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IMPLEMENTATION OF E-PROCUREMENT TO ASSESS THE EFFECTIVENESS OF PROCUREMENT OF GOODS IN THE DEPARTMENT OF MANPOWER, INDUSTRY AND TRADE IN BINJAI CITY

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ABSTRACT

The implementation of e-procurement for goods procurement at the Department of Manpower, Industry and Trade of Binjai City has gone well, where the entire e-procurement system goods procurement process has been implemented, starting from e-Tendering, e-Bidding, e-Catalogue and also e-Purchasing. The implementation of e-procurement for procurement of goods at the Department of Manpower, Industry and Trade of Binjai City has also been running effectively. This is proven by the fulfillment of all the elements of effectiveness as stated in Presidential Regulation Number 54 of 2010, namely increasing transparency and accountability, increasing market access and healthy business competition, improving the level of efficiency of the procurement process, supporting the monitoring and audit process and fulfilling the need for real-time access to information, although several obstacles are still found in implementing e-procurement, including: technical obstacles such as server problems that often drop when the power goes out, vulnerability to application system security disturbances such as viruses or hackers. The Binjai city government must provide supervision to the procurement committee in strengthening the application security system so that E-procurement runs optimally in goods and services procurement activities

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INTRODUCTION

Procurement of goods and services has a large contribution to the country's economy. Procurement of goods and services whose financing is either partially or fully sourced from the State Budget / Regional Revenue and Expenditure Budget (APBN / APBD) is the procurement of service goods within the government which aims to provide public service goods (Sutedi, 2016: 3). The procurement of goods and services is carried out as well as possible, so both parties, namely users and providers, must always stick to the philosophy of procurement of goods and services, subject to ethics, norms, and principles of procurement of goods and services to be able to regulate or be used as the basis for determining goods and services procurement policies (Sutedi, 2016: 4).

Presidential Regulation Number 16 of 2018 has finally undergone changes and improvements through Presidential Regulation Number 12 of 2021 concerning changes to Presidential Regulation No. 16 of 2018. These regulatory changes are a form of regulatory reform to ensure that the procurement process of goods and services in Indonesia can run safely, cleanly and transparently and avoid corruption. Almost 90% of corruption cases handled by the Corruption Eradication Commission (KPK) come from the procurement sector of goods and services (www.kpk.go.id).

The implementation of *e-procurement* is expected to take place effectively, efficiently, openly, competitively, transparently, fairly/non-discriminatory and accountable so that it is expected to reflect openness and also minimize fraudulent practices of KKN (Corruption, Collusion and Nepotism) in procurement auctions that can harm state finances (Sutedi, 2016:

254). Prihastuti (2015) states that "The constraint of *E-procurement* is inadequate infrastructure; There is no Local Government Regulation that supports the implementation of *e-procurement*, slow internet network making it difficult to *download* and *upload*, there is a backlog of work because only a few people understand *e-procurement*". Another understanding was conveyed by Margaretha (2016) who said that "The shortcomings experienced in the implementation of *e-procurement* are related to systems that often error, then internet interference such as server down as a trigger for this is not optimal". For providers who have long been LPSE users, they certainly understand very well what the complexity of the electronic auction method is, but unlike potential providers or new service users, they must first understand the technology to the auction stage from the beginning to the end of the activity, of course, it can hamper the concept of efficiency and effectiveness in the procurement of goods / services (Annisa, 2018:5).

Meanwhile, the Ministry of PUPR said, the obstacles faced in the implementation of *e-procurement*, namely "The issuance of regulations to regulate and support the implementation of *E-procurement*, frequent employee mutations and the non-transfer of *knowledge* from old employees to new employees, resulting in new employees not mastering *e-procurement*, internet access that is not evenly distributed and not widespread" (Yusriadi, 2018: 11). The implementation of the procurement of goods/services at the Manpower, Industry and Trade Office of Binjai City before and after the implementation of *e-procurement* raises questions to all of us, as far as the effectiveness of *e-procurement* in the implementation of procurement of goods/services. This certainly needs to be researched, considering that in essence the procurement of *e-procurement* aims to make the procurement of goods and services more effective. Isn't effectiveness related to the relationship between the expected results and the results that have been achieved. As stated by Hasibuan (2016: 48) who stated "Effectiveness is a condition that shows the level of success in achieving goals including the quantity of work, quality of work, and timeliness in completing work".

These phenomena certainly indicate that the procurement process of goods and services still has a major threat to the creation of effective procurement of goods and services as mandated in Presidential Regulation Number 54 of 2010, which states that "A procurement of government goods/services is said to be effective if, The implementation of procurement of goods/services is able to increase transparency and accountability, create healthy business competition, the level of efficiency, supervision, and the fulfillment of the need for *real time* access to information". The purpose of this study is to find out how *E-Procurement implementation* in assessing the Effectiveness of Procurement in the Manpower, Industry and Trade Office of Binjai City.

LITERATURE REVIEW

Presidential Regulation No. 16 of 2018 concerning Procurement of Government Goods and Services, explains that "Electronic Procurement or *E-Procurement* is the Procurement of Goods/Services carried out using information technology and electronic transactions in accordance with statutory provisions". In line with this, Sutedi (2016: 254), also argues that "*E-Procurement* is a website that is an auction system in the procurement of goods by the government using internet-based technology, information and communication facilities". Likewise, the opinion expressed by Willem (2013: 80) states that "*E-Procurement* is the implementation of the procurement of goods and services using electronic networks or *Electronic Data Interchange (EDI)*". The use of *e-procurement* also shows that technology can also contribute to fixing various problems related to the procurement of government goods/services that may be difficult to achieve.

In its implementation, a procurement activity implementing the *e-procurement system* can be said to be effective if it meets the objective indicators as stated in Presidential Regulation Number 54 of 2010 concerning Procurement of government goods/services in article 107, consisting of 1) Transparency and accountability, 2) Market access and healthy business competition, 3) The level of efficiency of the procurement process, 4) The monitoring and audit process, 5) The need for *real time access to information*. With the fulfillment of all these indicators, it indicates that the implementation of *procurement and service e-procurement* has run effectively. Thus, if one of these indicators does not work or is not fulfilled, it can also be stated

that the implementation of *e-procurement* procurement and services is not or has not run effectively.

RESEARCH METHODS

Research uses a descriptive approach as a problem-solving procedure that is investigated by describing the state of the subject or object in the study can be people, institutions, society and others who at the present time are based on facts that appear or as they are. Research data used with primary data obtained by conducting interviews with informants. And secondary data is in the form of research supporting data obtained from books, published scientific works, such as journals, theses and other scientific works obtained both *offline* and *online* (*browsing* the internet). In this study to obtain information related to the implementation of *e-procurement* of goods/services, interviews were conducted with the following informants: Treasurer of the Manpower, Industry and Trade Office of Binjai City, Head of Industry as PPK Procurement of Goods and Services at the Manpower, Industry and Trade Office of Binjai City, Head of UPTD Legal Metrology of the Manpower, Industry and Trade Office of Binjai City.

RESULTS OF RESEARCH AND DISCUSSION

1. Research Results

a. Implementation of *E-Procurement* at the Manpower, Industry and Trade Office of Binjai City

The implementation of *e-procurement* can be said to be effective if it meets the objective indicators as stated in Presidential Regulation Number 54 of 2010 concerning Procurement of government goods/services in article 107, consisting of 1) Transparency and accountability, 2) Market access and healthy business competition, 3) The level of efficiency of the procurement process, 4) Monitoring and auditing process, 5) The need for *real time access to information*. The Manpower, Industry and Trade Office of Binjai City certainly requires the existence of facilities and infrastructure that can later be used to support the implementation of duties. Implementation of electronic procurement of goods (*e-Procurement*) of the Manpower, Industry and Trade Office of Binjai City.

The Electronic Procurement System (SPSE) was created to realize the expectations of the implementation of electronic procurement of government goods/services. The service available in SPSE at this time is *E-Tendering* of the Manpower, Industry and Trade Office of Binjai City, which is a procedure for selecting goods/services providers that is carried out openly and can be followed by all goods/services providers registered in the Electronic Procurement System by submitting 1 (one) offer within a predetermined time. *E-Tendering* is exactly the same as the procurement pattern that has been carried out manually, but in the *e-tendering* process all stages are carried out electronically.

E-Tendering is a tender process that is carried out openly and can be followed by all providers of goods / services carried out online, where the procedures and provisions have been regulated through the Head of LKPP Regulation Number 18 of 2012 concerning *e-tendering*. So the *e-tendering* system is used in the procurement of goods because of the regulations or rules, as well as the availability of facilities and infrastructure that support it and also the existence of adequate human resources, who understand the implementation of *e-tendering* well. The mechanism of the *e-tendering* system itself is the first agency to make RPP then the documents go to ULP, after that ULP to the Working Group, the Working Group uploads it into the LPSE system, after entering then the provider bids to the LPSE system, then the Working Group evaluates the provider's offer after the evaluation runs out determine the winner, after the winner, followed by signing the contract, already signing the contract, The execution of the work is then after the execution of the work is completed, the last is payment. In the implementation of the *e-tendering* system of the Manpower, Industry and Trade Office of Binjai City, there are still obstacles that often occur that can cause the operation of the system to be hampered. Problems that often occur such as lights out that cause loss of internet connection, and sudden system errors so that system operation stops.

E-Bidding of the Manpower, Industry and Trade Office of Binjai City is one of the stages in the *e-procurement* process, where *e-bidding* has the understanding of the bargaining process in the auction of goods and services procurement carried out through electronic media which

is more practical and easier, because the processing of *e-bidding* so far It is helpful for bidders to bid on the type of work/goods offered online. Basically, *e-bidding* aims to make auction activities for *e-bidding* or the procurement of goods and services for *e-procurement* more efficient, more transparent, fair, accountable, and open to anyone (public) and can make it easier for bidders to bid. So that *e-bidding* is also an open and transparent system in finding potential bidders. The *e-bidding* system has provided convenience compared to previous conventional systems. Compared to the conventional procurement system, *e-bidding* has advantages in ease of access, in compiling documents, meaning there is no accumulation of documents, and minimizing production costs. In addition to having advantages, the implementation of the *e-bidding* system also has several weaknesses that can be an obstacle to the implementation of the *e-procurement* procurement system. There are several obstacles that can occur in the *e-bidding* system of the Binjai City Manpower, Industry and Trade Office, namely viruses, power outages and application errors, which cause the system to stop and cannot be operated.

E-Catalogue (Electronic Catalog) of the Department of Manpower, Industry and Trade of Binjai City is an electronic information system that contains lists, types, technical specifications and prices of certain goods from various providers of government goods and services. As a basis for K/L/D/I to order goods/services through *e-purchasing*. Inclusion of prices and technical specifications of a goods/services based on the umbrella contract between LKPP and the Goods/Services Provider. The *e-catalogue* system has provided benefits for the implementation of procurement of goods. The benefits of *e-catalogue* are first, *e-catalogue* makes the process of procurement of goods/services in the public sector more efficient. Short procurement times and healthy competition of partners benefit the government in getting the best prices. Second, *e-catalogues* can also increase transparency. In the case of an Internet connection, all ISPs provide open pricing of services. Thus, the problem of budget leakage that often occurs in the procurement of goods / services can be suppressed. Third, an *e-catalogue* that simplifies the process will invite more partners to participate.

In addition, *e-catalogue* has eliminated the administration and procurement process of goods/services that tend to be complicated (*red tape*). Benefits like this will be felt even more, when more goods / services are included in the *e-catalogue*. Through the *e-catalogue* of the Binjai City Manpower, Industry and Trade Office in the procurement of goods and services, it is expected to make the procurement process of goods and services more efficient and transparent. While the obstacles faced are almost the same as other systems, namely can be attacked by viruses, power outages and application errors, connection interruptions, which cause the system to stop and cannot be operated.

E-Purchasing of the Manpower, Industry and Trade Office of Binjai City is a procedure for purchasing Goods/Services by K/L/D/I for goods/services that have been contained in the electronic catalog system (*E-Catalog*). *E-Purchasing* is a procedure for purchasing goods directly through an electronic catalog system, allowing all ULPs / Procurement Officers to choose goods / services at the best choice. This system creates cost and time efficiency in the process of selecting goods/services from the side of goods/services providers and users. *E-purchasing* has advantages such as the process of selecting goods/services is carried out directly through an electronic catalog system, and also because of the cost and time efficiency in the process of selecting goods/services itself. The process of implementing *e-purchasing* is quite simple so that it allows K/L/D/I to meet the needs of goods effectively and efficiently without going through the auction process.

The implementation of *e-purchasing* can be carried out by the Commitment Making Officer, Procurement Officer, or by an Officer determined by the head of the institution. The *e-purchasing* mechanism requires each procurement official to input his procurement plan into the web-based General Plan of Procurement Information System (SIRUP), which functions as a means or tool to announce the General Plan of Procurement (RUP). Without the data in SIRUP they will never be able to do the *e-purchasing* process. Providers who have become users of the *e-purchasing* application are deemed to have understood, understood, and agreed to all contents in the terms and conditions of users of the Government *e-purchasing* system, user guidelines, and other provisions that have been published by the Government Procurement Policy Institute (LKPP). User is an *e-purchasing* application user who has a User ID and password

that has been registered in LPSE, *User ID* is a name and unique identifier as a personal identity of the user used to operate on the *LPSE website*, *password* is a collection of characters used by users to verify *User ID* on the website LPSE, active *User ID* and password can be used by users to participate in procurement through the *e-purchasing application* of the Binjai City Manpower, Industry and Trade Office.

b. Effectiveness of Procurement of Goods by E-Procurement at the Manpower, Industry and Trade Office of Binjai City

Transparency and Accountability, the *e-procurement system* is one of the government's efforts as a medium of transparency and accountability to the public in the process of procurement of goods/services. Transparent procurement and accountability means that all provisions and information regarding the procurement of goods/services are clear and can be widely known by interested providers (partners) and by the public in general the current *e-procurement process* with the previous one which was done manually, even better than I used to feel, if the current one even seems closed, Not transparan, in fact, I think it is more prone to fraud in the process. At the moment we do not know who the bidders are and what price they offer. The application of *e-procurement* is more able to realize the implementation of procurement of goods/services that are more transparent and accountable when compared to the conventional procurement system. This can be seen from all processes of goods and services procurement activities have been explained clearly in a transparent and accountable manner through the LPSE website.

Fair Business Access and Competition, Procurement of goods/services must meet the principles of open, competitive and fair. This means that the procurement of goods/services must be open to providers of goods/services that meet the requirements and are carried out through healthy competition among providers of goods/services that are equal and meet certain requirements/criteria based on clear provisions and procedures. Healthy competition is the most basic principle because basically all procurement of goods/services must be carried out based on healthy competition. Fair and non-discriminatory means giving equal treatment to all interested candidates so that there is healthy competition and does not lead to giving benefits to certain parties for any and or any reason. The application of *e-procurement* is more able to realize the implementation of the procurement of goods and services that provide more equal access and rights so as to create healthy business competition for the procurement of goods and services when compared to the conventional procurement system with face-to-face which can support the practice of collusion and nepotism.

In the procurement of goods and services, efficient means that the procurement of goods / services must be pursued to achieve optimal goals (quickly and precisely) and in the desired way by optimizing the resources used to achieve results and targets with maximum quality. The implementation of the *e-procurement system* has more complexity of problems that can be obstacles in the implementation of *e-procurement* including technical obstacles such as server problems that often drop when lights out, vulnerability to application system security disturbances such as viruses or hackers and availability of competent human resources. *This is different from the application of a manual system that does not require facilities and infrastructure and special expertise in this regard.*

Supporting the Monitoring and Audit Process, In principle, the implementation of procurement of goods/services by *e-procurement* aims to make it easier for auditors to obtain information related to the audit process, conduct regular monitoring, make audit reports, facilitate storage of audit files, and facilitate auditors in conducting data analysis and to detect fraud). In addition, the *monitoring process* through facilities provided by LPSE (Electronic Procurement Services) also provides space and opportunities for the public to be able to monitor the existing auction process. Likewise with the Manpower, Industry and Trade Office of Binjai City. The implementation of the *e-procurement system* is more supportive of monitoring and audit activities and actions in its implementation compared to the implementation of manual (conventional) procurement which has a higher level of vulnerability to fraud and irregularities in the procurement process of government goods and services, even though the *e-procurement process* Basically not completely online where there is one stage that requires commitment making officials and working groups to have face-to-face with providers. The uploaded data or

document must also be submitted physical evidence to be validated based on the original document. This condition has a high level of vulnerability and a great risk of KKN.

The need for *real time* access to information, the application of electronic procurement of goods and services is essentially procurement that accesses information in *real time*. *Real time* in this case is the time used in the process from stage to stage can be minimized and can be accessed easily regularly and continuously updated for the most *updated information*. Of course, this is very different from the implementation of procurement activities carried out manually. The implementation of the *e-procurement system* further supports related parties to get *updated information* about the progress of the auction process that takes place, without having to visit the auction venue.

2. Discussion

The Manpower, Industry and Trade Office of Binjai City has implemented the entire process of procurement of *e-procurement* goods online, starting from *e-Tendering*, *e-Bidding*, *e-Catalogue* and also *e-Purchasing*, although there are still several obstacles in the implementation of *e-procurement*, including: Technical obstacles such as server problems that often drop when the lights go out, the vulnerability to application system security disturbances such as viruses or hackers. This is still an obstacle and even an obstacle in the implementation of *e-procurement*.

Regarding access and healthy business competition contained in the elements of procurement effectiveness, the Manpower, Industry and Trade Office of Binjai City has implemented the provisions of these elements well. With the implementation of the entire procurement process online, from *e-Tendering*, *e-Bidding*, *e-Catalogue* and also *e-Purchasing*, it shows that the procurement process provides equal access and rights to anyone, anytime and anywhere, meaning that the process is open to the public, anyone can participate in the auction process. With the occurrence of healthy competition between business actors, *e-Procurement* is also able to provide job and business opportunities for SMEs and business people without discrimination so that the market can grow and develop well. Unlike the conventional implementation of procurement, because there is no transparency in its implementation, it can allow regulatory efforts to win over certain bidders.

Meanwhile, related to efficiency in the elements of procurement effectiveness at the Manpower, Industry and Trade Office of Binjai City, it can be seen that the procurement system has been implemented with the procurement implementation time optimally because procurement information can be accessed by anyone, anytime and anywhere. Likewise, there is an inclusion of prices and technical specifications of an item / service offered, so that bidders do not have to come to the auction place. In addition, there is no document crushing because all documents are uploaded online. In contrast to the implementation of the conventional system, where all these processes require bidders to come to the auction venue, starting from looking for information on the implementation of the auction, the type of specification offered and delivering filing documents.

The overall results mentioned above, have shown and confirmed that the implementation of *procurement e-procurement* at the Manpower, Industry and Trade Office of Binjai City has fulfilled all elements of procurement effectiveness. The results of this study are in line with and support the results of research conducted by Maharani et al (2016), effectiveness has run well and effectively. This is shown by transparency that the process of procurement of goods/services can be obtained openly and easily by all parties. This research is also in line with research conducted by Habibi & Untari (2018) with the results of the study, namely The implementation of *e-procurement* in Malang City runs effectively, as evidenced by the number of packages processed in *e-procurement* running smoothly. The auction system is also very transparent. However, it experienced several obstacles, namely system problems that slowed down the tendering process. Research conducted by Suprianto et al (2019) also shows that the implementation of the *e-procurement system* in the process of procurement of goods/services at the Faculty of Administrative Sciences, Universitas Brawijaya has been effective. This is reflected in the achievement of five indicators of the effectiveness of the *e-procurement system*, namely: increasing transparency and accountability, increasing market access and fair business

competition, improving the efficiency of the procurement process, supporting the monitoring and audit process; meeting the need for *real time access to information*.

Hikmah (2022) which also states that the implementation of *eprocurement* in the provision of goods/services at the Food Crops and Horticulture Office of West Java Province can be said to run effectively and in accordance with government regulations related to the procurement of goods/services. Research conducted by Sahar (2022) also states that the implementation of *e-procurement activities* at the Makassar City Public Works Office has been carried out effectively and in accordance with the rules of *e-procurement implementation*. Halim (2016: 130), "Effectiveness is a measure of whether or not an organization has succeeded in achieving its goals. Effectiveness simply looks at whether a program or activity has achieved the activities that have been set. Measurement of the effectiveness or not of implementing *the e-procurement system* in a government agency can be seen from the size of the objectives listed in Presidential Regulation Number 54 of 2010 concerning Procurement of Government Goods / Services in article 107, consisting of indicators increasing transparency and accountability, indicators increasing market access and healthy business competition, indicators improving the level of efficiency of the procurement process. Indicators support monitoring and auditing processes; and Indicators meet the need for real-time access to information." With the fulfillment of all these indicators, it indicates that the implementation of *procurement and service e-procurement* has run effectively.

Based on the *Goal Setting Theory approach*, in this case the effectiveness of procurement is assumed to be the goal of the Manpower, Industry and Trade Office of Binjai City, while the variables of transparency and accountability, increasing market access and healthy business competition, increasing the efficiency of the procurement process, and the existence of monitoring and auditing processes and meeting access needs *Real time information* as the determining factor.

Conclusion

The implementation of *e-procurement procurement* at the Manpower, Industry and Trade Office of Binjai City has been going well, where the entire process of procurement of *e-procurement system goods has been carried out*, starting from *e-Tendering, e-Bidding, e-Catalogue* and also *e-Purchasing*, although there are still some obstacles in implementation *The e-procurement* includes: technical problems such as *server problems* that often drop when the lights go out, the vulnerability to application system security disturbances such as viruses or hackers. The effectiveness of the implementation of *procurement e-procurement* at the Manpower, Industry and Trade Office of Binjai City has fulfilled all elements of effectiveness as stated in Presidential Regulation Number 54 of 2010, namely increasing transparency and accountability, increasing market access and healthy business competition, improving the level of efficiency of the procurement process, supporting the process monitoring and auditing and meeting the needs of *real time access to information*. The Manpower, Industry and Trade Office of Binjai City and the procurement committee further improve and also strengthen the security system for *the e-procurement* application properly, regularly participating in education and training as well as special work competency tests related to understanding the *e-procurement system*. And the supervision and optimization of the *e-procurement* system must be carried out regularly as a preventive measure to prevent problems in the procurement of goods and services, especially in the Binjai City government.

REFERENCES

- Assa Veronica I. O, et al (2023). The effect of using an electoral procurement system on the work efficiency of employees in the LPSE section of the Bureau of Procurement of Goods and Services of the Regional Secretariat of North Sulawesi Province. *Journal of Public Administration* No.2 Vol. IX (2023) pp. 52 -62.
- Bastian, Indra, (2012). *Public Sector Accounting Systems*, Second Edition. Jakarta: Salemba Empat.
- Beni Pekei (2016). *Concept and Analysis of the Effectiveness of Regional Financial Management in the Era of Autonomy*. Jakarta: Taushia.

- Bungin, Burhan. (2019). *Qualitative Research: Communication, Economics, Public Policy, and Other Social Sciences*. Jakarta: Kencana Prenada.
- Godfrey, J., et al. (2010). *Accounting Theory (7th ed.)*. New York: McGraw Hill.
- Habibi, Muhammad Mujtaba & Untari, Sri (2018) The Effectiveness of E-Procurement Implementation in the Procurement of Goods and Services. *Scientific Journal of Pancasila and Civic Education* 3 (2): 159-168.
- Khamdiyah, Malikatul (2017). Implementation of E-Procurement in Procurement of Government Goods and Services at the Medan City Public Works Office. *Thesis of the Faculty of Social and Political Sciences, University of North Sumatra, Medan*.
- Maharany, La Ode Suriadi, & Syamsul Anam (2016) Analysis of Electronic Procurement of Goods and Services (E-Procurement) at LPSE Kendari City. *Economic Journal* 1(1): 01-11
- Presidential Regulation of the Republic of Indonesia Number 12 of 2021 concerning amendments to Presidential Regulation 16 of 2018.
- Presidential Regulation of the Republic of Indonesia Number 54 of 2010 concerning Procurement of Government Goods/Services.
- Presidential Regulation of the Republic of Indonesia Number 70 of 2012 concerning Guidelines for Government Procurement of Goods and Services.
- Presidential Regulation of the Republic of Indonesia No. 4 of 2015 concerning Procurement of Government Goods and Services.
- Sahar, Nurman (2022). Implementation of e-Procurement at the Makassar City Public Works Office. *Thesis of Polytechnic STIA LAN Makassar*.
- Septianingsih, Cesilia Arum (2022). Analysis of Procurement Planning and Electronic Procurement System (E-Procurement) in Realizing Government Transparency and Accountability (Case Study at Public Works Office, Public Housing and Settlement Areas and Procurement Services Section of Gunungkidul). *Thesis of Master of Accounting Study Program, Faculty of Business and Economics, Universitas Islam Indonesia Yogyakarta*.
- Suprianto, A., Zauhar, S., & Haryono, B.S. (2019) Analysis of the Effectiveness of the E-Procurement System in Government Procurement of Goods/Services (Study at the Faculty of Administrative Sciences, Universitas Brawijaya). *Scientific Journal of Public Administration* 5(2): 242-250.
- Circular Letter of the Minister of Public Works Number: 17 / SE / M / 2010 concerning the Implementation of Electronic Selection of Government Goods/Services Providers (E-Procurement).
- Sutedi, Adrian (2016). *Legal Aspects of Procurement of Goods and Services*. Second edition, Third printing. Jakarta: Sinar Grafika.
- Syarifuddin (2015). Implementation of E-Procurement Procurement Policy at the Office of Copyright, Housing and Regional Spatial Planning of Central Sulawesi Province. *Thesis of the Postgraduate Program of Tadulako University of Palu, Central Sulawesi*.
- Law Number 54 of 2010 concerning Procurement of Government Goods/Services.
- Willem, Siahaya (2017). *Procurement Management Procurement Management*. Bandung: Alfabeta.