

Evaluation of Tender Efficiency as a Basis for Determining Methods for Procurement of Laboratory Equipment Within the Food and Drug Supervisory Agency

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ABSTRACT

Currently, the procurement of goods/services has become an integral part of an organization, including government agencies. This is necessary in order to support services to the community. Various methods of procuring goods/services have been tried to be applied in order to get the best results. This study aims to explain the efficiency of using the tender method in procuring laboratory equipment at BPOM. The method used is a qualitative research method with a case study approach. Data collection was carried out through interviews, document review and observation. The results showed that there was inefficiency in the procurement of laboratory equipment using the tender method. First, the tender method for procuring laboratory equipment still requires a party other than the human resources involved in the procurement. Second, the implementation of the tender process for laboratory equipment requires a supporting budget to produce laboratory equipment suppliers. Third, the time required in the tender process often exceeds the allotted time. The recommendations from this study are strengthening data and information on the availability of business actors and using other selection methods as a new procurement strategy .

Keywords : Efficiency; tenders; Selection Method; Procurement of goods and services.

INTRODUCTION

Indonesia as a nation (Abud, 2012; Kitley, 2014; Nur & Susanto, 2020; Widodo, 2018) with the largest archipelago in the world, equity and improving the standard of living of its people has always been an issue and discussion that seems to have no end. This is not without reason, because Indonesia , which geographically consists of islands, certainly has many challenges that must be faced, especially the government in making it happen.

In 2045, the Indonesian nation is optimistic that it can become a developed nation and a nation that is able to prosper its people, but this is not an easy matter. from the side of education, skills or competence, to health as the main target of development, because it cannot be denied that strong and healthy human resources are the basic foundation for realizing the development of a nation that is advanced and able to compete globally (Avle et al., 2020; Gellert, 2015; Rahadian et al., 2021; Reid, 2019).

In addition to the economy, the government has made various efforts to improve people's living standards (Basri & Nabiha, 2014; Jiabao, 2022; Keqiang, 2016), one of which is health. Efforts made by the government to create a healthy Indonesian society are by encouraging a

healthy lifestyle, one of which is by always consuming quality and safe food and medicine products. To ensure safe and quality food and medicine products, it is necessary to have good and consistent supervision by the government, so that the products circulating in the market are safe and fit for public consumption.

The Food and Drug Supervisory Agency (BPOM) is a non-ministerial government agency (LPNK) that focuses on realizing a healthy Indonesian society from the point of view of monitoring drugs and food consumed by the public (Gustina et al., 2020; Najemi et al., 2019; Tirachim & Sugiyono, 2022). BPOM's task is to carry out government affairs in the field of drug and food supervision, BPOM is under and responsible to the President through the Minister who organizes government affairs in the health sector. BPOM has the vision of Medicines and Food that are safe, quality and competitive to create a developed Indonesia that is sovereign, independent and has a personality based on mutual cooperation. In addition to the vision, BPOM has a mission, namely to develop superior human resources related to Drugs and Food by developing partnerships with all components of the nation in order to improve the quality of Indonesian people, facilitating the acceleration of the development of the Drug and Food business world in favor of MSMEs in order to build a productive and competitive economic structure. for national self-reliance, increasing the effectiveness of Drug and Food control and prosecution of Drug and Food crimes through the synergy of the central and regional governments within the framework of the Unitary State to protect all nations and provide a sense of security for all citizens, and lastly, clean, effective and efficient governance. trusted to provide excellent public services in the field of medicine and food.

In carrying out its duties and functions BPOM must be supported by complete and good facilities and infrastructure, one of which is the support of adequate laboratory equipment capacity. To fulfill this, BPOM carries out goods/services procurement activities.

The characteristics of the laboratory equipment needed by BPOM are very specific and limited in the market, therefore it is normal for these laboratory equipment to be expensive. This is why BPOM requires a large budget every year, especially the procurement of laboratory equipment which is needed in almost every work unit that has laboratories throughout Indonesia . The large budget for procurement of laboratory equipment at BPOM that is needed and implemented every year encourages the management of procurement of goods and services at BPOM, especially the procurement of laboratory equipment to be carried out in an accountable manner, starting from the process of planning, preparation, implementation, until the goods are handed over and ready for use (Drozdov & Belkina, 2020; Irwansyah et al., 2018; Milanovic et al., 2018; Popović et al., 2013).

Based on data on the procurement of goods and services at BPOM, the budget allocated for the procurement of laboratory equipment is on average above 50% (table 1.1) of the total annual procurement budget which is processed through the BPOM Electronic Procurement System (SPSE).

Table 1 Budget allocation for procurement of laboratory equipment for 2017 – 2021

Year	BPOM Total Procurement Ceiling (Rp.)	Ceiling for Procurement of Laboratory Equipment (Rp.)	Procurement Budget (%)
2017	426,313,004,221	267,012,312,000	62,63
2018	565,192,328,329	256,594,857,200	45,40
2019	332,870,778,250	180,795,245,250	54,31
2020	180,473,059,000	71,359,638,000	39,54
2021	326,590,576,525	186,317,983,000	57,05

Source <https://sirup.lkpp.go.id/>

Meanwhile, based on the total value of the procurement of laboratory equipment, as much as 99% of the value of procuring laboratory equipment uses a tender mechanism as a provider selection method (table 1.2).

Table 2 Percentage of laboratory equipment procurement budget using a tender mechanism year 2019 – 2021

Year	Tender Method (Rp.)	Non Tender Method (Rp.)	Budget using the Tender Method (%)
2019	180,304,345,250	490,900,000	99.73
2020	70,741,038,000	618,600,000	99.13
2021	184,807,383,000	1,510,600,000	99.18

Source <https://sirup.lkpp.go.id/>

Based on the data on the value of the procurement budget which is quite large, it is expected that budget management, especially the implementation of goods/services procurement, must be managed properly. The process of procuring goods and services, especially in government agencies, must be based on the principle of *value for money*, meaning that it can produce measurable *outputs* of both goods and services for every money used, whether measured in terms of quantity, quality, cost, even time. In addition, the process of procurement of goods/services must also create a procurement innovation, namely the procurement of goods and services that are sustainable in order to create an effective and efficient procurement system.

Currently, procurement is placed in an activity position, not something that is routine in activities, but has become a strategic matter. The activity of procuring goods and services is something that is important for the organization, because good procurement can not only create a clean organization, but also encourage better service improvements to the community.

Based on Presidential Regulation (Perpres) Number 12 of 2021 which is an amendment to Presidential Regulation (Perpres) Number 16 of 2018 concerning Government Procurement of Goods/Services, the implementation of goods and services procurement must apply procurement principles namely efficient, effective, transparent, open, competitive, fair and accountable. In addition, the process of implementing the procurement starts from the identification of needs, preparation of procurement, the selection process until the implementation of the handover of goods. This process is carried out based on the results of the evaluation and analysis that have

been determined by the PA/KPA. Goods or service procurement activities, especially the procurement of laboratory equipment at BPOM, are also expected to have the right procurement strategy so that they are able to produce quality procurement of goods according to needs.

Currently, the procurement of laboratory equipment at BPOM is carried out using the tender selection method. This was done because the value of the laboratory equipment as a whole was valued above IDR 200,000,000 (two hundred million rupiahs) which is the minimum value limit for procurement that must be carried out by the tender method. In addition, the next consideration is that until now the use of the tender method in procuring laboratory equipment at BPOM is still capable of producing laboratory equipment products according to predetermined specifications. The implementation of the goods/services procurement process at BPOM is based on information technology (*e-procurement*), namely the BPOM Electronic Procurement System (SPSE) . However, in accordance with the provisions, in the use of the tender selection method there are many activities carried out until the documents that must be fulfilled, so that the process of fulfilling these needs requires resources, time and costs that are not small . Therefore, the topic of discussion related to the problems in this research is whether the selection method using this tender is efficient from the point of view of use. Then what selection method is appropriate for procuring laboratory equipment at BPOM. The purpose of this study was to determine the efficiency produced by using the tender method in procuring laboratory equipment at BPOM , and to determine the appropriate selection method as a procurement strategy for procuring laboratory equipment at BPOM . Academically, the benefits of this research are to enrich knowledge in the field of procurement of goods and services, especially in government agencies , and practically the benefits are as input and evaluation material for the leadership and UKPBJ BPOM regarding the use of the tender method , especially in the procurement of laboratory equipment .

Based on the elucidation of Presidential Regulation Number 54 of 2010 concerning government procurement of goods/services, efficient means that the procurement of goods/services must be endeavored by using minimum funds and resources to achieve quality and targets within the stipulated time or using predetermined funds to achieve results and targets. with maximum quality . efficiency is also "comparison between *output* to *input* can also be called *output* in each unit of *input* . Both activities, programs and organizations can be called efficient if they succeed in getting the specified *input with the highest output results* (*spending well*) or predetermined *output with* very minimal *input* . Mahmudi (2015, p 85) . Then Mahmudi (2015, p 98-99) explains the definition of *input* or *output* with all forms of resources in the form of input (*input*) that are utilized in certain activities in order to obtain an output (*output*). The input can be in the form of raw materials or raw materials used in the implementation, people or human resources as implementing staff, expertise and skills, and supporting infrastructure such as buildings or equipment and technology .

This study has limitations on discussing the use of the tender method in the procurement of laboratory equipment within BPOM.

METHODS

In this study, the researcher used a qualitative descriptive method , which was carried out by asking questions whose assertions looked for definitions, meanings, characteristics, to

phenomena regarding a condition, characterized as holistic and natural, prioritizing quality, using several techniques, and delivered narratively. The goal is to get a response about certain scientific phenomena and questions in a systematic way (Colorafi & Evans, 2016; Doyle et al., 2020; Lambert & Lambert, 2012; Vaismoradi et al., 2013).

The time of the research was carried out from September to November 2022, which was carried out at UKPBJ BPOM, BPOM Inspectorate, National Center for Drug and Food Testing Development (PPPOMN), and PT. Main Esco. Then the subjects of research in this study were informants who were considered to know the business processes at the stage of procuring laboratory equipment, especially using the tender selection method because it was related to their duties and authorities, namely: Head of the BPOM Goods/Services Procurement Work Unit (UKPBJ), Selection Working Group, Officials Commitment Makers (PPK), Government Internal Supervisory Apparatus (APIP), and Providers.

Table 3 List of Research Informants

No.	Informant	Amount	Notes
1	Head of UKPBJ	1 person	The Head of UKPBJ knows the policy mechanism for the procurement of goods/services, and is involved in the process of fulfilling preparatory documents through the tender method, so that he can identify data requirements from the HR aspect, and the time required
2	PPK	1 person	Commitment Making Officer (PPK), involved and knowledgeable in the preparation of procurement preparation documents through the tender method, contract execution and handover of goods, so that PPK can identify data needs seen from the aspect of human resources, price, quality of goods, and time required
3	Selection Working Group	1 person	The Selection Working Group is involved and knowledgeable in the process of preparing for the election and the process of implementing the election through the tender method, so that the Selection Working Group can identify data needs in terms of human resource aspects, price, quality of goods, and the time needed from the selection of providers
4	APIP	1 person	APIP, knowing aspects of the efficiency of the procurement of goods/services, especially the tender method seen from the <i>input</i> and <i>output aspects</i> because it plays a role as an internal supervisory apparatus through audits, reviews, evaluations, and monitoring
5	Provider	1 person	Providers, knowing aspects of the efficiency of the procurement of goods/services, especially the tender method, through the aspects of human resources, time, price, and quality of goods.

Data collection techniques in this study used several techniques, namely interviews, document review, and observation. From the type of data source, the data used are *primary data*

sources and *secondary data sources* . And in terms of data processing and analysis techniques, this research was conducted from the beginning of the research (*on going*) by finding and systematically compiling data generated from field activities, both from interviews and documentation, which was carried out by organizing and creating structures, describing into unit, sorting data that is considered important which is carried out simultaneously with a continuous test of the credibility and validity of the data which will finally be determined as a conclusion. The process of data analysis has been carried out since the process of formulating the problem and before going to the field, afterwards focusing on the implementation of data analysis when it is done in the field which is carried out simultaneously with data collection. Data analysis before going to the field is carried out by means of data analysis first in the form of preliminary data on *secondary* data which will be used in determining the research focus which is still temporary, and later the data will develop along with the research process carried out by researchers after being in the field. Then analyze the data during the field with the Miles and Huberman Model that is, before the data can be used , it is necessary to process and analyze the data that has been previously collected using various data collection techniques . Miles and Huberman's model carries out three analyzes simultaneously, namely (*data reduction*) or data reduction is data analysis that focuses on discussing the main or important things, then summarizes and looks for appropriate themes and patterns. Furthermore (*data display*) or data presentation is done so that the existing data is easy to understand, the data is reduced data, the goal is that the data presentation can be well organized. Finally, verification or drawing conclusions is the final activity in the data analysis process which produces a conclusion in the form of new findings supported by valid evidence generated in the data collection process in the field. Furthermore, a credibility test is carried out by means of training in accordance with the provisions. In qualitative research, the researcher himself is a research instrument, so that the ability of the researcher greatly influences the indicators of success in the data collection process which is the focus of the research. Conclusions made as a result of research, in which there is data that contains research focus, informants as data sources, data collection, data analysis, data quality, and data interpretation. all of these processes can be carried out, assessed, and determined by qualitative researchers who function as *human instruments*.

RESULTS AND DISCUSSION

Efficiency of using the tender method in procuring laboratory equipment at BPOM

Efficiency assessment is based on the side the *input* which consists of (HR, Budget, and Time), and the *output side* which is the product produced, namely laboratory equipment. Human resources are all parties involved in the entire process of procuring laboratory equipment, while the budget is the amount of costs required in implementing the procurement, then time is related to the length of the procurement process carried out which starts with the procurement preparation process until the process of handing over the goods and the goods are ready for use. While the *output aspect* is the goods produced both in terms of quality, quantity and price of the goods produced by the tender method.

As preliminary data, an analysis was carried out on *secondary data*, namely Presidential Regulation (Perpres) Number 12 of 2021 concerning Amendments to Presidential Regulation Number 16 of 2018 concerning Government Procurement of Goods/Services, and LKPP Regulation Number 12 of 2021 concerning Guidelines for Implementing Government

Procurement of Goods/Services through the Provider. While the *primary data source* comes from interviews with informants.

a. Inputs

HR Aspect

The HR aspect is discussed in more detail for all parties involved in the tender process, how to determine the HR involved, the HR qualifications specified, the number of HR, to the tasks and activities in the tender process at each stage of the process in accordance with the provisions. In the goods and services procurement policy, the human resources involved in all goods and services procurement activities are part of the procurement actors. Based on Presidential Regulation Number 12 of 2021 (article 8) it is explained that the actors in the procurement of goods/services consist of PA, KPA, PPK, Procurement Officers, Selection Working Groups, Procurement Agents, In-house Management, and Providers. Furthermore, the way to determine is how to consider the criteria for the authorized official in determining the HR involved and qualifications related to the qualifications that must be owned by the HR involved as a procurement agent, especially the procurement of laboratory equipment through tenders. This is based on LKPP Regulation Number 19 of 2019 concerning Amendments to Government Goods/Services Procurement Policy Agency Regulations Number 15 of 2018 Concerning Goods/Services Procurement Actors . Then the number explains how many human resources are involved in the process of implementing the procurement of goods/services through tenders. Based on Presidential Regulation Number 12 of 2021 article 13, the election working group has 3 members and considering the complexity of selecting providers, the election working group members can be added as long as the number is odd. And the last, namely tasks related to activities carried out by HR involved in the process of implementing the procurement of goods/services through tenders. The duties of the HR involved refer to Presidential Regulation Number 12 of 2021 article 11.

After collecting data through interviews with informants related to HR aspects, it was explained that the HR involved in the stages of procurement preparation, contract implementation and handover were PPK, but PPK was always assisted by technical HR from the laboratory. Meanwhile, the human resources involved in the selection process are the selection working group. Regarding how the authorized official determines human resources, and what qualifications must be possessed by the human resources involved in the procurement process, namely HR must have certification for procurement of goods/services, have competence, especially for the procurement of a type of laboratory equipment. complexity and type of work performed. For the technical team , PPK said that during the procurement process, especially for laboratory equipment, PPK was always assisted by a technical team who were direct users of laboratory equipment and considered to have a better understanding of the laboratory equipment needed. The number of human resources is carried out by PPK with a total of 1 (one) person, but in the procurement of laboratory equipment PPK is always assisted by a technical team of at least 2 (two) people. While the selection working group consists of a minimum of 3 (three) people, but in the procurement of laboratory equipment there are often 5 (person) due to the complexity of the work. The most basic tasks of HR implementing the procurement of laboratory equipment refer to the provisions in Presidential Decree 12 of 2021. PPK at the procurement preparation stage PPK prepares procurement preparation documents or DPP such as technical specifications/KAK, HPS, and contract designs, at the PPK contract implementation stage has the

task of controlling the contract and at the handover stage the PPK carries out the handover of laboratory equipment from the provider. In practice, PPK always involves the technical team in carrying out their duties, namely assisting in preparing the DPP. Apart from that, the technical team is also involved in the implementation of the contract up to the handover of the goods by way of inspection together. Meanwhile, the selection working group at the election preparation stage conducted a review of the DPP made by the PPK. If there are improvements, they will be returned to the PPK for correction. After the DPP is appropriate, the selection working group prepares preparations for the selection process such as determining the selection method and qualifications, compiling requirements, determining the method of submitting and evaluating bids, compiling and determining the election schedule and election documents.

Furthermore, based on the results of the interview, a review of related documents was carried out, namely the BPOM Regulation Number 4 of 2020 concerning Work Units for Procurement of Goods/Services within the Food and Drug Supervisory Agency, Decree of the Head of the POM Agency Number HK.02.02.1.2.03.20.120 of 2020 concerning UKPBJ Function Group, Decree of the Head of the Food and Drug Testing Development Center (PPPOMN) as KPA Number HK.02.02.10.106.01.2215 of 2022 concerning the determination of financial managers, Decree of the Head of Work of the National Drug and Food Testing Development Center Number HK.02.02.10.106.05.21.151 concerning the guideline preparation team (technical team), and followed by the process of observing the human resources involved in all stages of the laboratory equipment procurement process using the tender method.

The results after the triangulation process was carried out on the HR aspect as one of the *input variables* , especially the HR involved in procuring laboratory equipment using the tender method at BPOM. PPK, which is one of the HR parties that is directly involved and is also a procurement agent, always involves and still needs other parties, namely a technical team from laboratory HR who are not part of the procurement actors according to the provisions, to help carry out the procurement preparation process, contract control, to handover. receive laboratory equipment. In addition, the selection of HR for the technical team was carried out with the consideration that laboratory HR had a better understanding of the workings and functions of more specific laboratory equipment, not because of the appropriate qualifications stipulated in the goods/services procurement policy.

Budget Aspect

On the budget aspect, the researcher conveys a more detailed explanation regarding the availability and adequacy of the budget, the allocation of the use of the budget, and the impacts or benefits in the tender process, at each stage of the laboratory equipment procurement process in accordance with the provisions. Budget availability is the budget allocation for the procurement of laboratory equipment to be carried out by the procurement implementing work unit. With reference to LKPP Regulation Number 12 of 2021 concerning guidelines for implementing government procurement of goods/services through providers, budget availability can be seen in the Ministries/Institutions Budget Work Plan (RKAKL) document. PPK can start the implementation of procurement preparations after the RKAKL document is approved by the People's Representative Council (DPR). Budget availability should take into account other cost requirements, so that the procurement process can be completed properly starting from procurement preparation until the goods are received and ready for use. Then the allocation of the

use of the budget is the purpose of using the budget that has been allocated. Referring to the budget document (RKAKL), the budget is allocated for the procurement of laboratory equipment. However, by using the tender method, another budget is needed to support the implementation of the tender process, starting from the preparation of procurement to the handover of laboratory equipment. While the impact or benefit is the result arising from the use of the budget that has been used in the implementation of the tender process. Of course, if you follow what has been budgeted for, then the impact/benefits of the budget will be the implementation of all activities undertaken to produce laboratory equipment at BPOM.

The results of data collection through interviews with informants informed that the availability of the budget in the budget documents should have taken into account other supporting costs for the needs of the tender process if needed such as meeting costs, official travel expenses both for surveys and the need for clarification and proof of qualifications to bidders during the selection process. . then the allocation is that in addition to the budget being used to purchase laboratory equipment, the budget is also intended to support the procurement implementation process, namely through a tender process in accordance with the selection method used. While the expected impact or benefit on the budget allocation is that the procurement process through tenders can be completed properly, such as completion of the DPP such as technical specifications/KAK, HPS, draft contracts, completion of the process of selecting providers and producing prospective providers who meet the requirements and execution of work to produce goods complete and according to what has been determined until the process of handing over the goods, and the laboratory equipment goods are ready for use. Then a document review was carried out to strengthen the interview results data on the RKA-KL documents that had been prepared and determined at the procurement planning stage . From some of the results of the document review, it was explained regarding the name of the laboratory equipment procurement package and the amount of budget provided. Furthermore, a document review was also carried out on the minutes of the DPP review results and the minutes of clarification Number PL.02.03.251.100.06.22.1544 and proof of qualification Number PL. 02.03.251.100.06.22.1545. Finally, the observation process is carried out at the procurement preparation stage. where PPK prepares procurement preparation documents, including the preparation of HPS which is carried out based on the RKAKL budget document . survey activities carried out by PPK and the technical team to obtain supporting data , and clarification and verification of qualifications by the selection working group to the bidder's office during the selection process .

With the implementation of data collection followed by a triangulation process on the budget aspect as one of the *input variables* , the budget aspects listed explain that the budget allocated since the planning stage contained in the RKAKL document is the budget that will be implemented for the purchase of laboratory equipment, but with a tender process budget allocations are needed for supporting activities such as meeting costs in implementing activities, survey costs to distributors to obtain supporting data for document preparation, as well as costs for clarification and proof of qualifications to produce tender winners who truly meet the requirements. In addition, the procurement of laboratory equipment through tenders that require a supporting budget also has the potential to require a larger supporting budget, this is due to:

- (1) PPK must seek supporting data from several distributors/providers, so that the resulting data describes the specification of goods which can be general in nature;
- (2) In the event of a failed tender, a repeat bidding process must be carried out, which of course requires additional support activity budgets.

Time Aspect

In the aspect of time, the researcher provides a more detailed summary of how long it will take to carry out all stages of the procurement process through the tender mechanism, including the allotment of time, which is used for any activity or activities at that time. The implementation time is the length of the process for procuring laboratory equipment through the tender method, which starts from the preparation for procurement to the handover of laboratory equipment, which refers to LKPP Regulation Number 12 of 2021 concerning guidelines for implementing government procurement of goods/services through providers. The implementation time is not explained in detail at each stage, except at the stage of the selection process which is allocated the minimum time that must be fulfilled. Likewise the allotment of time with the same policy , explaining the activities at each stage of the implementation of the procurement of goods/services.

The results of the interviews conducted with informants indicated that the time required for the tender process based on the experience so far for the procurement preparation process took approximately 1 (one) month until the DPP was ready to be reviewed by the UKPBJ team, in this case by the selection working group. Whereas in the review process at the election preparation stage, if the results of the review do not contain notes/improvements that must be followed up by PPK in the procurement preparation document (DPP), the time required is approximately 7 (seven) working days, but if there are notes or corrections in the document preparation for procurement (DPP), then the time needed in preparation for the election cannot be controlled, because it depends on the improvement of the DPP submitted again by PPK. Whereas at the stage of the selection process referring to LKPP Regulation Number 12 of 2021 it takes around 3 (three) weeks to 1 (one) month until the tender winner is determined. However, if the tender process is not successful/fails to tender, then the process must be repeated from the beginning.

Furthermore, a document review was carried out as a reinforcement of the data obtained from interviews with SOP Number POM-14.01/CFM.01/SOP.04 Regarding Preparation for the Procurement of Goods/Services, SOP Number POM-14.01/CFM.01/SOP.05 Regarding the Selection of Goods/Services Providers, and SOP Number POM-14.01/CFM.01 /SOP.06 Concerning the Implementation of Goods/Services Procurement Contracts.

Data collection has also been carried out followed by a triangulation process on the time aspect as one of the *input variables*, the time aspect which is the aspect used in obtaining laboratory equipment at BPOM, which starts from the procurement preparation stage until the goods are handed over. In the implementation of the process of procuring laboratory equipment using the tender method, especially at the stage of preparation for procurement, there are still frequent DPP repairs when reviewed by the selection working group. the re-election process must be repeated until a laboratory equipment provider is found.

b. *output*

Quality of Goods Produced

Regarding the quality of the goods produced, the researcher will provide a more detailed summary of the quality of laboratory equipment obtained through a tender mechanism. With

reference to LKPP Regulation Number 12 of 2021 concerning guidelines for the implementation of government goods/services procurement through providers, quality checks on laboratory equipment are carried out during the handover process of work results to contract signing officials with the provision that before handover is carried out, the PPK conducts an inspection of the work results. carried out on the suitability of the results of the work based on the criteria/specifications listed in the contract, if in the inspection the results of the work are not in accordance with the provisions stated in the contract and/or defects in the results of the work, the PPK orders the Provider to repair and/or complete the deficiencies of the work, then if in inspection of the work results are in accordance with the provisions stated in the contract, the PPK and the Provider sign the Minutes of Handover (BAST).

Information on the results of data collection through interviews from informants explained that the quality of the goods produced was in accordance with what had been determined by the PPK, because the selection working group evaluated the suitability of bids for participants based on the documents prepared by the PPK. finally the PPK receives the goods must also be in accordance with the specifications offered by the participants, which are contained in the engagement agreement or contract documents. The quality of goods is guaranteed to be good if they are produced from official distributors. To support the data from the interviews, a document review was carried out on the Order Letter Number PL.02.01.83.08.2022.PPK2.030.SP and the Minutes of Handover (BAST) Number PL.02.01.83.09.22.029.BAST, and then strengthened by the results observation of the quality of the goods produced, which is carried out at the time of handover of the goods by the PPK from the provider.

The output /goods produced, in the form of laboratory equipment produced through a selection process using the tender method, in terms of the quality of the goods are in accordance with the specifications based on documents that have been made and determined by PPK.

Quantity of Goods Produced

Furthermore, regarding the quantity of goods produced, the researcher will provide a more detailed summary of the quantity of laboratory equipment obtained through a tender mechanism. With reference to LKPP Regulation Number 12 of 2021 concerning guidelines for implementing government procurement of goods/services through providers. Inspection of the quantity of laboratory equipment items is carried out during the process of handing over the results of work to the official signing the contract with the provision that before the handover is carried out, the PPK checks the results of the work carried out on the suitability of the results of the work based on the amount/quantity stated in the contract, if the inspection results the amount of work does not match the provisions stated in the contract, then the PPK instructs the provider to complete the shortage of the quantity , then if during inspection the quantity is in accordance with the provisions stated in the contract, the PPK and the Provider sign the Minutes of Handover (BAST)

The results of interviews with informants explained almost the same thing as quality, namely the quantity produced was also in accordance with what had been determined by PPK, because the selection working group evaluated the suitability of bids for participants based on documents prepared by PPK. finally the PPK receives the item must also be in accordance with the amount offered by the participant, which is stated in the agreement or contract document. The quantity of goods is guaranteed to be appropriate if it is produced from an official distributor. As with quality, to support interview data, a document review was carried out on Order Letter

Number PL.02.01.83.08.2022.PPK2.030.SP and Minutes of Handover (BAST) Number PL.02.01.83.09.22.029.BAST , and further strengthened by the results of observations on the quantity of goods produced, which was carried out at the time of handing over the goods by the PPK from the provider .

Output / goods produced , in the form of laboratory equipment produced through a selection process using the tender method , in terms of the quantity of goods it is in accordance with the amount based on the document that has been made and determined by the PPK .

Prices for Products Produced

The price for the product produced is an explanation of the price of laboratory equipment which is held through a tender process mechanism. In general, the resulting price is the bid price submitted by the participants to the selection working group during the selection process.

Based on the data collected from the interview process informants it was explained that the price of the goods produced was the best price submitted by the bidders in the selection process that met the requirements as stipulated and required in the documents which were subsequently stipulated in the agreement (contract). Furthermore, a document review was carried out on the Order Letter Number PL.02.01.83.08.2022.PPK2.030.SP and the Minutes of Handover Number PL.02.01.83.09.22.029.BAST. Apart from that, a document review was also carried out on Government Regulation (PP) 71 of 2020 concerning Government Accounting Standards and Bultek SAP Number 9 concerning Accounting for Fixed Assets.

The output / goods produced are laboratory equipment produced through a selection process using the tender method , in terms of price when referring to Government Regulation (PP) 71 of 2010 concerning Government Accounting Standards and Bultek SAP Number 9 concerning Accounting for Fixed Assets, then laboratory equipment goods becomes more expensive because the cost of obtaining laboratory equipment must calculate all expenses or other direct costs in obtaining and preparing until the laboratory equipment is actually ready for use .

The right selection method as a procurement strategy for procuring laboratory equipment at BPOM

The correct selection method for procuring laboratory equipment at BPOM is a selection method that is capable of being a solution or improvement to what are the constraints and problems with the current procurement method. With the hope that later there will be a better procurement strategy in procuring laboratory equipment at BPOM . Based on Presidential Regulation (Perpres) Number 16 of 2018 as amended by Presidential Regulation (Perpres) Number 12 of 2021, the election method consists of i:

- a. *E-Purchasing* ;
- b. direct procurement;
- c. Direct appointment;
- d. Quick tenders; and,
- e. tenders.

Currently the procurement of laboratory equipment at BPOM uses the tender method as a provider selection method. In this study, the procurement of laboratory equipment using the tender selection method still found many obstacles and problems that needed improvement .

Based on the results of the interviews conducted, the informants suggested using a procurement strategy that is right for the benefit, right on time and right for the price, so that the problems and problems that have arisen so far can be improved on an ongoing basis. However, if you continue to use the tender method in procuring laboratory equipment, it is advisable to prepare procurement preparation documents (DPP) based on supporting data such as HPS by comparing more than 1 product, in addition to carrying out a more specific and in-depth survey not only based on data from distributors and provider, but from similar procurement in the past including from other places . Then, because the laboratory equipment at the BPOM is very specific, you should try a new strategy for procuring laboratory equipment , which is simpler and faster but still meets the requirements . If possible, use a tender method which can state the name of the product and its specifications in detail and comprehensively so that the goods obtained are in accordance with their needs . Then use a procurement strategy that can select bidders more stringently, so that you actually get the right provider which has an impact on guaranteeing the quality of goods and after sales that are more guaranteed . The document review was carried out on the results of the APIP BPOM audit sampling in procuring laboratory equipment at BPOM for 2017 – 2020 .

Referring to the results of the problem analysis and data analysis that has been carried out, the appropriate selection method as a procurement strategy for procuring laboratory equipment at BPOM is :

No.	The results of the analysis of constraints and the resulting problems	The right selection method
1.	Input Analysis Results	
a.	On the HR aspect: In using the tender method, PPK as a party involved in the stages of preparation for procurement, contract execution, and handover of laboratory equipment, always involves and still requires other parties in their work, namely the technical team from laboratory HR who are not part of the procurement actors, with consideration of HR laboratories better understand the workings and functions of more specific laboratory equipment.	Based on the results of the problem analysis on the HR aspect, it is better to use a selection method that does not need to involve HR other than the Procurement Actor.
b.	On the Budget aspect: The budget allocated and stated in the RKAKL document is the budget that will be implemented to purchase laboratory equipment. However, in practice the procurement of laboratory equipment through tenders still requires other costs to support the procurement process, such as meeting costs during the implementation of activities, survey costs to distributors to obtain supporting data for	Based on the results of the analysis of problems in the budgetary aspect, it is better to use a selection method that does not require or at a minimum the presence of supporting activities that use the budget, such as meeting activities, survey activities, as well as clarification and proof of qualifications activities .

No.	The results of the analysis of constraints and the resulting problems	The right selection method
	preparation documents, as well as costs for clarification and proving qualifications to get the correct tender winner. -completely qualified	
c.	On the aspect of Time: The time spent in obtaining laboratory equipment at BPOM using the tender method starts from the procurement preparation stage until the handover of goods is carried out. In carrying out the process of procuring laboratory equipment using the tender method, especially at the stage of preparation for procurement, there is still a frequent need for DPP repairs when it is reviewed by the selection working group. because they have to repeat the re-election process to get a laboratory equipment provider.	Based on the results of the analysis of constraints and problems in the time aspect, it is better to: 1) Using a selection method that only requires the preparation of procurement preparation documents (DPP) in a simpler way but can accommodate needs; 2) Using a selection method that does not repeat the procurement selection process.
2.	Output analysis results	
	Regarding the price of the goods produced, when referring to Government Regulation (PP) 71 of 2020 concerning Government Accounting Standards and Bultek SAP Number 9 concerning Accounting for Fixed Assets, laboratory equipment items become more expensive because the cost of obtaining laboratory equipment must calculate all expenses or expenses. other direct activities in obtaining or preparing the laboratory equipment until it is ready for use.	Regarding the constraints and problems resulting from the <i>output analysis</i> , namely the goods produced, especially prices, it is better if the selection method used in the procurement of laboratory equipment is a selection method that is unnecessary or has minimal other supporting activities that result in additional expenses or other direct costs.

CONCLUSIONS

After collecting data through interviews with informants related to HR aspects, it was explained that the HR involved in the stages of procurement preparation, contract implementation and handover were PPK, but PPK was always assisted by technical HR from the laboratory. Meanwhile, the human resources involved in the selection process are the selection working group. Regarding how the authorized official determines human resources, and what qualifications must be possessed by the human resources involved in the procurement process, namely HR must have certification for procurement of goods/services, have competence, especially for the procurement of a type of laboratory equipment. complexity and type of work

performed. For the technical team , PPK said that during the procurement process, especially for laboratory equipment, PPK was always assisted by a technical team who were direct users of laboratory equipment and considered to have a better understanding of the laboratory equipment needed.

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