification of activity mapping. The next stage is the Generate Package and Finalization of the Activity Packaging Plan Draft, then KPA accepts and announces the activity package. The finalization is the activity package is announced.

➢ E-Monev, KPA will make operator settings, then the operator will input activities according to the DPA that has been prepared previously. Then a schedule for the implementation of activities will be carried out followed by inputting the physical implementation and activity budget. All of this will be monitored by KPA and will become material for the Annual Report.

Smart Planning & Budgeting is also integrated with several other systems, as shown in Figure 2 below.
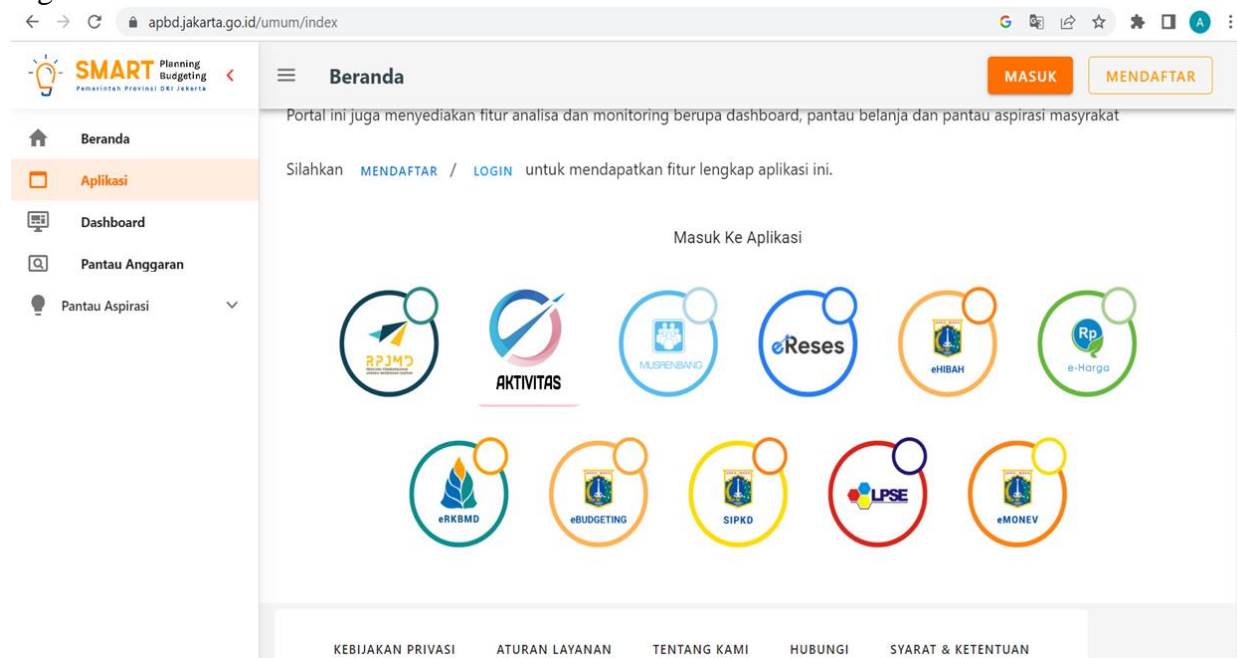

Figure 2. Other Systems that are integrated with Smart Planning & Budgeting

In this study, we found that DKI Jakarta Provincial Government's budget system has a complex structure with a drafting process that involves various stakeholders. Our findings also show that there is significant budget allocation for priority sectors, such as education and infrastructure. However, there are also challenges in controlling operational spending that need to be addressed. Our analysis also reveals that the performance indicators used still need to be improved to more accurately measure the achievement of development goals.

Therefore, in our opinion, it is important to increase the efficiency and effectiveness of public financial management at the provincial level. Based on our findings, we recommend DKI Jakarta Provincial Government to improve the monitoring and evaluation mechanism for budget allocations. We also suggest that greater attention be paid to controlling operational spending and the use of more relevant performance indicators. The implications of this research can help

increase transparency, accountability, and effectiveness of budget management in DKI Jakarta Provincial Government.

5. Conclusion

In this research, we have examined the implementation of DKI Jakarta Provincial Government's budget system and its impact on the efficiency and effectiveness of public financial management. We indicated that despite significant progress, there are still challenges that need to be overcome and we stress the importance of improving oversight, controlling operating expenditures and using relevant performance indicators. This research is expected to provide insights and recommendations for DKI Jakarta Provincial Government and also other provinces in optimizing their budget systems.

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