IDENTIFICATION OF CAPACITY LEVEL OF LOCAL CONSULTANT SERVICE PROVIDER IN PARTICIPATING THE FULL E– PROCUREMENT BIDDING IN ACEH

[1]HAFNIDAR A. RANI

[1]Civil Engineering Department, Universitas Muhammadiyah Aceh, Banda Aceh, Indonesia
E-mail: [1]hafnidar.ar@teknik.unmuha.ac.id

Abstract- E-procurement system in the good/service procurement in Indonesia is trusted by governments as the tool to create good government and public services, since it will improve the cost efficiency, effectiveness, faster time; improve transparency; provide better public monitoring; improve healthy competition; and improve government accountability. In the implementation, e-procurement still has some obstacles and problems. One of them is occurred to local consultant service provider. This study aims to determine the application of e-procurement in every phase and to find out the obstacles faced by local consultant services provider in participating the electronically bidding and to find out the effect of e-procurement to the success of local consultant services provider. The variables used in this study are human resources management; technical aspects, including procedures to participate e-procurement bidding and technical documents; hardware and network infrastructure. The statistic analysis used is frequency analysis, reliability analysis, correlation analysis and multiple linear regression analysis. Data processing using computerized tools of software SPSS (Statistical Product and Service Solution) version 21. From the coefficient regression analysis result, it is obtained that the highest coefficient is X_3 which value is 9.485; it is hardware and network infrastructure variable with significance is 0.020. It shows that the hardware and network infrastructure variable affecting the capacity level of local consultant service provider. This study result is expected to be a reference to local consultant service provider in improving local consultant service provider company quality in participating full e-procurement bidding so that it can compete with other consultant service providers locating in other area (town).

Keywords- E-procurement, Bidding, Local Consultant.

I. INTRODUCTION

E-procurement or electronically bidding is the process of goods/service procurement carried out by using information technology and electronic transaction based on the legal regulation (Government Regulation No. 24 of 2010).

E-procurement system has the better advantages compared to conventional goods/services procurement system. E-procurement system in the good/service procurement in Indonesia is trusted by governments as a tool to create good government and public services, since it will improve the cost efficiency, effectiveness, faster time; improve transparency; provide better public monitoring; improve healthy competition; and improve government accountability (Dirgantara, 2009).

Several Indonesia neighboring countries such as Singapore, Australia, and Japan have ever used e-procurement system. Singapore had started to utilize information technology advancement to accelerate the economic growth in the beginning of 1980. Infrastructure and telecommunication development have been carried out in some phases. The first phase was in the early of 1980, started by the capability to use the computer without the paper. The Seconds phase was in the middle of 1980, connecting between the government agencies and the school then also introducing trade information network, legal information network, and health information network. The trade information network had improved the efficiency and effectiveness in processing trade document agreement. In the third phase which was in the early of 1990, Singapore declared "Intelligent Island" which aimed to improve the life and economic quality, known as IT 2000. From the process of technology infrastructure and communication development, Singapore has been proved to become 5th level as the clean government in the world by conducting the good/service procurement using e-procurement (e-procurement news, 2005).

Australian Commonwealth Government in 2000 issued an e-procurement strategy providing a framework to develop and improve the capability of the government agency to electronic commerce and encourage the suppliers to consider their direction toward e-commerce (electronic commerce). The objectives of the strategy are to pay all suppliers electronically by the end of 2000, and enable electronic trading with all of the suppliers want to do "simple procurement" (Australian Report, 2006). The strategy succeeded so that by 2006, 90% of transactions passing through the government agency paid electronically and usage of e – procurement tools such as online catalogs and invoices have widespread (Dirgantara, 2009).

The Japan Government developed "e-Japan Strategy" with the objective is to create the Japan Country becomes the most successful country in the world of IT in 2005 and had made the hard efforts to reach the goal. One of the efforts is computerized in the sector of public works/public focused on "CALS EC" (CALS: Continuous Acquisition Life-Cycle Support, EC: Electronic Commerce) (Minoru, 2006). The benefits of e-bidding is the system allowing the

bidding participants participating in the bidding process from their own offices, so that it will reduce the time, cost and worker involved in the process. The other advantage is more good/service providers can participate in the bidding and the contract using appropriate price and suitable with competition principle (Dirgantara, 2009).

Indonesia Republic Government through the Letter of Public Work Minister Number:: 17/SE/M/2010 dated November, 29th, 2010, about: the Implementation of Government good/service Provider Selection Electronically (e-procurement) determined that full e-procurement bidding applied to all work packages in the working unit/current non vertical unit (SNVT) in Public Work Ministry Area in the National and in 24 provinces including Aceh Provinces. Full e–procurement system for consultant service provider carried out first by SNVT of National Road Planning and Monitoring (P2JN) of Aceh Province in the end of 2010 for the bidding of Budget 2011 from APBN Resource Budget.

But in the implementation of full e-procurement in SNVT P2JN Aceh which has been carried out for 4 (four) years, it is still found several obstacles and problems both from government and from consultant service provider especially local consultant service provider. It could be because the local consultant service providers have not had the knowledge in understanding the selection process of technical consulting service provider and not had resources capacity in participating and applying bidding system using full e-procurement method, and it was proved by only the small amount of the consultants registered and become the winner for the packages in SNVT P2JN Aceh starting from the budget year of 2011to 2014.

II. DETAILS EXPERIMENTAL

2.1. Consultant Service Provider

Section 1 subsection (16) of President Regulation of Republic of Indonesia Number 35 of 2011 about Government Good/Service Procurement mentions that: “Consultant provider is a professional service requiring specific competence in various scientific sectors prioritizing the brainware”. Consultant service is defined as service provider of professional expertise in various sectors in order to achieve the expected objectives by the service users (Government Good/Service Procurement Policy Institution).

The consultant services categorized in the construction sector are construction design service and construction supervising service. Construction design service is the individual or company services providers explained by the professional experts in construction design service sector which is capable in producing the output of design documents or other physical documents. While construction supervising service is the individual or company services providers providers explained by the professional experts in construction supervising service sector which is capable in supervising the project construction process to completion and handover processes (The Regulation of Public Service Minister Number : 08 / PRT / M / 2011, of 2011).

2.2. E-procurement

Some definitions of e-procurement from the various sources are:

1. Electronic Procurement (e-procurement) is defined as the use of information technology to facilitate business-to-business (B2B) of purchasing transactions to good/material and service.
2. Good or service procurement electronically or e-procurement is good/service procurement implemented by using information technology and electronic transaction based on the regulations (The document of Public Service Minister Number. 17/SE/M/2010)

The good/service procurement implies the interpretation that there is the transaction so that it is required some requirements such as identity, agreement, document exchange and authorization. The electronic transaction requires some requirements such as:

1. Identity, including user ID and password
2. System security to the registered and authorized client, application, and the smooth communication of data transfer.
3. Administration authorization tool, such as digital stamp and digital signature.

According to the document of Public Service Minister Number 17/SE/M/2010, the objectives of e-procurement are:

1. Improving transparency and openness in the government good/service procurement process;
2. Improving healthy competition in the provision of public service and government administration;
3. Improving effectiveness and efficiency in managing of government good/service procurement process.

2.3. The Selection Principles of Electronic Service Provider (e-procurement)

The Selection Principles of Electronic Service Provider managed in President Regulation Number 54 of 2010, they are:

1. Efficiency, meaning that good/service procurement must be undertaken by using minimum budget and effort to achieve the quality and objective in the specific time or using the determined budget to achieve the output and objective with maximum quality.
2. Effectiveness, meaning that good/service procurement must meet the required integrity and targets and produce greatest possible benefits.
3. Transparency, meaning that all requirements and informations of good/service procurement must

be clear and can be widely found out by interested good/service providers and the community generally.
4. Openness, meaning that good/service procurement can be followed by good/service providers which meet the specific requirements/criterias based on clear procedures.
5. Competition, meaning that good/service procurement must be undertaken through healthy competition among as many as good/service providers which are equal and can meet the requirements, so that the good/service obtained is offered competitively and there are no interventions disturbing the creation of market mechanisms in good/service procurement.
6. Fair/not discriminative, meaning that equal treatment for all candidates of good/ service provider and does not lead to giving advantages to certain parties, and still pay attention to the national interests.
7. Accountable, meaning that it must meet the related regulations and rules to the good/service procurement so that it can be accounted for.

2.4. Implementation Phases of E-procurement

E-procurement implementation is carried out in some phases such as:
1. Copy to Internet, it is the activity in serving the entire process and the results of the good/service procurement, bidding system broadcasted through the internet by the Procurement Committee;
2. Semi e-procurement, it is the good/service procurement activity which some processes are conducted through electronic media (internet) interactively and some others are conducted manually (conventional)
3. Full e-procurement, it is the good/service procurement selection which is carried out by inserting the document (file) of the bidding through e-procurement system, while the explanation of the selection documents/bidding (aanwizjing) still carry out directly between service user and service provider.

2.5. Regulation of Full E-procurement Implementation

In the implementation, full e-procurement has some regulations as mentioned below:
1. ULP (working group/pokja)/committee/officer of the procurement must upload the procurement documents in the electronic bidding system in the website of www.pu.go.id and then the service provider must download the documents to participate in selection of good/service procurement processes.
2. In principle, bidding data (including qualification data) of the bidding/selection participants submitted electronically and the submission of the original document (hardcopy) is only applied to the bidding proposed as a potential winner and/or the reserve winner of the bidding/selection determined by ULP/committee/the officer of government good/service procurement.
3. The substance that will be evaluated (administration, technical, price, and qualification) submitted electronically must be determined by ULP/committee/the officer of government good/service procurement.
4. If there are any differences in the verification process of the bidding data between electronic document and original document proposed by ULP/committee/the officer of procurement as the potential winner or reserve winner in the bidding/selection process, it means that the bidding does not meet the regulation.

2.6. Obstacles in E-procurement Implementation

In the e-procurement implementation in Public Service Ministry, it is still found some obstacles. Based on the information obtained from Data Processing Center in di Public Service Ministry, the obstacles found out in e-procurement implementation (Data Processing Center of Public Service Ministry, 2011) are such mentioned below:

1. The regulations:

a. There is no detail rule about digital signature regulation.
b. There is no standard of document file size uploaded.
c. There is no standard of electronic document file used.

2. Human resources

There are still many of human resources both internal and external which can not well understand about electronic bidding process

3. Hardware and Network Infrastructure

Internet network infrastructure does still not support the implementation of electronic bidding, because the speed to access to the system is still slow.

III. RESULTS AND DISCUSSION

3.1. Frequency Analysis (Respondent Characteristic)

The respondents characteristics of this study can be grouped into institution name, position, education, work experience, duration of working in the current company, company period, the company classification, the amount of works that has been carried out from since 2011 to 2014, the number of permanent employees, the company's experience in participating of e-procurement biding conducted SNVT-P2JN Aceh, and the highest price of the contact that ever be implemented by the company. The objective in grouping respondents' characteristics is to determine the number (frequency) and the percentage of each respondent.

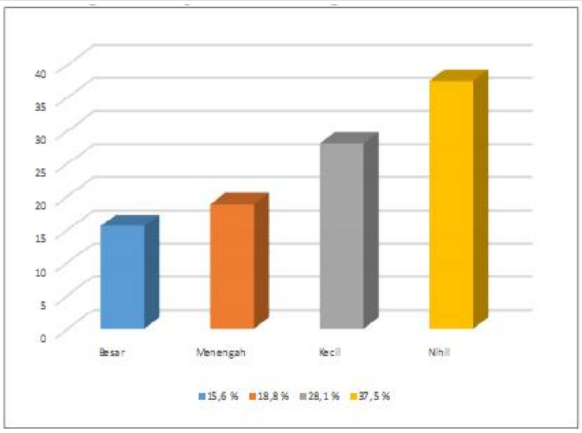


Fig. 1. Percentage of Company Classification

Based on Figure 1 above, it is shown that the characteristic percentage of small company classifications are 9 companies (28.1%), the medium company classifications are 6 companies (18.8%), the large company classifications are 5 companies (15.6%) and the rest are nil (not filled by the respondent) which are 37.5%.

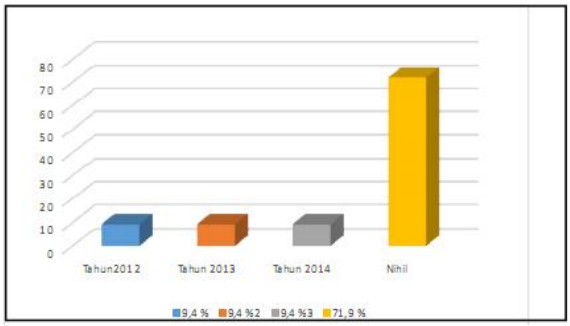


Fig. 2. Companies Percentage Participating in The E-procurement Bidding

Based on Figure 2, it is shown that the companies percentage participating in the e-procurement bidding conducted SNVT-P2JN Aceh in 2012 are 3 companies (9.4%), in 2013 are companies (9.4%), in 2014 are 3 companies (9.4%), and the rest are nil (not filled by the respondent) which are 71.9%.

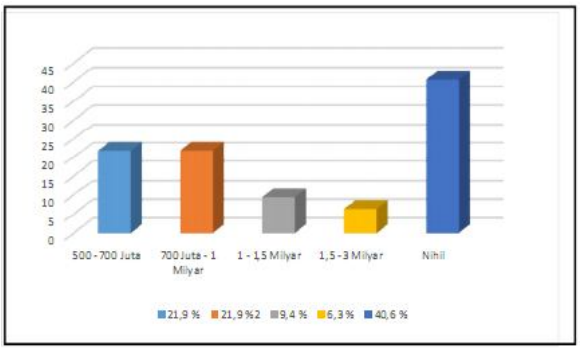


Fig. 3. Percentage of The Highest Price of The Contract

Based on Figure 3 above, it is shown that that the percentage of the highest price of the contract that ever be implemented by the company which is 500 – 700 million are 7 companies/institutions (21.9%), 700 million – 1 billion are 7 companies (21.9%), 1- 1.5 billion are three companies (9.4%), 1.5 – 3 billion are 2 companies (6.3%), and the rest are nil (not filled by the respondent) which are 40.6%.

3.2. Reliability Test

The results of the reliability test of each variable processed using SPSS Program can be shown in Table 1 below:

Tabel 1: Test of reliability

Var.	Factors	Cronbach Alpha	
		Capability	Difficulty level
X1	Human resources management	0.922	0.948
X2	Technical aspects	0.961	0.974
X3	Hardware and network infrastructure	0.928	0.947
Y	Local consultant service provider	0.978	0.954

The previous table meaning that from the reliability test shows that all the variables are valid, because the reliability test coefficient value is above 0.6. But the variables have 2 perceptions; they are capability level and difficulty level.

3.3. Correlation Analysis

The correlation calculation results show the correlation value of capability level (R) is 0.852. This value indicates the correlation level which is high or strong. While the calculation results of each independent variable (X) to the dependent variable (Y) is as follows:

Table 2: Analysis of correlation

Var.	Factors	Correlation value			
		Capability		Difficulty level	
		Corr.	Sig.	Corr.	Sig.
X1	Human resources management	0.852	0.000	-0.555	0.001
X2	Technical aspects	0.811	0.000	-0.496	0.004
X3	Hardware and network infrastructure	0.793	0.000	-0.457	0.009

From the table above can be explained that the human resources management factor (X1), the technical aspects factor (X2), hardware and network infrastructure factor (X3) have a factor correlation to the capability of local service provider. But among these three variables, which are X1, X2, X3, the variable which has the significance value which is 0.000 and positively correlation which is 0.852 are human resource management factor (X1). It is also

found that the difficulty level correlation result is -0.555 and the significance which is 0.001 showing a negative correlation. This means that the X1 has a high or strong correlation compared to other factors.

3.4. Multiple Linear Regression Analysis

From the multiple linear regression analysis, it is obtained the regression equation which is Y = 135.100 – 3.572X1 – 0.074X2 + 9.485X3. The highest regression coefficients contained in the variable X_3 which is 9.485, it is hardware and network infrastructure factor with significance is 0.020. This shows that (X3) factor affect the local service provider ability level.

Table 3: Analysis of multiple linear regression

Model	Unstandardized Coefficients		Stand. Coeff.	T	Sig.
	B	Std. Error	Beta		
Constant	135.100	86.145		1.568	0.128
X1	-3.572	2.217	-0.386	-1.611	0.118
X2	-0.074	1.391	-0.012	-0.053	0.958
X3	9.485	3.845	0.617	2.467	0.020

3.5. Discussion

From the frequency analysis obtained the respondent identity the questionnaires of this study. The values obtained from the reliability test showing that all variables are valid, because the reliability test coefficients of each variable are above 0.6. But the variables have 2 perceptions; they are capability level and difficulty level.

Based on the correlation analysis, it shows that human resource management factor (X1) relates to the local service providers capability level which is 0.852 and it shows the high or strong correlation with significance level is 0,000 interpreting positive correlation in the capability level. But the difficulty level has negative correlation which is - 0.555 with significance is 0.001.

From the multiple linear regression analysis, it is obtained the regression equation which is Y = 135.100 – 3.572X1 – 0.074X2 + 9.485X3. The highest regression coefficients contained in hardware and network infrastructure factor (X_3) which is 9.485, it shows that the influence level is 19.9%.

The results of this study is consistent with previous studies, in which innovation and technology factor become the criteria which is less prepared or affect to the unpreparedness of construction companies in participating e-procurement bidding (Fandrito, 2013), and it is one of the obstacles variables strongly affect to the consultant service provider such as: do not get a user id and password after registration and it is related to hardware and network infrastructure factor which is not stable (Dirgantara, 2009).

CONCLUSIONS

The data required in this study is primary and secondary data. Primary data is obtained from the questionnaire containing the questions compiled from various literatures and related to the selection process of consulting service using full e-procurement system and the capacity of local consultant who has ever participated in bidding process in SNVT – P2JN Aceh since 2011 to 2014. The secondary data is the number of local consultant service provider and service user/bidding committee data. The population and sample are 32 respondents. The variables used in the study are X1 (Human Resources Management), X2 (technical aspects including the procedures to participate e-procurement bidding and Technical documents), X3 (hardware and network infrastructure), Y (the capacity level of local consultant service provider).

The method used to analyze the data is statistical method using several basic analyses, such as frequency analysis, reliability analysis, correlation analysis, multiple linear regression analysis. Processing data is using computerized tools of software SPSS (Statistical Product and Service Solution) version 21.

Based on the frequency analysis shows the characteristics of every respondent, such as, position, educational background, work experience, working period in the institution, the period of the company, the classification of the company, the workers of the company since 2011 to 2014, the number of permanent employees, the company's experience in participating the bidding using e-procurement system conducted by SNVT-P2JN Aceh, and the highest contract cost ever implemented by the company. The values obtained from the reliability test can explain that the six variables are invalid because it meets the minimum coefficient of Cronbach alpha which found in the human resource management variables (X1) which value is 0.922.

Based on correlation analysis obtained that R = 0.852, it means that there is high correlation level between independent variables (X1, X2, X3) and dependent variable (Y). Determination coefficient shows that the contribution of independent variables which are human resources management factor (X1), technical aspect factor (X2), and hardware and network infrastructure factor (X3) to the dependent variable which is local consultant service provider (Y) is 0.000.

From the multiple linear regression analysis found the correlation model between independent variables (X1, X2, X3) and dependent variable (Y) which is Y= 135,100 - 3,572X1 - 0,074X2 + 9,485X3. The highest coefficient obtained in X_3 variable which is 9.485 namely hardware and network infrastructure with the significance is 0,020. It shows that (X_3) factor affecting the capacity of local consultant service provider.

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