

# **Analysis of The Key Success Factors of Electronic Procurement (E-Proc) Projects at Ministry X**

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## **Abstract**

E-Proc or Electronic Procurement, namely procurement of goods and services electronically, according to Presidential Regulation Number 16 Year 2018, the Procurement of Goods / Services is conducted electronically using an information system consisting of an Electronic Procurement System and a support system. The purpose of this study is to study the dominant factors. In this study sixteen variables were used which were divided into 2 categories, namely the human factor category and the technology characteristic factor category, each consisting of variables. The questionnaire method was chosen as a source of data distributed to service users and service providers, the results of the questionnaire obtained will be tested for Validity and Reliability Test using statistical applications and Relative Importance Index (RII) Analysis. The five most dominant factors will be selected as research results, and it is expected that research factors can be studied for other Ministries / Institutions in implementing the E-Proc system.

## **Keywords**

Auction, E-proc, E-procurement, Key Success Factor (KSF), Procurement

## **1. Introduction**

The use of technology in the process of procuring government goods and services is a form of changes made because of the many problems that occur in conventional government procurement of goods and services (Basrie, 2017) According to Basrie (quoted from Tastsis et al), conventional procurement also takes a long time, so it is seen as a waste of time and cost, lack of information and unhealthy competition which results in the quality of procurement, exclusion of potential suppliers and granting special rights to suppliers. certain. According to Udoyono by Arsyam et al., (2016) , states that the procurement of goods and services is an attempt by the user to obtain or realize the goods and services he wants by using certain methods and processes in order to reach an agreement on price, time and other agreements.

The existence of innovation in combining technology in the goods and services procurement sector is to make it easier for partners to receive services. This innovation is known as electronic procurement (e-procurement) or electronic procurement of goods and services (Indrajit, 2016). Eko and Richardus' statement (2016) is also in accordance with the provisions contained in Presidential Regulation Number 16 of 2018 Chapter X Article 69 section (1) "The implementation of the procurement of goods / services is carried out electronically using an information system consisting of the Electronic Procurement System (SPSE) and support systems".

The e-procurement system displays the entire auction process starting from announcements, submitting bids, selection, to announcing online auction winners (MPOC, 2020). (Arsyam et al., 2016) cited that the final mission of implementing e-procurement is how the process of procuring goods and services in government and how to use information technology so as not to waste time and money.

In line with this, on August 10, 2015 the Ministry of X issued a Circular on the Implementation of Electronic Goods / Services Procurement at the Ministry, and it is still the basis for guidelines in goods and services procurement activities until now which can be said to be successful in its implementation. So, to find out what factors or variables are the key success factors in the procurement project of goods and services electronically at the Ministry of X, the researcher took the title Key Success Factor Analysis for the Electronic Procurement of Goods and Services (E-Proc) at the Ministry. X.

The objectives of this study include:

1. Knowing what dominant variables are the key success factors in the procurement of goods and services electronically at the Ministry X.
2. Knowing how to manage the dominant variables that are the key success factors in the procurement of goods and services electronically at the Ministry of X so that they can become lessons learned at other Ministries / Institutions..

## **2. Literature Review**

### **2.1. Procurement of Goods and Services**

According to Akbar (2018) , Government procurement of goods / services, hereinafter referred to as procurement of goods / services, is the activity of the procurement of goods / services by the Ministry / Institution / Regional Apparatus financed by the APBN / APBD, the process starts from the identification of needs, until the handover. working result.

### **2.2. E-Procurement**

Kementerian Kesehatan Republik Indonesia (2016), Electronic procurement or called E-procurement is a business-to-business purchase as well as offering provisions and administration via the web. E-procurement is a government innovation in the field of goods / services procurement that prioritizes transparency and accountability. E-procurement can provide information to the wider community regarding the process of procuring goods / services. The implementation of the procurement of goods / services electronically in the regions is accommodated in the organization of the Procurement Service Unit and Electronic Procurement Services (LPSE) (Artantri et al., 2016). Other benefits that can be realized from e-procurement according to Pujawan and Goyal (Basrie, 2017) include:

1. Administrative processes can be done more quickly, accurately and cheaply.
2. Procurement using an auction system can benefit from a much lower price.
3. K / D / L / I can get more prospective suppliers from various places.
4. K / D / L / I and suppliers can investigate transactions and physical processes such as delivery of goods.

In accordance with Presidential Regulation Number 16 of 2018, the parties involved in the procurement of government goods / services include: PA (Budget User), KPA (Budget User Authority, PPK (Commitment Maker Officer), Procurement Officer, Pokja (Working group) selection, procurement agents, PjPHP (Inspector of Work Results), PPHP (Committee for Inspection of Work Results), self-managed organizers, and providers.

According to (Lpse et al., 2018) the objectives of e-procurement include: (1) Increasing transparency and accountability, (2) Increasing market access and business competition, (3) Increasing procurement process efficiency, (4) Supporting monitoring and auditing processes and (5) ) Meet the need for access to the latest information.

According to presidential regulation number 16 of 2018, the procurement of government goods and services electronically (e-procurement) must apply principles such as efficient, effective, transparent, open, competitive, fair and accountable.

### **2.3. The Critical Point (Red Flag) for The Procurement of Goods and Services**

Mulyono\*, (2020) states that the critical points for the procurement of goods and services are as follows:

- 1) Determination of the type and amount of goods / services procured is not in accordance with real needs.
- 2) Inflation of the budget, seen from the unrealistic unit price and exaggerating the plan above the actual need in the form of volume, cost, quality, quantity of materials and so on.
- 3) There is intervention between the legislative body and the executive branch in determining the amount of budget and partners to be appointed as job providers.
- 4) Procurement plans that are directed through the establishment of technical specifications and criteria that increase opportunities for certain brands or certain parties.
- 5) PA / KPA does not publicly announce the plan for the procurement of goods / services at the beginning of budget execution.
- 6) The packaging of work that is engineered so that it can only be carried out by certain groups of people, or packaging which increases the opportunities for goods / service providers who come from certain groups called "artisan tenders".
- 7) Solving the procurement of goods / services in several packages to avoid obstruction.
- 8) Breaking the work package which by its nature should be a construction unit.
- 9) Unification or concentration of some of the largest activities in several regions which according to the nature of the work and the level of efficiency should be carried out in each region.

- 10) The merger of several work packages of a work nature and the amount of value should be able to be carried out by small businesses but into one work package that can only be carried out by non-small (medium and large) businesses.
- 11) Activities that should be self-managed are changed to contractual.
- 12) Unrealistic timing.
- 13) Selection of the procurement method that is not in accordance with the provisions, for example direct designation of what should be a public auction.
- 14) Determination of evaluation methods that are not in accordance with the provisions, for example the value (merit point) which should use the knockout system in order to win certain products / brands or providers of goods / services.
- 15) The budget allocation for planned activities is carried out in a self-managed manner, in which case it is carried out contractually to providers of goods / services, or vice versa.
- 16) Schedule for registration and retrieval of procurement documents at different periods.
- 17) Costs to support procurement are not provided / not budgeted.

### 2.4. Factors Supporting Success

According to Septiawan (2018) in their research, there are eleven factors that are indicators of the success of E-Procurement, including: Reorganization of the procurement process, performance measurement, implementation strategy, program changes by management, support from top management, acceptance of use end and training, Conformity of best practice with business matters, Adoption of providers, Security and authenticity of documents, Communication standards and system integration.

### 2.5. Frame of Mind

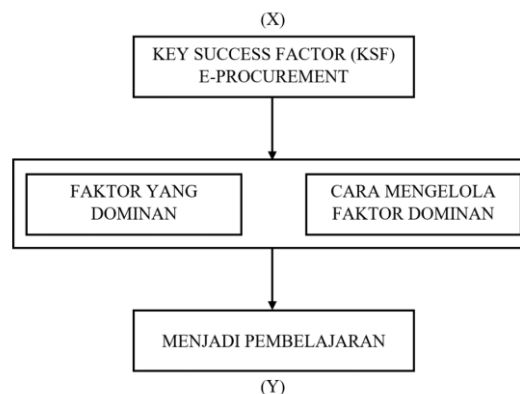


Figure 1. Frame of Mind

### 3. Research Methods

This research is a descriptive type of research with a qualitative approach, namely research that seeks to describe and interpret objects according to what they are from Basrie, (2017). Data collection in this study was carried out on all parties involved in using the e-system. Procurement in accordance with Presidential Regulation Number 16 of 2018.

Primary data in this study were obtained from the results of questionnaires and interviews with respondents, in this case the perceptions of the parties directly involved in the implementation of e-procurement in the procurement of goods / services at the Ministry of X. Meanwhile, secondary data is in the form of documentation from the LPSE and the Procurement Service Unit (ULP) ) Ministry X. The secondary data is obtained from a number of documents and reports on the results of the procurement of goods / services by e-procurement at the X Ministry as well as data obtained through literature studies.

The data collection method is done by using a questionnaire. The questionnaire is a data collection technique that is carried out by giving a set of questions or written statements to the respondent to answer (Iii, 2014) . Researchers compile a statement instrument in the form of a questionnaire which will be answered by the respondent. The statements from the questionnaire are a description of the key success factors in the goods and services procurement project at the Ministry of X. The Likert Scale is used to assess the potential impact of the proposed instrument, scale 1 is very small, scale 2 is small, scale 3 is medium, scale 4 large and scale 5 is very large with the respective score of 1,2,3,4 and 5 respectively. pilot survey), stage III questionnaire (respondent) and stage IV questionnaire (expert validation).

The data that has been obtained through literature studies and processing of questionnaire variables based on previous research are then analyzed using statistical techniques as follows: Validity Test, Reliability Test and Relative Importance Index (RII).

**3.1. Research Flowchart**

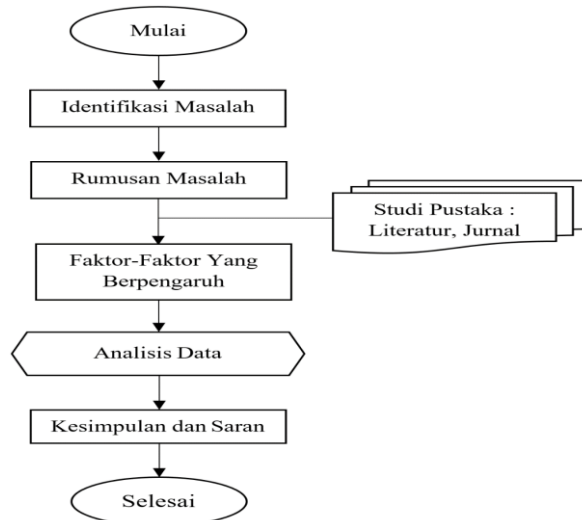


Figure 2. Research Flowchart

**4. Result and Analysis**

The results of the validity test of this study using a significant level of  $r_{Table}$  of 5% (used 0.4044) of the sixteen instruments all selected resulted in a value of  $r_{Count} > r_{Table}$  so that it can be concluded that all variables in this study can be said to be valid.

Table 1 Recapitulation of r Count

Variabel	X1	X2	X3	X4
rCount	0,7420	0,6879	0,8285	0,7380
Variabel	X5	X6	X7	X8
rCount	0,7093	0,7408	0,8598	0,7246
Variabel	X9	X10	X11	X12
rCount	0,7480	0,7472	0,5465	0,7975
Variabel	X13	X14	X15	X16
rCount	0,8661	0,8984	0,7818	0,6917

Source: Statistical Application Results (2020)

The results of the reliability test of this study with the Cronbach Alpha value must be  $> 0.60$  as the basis for decision making, from the sixteen variables used, it was obtained a value of 0.939 so that the instrument used in this study could be said to be reliable.

Based on the Relative Importance Index (RII) test conducted in this study, the ranking is as follows:

1. Protection of data security and confidentiality of each transaction
2. Openness and clarity of information that is fast and real time
3. E-Procurement policies, guidelines and process are presented online and are up to date
4. E-Procurement system protection from viruses for all transactions
5. Understanding of the use of computers by each party involved in the e-Procurement system
6. Professional attitude of all parties involved in the e-Procurement system
7. Availability of reliable, affordable and fast internet services
8. Knowledge about the benefits of using e-Procurement
9. High trust of every party involved in the e-Procurement system
10. Certification of Goods and Services Procurement Expertise
11. Easy-to-understand e-Procurement tools and applications
12. There is a uniform standard to describe, display and define construction materials, works and services
13. Understanding the use of the e-Procurement system in the construction industry
14. Interoperability of software packages, applications, and e-Procurement systems

15. Availability of reliable ICT infrastructure
16. Availability of skilled human resources to handle the e-Procurement system tools and processes

## 5. Conclusion

1. The variable that is considered the most dominant as the key success factor (KSF) in this study is selected as 5 variables:
  - a. Protection of data security and confidentiality of each transaction
  - b. Openness and clarity of information that is fast and real time
  - c. E-Procurement policies, guidelines and process are presented online and are up to date
  - d. E-Procurement system protection from viruses for all transactions
  - e. Understanding of the use of computers by each party involved in the e-Procurement system
2. Based on the results of discussion from experts regarding how to manage the dominant variables, an explanation for each variable is obtained as follows:
  - 1) The First Variabel
    - a. Issuance of regulations that support the protection of data security and confidentiality in the e-Procurement process starting from the central government to the regions.
    - b. Protection against security problems of application systems (viruses or hackers) through LPSE
  - 2) The Second Variabel
    - a. Issuance of regulations that support openness and clarity of information in the e-Procurement process starting from the central government to the regions.
    - b. Provision of adequate facilities, infrastructure and infrastructure as well as e-Procurement support systems. The third variable
    - c. Good LPSE management starts from the central government to local governments.
  - 3) The Third Variabel
    - a. Good LPSE management starts from the central government to local governments.
  - 4) The Fourth Variable
    - a. Protection against security problems of application systems (viruses or hackers) through LPSE.
  - 5) The Fift Variabel
    - a. The successful implementation of e-Procurement is highly dependent on the readiness of human resources who run it, including: readiness to understand applicable regulations, understanding of IT and the number of personnel availability for each required task and function.

### 5.1. Suggestion

The results of this study are the first step in research on the analysis of the Key Success Factor of the Electronic Goods and Services Procurement Project (E-Proc) at the Ministry of X in terms of service providers. Henceforth, researchers suggest adding more detailed respondents to get accurate answers, researching more specifically about the dominant factors obtained from this study, or examining from the side of the Service Provider or Service User in order to obtain more accurate results.

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