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### Knowledge Base Procurement: Preventing Corruption in Procurement through the Optimization of Universities Role

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#### ABSTRACT

The paper aims to examine and run the discourse model of the presence of procurement expert profession which is formally equal to other professions as it has been through adequate formal education. In addition, this paper also examine a model procurement system output with expert systems technology. Knowledge Base Procurement model, in this paper divided and explained into three topologies which are 1) formal education model either at diploma degree, bachelor degree or postgraduate, 2) short education or training model, 3) procurement system development model. The optimization of universities role as center of excellence is needed, to examine and run the above mentioned discourse model. One of the outputs of above mentioned model is the presence of procurement expert profession which is formally equal to other professions as it has been through adequate formal education. This study provides a detailed account of the procurement model and universities role due to prevent the corruption intention.

#### Keywords:

Corruption, Knowledge Base Procurement, Universities

#### Introduction

The corruption issues in Indonesia seems to have never exhaustively being discussed and being sought for the solution. Corruption which is an extraordinary crime and crime against humanity (Indrayana, Denny, 2011) proved to cause many negative impacts in the life of the state. Actually corruption can never be eradicated as long as law enforcement itself is the most severely infected by virulent virus of corruption. Therefore, one of the principle in eradicating corruption is to eradicate judicial corruption. (Indrayana, Denny, 2011). According to Denny (2011), to dismantle the corruption case it needs at least five strategy, which he calls five-in-one, namely: 1) analyze LHKPN of government officials, 2) check the transactions and financial profile, 3) check the tax payments, 4) check asset ownership, and 5) analyze the lifestyle.

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*by Yanuar Eko Restianto*

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### **Introduction**

The corruption issues in Indonesia seems to have never exhaustively being discussed and and being sought for the solution. Corruption which is an extraordinary crime and crime against humanity (Indrayana, Denny, 2011) proved to cause many negative impacts in the life of the state. Actually corruption can never be eradicated as long as law enforcement itself is the most severely infected by virulent virus of corruption. Therefore, one of the principle in eradicating corruption is to eradicate judicial corruption. (Indrayana, Denny, 2011). According to Denny (2011), to dismantle the corruption case it needs at least five strategy, which he calls five-in-one, namely: 1) analyze LHKPN of government officials, 2) check the transactions and financial profile, 3) check the tax payments, 4) check asset ownership, and 5) analyze the lifestyle.

However, action in preventing and fighting the corruption doesn't mean without resistance. The form of resistance usually performed through three modes: Questioning regulation, criminalize and intensify the intimidation. Currently, resistance to the KPK Corruption Eradication Commission as an anti-corruption superbody institution is even more intense in various ways ranging from the criminalization of KPK leaders and officials to the issue of the dissolution of the KPK. Therefore, the KPK should not be allowed to work alone in fighting the corruption. All elements of both government agencies, law enforcement officials and the society should also take part in the fight against corruption.

Corruption in Indonesia occurred in nearly all levels of government and in all fields, ranging from misuse of the budget, permits, bribery, extortion to the <sup>1</sup>procurement of goods/services (procurement). Data <sup>1</sup>of KPK from 2004 to 2012 showed that of 283 corruption cases handled by the Commission, 107 (37.8%) cases is a matter of procurement of goods/services. That number is only corruption cases handled by KPK, not including those handled by other law enforcement agencies, because from 51.592 public complaints to KPK and those complaints stated to have indication as criminal offense of corruption (TPK) as many as 7.183 complaints, only 2.849 complaints were processed in KPK internally, the rest is forwarded to the police, government prosecutor, BPKP, Itjen & LPND, BPK, MA and the Regional Inspector Body/Regional Inspectorate. (Annual Report of KPK, 2010) <sup>2</sup>The number of 37.8% from corruption cases in the procurement of goods/services that are handled by KPK is actually much less compared to 2007 which was reaching 70%. (Directorate of Research and Development KPK, 2007)

<sup>2</sup>Based on these data can be concluded that the biggest corruption case in Indonesia is precisely <sup>2</sup>in the field of procurement of goods/services. Therefore it's not an exaggeration if our focus in fighting against corruption should be started from the field of <sup>4</sup>procurement of goods/services. The high rate of corruption in the procurement of government goods/services occurs due to several factors such as the discriminatory treatment to the providers, limited access of providers, <sup>1</sup>gathering tender/ syndication, monopoly, bullying, lack of transparency, the huge budget <sup>1</sup>for the procurement of goods/services and <sup>1</sup>the lack of government management capacity to <sup>1</sup>the process of procurement of goods/services.

If reviewed from government's total budget to be spent on goods and capital expenditures through the procurement of goods/services, in 2009 alone has reached 33.4% of the total state budget. According to World Bank report as contained in the book <sup>1</sup>The implementation of e-Procurement as a Public Service Innovation (LKPP, 2009), the leakage

potential for government's procurement of goods/services is Rp 69.4 trillion. The number of spending in the state budget through the process of procurement of goods/services is increasing every year. According to data from the Central Government Financial Report of 2010 which has been audited by the BPK, realisation for goods expenditure and capital expenditure of the central government reached 177.9 trillion or 15.8% of the total state budget expenditure, while capital expenditure on local governments reached 70.67 trillion or 20.5% of the total value transferred to the regions. This figure excluding procurement of goods/services budget that are sourced from the regional budget components other than balancing fund, not to mention excluding number of procurement of goods/services performed by state/local enterprises.

Having a look at the amount of budget spent by the government through the process of procurement of goods/ services which is very large, the potential for fraud practices or corruption is quiet high. Although there are a lot of legislation governing the sanctions and punishment for criminal offense of corruption, plus many of agencies and law enforcement officials who deal with corruption cases, but to date the corruption virus has not yet vanish from this republic.

To eliminate corruption, especially in the procurement of goods/services is not an easy job but it should always be sought the alternative ways for handling this issue. Repression by applying heavy punishment to perpetrators of corruption is essential to provide a deterrent effect to the corruptors and "corruptors candidate", but preventing people to daunt from committing corruption is also important. Especially in the procurement of goods/services, by the presence of system procurement of goods/services electronically (e-procurement) has indeed been able to reduce many critical points or deviation prone and corruption. However, since corruption is like a demon that is always looking for loopholes in any legislation and any applied system, the corruption prevention in the procurement of goods/services should not be ended at the e-Procurement only.

As revealed in the BPK's findings on procurement of goods/services distortion one of which is the lack of government management capacity or inadequate knowledge of government officials in the procurement of goods/services, then a strategic effort to resolve this issues must be applied.

Untoro (2011) in Integrito magazine stated that one of the problems in the procurement is the lack of management capacity namely many human resource or procurement officers are with no integrity and incompetent. The same thing is confirmed by



Umar (2011) that the distortion in the procurement can be resolved, the role of internal supervisor of each agency from planning to execution of procurement is needed. Haryono also added that government agencies should conduct a pre-audit and publish the budget plan at the beginning of the year. In the same media, Rahardjo (2011) also stated that the solution to resolve the procurement distortion is by comprehending Presidential Decree 54/2010 adequately, then developing LPSE within government agencies. Muqodass (2011) more assertively stated that strict rules must be followed by the improvement of human resources, because it's useless even with strict system and rules when capacity, mental and human resources integrity is low.

In response to the statement and the facts described above, can be concluded that the development of human resources <sup>2</sup> in the field of procurement of goods/services are absolutely necessary. Human resource development will not be sufficient to be done through common ways such as socialization, training or training to employees or government officials, but it should be in uncommon ways. The question is whether there are other ways to develop human resource capacity? One of the alternative ways in developing human resource is by applying a new model called Knowledge Base Procurement.

As stipulated in Presidential Decree 54 of 2010, all government agencies should have the Procurement Services Unit (ULP) and conduct electronic procurement process through LPSE, which to realize them adequately then human resources with high integrity and competence absolutely needed. Here, be reconfirmed the importance of human resources with sufficient knowledge to conduct the procurement process well, away from corruption practices.

### **Knowledge Base Procurement: A Discourse Model**

Knowledge base procurement in simple words can be described as knowledge-based procurement goods/ services system. In more complex words <sup>1</sup> can be described that government procurement of goods/services system should be conducted by officers who have adequate knowledge not only in the technical procurement but also comprehend with other related fields such as state/regional finance, planning and budgeting process, criminal offense of corruption, information technology and have moral integrity, ethics and working culture that supports anti-corruption, supported by procurement system which is also knowledge based.

This model might be merely a discourse which still need to be tested for the effectiveness in preventing corruption in the procurement of goods / services. Here we need to optimize the role of universities as center of excellence, to test and run the model.

Knowlegde Base Procurement Model at least can be divided into three types namely:  
1) formal education model either at diploma degree, bachelor degree or postgraduate, 2) short education or training model, 3) development model of procurement system.

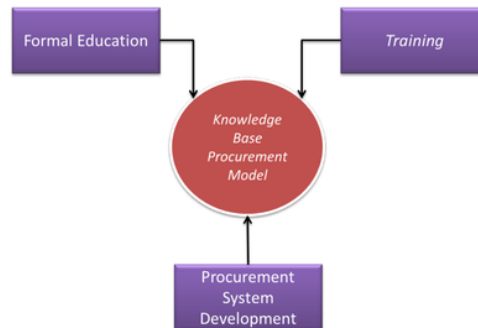


Figure 1. Typology of the Knowledge Base Procurement Model

The first model of Knowlegde Base Procurement is by inserting curriculum about corruption prevention, ethical/moral/working culture, government procurement of goods/ services system, so that we can prepare a new generation who can fully comprehend the negative impact of corruption. Then can also be formulated in the curriculum at the university that there is alternative profession beside the existed ones which is government procurement of goods / services expert.

Implementation discourse of Knowlegde Base Procurement model can trim at least one generation that has already contaminated by corruption virus, but also while educating a generation that has already contaminated by corruption virus.

Hui, Othman, et al (2010) in their research entitled Procurement issues in Malaysia stated that one of the factors that affect whether good or bad the procurement of goods/services in Malaysia is the professionalism and ethics of the parties involved, including the providers. The same thing also stated by Brandon-Jones and Carey (2010) in their article entitled The impact of user-perceived e-procurement quality on system and contract compliance, that EPQ (e-Procurement Quality) is strongly influenced by the professionalism dimensions. This professionalism dimensions including availability, responsiveness, reliability, expertise, and attitudes of the supporting procurement personnel.

These empirical facts show that the important factor in developing <sup>1</sup>the procurement of goods/services system is the professionalism of the parties involved. Professionalism can be owned when the parties involved in procurement have enough knowledge, not only in the procurement system but also other related knowledge including good ethics and morals.

Beside officer with adequate knowledge, procurement system developed especially e-procurement also must be a model with knowledge-based systems (expert systems). Model of intelligent systems/expert system seems should be started employed in the development of e-procurement, thus reducing errors, omissions, to reduce fraud and to provide clear guidance to users.

### The Role Of Universities In Developing Knowledge Base Procurement

The role of universities in developing knowledge-based procurement system is absolutely necessary, because the university is one of the institutions that provide decent number of human resources with various expertise. To apply the first model the university must begin to insert the education curriculum related to corruption prevention, planning and budgeting, state/regional finance, procurement system, information technology, ethics/working culture in several relevant courses.

Some of the courses which is considered relevant to insert those curriculums are: accounting, management, development studies, legal studies, public administration, engineering, informatics and similar courses with different names. Schematically stages of curriculum implementation to realize Knowledge base procurement can be seen in figure 2.

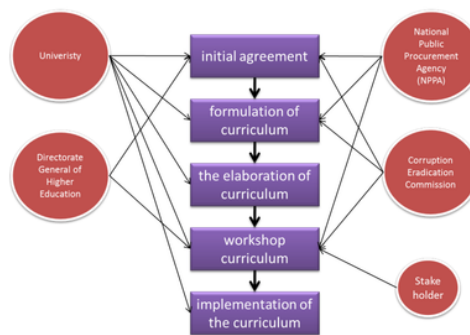


Figure 2. The Stages of curriculum knowledge base procurement

For the implementation phase of the second model, can be done by offering professional procurement experts as one of the study concentrations. Then in the next stage



could be set up a new course under the name procurement of goods/services management either in educational degree of diploma 3, stratum 1 or stratum 2. Thus, the procurement experts become one of the outputs from the educational profession conducted by university. Procurement expert professional degree would be equal to other professional degree such as accountants, notaries, tax experts, actuaries, appraisal, and so on. The overview of the implementation phase of the educational profession of procurement expert can be seen in figure 3.

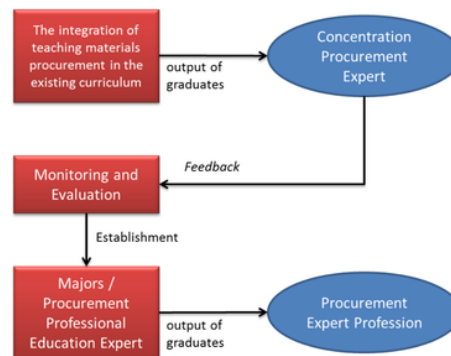


Figure 3. the Stages of procurement expert professional education

Beside preparing a new generation as the implementation of the first model, the university can also develop training programs for those involved in the procurement process in which the training conducted is comprehensive not only issues on procurement of goods/services system, but also covering all relevant aspects, such as prevention of corruption, state/regional finance, information technology, ethics/anti-corruption culture and etc. Actually this effort can be conducted not only by universities but also by the Training Institute for Procurement of Goods/Services which have been accredited by LKPP. However, the training curriculum needs to be developed so that the subject is not only the procurement system, but also other subjects as mentioned above.

Implementation of the third model is by developing a procurement system with an expert system or intelligent systems. The phenomenon of e-procurement in the government procurement of goods/services is a necessity that is not negotiable. The presence of e-procurement has also been able to reduce deviant practices in the procurement of goods/services. However, the methodology of e-procurement system development should be directed to the expert system, to help better the users of the system.

Ralph Stair, George Reynolds (2004) in his book Principles of Information Systems stated that an adequate knowledge base is needed to develop an expert system.

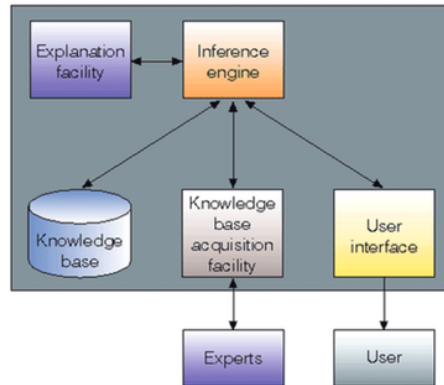


Figure 4. Expert System Component

In principle, an expert system is supported by an adequate knowledge base, supported by facility that is capable of receiving information input from experts then saves it in the database. An expert system with its knowledge base will assemble information from experts, examine existing rules and comparing with inputted cases, to provide information in the form of advice, instructions or warnings to users.

To set up an expert system it's required several stages, ranging from setting the goal of system, expected intelligence identification, set up every component of the system, implementing the system and maintaining as well as evaluating or auditing the system. Development of expert systems also require the involvement of many parties including the expert, knowledge engineer and knowledge user. Development stages of the system as well as those involved parties in the expert system is as shown in figure 5 and 6.

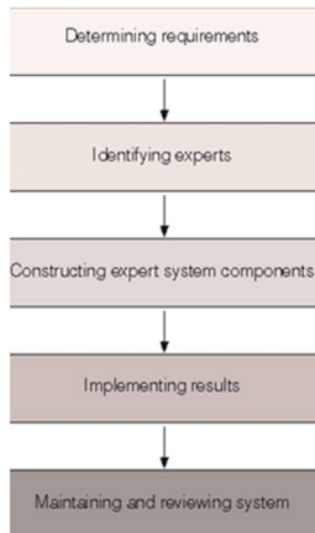


Figure 5. Phase Development of Expert System

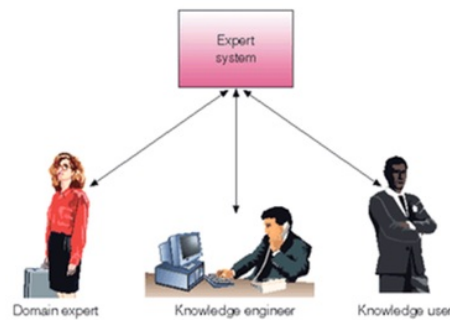


Figure 6. Parties Involved in the Development and Use of Expert Systems

Furthermore, O'Brien (2006) in his book Management Information System introduces a concept called knowledge management system, which the task is to help collecting, managing, and delivering business knowledge within the organization.

If the theory of the expert system development can be implemented in the e-procurement system, the procurement of goods/services in Indonesia has actually implement the knowledge base procurement, because the system applied has been knowledge base, as well as the users who has adequate knowledge .

Developing expert system of e-procurement is not an easy work and can not simply be charged to LKPP. Here we need the role of universities that have a lot of human resources who have capacity in the development of expert systems.

Last but not least, all of this of course will stop at the level of discourse if we do not start working out to make this happen now. There are many great things that can be achieved though started from a dream, aren't they? So let us realize procurement of goods/services system in Indonesia that is free of corruption by implementing Knowledge base procurement.

## Conclusion

Vicious virus of corruption especially in the government procurement of goods/services must be resolved and prevented with uncommon ways, one of which is by applying the knowledge base procurement. Three models offered in the knowledge base procurement are formal education, training and development of expert systems e-procurement. Optimal role of universities in applying the knowledge base procurement is needed because university is a center of excellence. Expected outputs by applying the knowledge base procurement is the presence of the profession procurement experts who complete formal education, not only in the field of procurement of goods/services, but other fields as well such as state/regional finance, planning and budgeting process, criminal offense of corruption, information technology and has moral integrity, ethics and working culture that supports anti-corruption. Increasing human resources capacity in the procurement of goods/services should also be counterbalanced by increasing the quality of the procurement system, become the system with technology based expert system.

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