The Determination of State Budget Governance of Indonesian Public Higher Education Institutions Post COVID-19 Pandemic

Muhammad Alfarizi
Department of Management (PIJ), Bina Nusantara University, Jakarta, Indonesia

ABSTRACT

The communication and information openness era, which has become increasingly massive after the COVID-19 Pandemic, has encouraged open relations between the community and state universities in education programs, especially budget management. This study aims to analyze the determination of state university budget management in terms of budget realization, the role of technology, and public information disclosure. This study raises the dimensions of the variable position of technology, perceptions of budget realization, public information disclosure, principles of general financial management, transparency, and accountability concerning managing state finances in universities. Convenience sampling became the technique chosen for sampling and was further analyzed with the SEM-PLS procedure through the SmartPLS application with 237 respondents. This study found the effect of budget realization and public information disclosure in fulfilling the principles of positive public financial management. However, this study does not support the role of technology in supporting the principles of public financial management. This study also notes the positive influence of public financial management principles on state universities’ transparency and accountability. This study highlights the maximum future strengthening of higher education budget management with the organizational commitment of higher education institutions under the strict supervision of the government and the community indirectly. Technology does not support it, but it impacts the public in tracing information on Higher Education budget management according to the mandate of various parties, including the Indonesian Supreme Audit Institution.

KEYWORDS:
State university; state budget; accountability; transparency

DOI: 10.28986/jtaken.v9i1.1024
*Corresponding author
Email: muhammad.alfarizi@binus.ac.id

ARTICLE HISTORY:
Received : 12 April 2022
Accepted : 4 April 2023
Revised : 14 February 2023
Published : 28 June 2023

Copyright © Jurnal Tata Kelola dan Akuntabilitas Keuangan Negara. This is an open access article under CC BY-NC-SA license
INTRODUCTION

Underlying issues in the educational sector are not only limited to technical issues but include many complex issues, especially in planning, funding, efficiency, and effectiveness in implementing the education system. Those education quality problems are difficult to solve (Warman, 2021). Achieving quality education requires excellent and professional governance, especially in managing the resources of educational institutions, including public universities (Yudianto, Mulyani, Fahmi, & Winarningsih, 2021). One of the crucial resources that must be managed with prudence and professionalism in higher education is financial problems.

A university's financial budget must support the implementation of the three obligations of a university known as the Tri Dharma. The Tri Dharma principle comprises education, research, and community service (Istambul, 2019). Tri Dharma is the responsibility of all elements in higher education institutions, including students, lecturers, and various academicians involved. Management of the higher education institution in charge of the budget must refer to the vision, mission, and character of tertiary institutions as non-profit-oriented legal entities that do not violate the provisions of budget management according to the applicable law (Haribowo & Mulyani, 2022).

As higher education institutions financed by public funds, state universities must be democratic and transparent in managing their budget as mandated by the Law. The budget used by state universities comes from the state budget, with a total allocation of 20%. Law of The Republic of Indonesia Number 14 of 2008 concerning Public Information Disclosure (Undang-Undang Nomor 14 Tahun 2008 tentang Keterbukaan Informasi Publik, UU KIP) provides a signal and entry point for the public to supervise and perform checks and balances on public institutions funded by the State Budget, including state universities (Lubis, Kusumasari, & Hakim, 2018). The public can access information deemed necessary for the public to be aware.

Moments after the COVID-19 pandemic, the Ministry of Education and Culture implemented a budget reallocation to finance programs and policies dealing with the pandemic. The reallocation follows Presidential Instruction Number 4 of 2020 concerning Activity Refocusing, Budget Reallocation, and Procurement of Goods and Services in the Context of Accelerating the Handling of COVID-19. The total budget reallocation reached Rp405 billion (Suparman, 2019). Many state universities have faced budget management problems post-COVID-19 pandemic, such as addressing student tuition fees, diverting budgets, and reducing activity budgets (Sumarna & Fatimah, 2021).

Higher education institutions are required not only to survive but also to adapt and develop a technology-based learning system (online) and develop themselves into accountable institutions. In addition, amid the two considerable demands, universities are also expected to be able to succeed in the Government's efforts to mobilize and launch an independent campus and the Work From Home – Study From Home policy, which is an effort to reduce and overcome the spread of COVID-19 on campus (Purwanti, 2021; Sholehuddin & Mitrohardjono, 2021). During the pandemic, universities must rise by making arrangements in learning patterns and higher education governance management to continue to develop and advance.

One of the roles of human resources in state universities is managing finances by prioritizing competence, professionalism, expertise, personality, leadership character, honesty, integrity, and commitment (Grediani, 2020). Perceptions of accountability and
transparency in the management of public higher education budgets must be prima donna because, in addition to the value of the university's image, academic ethics is at stake as a scientific institution that upholds decency and moral ethics.

Several previous studies have reviewed higher education's transparency and accountability, including highlighting budget realization and internal control. Mahfud (2019) mentions the role of the community as a controller of the budget performance of educational institutions, especially government universities that receive budget subsidies from the Central Government. Habibi (2021), in his research at the Bone State Islamic Institute, explains the importance of efficient budget realization to realize the function of education for the community. The results of a study by Milad, Wibowo, and Athoillah (2019) state that it is necessary to implement accountability, transparency, and financial efficiency in tertiary institutions through Information and Documentation Management Officer (Pejabat Pengelola Informasi dan Dokumentasi, PPID) to create the concept of Good Governance in the campus environment. Meanwhile, Rahmatulloh and Husen (2017) show that using technology in budget management and reporting promotes transparency and accountability, as implemented by Siliwangi University through the Web-Based Higher Education Budget Management Information System.

However, according to previous research, there has yet to be any public assessment research on the performance of state universities' budget realization, especially after the COVID-19 pandemic, when the budget reallocation policy was implemented. Therefore, this study explores the perceptions of the tertiary community towards budget management in terms of budget realization, the role of technology, and public information disclosure. This study incorporates the principles of good state financial management in viewing the accountability and transparency of state universities. This study is expected to add to the scientific literature on budget management accountability of state universities which is still limited.

**Literature Review**

**State university budget management**

Hamzah, Yudiawan, Umrah, and Hasbullah (2020) state that the central government has granted broader autonomy to various state universities with the status of public service agencies (Badan Layanan Umum, BLU) or legally incorporated state universities (Perguruan Tinggi Negeri Berbadan Hukum, PTN BH). According to the understanding of university managers, especially those with BLU and PTN BH status, transparency and accountability have been achieved if the formal requirements of the institution - such as establishing an Internal Supervisory Unit (Satuan Pengawas Intern, SPI) - have been met. However, SPI is only effective with external supervision from critical stakeholders as a control mechanism. PTN BH has yet to publish an annual report as it should to the academic community and its primary stakeholders. Various university performance reports are limited and only known by the BPK, Higher Education National Accreditation Board (Badan Akreditasi Nasional Perguruan Tinggi, BAN-PT), or the central government (Logli, 2016).

As involved in the financial management of higher education, university management must have the courage to continue to innovate and rewrite guidelines and rules; therefore, human resources can be relied on as the frontline in improving the welfare of the Indonesian people. Governance should not be understood to comply with regulations or standards, but management should be constantly revised and improved. Managing and
reporting the absorption of higher education budgets is expected to be linked to a system external parties can access according to applicable regulations (Suryadi, 2019).

Before the COVID-19 outbreak, the budget management process had yet to integrate into the system fully. This makes budget oversight poor and creates the potential for corruption or unreasonable flow of funds. Indonesian Corruption Watch has compiled data between 2016 and 2021, which shows that out of 20 corruption cases in universities, the state lost Rp789.9 billion (Fadhil & Sabic-El-Rayess, 2021). Although fewer cases exist, this value is the greatest compared to corruption in education offices or schools. During the COVID-19 Pandemic, there was a significant change in the university’s governance. Many universities have begun to rely on information systems to facilitate the preparation, management, and monitoring of budgets in universities (Siregar, Lumbanraja, & Salim, 2016).

Role of technology

The role of technology in the context of budgeting, according to Carter (2012), is the adoption of technology to increase the effectiveness of the organization’s operations by automating the planning, controlling, and reporting of budgeting management activities. Meanwhile, according to Lazhentsev, Chuzhmarova, and Chuzhmarov (2020) that the role of technology in budget management information systems is an effort to digitize the financial system in the form of all company or business financial documentation that is displayed online and can be accessed by anyone who has a need or connection. Usually, the role of technology in the budgeting process is to support transparency and accountability in budgeting as well as part of the Government’s efforts in the digitalization program of the e-government section (Khoirunnisa, Arishanti, & Vebrianti, 2017).

Technology is now a strategic choice to strengthen state financial management. The Ministry of Finance of the Republic of Indonesia encourages working units to manage the State Budget, including State Universities, to increase and maintain the productivity of APBN management supported by information technology or digital-based. Digital management economics generally increases accuracy, efficiency, effectiveness, transparency, and productivity (Reddick, Chatfield, & Puron-Cid, 2017). Modernization and simplification of the state budget management will become a “new normal” amid the COVID-19 pandemic. This will continue to be carried out in line with time. This is also a state commitment to realizing an easy and fast budget implementation while prioritizing efficiency, effectiveness, and accountability principles.

Many work units have adopted technology systems and innovations to make the digital budgeting process more efficient and effective, especially in state universities. It shows the decisive role of technology in building the convenience of a faster and more effective budgeting process so that the programs for the community can be realized immediately (Setyawan & Gamayuni, 2020). In addition, the role of technology in the budgeting system makes the disclosure of budget realization information easier to be accessed by the public. Those are a form of accountability of work units to the community and the state and transparency of state budget benefits (Purnama & Juwono, 2021). Harianto, Kennedy, and Zarefar (2021), supported by Lazhentsev (2020), highlight the role of technology in budget accountability, including the ease of filing funds, efficient reporting of budget realization, speed of integrated budget disbursement, digital financial reporting through the PPID.
**Perception of budget realization**

Public perception is the perspective of a group of humans who live together in the same environment in providing conclusions about an object based on knowledge, vision, and observations so that people from one another produce different opinions on the same thing (Powers, Pitas, & Mowen, 2022). Perception is a person's view of something based on experience and information about that subject. Public perception of the budget is closely related to public participation in the budget as a process that involves individuals directly in it and has an influence on the preparation of budget goals whose achievements will be assessed and likely to be rewarded based on achieving public budget goals (Magdalena & Said, 2021).

The budget realization is defined by Prasetya (2010) as a result that compares the revenue and expenditure budgets with the realization of the program proclaimed in the budget design that shows compliance with laws and regulations (Jayusman, 2021). Several factors affect budget realization, including budget planning factors, government regulations and policies, human resources, technical coordination, also procurement of goods and services. These factors can be grouped into administrative, organizational, and psychological factors and budget management culture (Rakhman, 2019).

The state budget is an essential element in efforts to develop the capacity and effectiveness of the Central Government in carrying out development, especially human resources through universities. The state budget in state universities is allocated for activities to develop student organizations, development of achievements, and community service (Haribowo & Mulyani, 2022). Creating a budget that is oriented toward people's welfare requires participatory budgeting. Participatory budgeting is an innovative policymaking process in which the community is directly involved. A series of forums were organized, so the public could allocate resources, make policy priorities, and monitor government spending. The problem in this situation is that the patterns of planning and preparation of the state budget, especially in the universities with bottom-up planning, have not been carried out optimally by state university budget organizers.

**Perception of public information disclosure**

According to the Law of the Republic of Indonesia Number 14 of 2008, public information disclosure is a mandate which gives every public organization an obligation to open access for every applicant for general information to obtain public information, except for specific information. Law Number 14 of 2008 defines public information as information entirely related to the administration of the state or other public bodies. Meanwhile, according to Hermalin and Weisbach (2012), good public information management is one of the efforts to develop an information society. Disclosure of general information opens as many opportunities as possible for the public to actively monitor each policy so that it can become a control for the government in implementing the pro-
procedure itself. All public bodies must disclose general information, be it executive, legislative, judicial, or other institutions related to state administration, including state universities (Putra, 2017).

The purpose of public information disclosure in Law Number 14 of 2008 is to improve the performance of public bodies in terms of managing and providing general information, as well as providing public information as requested by the community effectively, efficiently, in an easy way, and at the lowest possible cost (Aprilya & Fadhlain, 2022). To meet the above objectives, the application or implementation of public information disclosure in public bodies must follow the concepts set by the government. Each public organization has a PPID. Disclosure of general information is a way to fulfill the requirements of good governance, namely Accountability, transparency, and public participation in every process of public policy (Butt, 2013; Hayuningtyas, Rifai, & Gumilar, 2021). However, public information disclosure limits the public’s access to information due to confidentiality or other factors under the criteria stipulated in the law (Jatmiko, Prawoto, & Astuti, 2018).

The legal foundations that serve as the guidelines for implementing public information disclosure for public bodies, including State Universities, are Law Number 14 of 2008 concerning Public Information Disclosure, Government Regulation (Peraturan Pemerintah, PP) Number 61 of 2010 concerning the Implementation of Law Number 14 of 2008. Meanwhile, more specifically, regulations regarding public information services within the Ministry of Research, Technology, and Higher Education are contained in the Law of Minister of Research, Technology and Higher Education of the Republic of Indonesia Number 75 of 2016 (Ismail, Ernas, Razak, & Wakano, 2022).

UU KIP states that the obligations must be fulfilled by public bodies so that their implementation can achieve the objectives according to what has been determined. The duties of public bodies include, first, in addition to information that is excluded, as in the 2018 KIP Act, general information under the authority of public bodies must be available and can be provided and issued to applicants for public information. Second, public information in all media must be completely accurate and unambiguous. Third, public agencies must utilize technology to create and develop information and documentation systems to quickly manage and provide general information that the public can obtain (Afsah, Laplante, & Wheeler, 2019). Based on the 2019 Central Information Commission’s Public Information Disclosure Implementation Report, out of 355 public bodies, about 53% fall into the uninformative category. Meanwhile, out of 85 PTNs, 43% are in the uninformative category, containing 37 PTNs. This data shows that many public bodies have not implemented the UU KIP. This makes it difficult for the public to find information about the university (Jannah, Sipahutar, & Prasojo, 2021).

Relevant to this, Fadila, Putera, and Ariany (2022), in their research, state that the readiness of universities to implement the KIP Act has not been optimal due to various challenges such as the accessibility of public information by the academic community and society, and the intellectual culture within the university environment. Istiqoriyah’s research (2013) regarding the application of Law Number 14 of 2008 at the Syarif Hidayatullah State Islamic University, Jakarta, concluded that the PPID as the manager of public information services has not been optimal in providing general information services as mandated by law. It is caused by leaders who do not know the obligations and urgency of public bodies that must have PPID to manage and provide general information services, incomplete data on the web-
site, and the absence of adequate infrastructure, funding, and human resources (HR) support (Istiqoriyah & Lolytasari, 2013). Meanwhile, Noor (2019) concluded that the implementation of KIP in various public bodies in Indonesia experienced similar problems, including HR issues. Of the 18 studies that became data sources, 10 indicated the need for more HR as a source of issues in implementing KIP in public bodies.

**Public financial management principles**

Public financial management is the ideal procedure for regulating, managing, generating, and controlling public financial resources for effective and efficient public services. Financial management in public organizations is critical because it has sentimental and moral responsibility to support it economically. Public services and goods spending accounts for more than a third of the Gross Domestic Product (GDP) in most countries (Abdulai, 2020; Munzhedzi, 2021). The concerns and expectations of public sector services are very significant; therefore, the management of public funds must be able to conduct and maintain careful inspections or observations from all directions (Sumtaky, Chandrarin, & Sanusi, 2018). General financial management is also related to the laws, organizations, systems, and procedures available so that the government can guarantee and use resources effectively, efficiently, and transparently. There are seven principles of public financial management, namely (1) Perception of timeliness of budget realization; (2) Compliance with budget governance law; (3) Budget effectiveness and efficiency; (4) Responsibility and sense of fairness in budget governance; (5) Benefits of budget for society; (6) Enforcement of budget management integrity and ethics; and (7) Existence of a strong, professional, and independent external audit agency.

**Transparency and accountability**

According to Florini (2007), transparency is a measure of the availability of information on the performance of public bodies to the general public. It allows them to voice their aspirations, suggestions, or criticisms in decisions and internal arrangement of public bodies. Transparency means that information relating to the organization is easily, freely available, and accessible to those affected by the policies adopted by the organization. Even if there is information that the public should not know, often called "company secret," there must be clear criteria (Sofyani, Pratolo, & Saleh, 2022). Transparency can also mean that sufficient information about the institution's performance is available and presented in a form or media easily understood by the public.

Many parties claim that transparency is closely related to accountability. Some argue that the two are causal relationships, while others place them independently. Some say that transparency and accountability are sufficient in the financial aspect, some argue otherwise, all elements except financial matters, and some say that all aspects, including programs and finances (Adiputra, Utama, & Rossieta, 2018). Meanwhile, disclosure is the keyword that can explain and link accountability and transparency. Disclosure of data and information is a practice of openness on the one hand and, simultaneously, a prerequisite for accountability (Sun, Zeng, Chen, Meng, & Jin, 2019).

The definition of transparency reveals three metaphors: transparency as a public value embraced by society to counter corruption, transparency synonymous with open decision-making by governments and non-profits, and transparency as a complex tool of good governance in programs, policies, organizations, and nations. In the first metaphor, transparency is subtly intertwined...
with accountability. Second, as transparency encourages openness, it increases concerns for secrecy and privacy. Third, policymakers create transparency alongside accountability, efficiency, and effectiveness (Heemsbergen, 2021).

The measurement of the transparency of an institution with state budget intake can be seen from the availability of a PPID, access to financial reports and audit results for the public, and there are performance achievements that appear in front of the public and the realization reports (Florini, 2007; Sturges, 2009). Even previous research studies stated that the vital role of budget performance is a form of higher education transparency in managing state financial mandates (Yadnya, 2022).

Accountability is the basis of all governance processes. The effectiveness of this process depends on how those in power explain how they carry out their responsibilities, both constitutionally and legally. Accountability is essential to prevent abuse of power and ensure that energy is directed toward achieving broader national goals with the highest efficiency, effectiveness, honesty, and discretion (Blankenberger & Williams, 2020; Romzek & Dubnick, 2018). Accountability can be a means to account for managing and controlling resources in a public policy entrusted to him to achieve common goals through periodic accountability (Sofyani et al., 2022).

**Hypothesis development**

Public perception in the perspective of governance is a response or knowledge of the community environment towards an organization or public institution from a collection of individuals who interact with each other or based on field fact data or the results of searching public institution data (Abden & Onwuegbusi, 2017). This study assesses public perceptions of state budget management as a public institution in the education sector. Good budget governance must include several things, including good Information Technology (IT) governance (Juiz, Guerrero, & Lera, 2014). The results of research conducted by Osinuga, Ghenga, and Ajao (2020) show that technology is influential in fulfilling public financial management principles for managing university education funds in Nigeria. The research shows that technology is one of the factors in implementing the principles of public budget governance management to strengthen the principles of public financial management further to be more transparent, fair, responsible, and integrity.

H1: The role of technology has a significant influence on public financial management principles

The budget realization that is right on target and according to its designation is a big target that must be achieved according to the principles of public financial management (Rahmatulloh & Husen, 2017). The results of research conducted by Lentner (2019) and Mardiana (2017) stated that budget realization has an important relationship with fulfilling the principles of public financial management.

H2: Budget realization perception has a significant influence on public financial management principles

Budget management must be carried out transparently in the context of accountability to the public and within the framework of the community's control function in every step and policy taken by public agencies, especially the government. The exercise of power in a democratic country must always be accountable to the public (Kristiyanto, 2016). Disclosure of public information is an integral part of the principles of general financial management. The results of research by Setiawan (2021) show that the perception of public information disclosure on local government services in Indonesia affects the...
principles of general financial management. Disclosure of information, including the budget realization report, will fulfill the principles of public financial management (Setyawan, 2021). Engkus, Suparman, Trisakti, and Rodhiya (2019) also support the statement that the university's information disclosure policy is part of the principles of public financial management.

H3: Perception of public information disclosure has a significant influence on public financial management principles

The principle of public financial management is to ensure that the control of the state budget fulfills the virtues of transparency, accountability, checks and balances, and accessibility of general budget governance. This principle encourages budget management to be accountable to the public through budget realization reports in the information disclosure program. Research conducted by Ball (2020) revealed that the principles of public financial management encouraged transparency and accountability in the administration of American education budget governance during the COVID-19 Pandemic. Several other research results also state similar results to have a solid hypothetical relationship (Azlim, Darwis, & Bakar, 2012; Edowati, Abubakar, & Said, 2021; Moha, Kalangi, & Warongan, 2017).

H4: Public financial management principles have a significant influence on transparency

H5: Public financial management principles have a significant influence on accountability

RESEARCH METHOD

This study collects primary data through a survey using online questionnaires and a convenience sampling method for the target respondents. The respondents are people who live or have activities around state universities throughout Indonesia and understand the concept of public budgets. Respondents were asked to indicate their perception of state budget governance that promoted transparency and accountability of public universities using a Likert scale that ranges from 1 (strongly disagree) to 5 (strongly agree). The variable used is the Role of Technology, Perception of Budget Realization, Perception of Public Information Disclosure, Public Financial Management Principles, Transparency, and Accountability. Each variable was assessed using indicators of several previous studies, as described in Appendix 1.

This study assesses the validity of a consistent measurement model using a minimum number of 0.5 as a guide for assessing the outer model (Afthanorhan, Awang, & Aimran, 2020). Meanwhile, for testing the reliability, the measurement used is Variance Inflation Factor (VIF), composite reliability, Cronbach's alpha, and Average Variance Extracted (AVE).

According to Malhotra (2010), the minimum sample calculation is at least four or five times the number of question items, and the appropriate sample size ranges from 100-200 respondents (Hair, Matthews, Matthews, & Sarstedt, 2017). The number of question items in this study is 33, so the minimum number of samples that can be taken is 165. This study uses the partial least square (PLS-SEM) data analysis method. This statistical method combines factor analysis, correlation analysis, and regression to analyze the collected data. The research framework is illustrated in Figure 1.

RESULT AND DISCUSSION

The total questionnaire that can be processed comes from 237 respondents. Descriptive statistics on the demographic characteristics of the respondents are presented in Appendix 2. The result of the measure-
A measurement model assessment is presented in Appendix 3. The results show that one indicator does not meet the external loadings requirements, namely PFMP7, so that it will be eliminated and not included in the next test. In addition, all the outer loadings threshold values have met the requirements. The VIF value is also greater than 5, so there is no multicollinearity problem. The author also conducted the discriminant validity test to determine the differences in the variables, using Fornell and Larcker criteria. Table 1 shows that each construct’s AVE’s square root exceeds the correlation with other constructs (Leguina, 2015). Thus, the discriminant validity criteria are also met.

Table 2 presents endogenous factors’ path coefficient results, t-stats, and r-square values. The significance of the Hypotheses Relationship was assessed through P-Value with a maximum weight of 0.050 (Hair, Hollingsworth, Randolph, & Chong, 2017), and the model strength criteria (R-Square) was categorized as strong if more than 0.67, moderate if more than 0.33 but lower than 0.67, and weak if more than 0.19 but lower than 0.33 (Sarstedt et al., 2020).

Based on the result, this study supports H2, H3, H4, and H5 (Four hypotheses supported), while H1 (one hypothesis) is not supported. The first hypothesis is not supported; the role of technology has not significantly influenced public financial management principles. The challenge in managing public finances, especially public information disclosure, after the COVID-19 pandemic is limited interaction. Limited interaction means that the dissemination of information that is done manually can no longer be done effectively (Yoppy, Mina, & Fality, 2021). State
universities can maintain transparency and accountability amid this pandemic by streamlining technology-based communication channels. However, this must be accompanied by a change in the culture of information disclosure. Otherwise, using any media during this pandemic will not be effective (Aprilya & Fadhlain, 2022).

This result is very different from the research by Osinuga et al. (2020). The results also imply a normal situation that the role of increasingly sophisticated technology does not give public bodies such as state universities full open access to information on the fulfillment of general financial management principles. This is because the culture and paradigm that develops among the apparatus still consider being the owner of the information. Meanwhile, the public, especially students, is not entitled to public documents/information because sometimes it can be misused. In fact, the state universities used physical forms attached to the information board to fulfill the principle even though less effective.

The results indicated that H2 is accepted. The more program launched by state universities in budget planning achieved, the higher education community has complied with the public financial management principles. The budget plays an important role in the operation of state universities. The budget is a financial plan that is systematically prepared to support the implementation of the program activities of state universities, including the procurement of learning facilities and infrastructure, improving the quality of human resources for lecturers and education staff, improving the quality of the teaching system, coaching activities student organization and achievement improvement, research and community service following the Tri Dharma mandate of state universities (Rosser, 2015).

State universities must continuously improve their performance to be more oriented toward creating good public and good governance. The effectiveness of budget management starts from budget preparation and execution to budget reporting/accountability impact on the accountability of state universities as government work units in providing quality higher education sector services. Budget management must be under and comply with the law and ethics with integrity and benefit the academic community of state universities and the surrounding community. The implementation of performance-based budgeting is a budget reform to improve the budgeting process. State universities also face new demands to pay attention to value for money in their activities. Value for money is economical in the procurement and allocation of resources, efficient in the use of budget resources, meaning that its use is minimized, and the results are maximized (maximizing benefit and minimizing cost), and effective (successful) in the sense of achieving goals and target. Moreover, during the post-COVID-19 pandemic, state universities’ budgets were limited, and they had to be used as well as possible to continue to realize important programs designed with several

<table>
<thead>
<tr>
<th>Hyp</th>
<th>Path Coef</th>
<th>t-stats</th>
<th>p-value</th>
<th>R-square</th>
<th>Analysis Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>0,078</td>
<td>1,885</td>
<td>0,060</td>
<td>0,904</td>
<td>Not Accepted</td>
</tr>
<tr>
<td>H2</td>
<td>0,232</td>
<td>4,981</td>
<td>0,000</td>
<td>0,576</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3</td>
<td>0,686</td>
<td>18,594</td>
<td>0,000</td>
<td>0,831</td>
<td>Accepted</td>
</tr>
<tr>
<td>H4</td>
<td>0,759</td>
<td>38,486</td>
<td>0,000</td>
<td>0,576</td>
<td>Accepted</td>
</tr>
<tr>
<td>H5</td>
<td>0,911</td>
<td>68,457</td>
<td>0,000</td>
<td>0,831</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Table 2. Results of PLS Path Modelling and Hypotheses Testing
adjustments. The public financial management principles will be achieved by continually improving the budget management system and improving performance in budget realization. The results of this study align with research conducted by Lentner (2019), stating that budget realization has an important relationship with fulfilling the principles of public financial management (Lentner, 2019).

H3 also accepted the perception that public information disclosure significantly influences public financial management principles. It indicates that the stronger the disclosure of public information in budget management, the higher education has complied with the public financial management principles. The PPID’s role is crucial to disclose public information regarding implemented policies, including budget management. This is because budget management is a matter of transparency and accountability and a form of moral responsibility of state universities to the community and the state. The fulfillment of information disclosure can be through submission via the PPID website to observe state university budget management as a joint task to oversee state governance in managing the budget by the public financial management principles. The results of this study align with research conducted by Setyawan (2021) shows that the perception of public information disclosure on local government services in Indonesia influences the principles of general financial management. Disclosure of information, including the budget realization report, will fulfill the principles of public financial management (Setyawan, 2021).

Furthermore, this study supports that public financial management principles significantly influence transparency (H4 accepted). It means that if all the points of the public financial management principles are met, transparency will be achieved. The management of the state budget by universities must meet the elements of the public financial management principles, where in these principles, there are values of integrity and moral justice for the community. Universities are public bodies required to provide or publish public information as described in UU KIP. The public, including students, expects that state universities can fulfill these provisions so that transparency of higher education is fulfilled. This study also revealed a significant positive relationship between public financial management principles and accountability. Fulfilling the principles of good public budget management is a requirement to achieve accountability for state universities. H4 and H5 are accepted, align with research conducted by Ball (2020), that the principles of public financial management encourage transparency and accountability in the administration of American education budget governance during the COVID-19 pandemic.

The principle of accountability is a legal and moral obligation attached to every individual, group, or institution to explain how funds are used. State universities, as part of government institutions, have to implement transparent and accountable governance to guarantee and improve the quality of the institutions. They must be able to convey how they use the state budget provided to them and for what purposes as part of government institutions. Among others are accountability for using paid annual tuition fees and state revenue from the state budget. Each interested party has the right to know how the funds are used.

CONCLUSION

This study concludes that budget realization and public information disclosure in budget management of state universities encourage fulfilling the principles of general financial management. That enables universities to
achieve the mission of transparency and accountability as part of state institutions in education. The public highlighted the importance of realizing and disclosing information in promoting openness and responsibility of the state universities’ allocation budget. So, it is an obligation to implement transparent and accountable governance to ensure quality and improve the quality of institutions. Budget realization and public information disclosure are the driving lines for the principles of Public Financial Management. Good University Governance must be an orientation in the performance of budget realization, especially in programs to improve the quality of education, educational activities and research, and community service with integrity and benefit the academic community of state universities and the surrounding community.

However, the role of technology does not become the root of the higher education community’s perception in assessing affordable budget management that can fulfill the principles of state budget management. If a public university has a closed information culture, it will be difficult to disclose information on budget realization at the university openly. Therefore, this study recommends ratifying UU KIP for educational institutions, especially universities, and changing the culture of closed information. Social media can become a new channel for conveying higher education budget realization, at least with a concise explanation, as evidenced by clear realization outputs. The community, including students, must continue to pay close attention to the policies and governance of state universities so that they always carry out quality higher education programs and have superior moral ethics.

REFERENCES


Fadhil, I., & Sabic-El-Rayess, A. (2021). Providing equity of access to higher education in Indonesia: A policy evaluation. *Indonesian Journal on Learning and Advanced Education (IJOLAE), 3*(1), 57–75. DOI: 10.23917/ijolare.v3i.10376


Hamzah, H., Yudiawan, A., Umrah, St., & Hasbullah, H. (2020). Islamic economic development in Indonesian Islamic higher education. *International Journal of Evaluation and Research in Education (IJERE), 9*(1), 77. DOI: 10.11591/ijere.v9i1.20317

THE DETERMINATION OF STATE BUDGET GOVERNANCE OF ...
Muhammad Alfarizi

(Studi pada organisasi perangkat daerah Kabupaten Rokan Hilir). *Jurnal Aplikasi Akuntansi*, 6(1), 122–139. DOI: 10.29303/jaa.v6i1.111


Lazhentsev, V., Chuzhmarova, S., & Chu- 
zhmarov, A. (2020). Tax administra-
tion in the forest management system 
and its influence on the Budgets of 
Northern Territories. Economic and 
Social Changes: Facts, Trends, Fore-
cast / Экономические и Социальные 
Перемены: Факты, Тенденции, 
Прогноз, 13(1 (67)), 125–143. DOI: 
10.15838/esc.2020.1.67.7

squares structural equation modeling 
(PLS-SEM). International Journal of 
Research & Method in Education, 38 
(2), 220–221. DOI: 10.1080/ 
1743727x.2015.1005806

Lentner, C. (2019). Sustainability and con-
trol issues of the financial management 
of local governments – through Hunga-
ry’s example. Visegrad Journal on Bio-
economy and Sustainable Develop-
ment, 8(2), 53–57. DOI: 10.2478/vjbsd 
-2019-0010

Logli, C. (2016). Higher education in Indon-
esia: Contemporary challenges in gov-
ernance, access, and quality. The Pal-
grave Handbook of Asia Pacific Higher 
Education, 561–581. DOI: 10.1057/978 
-1-137-48739-1_37

Lubis, M., Kusumasari, T. F., & Hakim, L. 
(2018). The Indonesia public information 
disclosure act (UU-KIP): Its 
challenges and responses. International 
Journal of Electrical and Computer 
Engineering, 8(1), 94–103. DOI: 
10.11591/ijece.v8i1.pp94-103

accountability in the perspective of Ha-
bermas Communicative Action Theory. 
Golden Ratio of Social Science and Ed-
ucation, 1(2), 61–72.

lamic Education Budget in Indonesia. 
Edukasia Islamika, 4(1), 1. DOI: 
10.28918/jei.v4i1.2253

Malhotra, N. K. (2010). Introduction: Ana-
lyzing accumulated knowledge and in-
fluencing future research. Review of 
Marketing Research, 7, xiii–xxviii. DOI: 
0000007004/FULL/XML

Mardiana. (2017). Analisis efektivitas real-
isasi anggaran pada Dinas Perkebunan 
Kabupaten Musi Banyuasin. Jurnal 

Milad, M. K., Wibowo, A. T., & Athoillah, Y. 
(2019). Penguatan tata kelola trans-
paransi informasi publik, akuntabilitas, 
dan efisiensi keuangan di universitas 
demi mewujudkan good university gov-
ernment. OECOMINICUS: Journal of 
Economics, 3(2), 91–104.

Mohamad, F., Kalangi, L., & Warongan, J. D. L. 
(2017). Pengaruh sistem pengendalian 
intern dan prinsip pengelolaan keu-
angan daerah terhadap kualitas laporan 
keuangan pada pemerintah daerah Ka-
bupaten Bolaang Mongondow Selatan. 
Jurnal EMBA, 5(2), 1359–1370.

Munzhedzi, P. H. (2021). An evaluation of 
the application of the new public man-
agement principles in the South African 
municipalities. Journal of Public Af-

orains, 21(1), 21–32. DOI: 10.1002/ 
PA.2132

Osinuga, O. O., Gbenga, O., & Ajao, L. K. 
(2020). Financial management practices 
and principles: A panacea for paucity of 
finances in the educational sector. Journal of Contemporary Issues in Educa-
tional Planning and Administration, 5 
(2), 185–192.

Powers, S. L., Pitas, N. A. D., & Mowen, A. J. 
(2022). Public perceptions of local parks 
and recreation as an essential communi-
ty service during the COVID-19 pan-
demic. Journal of Park and Recreation 
Administration, (November). DOI: 
10.18666/jpra-2022-11223

Purnama, I. J., & Juwono, V. (2021). Imple-
mentation of electronic budgeting in the 
Provincial Government of the Special 
Capital Region of Jakarta. Jurnal Ad-
ministrasi Publik: Public Administra-


Setyawan, B. (2021). The existence of public information commission related to public information disclosure principles in improving public services by the state. Yuridika, 36(3), 545. DOI: 10.20473/ydk.v36i3.30382


### APPENDICES

#### Appendix 1. Research Variable Indicator

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role of Technology</td>
<td>Ease of Submitting Education Finance</td>
<td>(Lazhentsev et al., 2020; W. Setyawan &amp; Gamayuni, 2020)</td>
</tr>
<tr>
<td></td>
<td>Budget Realization Reporting Efficiency</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Integrated Budget Disbursement Speed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Digital Financial Reports through Information Management and Documentation Officer (PPID)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Perception of the Role of Technology in State University Budget Management</td>
<td></td>
</tr>
<tr>
<td>Budget Realization Perception</td>
<td>Budget Design Involvement</td>
<td>(Syamsurijal, 2019; Haribowo &amp; Mulyani, 2022b; Jayusman, 2021)</td>
</tr>
<tr>
<td></td>
<td>Procurement of New Facilities and Infrastructure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Realization of COVID-19 Reaccollation Activities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Realization of Student Organization Activities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Realization of Student Achievement Development Activities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Realization of Community Service</td>
<td></td>
</tr>
<tr>
<td>Perception of Public Information Disclosure and Control Environment</td>
<td>Enforcement of integrity and ethics in Budget Governance</td>
<td>(Domai &amp; Yuliani, 2015; Hermalin &amp; Weisbach, 2012; Jatmiko et al., 2018)</td>
</tr>
<tr>
<td></td>
<td>Line Managerial Roles on Budget Governance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Role of Higher Education Internal Audit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Role of the Existence of Information Management and Documentation Officer (PPID) as a door for Higher Education Data Information</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Role of Digital Media (Social media and Websites) University</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Legal Compliance Budget Governance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Budget Effectiveness and Efficiency</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Responsibility and Sense of Fairness in Budget Governance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Benefits of Budget for Society</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enforcement of Budget Management Integrity and Ethics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Existence of a Strong, Professional, and Independent External Audit Agency (BPK and Audit Director General of Higher Education)</td>
<td></td>
</tr>
<tr>
<td>Transparency</td>
<td>Information System Availability</td>
<td>(Ball, 2009; Florini, 2007; Sturgess, 2009)</td>
</tr>
<tr>
<td></td>
<td>Accessibility of Financial Statements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Publication of Financial Statements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Availability of information related to audit results as a legal responsibility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Availability of performance achievement reports as the responsibility for budget realization</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Perceptions of Transparency of State Universities in State Budget Management</td>
<td></td>
</tr>
<tr>
<td>Accountability</td>
<td>Perception of Higher Education Accountability in State Budget Management</td>
<td>(Blankenberger &amp; Williams, 2020; Rock, 2020; Romzek &amp; Dubnick, 2018)</td>
</tr>
<tr>
<td></td>
<td>Perception of Financial Reporting Accountability</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Perception of College Performance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Timely presentation of financial reports and performance</td>
<td></td>
</tr>
</tbody>
</table>
### Appendix 2. Respondents' demographic profile

<table>
<thead>
<tr>
<th>Demographic Factors</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>171</td>
<td>73%</td>
</tr>
<tr>
<td>Male</td>
<td>66</td>
<td>27%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-30</td>
<td>117</td>
<td>49%</td>
</tr>
<tr>
<td>31-40</td>
<td>45</td>
<td>19%</td>
</tr>
<tr>
<td>41-50</td>
<td>38</td>
<td>16%</td>
</tr>
<tr>
<td>&gt;51</td>
<td>37</td>
<td>16%</td>
</tr>
<tr>
<td><strong>Level of Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior High School</td>
<td>25</td>
<td>11%</td>
</tr>
<tr>
<td>Undergraduate Program (D3/S1)</td>
<td>181</td>
<td>76%</td>
</tr>
<tr>
<td>Graduate Program (S2)</td>
<td>24</td>
<td>11%</td>
</tr>
<tr>
<td>Postgraduate Program (S3)</td>
<td>7</td>
<td>3%</td>
</tr>
<tr>
<td><strong>State Universities Region</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Java</td>
<td>83</td>
<td>35%</td>
</tr>
<tr>
<td>Sumatera</td>
<td>74</td>
<td>31%</td>
</tr>
<tr>
<td>Kalimantan</td>
<td>31</td>
<td>13%</td>
</tr>
<tr>
<td>Bali Nusa Tenggara</td>
<td>24</td>
<td>10%</td>
</tr>
<tr>
<td>Sulawesi</td>
<td>21</td>
<td>9%</td>
</tr>
<tr>
<td>Papua</td>
<td>4</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Role with State University</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal</td>
<td>105</td>
<td>44%</td>
</tr>
<tr>
<td>External</td>
<td>132</td>
<td>56%</td>
</tr>
</tbody>
</table>
## Appendix 3. Measurement model assessment

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>O. Loadings</th>
<th>CA</th>
<th>CR</th>
<th>AVE</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role of Technology</td>
<td>RI1</td>
<td>0.736</td>
<td>0.816</td>
<td>0.873</td>
<td>0.582</td>
<td>1.724</td>
</tr>
<tr>
<td></td>
<td>RI2</td>
<td>0.797</td>
<td></td>
<td></td>
<td></td>
<td>2.390</td>
</tr>
<tr>
<td></td>
<td>RI3</td>
<td>0.744</td>
<td></td>
<td></td>
<td></td>
<td>1.044</td>
</tr>
<tr>
<td></td>
<td>RI4</td>
<td>0.637</td>
<td></td>
<td></td>
<td></td>
<td>1.317</td>
</tr>
<tr>
<td></td>
<td>RI5</td>
<td>0.839</td>
<td></td>
<td></td>
<td></td>
<td>1.986</td>
</tr>
<tr>
<td>Budget Realization Perception</td>
<td>BRP1</td>
<td>0.799</td>
<td>0.919</td>
<td>0.928</td>
<td>0.713</td>
<td>2.042</td>
</tr>
<tr>
<td></td>
<td>BRP2</td>
<td>0.751</td>
<td></td>
<td></td>
<td></td>
<td>1.975</td>
</tr>
<tr>
<td></td>
<td>BRP3</td>
<td>0.911</td>
<td></td>
<td></td>
<td></td>
<td>2.712</td>
</tr>
<tr>
<td></td>
<td>BRP4</td>
<td>0.816</td>
<td></td>
<td></td>
<td></td>
<td>1.728</td>
</tr>
<tr>
<td></td>
<td>BRP5</td>
<td>0.902</td>
<td></td>
<td></td>
<td></td>
<td>1.618</td>
</tr>
<tr>
<td></td>
<td>BRP6</td>
<td>0.876</td>
<td></td>
<td></td>
<td></td>
<td>2.417</td>
</tr>
<tr>
<td>Perception of Public Information Disclosure</td>
<td>PPID1</td>
<td>0.901</td>
<td>0.903</td>
<td>0.921</td>
<td>0.729</td>
<td>1.728</td>
</tr>
<tr>
<td></td>
<td>PPID2</td>
<td>0.885</td>
<td></td>
<td></td>
<td></td>
<td>2.130</td>
</tr>
<tr>
<td></td>
<td>PPID3</td>
<td>0.663</td>
<td></td>
<td></td>
<td></td>
<td>4.044</td>
</tr>
<tr>
<td></td>
<td>PPID4</td>
<td>0.945</td>
<td></td>
<td></td>
<td></td>
<td>1.120</td>
</tr>
<tr>
<td></td>
<td>PPID5</td>
<td>0.847</td>
<td></td>
<td></td>
<td></td>
<td>1.603</td>
</tr>
<tr>
<td>Public Financial Management Principles</td>
<td>PFMP1</td>
<td>0.894</td>
<td>0.895</td>
<td>0.928</td>
<td>0.652</td>
<td>2.992</td>
</tr>
<tr>
<td></td>
<td>PFMP2</td>
<td>0.809</td>
<td></td>
<td></td>
<td></td>
<td>1.496</td>
</tr>
<tr>
<td></td>
<td>PFMP3</td>
<td>0.788</td>
<td></td>
<td></td>
<td></td>
<td>2.005</td>
</tr>
<tr>
<td></td>
<td>PFMP4</td>
<td>0.924</td>
<td></td>
<td></td>
<td></td>
<td>1.895</td>
</tr>
<tr>
<td></td>
<td>PFMP5</td>
<td>0.890</td>
<td></td>
<td></td>
<td></td>
<td>1.704</td>
</tr>
<tr>
<td></td>
<td>PFMP6</td>
<td>0.872</td>
<td></td>
<td></td>
<td></td>
<td>1.822</td>
</tr>
<tr>
<td></td>
<td>PFMP7</td>
<td>0.286</td>
<td></td>
<td></td>
<td></td>
<td>6,733</td>
</tr>
<tr>
<td>Transparency</td>
<td>T1</td>
<td>0.547</td>
<td>0.876</td>
<td>0.907</td>
<td>0.617</td>
<td>4,302</td>
</tr>
<tr>
<td></td>
<td>T2</td>
<td>0.818</td>
<td></td>
<td></td>
<td></td>
<td>1,780</td>
</tr>
<tr>
<td></td>
<td>T3</td>
<td>0.879</td>
<td></td>
<td></td>
<td></td>
<td>1,630</td>
</tr>
<tr>
<td></td>
<td>T4</td>
<td>0.840</td>
<td></td>
<td></td>
<td></td>
<td>1,927</td>
</tr>
<tr>
<td></td>
<td>T5</td>
<td>0.834</td>
<td></td>
<td></td>
<td></td>
<td>1,774</td>
</tr>
<tr>
<td></td>
<td>T6</td>
<td>0.750</td>
<td></td>
<td></td>
<td></td>
<td>1,209</td>
</tr>
<tr>
<td>Accountability</td>
<td>A1</td>
<td>0.893</td>
<td>0.896</td>
<td>0.914</td>
<td>0.711</td>
<td>1,406</td>
</tr>
<tr>
<td></td>
<td>A2</td>
<td>0.892</td>
<td></td>
<td></td>
<td></td>
<td>1,654</td>
</tr>
<tr>
<td></td>
<td>A3</td>
<td>0.715</td>
<td></td>
<td></td>
<td></td>
<td>2,150</td>
</tr>
<tr>
<td></td>
<td>A4</td>
<td>0.915</td>
<td></td>
<td></td>
<td></td>
<td>1,329</td>
</tr>
<tr>
<td></td>
<td>A5</td>
<td>0.784</td>
<td></td>
<td></td>
<td></td>
<td>2,674</td>
</tr>
</tbody>
</table>