E-GOVERNMENT AND E-GOVERNANCE: CAN ITS IMPROVE INDONESIAN PUBLIC SERVICE DELIVERIES?

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Preface

E-government becomes strategically importance and interesting in Indonesian public service deliveries. As many Indonesian use smart phones. However, e-government and e-governance in Indonesia are still need to be improved. Meta data as the fourth stage of e-government is far way to go. Most of Indonesian e-government is still in the first stage, namely information stage.

E-governance is the decisions are need to be made and implement well in e-government ‘s implementation. E-governance needs strategic thinking in processing and implement it.There is still lack of coordination in Indonesian e-governance.

Indonesian E-government and Its IT-Governance for Enhancing Public Service Deliveries

At present, e-government implementation in Indonesia is focused on improving public services by electronic means. The aims are to reduce costs and improve transparency, but the most important aim is to make public service accessible for all citizens (theJakartapost.com, 2003). E-government aims to make the life of the people easier, fairer, more productive, and less costly. In Indonesia's case, it aims also to eliminate malpractice by government officials.

The improvement of ICT Infrastructure, enforcement of law and regulations, provision of leadership that has good commitment to e-government implementation, development of human resources with ICT literacy, and willingness to share information among bureaucrats will enhance e-government implementation in Indonesia. Moreover, a correct IT Governance archetype in every level of government and central government–due to decentralization system and remote islands country- will also enhance e-government implementation in Indonesia. In turn, these factors will enhance e-government effectiveness in Indonesia and the government’s capacity to serve its citizens.

1.1 *The Nature of Electronic Government*

E-government is the use of ICT (Information and communication technology) by government in its administration processes and its service delivery. E-government refers to the use of iCT, such as wide area networks, the internet, and mobile computing, by government agencies to improve their services (wibisono and sulistyaningsih, 2002).

E-government is generally related to the use of the internet. Thus, e-government generally means the development of internet based solutions for government services.E-government can also be defined in relation to the policy-making process and citizen involvement. E-government is characterized by interorganisational relationships including policy coordination, policy implementation and by the delivery of services online or through other electronic means to citizens (United Nations, 2001:54).

A further definition of e-government is stated by the World Bank as cited in Wahyudi

(2001:2): "e-government is a process of using information and communications technologies to improve the efficiency, effectiveness, transparency, and accountability of government". In sum, e-government can occur in the processes of policy coordination and policy implementation that involve citizens, instead of only in service delivery.

1.2. Indonesian Public Service Delivery

Many factors contribute to the Indonesian government's capacity to serve its citizens. Some factors are the Indonesian demography, topography, and bureaucratic culture. Indonesia has about 228,437,870 inhabitants (National Statistical Bureau – www.bps.go.id - cited in Purbo, 2003) spread within its 17,508 islands in an area of 7 million sq km (Tamara, 2001, p.140). As the fourth most populous country in the world, Indonesia cannot only rely on the amount of civil servants - about 3,995,000 (pikiran-rakyat.com, 2003) - to deliver excellent public services to the citizens. Indonesia surely needs to have a reliable ICT infrastructure. The nature of its demography and topography can cause difficulties in the integration of ideas and communication within government, between government and citizens, and government and the private sector.

The massive population and topography diversity has both positive and negative impacts on the ability of the government to deliver public services fairly and accessibly to every citizen. Difficulty to access services by the citizen can be caused by heavy traffic like in Jakarta and Surabaya (capital city of East Java), or due to the remote location of citizens who need to travel far to the service place.

Every Indonesian perhaps has to face difficulty in getting access to desired public services. The services vary from making and renewing ID cards, driving licenses, business licenses, paying taxes and bills (phone, water and electricity that have different places of payment) or just finding information relating to government's policies of some public issues. In fact, it is common practice in Indonesia that people should sacrifice their time or working time or even their daily income in order to get access to public services. They spend hours in traveling between their office or home to the administration offices, and hours in waiting for getting face to face with administration officers for handing in multiple of forms. If they are lucky enough, they can complete those services within one day; however, often they have to come back the next day, or two. It is a common practice that many of those who have lost patience will bribe officers to get faster service. Hence, it is difficult to get fair service for those who follow standard procedures.

Consequently, difficult access to public means many government programs - such as census, tax, land or property registration - cannot achieve their goals. Many illegal and evasive practices by citizens hinder government objectives. In the tax sector, for example, even though government always sets tax targets low, they rarely achieve their target. Government barely achieved 80 % from its annual target (pikiran-rakyat.com, 2003). One possible factor was the difficulty of citizens to access service from Indonesian tax offices and lack of clarity of procedures.

The conservative methods of service deliveries (face to face and manual service) had proved that it cannot overcome the huge number of public demands. There was often potential for malpractice of government officials benefiting from people seeking their services. Minimizing face-to-face service is believed to be a means to reduce bribery in Indonesia. According to the World Bank report (Kompas Cyber Media, 23 September 2003), the Indonesian public service is difficult to access by all citizens. It is not a new fact that access is not only difficult, but also can be costly. According to Harahap (Head of Indonesian Businessman Association) cited in

Kompas Cyber Media (2002), private sectors have become a victim of the malpractice of Indonesian public sectors. The high cost investment climate in Indonesia due to the corruption practice causes many employees to be dismissed for their work. A recent example happened in the Nike Company. The factory was closed and they dismissed thousand employees. One of the main reasons for this incident was it was difficult for business to compete with overseas competitors since much of its costs entailed unofficial administrative charges for gaining and renewing business licenses (Kompas Cyber Media, August 2003).

By adopting e-government, transparency will be occurs and bribing process can be eliminated. A renewal or proposed identification card processes currently allows people to bribe local government officers to have faster and easier access. For example, citizens can have two IDs and driving licenses (from Jakarta and Bandung cities) easily additionally by bribing process (Purbo, 2001). By using Internet to get an ID, it will reduce chances of bribery. Citizens visit the Internet and renewal process will be more efficient and effective. For example, government of city of Solo (Central Java) has implemented e-government where its citizens can get business license electronically (Kompas Cyber Media, 2003). Hence, unofficial fees or bribing processes can be eliminated, because those government's services can proceed without face-to-face contact.
Under the old system, the registration process of citizen documentation was lacking in transparency. It was a flourishing business of brokers and middlemen that lead to corruption. Antiquated procedures such as manual copying, indexing of documents and storage in paper forms in ill-maintained backrooms has delayed service time. The same experience also occurred in Seoul, Republic of Korea, until they applied the Online Procedures Enhancement for Civil Application (OPEN) as one of their e-government programs that allows their citizens to monitor applications for permits or approvals where corruption is most likely to occur (Wescott, 2001, p.5).

Using e-government will give advantages such as efficiency, effectiveness, and transparency. As the United Nations (2001, p. 5) states, e-government can create better service delivery to citizens and business, reducing corruption by increasing transparency and social control. In other words, e-government can improve government's capacity to serve their citizens.

In Victoria, Australia, e-government implementation through "Putting People at the Center: Government Innovation working for Victorians Multimedia Victoria" program gives benefits such as e-government support to all government activities, more convenient, efficient and relevant electronic services, moreover, e-government will become a method of better government that makes the service better and more cost-effective (Victorian of Government, 2002, pp. 8-9).

E-government in Indonesia was officially introduced by Presidential Directive No. 6/2001 (ASEAN, 2003). Presidential Directive No. 3 (9^{th} June 2003) - concerning strategy e-government implementation in Indonesia – supported the previous directive. It focuses on how to integrate information and communication technology, which enhances the capacity of government to serve its citizens. The government wished for a system that could integrate ideas and communication among the huge number of citizens across many different islands, each with different culture and characteristics. About 45 % of local governments (provinces, districts and regencies) in Indonesia have already begun implementing e-government. At the least, they have set up web sites (detiknet, 2003).

3.3 The Nature of Indonesian E-government

Based on the United Nations research in 2001 about benchmarking e-government, Indonesia was categorized as having Minimal E-government Capacity. There are four categories, which are high, medium, minimal and deficient e-government capacity category. The categorization is based on a country's official online, telecommunications infrastructure, and assessment of its human development capacity. Therefore, the category identifies access to and use of relevant information and services. Those categories also reflect a country's economic, social, and democratic level of development. Hence, an industrialized country whose citizens can enjoy their abundant resources and information will be categorized higher than others.

In Indonesia, e-government implementation was started with projects conducted by Indonesia's Telecommunication Company (PT. Telkom) and local governments. It is interesting that e-government in Indonesia is pioneered by local government initiatives, such as Indonesian Telecommunication Company and Takalar (in South Sulawesi), and East Kutai regencies (East Kalimantan Province) governments in September 2000 (ASEAN, 2003). Presidential Directive No. 3 on June 9, 2003 concerned policy and national strategy of e-government development. E-government is a national program in Indonesia, but it is started from local governments. However, all government institutions should conduct their e-government based on national e-government vision and mission as stated by the Ministry of Communication and Information.

Based on the process described above, historically, e-government implementation in Indonesia is identical with one of the United Nations' four fundamental approaches to e-government program development. As the United Nations (2001, p. 50) states, "sub-nationally or vertically up where local and state governments tend to be the drivers and initiators of programs that rise up and are eventually adopted as policy by the central or federal government". This means, Indonesian e-government progress is a bottom-up process where it is launched by local governments, and at present is becoming a national program.

One reason for Indonesia to apply e-government is it is still in a changing process of government system from authoritarian and centralistic to a democratic, balanced, decentralized, transparent, and less bureaucratic government.

Based on President's Directive No.101 in 2001, Kominfo (the Ministry of Communication and Information) was formed. It has the responsibility of the development and implementation of e-government in Indonesia. Hence, the State Minister of Communication and Information is formally in charge of e-government development in Indonesia. According to President Directive No. 3 in 2003, Kominfo will become coordinator of e-government implementation in Indonesia. Kominfo has a responsibility to prepare guidelines for e-government implementation in the central or local governments, in order to provide one strategy in all levels of government. The Minister of Kominfo coordinates LIN (Lembaga Informasi National - National Information Institution) as a non-department institution to implement policies that Kominfo prepares. National Information Institution also has responsibility to manage Indonesian portals (http://www.indonesia.go.id). Moreover, there are two search engines in Indonesia, namely http://www.searchindonesia.com and http://indonesia.elga.net.id (Kristiadi, 2001). However, at the time of writing, those search engines are still in development, as is e-government on the whole and LIN is gone due to its effectiveness and efficiency.

Furthermore, Indonesian Rules No 11 years of 2014 regarding ITE (Information and Technology and Elctronic) that some missconduct regarding internet usage in Indonesia has been became main law to be enacted. For example, prisoning Mbak Prita cased that emailing Omny Hospital that according to mbak Prita missconduct its service. And case at Jogjakarta

when a student insulting Jogjakarta government about queing service at its gas station, and hacking a site case etc.

3.3.1. Portals

This figure shows Indonesian portal:

Portals are important as they can coordinate information from many sources, such as departments, agencies, and other government institutions. As Weill and Vitale (2001, p. 168) state, a portal is a gateway to the Internet or "a collection of useful links presented in an organized way from which users could get directions to other sites", thus a portal can reduce search costs, and possibly other transaction costs as well. Hence, if the citizens want to access any department or local government, then they can access through one Indonesian portal which saves time.

However, not all government's sites can be accessed through the Indonesian portal (www.indonesia.go.id). Moreover, in fact, not all department sites have links to other agencies or departments. Hence, we have to go to an individual department site if we want to access it. Lack of links between departments means only those inside government departments derive benefit from that site or in some cases, there is no benefit at all due to the lack of useful features. Setiyadi (2003, p.1) states, relatively there is still no link among Information Systems within government institutions, even within one department. He added, most Information Systems still have an orientation inside organizations, meaning that it is only effective within the organization. The lack of links among departments effects coordination. Their coordination process will improve by conducting e-government, because it allows effective interaction among departments.

Lack of coordination between government departments is a chronic issue in Indonesia. A simple example is the lack of coordination among telecommunication, electricity, and water departments. Road repairing projects for phone, electricity, and water that rationally can be coordinated together - due to those projects are conducted in the same place - are never ending due to their separate projects.

Another obvious example was in the case of flood disaster in Jakarta, there was no coordination between the Indonesian Meteorology and Geophysical Agency (IMGA) and the Jakarta's Governor (Lingkar324, 2002). As a result, Jakarta's local government was not efficient to alarm their citizen about the danger of flood. There was no significant early warning system to citizens from local government and from those responsible in disaster management. Hence, there were many losses in the Jakarta flood disaster. The loss could be minimized if there was appropriate coordination among government institutions. One possible solution that can be used to coordinate between those offices and to improve its efficiency and effectiveness is e-government implementation.

3.3.2. Indonesian Websites

Indonesia's official domain name is "**go.id**" usually used by provinces, regencies, or city even agencies in local government. Those sites are registered in Indonesia Network Information Center (IDNIC) as a domain register in Indonesia. Overall, the number of government sites in Indonesia is still limited. According to Wahyudi (2001, p.10), the number of government web sites in Indonesia is: central government (69 web sites), central government sub division (48 web sites), committee (6 web sites), and state owned enterprises (13 web sites). Provinces, regencies, or cities that have no web site yet are Central Kalimantan, Mojokerto, and Bangka Belitung (Kominfo, 2003).

There are 182 web sites (48%) of all local governments in Indonesia i.e. 384 local governments (provinces, regency and cities), however, 215 of them (37 sites) cannot be opened (Kominfo, 2003). This situation shows a lack of managing sites and a low stage of e-government implementation. Its improvement depends on human resources ability in ICT, commitment of leadership in e-government, and accountability to manage and control their web site within bureaucracy.

According to Soendjojo (Media Assistant of Minister of Kominfo) cited in detik.com (2003), overall, from 6000 government' sites with go.id domain, only 45 percent are well managed. Managing web sites in the public sector is still a problem. This needs to be improved for the sustainability, attractiveness, and achievement of the services. This includes updating sites regularly, replying to e-mails, and improving the quality of the sites' content.

Management of sites is important due to the sustainability of the sites and improving services. Government should understand that e-government not only means publishing websites. Many government institutions still have perception that e-government only means publishing websites and do not consider sustainability factors, on going management and using the sites for transaction and consultation processes. As Soendjojo cited in detik.com (2003): communication through the Internet is still not effective because there is no attention to manage the content and its interactivity, for example from 90 e-mails that Ministry of Communication and Information sent to all local government sites, only 25 local governments replied and it was so late. Overall, managing web sites of provinces or regencies in Indonesia still have to be improved.

The obstacles of website development in Indonesia, such as updating quality of content, and services factors still occur. For example, local government sites that are available and updated only 50 (Kominfo, 2003). That barrier is also caused by limited number of public servants that can access a computer. How can they improve the web site if they cannot access it? As Margetts and Dunleavy (2002, p.7) states: web development has been hindered by the fact that staffs themselves do not have Internet access and cannot see their own web sites while at work. Hence, accessibility of the Internet (ICT) in public sectors also needs to be improved.

Nevertheless, not all government web sites in Indonesia are in a bad management situation. "Some procedure must be established to address how these e-mails will be handled and how quickly" (Layne and Lee, 2001, p. 128). Human Resource Agency' site in Karawang (a city in West Java) is one example of the site that has a good management plan. The site is updated everyday. This site is effective to find and advertise jobs and has an important role in improving IT literacy for bureaucrats, especially in Karawang' Human Resource Agency (detikcom, 2003).

At present, most of Indonesia's central government agencies are still in the basic stages of providing online public services, such as providing statistical figures, press releases, rules and regulations, and transcripts of speeches. Only some local governments in Indonesia such as Kutai Timur (East Kutai) and Takalar regencies have more improved e-government, such as consultation process, processing ID cards, driving licenses, passport, birth certificate, and land and building certificates. Nevertheless, generally Indonesian e-government implementation still only provides limited information. Further stages such as transaction, consultation, and e-procurement have not been conducted in all government institutions. Moreover, managing web sites, interactive ness, and sustainability are also still a problem. E-government in Indonesia

still should be improved to accommodate interaction and transaction for government-to-government, government to business and government to citizens.

3.4. Indonesian E-government Stages

In general, the impact of e-government can be felt by only 9% of the population, it is because of limitation in ICT infrastructure (Kominfo, 2003). Moreover, there is not equal ICT infrastructure in all Indonesian areas, hence there is a need for coordination among government's institution to improve e-government implementation. E-government cannot be implemented optimally due to the limitation of infrastructure such as with electricity, telephone, and transport. For example, only 55% of Bengkulu's population can access electricity and only 70% of them can access a telephone (Kominfo, 2003). Hence, e-government improvement in rural areas relies on all their infrastructures (including ICT infrastructure).
This table shows e-government progress in Indonesian provinces, cities, and regencies.

Table 3.1
E-government Stages

East Kutai regency (Kalimantan)	Takalar regency (Sulawesi)	Other provinces, cities and regencies (Average)
• Building license (finished in 14 days) • Hotel & Restaurant license (finished in 14 days) • ID card (finished in 1 day) • Land & Building Tax • Land certificate (finished 90 days) • Marriage license • Birth certificate (finished in 1 day) • Advertisement license • Business investment license (finished 36 minutes) (Until 2001 about 1,199 transactions were completed)	• ID card (finished in 10 minutes) • Building license (finished in 1 day) • Land certificate (finished in 1 day) • Marriage certificate (finished in 1 day) • Birth certificate (finished in 1 day) • Business license 1-3 days (End of 2000 about 6,668 transaction were completed)	• Providing information through web sites, such as tourist information, local area potency (resources), population, local business, local map, structure of the local government, human resources. • Some of them provide job advertisement • Some of them provide communication process, such as for complaining and suggestions • Some of them provide information that still un updated regularly and English version not available

Source: Gatra.com, 2003; the jakartapost.com, 2001; Kutai Timur, 2003, TelkomRisti, 2003

On-line transactions in Indonesia are still very limited. However, two e-government projects (in East Kutai and Takalar regencies) had conducted it. The result is very interesting, because

it was followed by other regions in Indonesia. About 20 e-government projects will be conducted by 2004 (Kominfo, 2003). They will change their work culture from traditional methods to the new IT-base culture. Those governments cooperate with other institutions such as with private companies, such as Kogas Driyap Company or with other government institutions, such as PT. Telkom Research and Information Technology Division and PT. Indosat Tbk. For example, PT. Indosat Tbk cooperated with nine provinces in Sumatra and implemented e-government based on MoU (Memorandum of Understanding) on 12 th October 2001 (Warta Ekonomi, 2003).

3.4.1. East Kutai Regency

The first project was in the Regency of East Kutai, East Kalimantan in August 2001 through cooperation between Kutai Timur's government and PT. Telkom (Indonesian Telephone and Communication state owned enterprise). It provided information about main tourist attractions and local investment policies (www.kutaitimur.go.id). In this regency, 1.199 transactions occurred up to February 2001 (theJakartapost.com, 2001). The transactions included requesting licenses for out-door advertisements. This project interests other areas in Indonesia (such as Lampung, Sukabumi, Bekasi, Ciamis, Padang, Aceh and Riau) to start similar projects.

East Kutai's e-government is an example of the success of e-government implementation in Indonesia occurs in Kutai Timur (East Kutai) Kalimantan. Kutai Timur's e-government has the best position among other regency's e-government. The performance rating is based on bureaucratic readiness, license administration process, and Internet service system (Kutai Timur, 2003). By conducting e-government, the Kutai Timur government can provide investment licenses to a business (PT. Jamu Jago) within 36 minutes (Kutai Timur, 2003).

In East Kutai, there is SIMPTAP, a management information system within one roof (it can be accessed through www.kutaitimur.go.id). It includes geographical information system, e-commerce, information about potency in the area and an online library. Those services can give better information for investors (foreign and local), improving Kutai Timur's government capacity to serve their citizens, and eliminating corruption, collusion, and nepotism. Further services that their citizens can get through simptap are license to build, making ID cards, land, and building tax, land license and marriage license. ID card and birth certificate can be finished within one day, while building, hotel and restaurant licenses can be finished within fourteen days, moreover, land certificate can be finished within 90 days (Gatra.com, 2003). Those processes are conducted transparently with no bribing process.

3.4.2. Takalar Regency

Further example of the success of e-government implementation is in Takalar regency (40 km in the South of Makassar, Sulawesi Island) - http://www.takalar.go.id/ and http://www.takalar.net/. At the end of 2000, about 6,668 transactions were completed concerning applications for new ID cards, building licenses, land certificates, industrial licenses, advertising licenses, business licenses, company licenses, marriage, divorce, birth and death certificates (TheJakartapost.com, 2001).

Takalar regency's government becomes more efficient, effective, transparent, and accountable by conducting those electronic transactions. It is transparent because with e-government, the regent can monitor daily revenue from all transactions electronically. Hence, corruption and collusion that usually occurs in requesting licenses can be eliminated. Moreover, promotion of

this regency, including business transaction also can be conducted through e-government. For example, they promoted and conducted their horticulture, fisheries, and handcraft products (Kompas Cyber Media, 2001).

They started their e-government in May 1999 in cooperation with Divisi Riset Teknologi Informasi PT. Telekomunikasi Indonesia (Research and Information Technology division of PT. Telekomunikasi Indonesia) that spent Rp. 350 million to start it, then gained revenue in July 2001 of about Rp. 400 million (Takalar regency, 2002).

3.4.3. SIMPTAP

Both e-government's implementation (in East Kutai and Takalar regencies) is conducted through SIMPTAP (Sistem Informasi Manajemen Satu Atap or Management Information System within One Roof). By calling number 0418324444 (TelkomRisti, 2003) from home, public telephone, or wartel (warung telekomunikasi or telephone kiosk), citizens can check their ID card process by following the next instructions. An ID service usually can take one day, but with e-government, it only takes 10 minutes, moreover, licenses can be obtained within one day (usually those services take three days or one week). E-government can improve Takalar's government revenue by 154%, paper efficiency by 70% and received trust from JICA (Japanese company) to give a grant to them (TelkomRisti, 2003). Those government services show efficiency, effectiveness, transparency (due to the absentee of informal fee), and accountability of their government.

Simptap is similar to a One Stop Shop system. According to Margetts and Dunleavy (2002, p. 6), one stop shop is a government service system that have been advocated since the 1970s, where citizens can receive a variety of government services, to overcome the disadvantage where data being held in several places at once, and citizens having to deal with several departments. This results in a more efficient and effective process.

3.5. E-procurement

E-procurement (transaction, auctioning, and tendering processes through the Internet), as one aspect of e-government conducted in Indonesia in the year 2004. This effort also will improve the transparency and efficiency of government and business activity, also business and business relations. Tender on-line process can increase transparency, decrease time of processing, increase efficiency and cost effectiveness, and decrease corruption, collusion, and nepotism practices (Mastel, 2003). In order to achieve those goals e-procurement should be supported by a good system. E-procurement needs monitoring and controlling processes that need to be supported by a strong IT security system. However, at the time of writing, standard concept of e-procurement in Indonesia was not available yet. That national standard should be enhanced due to the success of online transaction, security, and readiness.

Some of Government Business Enterprises (GBEs) and departments have conducted e-procurement but only based on a President Directive about transaction in goods and services. Those GBEs and departments are PT. Telkom (Indonesia's Telecommunication Company), Garuda (Indonesia's airways) and PT. PLN (Indonesia's Electricity Company), Department of Industry and Commerce, and Department of Mine and Energy. For example, Garuda has e-procurement in their web site (www.sam.design.comv40/compro/web_det). Generally, e-procurement in Indonesia is only in bidding process and announcing the winners of tenders. Overall, e-procurement has not been conducted nationally due to the unavailability of e-procurement's national standard, and electronic transaction law.

3.6. E-government in Departments

An example of e-government implementation at department level is with the Finance Department. The citizens can access the tax system and other information about tax and finances through Finance Department's web sites (http://www.depkeu.go.id). For example, the citizens can pay revenue tax through its web site. Hopefully, the e-payment process will gain improvement of the department's revenue.

E-government also has been implemented in the Department of Education (www.depdiknas.go.id). The citizens can access information about all schools throughout the archipelago, convey messages, or protest electronically. E-government in this department can minimize bureaucracy. It had twelve bureaus before e-government implementation, but at present, it has eight bureaus (Warta Ekonomi, 2003). This situation shows efficiency.

An example of a website that has an updated English language option is the Indonesian Ministry of Health (http://www.depkes.go.id/english) (Lane, 2003). This site provides information about the health system in Indonesia, statistics from the Ministry's surveys on a variety of issues including disease, nutrition, population, the state of hospitals and family planning. However, its e-government implementation is still should be improved into further stages.

Further improvement in online communication is occurring when Indonesian State Minister of Information and Communication, Syamsul Muarif and one member of legislative from Commission IV, Ahmad Muqowwam conducted online discourse with citizens (detikcom, 2003). This situation reflects e-government's benefit i.e. transparency and lessens bureaucracy. However, this effort still should be improved by conducting it regularly in order to gain its maximum benefit.

This table shows categorizing of e-government stages in some departments:

Table 3.2
E-government Stages in Departments

Kominfo	**Dept. of Finance**	***Dept. of Education***
Information: access information such as about its role, vision and mission, responsibility and structure of organization. Interaction: chatting	Information: access information such as about types of tax. Transaction: pay tax	Information: access information such as about schools in Indonesia.

Overall, each department needs different e-government improvements due to their policy, commitment leadership, managing, and controlling process. Basically, all departments have already the information stage.

3.7. Efforts to Improve

A progress in e-government implementation is occurring in April 2004, when the government conducted Single Identification Number (SIN) application to for all Indonesian's ID, passport, driving license and tax number. This effort is to improve accessibility and controlling of government's services online. The citizens can proceed those services online due to one single

identification number for its. Currently, 29 SIN have been produced from 24 government's institution through Indonesia (Kominfo, 2004).

Further progress is occurring when Warta Ekonomi (an Indonesian economy magazine) conducted E-government Award in 2003. The appraisers are based on the web presence, interaction, transaction and transformation process, sustainability, willingness to conduct e-government, transparency, investment value of each area (whether only invest on buying computer or processing e-government), leadership, institutionalization of e-government in those areas (creating management systems in the government), managing process (including "back office process – is there a man behind the system?"), front office performance (web site performance), and budgeting factor (area with minimal local budget but implementing e-government effectively will get more points) (Warta Ekonomi, 2003).

Moreover, the award is categorized based on regency or city, province, department, government institution non-department and other government institution. According to Warta Ekonomi (2003), the winner at the regency or city level was Tarakan city (www.kotatarakan.go.id); at the province level was Yogyakarta (www.pemda-diy.go.id); at the department level was the Department of Education (www.depdiknas.go.id); the non-department government institution winner was Bank Indonesia (www.bi.go.id); in other government institutions was The Indonesian Capital Market Supervisory Agency (Bapepam) – www.bapepam.go.id. This effort had a goal to improve e-government implementation in Indonesia. Expectantly, the success and spirit of the winners will be followed by other institutions. Hence, the benefit of e-government implementation can be felt equally by all government institutions.

PT. RTM Global Nusantara – an Indonesian telecommunication company-, cooperated with South Korea and Singapore companies to develop e-government in 20 regencies in Indonesia. This included ID card, building license and birth certificate online processes (Suara Merdeka, 2003). Korea and Singapore' companies were requested, because they are considered more successful in e-government implementation.

Furthermore, Indonesian government and Bank Exim Korea (from South Korea) work together to implement an e-government project through e-Indonesia (Kominfo, 2003). This project has aimed to implement e-government in rural areas.

In an effort to improve e-government implementation, the Indonesian government has a standardization of local government websites. This effort is to avoid different formats (based on different taste) on each government site, overlapping web sites within one department or level of government, and only following changing trend that cause temporal web sites performance. There are minimum terms that should be always be provided by all local government sites, such as providing news, local map, available resources, and structure of the government (Kominfo, 2003).

3.8. Targeting E-government

Indonesian government has a target for all sub districts up to central government's institutions level to be conducting e-government by 2005 (Kompas Cyber Media, 2003). This target hopes to achieve transparency and efficiency of government services. Apparently, Indonesia's government also should prepare for change if e-government is implemented. Electronic activity needs structural, attitude and behavioral changes, and organizational procedures (that affect to the position and additional salary). Indonesia's government should improve its human

resources, ICT infrastructure, cyber space law enforcement, bureaucratic work culture, and leadership, in order to achieve that target. Those factors need time to gain maximum benefit, and by putting a target on 2005, it can create ignorance and uncertainty in public sectors.

Conclusions

Indonesia's e-government is still in the development stage, this is proved by the fact that only 9% of Indonesians can derive benefit from it. Most of the government's web sites are still in the information stage (publishing web sites). Some areas, such as in Kutai Timur (East Kutai, Kalimantan) and Takalar regency (Sulawesi) already conduct e-government in information, communication, and transaction stages. For example, in Takalar regency, they can serve their citizens in obtaining an ID card within 10 minutes. Benefits of delivering services online can eliminate some of Indonesia's biggest problems, namely collusion and corruption.

Managing of government's sites is still a problem. They still need to improve so as to improve the sustainability of the sites. Moreover, lack of coordination among government agencies and central management of ICT must be improved due to the controlling and monitoring of e-government implementation.

An e-procurement program has not been conducted nationally yet, it still needs a national standard of implementation. The government has provided standardization of local government's web sites and conducted e-government award activity in their efforts to improve e-government implementation. However to achieve better e-government implementation, those efforts should be followed by improving ICT infrastructure, cyber space law enforcement, leadership, human resources ability in ICT and bureaucratic work culture.

The role of IT Governance is significantly important to the blue print of e-government in every level of governments due to improving public service delivery. Most of local government's IT Governance in Indonesia is a federal archetype. It should consider local value when choosing the most suitable archetype.

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