IT-Based Audit (e-Audit) Plan in Indonesia:

An Analysis of the Program Logic, Feasibility, and Alternatives

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To Allah SWT and Muhammad SAW

To my beloved wife Silvia and my precious one Arfa

To my parents Papa dan Mama

To my brother Adek Yoga

Acknowledgments

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List of Acronyms

APIP	*Aparat Pengawasan Intern Pemerintah* (Government Internal Control Agency)
ARK	*Algemene Rekenkamer* (can also be called NCA in English)
ASOSAI	Asian Organization of Supreme Audit Institutions
BPK	*Badan Pemeriksa Keuangan Republik Indonesia* (The Audit Board of the Republic of Indonesia)
BPKP	*Badan Pengawasan Keuangan dan pembangunan* (The Supervision of Financial and Development Agency)
BUMN	*Badan Usaha Milik Negara* (State Owned Company)
DPR	*Dewan Perwakilan Rakyat* (House of Representatives)
EUROSAI	The European Organization of Supreme Audit Institutions
Detiknas	*Dewan Teknologi Informasi dan Komunikasi Nasional* (the Council of National Information and Communication Technology)
IA	Internal Audit
ICT	Information and Communication Technology
INTOSAI	The International Organization of Supreme Audit Institution
IS	*Inisiatif Strategis* (Strategic Initiation)
ITE	Information and Electronic Transaction
KPK	*Komisi Pemberantasan Korupsi* (Anti-Corruption Agency)
MAD	Ministerial Audit Department
MIS	Management Information System
MOU	Memorandum Of Understanding
NCA	The Netherlands Court of Audit (can also be called *Algemene Rekenkamer*/ARK in Dutch)
NPM	New Public Management
Renstra	*Rencana Strategis* (Strategic Planning)
RIR	*Rencana Implementasi Renstra* (Planning Implementation of Renstra)
SNSI	*Sinergi Nasional Sistem Informasi* (National Synergi Information System)
SPIP	*Sistem Pengendalian Intern Pemerintah* (Government Internal Control System)

Abstract

The paper's aim is to criticize the implementation of the e-Audit project, which is being implemented by Indonesian Audit Board (BPK). It explores the condition why e-audit is should not be implemented in this current stage by assessing the condition of e-government progress, the relation among state audit institution, and the e-audit project itself. It explains all aspects of those conditions. A comparative study to the Netherlands Court of Audit (NCA) was performed to look at 'how do they work'. NCA is a perfect example of a mature audit institution that bringing a principle of harmonization among internal and external audit institution relationship. The contribution of this research, an analysis of project design which is important for the project that currently still in the progress, leading to lesson learned as well as recommendation.

Relevance to Development Studies

Within Development Studies, this paper addresses the issues of project evaluation, the e-Audit project. Focusing on baseline studies of project design by using several stages of means-ends analysis: chain of objective, premise reconstruction, and Toulmin's-George and Hambrick's-Gasper format to conceptualize the program logic to perform an initial answer of the feasibility in the case of e-Audit project.

Keywords

Chapter 1
Introduction of e-Audit Project

1.1. The Project and the Issues to be Analysed

1.1.1. Birth of e-Audit Project

As defined in the Constitution 1945 of the Republic of Indonesia, art No. 23 E (I), The Audit Board of The Republic of Indonesia (BPK)[1] is an independent supreme audit institution that cannot be influenced by the government, parliament or any other institution. Principally, the objective of this institution is to implement an evaluation, examination, and conduct its own set of audit programmes[2] at the state and local level (Hartoyo 2011: 178). Since the passing of Indonesia Act No 15 of 2006, BPK needs to enlarge and develop their institutional capacity (NCA 2009: 18). This law has forced BPK to be more economic, efficient, effective, transparent, and responsible in carrying out audit purpose. It can be achieved if BPK can produce an acceptable audit results according to the needs of stakeholders[3], in line with the institutional reformation of the bureaucracy.

As a member of the International Organization of Supreme Audit Institution (INTOSAI), every five years, a peer review[4] is conducted by other supreme audit office institutions (which it means has equal position or standing) from other countries to BPK to check whether the Institution has already met the criteria or standard. In 2009, the Netherland Court of Audit (NCA) was conducted peer-review to BPK. As a result, it says that BPK has shown an impressive amount of work. However, the report emphasizes several findings: about BPK limited access to information about revenue that coming from foreign aid, weak financial management in both central and local government level, and persistence of fraud and corruption in government and civil society (NCA 2009: 7). NCA gives a suggestion to BPK to formulate a strategic plan that can be implemented in the political environment in which BPK operates. Furthermore, cooperation and coordination with people's representative are needed at both central and local level (*Ibid*).

In regard to BPK experiences, during the 1st joint conferences between ASOSAI and EUROSAI at Istanbul, Mr. Poernomo[5] in his speech mentioned that limited resources and number of auditor has become the main obstacle in performing the job (Poernomo. 2011: 3). Difficulties to obtain empirical data for the management of state finances is mostly become another example. Most of data and report are still taken manually. There is no single system that can cover all of this matter, although regulation about e-governance has long been introduced to the institutions in Indonesia. Moreover, number of entities and the amount of state budgets is increasing every year that makes the duty of BPK Auditor become more challenging (BPK. 2012). However, under Act art 15 articles No. 9 paragraphs 1 it is clearly stated that BPK has authority to specify the types of documents, data, and information regarding the management of state fi-

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[1] Translated as *Badan Pemeriksa Keuangan* (BPK)
[2] Financial, Performance, and Compliance Audit.
[3] It represents central and regional parliaments, local councils, auditees, and civil society.
[4] Assessment by other SAI.
[5] Mr. Hadi Poernomo is currently a chairman of BPK RI.

nances and that should be submitted by those examined (auditees) to BPK (Indonesian Act 2006: 6)[6].

In response to above problems, in 2009 BPK began to develop a new system called e-Audit. This system is projected to help BPK in conducting their core mission, reporting and giving opinion regarding the audit statement for public or stakeholder purposes.

1.1.2. *E-Audit as Reflection of Link-and-Match Concept*[7]

Since 2003, the Government of Indonesia has introduced the concept of e-government for better interaction between governments, business institution, and civil society, through Ministry of Communication and Information through Presidential Instruction **No. 3 of 2003**. According to World Bank, e-government is the use of information technologies (IT) by the government agencies of that have the capacity to change the relation with citizens, businesses, and other arms of government that have benefits of reducing the corruption, increasing the transparency within nation, greater convenience, and cost reduction (World Bank. 2011). However, based upon the progress to date the e-government development in Indonesia has not shown encouraging progress (Rokhman 2011: 228, Kumorotomo. 2009: 6, Sosiawan. 2008: 2).

As a solution to the challenges of e-government management problems in Indonesia, and mostly to provide tools that can improve the implementation of effective and efficient audit works, BPK initiated the establishment of the synergies project with the auditees through the *link-and-match* data. In the implementation of synergy data, BPK will work together with auditees (central and local government institutions) to form a data centre electronically which is called the National Synergy Information Systems (SNSI) or also called BPK *Sinergi* (Synergy) (BPK. 2012).

BPK Sinergi is designed as a breakthrough by BPK as an attempt to strengthen the audit and management as the state financial management process. This concept was established as a system called the e-Audit (Poernomo. 2011: 3). Using e-Audit, fraud in the management of financial affairs would be more easily detected. Moreover, this new system will assist the auditor in performing the initial analysis before carrying out the audit in the field. BPK expects to take advantage of advances in information technology to make the financial examination more accurate and faster, more extensive in the scope of examination, cost efficient, and inspection reports will be completed earlier.

1.1.3. *Problems: Issues That Need to be Analysed*

This new system, to some extent, will give positive benefits to BPK auditors in collecting and analysing primary data resource. Though, <u>first</u>, regarding the condition of Indonesian government generally, this system will probably could be easier to be implemented at central level, not local level due to several reasons, which mostly could be grouped into: political, demographic, infrastructure or connectivity, economic and institutional or cultural administration aspects

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[6] Indonesian Act is a set of regulations set by the President of Indonesian Republic.
[7] The meaning of '*link-and-match*' in this research is linking the system of BPK to other institution and stakeholder electronically through web based and using a unique system (software) to perform structural audit procedures automatically for example comparing data that are necessary for audit purpose. If there is any inconsistency between data (un-match), the system will notify the administrator.

(Schuppan 2009: 123). <u>Secondly</u>, as confirmed by the project holder, there is no feasibility study[8] in this project so there is no guarantee or a possibility that this project will achieve the goals that already stated. <u>Lastly</u>, there is also a question revealed in the commencement of this project, whether it could be the answer for the 'magic' words about effectiveness and efficiency as well as transparency and accountability. In Indonesia, the state audit management is divided into two (2): internal and external audit institutions, in which BPK is a superficial auditor. However, the relation between these audit's body is not yet effective or efficient. According to INTOSAI Lima Declaration, it specifically mentioned that cooperation is possible between internal and external audit (INTOSAI. 2009).

These three issues will become the main constraints considered for this research study. The idea is to test whether the project will achieve the intended outcome, by evaluating the project design using tools of policy analysis (to be explained at **Chapter 2**), and to propose an idea to use this project as a pilot to link the external and internal audit data and the way they conduct audit purpose by looking at the NCA's experience.

1.2. Justification, Objective, Research Framework, and Limitations

1.2.1. Justification

The e-Audit project is unique because it originally designed by the institution (BPK) itself. Since Hadi Poernomo holding position as the Chairman of BPK, he has a vision to make BPK become a model as a reformation body. He is personally initiating this project, in essence, to make the financial management in Indonesian become more effective, efficient as well as increasing transparency and accountability.

Currently, most developed country such as Sweden has implemented IT based audit system. In Sweden, it is called IT Audit Support Software. The basic idea was to provide the auditor with information from different area, so it will be easier for an auditor to do their job. By linking the electronic system to internal audit bodies or internal accountants, they make the data produced by internal audit findings as initial data[9]. There likewise several examples form Asian Region such as China, who also develops an e-audit project for observing and collecting primary data[10].

1.2.2. Objective

Linking to previous problem's statement, this research considers the way e-Audit project could promote better public financial control through IT based. To analyses the issue, analysis of e-Audit project design is mandatory since there is no feasibility study has been conducted so far and also since the project is still in early stages. To support this analysis, several aspects will be considered in this thesis. Details will be explained as follows:

1. About current condition of state audit institution relationship for there is an issue about overlapping functions. In this explanation, I use the words of 'intimacy';

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[8] Statement about 'no feasibility study' is based on confirmation by discussion with BPK spokes persons who are involved in e-audit project (Mr. Hasan Bisri-Vice Chairman of BPK RI in The Hague, May 2012). There is no later explanation in regards to this issue.

[9] Based on explanation by e-mail from Mr. Roy Ferouge, May 2012. Currently, he works for the NCA.

[10] http://www.cnao.gov.cn/main/articleshow_ArtID_940.htm

2. About e-government in Indonesia since it is explained that e-Audit is a part of it as well as several explanations from different scholars about the e-government condition in Indonesia;

3. And due to explanation point 1 and 2, the e-Audit project now could be explained. There is some interesting discussion about what is the potential effect and what possible threats are stakeholders afraid of? During fieldwork, I found that there are some biases happen in the project design. This finding will be explained in **Chapter 3**;

4. Another relevant issue is bringing the Netherlands Court of Audit (NCA) as a comparison of how the effective and efficient external audit can be looked like. NCA so far has unique method to conduct a general audit in which they mainly use the findings from the internal audit. NCA will be the comparator model for BPK in analysing or even, adopting the 'relation' model between internal and external auditor.

Later, findings from previous analysis (e-government and relation issues) will be used to define and analyse what e-audit should be in comparison to the original concept of e-Audit. Last, suggestion of change will be suggested to the policy maker (e-Audit) based on tools of policy analysis.

1.2.3. Research Question

Main Question

The main research question will be 'Whether the e-Audit project has good possibilities to promote better public financial management control in Indonesia'.

Specific Question

The principal research question can be answered by defining more specific question. In this section, several questions will be mentioned to support the main question.

a. What is the e-Audit? And why it is believed that e-audit will be the answer to tackle the problems?

b. How is the original plan of e-Audit in BPK and how it compares to e-government condition generally (e.g.: driven by Schuppan Scheme[11])?

c. How is the relation between internal and external state audit institution generally?

d. What lessons about internal and external state audit functions can be drawn from NCA?

e. Will do effectiveness, efficiency, accountability, and transparency be achieved?

1.2.4. Research Framework and Limitation

As already mentioned above, there is no feasibility study has been conducted so far. As then, this thesis will mainly develop an analysis based upon the baseline framework of project design and perform a design evaluation to see whether it is achievable or not. Therefore, several steps have to be conducted before performing Program Logic (PL) and other analysis. Beginning in Chapter 3, I will, firstly, try to get some idea from data about the pons and cons of e-Audit, the situation of e-government (which e-Audit becomes a pat of), and relation of state audit institutions in Indonesia. This is important to get some preliminary basis for upcoming analysis in Chapter 5. In

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[11] This scheme later will be discussed briefly in **Chapter 3 and 5**.

Chapter 4, benchmarking studies to the Netherlands Court of Audit (NCA) is performed. And lastly, after gave an explanation in Chapter 3 and 4, Chapter 5 applies the policy design evaluation tools to the project design in its context.

To study something that has yet not been implemented is challenged of this research. Above framework was developed through the concept of looking at other's perspectives and summarising what was previously done, to generate a new idea as well as a solution to tackle the issues. Focused on primary (interview result, internal document gathered from BPK and NCA as well as my two years' experience working in the specific area of audit at BPK) and secondary data was become the option with emphasized the idea of analysis as presented in Chapter 5. Thus, the research mainly focuses on applying some analytical frameworks that give relevant perspectives. In the end, descriptive solution will be presented as a hypothesis. This is what becomes the limitation of this research.

Chapter 2
Policy Evaluation Concept and Research Methodology

2.1. The Analysis

Policy evaluation is very important for this research since there is no feasibility study on the e-Audit project, then, it can be used to find intended gaps to the likelihood of the project itself. Program theory evaluation can be used especially for developing a logical model to the project that is used to find how the intervention that will be tested might be used (Rogers 2008: 30). Basically, in doing this sort of assessment, there is a number of tools can be used, such as: program theory, program logic, theory-based evaluation, theory of action, etc. All these analyses have one single purpose, 'developing a causal model linking program inputs and activities to a chain of intended outcomes, and using the model to guide the evaluation' (Rogers, as cited from Rogers 2008: 30, SIDA.). Following, in this thesis analysis will be done by develop the Program Logic (PL) that focus on the baseline studies of the project.

The first step in developing PL is by using theory of action. Theory of Action is focused on conceptualizing the causal linkages or program logic reconstruction (Leeuw 2003: 195, Patton 1997: 217). The linkages are between inputs and goals. As explained by Perrow any ends can in turn be a source or means, and it is necessary to identify and assess the proposed 'hierarchy of means and ends' the intended system of cause and effect or action and reaction (Perrow, as cited from Patton 1997: 218). It suggests some methods for program theory construction aimed at clarifying and testing the theory in which the program is based. Comprehensive description of the program model will be needed to construct the means-ends hierarchy (Patton 1997: 218). Some problem identification, defining the resources needed, and research findings will be needed to explore and construct the chain of objective. In addition, Leeuw has suggested that reconstructing and assessing the underlying program logic of a program are needed to know the future opportunities of such a program (or project), which assess the likely effectiveness of the program based on premises where the program is based on (Leeuw et al. 1999: 201).

Secondly, doing PL Evaluation. Program logic (PL) evaluation is giving a solution of problems that may appear with result-based methodologies(SIDA.). Basically, PL is studying the causal or fundamental assumption in a program, as that is the reason why this method is ignoring the focus on a result (*Ibid*.). This method can be used in cases where there are not yet any results, and it is also important when there program results, for trying to understand the results. Moreover, Leeuw has explained the importance of reconstructing and assessing the underlying logic behind the program (activity) as 'for obtaining information about future opportunities of the program' (Leeuw et al. 1999: 201).

To do the analysis, some explanation from Mejia might be useful. He tried to combine some explanation of PL from different source in his own methodology, as summarized in a single sentence. Quoted from him:

"PL is analysed as a combination of Scriven's notions of logic in policies and the ideas, tools and frameworks of the Logical Framework Analysis and Hambrick's and Leeuw's formats, without applying any, in particular, in the analysis" (Mejía Delgado 2008: 23).

In accordance with this statement, it shows that a linked set of analysis will be useful to define the program logic which all focused on means-ends analysis that will be explained as follows:

First Step: Means-Ends Analysis

> "The full chain of objectives that links inputs to activities, activities to immediate outputs, immediate outputs to intermediate outcomes, and intermediate outcomes to ultimate goals constitutes a program's theory" (Patton 1997: 218).

The concept of this theory is as there are questioned whether the project or program can lead to wished for outcomes, so several strategy should be done to achieve the desired outcomes itself (*Ibid.*). The linkages between this chain of objectives will represent continuous series of action where immediate objectives (focused on implementation) will precede intermediate goals (short-term outcomes), which should be accomplished before long-term impacts can be achieved (Suchman, as cited from Patton 1997: 217).

Second Steps: Premises and Mechanism

The next step of means-ends analysis will be looking at premises and mechanism of project reconstruction. It stills a part of means-ends, but now with more attention to the assumptions and external factors that affect each step or link. In his thesis about *Evaluating Anti-Corruption Initiatives: Underlying Logic and Mid-Term Impact of a World Bank Program*, Leeuw emphasizes the use of fundamental logic of a program to assessing feasibility of reaching objectives. Similarly, analysis of the premises to construct the PL is a part of what is called Realistic Evaluation that was developed by Pawson and Tilley. According to them, Realistic Evaluation is trying to produce an outcome in different layer of social reality by focus on micro and macro mechanism (Pawson and Tilley, as cited from Leeuw et al. 1999: 200). Moreover, the premises' concern about not only cognition, attitudes, and behaviors but also structural factors(Leeuw, as cited from Leeuw et al. 1999). Although Realistic Evaluation concept is mainly looking to social capital perspective, in here, however, breakdown of analysis will more focus into political perspective among state audit management system in Indonesia and e-Government development in general. Furthermore, some of these premises will be about the human resources that is required and available and about the ways in which different state audit institutions in Indonesia can and will relate to each other, and the ways in which different officials will behave.

Third Steps: Toulmin's-George and Hambrick's-Gasper Format

Both Toulmin's-George [T-G] and Hambrick's-Gasper [H-G] format is still means-ends analysis, but now with a series of special questions to help identify particular types of assumption, including values and possible counter-arguments. According to Gasper, both assessments and preparation of arguments are an important part in conducting policy analysis (Gasper 2000: 3). Since the public policy discourse is notably complex, especially if looking at the field's complexity so, then to analyze the policy (or project), tools for analyzing and assessing policy argument is needed (Gasper 1996: 36-37). T-G and H-G format will propose as a final stage of assessment. It mainly looks at series of special questions to help identify particular types of assumption, including about values and possible counter arguments.

In this thesis, T-G Format or also be called Synthesis Table will be used for analysing extended premises of e-Audit Project. Using this format, various of arguments can be analysed which begin with the argument (Table 1) is being tested by Table 2 (empirical fact) which supported by Table 3 (principle) to guides the claim while for Table 4 several arguments will be given as restraining factors. This format is important for finding and testing possible weaknesses, including of unpredicted sorts. Basically, T-G format has more open space for counter argument(Tankha and Gasper 2010: 628).

Table 1
Toulmin's-George Format (Synthesis Table)

I Claim [this conclusion],	given this Data (empirical facts)	and this Principle (or principles = theoretical and/or value statements);	Unless (/except when) one or more of these counterarguments applies
Conclusion 1	Data 1.1 (1.2, …)	Principle 1.1 (1.2, …)	Rebuttal 1.1 (1.2, 1.3, …)
Conclusion 2	Data 2.1 (2.2, …)	Principle 2.1 (2.2, …) (e.g., including Conclusion 1)	Rebuttal 2.1 (2.2, 2.3, …)
…	…	…	…
Destination conclusion	Data D.1 (D.2, …) (e.g., including Conclusion C from a previous row)	Principle D.1 (D.2, …) (e.g., including Conclusions A, B from earlier rows)	Rebuttal D.1 (D.2, D.3, …)

Source: (Tankha and Gasper 2010: 629)

Thereafter, H-G format will later be used to investigate the nature of warrants, backings, rebuttals, and qualifiers in policy arguments (Gasper 1996: 41). This format is important for finding and commenting on a series of known types of premise regarding values, constraints, alternatives, and theoretical assumption which overall it more complex compares to T-G format. It provides three different stages that represent a structure of policy arguments: [1] the first stage contains the cause-effect analysis which covered under the policy/project proposal; [2] then next in the second stage is about 'normative propositions' analysis, which contains justification of the policy plan that will convert the 'if-then' proposition to 'means-ends' proposition. In this stage, the means and ends have been authenticated as sufficiently aligned; and [3] Finally in the last stage is about to test the means-ends proposition in variation of ways(Tankha and Gasper 2010: 628).

2.2. Research Methodology

Regarding methodology, this research has been mainly focused on policy (project) design studies. Through the approaches of policy analysis method, a linked set of tools of analysis will be used to find the grounding issue which necessary in terms of the feasibility of e-Audit project through assessing Program Logic by specifically using: [1] Means-Ends Analysis; [2] Premises and Mechanism Reconstruction Analysis (adopted from Realistic Evaluation); [3] Toulmin-George and Hambrick-Gasper Format. In the end, that analysis will be used to generate ideas for effectiveness and efficiency as well as accountability and transparency on implementing e-audit in BPK by identifying the critical validity assumptions and potential gaps.

To support above description, the data will mainly be gathered through primary data from documentation records provided by BPK and NCA which later secondary data such as qualitative interview, direct observation at BPK and NCA (as benchmarking comparison), and analysis that was produced by several scholars to support the findings.

The qualitative interview (secondary) and data collection (primary) at the NCA was performed in June 2012 in Den Haag, the Netherlands. Later, for BPK interview and data collection was performed in July 2012 in Jakarta, Indonesia. Communication and data collection were also developed by e-mail, a phone call with a number of friends and colleagues. I moreover developed my own argument through several findings that I summarized from observation. The period of data preparation was from April 2012 until August 2012.

Chapter 3
BPK's Work and the Context for Implementing e-Audit Project

Before the policy tools of analysis are described, some explanations about e-audit perspective will be given. <u>Firstly</u>, talking of state audit management system in general where several points are described to illustrate how the relation between internal and external audit among state audit function. This analysis is important to define the basic premise of this research about how will the e-Audit will affect the relation between them. <u>Secondly</u>, the development of e-government that e-Audit is one of a part of it. In general, it will give ground preposition about the possibility of BPK to implementing e-Audit. <u>Lastly</u>, the e-Audit project. Following completion of the analysis of internal and external audit function as well as e-government development, this final part will briefly explain the background explanation of the project and what possible challenges may happen onward.

These descriptions will look more deeply about what is happened among each perspective and try to generous possible findings that later will be used in policy analysis. It is important since it will contribute several arguments for the policy perspective in relation of program logic argumentation and finds the answer of research question.

3.1. Current State Audit Management System in Indonesia

3.1.1. Intimacy Between External and Internal Auditor

Principally, there are two types of auditor in Indonesian governmental system: internal and external audit. In Indonesia, Indonesian Audit Board (BPK) takes a role as external auditor while Supervision of Financial and Development Agency (BPKP), Inspectorate General in ministerial offices, and Local Inspector take the role as internal auditor or can also be called APIP. The detail explanation of the history of internal and external audit function in Indonesia can be seen on **Annex 3**. Mainly Annex 3 shown the complexity of BPK relationship in terms of regulation with the internal auditor (especially with BPKP) before and after *reformasi* in 1998.

For refreshment, BPKP is a governmental agency locate at central level and take responsibility not only central but also local level; for Inspectorate General, they as well exist in central level (ministerial office or other central institution bodies or agency) while Regional Inspector exists in every province (Province Inspectorate), City, and *Kabupaten* (sub-district) levels. It is clear now that there are four (4) different levels of APIP in Indonesia[12] (can be seen in **Figure 1)**. In this section, the segregation of duties between external and internal state audit institutions in Indonesia will be described to see the connection between one to another. The needs of government internal control both in central and local level are arranged in Government Regulation **No. 60 of 2008**. In the Article 2 (1), it is mentioned that:

"Minister, chief of institution, governor, and head of city or *Kabupaten* (also be called *Bupati* and *Walikota*) are obliged to conduct control on the implementation of governmental activities to

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[12] Government Regulation No. 60 of 2008 Article 49 Letters 1.

achieve effective, efficiency, transparency and accountability for the management of state finances" (Government Regulation 2008).

Figure 1
Configuration of Government Internal Control Activity Domain
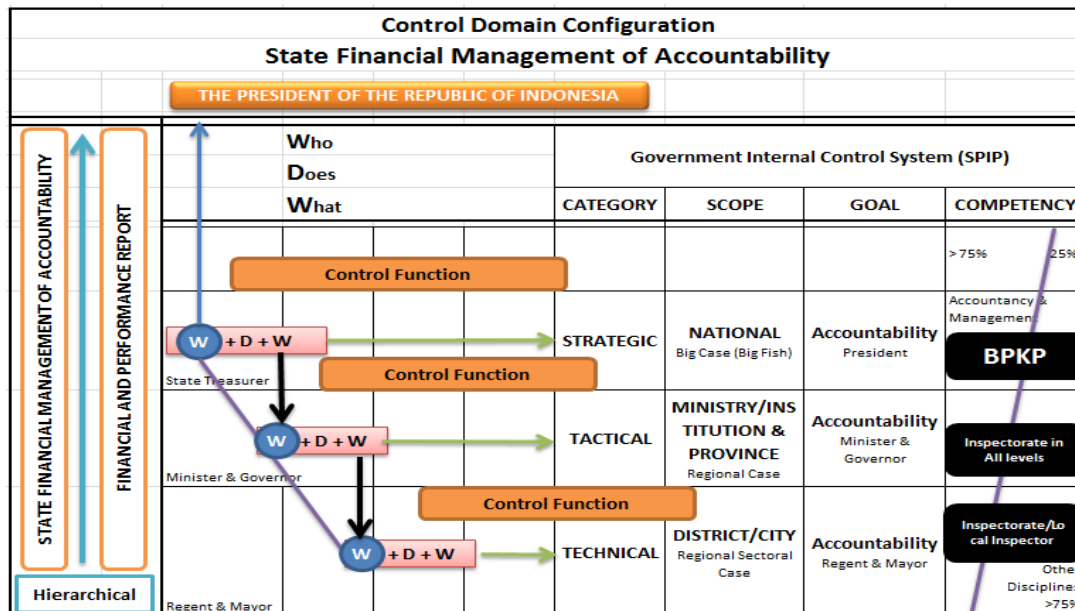
Source: internal document of BPKP as cited from (Suseno 2010: 19)

Moreover, according to Article 48 (2), it describes the function of internal control: conducting audit, review, evaluation, monitoring, and other control activities. Meanwhile, in Article 49 (2 to 6), only BPKP and Ministry of Finance who have flexibility in conducting Internal Audit among government institution while other Inspectorate General and *Kabupaten* or City Inspector can only conduct their function based on their segregation of duties. For example, for BPKP control function can be seen in **Figure 2**.

Figure 2
BPKP Control Activities (After PP No. 60 of 2008)

Source: Own Construction, 2012[13]

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[13] The table was reconstructed based on explanation of Mrs. Trisakti Wahyuni. Currently, she holds position as Head of Planning and Evaluation Bureau of BPKP. The communication was taken in July 2012.

There are two types of audit in internal control function: performance audit and audit with the specific purpose (Regulation, 2008). In the explanation, later performance audit is described as a part of financial audit. As confirmed by Mrs. Wahyuni from BPKP, she explains that conducting investigation, operational, and financial audit is also a part of BPKP function, even after PP **No. 60 of 2008** has released. Overall, other government internal control functions conduct the same function as BPKP except without the flexibility.

In general, external and internal auditors normally work on the same purpose, but with different function. In Indonesia, BPK as superficial auditor obliged to give the audit report to parliament while the internal auditor gives their report to the chief of area, ministry, or even the government through the president (see **Figure 1**). There always be a question when external and internal state audit institution doing the same job, how could it become effective and efficient?

To answer this question, there is a statement taken from '**Declarations of Lima and Mexico**', which represent and regulate the availability and function of Supreme Audit Bodies among countries. In section 3 (3), it mentioned that:

> "As the external auditor, the Supreme Audit Institution has the task of examining the effectiveness of internal audit. If the internal audit is judged to be effective, efforts shall be made, without prejudice to the right of Supreme Audit Institution to carry out an overall audit, to achieve the most appropriate division or assignment of tasks and cooperation between the Supreme Audit Institution and internal audit" (INTOSAI. 1975).

Above statement has been adopted for the preparation of law of BPK. Logically, in carrying out the audit of state finances, BPK could utilize the audit resulted by APIP. In BPK internally, it has been adopted in General State Financial Audit Standard or SPKN[14] in 2008 (PSP No. 04 Article 15): "when assessment of internal control is needed, APIP findings can be utilized to provide adequate assurance as well as to prevent overlapping of work" (BPK 2007). Moreover, Lima Declaration statement was also mentioned in Indonesian Act **No. 15 of 2004** about State Financial Management and Responsibilities. In Article 9 Letters (1), it is clearly stated; "in conducting the assessment of financial management and accountability of the state, BPK can utilize the audit result (findings) of APIP" (Indonesian Act 2004).

To summarize based on several laws and regulation, it can be said that audit results and finding that produced by APIP is important because BPK could focus only on systemic findings[15], which could affect not only in the fairness of government annual financial statement, but also effectiveness and efficiency of state financial management. Last, there are some explanations about the usefulness of APIP as internal control to BPK as external auditors are (1) utilization of APIP audit report and findings in the preparation of program and plans in BPK; (2) utilization of APIP human resources in the shortage of an inspector conditions at BPK; (3) utilization of APIP in terms of monitoring and follow-up of findings and recommendation of BPK; and (4) utilization of APIP on e-audit implementation (BPK 2011c: 47).

3.1.2. The Findings (Potential Threats) Among State Audit Bodies

The potential threats of the comptroller from both external and internal in increasing public transparency and accountability as well as effectiveness and efficiency in state financial management are being questioned when they are overlapping each other in the way they conducting

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[14] SPKN can be seen as Standard Operational Procedures for BPK in the way they behave and conducting audit.
[15] Cases that represent huge amount of money.

their function. On 2009, Indonesian Corruption Watch (ICW) has released a press release about their suggestion to dissolve BPKP (ICW. 2009). This issue revealed when BPKP as internal audit institution has insisted to conduct an audit to KPK (Indonesian Anti-Corruption Agency). Based on ICW opinion, BPKP has no capacities to perform an audit to KPK since this institution categorized as supreme bodies and only BPK who have authority to do the job. This overlapping function will make the state financial control function becomes un-efficient. Previously, in 2004, Asian Development Bank (ADB) has suggested the same issue to Indonesian Government to merge BPKP and BPK to increase effectiveness and efficiency for both institutions (Detik. 2004, Tempo. 2004). This statement has brought an issue about the contradict value of reformation agenda that wants to make the audit institution become more effective and efficient.

Although the new regulation of PP No. 60 of 2008 has been released, which separate the function of internal and external state audit institution; the overlapping function still does exist. Based on explanation from Ms. Winda Pangaribuan and Mr. Muhammad Hafiz[16] from BPK, there always a problem revealed when they perform audit procedures when all state audit institutions conducting an audit in the same field, time, and scope or coverage. Furthermore, there are a lot of control levels among external and internal audit (four levels of hierarchy of state audit institution – already explained before), which it will take a lots of cost and ineffective and efficient. In her opinion, between external and internal control still not synergy and walk on the different path.

3.2. E-Government in Indonesia

3.2.1. E-Audit = e-Government

The e-Audit analysis in this sub-chapter will be related to e-government. The relation between e-Audit and e-government can be explained as follows: according to Sosiawan[17], e-government could be applied to every government institution such as legislative, judicative, or other public administration services; to increase internal efficiency, deliver public services, or other democratic government system (Sosiawan. 2008: 3). Later, he explained that the e-government model could be explained to several classifications: Government-to-Citizen or Government-to-Customer (G2C), Government-to-Business (G2B), and Government-to-Government (G2G) (*Ibid.*). Therefore, e-audit can be classified as a part of e-government.

In Indonesia generally, e-government has become an issue, especially when the internet users in Indonesia has grown massively from only 512.000 users in 1998 to 25.000.000 users in 2007[18] (**Table 2**). Moreover, according to statistical data from Ministry of Communication and Information, at the end of June 2011, the number of Internet users in Indonesia has reached 45.000.000 users[19]. E-government offers a huge benefit to the government, which it makes them able to offer and provide better public services (Rokhman 2011: 228). What become the benefit

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[16] Ms. Winda Pangaribuan and Mr. Muhammad Hafiz is currently a staff of Auditor the Audit Board of the Republic of Indonesia in South and Central Kalimantan representative offices. Qualitative interview was taken in Jakarta on July 2012.

[17] Sosiawan, is a lecturer of Social and Political Science in *Universitas* UPN, Yogyakarta, Indonesia.

[18] http://www.apjii.or.id/index.php?option=com_content&view=article&id=59&Itemid=53

[19] According to: [1] http://kominfo.go.id/; [2] http://www.thejakartapost.com/news/2011/10/28/internet-users-indonesia-reaches-55-million-people.html; and [3] http://en.wikipedia.org/wiki/Internet_in_Indonesia

simplifies the rigid bureaucratic line to be more flexible, users satisfaction oriented, 24-hours flexibility access for user's, and allow public services to be more effective and efficient by reducing time and cost for direct meeting, as well as new tools to communicate with bureaucrats (*Ibid.*). Therefore, since 2003, the Government of Indonesia has introduced several e-government policies to regulate the management of ICT in Indonesia. The history of e-government development in Indonesia will be given in **Annex 2**. It has begun with the Presidential Instruction No. 3 of 2003 about national policy and development strategy of e-government and about Indonesia's roadmap of e-government until 2006.

Table 2
Internet Users in Indonesia

Year	Subscribers	Users
1998	134	512
1999	256	1.000.000
2000	400	1.900.000
2001	581	4.200.000
2002	667.002	4.500.000
2003	865.706	8.080.534
2004	1.087.428	11.226.143
2005	1.500.000	16.000.000
2006	1.700.000	20.000.000

Source:
http://www.apjii.or.id/index.php?option=com_content&view=article&id=59&Itemid=53

3.2.2. E-government in Indonesia: Findings From Different Scholars

Although e-government initially drawn as a new way to deliver public services to civil society, however, in the implementation, several problems were found. The challenges mostly happen on financial constraint, inability to attract and retain good IT staff, low computer and Internet penetration, insufficient telecom connection, regulatory environment and organization culture (Harijadi. 200412). In 2007, Ministry of Communications and Information Technology (Kemenkominfo) has established e-government Rank Index (PeGI) to give information of ICT development in Indonesia. Further, they separate the index into four (4) levels: poor (1.0-1.49), less (1.50 - 2.49), average (2.50 - 3.49), and excellent (3.50 - 4.00). PeGI research results in 2007 in 11 provinces (random sampling) shows that most of the provinces in Indonesia have indigent ICT development. The result is shown in **Table 3** in the next page.

Another e-government problem's explanation can be seen on Sosiawan argument about three basic problems of e-government implementation in Indonesia: [1] the initiative and implementation of e-government, specifically in local level (autonomy) still unorganized; [2] the implementation of the local government web-site conversely not supported by effective management and working system due to lack of policy readiness, procedures, and human resources; [3] most of the local government institutions identify e-government as develop a web-based institution only without seeking to other levels of services (Sosiawan. 2008: 6).

Kumorotomo focuses on distinctive infrastructure and human resource among different province in Indonesia as the main constraint in the development of e-government that it due to different geographical condition and economic development among islands (Kumorotomo. 2009: 2). In addition, he analyzes that e-government development should be even among public

institutions both in central and local with three steps: informative stage, interactive stages, and transaction stages ~ which, firstly, introduced by Djunaedi[20] (*Ibid.*). According to him: [1] informative stage means that the using of e-government is to share information publicly about the government activity; [2] secondly, interactive stages mean when it is possible for civil society to interact with government through the web-site; [3] last, transaction stages mean the possibility of civil society in handling all purpose electronically without physical meeting with government (Djunaedi. 2002: 12).

Table 3
Provincial e-Government Rank Index 2007

Rank	Provinces	Dimension					Province Average	Category
		Policy	Institutional	Infrastructure	Application	Planning		
1	DIY	3.25	2.8	2.67	2.85	2.92	2.9	Average
2	JATIM	3.17	2.87	2.71	2.85	2.58	2.84	Average
3	JATENG	2.92	2.8	2.9	2.63	2.92	2.83	Average
4	JABAR	3.13	3	2.43	2.11	2.25	2.58	Average
5	BANTEN	2.04	2.33	2.38	2.22	2.58	2.31	Less
6	ACEH	2.33	2.13	2.33	1.96	2.58	2.27	Less
7	KALBAR	2.33	2.07	2.33	1.81	2	2.11	Less
8	SUMSEL	1.79	2.47	2.05	1.78	1.58	1.93	Less
9	NTT	2.58	2	1.52	1.26	1.83	1.84	Less
10	SULTRA	1.75	2.13	1.29	1.63	1.17	1.59	Less
11	LAMPUNG	1.38	1.47	1.1	1.37	1.08	1.28	Poor
Average		**2.42**	**2.37**	**2.16**	**2.04**	**2.14**	**2.32**	

Source: (Depkominfo. 2007)[21]

According to online survey that was conducted by Rokhman, most of the government website (especially in local level) still trapped in stage number two: interactive stage (Rokhman 2008: 6). Then, later he explained the reason why through these three explanations: people-ware, hardware, and organo-ware (*Ibid.*). [1] People-ware. The findings are a limitation of bureaucrats and staff in the government institutions in using the Internet. It was proven by, first, their dependence on other countries in e-government development as well as, second, there is no proven interaction between civil society and government institution through e-government. [2] Hardware. There is a limitation of infrastructure of software and hardware in several institutions (mostly local level) that is impossible for e-government to be implemented. [3] Organoware, known as follows: first, bureaucratic obstacle which there is un-flexibility in government structure among the different levels of institutions. The e-government administrators do not have any privilege or authorization to decide for any questions or problems happen in the implementation of e-government. Second, is the absence of transaction regulation through the Internet. Although policy of Information and Electronic Transaction (ITE) were released through Act **No. 11 of 2008**, the SOP; however, has not been made. Lastly, budget limitation is the main reason that makes government at local level difficult to develop e-government. As a result, according to

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[20] Djunaedi is a Professor of Planology in Technical Faculty of *Universitas* Gadjah Mada.
[21]
http://www.google.co.id/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&sqi=2&ved=0CGYQFjAD&url=http%3A%2F%2Fdocs.docstoc.com%2Forig%2F4979327%2Fd7a51fa3-86ad-4776-b4c7-0953b8b78652.doc&ei=BCIWUPHwOszirAeLloHYCg&usg=AFQjCNGhX3zv6dcM1R5WjOGVoWOXh-4odw&sig2=uu3JzzhoueESSUkQMfWL6A

e-government readiness rank by UN (United Nations), Indonesia position is getting worse, even among South-East Asia Countries (see **Table 4**).

Table 4
E-Government Development Rank in South Eastern Asia

	Country	Global Rank			
		2004	**2005**	**2008**	**2010**
1	Singapore	8	7	23	11
2	Malaysia	42	43	34	32
3	Brunei Darussalam	63	73	87	68
4	Thailand	50	50	64	76
5	Philippines	47	41	66	78
6	Viet Nam	112	105	91	90
7	Indonesia	85	96	106	109
8	Cambodia	129	128	139	140
9	Myanmar	123	129	144	141
10	Lao PDR	144	147	156	151
11	Timor Leste	174	144	155	162

Source: United Nations as cited from (Rokhman 2011: 229)

Above analysis shows similarities in what previously has stated by Schuppan in his journal. In detail, he explains the environmental issue, potentials and risks perspective of e-government in developing countries are caused by four central aspects: political administrative system; demographic and social factors; infrastructure and connectivity; and economic development (Schuppan 2009: 123). To sum up, it can be stated that Indonesia is still facing many problems for the e-government development and implementation; thus, they need a good effort and long-term strategic planning in order to be competitive. The matrix of findings represented above scholar argument about e-Government condition generally is provided in **Annex 3**. It summarizes and classified current weaknesses and threats of e-government happen in Indonesia.

3.3. BPK e-Audit Project

3.3.1. *E-Audit as the tools for Strengthening Public Transparency and Accountability*

Figure 3
BPK and the Political Environment
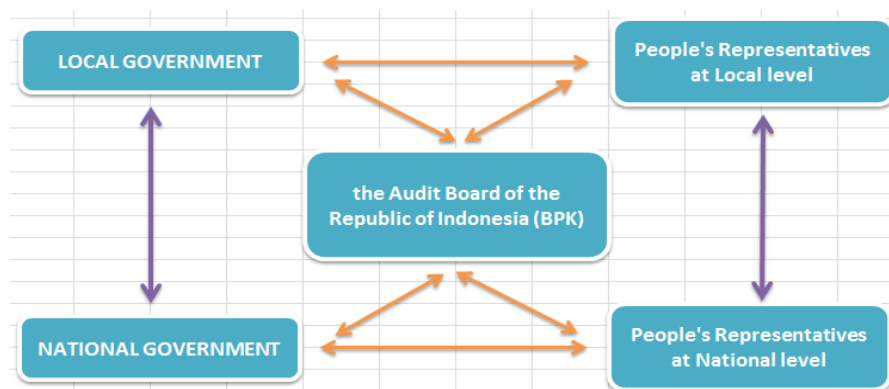
Source: (NCA 2009: 8)

E-Audit is not a brand-new e-government concept in BPK since they already use it for complementing their duties. Internally, BPK has used Management Information System (MIS) to maintain their human resources, assets, financial statement, etc.. However, although BPK has equipped with several improvements (ICT and e-government), they are still facing lots of challenges in doing their duties. As explained previously in **Chapter 1**, the challenges of modern BPK are a high number of audited entities, expanding of the representative offices, and promoting transparency and accountability in public domain (Poernomo. 2011: 3). This statement has similarity with the Netherland Court of Audit (NCA) report in 2009 that there are some political environment risks that give BPK a unique position to get in command in solving some problematic problems in Indonesia. **Figure 3** has shown BPK position in the republic that enables them to communicate and cooperate not only among Indonesian Government (institution), but also people representatives in both national and local level.

Later, in regard to accountability and transparency risks, NCA has addressed three relevant factors that might be an issue for BPK business in the future, there are: [1] BPK's limited access to information on revenues and foreign aid; [2] weak financial management in central and local government; and [3] the persistence of fraud and corruption in government and society (NCA 2009: 9-10). These three findings have shown that there are still major issues revealed in BPK not only in internal level but also at the external level. To conclude, the sources of the problem (especially for finding's number 3) are political and cultural which it happens not only before, but also after *reformasi*[22] era. To answer above problems and challenges without addressing the political and cultural roots, in 2009 BPK introduced an e-Audit system which will give BPK better and sounder monitoring system by using technology (Poernomo. 2011: 1). He has drawn this e-audit concept as shown on **Figure 4.**

Figure 4
E-Audit Background
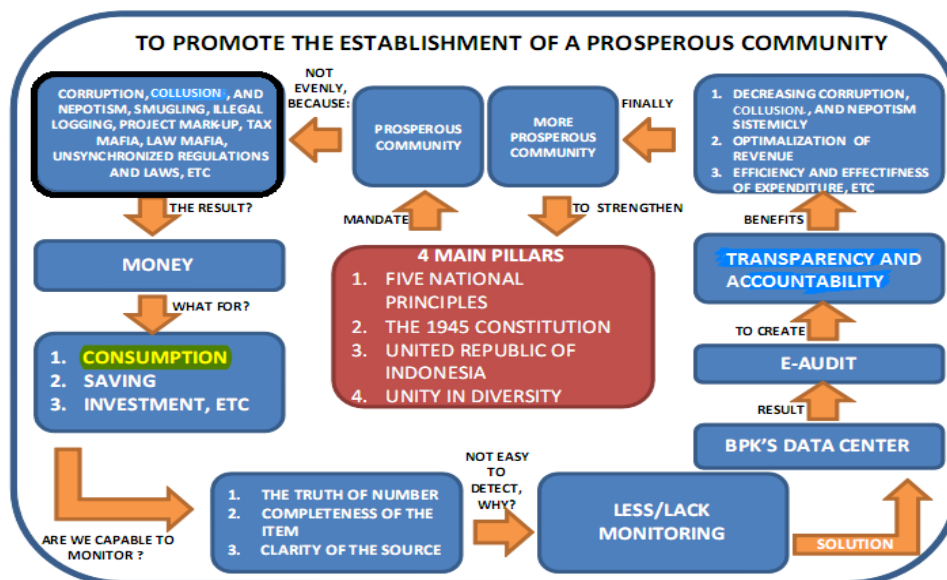
Source: (Poernomo. 2011: 5)

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[22] *Reformasi* (reform) means an era in 1998 that represent the fall of Soeharto regime. Previously, Soeharto and his crony took a claw on the economic, political, and military control that made them become a dictator and hold the throne for almost 32 years.

3.3.2. Where It Is All Began?

E-Audit was developed based on BPK's board of Member decision in five year *Renstra*[23] for years 2011-2015 with management letter No.7/K/I-XIII/12/2010. This strategic planning later will be specifically described in RIR[24], which covered almost 32 IS[25]. According to RIR, e-Audit strategic initiation can be found on section number 2.2 which it can give significant effect for BPK business plan in the future (BPK 2011c: 22). It also mentioned that e-Audit expected to improve the efficiency and effectiveness of the audit process which supported by mature planning execution, well organized sampling method which more extensive and directed, and more rapid and accurate audit report (*Ibid.*).

E-Audit is a system that uses synergic collaboration of data between among BPK and audit entities that later will produce data communication between BPK and audit entities through Internet access (BPK 2011b: 1). This data afterward will systematically create a database in BPK server who can be used for doing audit. Furthermore, e-Audit will be developed based on following stages: (I) identification of audit entity's readiness in e-Audit implementation, (II) identification of data structure and auditees information system, (III) develop an e-Audit database scheme, (IV) develop a command center, (V) devise an e-audit data mining model, (VI) develop user interface application of e-Audit, (VII) piloting e-Audit[26] (BPK 2011b: 1-2). Basically, e-audit is a kind of new system that will be implemented in BPK and other government institution to communicate regarding to audit data and findings thus it is intended to make it more effective, efficient, transparent, and accountable through ICT. There is some discussion in internal IT department of BPK that the piloting of e-Audit will become effective if some Initiative Strategic (IS) has been taken: [1] Enhancement of the quality of institutional relationships with stakeholders (IS 1.2); [2] Enhancement of the quality of BPK internal management and organization (IS 7.1); [3] Consistence and comprehensive of competency-based of HR Management (IS 8.1); and [4] Implementation of competency-based education and training (IS 8.4).

To ensure that the piloting phase will be s success, there are eight activity scenarios that are described in **Figure 5**. This scenario will give general explanation about how the e-Audit system will be implemented in real condition and on how BPK auditor will communicate with audit entities regarding data.

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[23] Renstra or Strategic Plan is a 5 (five) year's strategic plan assigned by the Boards member of BPK institution for the overall business planning, target, and intended achievement.
[24] RIR or Implementation Strategy of Strategic Plan is containing a strategy to achieve the Renstra, describing a guideline that should be followed by every department in both central and representative level among BPK institution.
[25] IS or Strategic Initiations is the guidelines that covered the RIR
[26] Piloting means a starting phase to implementing an e-Audit into auditees.

Figure 5
E-Audit Piloting Scenario
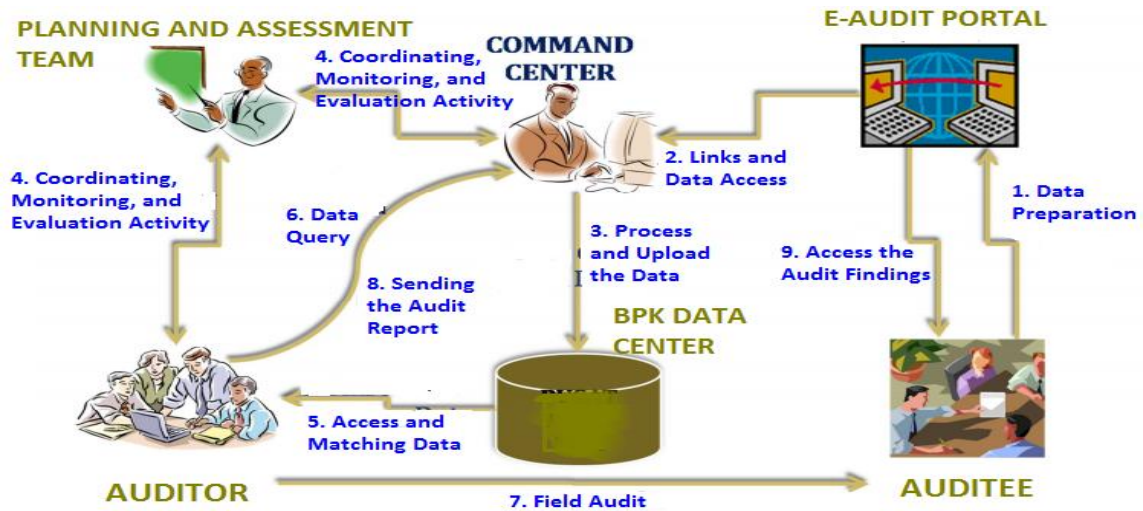
Legend:

1. Necessary data which needed for audit is prepared by audit entities using e-audit portal
2. Raw data will be accessed by command centre using e-audit portal
3. Application software will be used to analyze raw data which later on will be uploaded to BPK Database
4. During piloting activity, Planning and Assessment Team will doing coordination activity, monitoring and evaluation with all parties that getting involved with this activity
5. Audit team from BPK will access the data from BPK database and later on doing the audit activity based on audit procedures
6. Audit team from BPK can ask additional data request (query data) which needed for audit experience to command centre
7. Audit team from BPK will doing the procedures of confirmation, clariffication, reconciliation, and verivication to the audit findings
8. After finishing the audit experience, BPK audit team will develop the audit report which later on will be deliver to command centre to be uploaded to BPK Database.
9. Audit entities (auditee) can access the audit findings/report and communicate with BPK auditor throught e-audit portal.

Source: (BPK 2011b: 18)

3.3.3. E-Audit Findings

According to e-Audit global report 2011, there are several findings in the implementation of e-Audit that can be classified into two aspects: infrastructure support and *link-and-match* process (BPK 2011a: 27-28). First of all, infrastructure problems. Infrastructure (hardware) is very important in the development of e-Audit project; however, limitation of hardware is found in the representative office and the need of data transmission among BPK offices is hampering the progress. As my own experiences at Central Kalimantan Representative Office, most of the auditor use their own computer to perform audits. It happens due to limitation of computer provided by the office, while in the same time not all of computers are performed well. There is also a limitation for desktop-computer which only available one for every sub-department that connected to the Internet. Other problems are happening due to bad Internet connection (bad network access) and besides limitation of interface media (command centre, e-Audit portal, helpdesk). The Wi-Fi access is not provided, so the auditors have to wait in a queue for accessing data from desktop-computer, otherwise they have to buy their own subscription of the internet package. As then, these two problems will make the e-Audit implementation not in accordance with the Standard Operational Procedures (SOP), especially in the retrieving, collecting, and dis-

tribution of data from one entity to others, which is not fully secured and becomes vulnerable and opens the opportunity to misuse by unintended persons.

Second is the *link-and-match* process's problem. The problems come from: [1] Types of data that the data entered in the data center comes from various forms of different system and application. According to interview results, it was said that this problem has to make other additional works for the database operator while they have to re-edit the data and put on the template manually. This is all due to substandard software that used by auditees; [2] Time-consuming data collection that due to ineffective process of integration, transmission, and communication to the entity to identify the data needed. For e-Audit project, communication to the entity is important so auditees can identify the specific data needed for audit purpose. When it achieved, volume of data integrity, accuracy, and activity can be reduced. Unfortunately, according to project report documentation, the ideal condition is still not fulfilled; [3] Lacking of preliminary data processing. The need for automation of the initial data process will help to reduce the volume of manual data process activities and accelerate the availability of data to be ready to use by the examiner. However, in reality, it has still taken manually; and [4] an understanding of the auditor to the data itself. The success with the e-audit project will depend on how auditors enrich their understanding on new data and process it. At the same time, according to this research, this condition will be a bit difficult to achieve since BPK's audit coverage is too big and auditors have their own specialization. Forcing them to understand all data will make them biases in performing their duty.

There also findings coming from my field work at BPK office that according to overall data (including the MoU), e-Audit is a type of one-way communication among auditor and entities that being audited, which means all the data will exclusively belong to BPK without any communication to other state audit institutions, which is called Government Internal Control Agency or APIP[27], which surely makes the result become ineffective, inefficient. According to Ms. Silpana Suryani[28], MoU that has been signed by BPK and auditees was merely listed several data that needed BPK auditor who there is no necessity for BPK to upload (share) their audit findings except final result in the system. Later, e-Audit is designed for targeted auditees only; who makes other stakeholders (audit bodies/internal audit institutions (APIP)) cannot retrieve the audit findings produced by BPK. This statement was also confirmed by Ms. Etty Herawati[29] that there only ly one-way communication from auditees to BPK, which originally it was designed for two-way communications. The problem is, there still a misunderstanding at the top whether the concept should be opened to both sides. To sum up, this explanation has shown and proven in above statement about exclusivity of e-Audit data. There is no possibility for APIP to get an access to BPK audit findings. This becomes an issue whereas the e-Audit outcome is to make the audit performed by BPK become effective and efficient. There is no single word can explain that the project could achieve these goals.

To sum up, clearly e-Audit is no more than just a tool to digitalize the document without any significant changes to the disruptions of bureaucracy of state audit management and rela-

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[27] APIP is a set of institution that takes responsibility to doing an assessment, assistance, and doing regular audit to government institution in both central and local level. It was originally reformulated on 2008 based on government regulation number 60 of 2008. To sum up, the regulation gives detail explanation about segmentation of duties among government internal control agency also to strengthening their position as state audit institution to differ it from BPK as external audit bodies.

[28] Ms. Silpana Suryani is currently working on BPK as Legal Supervisor in Directorate of Legal and Law.

[29] Ms. Etty Herawati is currently working on BPK as Legal Analyst Manager in Directorate of Legal and Law.

tionship in Indonesia. This research is disagreeing with this concept since the data should be two ways communication between external and internal auditors. This MOU, to some extent, has shown that the way BPKs try to centralize the audit data without giving any significant contribution to cooperate with other state audit institutions. This research finds that performing decentralization of power can be the answer.

3.4. Preliminary Conclusions of Chapter 3

Above analysis can be summarized into these three premises: [1] there still uncertainty about the management of state audit institution in Indonesia while one to another has been overlapping function; [2] Indonesia conversely facing a lots of problematic problems in implementing e-government, which needs a long-term strategic planning in order to be competitive. It was also showing that implementing e-Audit in this stage would be such an unwise action; [3] important expressions came up in this research, whether the e-Audit is no more than just a tool to digitalize the document. Arguing the fundamental idea behind the project is precisely a BPK's way to centralize the audit data without any effort to cooperate with internal audit institution. In this stage, it has shown that there is no effectiveness, efficiency, accountability, and transparency will be happened as a result of the project outputs.

Later in the next chapter, example from the Netherlands Court of Audit will bring into context to look at on how they manage the state audit management function, especially showing the fact that they are mainly using internal audit findings for audit circumstances.

Chapter 4
The Netherlands Court of Audit (NCA) Audit Management System

These chapters will mainly focuses on the way NCAs doing and manage their business in looking for perfection: efficiency, effectively, transparency, and accountability in conducting an audit in the Government of The Netherlands. A number of data were collected through the internet, presentation by staff members in NCA, internal document from the NCA, email communication with Mr. Roy Ferogue as well as an in-depth interview with Mr. Peter Paans as Head of Operation and Planning Office and Mr. Paul Jan-Malais as Audit Manager. In regard to the content of interview, some information about the way NCAs operating their audit process has taken out to support the analysis for e-audit project evaluation later.

Explanations will begin with how NCA defines their duties. As stated in their home page: "the court of audit checks that the government spends public funds and conducts policy as intended"[30]. Currently, since 1st May 2012, a new way or regularity check that is conducted by NCA and Internal Audit department within ministries has been re-developed and still in progress. However, this explanation below will mainly focus in the NCA management system beforehand.

4.1. General Explanation of NCA Audit Management System

The Netherlands Court of Audit or *Algemene Rekenkamer* or NCA could be classified as one of High Council of State, which in the Netherlands includes also houses of parliament (Senate and House of Representatives), the Council of State, the National Ombudsman, and lastly, the Chancery of the Netherlands Orders of Knighthood. The High Council itself works independently from the government and the existences are defined by the Constitution. NCAs have a mission to "[1] assess and improve the regularity, efficiency, effectiveness, and integrity of the State of the Netherlands and the institutions associated with it; and [2] responsible for fostering sound public administration by working and sharing information with other parties, both at home and abroad" (NCA. 2012a: 1).

As already explained, The Constitution of the Kingdom of the Netherlands of 2002 supports the existence of NCA. According to Article 76, it is written that: "The Court of Audit shall be responsible for examining the State's revenues and expenditures"[31]. What could be assessed of NCA's principal business (according to the law) are financial audits. However, the law could be read as not being limited to financial audit, NCAs also performance audit as their main business. The function of performance audits is to assess the effectiveness and efficiency (value for money) for all government policies.

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[30] http://www.courtofaudit.nl/english
[31] http://legislationline.org/documents/section/constitutions/country/12

Figure 6
The NCA's Audit Process

Source: NCA Internal Document Presentation, 2011

In regard to their audit products, the audit result of NCAs will be made publicly after submission of the audit report to the House of Representative and can be accessed at www.courtofaudit.nl. The audit result is needed by the Parliament for their statutory tasks and also for government to improve their awareness in policy planning, implementation, and evaluation. Overall, it could be said, "NCAs want to strengthen the learning ability of government"(*Ibid.*). According to the Government Accounts Act of 2001, there are two types of audit method that was conducted by NCAs: regularity audits and performance audits which subjected in central government revenue and expenditure or other related bodies or organization that operates under central government operation or funded by public funds (*Ibid.*). In doing regularity audits they focus on the ministry's annual report (more likely as a financial audit) to see whether they have fulfilled the needs of regulation while for performance audits, it is mainly to investigate whether the ministry's policies are effective (NCA. 2012b). Detail explanation of NCA's audit methods could be seen in **Annex 4**.

Lastly, by scope of audit, NCA is not entitled private individuals and local authorities (i.e. provincial councils, municipal councils, and district water boards) because by law, these authorities have their responsibilities for auditing their personal finances, as well as they (provincial and municipal) have their own audit offices (NCA. 2012a: 2). However, this law is excluding the EU Grant which it also a part of NCA's audit scope[32].

4.2. Important Findings from the NCA

NCA and BPK are comparable. They serve their nation as Supreme Audit Institution that the existence is supported by constitution. However, there are several differences between them in regard to this research: [1] BPK takes the responsibility to conduct an audit in both central and local level while NCA takes responsibility in central level only; [2] according to the explanation

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[32] Regularity and Performance Audits

from Mr.Peter Paans[33], currently NCA is not implements a kind of system that BPK does (e-Audit). I asked him whether there are some possibilities for NCA for adopting this kind new technique, and he replied that somehow it will be possible, in the future, but it is not necessary for now since in his opinion the concept that BPK tries to develop is to centralize the audit duties by creating a database while in the NCA, they mainly using the work of internal audit. In addition, he said that "why should we centralize everything while in the same time we could decentralize our duties." What could be drawn from this statement is important for this research conclusion. Why, because, he introduces the concept of decentralization for state audit institution. As already explained in previous chapter, in Indonesia, there are two audit institutions that working together, BPK as an external auditor and APIP as an internal auditor. APIP as internal auditor is consist in four (4) different levels among central and local level or both. The explanation by several scholars that has been explained in previous chapter, as well as explanation from BPK auditors in local level has proven that the work of BPKs is inefficient and ineffective. There are lots of overlapping functions thus they work separately, although the law has said other ways around. In addition, Mr. Paans explained that the way NCA perform their audit duties is still on document base[34]. They do the process electronically with the assistance of technology, but they do not collect the data in the way e-audit does, but take it directly on the fieldwork.

What could be drawn from above statement, has already explained by Power in his theories about 'Audit Explosion'. Mainly, he gave an explanation of the audit environment condition before and after transformation with a case study on UK and USA. The concept of traditional auditing is giving focus on administrative control without any significant assessment to the way the system works to. However, in the new model, it looks at on how the auditing model works under the name of effectiveness, efficiency, and performance (Power 2005: 327). Thereafter, there are some interesting and important explanations relate to the concept to represent the condition of NCA and trying to be implemented on the BPK state audit management system. According to Power, audit explosion should be connected to New Public Management (NPM) context that looks at the various ways of transformation including **decentralization of managerial authority** (*Ibid.*). To support this argument, below I will give several findings that I got from study literature and interview with staff from NCA.

There is some important explanation by Mr. Paul-Jan Malais[35] from the NCA's that in conducting regularity audit, NCA will likely rely on the works that has been carried out previously by ministry's internal audit. Internal audit departments are does exist in every ministry that called Ministerial Audit Department (MAD) with the main focus to functioning internal control system (based on 'baseline financial management and control') (Malais 2012: 15). Afterwards, NCA will carry out their own investigation '*if and only, if*' they found something valuable to do in-depth audit based on internal audit findings. The findings than subsequently will be submitted in general together with other ministries into one report, Annual Report. This statement has also supported by what Mr. Jurrie Vos[36] already stated at the conference about '*Audit/Evaluation of Public Internal Financial Control (PIFC) Systems*' in Ankara, 2008. He explained that generally in the Netherlands,

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[33] Mr. Peter Paans is currently working on the NCA as Head of IT Department. Interview was taken in The Hague, April 2012.

[34] Another research has also been conducted in India Audit Institution by Rajesh Kumar Sinha on 2011 with the title of '*Ethics Management in Public Organization and the Role of Audit*' which one of the result is India still mainly using document base for their audit purposes.

[35] Mr. Paul-Jan Malais is currently working on the NCA as Audit Manager. Interview was taken in The Hague, April 2012.

[36] Mr. Jurrie Vos was the NCA's Director in 2008.

the way NCA conducting their financial audit is the focus upon the work that has done by the internal audit (NCA 2008: 17). Moreover, according to Mr. Jan-Malais presentation, he stated that the work of NCA as an external audit is heavily reliance on (review of) internal audit (Malais 2012: 17). The NCA review the internal audit department works to assess whether the reports of internal audit (IA) are reliable by focuses on three aspects: assessment of IA planning, executing, and reporting (NCA 2008: 18). If there are some findings or problems happened after assessment process, NCA will discuss the findings with audit department.

Later on, additional investigation will be conducted in several focuses: re-performance internal audit; weaknesses of internal control; irregularities; and answers the three questions: [1] Has government achieved the goals set in the budget?; [2] Has the government completed the actions planned in the budget? [3] Have costs remained within the limits set in the budget? (*Ibid.*). Moreover, if there are some additional investigations has to be taken, it will be based on reprogrammed, samples or subtantives tests, irregularities, and previous findings (Malais 2012: 17). In regard to make sure that the work of IA is good enough based on NCA's standarts, they principally follow these steps: [1] set the goal of review: to assess whether reports of Internal Audit are reliable; [2] set the main focus: 'Can we rely on this (quality of IA)?'; [3] set the steps in reviewing IA: assessing the IA manual, audit plans, audit execution, and audit report; [4] if there any findings are discussed with audit departments (*Ibid.*). It reveals that NCA mainly focus their business on monitoring the system or fixing the system to make it more effective and efficient, looking into the future based on current cases, which occurs as a result of past events.

To support above statement, Mr. Roy Ferouge from NCA, who currently conducted peer-review at BPK on 2009, was said that in the Netherlands, there is a 'mature-single-web' that can be used for accessing primary data that will be useful in conducting audits. He also mentioned that NCA use initial data from ministry's internal audits and took several 'special-issues' audits to be followed. As confirmation by email, he fully stated as follows: "Of course ARK[37] has access to all information it needs from the auditees but not in the form that BPK needs. ARK's audit approach is system-based, which means that we make use as much as possible of the work of the internal accountants/control of the auditees. Risk based we select small amount special-issue audits for which we use primary data from auditees. This is not the situation in the RI. In most cases BPK cannot rely upon the work of internal accountants/control."[38]

To summarize, there are several points could be drawn from the way the NCA's work:

1. The works of external audit institution will more effective and efficient if they organize their work with internal audit bodies. They could use the work of internal audit rather than perform another audit efforts;

2. External audit institution could focus on a systemic findings that needs to assess more deeply, based on the works of internal audit department in each ministries;

3. Separation of duties is important among state audit institutions, to avoid overlapping of duties. It could be implemented by: develop a good communication system between internal and external audit institution, and, decentralize the management (institution) authorities of external audit.

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[37] ARK or Algemene Rekenkamer is Dutch name of the NCA.
[38] As described by Mr. Roy Ferouge through email, May 2012

Chapter 5
Analysis of Program Logic of e-Audit Project

Since the program is still in development progress and not implemented yet, and since there is no feasibility study has been conducted, analysis in this chapter will mainly to looking forward to developing the Program Logic (PL) which represents the underlying Program Theory and testing whether there is a problem that might appear in the implementation of the e-Audit project, and looking for possible solution to prevent or later tackle the intended problems (Alcock and Lenihan 2001).

The analysis will be based on identifying and assessing the Program's Theory of Action (Means-Ends Analysis) by conceptualizing the causal linkages. Mainly, this analysis will be based on three steps: the first step of means-ends analysis: develop the conceptualization of chain of objectives that will be used to develop the main argument; reconstruction of premises and mechanism as second step, which is also a part of means-ends analysis but look into deep onto assumption; and lastly Toulmin-George and Hambrick-Gasper format, a means-ends analysis which concerning on propositions (cause-effect and if-then analysis) which developed by a series of questions to identify an assumptions including the values and possible counter arguments.

5.1. First Step: Means-ends Analysis

Using the concept of means-ends analysis, based on several primary data, the result will be as follows (shown in **Table 5** and **Figure 7**):

Table 5
Project Means-Ends Theory: Initial Conceptualization of e-Audit Project

Project goal	To improve the performance and quality of state financial examination
Project mission :	a. [1] Establish synergies with state institutions to [2] establish a BPK data center through [3] a data link and match between BPK and entities being audited. b. Improve the efficiency and effectiveness of the audit process, especially for data checking and connection among BPK, entities that being audited, and third parties. c. Facilitate the examiner in obtaining and analyzing the investigation document

Project objective	To [4] increase effectiveness and efficiency in audit process, [5] develop BPK central database and [6] implementing link and match among audit entities.

Source: Adopted from (Patton 1997: 219) and data was taken from (BPK 2011c: 22)

Figure 7
Project Means-Ends Theory: Refined Conceptualization of e-Audit Chain of Objective

1. Identifies electronic data that can be given to the audit entities as the reciprocal process of e-audit
2. Implement the development of e-working paper
3. Assess and improve the Guidelines of Inspection Management of BPK
4. Providing competent human resources to implement IT audit
5. Evaluate the preparation and the implementation of e-audit services performed by other divisions
6. Setting up the software and hardware related to the implementation of e-audit
7. Establish e-audit helpdesk which is aimed as an information center related to the preparation and implementation of e-audit
8. Formulate the software policy for the implementation of e-audit, including e-working paper
9. Implementing piloting of e-audit in the preliminary audit for financial statements
10. Implementing IT system linking
11. Increasing awareness through the dissemination of e-audit services to BPK auditors or audit entities, including socialization MoU with audit entities
12. Carry out a review of BPK information systems
13. Identify entities IT readiness, including identifying processing applications owned by entities
14. Using data obtained from entity to update entity database for audit reason and activities
15. Build and develop e-audit portal
16. Identify the required data from the entity, including the identification of non-electronic data which is expected to be processed into IT-based data
17. Completing the Grand Design and Road Map of e-Audit
18. Develop and signed MoU (Memorandum of Understanding) with audit entities
19. Examine the legal aspects related to e-Audit

Source: Adopted from (Patton 1997: 219) and data was taken from (BPK 2011c: 25-26)

Initial analysis could be drawn from **Table 5**. According to BPK e-Audit Grand Design, and put it on classification into three categories based upon a Leeuw matrix table (goal, mission and objective) there are three project missions that should be followed to achieve the project goals. The intended goal is shown in project goal. However, there is some awkwardness arising from the table. To make it easier to analyse, in both mission and objective table, it has already divided into several numbers:

1. It shows that in **project mission** table in **table 4**, **code a[1]** is a means (methods) to achieve **a[2]** and **a[3]** while in the same time **code a[2]** and **a[3]** is a means to achieve the **project goal**. And on how **code b** could be happened is by implement **code c** (c is meant towards b in project mission table).

2. For **project goal**, according to data given by BPK, the goal is definitely similar with project mission **code b** in **project mission**.

3. Lastly, for **project objective**, **code [5]** and **[6]** could be assumed as a means for achieving **code [4]** while the entire code in the **project objective** has similarities with a **project mission**.

4. For **figure 7**, the chain of objective does not look in a good order which it means some part could be classified at the same level while others might be placed at different hierarchy although according to RIR, this part is already in a good order (BPK 2011c). To make it easier to follow, I will try to reorganize them in **Figure 8** below into a cause-effect pathway.

Figure 8
Re-sequence of Chain of Objectives of e-Audit Project
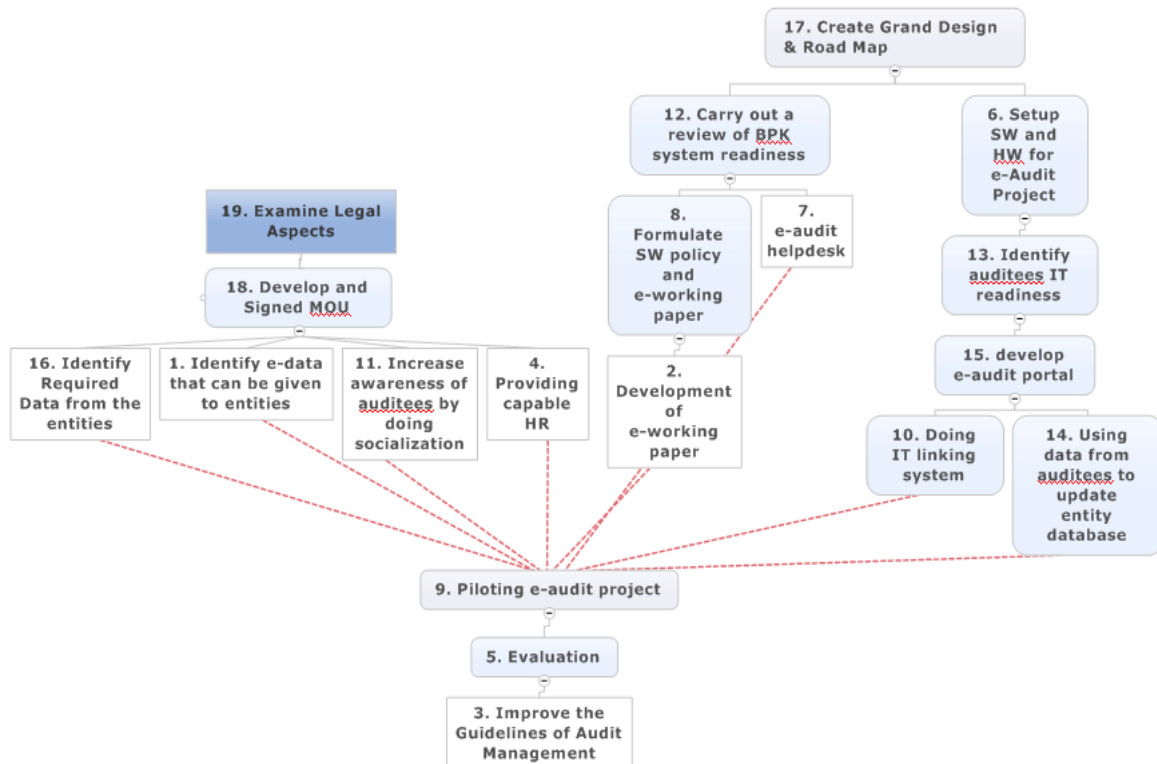
Source: Adopted from (Patton 1997: 219) and data was taken from (BPK 2011c: 25-26)

According to above e-audit chain of objective reconstruction, it is clearer that preparation is needed in both sides, BPK and audited entities. There are two basic or initial aspects that should be focused in this thesis as primary analysis, legal aspect through MOU and Grand Design and Roadmap. Second analysis (using Leeuw perspective) will be described in next section.

5.2. Second Step: Reconstructing the Premises and Mechanism of e-Audit, Adopted from Realistic Evaluation of Leeuw

In this section, analysis of the logic of the BPK e-Audit project will be presented in two different sets that mainly represent the focus of this thesis.

5.2.1. 1st Focus: Transparency, Accountability, Effectiveness, and Efficiency

First, quoting from Hadi Poernomo statement in his speech on ASOSAI/ EUROSAI Conference in Turkey, taking the assumptions about the advantages to the e-audit project to increase efficiency and effectiveness in doing audit as well as promotes transparency and accountability in terms of good governance (as a requirement of public sector reforms roadmap).

Poernomo holds that:

> "The concept of enactment of e-audit was motivated by problems in state financial management in the form of corruption, collusion, nepotism, waste, and inefficiency of state finances and the ineffectiveness of government activities that impede the achievement of the state and nation, the welfare of the whole society. Weak monitoring on state financial management causes it all. Large gap between the number of entities to be inspected, object of inspection, stakeholder expectations, internal resources, and uncoordinated management system between internal and external parties in BPK is become major problems. These problems need to be solved by the establishment of a data center in BPK as a solution to achieve effectiveness, efficiency as well as transparency and accountability through BPK synergy (e-audit). With the e-audit, there will be lots of benefits will be gained including efficiency and effectiveness of inspection activities, formation and management of data center of state financial responsibility, and the application to the concept of *link-and-match*" (Poernomo. 2011: 1, BPK 2012: IV).

Clearly, that the goal of the e-Audit project is to improve the performance and quality of state financial examination through achieving effectiveness, efficiency, transparency, and accountable. The premises that underlie e-audit project are as follows:

- *Premise 1-1*: To *reduce the time of auditors* who usually spend their time for data gathering (manually). It can be achieved by utilizing existing data and information about the entities system in BPK system through the e-audit. Information and data can be directly uses as input in BPK planning and testing process of analysis in doing examination.

- *Premise 1-2*: It is assumed that e-audit could also enhance the *effectiveness of the audit process* conducted by BPK. There are two reasons that could explain these premises. First, by *centralization of data* by establishing and gathering all of entity data through one single database in BPK that is called BPK Data Center. Second, through the concept of *link-and-match*, it will give BPK ability to access the entity's data (link) and see whether there is any connection between one entity to other entities (match).

- *Premise 1-3*: *Reliable information* will enhance the reliability of BPK opinion in financial statement through complete data given by auditees by reducing hidden data if any by *link-and-match* process.

- *Premise 1-4*: *Reducing data loss* in a site visits. In the traditional concept of audit when auditors gather data manually, data missing is commonly happened. Technology is expected to help an auditor in performing their duties.

- *Premise 1-5*: *Double checking of data and traceable.* Technology will help both auditor and auditee to check data completeness. Comparable data can be used for tracing missing link.

- *Premise 1-6*: Forcing the audited entities to be *more careful to manage their institution regarding data and internal system*. Data will be comparing with other institutions immediately as so if there any irregularities will be once revealed.

- *Premise 1-7 (additional PL)*: *Flexibility* is must. Means, e-audit system will continue to be developed and adapted to keep pace with changes in the internal and external BPK.

- *Premise 1-8*: *Sustainable (additional PL).* Development objectives of e-audit are not only based on short-term needs, but also look at the attention of long-term needs. It will always support by innovation.

- *Premise 1-9*: *good things* will be reached at the end. It means reducing corruption, collusion, nepotism, waste, and inefficiency of state finances; tackle the gap between the number of

entities to be inspected, object of inspection, stakeholder expectations, internal resources, and uncoordinated management system.

5.2.2. 2nd Focuses: e-government as a New Horizon in the Audit Development

Secondly, an assumption of e-audit is ready to be successfully implemented.

According to the book of e-Audit Grand Design from BPK:

> "E-Audit is designed to improve the data collection process which is in this current state is [1] doing manually and time consuming while another reason is [2] state financial database management is not optimal as well as [3] inaccurate inspection planning process (to determine weaknesses e.g. fraud). To check if all three problems are addressed by BPK centralization, the use of information technology will be used to make all these problems resolved. The concept is the use of IT in the form of combining existing information systems in the BPK with those of the audited entity that everything will be collected in the database (BPK data center) for the purposes of BPK" (BPK 2012: 9).

Coming from above statement, BPK tries to introduce a new way of conducting an audit through IT. Data collection using technology with real time method that is directly given by entities through their existing system, to some extent, will open a brand new perspective on a state financial management system. The premises that underlie e-audit project are as follows:

- *Premise 2-1*: Data and information will far more *secure* since it stored on database and not all persons have authorization to open it.

- *Premise 2-2*: Since the development of *e-audit piloted by BPK*, there is no need for audit entities or stakeholders to develop a new system.

- *Premise 2-3*: For data acquisition, it will be *more transparent* since it will be based on MOU/document for both sides. MU will initially arrange detail of data that covered under the entities system that will be needed by entities to prepare. Currently, in some area, especially in local-level BPK auditor have to ask personally to the treasurer or the project manager for data collection.

- *Premise 2-4*: *Data and information flow will faster and scheduled.* Development of information technology provides something that we never expect before. Within a second, flow of data will be linked and transfer to those who needed. There also a deadline could be set to make the entities coupe with procedures that has been arranged.

- *Premise 2-5*: The use of IT in BPK business generally is *supported* by the system, infrastructure, and also human resource in this aspect.

- *Premise 2-6*: Most entities that are audited by BPK have already *invested* in IT infrastructure and systems, which it means IT has been used for the management of state finances in Indonesia generally.

- *Premise 2-7*: Through the use of IT in financial management, data and information related to financial management of audited entities will be *more structured and reliable*.

- *Premise 2-8*: Creating the environment or condition for possibilities among BPK and entities being audited to *send and receive data.*

- *Premise 2-9*: BPK will make sure that the *entity has to be ready for e-audit implementation at the required time*, as well as check the system or application that being use by entities meets the standard needed for *link-and-match*.

The overall analysis now can be strained from two analyses, means-ends perspective which linkages the project mission, goal, and objective (including detail chain of objective) and also premises, which already given above which can be seen in **Table 6**.

Table 6
Schematic Representation of Core Elements of e-Audit Underlying Program Logic

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State Financial Audit Optimization Project through e-Audit

List of Expected Outcomes
· Will reduce time consume for preliminary audit, number of auditor should be taken for doing examination, and budget (cost) for conducting audit;
· Will facilitate the examiner in conducting audit, especially data collection (gathering) and audit data communication
· Will centralize the data necessary for state audit purpose into one single database at BPK
· Will make BPK easier to access entities data (through database)
· Data reliabilities will impact to the quality of BPK opinion of audit result
· Will increase BPK planning process as well as testing analysis in doing examination
· Will reduce data loss, especially in site visit
· Will automatically perform double checking process of data and data will be more traceable
· Will make auditees to be more careful to manage their institution
· Will speed up the planning, execution, and reporting progress of audit
· Data will more secure
· Flow of data and information will more faster and scheduled
· Will increase transparency of data based on MOU
· Will create a new environment for sending and receiving data among BPK and stakeholders
· Through technology development will make auditees data more structured and reliable

List of Expected Outcomes:
· When this activities will connect the database between BPK and audit entities
· When this activities will centralize the data in one single database in BPK data centre
· When the concept of *link-and-match* will give BPK ability to access the entities data in real time

and

No need for audit entities to develop the e-Audit system since BPK will do it for them

and

BPK has already filled by capable human resource; IT infrastructure and capable system while the audit entities have already invested in IT infrastructure and system

Then, this will lead to:

· increase audit efficiency in terms of time, human resources, budget
· enhance the effectiveness of audit process in terms of data
· good things such as reducing corruption, collusion, nepotism, waste, and efficiency as well as gap

Together With:

BPK stakeholders such as Indonesian Government and House of Representative as well as entity that being audited

This will help establish synergies among state institution through BPK *Sinergi*

Which will improve the performance and quality of state financial examina-

5.3. Third Step: Toulmin's-George and Hambrick's-Gasper Format

In this sub-chapter, there will be two related types of analysis: [1] Toulmin's-George (T-G) format for extended (or put it like that) result from the e-audit project; and [2] Hambrick's-Gasper (H-G) format to looking at project logical chain on objective.

The T-G analysis will be shown on below analysis:

Table 7
Toulmin's-George Formats for Policy Argument (Synthesis Table)

I Claim [This Conclusion]	Given This Data [Empirical Facts]	and This Principle (Or Principles=Theoritical and/or Value Statements)	Unless (Except+When) One or More of These Counter Argument Applies
E-Audit project could bring an improvement of the performance and quality of state financial examination	There is no feasibility study for this project thus the intended result of project cannot be forecasted.	Flexibility is must. e-audit system will continue to be developed and adapted to keep pace with changes in the internal and external BPK Long Term perspective. Development objectives of e-audit are not only based on short-term needs, but also look at the attention of long-term needs. It will always supported by new innovation	• There is no creativity to put the project become accessible for other state audit institution so they can work on it; • No feasibility study about e-government condition in general as well as no studies about on how to make the management control function become effective, efficient which could bring transparency and accountability will makes the project unreliable • There only 1 phase of the length of the project which means it is held for only 5 years period and will be end in 2015. Flexibility and long perspective still to be questioned.

Source: Own construction. Table guided from (Gasper 2011: 15)

According to above analysis, which originally based on **Premise 1-7** about flexibility and **1-8** about sustainability of the project, given the fact, is there is no feasibility study has been conducted so far. If we try to compare the claim; the fact and also the principles, several logic arguments will pop-up as critical thinking of thought. Partly, the likelihood of the project still to be questioned since there are no feasibility studies, which make the project do not have a clear direction. In addition, the project seems to argue that impersonal methods will be more effective in Indonesia because methods that involve personal contact will be undermined by corruption and/or politeness, given the strong personalism of contacts and the strong traditions of hierarchy.

For detail analysis of H-G format can be seen in **Figure 9** on the next page. Information gathered from fieldwork at BPK and NCA office has put on the format. As the result, mainly can be seen in Stage-3 about Test. H-G format is more complex than T-G that provides a policy-relevant structure (Tankha and Gasper 2010: 629). It produces necessary information to be analysed further in the next stage (identification of validity assumption and gaps).

Figure 9
Hambrick's-Gasper Format for Policy Argument

Causal Proposition:
If e-Audit project is implemented, than it will improve the performance and quality of state financial examination through data gathering from auditees databases into BPK Central Database

Grounding Propositions:
It is assumed that e-Audit will increase audit efficiency in terms of time, human resources, budget; enhance the effectiveness of audit process in terms of data; and lastly good things such as reducing corruption, collusion, nepotism, waste, and efficiency as well as gap.

Instrumental Propositions;
According to several regulation both from SAI or Indonesian Government has shown that:[1] BPK has the authority to request documents and access all data related to state finances for examination purposes; [2] specifies the type of documents and information required for the examination; [3] state agency that has full authority to conduct financial examination

If-Then Proposition
If audit data and communication between BPK and auditees could be conducted through ICT, it will lead effectiveness, efficiency as well as accountability and transparency in state audit purposes.

STAGE 2 – Means-Ends

Normative Proposition:
· The high number of audited entities those more than two thousands. It is all happened due to the changes in Indonesian political system which gave BPK clearer mandate, broader audit scope, as well as larger number of audited entities which resulted in institutional changes
· In regards to expanding the representative offices which previously only 7 regional offices to 33 offices has also force BPK to increase their capacities in managing human resource, budget, and also infrastructure.
· Challenge in promoting transparency and accountability in public domain which previously has explained in chapter one about several cases of unclear and misstatement financial statements, weak law enforcement, fraud, corruption, smuggling, illegal logging, and abuse of power.

Means-End Proposition
If e-Audit is implemented, it will [1] establish synergies with state institutions to [2] establish a BPK data center through [3] a data *link-and-match* between BPK and entities being audited. Moreover, it will also facilitate the examiner in obtaining and analyzing the investigation document

STAGE 3 – Tests

Constraints Proposition:

Problems entrained: [1] Infrastructure problems. Limitation of hardware in representative office and the needs of data transmission among BPK offices make the progress hampered; [2] bad internet connection (bad network access) and also limitation in interface media (command center, e-audit portal, helpdesk); [3] Types of data. The data entered in data center comes from various forms of system and application that is different; [4] Timeliness of the data obtained. Due to the process of integration, transmission, and communication to the entity to identify the data needed to take some time so that the value-added e-Audit may be disrupted; [5] The auditor's understanding of the data perhaps will become an obstacle in the implementation of e-audit project; [6] e-audit is a type of one-way communication among auditor and entities that being audited which is means all the data will exclusively belongs to BPK without any communication to other state audit institution which is called APIP.

Other Problems reveal from chapter 3: [1] problems according to Schuppan diagram in terms of political administrative system, demographic and social factors, infrastructure/connectivity, economic development, and institutional and cultural administrative situation; [2] overlapping problem in conducting audit activity among state audit institution.

Time-Place Proposition:

It argues that e-audit no more than just a tool to digitalize the document without any significant changes to the disruptions of bureaucracy of state audit management and relationship in Indonesia. Moreover, its only a way of BPK to be dominate.

Comparative Proposition:

Decentralization of power theory: to decentralize BPK domination to other audit bodies (cooperation in the use of audit result) and Schuppan model solution as to implement long-term strategy development of e-government (will affect e-audit project).

External Impact Proposition:

Audit data will likely to be difficult to be sent to BPK main server if there is a problem in auditees due to electricity, communication, etc

Policy action proposal;

Define on how the project could trigger: effectiveness, efficiency, transparency, and accountability in the state audit management function in Indonesia by looking to on how NCA manage their audit management system in the Netherlands as well as follow what Schuppan has already suggest using Schuppan diagram model

Source: Own construction. Table guided from (Gasper 1996: 42)

5.4. Identifying Critical Validity Assumptions and Potential Gaps: The Explanations

In this subchapter, several statements from different scholars will be used to challenge the logic or grounding theories of the e-Audit project. Later, conclusions will be drawn from this analysis.

5.4.1. Whether e-Audit will trigger effectiveness, efficiency, transparency, and accountability in the state audit management function in Indonesia?

There is some explanation on how effectiveness and efficiency relate one to another in assessing performance in **figure 10** below:

Figure 10
Component of Performance
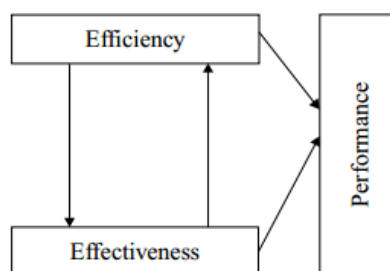
Source: (Ozcan, as cited from Kumar and Gulati 2010: 55)

Effectiveness is an achievement of objectives by doing activity (Carin, et al. 2004: 13). Moreover, according to Drucker, effectiveness is as simple as "doing the right things" (Drucker 1977). Later, another explanation is it assess the capacity of organization in achieve their own goals that have been set previously (Keh et al. 2006: 266). Therefore, according to Doig, good governance can be achieved by reflecting effective auditing practice (Doig 1995: 152).

Efficiency is undertaking an activity with minimum possible cost (Carin, et al. 2004: 13). There also another modest explanation, whether efficiency is simply "doing things right," means it depend on the organization in accessing outputs by using or spending minimum inputs (Drucker 1977).

Transparency and accountability have a correlation with public openness (Kondo 2002: 7). Moreover, Osborne has suggested, "transparency means helping people to see into systems and understand why decisions are taken" (Osborne 2004: 292). Transparency is important in public management issues because it became a key factor in defining good governance as well as openness in policy formulation and implementation (Kondo 2002: 9). According to the UN report, transparency is the power of the auditor to work on his duty, doing assessment based on fact and making recommendation that the audit report usually made publicly (UN 2004: 100).

Build upon OECD definition, accountability means "possible to identify and hold public officials to account for their actions" (Kondo 2002: 7). Meanwhile, according to Nasution, accountability is the environment or condition of government, begin with the lowest level (individual) to upper level (institutional) that takes the responsibility of the management of financial aspect, including economic, social, and politic in delivering service to civil society (Nasution 2008). Lastly, political demand for accountability is increased due to the need for providing better service to the public as well as a report how far the government manages the public resources (Power 2003: 191).

According to above theory's explanation, and also the stages of analysis of Toulmin's-George and Hambrick's-Gasper format, these have at least been giving an direct explanation that e-audit will not trigger effectiveness, efficiency, transparency, as well as accountability in the management of the state financial management aspects, especially in doing audit. Although the e-audit could be used to improve the performance of public administration, public goods and services for public benefits by preventing and reducing waste, abuse, fraud and corruption as well as increasing the value of public effectiveness and efficiency of public administration in the same way (look at Patton - **table 5** & **figure 7**; and Leeuw - **table 6** analyses), however, there were gaps reveal with what I already explained in Toulmin's-George and Hambrick's-Gasper format (**Sub-chapter 5.3**. Principally, it described several problems facing the e-Audit project and the complexity of state audit management in Indonesia among external and internal audit institution, in both central and local level that they mainly work separately. If we look at this perspective, surely there is no effective and efficient as well as transparency and accountability as a result of e-audit implementation since the financial data will exclusively belong to BPK and other state audit institutions will begin to work individually. Rather in the end, e-Audit just create another bureaucracy complexity and could also be judged as 'just' a tool to digitalize the audit data and communication.

5.4.2. Whether e-Audit or put it differently an e-government is ready to be successfully implemented?

Nowadays, ICT becomes a popular and important aspect which brings an innovative way on how public institution (government) gives their services to stakeholders such as citizens, business partners and employees at local, municipal, state and national levels by improving quality of services, accountability, and efficiency (Gupta et al. 2008). ICT could provide a positive impact not only economic aspect but also to social welfare by reducing inefficient bureaucratic matters and help them to work more efficient in lower cost (Anggriani 2002). It solves the problems of boundaries between a government levels with different institution by making integrated services become more possible (Alcock and Lenihan 2001). Moreover, there also some studies that e-government implementation can also result not only reducing cost, but also time for service (Gilbert et al. 2004). E-Government could make the government work faster (Anggriani 2002).

Bellamy and Taylor give an explanation about three innovations of ICT through government (Bellamy and Taylor 1998). First of all, it is about the commodification of information. Governmental organization can do innovation in area of provide innovation to the public. The information itself is not only pointed to the needs of their service customers, but also addressing the enhancing the needs of civil society as well as political awareness. Second explanation is about implementing electronic public services. ICT can be used for increasing efficiency and enhanced the quality of public services. Last, about electronic citizenship and democracy. ICT is being introduced to strengthen the democracy process. It is being used for recast the relationship between citizens, citizens groups, politicians, and government.

If we look at above argument, to some extent, it will drive for 'yes' conclusion that e-Audit which in this aspect, we refer to e-government is 'ready' to be implemented in state audit management function in Indonesia. According to above combine analysis, it has shown that the concept of e-Audit to some extent is fruitful for the development of state audit matters in terms of e-government perspective, based on the theories that mentioned above. To support this matter, the argument will be like this: [1] through *link-and-match*, check and re-check data among institution will more possible and not takes time since it already stored on database; [2] reducing the cost for site visiting when the auditor conducting their job (efficient) as well as effective in terms

of human resource and time reduction; [3] reports will likely become more accurate which scope of audit could cover almost all aspects.

However, again, we should look it in different aspect, especially about the readiness of Indonesian Government generally, not only in central but also local level and the way e-Audit will give significant contribution to BPK. It is important because BPK works in both levels. Therefore, we can look back to what I have already given previously in **Chapter 3** wherein there was gaps have found in this issue under e-government sub-chapter (**sub 3.2.**). To make it easier, here I will relate my previous findings to Schuppan analysis about e-Government as well as the Toulmin's-George and Hambrick's-Gasper format in **Sub-chapter 5.3.**. This analysis, to some extent, will challenge the previous statement about 'feasible' and make it become 'not-feasible' due to technical or basic evidence of the e-government condition. So yes, the answer for this validity is no, e-Audit is not ready to be implemented due to un-readiness of IT infrastructures, which still faces several problems.

Figure 11
Environmental Issue, Potential and Risks Perspective of e-Government in Developing Countries
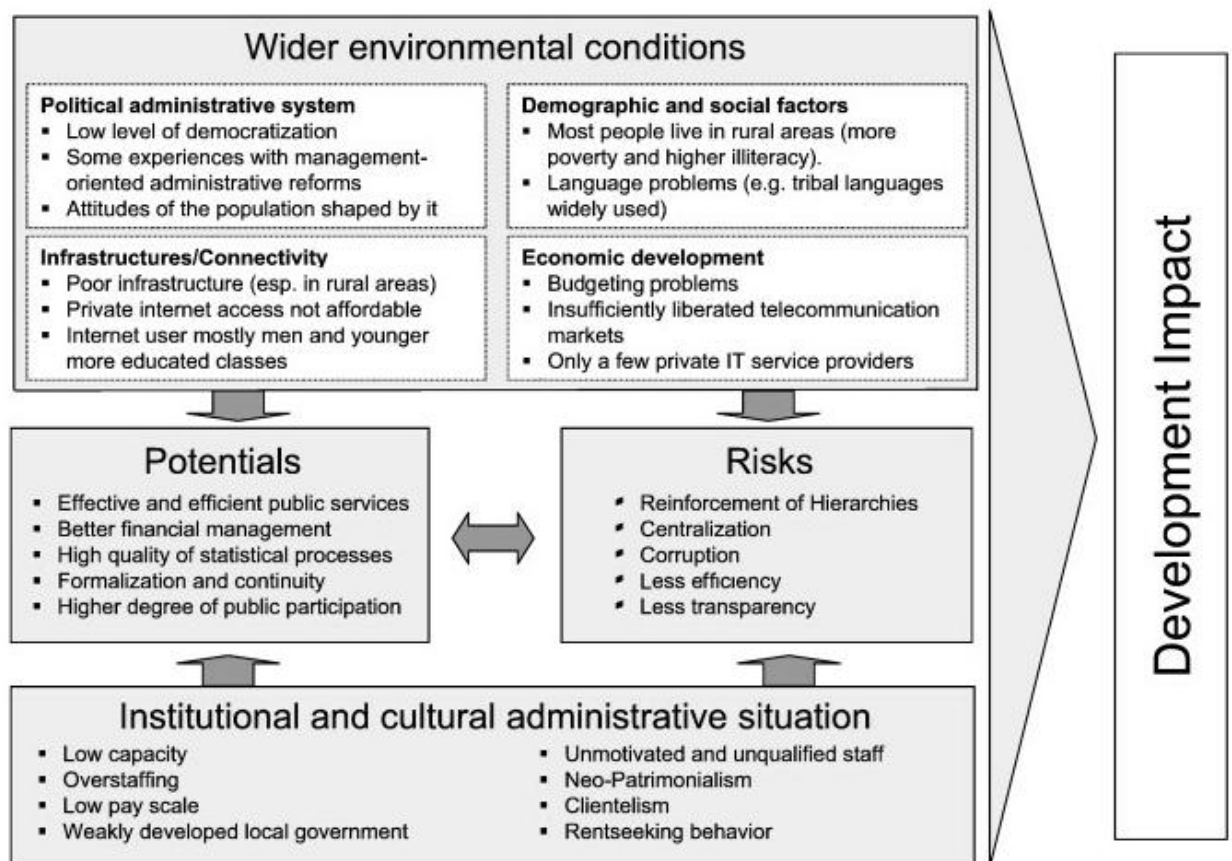
Source: (Schuppan 2009)[39]

In general, although ICT or e-Government could be a good solution to tackle the issues of a governance symptom, for example, corruption, inefficiency, unaccountability, however, ICT has possibility to bring another 'symptom' if the structure or framework or fundamental basis is not well prepared. In his essay that brought experiences from Sub-Saharan Africa, Schuppan has ana-

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[39] http://www.sciencedirect.com/science/article/pii/S0740624X08000890

lysed several effects in the context of developing context, which mainly explained in **Figure 11** (Schuppan 2009). According to his findings, instead of become more efficient and decentralized, a negative scenario such as more hierarchies, corruption, and centralism could arise if initial political and administrative factors my possibly become an issue (*Ibid.*). So, according to this analysis, it is like two different side of the knife. Moreover, what mainly have to be noted are the wider environmental conditions, which are: [1] political administration system, [2] demographic and social factors, [3] infrastructures and connectivity, and last [4] economic development. Unfortunately, based on research from several researchers in Indonesia (see **Chapter 3.2** and **Annex 3**) was proven that what the potential threats which drawn in Shuppan wider environmental condition is true. Although the development of ICT (e-government) has started in 2003, however, until now, the targeted goal is never achieved (see the supporting argumentation matrix in **Annex 3**).

Therefore, according to Schuppan logical thinking and supported with what already analysed using Toulmin's-Feorge and Hambrick's-Gasper format, both could draw an argument that: e-Government is still facing problems in Indonesia, especially at a local level that will give significant impact to e-Audit. Hence, clearly e-Audit is not ready to be implemented in Indonesia in this current stage. BPK need to rethinking the likelihood of their project, otherwise problems might be happening in the progress of this project.

Chapter 6
Conclusion and Solutions

The paper explored the e-Audit project, a program designed by the Audit Board of the Republic of Indonesia (BPK) as a solution of various challenges in performing an audit work, as well as to follow-up the peer-review findings that was conducted by the Netherlands Court of Audit in 2009. The idea of the project was to create a synergic collaborative data between BPK and auditees through technology (ICT) that can promote better public financial management control in Indonesia. The project itself is expected to be complete in 2014, five years long for implementation. The basic idea of the project was good, to speed up the process of data collection through a system. It provides a new way to perform an audit in public where auditors do not have to come physically to the entities that being audited. Every communication of data and information can be submitted through the Internet, and it stores in one single database. Therefore, it is expected to make the monitoring system of state financial management become more effective, efficient, transparent, and accountable.

However, based on research findings, it is proven that this expectation seems hard to be achieved due to several factors. It begins with the project holder statement that there is no feasibility study has been conducted so far, which means the initial output and outcome of the project still be questioned. This key point has drawn a big impact to the likelihood of expected output and outcome of this project. According to this assertion, later, this thesis focuses to several factors and tries to look in-depth the issues of e-government in Indonesia, specifically in the area of government perspective: how the readiness of each government agency to accept and implement this project; the relation between state audit institution, an external and internal state audit institutions; and lastly, the e-Audit itself by assessing on how it designed to be performed in public sphere.

By nature, e-Audit could be classified as a part of e-government. Therefore, the likelihood of this project is also affected by the development and the performance of e-government in general. Although the project was designed to speed-up the work of the auditor by the assistance of the e-Audit, however, if the area of e-government is yet not ready for this project, forcing the institution to implementing the e-audit will be resulting of going nowhere. One example, it is shown that Indonesia still facing problems in the development of e-government, mainly in infrastructure, regulation, and human resource. An analysis was conducted based on Schuppan scheme; it has brought a critical thinking that several factors were contributed to get the answer why. There are political administrative system, infrastructure/connectivity, demographic and social factors, and economic development. All of these points have to be successfully defined, arranged, and executed before the government introduce a new system.

According to the relation among state audit institution, especially in terms of external and internal audit sphere, there also an issue of overlapping function still does exist. BPK position in the republic as external auditor has gave them the power to perform an audit to an agency or other government institution based on law. However, on the other hand, this function also performed by the internal audit. This issue is very important since it is possible for two or even more audit institutions to perform an audit to one single institution at the same time, same place, and same specific object. The e-Audit itself is not covering this perspective. Then, another question appears whether, in which way e-audit project has good possibilities to perform better public financial management control.

According to internal report, it has shown that the problems were mainly same with what already mentioned above. Moreover, it is come out from the project document that e-audit was designed as one-way type of communication. It means the data will exclusively belongs to BPK. Thereafter, as a result, it makes the e-Audit is no more than just tools to digitalize the audit data without any significant advantage to make better financial management control in Indonesia.

In regard to previous findings, a comparative study has to be made which in this thesis is a study of the Netherlands Court of Audit (NCA). NCA provide a perfect model as a mature audit organization, which answers all of criteria that mentioned above. A lesson learned could be drawn from the NCA, that audit based on the system is not necessarily needed as long as the communication between external and internal audit institution is already developed. Basically, the way NCA perform their function is by relying on what have previously done by internal auditor. It is clearly that they decentralized their function as comptroller, their power to conduct an audit. At the same point, this idea seems more effective and efficient to manage the state financial control function.

Osborn has given an important explanation about accountability that relates to the decentralization (separation) of power (Osborne 2004: 294). Delegation or decentralization of authority could bring a positive aspect about efficiency and effectiveness of public sector institution. Several analyses have been conducted to know more about this matter. Ross has raised an issue about centralized and decentralized aspect in performs public decision making among institutions. Based on his thesis, centralized and decentralized decision making in public bureaucracy is depend on structural characteristics of organization, such as size, horizontal and vertical differentiation, complexity, and professionalization (Ross 1977: 97). First of all, size aspect. It is argued that decision-making will become to be more decentralized if the size of organization increases. Mayer also supports this statement that in larger department, decision-making responsibility is more decentralized (Meyer 1968: 211). Second, it is about horizontal and vertical differentiation. Ross argued that in vertical differentiation, decision maker will more decentralized if the number of levels of organization increases. On the other hand, in horizontal differentiation aspect decision-making tend to be centralized if the differentiation level increases (Ross 1977). Lastly is the complexity of decision-making. This statement is based on whether in organization there are lots of different kinds of activity being carried out. It is stated that decision-making will become more decentralized if the institutions become more complex. Last explanation is about professionalization in decentralization context. What he meant for professionalization is the qualification of institution. In his opinion, decision-making will be more decentralized if the institutions itself are more qualified. However, decentralization is not always a matter of bringing good aspects of effectiveness. According to Kim, the effectiveness of government institution is based on quality of human capital and institutions itself (Kim 2008). He supported the argument with the findings from his research about capacity of local government, corruption of local officials, and imperfect democratic system as challenges for decentralization.

Decentralization is also about increasing the local capacity aspect. According to Bardhan, by decentralize the authority from central level it will also automatically increase the capacity of a human resource in particular area (Bardhan 2002). Since the call of local government in the developing country is based on the mercy of elites in central level, the goal to achieve public delivery will be more difficult to sustain. Therefore, it is important to strengthen the local capacity aspect in developing countries such as a mechanism to monitoring the performance of public bureaucrats and capacity of information as well as an accounting system. In addition, he also mentioned that on how to make decentralization to become more effective is by changing the existing structure of power or control that mostly centralized and give more voices to local level (*Ibid.*). This argument has clearly shown that BPK needs to fully implement the regulation about

the use of audit findings that produced by internal audit in three levels, as what the NCA did in their state audit management function (see explanation in **Chapter 4**).

In regard to power or control aspects, choice could be made by the governance in order to control the government. In reality, there are lots of models in the way government in a different country manage or control the public service that may be different one to another. There are some explanations and analysis to generalize the concept as a drift to 'managerial' controls in public service. However, when some scholars see it as a common control type, others may not (Hood 2004). The definition of control according to Hood is steering, or governs, or keeps the state in any possible subset in any given system. The relation between, for example, legislature and career public servant in Germany may be different if we compare it to England. So, an approach is needed in order to bring a variety across state systems. And as a result, it could accommodate formal and informal control, intentional and unintentional control, or other alternatives form of control (*Ibid*). Last, Hood also mentioned that when we try to analyses or evaluate the effectiveness of such system, it is possible to be biased due to our limitation. BPK as an external comptroller could take a part in this control function, because they have a power to make the relation among state audit function become synergy. Let's say BPK has the power given by constitution. Therefore, rather than making the audit data exclusively belongs to BPK; they have power to distribute the function of e-Audit portal for other audit bodies. In the end, they could use the e-Audit system to solve overlapping problems in Indonesia.

Lastly, it is important to develop a strategy to cover above issues. Schuppan has brought a long-term-planning and capacity building in the management context that could be set as a solution of the e-Government problems (Schuppan 2009). This strategy was proven to succeed in sub-Saharan Africa. According to his suggestion for e-Government problems, basic services need to be established for a long-term process (*Ibid.*). E-Audit is developed for five years project, which could be categorized as short-term project. The development of e-Audit needs more than that. Lastly, I support my argument with what I have already written in Chapter 3.2 about Initiative Strategic (IS) that has to be taken to make e-Audit becomes effective. The strategies are as follow: [1] enhancement of the quality of institutional relationships with stakeholders (IS 1.2); [2] enhancement of the quality of BPK internal management and organization (IS 7.1); [3] consistence and comprehensive of competency-based of HR Management (IS 8.1); and [4] implementation of competency-based education and training (IS 8.4).

I ended my argumentation with findings in my fieldwork in Indonesia. I had interviewed some auditor staff in BPK (who work at local level) and they mentioned that in local level, IT infrastructure still become the main constraint when performing an audit. Moreover, they're also information coming from the project staff. They said that the SOP (Standard Operational Procedures) for the project would be different for each institution due to differentiation of software, infrastructure, and application that they have. It proves what Schuppan has already developed in his argument. There still a lot's of things to do before the execution of the project.

FIN

Annex 1
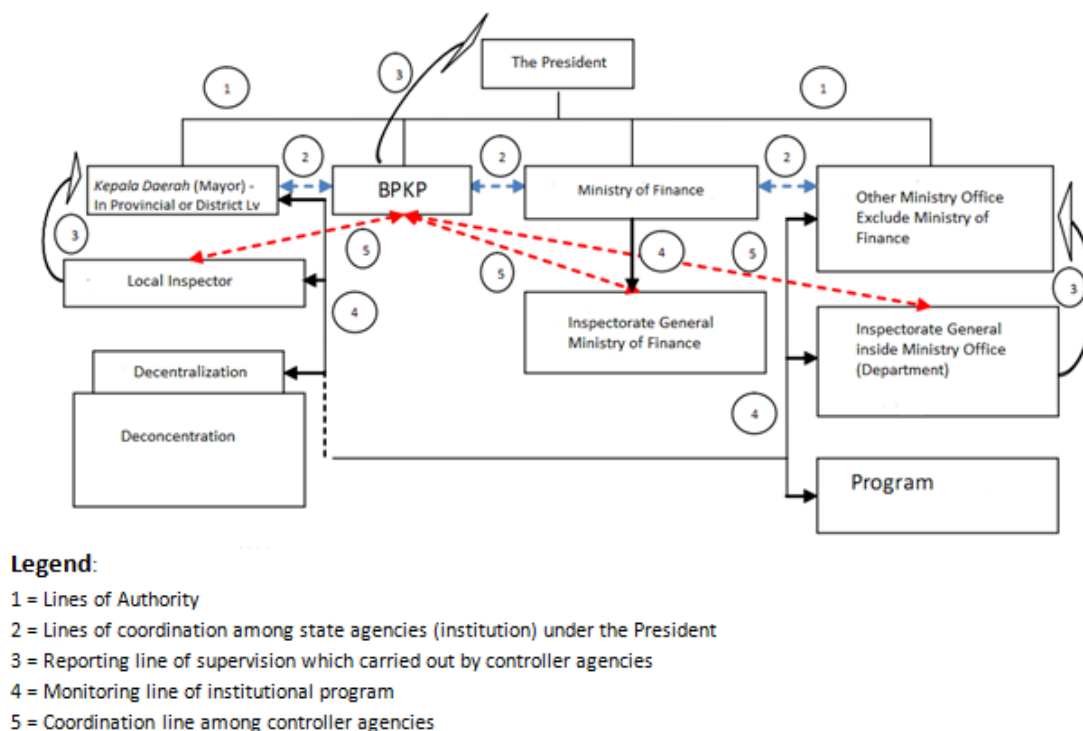# The History of Internal and External Audit Function

Before *reformasi* era on 1998, there are 2 national institutions that have responsibilities as controller, first *Badan Pengawasan Keuangan dan Pembangunan* or can also be called the Supervision of Financial and Development Agency (BPKP) which the existence is covered under Presidential Instruction **No. 31 of 1983** and secondly *Badan Pemeriksa Keuangan* or can also be called Indonesian Audit Board (BPK) which the existence is covered under Law **No. 5 of 1973**. The difference between these two institutions is BPK can be seen as external auditor whereas BPKP can be seen as internal auditor. Based on the statement of Nasution, during '*Orde Baru*' (New Regime) or before 1998, the control function of BPK was suspended[40]. The government controlled the BPK function by restrain the audit object, organizational and budget control, as well as the control of audit method (Nasution 2008). However, contrary to the BPK, BPKP has enjoyed an important role in managing the financial control as comptroller with mandate given by Soeharto to fulfil his willingness of power (Suseno 2010: 15). Now, it happens other way around. After 1998, the new government has reformulated the means of audit functions. Next, I will explain why it different now.

Under *reformasi* era, House of Representative (DPR) together with the government has modified and reformulates the function of control among state audit institutions. In regards to decentralization concept which divided the government system into two, central and local level, the government also strengthening the function of external controller such as BPK, Anti-Corruption Agency (KPK) as well as internal controller such as *Inspektorat Utama* (Inspectorate General) - for national level which usually existed in central level and Bawasda/Bawaskot/Bawasprov (Local Inspector) - for local or provincial and *Kabupaten* (district) level (Suseno 2010: 16, Baswir 1999). Thus, for the level of State Owned Company (BUMN), public accountant (certified) has undertaken the control function. According to several scholars, controller is important to obtain assurance of performance of someone's duties (Baswir 1999, Sujamto 1996). So it is clear that controller (auditor) is needed to assess the effectiveness and efficiency in the state financial management system.

In regards to strengthening function, new regulation about the existences and independence of BPK has been released. According to Poernomo, it can be segmented into 3 phases (Poernomo. 2011: 2). The <u>first phase</u> was come in 2001 when the 1945 Constitution was amended which emphasize on the specific task of BPK business process. The <u>second phase</u> occurred around 2003-2004 and it covered by 3 packages of State Financial Law, **No. 17 of 2003** about State Financial; **No. 1 of 2004** about the State Treasury; and **No. 15 of 2004** about State Financial Management and Responsibilities. In this phase, it emphasizes the audit scope of BPK, which is now clearer as well as the independence of BPK that is now more secured. Overall, these three laws have mentioned, "the audit board has right to audit all entities or parties who manage state-finance". Lastly, the <u>third phase</u>, it comes on 2006 when the new regulation that regulates the independence of BPK as external auditor has revealed with the law **No. 15 of 2006**. Poernomo has said, "the new Law on the Audit Board introduces more collegial leadership and secured authority, and promote transparency and accountability of the Audit Board" (*Ibid.*).

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[40] Mr. Anwar Nasution was BPK's Chairman in the period of 2004-2009.

Figure 12
The Flow of Internal Control Bodies in Indonesia

Legend:

1 = Lines of Authority
2 = Lines of coordination among state agencies (institution) under the President
3 = Reporting line of supervision which carried out by controller agencies
4 = Monitoring line of institutional program
5 = Coordination line among controller agencies

Source: (Suseno 2010: 21)

Meanwhile, for BPKP as internal auditor, the President of the Republic of Indonesia has released a Presidential Decree **No. 103 of 2001** about Non-Departmental Agencies. On 2008, the government was also formulating a new regulation that strengthening the position of internal controller such as BPKP, Inspectorate General, and Local Inspector by releasing Government Regulation **No. 60 of 2008** about Government Internal Control System. The function of this regulation and control function are same, to strengthening the position of institutions both central and local and also increasing both government and public control function through the state financial budget and spending to be more efficient, economics, effective, transparent, and accountable (Indonesian Act 2006, Government Regulation 2008)[41].

All set of regulation that has been produced after reformation era has change the way of people to see the function of control system and how state audit function works. Previously, the 'New Regime' government limited the access to external auditor to conducting an audit to assess the fairness of state financial management in every institution. Now, the function of controller has expanded, not only in assessing the effectiveness and efficiency of public spending by conducting financial or performance audit, but also transparency and accountability in presentation of financial statement to the public. Both external and internal auditor has their own way and regulation in conducting their duties.

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[41] Government Regulation and Indonesian Act are set of regulation that produced by Indonesian Government and approved by the President or House of Representatives.

Annex 2
The Development Issues of e-Government in Indonesia

The development of ICT or e-government in Indonesia started in 2003 when the government issued a policy of Presidential Instruction **No. 3 of 2003** about 'National Policy and Strategy Development of e-Government'[42]. The outlines of this policy are: [1] development of reliable and trustworthy services and affordable by the public, [2] restructuring of management systems and work processes of central and regional government holistically, [3] optimal utilization of information technology, [4] participation improvement of the business sectors and development of ICT industries, [5] development of human resources in the government offices and improving e-literacy of communities, and [6] development of e-government by systematic approach which realistic and measurable stages. Although the parameter and strategy of e-government has been released, this policy was however still too broad and could be over-interpreted or perhaps diversely interpreted by government institution (Kumorotomo. 2009: 8). Therefore, at the same year this strategy was completed by Ministry of Communications and Information Technology by releasing '*the Guideline for e-Government Development*' which regulated all government sectors not only in central level but also local level in several aspects: [1] development of government portal infrastructures, [2] management of government electronic documents, [3] planning development of e-government, [4] ICT training for supporting e-government implementation, and [5] implementation of the local government websites (Rokhman 2008: 228).

Figure 13
Indonesia's Roadmap to e-Government
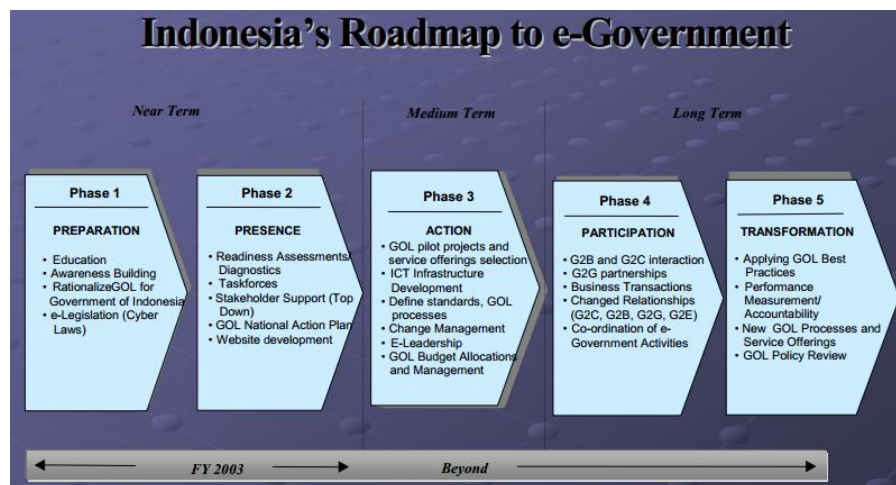
Source: (Harijadi. 2004: 8)

In 2004, through the same ministry, guidelines of the development of e-government which explains the regulation among all government agencies both central and local levels in six (6) aspects was issued. These aspects are: [1] quality standards and service coverage, as well as e-services application development, [2] institutionalization, authority, information, and business involvement in e-government development, [3] good governance development and change management, [4] e-government project implementation and budgeting, [5] competency standards of e-government managers, and [6] blueprint of e-government application for central and local government level (Kumorotomo. 2009: 2). The development of Indonesia's e-government can also be seen on **Figure 13**.

As an accomplishment of previous policies, on 2006 the Government of Indonesia released another Presidential Decree **No. 20 of 2006** that regulate the establishment of the Council of National Information and Communication Technology (*Detiknas*). As mentioned by Rokhman, "*Detiknas* is indirectly strengthen policies in the development of e-government which have mandate to formulate public policy and strategic direction of national development, through the use of ICT" (Rokhman 2008: 484).

Annex 3
Findings Matrix of e-Government Development in Indonesia

No	Types of Problems (According to Schuppan, 2009)			Harijadi, 2004	Depkominfo, 2007	Rokhman, 2008	Sosiawan, 2008	Kumorotomo, 2009
1	Political Administrative System	a	Low democratization			Low e-gov readiness generally compare to other Southeast Asian Countries		Among gov. institution, they do not want to share any information (no database integration)
		b	Tend to be reform	Regulatory environment; organizational and cultural design; e-leadership	In some area the vision and mission related CIT is unclear as well as rules and regulation to regulate e-government implementation	Organoware: or can be said organization obstacle which there is no flexibility in terms of regulation; there is no regulation to authorize the electronic transaction	Mostly they still looking for the standardization of implementing e-gov; No sustainable development in regards to CIT things; More than one website in the same places/region	Need a strong motivation from the government to develop the e-gov regulation and infrastructure by cutting the bureaucracy
		c	Attitudes of citizens				Literacy problems make the penetration of internet access become hampered	Cultural problem that should be changed
2	Demographic and Social Factors	a	Living Place				Most of local government somehow still misinterpreted the regulation about e-gov; market penetration of hardware and software that is still not evenly distributed in local area (especially remote area); lack of electricity and communication facilities	Geographical conditions which make differences between urban and subsidiaries area (especially in infrastructure accessibility); electricity, communication, and computer distribution problems

No	Types of Problems (According to Schuppan, 2009)			Harijadi, 2004	Depkominfo, 2007	Rokhman, 2008	Sosiawan, 2008	Kumorotomo, 2009
3	Infrastructure/Connectivity	a	Infrastructure	Telecommunication infrastructure Constraint; low computer penetration	Poor infrastructure development and maintenance; data is not frequently updated, the website interface is not dynamic; lack of helpful application as well as absence of application usage instruction	The Government website (especially in local sector) only provide general information instead of interactive communication for better public service facilities; Hardware: limitation of hardware and software	Not up-to-date information on institution official website; not-user-friendly interface; the absence of signs of life; only web-presence development, not fully e-government implementation; No maintenance to the CIT things	Infrastructure problems; the website is not updated and giving only general information; transactive stage is not yet reached which it can provide a public service support
		b	Internet Access	Low internet penetration	Poor data security access to the internet	Hardware: problem in connection with LAN and WAN	Limitation of the Wi-Fi service provider for public users	
		c	Users				Lack of users who visiting government institution official website	
4	Economic Development	a	Budget	Budget and financial constraint problems		Organoware: limitation of budget for the development of infrastructure and HR is limited	Budget problems, especially to develop an infrastructure in separate island with mountainous and terrain landscape	
		b	Market			Area of coverage is too large as now it is only prioritize in main island or city		Different economic condition
		c	Providers				Take an outside expert to manage the CIT things; lack of provider especially in local level	
5	Institutional and Cultural Administrative Situation	a	Low Capacity		The absence of master plan that will drive the development of ICT; no documented work plan	Peopleware: low capacity of gov. staff for doing ICT management	Not all local governments have an official website; mostly the website provided for a room for interaction, not for public services	
		b	Staffing	Human resources problems	Incapable HR who have specialist in CIT		Workforce availability and minimum insufficient skill	HR differences among different places; webmaster is passive
		d	Weakly developed local government		There are no sustainable development of HR; placement of CIT staff were not clear		Depending on the project, although there already LAN and WAN access; the data interchange through CIT is less due to cultural behavior	

No	Types of Problems (According to Schuppan, 2009)			Harijadi, 2004	Depkominfo, 2007	Rokhman, 2008	Sosiawan, 2008	Kumorotomo, 2009
		e	Unmotivated and Unqualified Staff			On government website there is no respond or reply from webmaster or gov. admin for citizens' complaints		
		f	Neo-Patrimonialism				The flow of communication in the man-agement of e-gov still find a barrier name bureaucracy	

Source: Own Construction based on Several Data. Table adopted from (Schuppan 2009: 123)

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Annex 2
NCA's Audit Types: Regularity and Performance Audit

Regularity Audit in the NCA's

The function of regularity audit is to check whether the ministers use and the budget that coming from tax money in harmony with the rules. This audit is being held in annual base and the result is publishing on Accounting Day, the third Wednesday in May in two reports: Accounting for Central Government and Reports on the annual reports. In the first report, basically NCA's is basically giving their legalization through the ministries financial statement (report). "In this report, we issue a statement of approval on the central government annual financial report. We thus approve the central government statement of expenditures and receipts and trial balance. We also inform the House of Representative about the ministries operational management and the ministries accounts as presented in their annual reports" (NCA. 2012b). In the second report, NCA's will give their opinion through the fairness of ministries annual financial statement report. "In our reports on the ministries' annual reports we state whether the ministers have used tax money in accordance with the rules. We also assess whether the financial information in the annual reports and the trial balances is complete and accurate and look at the ministries' operational management. We then issue an opinion on the policy information presented in the ministries' annual reports"(*Ibid*.). According to NCA's internal document, the opinion will basically state in five (5) aspects: opinion on true and fair view; opinion on financial management and internal control; opinion on the way the internal control statement has been produced; opinion on the way the performance information has been produced; and last giving recommendation (Malais 2012: 16, NCA 2008: 13).

Performance Audit in the NCA's

There are three (3) general aspects that the NCA's want to draw from this type of audit. First, they look at the effectiveness of ministers' policies, whether they produce the intended results as well as the implementation of policy by using this question 'does the minister do what has been agreed and are the results good for society?' (NCA. 2012b). Secondly, they audit ministerial efficiency. There are two (2) questions that they looking for answers: [1] 'Does the government use the right amount of money to achieve the intended results?'; and [2] 'Are there no other (cheaper) ways to achieve the same results?'. Lastly, the NCA's will make recommendations that obliged the ministries to follow so they can make the policies become more effective and efficient. As the NCA's stated on their explanation: "We design our audits to explain the reasons and identify trends. We can then advise the minister on what he or she should do in order to achieve the intended results" (*Ibid*.). According to NCA, there are five (5) reasons in why the ministers' policies become ineffective and inefficient: [1] the policy goal was not formulated clearly enough; [2] the policy contains rules that are too complicated or restrictive in practice; [3] the minister does not provide the institutions that must implement the policy with sufficient funding; [4] the minister exercises too little control of the implementation of policy; [5] developments in society mean that a policy's impact is not the intended impact (NCA. 2012b).

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