E-Procurement Policy Model: Striving towards Transparency in Goods and Services Procurement in North Sumatera Indonesia

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Abstract
E-procurement policy is one of public administration reform strategies in government procurement in Indonesia. The ultimate goal of the implementation of e-procurement is to realize good and clean governance in the provision of government goods and services. It is aimed at increasing transparency and accountability, extending market access and promoting healthy business competition, improving efficiency in procurement process, supporting monitoring and audit process as well as fulfilling the need to access to timely information. Study on the implementation model of e-procurement in North Sumatra is urgent and relevant considering Medan, Binjai municipality and Serdang Bedagai regency have to serve the increasing demand and needs of electronic provision of government’s goods and services in the midst of limited infrastructure and human resources, regulation and local bureaucracy dynamics. The objective of this study is to gain in-depth and comprehensive understanding of the implementation of e-procurement policy in three local governments in North Sumatra namely Medan, Binjai and Serdang Bedagai. It also aimed at analyzing factors in implementing e-procurement policy and their influences on public services in these regions. The main goal of this study is to develop realistic e-procurement implementation policy model which is relevant and applicable to the realm of local governance in North Sumatra. This study reveals the intertwined of legal framework, infrastructures, working culture and the role of the head of local government significantly influence the transparency and performance of e-procurement implementation. Transparency creates security and confidence for e-procurement implementers since it avoids external and internal intimidation in the provision of government goods and services. On the other hand, the frequent change of regulations issued by various institutions related to the implementation of e-procurement and resistance toward the implementation of e-procurement are the most significant challenges and obstructions facing local governments in implementing e-procurement in North Sumatra.

Keywords: Policy model, Transparency, E-procurement.

1. Introduction
Walter B. Wriston (in Garson 2000: 113) remarks “We are now living in the midst of the third great revolution in history, the information age... ushered in by marriage of computers and telecommunications, which has demolished time and distance”. This statement regarding new technology development which combines computer and telecommunication has resulted in transformation within government and private organization environment, individuals and community. This technology offers promises of more efficient and effective task and job due to the reduction in time and the disappearance of distance between good and services providers with community or customers.

E-government is included as one of the form of this new technology development. Bekkers and Hamburg (2006:1) argues that e-government is one of the innovations which was proposed and suggested in discussions on the modernization of public administration. In line with this statement, OECD (2003: 63) defines e-government as a capacity to transform public administration through the use of ICTs or indeed is used to describe a new form of government built around ICTs. Thus, e-government as a capacity or strength to transform public administration through the utilization of information telecommunication and communication or is being used to describe a form of new government which is built on the use of information telecommunication and communication.

In the beginning of 1990s, various forms of services using e-government emerged in serving citizen as well as the private sector. E-government started to be increasingly used by developed and developing countries as a strategy to improve public service since 1990s. Public services such as bill payment, information on government’s services, application form, identity evidence and government’s documents are all provided through e-government’s facility. In general, e-procurement is aimed at preventing the emergence of problems related to delays in government process, uncertainty, lack of transparency and corruption practices (Beckers et.al 2005).

In Indonesia the implementation of e-government is strengthened by the issuance of President
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Instruction No. 3 Year 2003 on E-government National Development Policy and Strategy. This policy is an attempt to develop electronic based government implementation in order to enhance the public quality of service effectively, efficiently, transparently and competitively, fair and accountable. It is supported by the issuance of Law No. 25/2009 on Public Service, especially, chapter 4 on the principles of public services implementation.

To date, the implementation of e-government in Indonesia extends to various government roles and functions included the provision of goods and services (e-procurement). Turban et.al (2006) defines e-procurement as referring to the purchase of goods and services for organizations”. E-procurement is one of government’s activities in implementing public service as described in Law No. 25 Year 2009 chapter 5 on Public Service.

Government goods and services provision differs from those of private enterprises. E-procurement at government’s institutions is more complicated since it needs huge allocation of fund and related to national/regional budget which are the source of fund to cover government’s provision of goods and services. The total amount of procurement at government institutions is high enough which ranging from 15% to 30% of Gross Domestic Product (GDP).

This large amount of money to cover procurement is unavoidably provides opportunity for corruption with the estimation of 10 to 25% in general. Moreover in some cases the loss caused by this corruption may reach up to 40%-50% of the total e-procurement contract value (TII, 2006). The deputy of Corruption Eradication Committee (KPK) Busyro Muqoddas contended that e-procurement process is the most sector investigated on corruption accusation by KPK. Since 2004 up to 2011, KPK has handled 96 cases of procurement related corruption which reached 40.9 percent (Berita Sore, 2010). Therefore, it is not an over exaggeration that procurement become the focus of KPK.

The implementation of e-procurement, hence, has strategic role. This policy is arranged in President Regulation No. 70 Year 2012. This policy came about as a correction to the weaknesses in procurement which was based on conventional system which characterized and allowed face to face interaction between stakeholders related to procurement.

There are many factors contribute to the minimum best practice e-procurement development in Indonesia, such as the non-existent of strict laws which may cover all e-procurement processes in Indonesia. Consequently, there is no standard procedure relating to the management of e-procurement process whether in aspect of bureaucracy chain, time, information technology and human resource standard. Besides, the low commitment of high and middle rank government officials contribute to the lack of political support which promote the spread of corruption. Other challenge to e-procurement in Indonesia also derives from e-procurement committee and providers even from legislative representatives and the very limited infrastructure such as the high cost of the internet (Kompasiana, 2013).

Cities and regencies in North Sumatra were among those regions which were late in implementing e-procurement in Indonesia. Medan city is the first to implement e-procurement policy by the establishment of Electronic Procurement Services (LPSE). Binjai city and Serdang Bedagai regency later on follow up the step of Medan in implementing this policy. However the implementation of e-procurement in Kota Binjai dan Kabupaten Serdang Bedagai were yet to be optimal which were characterized by the few numbers of goods and services provision processed electronically.

Though still limited, due to the recent implementation of e-procurement policy issued in 2010, there are few research on the implementation of e-procurement in Indonesia such as the e-procurement implementation policy in realizing accountability in Yogyakarta (Jurnal Studi Pemerintah 2012) and the perception of goods and services users towards e-procurement system in Yogyakarta (Jurnal Siasat Bisnis, 2009) and some other research on e-procurement system which focus on information technology.

In general, research which focus on the implementation of e-procurement view the implementation policy from regulative factors or variables such as regulation, technocracy and administration, politics, and public needs or based on Western literature on public policy implementation models which may not be suitable with the real condition of governments at cities and regencies in North Sumatra. Therefore in this study, researcher intend to examine the appropriate model of e-procurement implementation which is relevant and appropriate to the real condition of governments in Medan, Binjai, and Serdang Bedagai in order for this policy to be able to realize the transparency principle as obligated by chapter 4 Law No.25 Year 2009 on Public Service.

2. Literature Review

2.1 Policy Implementation Model

One of prime components of public policy process is the implementation of policies. Implementation is an activity carried out to achieve a determined goal. At this implementation stage, the success or failure of this policy can be obviously seen. Even an excellent policy formulated but without the right implementation, this policy will be meaningless. In other words, a good policy will remain a plan if it is not implemented correctly.

Implementing a policy is not an easy task since at this stage, problems which were not identified by
policy makers may emerge in implementation as well as problems of inconsistency of implementation. There are many variables or model that can be developed to support the success of a policy in its implementation. These variables or factors influence the success and achievement of policy implementation at individual and institutional level. These factors interact with each, thus increase the complexity of a policy implementation.

According to George C. Edwards III (1980) policy implementation is influenced by four variables: communication, resources, disposition and bureaucracy structure. In order for the policy to succeed in its implementation, the four variables are interconnected. On the other hand Gerston (2002) argued that there are four factors which influence the achievement of policy implementation, namely: translation ability which is characterized by the implementing capacity of staffs in translating the decision; resources which related to human resources, finance and other resources; limited number that is the total number of the implementers of policy should be limited to avoid ambiguity and unhealthy competition; accountability, which is the accountability of the implementer of policy on their task. Meter and Horn (2009) describe six variables which influence the achievement of implementation: policy standard and target, resources, relationship between organization, the characteristic of implementing agency, social, political and economic condition, and the disposition of the executor.

Actually, there are many other public policy experts who offer policy implementation model in which each model consists of some variables or factors, which may differ or similar to policy model describe above. Their implementation also differ viewed from the policy formulation which may be top-down or bottom up. There is no best model of the various model proposed. We merely have options of model to choose wisely according to the need of the policy itself (Nugroho, 2006).

2.2 The Development of Electronic Government (e-Government) in Public Administration

New Public Management (NPM) and e-government are frequently viewed from two sides of the same coin since both derive from critic to classic public administration paradigm which is influenced by the bureaucracy ideas of Weberian (Homburg and Bekkers, 2006: 155). This new paradigm resulted in transformation in public sector in developed and developing countries that is a public administration change from the rigid, hierarchical and bureaucratic into the form of more flexible and market based public management.

The emergence of e-government is one of the most significant development in public administration during these last few years. One of the trigger of this trend is the development of private sectors which provide goods and services to customers by using e-commerce and e-business which prompted government to rethink ways to enhance services to public (Ndou, 2004). Through the utilization of e-government, services to the public can be improved and thus may compete with private sectors in providing more efficient and effective services.

Apart from increasing efficiency and effectiveness in service, the implementation of e-government also may hinder the occurrence of corruption practices since services are conducted transparently so as to extend public participation in the way that public and private sector may relate to government without direct face to face interaction. As Affisco and Soliman (2006) noted that many countries realize that e-government is a potential to improve services, increase transparency, suppress the occurrence of corruption and extend public participation as the form of democracy. Lips et. al (2005) even argued that the utilization of information technology contribute to the positive impact in increasing public trust to government. Tapscott (1996) added that government may use the electronic system to provide better, faster, more effective services and convenient price.

The scope of e-government itself is vast that it produces lots of attributes. These attributes may be viewed as a focus which is discuss in e-government such as technology and communication, democracy, efficiency and transparency in service and organization where this policy is implemented (Sahu et.als, 2009). Besides, the users of e-government are vast in which relations between stakeholders can be categorized as internal and external relations. The internal relation includes Government to Government (G2G) and Government to employee (G2E). The external relation covers Government to Business (G2B) and Government to Citizen (G2Z). The eternal relations in e-government enable citizens and private sector to receive direct service from government at all places without having face to face interaction or bureaucracy procedures which have long been applied.(Rocheleau, 2006).

E-government has changed the way government work in providing service to citizen and business sector through the utilization of information technology and communication. Some of the benefits of e-government in providing services to public had been mentioned above. However, some studies demonstrate that the above benefits are not solely the result of the use of information technology and communication. Thus, e-government implementation should be viewed as a part of a more extensive reformation in enhancing public sectors’ achievements (World Bank, 2004).

E-government has emerged as an effective instrument to modernize government and to achieve goals which were determined in government’s reformation agenda. However, in its implementation e-government faces challenges and obstructions. The implementation of e-government in OECD (Organization for Economic Cooperation and Development) countries reveals obstructions such as the inflexibility of government framework.
Obstruction may also come from the legislative in regulation formulation, finance and digital gap in the utilization of e-government. Challenges also derive from executors in the form of resistance toward the use of new technology such as e-government (Lynn, 2000).

In Indonesia the utilization of e-government has been long known, and to date has been implemented in many national and local government functions. E-government is implemented gradually in stages starting from the central government, province, regency and municipality. It is aimed at achieving efficiency, effectiveness, transparency and economic value of government’s service to public. Due to its vast scope, e-government service is divided in three categories: publish, interact, transact in which e-procurement is included in the interact category.

2.3 Electronic Procurement (e-Procurement) in Public Service

More than this last fifteen years, e-procurement system in government environment has experienced radical change. This radical change was caused by the development of new technology such as internet, change in laws and regulations on goods and services provision and philosophical change in viewing government’s purchasing or e-procurement. In brief, change has shifted from purchasing through slow and legalistic process which emphasize on the lowers cost into a more flexible process which emphasizes on best values (Rocheleau, 2000). Many government and private organizations at present use e-procurement in their services aiming to save cost. The benefit to procurement via online can be viewed from lesser working time and extend numbers of vendors involve (Wood in Rocheleau, 2006). Besides, the trimming of staffs and increasing contract obedience are other significant benefits in utilizing e-procurement. E-procurement also has significant affect on the eradication of corruption especially in public provision of goods and services in developing countries such as in Nepal (Neupane et.als, 2012).

However, the implementation of e-procurement in developing countries is yet to become priority. The causal factor is that developing countries still inhibit characteristics such as low level of industrialization, bad infrastructure, limited capital investment, unsophisticated technology, widespread illiteracy and low living standard (Asian Development Bank, 2004).

The implementation of e-procurement in government’s bureaucracy is continuously developing due to public sector management demand for transparency, effectiveness and efficiency in providing services (Vaidya et.als, 2006). Apart from this progress, e-procurement has become a public theme of many organizations in developed and developing countries to promote transparency and good governance (UN, 2011). Therefore, it is of no question that e-procurement has been used as an instrument for public sector reform. However, change in public sector will only be effective if related to the more comprehensive goal of public management as happened in Italia, Skotlandia and West Australia (Commonwealth of Australia, 2005).

Proposing a modest definition of e-procurement, Van Weele (1994) defines e-procurement as “the use the Internet Technology in the process of providing, that is, buying and selling of goods and services. This definition of e-procurement focuses on the utilization of internet technology in provision, purchasing and selling process of goods and services. In line with this definition “e-procurement refers to the use of electronic communications and transaction processing by government institutions and other public sector organisations when buying supplies and services or tendering public works” (DG MARKT, 2013) Therefore, e-procurement refers to the use of electronic communication and transaction process conducted by government institutions and other public sector organizations in purchasing supply or goods and services for public works.

Mitchell (2000:9) defines e-procurement by comparing it with the traditional methods of procurement by noting that “traditional procurement is a paper-based process that is characterized by fragmented purchasing, off-contract buying, and lack of control over expenditure…e-procurement facilities, integrates and streamlines the entire supply chain process (from consumer to supplier and back again) in seamless, real time and iterative manner”. Hence, the traditional procurement is a paper based process which is characterized by separate purchasing, close contract purchasing, and lack of control of expenses. On the other hand, e-procurement integrates supply chain process from consumers to suppliers smoothly, timely and can be done repeatedly.

According to Kelman (1990) there are three characteristics in goods and services provision at government’s institutions which should be observed that is equity, integrity, economy and efficiency. Equity connotes providing fair access to bidders in competing for government business; integrity – to reduce chances for corruption in the procurement process; economy and efficiency – to procure at the lowest possible price for goods or services of the quality desired. Basic principles in conducting public e-procurement are described specifically below (UN, 2011):

1. E-procurement does not merely the issue of putting “E” in front of practiced traditional procurement. Rather it is the task of government which over passing the information technology and communication aspect.

2. E-procurement will not guarantee the eradication of corruption practices but may function in preventing corruption and as an instrument for efficient and effective public administration.
3. E-procurement is not solely about the digitalization of information and the application of information technology and communication, rather it is a holistic opportunity to modernize public finance system related to purchasing.
4. Implementing e-procurement in developing and least developed countries requires the consideration in applying the hybrid approach that is the combine on-line and off-line approaches.
5. The condition to implement e-procurement is related more to governance and the development of capacity than the availability of technology.

In Indonesia e-procurement follows the President Regulation on government’s provision of goods and services and implemented by utilizing information technology and electronic transaction in accordance with regulations (LKPP, 2010). In supporting goods and services provision, government institution or local government working unit (SKPD) establishes working unit namely Electronic Procurement Services (LPSE) which is responsible to implement e-procurement.

E-procurement policy in Indonesia is one of the forms of reformation in government’s goods and services provision. The goal of this policy is to increase transparency and accountability, increase market access and healthy business competition, improve procurement efficiency rate, support monitoring and audit process and fulfill real time information access need to achieve clean and good government in government’s provision of goods and services (President Regulation No. 54/ 2010 chapter 107). Ballard (2011: 2) argues: “In public procurement the goals of fairness, competition and economic value are paramount. To achieve these goals, effective and efficient procurement process must be established. This includes incorporating adequate controls to promote competition and minimize the risk of fraud, corruption, waste, and mismanagement of public fund. In this context, transparency is considered to be one of the most effective tools to deter corruption and ensure value for money”. Therefore, in public goods and services provision, the ultimate goal is fairness, competition and economic value. In order to achieve this goal, an effective and efficient procurement should be determined. It includes joining adequate control to promote competition and reduces fraud risk, corruption and mismanagement of public fund. In this context, transparency is considered as a most effective instrument to prevent corruption and ensure the real value of a price.

2.4 Transparency in Public Service
Public service is an activity or a group of activities in fulfilling service needs of all citizens for goods, services, and/or administrative services which are provided by public service executors in line with laws and regulations. According to Act no.25/2009 chapter 4, transparency is one of the principles of public service implementation. Act no.14 on Public Information Transparency mentioned that whoever carry out the task and function using fund from national and local budget and public donation are obligated to deliver information openly to public except relating on excluded information such as business strategy and secret information which are the rights of the corporation, state secret, intelligent information and private information. This means that all public information are open and accessible to all public information users.

Transparency can be interpreted as the openness of government in providing information related to the management of public resources to parties that need this information. Hence, transparency is one of the prime goals to be achieved in implementing e-procurement policy. More specifically, transparency at this point is referred to as all regulations and information, technically and administratively including methods of observance, result of observation, and the determination of goods and services provider should be open to all interested and capable goods and services providers without discrimination.

Clem (2010: 4) defines transparency as “Government should provide citizens with information about what their government is doing so that government can be held accountable”. There are some questions relating to procurement of goods and services which needs to be forwarded when discussing about transparency: What is being procured? Who is eligible to bid? How to bid? What are the evaluation criteria? Who has got the award? At what cost? What is the quality of work/product/service?

Based on definitions of transparency above, discussion scope related to e-transparency is extensive as Heald (in Bannister and Connoly, 2011) categorized in three categories: data transparency, process transparency and policy transparency. In this category, data transparency is related to government’s figures and facts, such as the provision cost (processing data in order to be easily access and understood by public; misinterpretation of data and information; risks toward anonymity). Process transparency is related to the availability of information from various governmental processes, starting from decision making up to decision products. This transparency contributes to make process obvious, point out where process in transaction may be found and explain why certain steps have to be conducted. Policy transparency describes rationality of government’s decisions and/or acts and policies.

Studies on e-procurement transparency in several EU countries demonstrate following problems: data is published in PDF and html form but not in database format which means that data is available in diverse separate bulletin volumes which make it difficult to trace procurement phases (Lederer, 2012). In Hungary,
public has to open every bulletin if they need to know how many tenders won and their value and whether they
are in accordance with the contract. In Czechs, the limitation or e-procurement is obvious in the absence of
statistic and summary of procurement and information about the justification of winners are not available at the
web but have to require individually. Both in Poland and Czech, contract modification are not published though
they may be required by every parties interested in the information. Moreover, according to Lederer (2012)
Slovakia is a country which implements e-procurement very transparently that is by publishing data update in the
easy to process form. On-line database which provide information about all agreed contracts is also available.

In Yogyakarta city of Indonesia, a study conducted by Wahid (in Udoyono 2012: 128) reveals the
existence of negative sides of the implementation of e-procurement. First, the implementation of projects are
frequently late because of the related authorized institution in goods and services procurement understand the
manual pattern of procurement rather e-procurement. Secondly, the contract price value is relatively or even
more expensive compared to market or retailer price which makes it as a new form or rent seeking for the
executors of e-procurement.

Based on the previous discussions, public freedom in gaining information is a prerequisite in creating
an open and transparent government. The aim of open government is that for the implementation of government
in managing public resources to be carried out transparently. It is impossible to achieve good government when
the public is not given the freedom to gain information on what government does. Thus, the provision of
opportunity for citizen to access and gain public information is not only to the interest of the citizen themselves
but also to government.

3. FINDINGS AND DISCUSSIONS

3.1 E-procurement Implementation Model in North Sumatra Province

E-procurement implementation model in Medan, Binjai and Serdang Bedagai comprises of three factors of legal
framework, infrastructure and organizational culture. The three factors are yet to function optimally at the three
research sites. Therefore the e-procurement policy is implemented in hybrid form which includes package
strategy (centralization-decentralization), system used (manual – on lime) and government level and structure
(province, regency, and city, sub-district and village).

Presidential Regulation No.54/2010 which then amended by Presidential Regulation No. 70/ 2012
obligates local governments to establish LPSE and ULP which has responsibility to carry out e-procurement at
their respective level of government. Therefore, the implementation of the procurement of all government goods
and services should be delegated to LPSE and ULP. However, this study reveals that in some cases the packages
were divided into packages with the total of less than Rp. 50 million (about US$500), thus, the provision of
government’s goods and services were not electronically procured rather they were procured directly by local
government unit (SKPD).

Besides the hybrid approach of packaging strategy, e-procurement policy implementation model in
Medan, Binjai and Serdang Bedagai also combines manual and on line procurement. Direct face to face
interaction between implementers and provides still occur during qualification, validation of facebook account or
user ID and in some cases in accessing e-procurement data. Although prospective providers may register online
at LPSE website, yet they still have to come to LPSE office directly to validate the account so it will be
connected to all LPSE in Indonesia.

Hybrid approach also implemented through the combine use of both manual and online procurement.
Some government goods and services are still procured manually by local government units. Different levels of
local government diverse in providing government goods and services. In general, local government units and
department at municipality and regency procure goods and services electronically, while sub-district, urban and
rural village government still conduct conventional manual procurement.

Despite the weaknesses of hybrid approach in e-procurement implementation in Medan, Binjai and
Serdang Bedagai, this approach is relevant to be used as a strategy in addressing limitation of human resources,
infrastructure and technology in these areas. The limited knowledge and understanding of providers on system
and technology used in e-procurement especially in validating password, uploading documents and registration
requires implementers to assist and provide guidance on e-procurement system and process to providers and
other related stakeholders. In this circumstance, direct interaction between providers and implementers was
unavoidable and relevant. At this point, hybrid approach became a rational choice of strategy. Providers who
experienced problems related to bad internet network may come to LPSE to ask for assistance in uploading data
required to participate in e-procurement tendering process. LPSE also provides bidding room where providers
may use faster internet service since it directly connected to LPSE over all Indonesia.

3.2 Influencing Factors of the Implementation of E-procurement Policy in North Sumatra Province.

Policy implementation is one of the most crucial stages in public policy process which is conducted after
the formulation of policy. The next stage after policy implementation is the consequences of this policy on public.

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Therefore, policy implementation is not easy since there is possibility of the occurrence of problems which has not been identified in policy concepts when they are implemented publicly. Relating to this issue, policy model can assists in explaining the reason for the success or failure of policies when implemented.

Basically, many factors influence the implementation of e-procurement policy. However based on study finding at the three locations of Medan city, Binjai city and Serdang Bedagai regency, regulations, infrastructure and human resources are the three most dominant factors which influence e-procurement implementation in these regions. This e-procurement policy model comprises of the three factors above which work simultaneously and interactively in influencing the implementation of e-procurement policy. E-procurement policy implementation is a dynamic process which covers all interactions of the three factors above. Therefore, there is no single factor or variable in e-procurement implementation process in North Sumatra which mean that these three factors and their interactions which impacted the e-procurement policy implementation process should be elaborated as below.

3.2.1 Legal Framework

Legal framework relates to regulations and e-procurement implementing institutions. Based on President Regulation No. 54/2010 on the Procurement of Government’s Goods and Services, chapter 1 (8), institutions related to this procurement is the Procurement Service Unit (ULP) which is a permanent, autonomous or link to the existing institution. Chapter 14 (1) mentions that government institutions at all level are obligated to have the Procurement Service Unit. Therefore, the importance of ULP as an organization for procurement in all government’s institutions to substitute the function of procurement committee cannot be ignored.

As mentioned in Presidential Regulation No. 54/2010 chapter 1 (8) Procurement service Unit (ULP) may structurally be permanent, autonomous or attached to the existing unit. Autonomous means that ULP is established in its own separate structure and its establishment is based on Government Regulation No. 41/2007 on Local Government Organization. ULP which is attached to the existing unit is integrated to structural unit which functionally carry out the procurement tasks and functions. The ULP structure is determined based on the needs, at least consists of the head, secretary, supporting staff and working group.

Different from the ad hoc procurement committee, ULP is a permanent organization, which can be autonomous or attached to the existing unit which focuses on providing goods and services. However, there is a difference at context where ULP is attached to the existing unit of Local Secretariat of Development Administration section, as the case of Medan, Binjai and Serdang Bedagai. In these locations, ULP comprises of several working groups (Pokja) in which structurally the staffs are at the same time also are the staff of their local government units (SKPD). It creates the overlapping of the staffs double workload and responsibility. The assigned task to work in ULP does not automatically negate their responsibility as the staff of their SKPD. Moreover, the attached of ULP to the existing government’s unit provides opportunity for the intervention of the local government’s unit of origin on the staffs of ULP. This is the consequence of ULP staff being structurally under the head of their local government’s unit of origin. Therefore, the interest of local government unit of origin will easily influence the achievement of ULP. On the other hand, in case of ULP is established as an autonomous unit, influences of other institutions may be avoided. With its independency, ULP will act as an autonomous organization in which the staffs have high competence in procurement and have their own tasks and functions as well as focusing on serving and implementing e-procurement without being influenced by other institutions or parties. At this point, members of ULP working group are only obedient and responsible to the head or organizational structure of ULP only.

ULP have been established in Medan, Binjai and Serdang Bedagai, though they are still attach to the Local Secretariat of Development Administration section. The reason for this attached ULP form is that the Local Secretariat of Development Administration has experiences, competence and relevance of task and function in conducting procurement. The ULP of Medan and Serdang Bedagai were established in 2011, while ULP Binjai was established in 2013. Thus, if we refer to President Regulation No.54/2010 chapter 130 (1) which instructed that ULP should obligatorily established during the 2014 budget year as the latest date, the three local governments mentioned above have fulfilled this instruction and in fact earlier than the final obligated time. This evidently proofs that local government of the three regions are committed to implement e-procurement accountably, competitively, efficiently and transparently. It also demonstrates these local governments commitment to create healthy competitive atmosphere of procurement and to provide information to public.

Beside ULP, the Electronic Procurement Service Institution (LPSE) is another important organization related to government e-procurement. Presidential Regulation No.54/2010 chapter 1 (38), defines LPSE as the unit of government institutions at all level which is formed to carry out e-procurement system. In implementing e-procurement policy, LPSE utilizes an application named Electronic Procurement System (SPSE) which was developed by LKPP. LPSE also has its responsibility in facilitating ULP in conducting e-procurement. Thus, LPSE also function as an “internet cafeteria” which provides software and electronic related system (SPSE) and acts as intermediary in the meeting between ULP working group and providers. LPSE also has its role in enhancing the capacity of human resources of local government related to e-procurement by providing education.
and training as well as technical assistance in operating the e-procurement system for Commitment Official (PPK), committee and providers involved in e-procurement.

Considering the various and significant role and function of LPSE, it can be argued that LPSE is a site and organization to prepare all things related to the implementation of e-procurement in government institutions at all level. LPSE has been established in Medan, Binjai and Serdang Bedagai and it reveals the spirit and commitment to reform the conventional manual procurement into electronic procurement. Prior to the establishment of LPSE, an agency team which functions to conduct e-procurement has been established although in its operation this agency team still use LPSE server of North Sumatra province. This condition is in line with Presidential Regulation No.54/2010 which describes that in case the related LPSE is yet to have adequate infrastructure or experience disruptions, it can use the closest LPSE.

Although based on regulations, ULP and LPSE have been given adequate extent of authority the implementation of e-procurement is yet to be effective. The existing regulations are not implemented consistently and frequently changing, and the low commitment of local government units (SKPD) as the institutions which propose the procured package as well as resistant among executors of e-procurement which take form in their strategy of dividing the package to be procured posed challenges and threats to the achievement of e-procurement implementation.

3.2.2 Infrastructure
The availability of infrastructure is another significant factor in implementing e-procurement in North Sumatra Province. Infrastructure at this point include server, human resources who handle administration related to e-procurement process of providers registration, announcing procurement package and other bidding needs, communication network, and electronic software provided by Government Procurement Policy Institution (LKPP). However, in reality the availability of infrastructure at Medan, Binjai and Serdang Bedagai is yet to be optimal. Moreover, both e-procurement executors and providers were yet to have adequate understanding and capability in utilizing technology and information in implementing e-procurement.

In the beginning of the establishment of LPSE at the research sites, e-procurement was conducted by using North Sumatra provincial government website. This is in line with Presidential Regulation No.54/2010 which states that in case of the limitation of the related LPSE facility or occurrence of disruption, LPSE is allowed to use the facility of LPSE closest to their region. To date, LPSE in Medan, Binjai, Serdang Bedagai have had their own server in carrying out e-procurement although with differences in server quality and capacity. Each server has their own backup system so in case unpredictable disturbances occur, data will remain safe and the server may continuously accessible for eight hours after blackout.

The security if e-procurement data is guaranteed since in the implementation of e-procurement LPSE and LKPP have worked together with the State Code Institution (LSN). Beside the availability of hardware such as firewall and proxy server, LKPP also has developed confidential password system as a public security protection. However, due to the limited public knowledge especially prospective providers on e-procurement system along with unprofessional staffs’ attitude have prompted suspicion and distrust towards the executors of e-procurement. Actually, the use of internet in e-procurement should provide extensive opportunity for government in applying the principle of transparency so as to build trust between government, private sector and public as stakeholders of e-procurement.

In implementing e-procurement, utilization of technology, system and standard procedure, schedule arrangement should be acknowledged and understood by providers and the executors of e-procurement. Thus, delay and prompt changes cannot be tolerated. In fact, providers frequently complain on the short time of procurement tender offer. These complaints were addressed by e-procurement executors by extending the schedule for tender. Besides, internet disturbance and failure also prompted e-procurement executors to tolerate changes of the determined e-procurement schedule.

The availability of spaces also influences transparency in the implementation of e-procurement. LPSE, ULP and working group have had their own room which allows them to focus on their own tasks. The condition of LPSE office at the three research sites is adequate since they have been equipped with infrastructure such as computers, printers, scanners, faxes, tables and chairs which support the achievement of staff. The room for e-procurement working group is separated from ULP and LPSE in order to accommodate staff in conducting e-procurement and nullify external interventions that may influence the result of bidding process. LPSE provides bidding room which is equipped with local network connection to server in order for a faster upload of data. Almost all rooms are equipped with CCTV which significantly assists in monitoring and evaluating the implementation of e-procurement. Funding for these facilities comes from local government budget which at the same time reveals the commitment of the head of local government to realize transparency in e-procurement.

3.2.3 Organizational Culture
Organizational culture which intertwines with human capacity and capability is the third most significant factors for the transparency of e-procurement. In order for e-procurement to succeed requires high quality of organizational culture and the mentality of those who implement the e-procurement need to be developed to be
highly capable and committed and have integrity in implementing e-procurement.

The limitation of human resources in technology and information is the major problem facing the e-procurement implementers. This limitation contributed to the ineffectiveness of the implementation of e-procurement. ULP as the technical executors of e-procurement is still lack of adequate technical and non-technical human resource. In addressing this problem, LPSE conducts training as a strategy of transfer of knowledge from LPSE to ULP working group.

Of the three research sites, ULP and LPSE Medan are more professional compare to the Binjai and Serdang Bedagai. Based on site observation, ULP provides quick and friendly service to local government officials who deliver their procurement package to them. The professional of service of staff also reflected in their way of responding to public inquiries regarding e-procurement in which they provide clear and detail answer to public questions as can be seen from the question and answer column of LPSE Medan website.

The performance of working group in conducting e-procurement is determined by the numbers of their human resources compared to the total of e-procured packages. Whilst e-procurement staff at ULP Binjai and Serdang Bedagai perceived that their human resources is adequate to serve the amount of e-procured packages, staff of ULP Medan considered that their human resources is inadequate to handle the larger amount of bidding of the e-procured packages compared to those bidding at Binjai and Serdang Bedagai. The staff of Medan city consists of 12 permanent staff and 40 temporary staff who also work at the local government units (SKPD). The temporary staff functions during bidding and return to their unit at times when bidding is completed.

Based on regulation as in President Regulation No.54/2010 chapter 17 f the expertise standard of e-procurement implementers is high in which all permanent and temporary staff related to e-procurement and commitment official, except for the echelon II, are obligated to pass government’s procurement certification. This regulation is followed up by the issuance of North Sumatra Government Regulation No.8/2009 on Government E-procurement Guideline in North Sumatra. This regulation was adopted by local governments of Medan, Binjai and Serdang Bedagai.

President Regulation No. 54/2010 describes four types of government procurement: goods provision, construction work, consultancy service and other services. All the implementers of e-procurement at the three research sites have had procurement certificate as obligated by regulation. But this certificate is limited to their selection as expert in general procurement. In fact based on regulation above, the implementation of e-procurement comprises of goods provision, construction work, consultancy service and other services which require specific expertise.

3.2.3.1 Resistance toward the implementation of e-procurement

Resistance is another critical problem facing the implementation of e-procurement. The reluctance of some e-procurement implementers to get certificate as obligated by policies on e-procurement reveals resistance toward the implementation of e-procurement. The extensive responsibility and fear of being involved in working group and as Commitment official was pointed by research participant as the reason for this resistance.

Based on regulations, SKPD should propose the package to be procured to ULP by forward it to the general procurement plan (RUP). This is in line with President Regulation No.70/2012 chapter 112 (2) which obligate government institutions at all level to publish the RUP and information on procurement at their own website and national website through LPSE. The aim of this regulation is that public and ULP can be informed on how many packages will be procured by local government units. Problems occurred when the local government units did not provide technical specification, temporary predicted price and contract design completely. In case of ULP working group did not receive these local government units procurement documents or revision of the documents were yet to be returned by the local government units at determined datelines, e-procurement cannot be conducted.

Other problem occurred in research sites was the division of package without clear reason. Before ULP was established, the provision of goods and services was directly conducted by local government unit (SKPD). After ULP has been established it is obligated that all government’s goods and services provision of the total value of Rp. 200 million for goods and form Rp. 50 million for consulting service are to be publicly procured by LP working group. To avoid provision of goods and services of being publicly procured by LPSE and ULP working group, some local government unit (SKPD) divided the procurement package into lower value that is under Rp. 200 million for goods and construction/service provision and under Rp. 50 million for the provision of consultancy package. By dividing the package of procured goods and services to the total value under the obligated valued to be e-procured, local government units directly determined the providers for the goods and services provision.

In some cases, ULP working group perceived that officials of local government unit intervenes and intimidate them in determining the provider for the procured goods and services. On the other hand, SKPD officials accused ULP working group as changing the specification of the required goods which causes the reluctance of SKPD officials to forward the procurement package to ULP. In case of SKPD did not forward their proposed procurement package to ULP, the local budget for procurement will not be disbursed and at this point it
will influence local government’s budget absorption and their performance. Thus, some members of ULP and LPSE perceived that their function is merely limited to accommodate projects which were carried out by local government unit. At this point, they perceive that LPSE acted merely as publication media in procurement and ULP was the instrument of local government unit to validate the winner of the tendered government’s goods and services.

The lack of staff commitment to implement e-procurement may obstruct reformation of procurement which aims at creating transparency in government goods and services provision. Transparency will not be realized if government institutions at all level of government does not publish the Procurement General Plan (RUP) and inform procurement at their respective website and National Procurement Portal through LPSE. Transparency will also be difficult to achieve if government institutions divide procured package without reasonable explanation.

E-procurement policy model consists of three main factors namely legal framework, infrastructure and organizational culture which dynamically interact with each other. Therefore, the achievement of e-procurement implementation in the three research sites depends on the capacity, capability and working culture of the executors of e-procurement. Human resource is crucial in optimally mobilize the utilization of the other two factors of legal foundation and infrastructure. The availability of high technology is yet to be accompanied by human capability in utilizing the high technology.

Based on the above discussion, it is obvious that the three factors interact and influence each other in determining the implementation of e-procurement in Medan, Binjai and Serdang Bedagai. E-procurement implementation policy to be effective requires the mutually supportive and optimal function of legal foundation, infrastructure and human resource. To sum up, the implementation of e-procurement to succeed require the intertwined of the capacity, capability and working culture of the implementers who are committed to implementing e-procurement, the availability of infrastructure in accommodating and supporting legal foundation and consistent policies and regulations which provides common understanding among related stakeholders in implementing e-procurement.

### 4. Conclusions and Recommendations

#### 4.1 Conclusions

Data transparency which is limited to the availability of and access to information and data on e-procurement do not equate and guarantee the realization of good governance. Public knowledge and understanding on government decision making processes and accountability (process and policy transparency) are central to achieve good governance through e-procurement.

Basically, there are many factors which influence the implementation of e-procurement. But legal framework, infrastructure and human resource are the three most dominant factors which determine the achievement of e-procurement policy implementation in Medan, Binjai and Serdang Bedagai. These three factors work simultaneously and interact dynamically with each other in impacting the e-procurement policy implementation.

The achievement of e-procurement policy implementation in the three research sites depends on the capacity, capability and working culture of their human resources. Human resource is important in mobilizing the utilization of the other two factors of infrastructure and legal basis. In general at the three research sites the capacity and capability of human resources need to be improved especially related to the mastering of information technology and their acceptance on the application of e-procurement. Infrastructure in these research sites is still inadequate to implement the e-procurement policy. The application of sophisticated technology is yet to be accompanied by the capability of human resources. On the other hand, the unavailability and limitation of infrastructure create difficulty to human resources in facing providers. Moreover, the development of human resource and infrastructure which is not yet optimal is one of the causes of the incomprehensive implementation regulation of e-procurement.

Based on the above description, it is obvious that the three factors impacting each other in the implementation of e-procurement in Medan, Binjai and Serdang Bedagai. This e-procurement policy is to be effective if the three factors are available and functions optimally. In other words, the capacity, capability and working culture of human resources have supported the implementation of e-procurement, the availability of infrastructure in supporting the policy and legal foundation namely regulation and technical institutions which are consistent and clearly define in order to provide common understanding among head of local governments, the executor unit (LPSE, ULP and working group) and providers.

#### 4.2 Recommendations

E-procurement system does not automatically change organizational and working culture of the implementers. Resistances occur and contribute to the subversion and diversion of the implementation of e-procurement. It is imperative to build and reform the mentality, organization and working culture of government agencies related
to e-procurement to have integrity, commitment and capability to pursue good governance. Government needs to facilitate continuous awareness raising, education and capacity building on e-procurement system and process, as part of the realization of public rights to public information and public services, to community, business and members of parliament in order for public to participate and monitor the implementation of e-procurement effectively. At this point, continuous and relevant training and education which not focus only on technical aspects but also of equal significance is ethical aspects of e-procurement should be conducted to all implementers of e-procurement.

Considering the limited authority and structure of e-procurement bodies which are still dependent to head of local government, the commitment of head of local government to implement e-procurement is very important to guard the rejection of local government agencies to implement e-procurement and also the possible intervention of members of parliament.

President Regulation No.54/2010 on Government’s Goods and Services Provision chapter 1 (8) stipulates that the institution which is related to the provision of goods and services is the ULP whether structurally permanent, independent or interlink with the existing unit. Based on this chapter, ULP can be established in two ways: independent or interlinked with the existing unit. Findings on the three research sites reveals that ULP which is interlinked with the existing unit have negative impacts on the achievement of e-procurement policy implementation. Hence, it is an appropriate time for the government of Medan, Binjai and Serdang Bedagai to develop a permanent and autonomous ULP consists of professional and highly competence staff since it will enable the staffs to work in accordance to their task and functions which then contribute to the realization of a more effective, efficient, accountable and transparent e-procurement. In order for the establishment of this kind of ULP, the political will of the head of local governments and local house of representative in these locations is most significantly required.

The certification in procurement as the evident of government’s recognition on the competence and professional capability in procurement needs to be maintained. However, it is crucial to evaluate the e-procurement training materials so that it will be more specifically relevant to various types of government’s procurement and procurement staffs will enhance their competence in carrying out their task according to the field they handle.

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