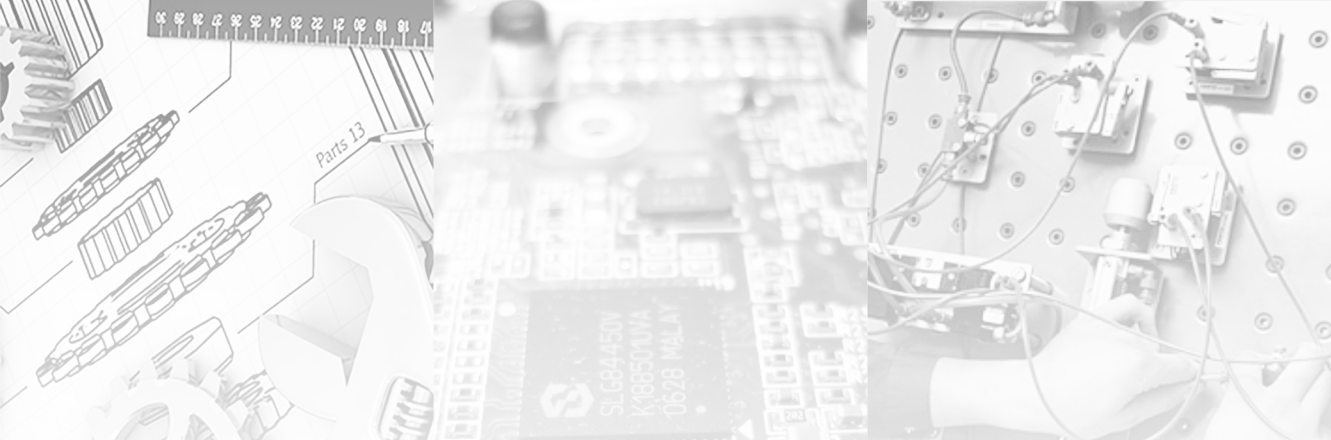

# PROBLEMS IN THE PUBLIC PROCUREMENT PROCESS IN LOCAL GOVERNMENTS IN INDONESIA
## (Case Study : Blitar Regency and Batu Municipality)

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**Abstract**

Indonesian local governments must put to bid all construction works that will cost more than $16,950 according to Presidential Regulation No. 35 of 2011. The local governments always use the Knockout System in the auction process which has a different auction flow with the Presidential Decree No.80 of 2003. Research data were obtained through questionnaires and surveys in the Blitar Regency and the Batu Municipality, and methods were used to describe the analysis and Importance-Performance Analysis (IPA).

The auction process should be conducted through some evaluations, such as the administrative evaluation, technical and the final evaluation of technique and costs. These are different from the bidding process of Direct Appointment with the Public Tender in the located Arithmetic. The Public Tender must have a Pre-Occupational Safety and Health Plan Contract (Pre-RK3K) and Quality Management to pass the Administration Evaluation, but the Direct Appoinment was not the main requirement of the bidding process.

***Keywords:*** Electronic procurement system, Knockout System, Importance-Performance Analysis

## A. INTRODUCTION

Public procurement is undertaken to procure goods and services for developing infrastructure and public services through transparency, effectiveness, and efficiency. One of the factors that effects the quality of the infrastructure is the quality of the counterparty (private company) involved in the construction process[1)]. Generally, such procurement is done in Indonesia through public auction after certain qualifications are met. Evaluation of bids is the most important stage public auction process because there is a technical evaluation of the cost based on the documents or the bids[2)].

The tender process has several stages, namely announcement, registration, explanation (and instructions), submission, opening, and evaluation of bid documents. Because the budget used for the procurement of construction projects in local government comes from the Regional Revenue Budget and Expenditure, the use of these funds must follow the rules and procedures defined by the government. The Regional Revenue Budget and Expenditure are obtained from the National Revenue Budget and Expenditure addressed to each area in Indonesia. The procurement of goods/services is paid, in whole or in part, by financing from the state budget, including loans and grants received by the local government. If there are differences in the way the agreement for procurement proceeds, procurement of these goods or services is partially or entirely financed by the Loan/Foreign Grants (PHLN). Consequently, at bidding implementation, rules and alternative delivery systems are more limited. In many countries, including Indonesia, project owners generally use the lowest price system (low bid) to determine a winner in the bidding. This induces the bidders to employ a competitive bidding strategy (competitive bidding strategy) to win the project tender[3)].

Usually, the bidders bid the lowest price on the value of the owner's estimate to gain the maximum profit. In the provider's selection of construction work or private company, local governments in Indonesia usually use Post-Qualification in Qualification Assessment, Direct Appointment or Public Tender for Selection Method of Goods/Services, One Envelope for the Bidding Document Delivery, and the Knockout System for Evaluation[4)].

This paper aims to find the factors that influence the selection of the winning bid, to investigate the gap in the auction system in local government between the conventional system based on the Presidential Decree No. 80 of 2003 and the e-Procurement system based on Presidential Decree No.

70 of 2012, and to evaluate the implementation of e-Procurement in public procurement processes.

## B. RESEARCH METHODOLOGY

### 1. Questionnaire

As the Blitar Regency received the award "winning e-procurement Award in 2013; Category Performance Electronic Systems", the Blitar Regency and the Batu Municipality were selected as study sites5). (Government of Blitar Regency 2014). The data were obtained through two main methods: collecting data and quastionnaires.

Questionnaires were submitted to 35 responding auction participants using random sampling for private companies and auction committees (in the Blitar Regency and the Batu Municipality). Personal attribute data are: gender, age, education, and occupation position.

(1) To find the determinant factors/variable, we asked the members of two auction committees and private companies to answer the questionnaire on the procurement phase, which was comprised of 24 questions related to determining the factors that influence the auction participant's victory in the auction process, namely: 1) administration evaluation, 2) technique evaluation, and 3) cost evaluation. Five scales were employed: very high influence [5], high influence [4], enough affect [3], low affect [2], very low affect [1]. The factors/variables are listed as 1) – 24) in **Table 2.**

(2) To investigate the differences of performance and the importance between the conventional procurement system and the e-Procurement system, we asked the respondents 9 questions that related to these variables: time savings, cost savings, human resources and quality of e-Procurement. We employed the five points Likert scale of saving more than 81% [5], saving of approximately 51% - 80% [4], enough to saving less than 50% [3], a lack of saving [2], No saving [1].

In the conventional system, most of the auction process is manually done. In contrast, in the e-Procurement system, the entire auction process can be accessed by the Internet, thus minimizing the time required by the bidders to mobilize for submission of bidding documents to the office.

(3) To evaluate the implementation of e-Procurement for public

procurement processes in the Blitar Regency and the Batu Municipality, 19 questions were asked that concerned e-Procurement system, quality of service to valuable products, role of Electronic Procurement Services within e-Procurement, regulations regarding implementation of e-Procurement, and auction system performance capabilities of e-Procurement in completing the auction process in local government. We employed 5 scales: untrusted [1], less trustworthy [2], trusted less than 50% of the time [3], believed 51% - 80% of the time [4], and believed more than 81% [5].

## 2. Importance Performance Analysis (IPA)

IPA was used to evaluate the e-Procurement system. In the IPA, SERVQUAL *(G)*, an evaluation tool, has been widely used to measure service quality in local government, and private companies. *G* was used to measure the service quality of the auction process[6]:

$$G = P\text{-}E \qquad (1)$$

Where:

$G$ = Service quality gap,
$P$ = Perception by the questionnaire respondents; in this study, following $\bar{X}$, and
$E$ = Expectation evaluated by the questionnaire respondents ; in this study, following $\bar{Y}$.

The result of the importance and performance level assessment will produce a calculation of the level of concordance between the level of importance and performance of the auction process based on the perception of the respondents. The level of satisfaction is the result of a comparison of the score of performance and execution with the score of importance. The satisfaction level will determine the order of priority to improve the factors that influence differences in the auction system in local government between the conventional system with the e-Procurement system. In this study, *X* means conventional system and *Y* means e-Procurement system, and these are written as:

$$Tk_i = \frac{\bar{Y}_i}{\bar{X}_i} \quad (2), \qquad \bar{X} = \frac{\sum x_i}{n} \quad (3), \qquad \bar{Y} = \frac{\sum y_i}{n} \quad (4)$$

Where:

$Tk_i$ = respondent suitability level of the e-Procurement system to conventional system,
$X_i$ = performance evaluation score of the conventional procurement system [1,

2, 3, 4, 5],

$Y_i$ = importance evaluation scores of the e-Procurement system [1, 2, 3, 4, 5],

$\bar{X}$ = average of the evaluation scores to the performance of the conventional system,

$\bar{Y}$ = average of the evaluation scores to the importance of the e-Procurement system.

The "$k$" means the number of the factors/variables and $k = 1,2, \ldots, q$. In the IPA, indexes $Tk_i, X_i, \bar{X},$ and $\bar{Y}$ are calculated based on the respondents' evaluation scores [1,2,3,4,5] to the importance $(X_i)$ of the conventional procurement system and the performance $(Y_i)$ of the e-Procurement system. Subscript *i* means the number of respondents: *i* = 1, 2, …, n[7].

The Cartesian Diagram in the IPA grid can be made by dividing into four sections by two lines intersecting perpendicular at points $(\bar{\bar{X}}, \bar{\bar{Y}})$. $\bar{\bar{X}}$ is the mean of the average $\bar{X}$ in equation (3), for implementation of all of the factors or attributes, and $\bar{\bar{Y}}$ is the mean of the average $\bar{Y}$ in the equation (4) for the importance of all of the factors that affect the auction system with 9 factors or attributes. These are calculated by the following equations[8]:

$$\bar{\bar{X}} = \frac{\sum_{i=1}^{N} \bar{X}}{K} \quad (5), \qquad \bar{\bar{Y}} = \frac{\sum_{i=1}^{N} \bar{Y}}{K} \quad (6)$$

## C. ANALYSIS AND RESULT

### 1. Personnal Attribute

**Table 1** shows the attributes of respondents, nine of whom are members of auction committees and 26 are decision makers in private companies. It also shows the education level: "Undergraduate" is 57.1%. The gender composition has a higher percentage of males (65.7%). The majority range from 31 years to 40 years (77.14%).

### 2. Determination of the Winning Bidder

Data on the factors influencing the winning bidder in the auction processes were obtained from the questionnaire results to the auction committees and private companies (contractors). Fifty questionnaires were distributed over a six day period beginning on June 13, 2014. Thirty-five respondents and two occupation positions involve administration, technique and cost evaluations

respectively. Twenty-five questions were commonly asked about factors that determine the auction winner based on the evaluation scores [1, 2, 3, 4, 5]. The highest score of 5 means the highest level of influence/importance of the factor/variable. To find out the influencing factor, $\bar{X}$ was calculated and used as the index of the influence.

**Table 2** shows the 24 factors/variables and the mean of their influence in determining the winning bidder [1, 2, 3, 4, 5] evaluated by the 9 respondents in the auction comittees and the 26 respondents in the private companies among three categories: administration, technique, and cost. In **Table 2**, the mean of No.6 "Certificate of Financial Support from the Bank, minimum 10% of Engineer Estimate (EE)" in the auction committee is 4.1, and No.8 "Support sub-contract" is 3.22. These means that No.8 is the least influential factor in the category of administration evaluation. These factors with a mean value of 5 are as follows. The mean value of 5 means that all respondents evaluated the factor as 5. As there are many factors with mean values of 5, administration evaluation is an important factor within the auction process. Therefore, the e-Procurement for all administrations must be fulfilled to continue to the next evaluation. This trend is the same in the private company.

a. Business Firm Certificate that corresponds and is still valid;
b. Valid permitting for a Construction Services Business License;
c. Having a Taxpayer Identification Number (NPWP);
d. Proof of payment of all taxes monthly/yearly;
e. Work experience in 4 years, and
f. The rest of the Capability Package according to the Election Data Sheet (EDS).

In the category of technical evaluation, the following six components become important factors:

a. The implementation method;
b. The schedule of implementation time;
c. The technical specifications according to the auction documents;
d. The ownership of personnel/skilled staff according to the EDS;
e. The ownership of technical personnel according to the EDS; and
f. Attachments of a similar experiences to the project company.

The final evaluation process is the cost evaluation. As shown in the lowest rows in **Table 2**, No.23 "Contractor with the lowest price" has the mean of 5.

The contractor bid the lowest price becomes a winner, as the price is the most reasonable variable and can be valued numerically. From the questionnaire results, it can be concluded that the Knockout System, in which the lowest bidding company is selected as the winner, was applied through an assessment of the work quality of the bidders and, for the lowest bid price offered.

**Table 1.** Personnal attributes of the questionnaire respondents

| Category | Variable | Total | | Percentage (%) |
|---|---|---|---|---|
| | | Auction Committee | private company | |
| **Occupation Position** | Auction Committee | 9 | | 25.7 |
| | Director of private company | 26 | | 74.3 |
| **Education** | Senior High School | 0 | 13 | 37.1 |
| | Diploma | 0 | 1 | 2.9 |
| | Undergraduate | 9 | 11 | 57.1 |
| | Graduate | 1 | - | 2.9 |
| **Gender** | Male | 5 | 18 | 65.7 |
| | Female | 4 | 8 | 34.3 |
| **Age** | < 20 years old | 0 | 0 | 0 |
| | 20-30 years old | 0 | 7 | 20 |
| | 31-40 years old | 9 | 18 | 77.1 |
| | 41-50 years old | 0 | 1 | 2.9 |
| | > 51 years old | 0 | 0 | 0 |

**Table 2.** Twenty four factors/variables and their influenceness in determining winning bidder

| Category | | Factor/Variable | Mean of influenceness [max, 5] based on respondent's evaluation | |
|---|---|---|---|---|
| | | | Auction Committee | Private Company |
| **Administration Evaluation** | 1 | Signature in the form for qualification | 3.89 | 4.23 |
| | 2 | Validity of Certificate of Business Firm which corresponding | 5 | 5 |
| | 3 | Permit valid for Construction Services business license | 5 | 5 |
| | 4 | Have a Taxpayer Identification Number (NPWP) | 5 | 5 |
| | 5 | Proof of payment of all monthly/yearly taxes | 5 | 5 |

| | | | | |
|---|---|---|---|---|
| | 6 | Certificate of Financial Support from the Bank, minimum 10% of Engineer Estimate (EE) | 4.11 | 3.77 |
| | 7 | Work experience in the least 4 years | 5 | 5 |
| | 8 | Support sub-contract | 3.22 | 2.65 |
| | 9 | Attachment delivery the ongoing work | 4.33 | 4.23 |
| | 10 | Certificate of quality management (International Organization for Standardization/ISO) or have a safety and health management (K3) | 4.33 | 4.31 |
| | 11 | Equipment capabilities according to the Election Data Sheet (EDS) | 4.44 | 3.65 |
| | 12 | Capability of main personnel and technical personnel according to the EDS | 4.33 | 4.88 |
| | 13 | The Rest of the Capability Package (SKP) according to the EDS | 5 | 5 |
| **Technique Evaluation** | 14 | The implementation method | 5 | 5 |
| | 15 | Technical specifications according to the auction documents | 5 | 5 |
| | 16 | Ownership of personnel / skilled staff according in the EDS | 5 | 5 |
| | 17 | Schedule of implementation time | 5 | 5 |
| | 18 | Ownership of technical personnel according to the EDS | 5 | 5 |
| | 19 | Attachments a similar experience to the project company | 5 | 5 |
| | 20 | Include the work that is being done | 2 | 1.88 |
| | 21 | Attaching work in Sub-Contractor according to the EDS | 2.78 | 2.77 |
| | 22 | There is a pre-plan safety and health contract (pre-RK3K) | 3.89 | 3.15 |
| **Cost Evaluation** | 23 | Contractor with the lowest price quote | 5 | 5 |
| | 24 | Contractor with a quote that comes closest to the price quote EE | 2.33 | 2.54 |

Questionnaires were submitted on June 13, 2014 to the contractors and the bidding committee to: 1) determine the factors that influence the selection of the winning bidder in the auction process; 2) investigate the differences in the auction system in local governments between the conventional system (the Presidential Decree No. 80 of 2003) and the e-Procurement system (Presidential Decree No. 70 of 2012); and 3) evaluate the implementation of e-Procurement for public procurement processes in the Blitar Regency and the Batu Municipality. After Presidential Decree No.70 of 2012, the auction process and its implementation were also changed. Respondents were asked to rate the variables regarding the overall service quality of the e-government services on a five point Likert scale.

**Table 3** shows the variables of service quality and their evaluation in the conventional system $(\overline{X}_i)$ and the e-Procurement system $(\overline{Y}_i)$. $Tk_i$ is the relation of $(\overline{Y}_i)$ to $(\overline{X}_i)$, and rank is the order based on the $Tk_i$. The left parts are values evaluated by the auction committee and the right parts are values evaluated by the private company. **Table 3** shows an increase in "Time savings during phases of auction process (Rank 1)", "Time savings in terms of transportation to attend the auction process (Rank 6)", "Time savings when implementing the auction process (Rank 2)", "Cost savings during auction process (Rank 4)" and "Savings against the cost of procurement of goods/services (Rank 4)", "Savings of administrative cost (Rank 8)", "Availability of professionals who have both auction process and IT knowledge (Rank 6)", "Confidence in e-procurement to ensure that the auction process is transparent and free of corruption, collusion, and nepotism (Rank 7)", and "Degree of confidentiality of the auction submission and the security level on a document database security system (Rank 3)" from auction committee.

**Table 3.** Respondent's evaluations of the performance of the conventional system and the importance of the e-Procurement system

| Code | Variable | Respondent's Answer | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Auction Committee | | | | Private Company | | | |
| | | C $(\overline{X}_i)$ | EP $(\overline{Y}_i)$ | $TK_i$ | Rank | C $(\overline{X}_i)$ | EP $(\overline{Y}_i)$ | $TK_i$ | Rank |
| 1 | Time savings during phases of the auction process | 2.22 | 4.44 | 2.00 | 1 | 2.15 | 4.27 | 1.99 | 1 |
| 2 | Time savings in terms of transportation for attending the auction process | 2.33 | 4.11 | 1.76 | 6 | 2.27 | 4.46 | 1.96 | 2 |
| 3 | Time savings when implementating the auction process | 2.33 | 4.44 | 1.91 | 2 | 2.27 | 4.27 | 1.88 | 5 |
| 4 | Cost savings during the auction process | 2.33 | 4.22 | 1.81 | 4 | 2.27 | 4.42 | 1.95 | 3 |
| 5 | Savings against the cost of procurement of goods / services | 2.33 | 4.22 | 1.81 | 4 | 2.27 | 4.42 | 1.95 | 3 |
| 6 | Savings of administrative cost | 3.22 | 4.44 | 1.38 | 8 | 3.50 | 4.27 | 1.22 | 8 |
| 7 | Availability of professionals who have both auction process and IT knowledge | 3.56 | 4.44 | 1.25 | 9 | 3.73 | 4.19 | 1.12 | 9 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 8 | Confidence in the e-procurement to ensure the that auction process becomes transparent and free of corruption, collusion, and nepotism | 2.67 | 3.89 | 1.40 | 7 | 2.73 | 3.54 | 1.30 | 7 |
| 9 | Degree of confidentiality of the auction submission and the security level on a document database security system | 2.44 | 4.44 | 1.82 | 3 | 2.27 | 4.27 | 1.88 | 5 |
| | | $\bar{\bar{X}}$ = 2.6 | $\bar{\bar{Y}}$ = 4.3 | | | $\bar{\bar{X}}$ = 2.6 | $\bar{\bar{Y}}$ = 4.24 | | |

Where:

C $(\bar{X}_i)$ = Conventional $(\bar{X}_i)$

EP$(\bar{Y}_i)$ = e-Procurement $(\bar{Y}_i)$

The right parts of the table regarding private companies are "Time savings during phases of the auction process (Rank 1)", "Time savings in terms of transportation to attend the auction process (Rank 2)", "Time savings when implementing the auction process (Rank 5)", "Cost savings during the auction process (Rank 3)" and "Savings against the cost of procurement of goods/ services (Rank 3)", "Savings of administrative cost (Rank 8)", "Availability of professionals who have both auction process and IT knowledge (Rank 9)", "Confidence in e-procurement to ensure that the auction process is transparent and free of corruption, collusion, and nepotism (Rank 7)", and "Degree of confidentiality of the auction submission and the security level on a document database security system (Rank 5)".

**Table 3** shows that the auction committee got the most important benefits in "Time savings during phases of the auction process" (Code No.1)" and "Time savings during implementing the auction process (Code No.3)". From the right parts, the private company got the benefit in Code No.1. This is the same evaluation as the evaluation by the auction committee. While second rank is "Time saving in terms of transportation for attending auction process".

From **Table 3**, it can be seen that, although rank is lowest at 9, "Availability of professionals who have both auction process and IT knowledge" (No. 7) have highest values greater than 3.56 in both the auction commitee and the private company. Namely, this variable is needed for the e-Procurement

system, too. The *Tki* of "Time savings during phases of the auction process" is more than 1.99 and ranked as Rank 1. Namely, auction participants felt that "Time savings during phases of the auction process" is important to measure each respondent's perceptions of the effects of the e-Procurement services. While the *Tki* of "the auction process is transparent and free of corruption, collusion, and nepotism" (No.8) are not as high as 1.4 and 1.30 and ranked as Rank 7.

However, the lowest rank from categories "Savings of administrative cost (Code No.6)" in Rank 8, and "Availability of professionals who have both auction process and IT knowledge (Code No.7)" in Rank 9, in both the auction committee and the private company are variables that satisfy using e-Procurement categorically related to cost and human resources. Variable that satisfy using e-Procurement, "Degree of confidentiality of the auction submission and the security level on a document database security system (Code No.9)" is ranked 3 by both the auction committee and the private company. The mean importance for all 9 benefits, $\overline{\overline{Y}}_i$ was rated at 4.3 by the auction committee, whereas the $\overline{\overline{X}}$ of the performance of conventioal system was only 2.6. These values are $\overline{\overline{X}} = 2.61$ and $\overline{\overline{Y}} = 4.24$ for the private company. These values mean that the e-Procurement system has been improved more than the conventional system.

**Table 4** Service improvement between the conventional system and the e-Procurement system

| Code | Variable | Auction Committe | | | Private Company | | |
|---|---|---|---|---|---|---|---|
| | | Mean $\overline{X}_i$ | Mean $\overline{Y}_i$ | Gap $\overline{X}_i - \overline{Y}_i$ | Mean $\overline{X}_i$ | Mean $\overline{Y}_i$ | Gap $\overline{X}_i - \overline{Y}_i$ |
| 1 | Time savings during phases of the auction process | 2.22 | 4.44 | -2.22 | 2.15 | 4.27 | -2.12 |
| 2 | Time savings in terms of transportation to attend the auction process | 2.33 | 4.11 | -1.78 | 2.27 | 4.46 | -2.19 |
| 3 | Time savings during implementing the auction process | 2.33 | 4.44 | -2.11 | 2.27 | 4.27 | -2.00 |
| 4 | Cost savings during the auction process | 2.33 | 4.22 | -1.89 | 2.27 | 4.42 | -2.15 |
| 5 | Savings against the cost of procurement of goods / services | 2.33 | 4.22 | -1.89 | 2.27 | 4.42 | -2.15 |
| 6 | Savings of administrative cost | 3.22 | 4.44 | -1.22 | 3.50 | 4.27 | -0.77 |
| 7 | Availability of professionals who have both auction process and IT knowledge | 3.56 | 4.44 | -0.89 | 3.73 | 4.19 | -0.46 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8 | Confidence in e-Procurement to ensure that the auction process is transparent and free from corruption, collusion, and nepotism | 2.67 | 3.89 | -1.22 | 2.73 | 3.54 | -0.81 |
| 9 | Degree of confidentiality of the auction submission and the security level on a document database security system | 2.44 | 4.44 | -2.00 | 2.27 | 4.27 | -2.00 |
| **Mean** | | 2.6 | 4.3 | -1.69 | 2.61 | 4.24 | -1.63 |

## 3. Grapic Plotting of the IPA Grid

The results of importance and performance level assessment produce a calculation of the level of concordance between the level of importance and performance auction process based on the perception of the respondents. The level of satisfaction is the result of a comparison between the score of performance /execution and the score of importance. The satisfaction level will determine the order of priority to improve the factors that influence the differences of the auction system in local government, between conventional systems and e-Procurement. Each variable was evaluated as very high [5], high [4], medium [3], low [2], very low [1].

**Table 4** shows the $\overline{X}_i$ and $\overline{Y}_i$ and their difference $G = \overline{X}_i - \overline{Y}_i$, and $\overline{\overline{X}}$ and $\overline{\overline{Y}}$. **Figure 1** shows the mean values $\overline{X}_i$ of the performance and of importance $\overline{Y}_i$ plotted on an IPA grid by the auction committee. Quadrant I, II, III, and IV are separated by the mean level of importance $\overline{\overline{Y}} = 4.3$ and the mean level of performance $\overline{\overline{X}} = 2.6$. Quadrant I means "Concentrate Here", which means that the auction committee perceived the attributes or variables located in this quadrant as very important, but the perceptions of performance levels were smaller than their average.

Thus, as for such variable as Code No 1, No. 3, and No. 9 in **Fig 1**, efforts for further improvement should be undertaken. The attributes located in Quadrant I are "Time savings during phases of the auction process", "Time savings during implementing the auction process", and "Degree of confidentiality of the auction submission and the security level on a document database security system".

The auction committee in the local governments and the Electronic Procurement Services (LPSE), must improve these attributes to achieve performance improvement from the e-Procurement system.

Such attributes as "Savings of administrative cost (Code No. 6)" and "Availability of professionals who have both auction process and IT knowledge (Code No. 7)" situated in Quadrant II, very important and were satisfied from the auction committee's perspective as "Keep up the Good Work". All of

these e-Procurement benefits are the strengths of the organizations and the government agencies, which should keep up the good work to maintain and delight their respondents. Otherwise, these benefits might risk falling into the "Concentrate Here" quadrant.

The respondents considered the variables located in Quadrant III less important and not properly fulfilled in the e-Procurement system. The variables that appear in this quadrant are "Time savings in terms of transportation to attend the auction process", "Cost savings during the auction process", and "Savings against the cost of procurement of goods/services". This quadrant as perceived by the auction committee was considered to have a low procurement system and was considered less important by the public. Consequently, the government did not need to prioritize these factors.

The variable included in Quadrant IV is "Confidence in e-Procurement to ensure that the auction process is transparent and free from corruption, collusion, and nepotism (Code No. 8)". Quadrant IV indicated the factors or attributes that the auction committee deems to be important. But, the variables concerned with the implementation of savings were rated by the auction committee as shown in **Table 4,** so that the respondents could not work optimally because of financial and time limitations, and the confidence level of some attributes continued to make people doubtful. As a result, the auction committee considered factor Code No.8 in "Concentrate Here" to require improvement.

**Fig 2** shows the mean values $\bar{X}_i$ and $\bar{Y}_i$ plotted on an IPA grid by a private company. The mean level of importance is 4.24, and the mean level of performance is $\bar{\bar{Y}} = 2.61$. Quadrant I "Concentrate Here" means that the private company perceive the attributes or variables located in this quadrant as very important, but the perception of performance levels were smaller than their average. Thus, as for variables such as Code No 1, No. 2, No. 3, No. 4, No. 5 and No. 9 in Figure 2 further improvement efforts should be done.

The attributes located in Quadrant I are "Time savings during phases of the auction process", "Time savings in terms of transportation to attend the auction process" "Time savings during implementing the auction process", "Cost savings during the auction process", "Savings against the cost of procurement of goods/services" and "Degree of confidentiality of the auction submission and the security level on a document database security system".

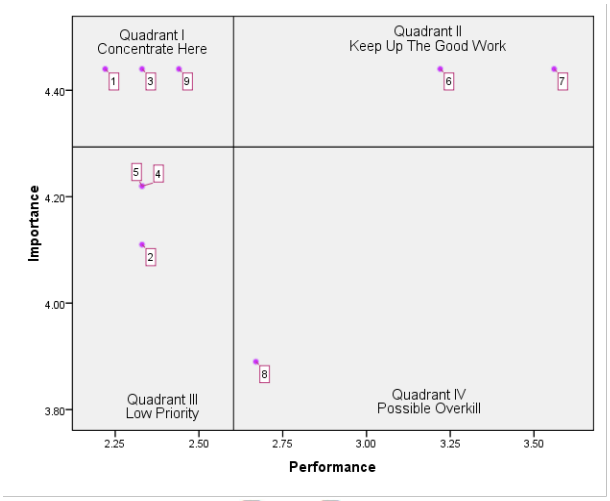


**Fig 1.** Mean Values $\overline{X}_i$ and $\overline{Y}_i$ by auction committee on IPA grid.

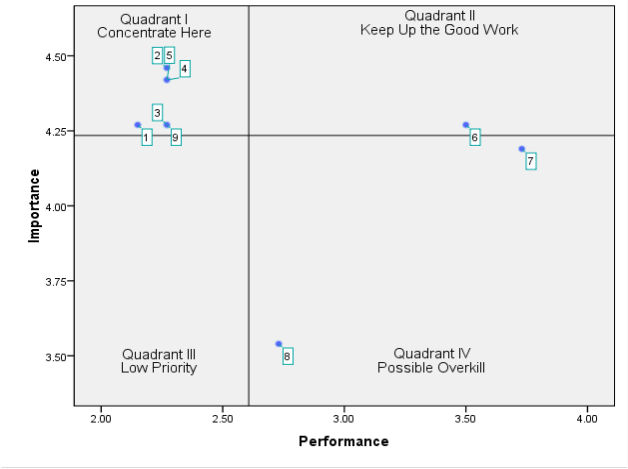


**Fig 2.** Mean Values $\overline{X}_i$ and $\overline{Y}_i$ by private company on IPA grid.

The auction committee in local government and the LPSE, must improve these attributes to improve the performance of the e-Procurement system. Such an attribute as "Savings of administrative cost (Code No. 6)" situated in Quadrant II, was be very important and was satisfied from the private company's perspective as "Keep up the Good Work". These e-Procurement benefits are the strengths of the organizations and the government agencies,

which should keep up the good work to maintain and delight their respondents. Otherwise, these benefits might risk falling into the "Concentrate Here" quadrant.

The variables located in Quadrant III were considered less important by the respondents and not properly fulfilled in the e-Procurement system. No variables appeared in this quadrant. The variables included in Quadrant IV were "Availability of professionals who have both auction process and IT knowledge (Code No. 7)" and "Confidence in e-Procurement to ensure that the auction process was transparent and free from corruption, collusion, and nepotism (Code No. 8)". Quadrant IV indicated the factors or attributes that the private company deemed to be important. But, the variables concerned with implementation of savings were rated by the auction committees as shown in **Table 4**, so that the private companies could not work optimally because of financial and time limitations, and the confidence level of some attributes continue to make people doubtful. Accordingly, the auction committee considered factors Code No. 7 and No. 8 in "Concentrate Here" to require improvement. The IPA grid revealed strategic focus areas, i.e., "Concentrate Here" quadrants with findings in this area as requiring the greatest attention.

## D. SUMMARY

The analysis results can be summarized as follows:

1. There are three methods of bid evaluations in Indonesia: the Knockout System, the Value System, and Cost Evaluation, based on Presidential Regulation No.70 Year 2012. Questionnaires were submitted to the members of the bidding committee and private company constructors in the Blitar Regency and the Batu Municipality to evaluate the factors of the e-Procurement system. The questionnaire results reveal that the administration evaluation is an important factor the within the auction process and that all members of the bidding committee must evaluate the administration factor, because in the evaluation in the e-Procurement the administration evaluation has to be done before technical evaluation and cost evaluation. The implemention of all

administration must be fulfilled to continue to the next evaluation. The Knockout System was applied through not only an assessment of work quality proposed from the bidders, but also for the lowest bid price offered.

2. The results achieved by Importance-Performance Analysis (IPA) require the greatest attention to the variables on "Concentrate Here" (quadrant I). They are "Time savings during phases of the auction process (Code No. 1)", "Time savings during implementing the auction process (Code No. 3)", "Degree of confidentiality of the auction submission and the security level on a document database security system (Code No. 9)" from the auction committee, and "Time savings during phases of auction process (Code No. 1)", "Time savings in terms of transportation to attend the auction process (Code No. 2)" "Time savings during implementing the auction process (Code No. 3)", "Cost savings during the auction process (Code No. 4)", "Savings against the cost of procurement of goods/ services (Code No. 5)" and "Degree of confidentiality of the auction submission and the security level on a document database security system (Code No. 9)" from private companies.

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