

## THE IMPLEMENTATION E-PROCUREMENT TOWARDS FRAUD DETECTION IN LOCAL GOVERNMENT

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### ABSTRACT

The purpose of this research is to analyze the influence of e-procurement implementation to fraud detection in regional government. Researchers uses the stages of procurement of goods and services. Procurement to independent variable with explanatory research. Researchers used Analyse Stuctural Equetion Modelling (SEM) of alternative Parital Least Square (PLS) with Program Warp PLS 3.0. Analytical units of this study consist of ULP, SKPD and providers of goods and services. Findings of this study indicate some variables detection of procurement fraud is significantly affected by stages of planning, prequalification, announcement and appeal. However, some variables embrace phases of formation procurement committee, drafting of procurement tender documents and evaluation of offer, do not affect the detection of procurement fraud.

**Keyword** : e- procurement, fraud detection

### 1. Introduction

Procurement of goods and services is an activity that is often done by institutions the government and private. Procurement and service is activities to support the institutional operational activity. The activity of supplying activities in principle which is to obtain goods and services. Procurement is an activity to obtain goods or services in a transparent, efficiently and effectively in accordance with the needs and desires of users, either for public or private (Christopher and Schooner, 2007: 529).

Procurement activity involving the interested parties that the procurement committee, officials commitment maker (PPK) and the providers of goods and services or partnerships. In conventional methods of procurement, the parties meet each other face to face and to follow the procedures specified tender procurement committee. The meeting between the parties indicated and tend to provide opportunities and opportunities for corruption, collusion and nepotism that appear various acts of fraud at every stage of the procurement of goods and services. Jasin et al (2007) revealed that the face-to-face will open up opportunities for collusion, corruption and nepotism in every stage of the procurement process. In addition,

verbal communication will create efforts extortion, bribery or agreements that benefit certain parties.

Based on the weaknesses of the procurement of goods and services with the conventional method above, the solution needed to cover these weaknesses. The solution is expected to reduce the occurrence of acts of fraud and implementation procurement more transparent, accountable and efficient. Solutions to create the procurement of goods and services that are professional, transparent and accountable institutions such as government through procurement policies of government (LKPP) apply the procurement of goods and services using electronic or e-procurement.

Restianto (2012) suggested that the purpose of the implementation of e-procurement is to improve transparency and accountability, improve market access and fair competition, improve the efficiency of the procurement process, to support the monitoring and auditing processes and meet the needs of real-time access. Then, Wijaya et al (2011) describes the main bahwatujuan of the application of the procurement of goods and services using e-procurement is expected to be an application that is able to support the implementation of the embodiment better performance internally among government agencies and third parties, and can help create a clean government . Moreover, e-procurement is expected to reduce the occurrence of procurement fraud.

Based on these descriptions, the researchers attempt to assess the reliability of the effect of the implementation of e-procurement to reduce red flags that occur at each stage of the procurement of goods and services. Researchers using seven variables to measure the reliability of the system. These variables are the stages that can be done with the procurement of goods and services using the electronic / e-procurement.

Research related to e-procurement has been done by some researchers that Lee, Matthew et al (2002), Kaliannan et al (2009), Sahu (2012), Walker (2008), Engstrom (2009), Bawono (2011), Wijaya et al (2011 ), Damayanti and Hamzah (2011), Hapiah (2011), Udoyono (2011), Purwanto (2008) and Messah et al (2013). Later, studies examining related to the prevention of fraud committed by Arfah (2011) and the topic of study for the factors that influence the procurement fraud committed by Jatiningtyas and Kiswara (2011). However, e-procurement studies relating to procurement fraud detection has not been done. Therefore, the authors attempt to assess and examine the effect of the implementation of e-procurement for the detection of fraud in public sector procurement.

The problems of this study include whether the planning, establishment of the committee, the prequalification stage, the stage of the preparation of tender documents, bid evaluation stage, stage announcements and rebuttal phase in e-procurement is able to

detect fraud action ?. Based on the problems that have been formulated above, the purpose of this research were to determine the effect of several stages of e-procurement is the planning stage, the formation of the committee, the prequalification stage, the stage of the preparation of tender documents, bid evaluation stage, stage announcements and phase detection refutation of action cheating.

## **2. Theoretical Basis**

### **2.1 Theory Reforms**

Reform of the bureaucracy is a repair, alteration or improvement of a system and organization to achieve good governance that is free from any fraud actions. Context of this study emphasize and analyze about reforms in the procurement of goods and services, especially in a system / procurement procedures. Procurement system that is both procurement system that is able to apply the principles of good governance (good governanve), encourage efficiency and effectiveness of public spending, as well as structuring the behavior of the three pillars (government, private and public) in the implementation of governance good governance (Andriyani, 2012).

There are several theories and concepts of bureaucratic reform, according to some experts, among others:

1. The idea of reforming the bureaucracy wants more transparent, open and honest (Dwiyanto et al, 2012: 234);
2. Transparency is an important dimension of change because of the transparency will facilitate the users of services and civil society to monitor the course of the implementation of public services (Dwiyanto et al, 2012: 258);
3. Responsiveness is the provision of public services, one of which is measured through the disclosure of information and the extent of interaction communication between the bureaucracy as a provider of services to the service user (Dwiyanto et al, 2012: 69);
4. Transparency in the bureaucracy may have implications on the decline in the level of corruption within the bureaucracy (Dwiyanto et al, 2012: 60);
5. Reform as a business major changes in a bureaucratic system that aims to change the structure, behavior, and the existence or habits that have long (Khan, 1981 in Dominata, 2013);

6. Reform as a process to change the public bureaucratic procedures and attitudes and behavior of bureaucrats to achieve the effectiveness of bureaucracy and national development goals (Quah, 1976 in Dominata, 2013);
7. Measures to reform the bureaucracy, especially directed at improving the efficiency, transparency and accountability of the bureaucracy (Lopez, 2001).

## **2.2 Procurement Conventional Systems**

According to Presidential Decree No. 80 In 2003, the procurement of goods and services with the conventional system consists of sixteen procurement process. The stages of planning procurement, the establishment of the auction committee, prequalification company, preparation of tender documents, the announcement of the auction, the auction document retrieval, pricing own estimates (HPS), the auction description, price quotes and delivery of bid opening, bid evaluation, potential winner announcement , rebuttal bidders, the appointment of the auction winner, signing a contract, contract amendments and delivery of goods / services.

Procurement of goods and services conventionally there are some weaknesses and limitations. National LPSEs (2008) explains that there are three major problems in procurement of conventional systems, such as:

1. Transparency, procurement of conventional systems do not provide information on all potential suppliers to the logistics unit that lead to limited provider of goods / services that participate in the tender;
2. Procurement with the conventional system is not providing oversight mechanisms to the public. As a result, competition is limited so that the impact on economic growth to be weaker then occur exclusivity to potential suppliers and granting special rights to certain suppliers;

Procurement conditions in Indonesia gives the fact that of the 4.2 million companies in Indonesia, which is engaged in the procurement of goods and services sector is only 3.5% or 150,000 companies involved

## **2.3 E-Procurement Concept**

Purwanto (2008) defines that e-procurement is an application to manage data procurement of goods and services which include Internet-based procurement data that is designed to achieve a procurement process that is effective, efficient and terintegrasi. Willem (2012: 80) mengidentifikasi that the purpose of the e-procurement is to increase transparency and accountability, improving market access and competition, increase the

level of efficiency of the procurement process, to support the process of monitoring and auditing as well as meet the needs of access to the latest information.

Implementation of e-procurement is expected to provide significant benefits to the procurement of goods / services of government. According Kalakota et al (in Wijaya et al, 2010) the benefits of e-procurement is divided into two categories, namely efficient and effective. The efficiency of e-procurement include low cost, speed up time in the procurement process, control the purchasing process better, presenting a report of information and integrate the functions of procurement as a key back-office systems. While the effectiveness of e-procurement is to improve the control of the value chain, good management of critical data, and improve the quality of decision making in the buying process in the organization.

Positive and tangible benefits from the application and implementation of e-procurement has been perceived by the city of Surabaya. Jasin et al (2007) explain the benefits of the implementation of e-procurement, has a macro impact, among others, can be identified as follows:

1. The occurrence of efficiency in the use of the State Budget (Budget). The average budget savings that can be obtained from the e-procurement approach compared with conventional ways ranging from 23.5 percent. Whereas in HPS (Price Determination Own) can be an average savings of 20 percent;
2. Procurement of goods and services by using means of e-procurement can be done within a period of more rapid than in a way that is done in the conventional way;

A healthy competition among businesses that support a conducive investment climate nationally. The procurement of goods and services more transparent, fair and participatory support more healthy competition in every region where the procurement of goods and services performed.

## **2.5 Procurement fraud detection**

Pendeteksian The detection of an action that needs to be improved in order to create free procurement of fraud. Amrizal (2004) explains that the instructions of fraud is usually indicated by the appearance of symptoms (symptoms) as a change in lifestyle or behavior, suspicious documentation, customer complaints or suspicions of fellow workers.

To detect fraud in the procurement stage, please note and red flags described each stage of procurement of goods and services. There are several stages in the procurement of government goods and services.

Table 2.4 Red flags on the stage of procurement of goods and services

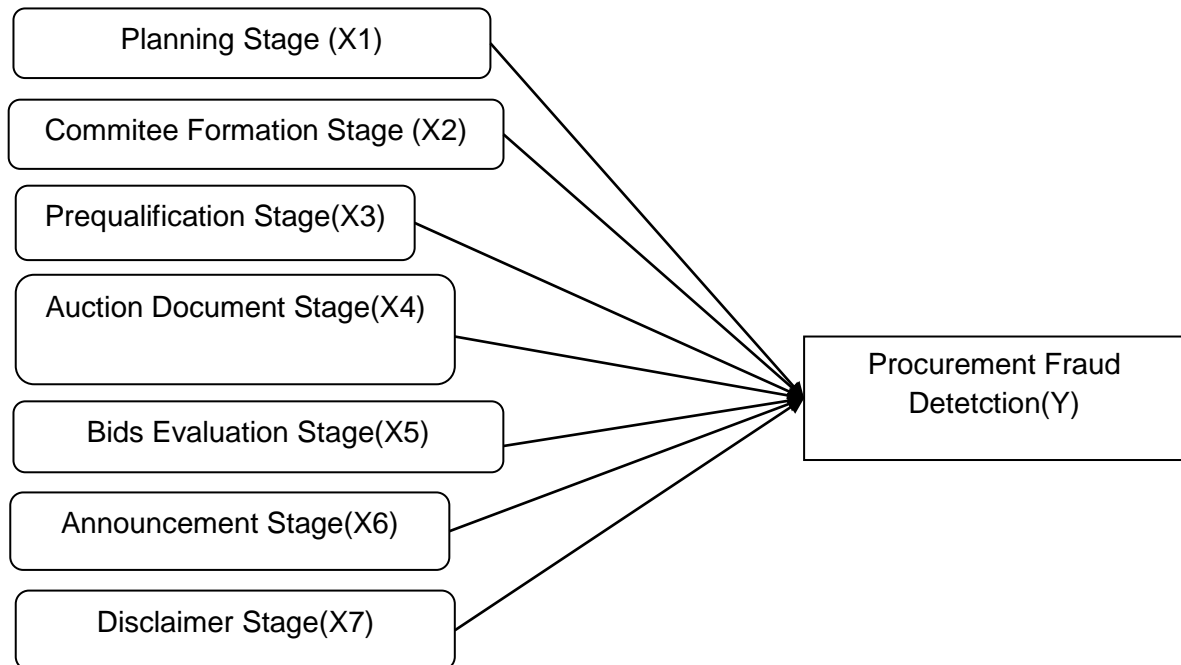
No	Stage Procurement of Goods and Services	Red Flags
1	Planning stage	<ul style="list-style-type: none"> <li>a. Inflation of the budget;</li> <li>b. Directed procurement plan;</li> <li>c. Engineering packaging;</li> <li>d. Intentionally directing procurement for the benefit fraud.</li> </ul>
2	Committee Formation stage	<ul style="list-style-type: none"> <li>a. The committee does not have integrity;</li> <li>b. Committee in favor and</li> <li>c. The committee closed and not transparent.</li> </ul>
3	Prequalification Company	<ul style="list-style-type: none"> <li>a. Administrative documents that do not qualify;</li> <li>b. Real or fake administrative documents;</li> <li>c. Not done legalization of documents;</li> <li>d. Evaluation is not in accordance with the criteria;</li> <li>e. No assessment in the field.</li> </ul>
4	Preparation of Tender Documents	<ul style="list-style-type: none"> <li>a. Perform engineering evaluation criteria;</li> <li>b. Non standard bidding documents;</li> <li>c. Tender documents are incomplete;</li> <li>d. Tender documents leading or biased.</li> </ul>
5	Evaluation of Offers	<ul style="list-style-type: none"> <li>a. Disability evaluation criteria;</li> <li>b. Replacement of the bidding documents;</li> <li>c. Evaluation closed / hidden</li> </ul>
6	Announcement	<ul style="list-style-type: none"> <li>a. Announcements limited;</li> <li>b. Announcement date postponed;</li> <li>c. Announcements are not appropriate.</li> </ul>
7	Refutation	<ul style="list-style-type: none"> <li>a. Not all objections addressed;</li> <li>b. The substance of the objection is not addressed;</li> <li>c. Rebuttal proforma to avoid charges of tender set.</li> </ul>

Source: Oemarmadi et al (2009)

The information in Table 2.4 explains that the stages of the procurement of goods and services a diverse pick the risk of fraud. Overall the red flags is one of the effects of the lack of oversight and control. The detection can be performed with the maximum if the concept of detection can be executed with a real and sustainable

## 2.6 Research Framework

Picture 2.1 Research Framework



Source: Data Processed, 2014

## 2.7 Hypothesis

Based on the above theoretical basis, the researcher describes the development of hypotheses used in this study include

### 2.7.1 E-procurement planning stage influence the procurement fraud detection

The detection of an action that needs to be improved in order to create free procurement of fraud. Amrizal (2004) explains that the instructions of fraud is usually indicated by the appearance of symptoms (symptoms). Detection at the planning stage can be found by a series redflags happened before. Oemarmadi et al (2009: 20-21) explains that at the planning stage symptoms of fraud among others, the inflation of the budget, procurement plans are directed, setting an unrealistic timetable and engineered packaging job.

To detect fraud it is necessary to increase transparency in the planning stages of procurement of goods and services. Hasan (2000) suggested that in order to prevent acts of fraud that is one of them by improving organizational culture, especially in the field of transparency. In the spirit of bureaucratic reform to create an efficient procurement, effective, and accountable profesional. Thus, cracks of fraud in the planning stage can be minimized



by applying the new system. The system is the procurement of goods and services using the electronic / internet.

Purwanto research results (2008) about a study that tested the procurement procedures of construction services with the rest of the classification of age, gender and work experience as a variable. The results of the research explained that the respondents agreed even strongly agree with the e-procurement to reduce indications of fraud at every stage of the procurement of construction services.

The same thing also expressed by Messakh et al (2013) which examines the perception of several construction of kosntruksi procurement activities in e-procurement in the city of Kupang. The results of the study explained that the respondents' perceptions of the implementation of the procurement of construction services in the e-procurement in government agencies (Department of Public Works Public Works danDinas Kupang NTT Province) that e-procurement dapatmeminimalkan fraud occurring at each stage of the procurement of construction services conventionally. Implicitly research conducted by Messah et al (2013) suggested that the planning phase of goods and services using e-procurement can decimate fraud action.

Process planning stages of procurement of goods and services that prepare the details of the target, time, quality and costs as needed. The e-procurement publish procurement plans in detail by harnessing the internet service. Therefore, the higher the level of transparency of procurement planning will narrow the fraud. So the fraud action with easy to do detection. Based on the concept of bureaucratic reform and support previous research and an overview of the planning stage of the procurement of goods and services electronically, the first hypothesis is:

H<sub>1</sub>: E-procurement planning stage influence the procurement fraud detection

### **2.7.2 Phase formation of e-procurement committee influence on procurement fraud detection**

Aktivitas Activity detection at the stage of formation of the committee can be found with the initial information about the symptoms of fraud. Symptoms at this stage of the formation of the auction committee, among others, the committee does not have the integrity, impartiality committee, the committee which is not transparent and intervention from superiors (Oemarmadi et al, 2009: 23-24). In short it can be said that the more frequent the internet with the transparency principle is implemented in the procurement of goods and services, the more narrow the space for the procurement committee to commit fraud.



There are few studies on the implementation of e-procurement to reduce the practice of institutions kecurangan. Penjelasan procurement policies of government-procurement stages –e able to reduce fraud in the stage of formation of the committee, then according to research conducted by Purwanto (2008) test about the study procedures procurement of construction services. The results of the research explained that the respondents agreed even strongly agree with the e-procurement to reduce indications of fraud at every stage of the procurement of construction services. Messah et al (2013) also examines the perception of several construction of kosntruksi procurement activities in e-procurement in the city of Kupang.

The results of the study explained that the respondents' perceptions of the implementation of the procurement of construction services in the e-procurement in government agencies (Department of Public Works Public Works dan Dinas Kupang NTT Province) that e-procurement dapat meminimalkan fraud occurring at each stage of the procurement of construction services in the conventional. In accordance with previous research and the spirit of bureaucratic reform launched by the government in the form of changes to the procurement of goods / services electronically conventionally be expected to detect fraud. Based on these explanations, the proposed hypothesis is:

H<sub>2</sub>: Phase formation of e-procurement committee influence on procurement fraud detection

### **2.7.3 E-procurement pre-qualification stage influence the procurement fraud detection**

Bureaucracy is intended to organize regularly a lot of work to be done and the type of bureaucracy is an organization that is intended to accomplish administrative tasks are great by the way systematically coordinate (Peter and Charles in Bintoro, 1987: 71). Explanation of policy institutions of government procurement of goods and services (LKPP) explains that the e-procurement system is supported by the concept of interoperability which serves to reduce dokumen-documents that are not in accordance with the provisions of the auction.

The use of e-procurement in government procurement of goods and services is very strategic role against fraud detection. In the pre-qualification stage, the stronger the implementation of the system interoperability in e-procurement, then the easier it is to detect the documents that are not in accordance with the terms of administrative / technical. So that the opportunity for asphalt documents and other fraud mode the prequalification stage is easier to detect. For the detection of the prequalification stage, Oemarmadi et al (2009: 25-26) shows the red flags are common among other administrative documents do not qualify, administrative documents asphalt, do not legalization of documents, evaluation does not fit the criteria and not a field examination

Research results Messakh et al (2013) and is supported by research conducted by Purwanto (2008) argued that the stages in the e-procurement in addition to verification stage qualification and clarification and negotiation stages, able to reduce fraud in the procurement process. So the pre-qualification stage in the procurement of goods and services electronically is able to reduce the incidence of fraud. Based on the concept of bureaucratic reform, previous research as well as an explanation of the pre-qualification stage of procurement of goods and services electronically, then the hypothesis that can be asked is:

H<sub>3</sub>: E-procurement pre-qualification stage influence the procurement fraud detection.

#### **2.7.4 Stage of e-procurement tender documents affect the procurement fraud detection**

Procurement of goods and services electronically using the Internet media give new hope to the auction process that is free from fraud action. In line with the explanation Damayanti and Hamzah (2011) who argued that the goods / services are open through the internet (e-procurement) more allow for the direct participation of the community, such as monitoring and surveillance as well as the ease of access, transparency, accountability, and fairness .

If at this stage of the preparation of tender documents procurement of goods and services using the internet to take advantage of e-procurement system, the tendency of the auction will be transparent so that any act of cheating is easier to do pendeteksian. Pemerintah should promote a change in the bureaucracy and create a new environment more conducive to the development of good governance. Particularly with regard to transparency and combating corruption in the public service (Dwiyanto et al, 2012: 258).

Symptoms at this stage of the preparation of tender documents, among others, engineering evaluation criteria, non-standard tender documents, tender documents are incomplete, leading the bid documents or bias. (Oemarmadi et al, 2009: 28-30). One of the most dominant activity is standardization documents with the terms of the contract, the technical requirements and the proposed work. With e-procurement in the preparation stage of the tender documents, makasyarat-requisite preparation of tender documents can be presented in the online system so that the existence of such mechanisms providing opportunities for the public to evaluate if there is a mistake. so that the document can be corrected many people because it allows to download the document.

This can narrow the odds are not in accordance with the evaluation criteria. Therefore, the more transparent tender documents preparation phase, the stronger the e-procurement

in detecting the presence of kecurangan. Untuk support the development of research hypotheses, there are some studies that are relevant to the variables in this research. Messah et al (2013) revealed that the stage of procurement of goods and services that are potentially indicated fraud, able to be reduced by a system of procurement of goods and services electronically (e-procurement). The results of these studies are relevant to the results of research conducted by Purwanto (2008) which suggests that the respondents agreed even strongly agree with the e-procurement to reduce indications of fraud at every stage of the procurement of construction services.

Based on previous research, the concept of bureaucratic reform as well as an explanation of the stages of preparation of the tender documents, the hypothesis for the fourth variable, namely:

H<sub>4</sub>: Phase preparation of tender documents e-procurement influence on procurement fraud detection

#### **2.7.5 Bid evaluation stage of e-procurement influence on procurement fraud detection**

Symptoms at this stage of the evaluation of offers, among others, disability evaluation criteria; replacement of bid documents and evaluation of closed / hidden (Oemarmadi et al, 2009: 45-47). In the bid evaluation stage, there are three important components include administrative evaluation, technical evaluation and the evaluation of the price. E-procurement facilitate uploading evaluation criteria and evaluation results of the document, so that the more transparent information related to the elements of the bid evaluation it will be easier to detect the occurrence of disability evaluation criteria, the replacement of the bidding documents and the evaluation of the hidden simultaneously detect fraud tersebut. Dwiyanto et al (2012: 258) states that transparency becomes an important dimension of change because of the transparency will facilitate the users of services and civil society to monitor the course of implementation of public service.

Dominante (2013) also explains that openness (transparency) is a state that allows the availability of information that can be provided and obtained by the public. Openness is a condition of participation in the life of the state. Disclosure of information flow in the field of law is important for every citizen to get a guarantee of justice. The role of e-procurement in the bid evaluation stage, namely the replacement of the document could not be carried out and the results were widely publicized evaluation and the evaluation results can be standardized format / template created in the system.

Activities in the bid evaluation stage is part of the stage of procurement of goods and services electronically. Procurement of goods and services electronically

dapat meminimalkan fraud occurring at each stage of the procurement of construction services in the conventional (Messah et al, 2013). Then, the research conducted by Purwanto (2008) corroborate the results of the study were explained that the survey respondents agreed even strongly agree with the e-procurement to reduce indications of fraud at every stage of the procurement konstruksi. maka hypotheses that can be submitted are:

H<sub>5</sub>: Phase e-procurement bid evaluation effect on procurement fraud detection

### **2.7.6 Stage e-procurement announcement effect on procurement fraud detection**

The real reform is the availability and transparency of information to the public. The most fundamental change is the procurement of goods and services using the internet with e-procurement system. The tendency in the presence of bureaucratic reform in the procurement of goods and services can suppress acts of fraud. In line with Dwiyanto et al (2012: 60) which shows that transparency in the bureaucracy may have implications on the decline in the level of corruption within the bureaucracy. Symptoms at this stage is announcement of the date of the announcement was delayed, which is not appropriate announcement and the announcement is limited (Oemarmadi et al, 2009: 48-50).

Announcement stage of procurement of goods and services by electronic has a role include the announcement of the content specified application and if there is a change in the schedule of e-procurement should be accompanied by clear reason. Content announcements in e-procurement facilitate the dissemination of information about their procurement of goods and services. thus, ease of spreading such information narrow the opportunities for fraud. When a system is easier to minimize the occurrence of fraud it will be easier to fraud detection.

Messakh et al (2013) are research, relevant to the research conducted by Purwanto (2008) suggested that tahapan-stage in the e-procurement in addition to verification stage qualification and clarification and negotiation stages, able to reduce fraud in the procurement process. So the announcement stage in e-procurement can reduce the incidence of fraud. Based on the concept of bureaucratic reform and previous research, the proposed hypothesis is:

H<sub>6</sub>: Stage e-procurement announcements effect on procurement fraud detection

### **2.7.7 Disclaimer stage of e-procurement influence on procurement fraud detection**

E-procurement can facilitate online communication between procurement committee with providers of goods / services. If there are objections, the provider can directly access the website of the agency / ministry. So the higher the intensity of the arguments into the e-procurement system then langsung sanggahan not documented in e-procurement will meet objections menu list. Therefore, the concept of transparency that has occurred will be otomatis should be taken entirely by the procurement committee. Transparency in the rebuttal phase will facilitate the detection of fraud as a rebuttal that is not fully addressed and that no substantive objections.

Symptoms at this stage include a disclaimer that not all objections addressed, the substance of the objection is not addressed and pro forma objections to avoid charges of tender set (Oemarmadi et al, 2009: 51-53) .With the concept of transparency and availability of information in the e-procurement system, the modes of cheating in the rebuttal phase can be reduced. The statement is in accordance with the results of research conducted by Messah et al (2013) and Purwanto (2008) who argued that tahapanan-stage in the e-procurement in addition to verification stage qualification and clarification and negotiation stages, able to reduce fraud in the procurement process. in connection with the concept of bureaucratic reform and previous research, the proposed hypothesis is:

H<sub>7</sub>: Disclaimer stage of e-procurement influence on procurement fraud detection.

## **3. Research Methode**

### **3.1 Population and Sample Research**

Populasi The population of respondents in this study were the parties involved in the procurement of goods and services using e-procurement in Surabaya city government. The sample of this study include:

1. Procurement Services Unit (ULP) Surabaya City Government;
2. Committing Officer (KDP) in SKPDs Surabaya City Government;
3. Providers of Goods and Services.

Sampling technique used was purposive sampling method. Purposive sampling method is the determination of the sample with certain criteria. To determine the sample, the researchers used the following criteria:

1. Perform procurement activities with e-procurement in the area of Surabaya City Government;
2. Engaging technically in the procurement of goods and services using e-procurement.

### **3.2 Collecting Data Methode**

The data collection method used in this research survey. Technique is by distributing questionnaires directly to the parties who have made the study sample. Similarly, the uptake, the data retrieved by the researchers of the respondent in accordance with the agreed time.

### **3.3 Operational Definition of Variables**

#### **3.3.1 Planning Stage (X1)**

Procurement planning is in the early stages of procurement of goods and services that aim to make the procurement plan (Procurement Plan) which prepare and include details about the target, the scope of work, human resources, time, quality, costs, and benefits (Oemarmadi et al, 2009: 10). Consists of four indicators in the form questionnaire study among others; prepare the details of the target, time, quality, costs as needed; preparation of technical specifications and criteria for the procurement of goods and services; determine the time schedule of procurement of goods and services and on distribution and procurement package management into the project package

#### **3.3.2 Committe Formation Stage (X2)**

At this stage of the formation of the committee has the authority to prepare tender documents, preparing and selecting bidders, conduct activities to determine the winner of the tender and execute tasks in a professional manner. Indicators of research among others the principle of professionalism; principle responsive; the principle of accountability; principle credible; independent principles.

#### **3.3.3 Prequalification Stage (X3)**

Prequalification activity is determining the selection of a number of candidates for the auction company, based on the terms of administrative, technical, and experience as well as a selection of companies (contractors / consultants and suppliers), which is able to carry out the work to be tendered or tendered (Oemarmadi et al, 2009: 25) . Indicators of research on the pre-qualification stage among other administrative requirements; technical requirements; experience of the company and the company's ability to auction

#### **3.3.4 Auction Document Stage (X4)**

Preparation of auction documents are activities aimed at determining the technical and administrative requirements needed of the work to be performed by the provider of goods / services, ranging from the scope of work, quality, quantity, size, type, time of execution, and the working methods of the overall the work to be auctioned (Bawono, 2011). Indicators of research on the preparation stage of the tender documents, among others,



compliance with applicable regulations; simple and transparent; documents reviewed by the relevant parties and document consists of the scope of work, quality, quantity, size, type, time of execution and working methods

### **3.3.5 Bids Evaluation Stage (X5)**

Auction bid evaluation that inspection activities, research and analysis of the overall technical proposal of the auction participants, in order to obtain validation or verification of the bid price is right, avoid mistakes in accordance with the technical requirements that have been determined (Bawono, 2011). The indicators at the stage of bid evaluation research include: determining the administrative evaluation by considering factors editorial, validity, insurance quotes and arithmetic. Technical evaluation of the company to consider certification of the document accrediting agencies credible and price evaluation with emphasis on the suitability deals with the criteria required by the committee

### **3.3.6 Announcement of the Auction Winner (X6)**

Oemarmadi et al (2009: 48) describes the activities that must be performed on the stage of the announcement as well as indicators of research among other announcements were placed in media with a wide range according to the amount of the contract, the announcement also affixed in the project office. announcements should be clear and detailed, so that the objection be reduced. Implemented with enough time and timely implementation and not delay.

### **3.3.7 Disclaimer Stage (X7)**

Disclaimer stage is the stage that gives an opportunity to the participants who felt aggrieved auction either alone or together with other participants of the procurement committee decisions (Oemarmadi et al, 2009: 51). Indicators of research at the committee stage among other objections must be open and accommodating and process any objections, the committee published a rebuttal and response, the committee must immediately conduct an investigation to prove kebenaran rebuttal and the government should impose administrative sanctions which the tender cancellation, cross out the name of the winner, and the dissolution of the committee if the objection is not true.

### **3.3.8 Procurement Fraud Detection (Y)**

Fraud detection is the activity to find a series of red flags or symptoms in order to provide initial Opera- and warning to interested parties. The same thing also expressed by Amrizal (2004) which explains that hint of fraud is usually indicated by the appearance of symptoms (symptoms). The symptoms of fraud in the procurement of goods and services



has its own characteristics depending on each stage. The following indicators on stage procurement fraud detection, among others:

- a. Red flags at the planning stage;
- b. Red flags on the stage of the formation of the committee;
- c. Red flags at the prequalification stage;
- d. Red flags on the stage of preparation of the document;
- e. Red flags on the bid evaluation stage;
- f. Red flags on the stage of the announcement;
- g. Red flags on disclaimer stage.

### **3.4 Data Analysis Techniques**

Testing this hypothesis using Partial Least Square (PLS). PLS is an alternative method of analysis with Structural Equation Modeling (SEM) based variance. Program used in testing the research hypotheses are Warppls 3.0. Terdapat several steps of testing using the PLS method, among others;

- a. Evaluation of the outer measurement model or models;
- b. Evaluation of the inner structural model or models;
- c. Test the hypothesis (resampling blinfolding).

## **4. Results and Discussion**

### **4.1 Measurement Evaluation Model atau Outer Model**

The validity of test results using the PLS technique Warppls 3.0 explains that the program planning stage (X1), the stage of the formation of the committee (X2), pre-qualification stage (X3), the stage of the preparation of tender documents (X4), the evaluation phase penawara (X5), stage announcements (X6), stage Disclaimer (X7) and pendeteksi procurement fraud (Y) is valid by removing some indicator which does not meet the requirements / criteria. Overall variable with some of these indicators have met the following criteria loading values above 0.40 and p-valuenya (<0.05). In addition, the value of average variance extracted (AVE) above 0.50.

Test reliability was assessed by composite reliability and Cronbach alpha. Both components must be valued above 0.70 as a condition of reliability. The test results showed that 8 constructs in this study are reliable. Table 4.2 describes in more detail the value of Cronbach alpha compositing reliabilily and each construct

Tabel 4.2 *Composite reliability coefficients dan Cronbach's alpha coefficients Value*

	X1	X2	X3	X4	X5	X6	X7	Y
<i>Composite reliability coefficients</i>	0,850	0,917	0,834	0,898	0,868	0,907	0,838	0,87
<i>Cronbach's alpha coefficients</i>	0,763	0,890	0,732	0,826	0,794	0,860	0,708	0,80

Source: Warppls 3.0 program outputs are processed, 2014

Value Composite reliability coefficients of each construct was qualified that is worth over 0.70. Meanwhile, Cronbach's alpha coefficients for each construct also qualify reliability as proposed by (Fornell and Lacker, 1981; Nunnaly 1978 in Solihin and Ratmono, 2013).

#### 4.2 Evaluation Model atau *Inner Model*

Based on the analysis Partial Least Square to test test the structural model (inner model) with Warppls Program 3.0. obtained results of the analysis as follows:

Tabel 4.1 *R-Squared dan Q-squared Value*

Variabel	Nilai R-Squared	Nilai Q-Squared
Pendeteksian (Y)	0,597	0.605

Source: Warppls 3.0 program outputs are processed, 2014

The above table shows that the value of R-Squared is equal to 0597. The test results can be interpreted that the variable planning stage, the stage of the formation of the committee, the prequalification stage, the stage of the preparation of tender documents, evaluation stage, stage announcements and rebuttal phase of e-procurement can explain 59.70% of the pendeteksianprocurement fraud. while the rest is affected by other factors that are not included in this model.

Q-squared aimed at measuring how well the production generated by the model constructs. Based on calculations, it can be seen that the Q-squared value of 0.605 for. This suggests that the model in this study has predictive relevance (match prediction) for Q-squared value > 0.-exogenous variables such as the planning stage, the stage of the formation of the committee, the prequalification stage, the stage of preparation of tender documents, evaluation stage, stage and stage announcements refutation of e-procurement in the variables predictive relevance procurement fraud detection.

### **4.3 Hypothesis Test(*Resampling Blinfolding*)**

#### **4.3.1 Planning Stage E-Procurement To Procurement Fraud Detection**

E-procurement planning stage significantly influence the procurement fraud detection. It is implemented on the test results show that the P-value of 0.001 with path coefficients of -0.471. Then, the planning can explain 60% of procurement fraud detection, and the rest is influenced by other factors.

In accordance with the concept proposed by Amrizal detection (2004) that hint of fraud is usually indicated by the appearance of symptoms (symptoms) as a change in lifestyle or behavior, suspicious documentation, customer complaints or suspicions of fellow workers. In keeping with the spirit of reform of the bureaucracy, the stages in the procurement of goods and services is expected to promote the principles of good governance.

To detect fraud at the planning stage, the following are some symptoms or red flags that need to be considered (Oemarmadi, 2009: 20-21) that the plans did not realistic and usually exaggerated, far above the actual needs. As a result, swelling the number of its budget or the budget which is a waste and increase the chances of leakage. Preparation of technical specifications and criteria aimed to increase the odds that a particular product and entrepreneurs can win the auction. Packaging engineering for the benefit of fraud and intentionally directing that the direct appointment, the stages of procurement made long and protracted until the deadline narrow and urgent. When the time constraint can be used as an excuse to make direct appointments. Direct appointment could open up opportunities to choose a company or partnership that has been determined.

The test results revealed that the planning phase will be implemented with a transparent red flags to detect the occurrence of procurement fraud. The test results consistent with the theory proposed by Dwiyanto et al (2012: 234) states that the idea of reforming the bureaucracy wants more transparent, open and honest. Procurement plan can be detected if the preparation and strategy planning is carried out with an open and involving several parties as a watch implementation planning activities.

It is necessary to detect the occurrence of the preparation of technical specifications which tend to be directed to the interests of multiple parties. The detection can be done with the supervision of the community as well as the elements of openness in the preparation of technical specifications. The detection of the red flags the auction gathering and practices that occur intentionally directed by direct appointment can be minimized by promoting openness Principles in any planning process for goods and services. The opportunity to establish a social gathering auction activity is very limited.

Testing this study suggests the results are in line with research conducted by Messah et al (2013) and is also relevant to the research conducted by Purwanto (2008) who argued that stage in the e-procurement in addition to verification stage qualification and clarification and negotiation stages, capable reduce fraud in the procurement process.

#### **4.3.2 Committee Formation Stage E-Procurement To Procurement Fraud Detection**

Committee formation stage not affect the procurement fraud detection. These findings reject the hypothesis of research that suggests that committee formation stage an effect on procurement fraud detection. Accordint to test result is that the value of the path coefficients: 0.258 and P-value: 0257. The test results revealed the opposite result and can not suitable with theory of bureaucratic reform proposed by Quah (1976) in Dominata (2013) which states that the reform as a process to change the public bureaucratic procedures and attitudes and behavior of bureaucrats to achieve the effectiveness of bureaucracy and development objectives national. The same thing also expressed by Khan (1981) in Dominata (2013) which gives the sense that the reform as a business major changes in a bureaucratic system that aims to change the structure and behavior.

Procurement fraud detection should be informed early in the form of symptoms or red flags. According Oemarmadi (2009, 23-24) there are red flags at the committee formation stage this research concern, among others, the committee is not transparent like the committee to work in private and do not provide the same service or assessment among the bidders. Integrity weak committee, the committee siding and tend to give privileges to certain groups. Independent committee or committees that are not controlled or influenced by the wishes and interests of a particular party. Finally, the committee often can not resist the direct supervisor intervention.

The findings of the study explained that e-procurement can not detect red flags that occurred at the stage of formation of the committee. In general, e-procurement is designed to restrict access to the organizers of fraud at every procurement goods and services stage. However, the results of this study indicate that e-procurement can not detect behaviors that make up the committee are not independent, weak and professional integrity. Should increasingly sophisticated e-procurement system in reducing access procurement committee, the easier also to detect fraudsters minded procurement committee. However, research suggests that different results. For example, the dominant red flags happen that the committee is not transparent or tends to close the access information to other parties.

Actually, with the implementation of e-procurement has been able to help the interested parties to access information via the internet. However, these conditions will

change if the procurement committee has been contaminated by any element of fraud such as bribes and gratuities from several parties who want to win the auction, and pressure or influence that contain elements of fraud from head of department establish the performance of the procurement committee unprofessional.

Red flags weak hereinafter that the integrity committee, it is common if the procurement committee has been infected committee conduct procurement fraud then led into no integrity. For example, unprofessional, not transparant, not objective and irresponsible. The phenomenon is more irony, if the decision of the procurement committee determined only by bribes and gratuities. Then the next red flags that the committee's decision not tended by a written agreement between the committee with a partner. The next tendency is the committee will work with subjectivity without considering other important things. Then the last red flags that the intervention of leaders in institutions. This condition allows the procurement committee can not work professionally and independently. Then, procurement activity is fully controlled by the leader or supervisor. The situation shows the leader or supervisor who has been infected by fraud.

Electronic procurement is appropriate and should be supported to improve bureaucracy, especially the procurement of goods and services. However, the problem that arises next is about the quality of mental integrity of human resources. Mental quality and integrity of the human resources needs to be improved, with the hope of creating the procurement of goods and services in accordance with the constitutional mandate. E-procurement can be a reliable system and can detect fraud if accompanied by mental quality and integrity of the human resources.

Implicitly, the results of the measurement and testing of this study is different and contrary to the results of research Messah et al (2013) who suggested that the formation of the committee stage of the procurement of goods and services using e-procurement can decimate fraud action. As well as research conducted by purwanto (2008) who explains that the respondents agreed even strongly agree with the e-procurement to reduce indications of fraud at every stage of the procurement of construction services.

#### **4.3.3 Prequalification Stage E-Procurement To Procurement Fraud Detection**

The findings of the pre-qualification stage of the test results on procurement fraud detection indicates the value of the path coefficients: 0.653 and P-value: 0.050. The number is interpreted that the prequalification stage affect the detection of fraud. The test results in accordance with the theory presented by Dwiyanto et al (2012: 234), which suggests that the idea of reforming the bureaucracy wants more transparent, open and honest. One of the

benefits of e-procurement system that uses the concept of interoperability which serves to reduce the documents are not in accordance with the provisions of the auction.

Red flags on the prequalification stage according to (Oemarmadi, 2009: 25-26), among others, administrative or document does not qualify, asphalt administrative documents, document legalization is not done, not in accordance with the evaluation criteria and no assessment in the field. Preliminary information of fraud on the prequalification stage everything can be detected with an e-procurement system.

Symptoms often happens that an administrative document that does not qualify. Fraudulent practices that are common in the pre-qualification stage that the document does not qualify as a false certification and letter of assignment without documents. With the concept of interoperability in e-procurement systems, these documents can be detected and eliminated from the pre-qualification stage.

The test results revealed that the pre-qualification stage will be carried out with a transparent red flags to detect the occurrence of procurement fraud. The test results consistent with the theory proposed by Dwiyanto et al (2012: 234) states that the idea of reforming the bureaucracy wants more transparent, open and honest. Various kinds of red flags above can be detected easily if all the processes carried out in a transparent manner by making use of the Internet media. The stronger the concept of interoperability in e-procurement and supported by the concept of transparency on which the implementation of e-procurement makasemakin easy and fast in detecting the occurrence of procurement fraud red flags.

This study supports research Messakh et al (2013) who argued that the pre-qualification stage of the procurement of goods and services using e-procurement can decimate fraud action. As well as research conducted by purwanto (2008) who explains that the respondents agreed even strongly agree with the e-procurement to reduce indications of fraud at every stage of the procurement of construction services.

#### **4.3.4 Auction Stage E-Procurement To Procurement Fraud Detection**

Other results in the testing preparation of auction documents stage for procurement fraud detection. The estimation results explained that the stages of preparation of the auction documents did not affect the detection of the path coefficients are -0.430 and P-value: 0.115. In particular, it can be said that the stage of preparation of auction documents also involves the procurement committee. In testing the hypothesis previously described that the phase of the auction documents can detect fraud because there is standardization of documents and supervision of the community. Especially for the detection of activity of documents that



contain elements of fraud, e-procurement no effect or not able to detect symptoms of fraud. Test results are not in accordance with the spirit of bureaucracy proposed by Damayanti and Hamzah (2011) who explains that the prevention of systematic and integrated through the use of technological advances that are indispensable.

In accordance with the types of fraud that occurred at the preparation of auction documents stage presented by Oemarmadi (2009: 28-29) mentions, among others, engineering evaluation criteria, non-standard action documents, auction documents are incomplete and auction documents leading or biased. Prior to the occurrence of fraud, surely there is preliminary information, or red flags. For example, create and manipulate the technical criteria which aim to make the product. E-procurement is not able to detect red flags technical preparation engineered caused standardization documents in accordance with the auction documents. However, due to the role of the procurement committee person who contracted the virus fraud detection becomes difficult to do.

The easier access to the stage of the procurement committee drafting the auction documents, the greater the chances of fraudulent actions. The impact is the detection of red flags for fraud auction documents preparation stage is very weak and not a maximum. As a result, the activity of prevention of fraud document preparation stage which has a maximum, was useless due to the red flags of fraud detection is not optimal.

The measurement results of this study contrast with the results Messakh et al (2013) who argued that auction documents preparation stage of the procurement of goods and services using e-procurement can decimate fraud action. As well as research conducted by purwanto (2008) who explains that the respondents agreed even strongly agree with the e-procurement to reduce indications of fraud at every stage of the procurement of construction services.

#### **4.3.5 Bid Evaluation Stage E-Procurement To Procurement Fraud Detection**

The same result occurred in the testing the bids evaluation stage for procurement fraud detection. The estimation results explained that the bid evaluation stage does not affect the detection of the path coefficients were 0.069 and P-value: 0433. Similar to the testing phase of the bid evaluation of prevention, testing for detection also can not suitable with theory by Dwiyanto et al (2012: 258) states that transparency becomes an important dimension of change because of the transparency will facilitate the users of services and civil society to conduct surveillance on the course of implementation of public service. The same thing also expressed Dominata (2013) also explains that openness (transparency) is a state that allows the availability of information that can be provided and obtained the public.



To detect fraud need to know the initial information in the form of red flags that occurred at the stage of bid evaluation. Oemarmadi (2009: 46) argues that the red flags at the stage of bid evaluation, among others, the replacement document to win certain business partners by inserting a revised document in the initial document. With the enclosed evaluation conducted in secret and difficult to reach, the committee can do anything in the handling of documents including documents replace or exchange the bidder. Then, Although not the lowest bidder, the document was changed and replaced such that after correction of arithmetic bidder can be a winner.

To detect the red flags of fraud, e-procurement has advanced enough to cover the possibility of fraud. However, these conditions will change if the procurement committee has been contaminated by any element of fraud such as bribes and gratuities from several parties who want to win the auction. Thus, the need for continuity between e-procurement system with human resources. Thus, the test results can be concluded more transparent bid evaluation stage has not been able to detect the occurrence of procurement fraud caused by other factors, namely the mental quality of human resources.

The findings of this study different views and contrary to the results of research conducted Messah et al (2013) which suggests that the evaluation stage of the supply of goods and services using e-procurement can decimate fraud action. As well as research conducted by purwanto (2008) who explains that the respondents agreed even strongly agree with the e-procurement to reduce indications of fraud at every stage of the procurement of construction services.

#### **4.3.6 Announcement Stage E-Procurement To Procurement Fraud Detection**

The findings of the test results of the auction announcement stage of procurement fraud detection indicates the value of the path coefficients: 0.936 and P-value: 0.013. The figure interpret that stage auction announcement affect the detection of fraud. The test results in accordance with the theory presented by Lopez (2001) which suggests that action to reform the bureaucracy, especially directed at improving the efficiency, transparency and accountability of the bureaucracy. Procurement of goods and services have conventionally been reformed. The most obvious reform is the availability and transparency of information to the public. The most fundamental change is the procurement of goods and services using the internet with e-procurement system. The tendency in the presence of bureaucratic reform in the procurement of goods and services can suppress acts of fraud. In line with Dwiyanto et al (2012: 60) which shows that transparency in the bureaucracy may have implications on the decline in the level of corruption within the bureaucracy.

In the announcement stage, the role of e-procurement is central because all the information related to the announcement of the winner of the auction is published using the internet. So the chances of fraud such as limited announcement, which postponed the date of the announcement, the announcement that not comply with the maximum detectable. The concept of transparency in e-procurement systems facilitate information quickly and widely scattered and communities with easy to access such information.

E-procurement used in the procurement activities of the public sector, fraudulent practices at the stage of the auction announcement is easier to detect due to the concept of transparency that used the system can be translated and applied properly. Thus, the open phase of the announcement of the winning bidder will automatically against procurement fraud detection easier and maximum.

The findings of this study are consistent with research conducted by Messakh et al (2013) are also relevant to the research conducted by Purwanto (2008) suggested that tahapanan-stage in the e-procurement in addition to verification stage qualification and clarification and negotiation stages, able to reduce fraud in procurement of goods and services..

#### **4.3.7 Disclaimer Stage E-Procurement to Procurement Fraud Detection**

The model that the latter is the disclaimer stage variables (X7) with procurement fraud detection (Y2), from the estimation results obtained significant influence disclaimer stage of the procurement fraud detection at -0660 and P-value: 0.025. In keeping with the spirit of reform of the bureaucracy, the more transparent procurement level, the more powerful refutation also detecting the occurrence of procurement fraud red flags. The findings of this study are consistent with the theory presented by Dwiyanto yan et al (2012: 69) which suggests that the responsiveness of the provision of public services, one of which is measured through the disclosure of information and the extent of interaction communication between the bureaucracy as a provider of services to the service user. Transparency of the procurement of goods and services is one of the main missions of procurement reform.

Disclaimer stage is an opportunity for those who are less satisfied to ask for an explanation for the decision of the procurement committee. At this stage there is some fraud that often occurs among others, the committee does not respond to important refutation and disclaimer often late or not up. The implementation of e-procurement is expected to reduce the fraud practices. One of cheating mode ie with the attitude that the committee do not respond to important refutation and disclaimer late. With the implementation of e-

procurement fraud activity detection was easy to do, because all objections aktivatas transparently displayed through the website using the internet. Thus, communities with easy to perform surveillance and control activities.

Interpret the test results that the rebuttal phase of e-procurement significant effect on procurement fraud detection. The essence of e-procurement application specific to that activity disclaimer stage can be implemented more transparent and community were involved overseeing the activity. Procurement of goods and services using electronic require any rebuttal activity using the internet with e-procurement system. The more transparent the disclaimer activity increasingly close chances of procurement fraud, it can assist and facilitate the process of detection using e-procurement.

The test results are consistent with research conducted by Messah et al (2013) are also relevant to the research conducted by Purwanto (2008) suggested that stage in the e-procurement in addition to verification stage qualification and clarification and negotiation stages, able to reduce fraud in the process of procurement of goods and services.

## **5. Conclusions and Suggestions**

### **5.1 Conclusions**

Based on the analysis and discussion, the conclusions of this study are based on test results simultaneously using a resampling study suggests blinfolding planning stage, pre-qualification, auction announcements and disclaimer significant effect on procurement fraud detection. The findings and test results of this study indicate that the stages of the procurement of goods and services using electronic is not fully capable of detecting fraud. There are several stages of the procurement of goods and services were not able to detect the red flags of procurement fraud.

### **5.2 Suggestions**

Recommendations for further research include the preparation of the questionnaire research, especially related to the testing stage of the procurement services fraud detection needs to be reviewed and refined. Develop and complement the research model with a variety of indicators that can measure the construct of detection procurement of goods and services. Respondents of this study were classified into three groups: ULP, SKPDs and Partner / providers of the procurement goods and service. The third group study

respondents had varying rates of return questionnaires so that the test can not be compared between the three groups of respondents.

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