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**Master's Thesis of Public Administration**

**The Implementation of the  
E-Government Program in Cambodia:  
The Challenges and Prospects**

**캄보디아 전자정부 프로그램의 집행에 관한 연구:  
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**August 2018**

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# **The Implementation of the E-Government Program in Cambodia: The Challenges and Prospects**

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## **Abstract**

# **The Implementation of the E-Government Program in Cambodia: The Challenges and Prospects**

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The E-Government is becoming a hot issue in recent years as the world is developing into the era where technology advancement is really impressive. Technology can improve the administrative work to be more productive and it can reduce the procedure process. There are many countries in the world that are really successful in implementing the E-Government project. However, there are some constraints to the development of E-Government in some developing countries. The study on the challenges of E-Government can help people to understand more about one country' obstacles and in attempt to find the solution for these barriers. We cannot apply the other countries cases to one country according to the differences in term of political situation or population situation or the culture. Therefore, the study of challenges of E-Government in Cambodia should be conducted for the development of E-Government.

The purpose of this study is to determine the challenges that E-Government in Cambodia is facing right now. Cambodia is new to the concept of E-Government and the human resource in this skill is very scarce. E-Government is one of the most important part of public administrative reform and to offer good public service to all citizens. There were a few studies on the E-Government of Cambodia and one study in 2010 identified the challenges of E-Government in Cambodia into six points such as Infrastructure Development, Law and ICT Policy, Management, Equity Issues, Digital Divide and Privacy and Security. Therefore this research will present the actual development of E-Government in Cambodia and identify the real update challenges at the moment by interviewing the experts and the users for their opinion and feedbacks on the E-Government program in Cambodia.

**Keywords:** E-Government, Cambodia, Public Administration, Public Services, Challenges, Implementation.

**Student ID:** 2016-24766

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## **List of Abbreviations**

EGDI	E-Government Development Index
ICT	Information and Communications Technologies
GAIS	The Government Administrative Information System
OECD	Organization for Economic Cooperation and Development
OCM	The Offices of Council of Ministers
MoI	Ministry of Interior
MoC	Ministry of Commerce
MPWT	Ministry of Public Works and Transport
MPTC	Ministry of Posts and Telecommunications.
NiDA	The National Information Communications and Technology Development Authority
UN	United Nations

# **Chapter I: Introduction**

## **1.1 Background**

In 21<sup>th</sup> century, every country around the world is amazed with the modernization and innovative technology. Most of the countries are trying to compete each other with the technology which provides people the best experience and the convenience feeling of the new innovative technology that can improve their living standard to the next level. Internet and technology have involved in the country development and it has made the living standard and life style of people to be modernized and interesting. Technology has equipped in every factors in society to make all the work become easier and well organized. Both private and public use technology in their job because they believe that technology can help to improve the productivity in their task and it can make their work be more effective and efficiency. Therefore, many developed countries adopt new technology into their work in order to improve their working condition and to increase the productivity to make their work more competitive and more challenging. Particularly, we can see more private company invest a lot in technology in their company to make their work to be more convenience and fast. Public sector can see the fast moving and the working productivity of private sector, the public sector has tried to adopt the new technology into the administrative work in the government to increase the public administrative work and to serve better public service as well as to decrease the bureaucracy in the office as well.

Basically, the government of Cambodia also pays attention to the fast developing in technology and how other countries in the world turn this technology into the feasible way in governance a country and encourage their citizens to participate in the world of high technology. Cambodia is located in the southern portion of the Indochina Peninsula in Southeast Asia. Cambodia has gone through dramatic political changes during the past four decades, and each new government has introduced its own system. The institutional framework set up by the French colonial administration was completely destroyed when the Khmer Rouge took control of the country in 1975. After the Khmer Rouge regime, Cambodia has been recovered and developed the country step by step from the almost ground. During the regime, most of potential human resources and infrastructure were destroyed. The administrative system was also got effected according to the political changes in each government period.

Cambodia government started to build the country and found out any policy to supplement in all sectors. As the result, administrative management is the hot issue that Cambodia government put it as priority. Many policies were established and reform in administrative management. However, Cambodia is moving very slow in developing the administrative work in the office due to the lack of financial support, human resource and government initiative. The administrative work in Cambodia follows the traditional way of paper work and bureaucracy as it used to be in the past during the French colonial. The working process is consumed lots of time and they work as their habit and feeling. That is the reason that the foreign investors hesitate to

invest in Cambodia as they have to follow many complicated procedures and corruption and bureaucracy issues are still the biggest issues in Cambodia. Therefore, Cambodia needs to put more priority on the administrative reform and E-Government is one of the administrative reform at this moment because nowadays Cambodia economy is growing very fast and we have many potential factors that can attract more investors. It is now the time that government needs to focus on the administrative reform to improve the government officials working experience and to encourage people to use public service in convenience.

Exactly, the reform is the potential approach to the solution in this period of time. As Cambodia has achieved political stability and remarkable economic growth, it is time to do the administrative reform. Cambodian Government has set the policies according to the Rectangular Strategy of Government Phase 3. “Good governance” is the core of the Rectangular Strategy which focusing on four main pillars including Integration of Cambodia into the region and the world, Peace, Political Stability and Social Order, Partnership in Development, and Favourable Macroeconomic and Financial Environment. In order to achieve this goal, governance needs to focus on the four components such as Accountability, Transparency, Predictability and Participation. (Rectangular Strategy of Cambodia) (National Strategic Plan 2014-2018). In public administrative reform, there are four main sectors such as Civil service reform, Policy making procedure, Transparency and e-Government, and Decentralization (Stella Ladi, 2006). As mentioned above, E-Government is one essential component to make public

administrative reform and good governance success. Fundamentally, E-Government in Cambodia is still in the basic stage which government needs to learn and develop this program in order to make this program to be success in the future. As Cambodia is a developing country, it is facing many obstacles and challenges that make E-Government in this country running very slow compare to other countries in the world and also the neighbor countries. In order to overcome these challenges, Cambodia recently pays more attention in this era and strives to learn and develop this E-Government from other developed countries which success in E-Government.

## **1.2 Purpose and Scope of the Research**

The purpose of this study is to determine the challenges that E-government in Cambodia is facing right now since Cambodia is really new to the technology and we are lack of human resource in this kind of skill. E-Government is one of the most important part of public administrative reform and to offer good public service to all citizens. Cambodia is trying to set up the E-Government start from the small scope which is E-Document and develop it to the bigger scope in the future which is called “Smart City”. However Cambodia still confronts with many obstacles or barriers which speed down the development of E-Government to be success as other countries. Identify the challenges is the way to understand, prevent and solve these problem in the future to turn E-Government to be the successful project.

The scope of study will focus on the ministries that are introducing and developing the E-Government in their organization such as The Office of

Council of Ministers, Ministry of Commerce, Ministry of Public Works and Transport, Ministry of Interior and Ministry of Posts and Telecommunications. The Officials who are working in this sector are the main target because they are working directly in this field and they will understand more about E-Government and they can tell what the difficulties that they are facing in their everyday work. Their comments and feedbacks will be useful for this research.

### **1.3 Research Methodology**

#### **a. Research Questions:**

- What are the challenges that Cambodia facing regarding to E-Government?

#### **b. Research Methodology**

In this research, both qualitative and quantitative methodology will be used to examine and identify the challenges of E-Government. Primary data will be used to understand more about the experience of officials working in ministries which implementing E-Government. Secondary data and theoretical study will be used to understand about the research result, ideas and theories of previous authors on the challenges of E-Government. Cambodia case will be compared to other countries and will be analyzed and determine the result to identify what the commons challenges are.

- Primary Data

Survey will be conducted with the officials who are working with the E-Government sector to examine their idea, knowledge, experience, and

obstacles regarding to E-Government and to collect their suggestion and concept to develop E-Government in their institutions. Significantly, challenge is the important data that will be collected to identify and deal with them. There are six factors that will be asked to officials whether these are really the challenges that they are facing right now in every practice. Those factors are **Infrastructure Development, Law and ICT Policy, Management, Equity Issues, Digital Divide and Privacy and Security.**

- Secondary Data

The other sources for this research will be conducted through the academic journal, report on the successful cases inside and outside Cambodia, law and regulation, literature, seminar and conferences related to E-Government. Secondary data will be used to compare with the primary data and both will be analyzed for the better result of the research. Secondary data can express about the ideas from various authors and scholars who are interesting in the same topic. On the other hand, citizens' satisfaction and participation are indicator to measure the success of E-Government. Therefore, report on citizens' satisfaction on the quality of public service by E-Government and the number of users will be collected in order to understand more about the people idea and satisfaction in E-Government. Within this method, we can figure the impact of E-Government in Cambodia.

**c. Data Collection and Analyzing data**

- Data Collection

The sample of the survey is the officials who are working in E-Government sector in five ministries which are trying to implement and develop the E-Govenmnet system to provide public service to citizens more effectively according to the strategy of public administrative reform from the Royal Government of Cambodia. Those officials will be asked about their experience and knowledge in the E-Government sector and we will figure their opinion and strategy in order to make E-Government in Cambodia can be improved and developed like the other developed country in the world. Actually, officials in Cambodia received so many support and training course about E-Government from some develop country however there are still remain more challenges that keep the E-Government remain unsuccessful.

- Analyzing Data

Data collected will be analyzed by the SAS University program. We will combine the statistical data and theoretical and compare them to achieve the final result of this research.

## **Chapter II: Literature review**

### **2.1 Definition of E-Government**

E-Government has been defined in so many different ways by different people, countries and concepts. Fundamentally, we can see that E-Government is the electronic government which consists of government and

technology combine together to offer service for other institution and service.

According to Gran and Chau, E-Government is the transformation of the way in delivering information and communication by new technology (ICT) which consists of three purpose: (1) to provide high quality service and develop the public service delivery system; (2) to create effective communication management between institutions and citizens; and (3) to support economic and social development through business development, civil society development (Grant & Chau, 2014).

In addition, World Bank also gives definition to E-Government as the development of government administration and public service by using the Information and Communication Technologies (ICT) to improve the efficiency and effectiveness and increase the level of transparency and accountability of government. Specifically, E-Government is a project that helps government to achieve its goals as following:

- Reducing cost: reduce processing costs and operation and make the decision making process more concisely and consume less time than the traditional way.
- Promoting Economic development: Provide good business environment by reducing the complicated administrative process and corruption in the business registration and obligation.
- Enhancing Transparency and Accountability: everyone can access to database and information to insure the transparency and accountability in government.

- Improving Service Delivery: reduce bureaucracy and the quality of delivery the public to citizens and business people. It helps to increase the accessibility and reduce the time consumption and cost of processing.
- Improving Public Administration: improve the administrative and management system in the institution to be more effective and efficiency. Through the E-Government system, government can manage human resource, expenditure and financial management more effectively and easy to control, manage and analyze all the data.
- Facilitating an e-Society: encourage human resource to learn and develop in the new technology so that we can increase the knowledge of E-Government to people and later on it will increase the participation in using E-Government. Government tries to promote E-Government through training course and course module in schools and university. (World Bank).

Moreover, E-Government is just the main term for government. There are so many terms related to E-Government. They are also part of E-Government but in the small factor. Those terms are as following:

- eAdministration: a domain to improve the internal workings of the public sector including cutting process cost, managing process performance, making strategic and creating empowerment.

- eCitizens and eServices: deal with the relationship between citizens and government including the three element; Talking to citizens, Listening to citizens and Improving public service.
- eSociety: deal with the relationship between public institutions and other institutions including private, public sectors and any kind of organization in society. This corporation will improve the work between business and government for economic development and build good partnership with the other institutions (Egov4dev).

## **2.2 E-Government Models and Maturity Models**

### **2.2.1 E-Government Models**

There are four main stakeholders participate in e-Government such as Government, Citizens, Business and Employees). These stakeholders create three models of interaction between their relationships. According to Zachary and Jared, e-Government illustrates 3 interaction as following:

- Government and Citizen (G2C)
- Government and Government (G2G)
- Government and Business (G2B)

#### **Government to Citizen Services**

G2C services are the services that government provides to their citizens which is called the public service. These services provide information and assistance to citizen by using internet. They do not have to come to the government office but they can access it anywhere and anytime. People can

renew their licenses and pay their bill by using online transaction. They can check the available time and make appointment with the government official at ease so they do not have to come to the office and queue for the long time. G2C will provide the convenience service to the citizens as the customer in the fast and easy way.

### **Government to Business Services**

G2B services will provide the easy way for business people to get access to their information related to business registration and investment information by accessing to the ministry website. Businessman can receive information from the office and they can submit their inquiry and application directly by the website without coming to registration office. They can pay the transaction fee and registration fee by the online payment with cooperated banks of the government.

### **Government to Employee services**

G2E services provides the connection between ministry or institution with their employee and vice versa. Employee can access to the institution management system and information by using intranets in their office. They can communicate with each other using the intranets system and there is content management systems and email or messaging system for them to use for communication within the institution.

### **Government to Government Services**

G2G services give the opportunity for ministries and agencies to get connected between each other. They can request for information and service and they can communicate to each other by using internet and database system. (Zachary and Jared, 2015).

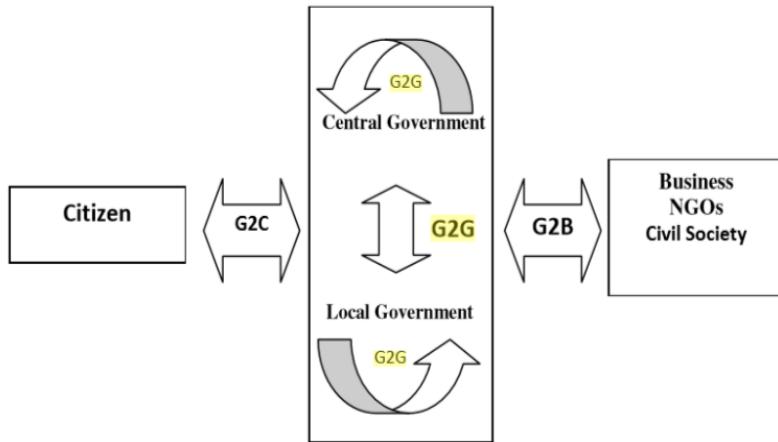


Figure 1: Interactions between main groups of E-Governance

### 2.2.2 E-Government Maturity Model

There are many studies regarding to the E-Government Maturity Model and they have developed into different stages of the E-Government Maturity Model. Those models have some similarities and differences. Therefore, there is a comparative study on the E-Government Maturity Model. The Maturity Model is used to rank the countries in the world about the development of E-Government in those countries. Abdoullah, et al. had made a comparative study on the 25 E-Government maturity model to figure out the similarities and differences of the features and stages that they are using in their models. This study also illustrates the weakness and strengths of those models. This comparative study will help this research to find out the stage

that government in one country belonging to. Among the 25 models, there are a few popular models that have been using in order to rank the E-Government in other countries around the world.

### 1. United Nations Maturity Model

The United Nations built up its own model for ranking the E-Government of the countries in the world which are the member of UN. The UN models consist of four stages as following:

- The 1st stage is “emerging information” services: Government develop the webpage that provide information and data to the public.
- The 2nd stage is “enhanced information services”: Two way communication will be introduced and updated on the one way communication.
- The 3rd stage “transactional services”: There will be interaction between citizens and government through the transactional service or online communication and online transaction.
- The 4th stage is “connected services”: At this moment, citizens can provide feedback to the government agencies regarding to their services. Web 2.0 tools will be used by the citizens to express their opinion as the customers who are served the public service from the government.

### 2. Hiller and Belanger Model

Hiller and Belanger created a maturity model of e-government which has five stages as following:

- The 1st stage is “information”: At this stage, official websites are created to provide basic information.
- The 2nd stage is “two way communications”: At this stage, the government and citizens can make communication between each other through the website.
- The 3rd stage is “transaction”: Citizens can use the online transaction to pay the fee to the government and they can consume the public service through the online source.
- The 4th stage is “integration”: There is connection between government agencies in one electronic portal which means that citizens can access to all the public service within one single portal.
- The 5th stage is “participation”: Citizens, at this stage, can participate in the political decision by doing the vote online and they can express their feedback and comments in the website.

This comparative study showed that there are a lot of similarities between each model. Some of them have different number of stages and different names but the meaning and process are almost the same. Therefore, this study claimed that even the 25 maturity model of E-Government has different names and stages but all of them cover the same features as the following:

- “One stop shops”: “One stop shops” is the one single office or portal that the public can access to any kinds of services of E-Government.

- “Customer centricity”: The services are created according to the customer’s need and it makes customers feel convenience using these services. It means that customer can give suggestion and feedback and the government designs the service following what the customers want.
- “Interoperability”: Each government agency cooperates with each other in term of exchange information and data through the electronic portal.
- “Personalization”: Citizens have the right to alter or customized the function in the E-Government portal according to their interest.
- “Payment”: At this point, citizens can do online payment for the public service by using electronic banking or credit card.
- “E-participant”: People can make decision in voting by using online voting process and they can also participate in any government activities such as surveys, petition and data collecting. (Abdoulla, et al. 2014)

Therefore, each country can study about their E-Government and see the process and develop of their E-Government at the current situation. They can compare the maturity with other countries so that they can know to develop their E-Government to be more competitive compare to other countries.

### **2.3 Challenges of e-Government**

E-Government actually is not focusing on possessing and using hardware instrument like computer. It is more emphasizing on the Information and Communication Technologies (ICT) as a whole. Hence, Governments generate the information into soft copy and publish it in the digital format for citizens to access them more easily. This process is involving the interaction of the participation of citizens. People participation, processes and organization distribute 80 percent in the success of E-Government while the technology is at most 20 percent (InfoDev, 2002). E-Government is believed as a new approach of evolving the way of using information and communication technologies from the traditional way to modern way by government to improve the public services. Participation, transparency, effectiveness and accountability are believed as the powerful components enhance good government (Song, 2006). Government needs to encourage e-participation by introducing four interactions as Government to Citizen Services, Government to Business Services, Government to Employee Services and Government to Government Services. They also raised the main issues of E-Government as following:

- Administration: Introducing citizens the convenience experience of receiving the information from their administrators by the electronic media.
- Economy: Increasing job opportunities in the telecommunication sectors.
- Education: Encouraging the education of IT in schools and universities as well as in the government.

- Security: Increasing the citizen confidence in the security and privacy of using digital information.
- Infrastructure scalability: Improving and creating more infrastructures to make more feasible accessibility in the new technology. Internet access, databases, connectivity and application should be built carefully based on economic considerations, technical feasibility and requirement.
- Corruption: Citizens couldn't receive the information and resource due to the act of corruption.

According to their study, E-Government is really a crucial factor for good governance. However Kenya is facing many obstacles in its process of creating the E-Government. Infrastructure scalability, corruption and insecurity are the most concern issues for Kenya E-Government. (Zachary and Jared, 2015).

## **Chapter III: E-Government in Cambodia and its evolution**

### **3.1 Evolution of E-Government in Cambodia**

Cambodia is a developing country which is striving for the improvement in all sectors. As an emerging economy country, Cambodia has utilized the E-Government system to develop the public administration. The Royal Government of Cambodia (RGC) has put much effort in developing Cambodia from the destruction until nowadays. As the result, for these last two decades Cambodia has built its economic and social development to the next level following the National Strategic Development Plan and Rectangular Strategy. Cambodia achieved the remarkable economic growth of 7% which shows the sustainable development in Cambodia in recent year. This success is leading Cambodia to make further development to follow up with other developed countries in ASEAN. The Royal Government of Cambodia has developed the “Rectangular Strategy” involve with the National Strategic Development Plan (NSDP 2014-2018) to show the political commitment for the upcoming five years development.

The Rectangular Strategy-Phase III of Cambodia has illustrated in the graphic, could be seen in Figure 1.1. It presents the core of government strategy is the Good Governance which consists of four elements such as Fighting Corruption, Legal Judicial Reforms, Public Administration Reform and Reform of Armed Forces. It mainly shows that Good governance and

Rule of Law are really important for economic and social development in Cambodia.

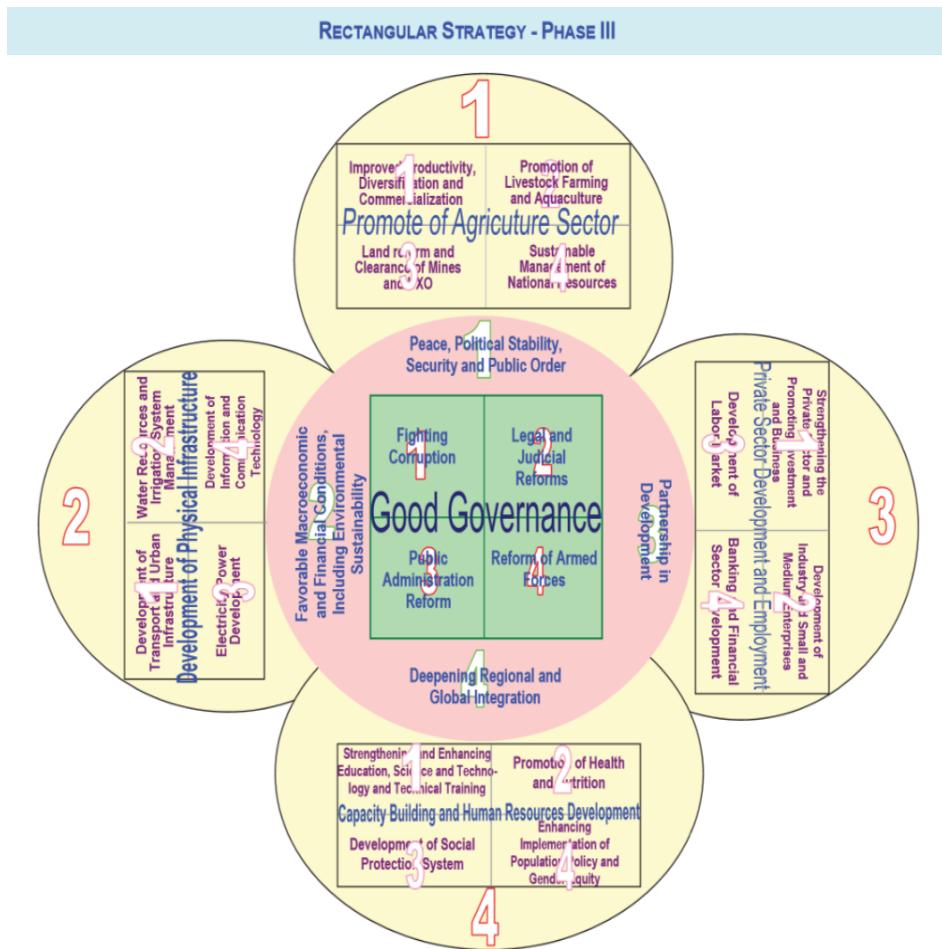


Figure 2: Rectangular Strategy

The National Information Communications and Technology Development Authority (NiDA) has established in 2000 to enhance the E-Government project. This project was funded by the Royal Government of Cambodia along with the technical assistant from the Government of the Republic of Korea. Meanwhile the Government Administration Information System was created as the first step of E-Government in Cambodia (Sang,

2008). In order to make this project success, participation and trust from citizens and stakeholders are needed. Government of Cambodia committed to support and provides a good environment to encourage the participation (Sang, Lee and Lee, 2009).

National ICTs Policy of Cambodia focused on 5 areas as following:

- Legal and Regulation Framework: NiDA has an important role to initiate the regulation of ICT services.
- Human Capacity Development: Ministry of Education, Youth and Sports will support the training course for students, teachers and government official on the knowledge of ICT and promote this the curriculum in educational system.
- Content Development: Government committed to develop the ICT system in rural area and ICT worked on the content development to develop the ICT network application and system.
- ICTs Infrastructure: ICTs infrastructure will be installed and upgraded throughout the country. Government will promote private sector to invest in ICTs infrastructure.
- Enterprise Development: Foreign investors are encouraged to invest in ICTs enterprise by getting incentive import tax rate and 100% equity shareholding. (Pho, et al, 2015).

According to National ICT policy of Cambodia, there are many relevant organizations need to work together to promote and develop the E-government system. Government of Cambodia also welcomes any expertise

from other developed countries and financial support from them in order to encourage this project to become successful. The Government Administrative Information System (GAIS) project was created by the government which consisted of four main applications such as, (1) The Electronic Approval System (EAS), (2) The Real Estate Registration, (3) The Resident Registration and (4) Vehicle Registration. (Road to e-gove Leewood Phu)

a. The Electronic Approval System (EAS)

The Electronic Approval System was created to allow each ministry in Cambodia can easily exchange document between each other by intranet and internet. This inter-ministerial system allowed each ministry to access document, exchange and transfer document and communicates to each other by using the electronic devices. Official can receive, send, store and archive all related document electronically

EAS has its objective as following:

- Introduce paperless office by using online and soft document to improve the quality and ensure the efficiency of government affairs.
- Create an administrative management system which is fast and convenience to use
- Speed up the process of business management rule
- Create and update the government administrative system to the next level
- Create National Integrated Information System by using the electronic infrastructure.

- Beside the usage of technology, the government also encourage the job opportunity for Cambodian people who are the IT engineers to participate in this E-Government.

EAS system includes six functions that allow the government to be able to exchange document between other ministries and other public institutions by using the electronic way. This function is called “Approval”. Moreover, they can use email and intranet to make communication between each other and they can use it to exchange information and data with the short period of time. Unlike before, we need to send the hard copy of document through the deliveryman from one ministry to another ministry. In addition, there will be a webpage bulletin board where the government can upload and establish any kind of information for the public to get easy to access. Public can access to ministry organization chart and information of people in the ministries. Especially, there is a database that allows user to store document and manage those document at anywhere and anytime.

The Real Estate Registration system is created to record all the transaction related to the real estate in Cambodia. This system will allow the government to be able to track the tax payment and any transaction which include the property data such as property location, size and price. Beside that government has the full function in the management on those property data such as transferring the ownership of property on the electronic system and it will show the tax price that the customers need to pay over the transaction. The system will create the statistics of the property that the government can

access and manage the statistics and information through the database. All in all, this system allows the government to have full control or management over the real estate registration information.

The Resident Registration system is the system that allows government to record the data on individual resident related to their family condition and personal information such as address, children, education status, marital status, etc. Government can keep the track and manage those data. When the government has those records, it will make government be easy to collect the income tax and other taxes related to real estate, and vehicle. Moreover, government can identify the individual status in case of something happens. This system allows government to change and update over the family situation such as when there is new birth or death in family and when there is married or divorce in one family. This record will provide the good statics over the resident. It will be the good source for government to manage the resident in the country.

The Vehicle Registration system is created to record the vehicle information including the vehicle ownership, safety inspection and tax payment. There are two separated systems which one is for the record on the auto mobile and the other one is for motorcycle. This system allows the government has management over the data related to vehicle registration number, date, address, name and other important information of the owner of vehicle. Government also can change and update the status of the vehicle when there is transaction on the vehicle such as selling or losing the vehicle.

Especially, government can use this record for the better tax collection over the vehicle. The other important thing, the vehicle users have the obligation to do the regular safety inspection over their vehicle, therefore, this system allow the government and the vehicle owner know the duration and date of the safety inspection. Particularly, this tracking allows the government to have a clear information and statistics on the vehicle registration and the ownerships.

(Capacity Expansion of the government administration information system in Cambodia.) In February, 2001, regarding to the Government commitment on administrative reform and political reform, the Government of Cambodia had requested for the loan from the Korean government under the Korea Economic Development Co-operation Fund (EDCF) to achieve the ICT sector reform. The Korean government approved the proposal in October 2001 with the amount of KRW 26,349 million (USD 20 million) to strengthen the capacity of the expansion of the GAIS project. In the agreement, GAIS project focused on four systems as following:

- (i) Development of administration information systems for resident, real estate, vehicle, and motorcycle management in Phnom Penh;
- (ii) Development of an e-government system including inter-ministerial network installation, government official homepage, and electronic approval system.

Subsequently, the project ran smoothly according to the plan. E-Government system was established and the administration information systems was in full

operation as well. This was the first project from the Government of Cambodia related to ICT therefore the Prime Minister really pushed this project to be implemented. In addition, vehicle and motorcycle management systems were also in practice with the remarkable result. Most of the ministries started to create their own homepages for public to access. However there were some challenges that the government were facing such as the regulation and security system. Some of the government homepages were hacked by anonymous and the law on cybercrime was still in discussion. On the other hand, the government strived very hard to fix these weaknesses and the next step; the government will promote this project into the provincial administration under the project name the Provincial Administration Information System (PAIS) through the loan from EDCF second stage. Particularly, bureaucracy and the lack of the rights to make decision at the lower level had slower the process of running this E-Government project.

Unfortunately, after the project was finished, the government of Cambodia was the one who carried out the project including the operation and maintenance. Therefore, the project started to be idle because of the lack of budget and skill of the official working on this project.

(Road to e-government)

Recently, the E-Government system in Cambodia has made the good connection between seven districts and seventy six communes. Those districts and communes can communicate and share information with each other by using the internet and email. All of the ministries are equipped with the

internet and intranet including the Local Area Network (LAN) and Wide Area Network (WAN).

Among all of the E-Government services, the EAS system operation is not in the good practice compare to other services which are widely use in the country. There are some problems with the use of EAS system because this system required the users to have knowledge of IT and this system could not connect widely to the sub national level administration.

The Real Estate Registration, the Resident Registration and the Vehicle Registration system are in good operation and are widely used in the city. All of the data that are in the hard copy documents are converted into the digital format and record in the database. These three systems have been successful because of the useful and the convenience way that these systems have provided. People have more confidence on the system as it show the transparency and they can do the registration without spending much time as before and all the data are recorded for tracking. All the information is protected and it is useful for the government to keep record of the registration and manage those data when there is problem that would occur in the future. When there is crime or accident related to the vehicle and real estate issue, those records would be helpful to use as evidences.

According to Secretary General of NiDA, the GAIS project successfully achieved 90% as it was expected. Three out of four applications that government mentioned have achieved its goals except the Electronic Approval System. They have found some challenges as well regarding to the

E-Government implementation in Cambodia. First of all, the official could not handle the workforce and the focal group which make less participation. As the suggestion, government should concern on the political will and management system including decentralization and administrative process in country. Building human capacity is also the main point to develop this project as well. At the same point, government also open for public to raise their concern and feedback related to the E-government system for the better development because Cambodia seems to be new into this high technology experience and people does not have enough knowledge about this as well. To solve these issues, NiDA worked with UNDP, UNSECO and other donors in order to provide training course to government official on the IT skill.

Since 2004, Cambodia had achieved the great impression as this country got the high growth rate during 2004-2007. Unfortunately, due to the world financial crisis in the year 2008, Cambodia got affected by this recession a little which made the growth rate in year 2009 felt down to 0.1%. However, after that year until now, Cambodia can keep the growth rate in around 7% which make Cambodia become more stable and developed in every sector. According to the statistics, in year 2013, Cambodia's GDP per capita is around USD 1,036 which turned Cambodia to be a Middle lower income country.

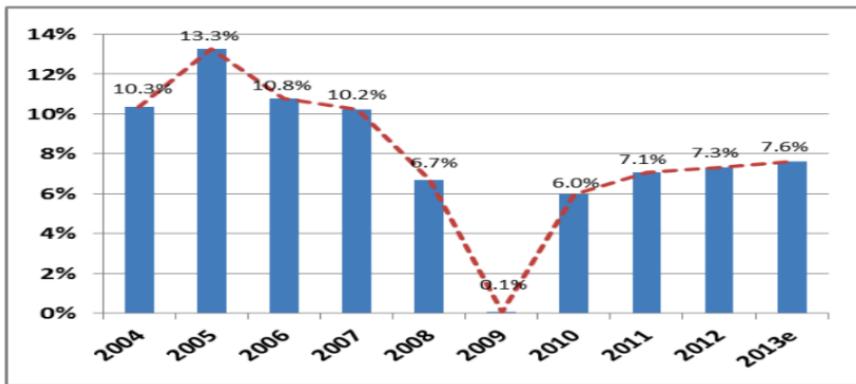


Figure 3: Growth Rate in GDP, Measured year on year (2004-2012)

Based on the new poverty line which was raised up by the government of Cambodia, Cambodia has reached its target to reduce the poverty rate in 2015. This success due to the achievement of economic growth and living standard of Cambodia is improving as well. The poverty rates decreased since the year 2004 and it continues to decrease to 19.8% in the year 2011. By the year 2015, the poverty rates went down to 19.5%. It was a great achievement as in 2007 the poverty rates was 47.8% and nowadays the poverty rate is below 20% as the national target of the government to keep the poverty rate below 20%. However there is a big gap between the poverty rate in the capital city and the poverty rate in rural area. This gap will affect the development which creates the gap between people who are living in rural area and the people living in the city. This will lead to a challenge of E-Government where people in city tempt to have more advantage of using the E-Government service while people who are living in rural area could not have enough ability to use this kind of service.

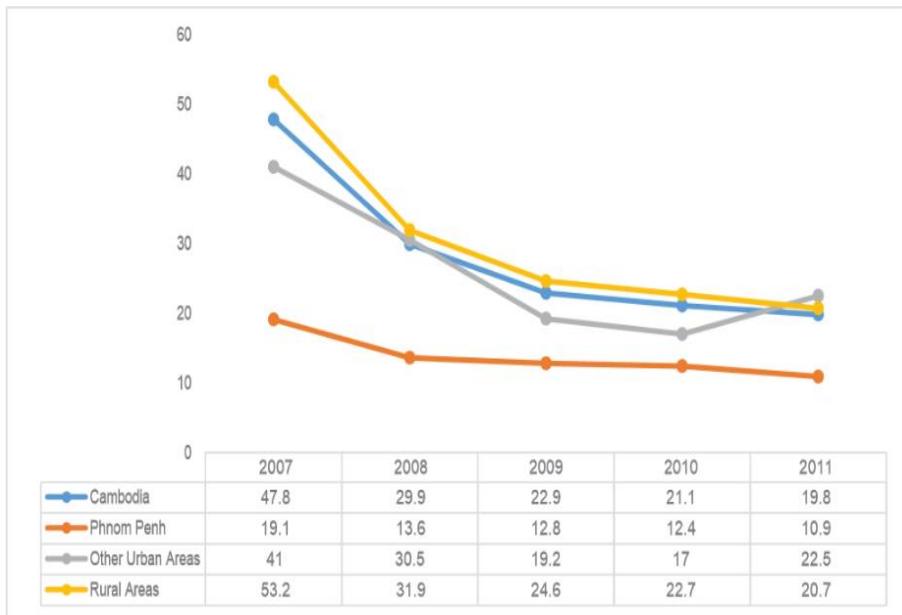


Figure 4: Poverty Rates in Cambodia by Broad Strata 2007-2011

It is really impressive that the graph showing the number of internet subscribers in Cambodia is decreasing dramatically from year to year. This can show the development and improvement of ICT in Cambodia. The graphs show that there were 320,190 internet subscribers in year 2010 and the number remained growing to 6,795,908 internet subscribers in year 2015. It is almost half of the population in Cambodia are using internet right now. It is a big movement of Cambodia in developing and introducing the new technology in Cambodia. This number can be made by the various factors such as the number of investment in the ICT sectors which made the price of internet and mobile data is competitive and there are so many promotions to attract users to use the technology. Moreover, the quality of network and service is improving and the fast internet fiber cable are equipped in the

capital city as well as in other provinces in country. Therefore, the citizens of Cambodia can enjoy the fast internet surfing and the fair price.

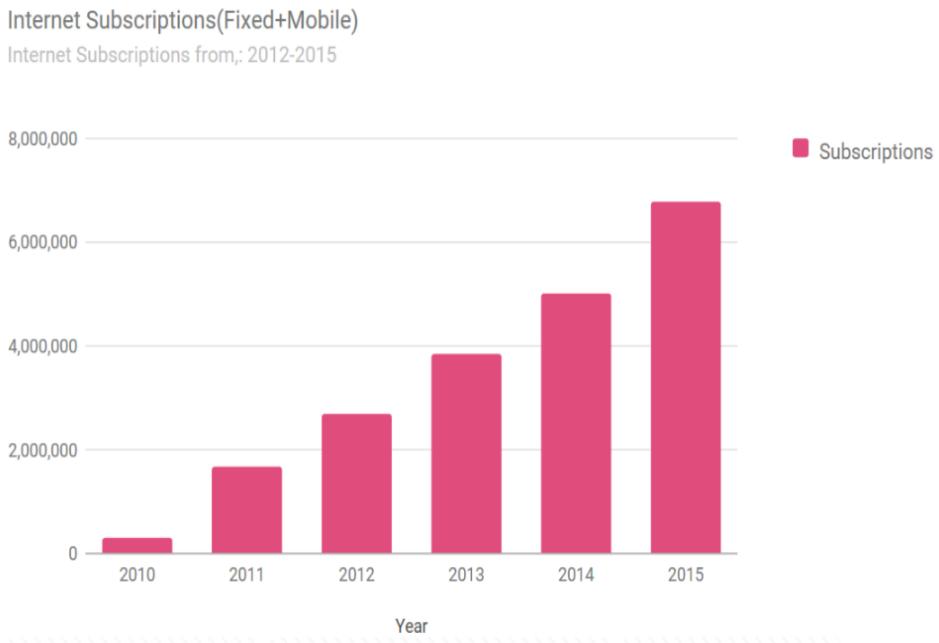


Figure 5: Internet Subscription (Fixed+Mobile) (2012-2015)

The number of people using mobile phone in Cambodia has been increasing dramatically from 2010 to 2015. In 2010, there is 10,537,628 users using mobile phone and it has reached 20,850,543 users in 2015. We can see that the amount of users is double within 5 years. It shows that people in Cambodia are interested in using mobile phone for their communication and connectivity. As the smart phone is very convenience and easy to use for call, message, email and browsing internet, therefore most people would like to use mobile phone for their communication. It also shows that people in Cambodia have more knowledge in IT than the previous time. This indicator can show

the fast growing of the number of mobile user in Cambodia and it is the good opportunity for Cambodia to develop the E-Government and to encourage them to participate.

#### Mobile Phone Subscriptions

Mobile Phone Subscriptions: 2010-2015

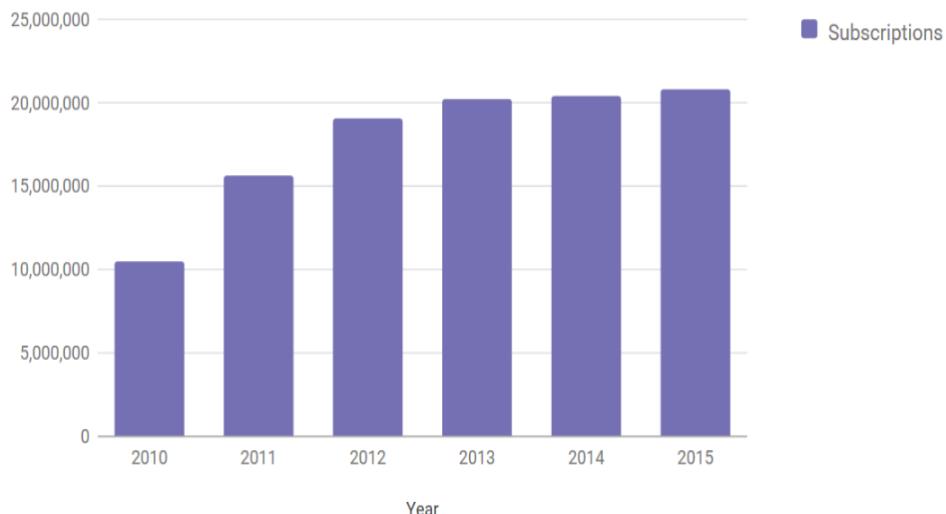


Figure 6: Mobile Phone Subscriptions 2010-2015

In 2009, NiDA and JICA worked together to survey and conveyed report on the e-Government Service Deployment plan. As the result, Cambodia e-Government has developed amongst all the ministries. Most of ministries have adopted the knowledge of e-Government and they are ready to move forward to the next step. However, the grade of ICT governance is increasing but it is insufficient. Most of official were complaining about the incentive and opportunity in this field. (NiDA and JICA, 2009).

As the vision of ASEAN to create e-ASEAN, many of ASEAN countries have received technology and knowledge support to improve the E-Government system. KOICA has supported Cambodia to create a successful E-Government, Cambodia ICT Master Plan has been implemented by emphasize on Empowering People, Ensuring Connectivities, Enhancing Capabilities and Enriching e-Services.

In this study, we can see that there are four approaches that make e-Government becomes successful including Participation, Infrastructure, Education or Human Resource and Transparency. Most of the authors above study about the issues and challenges of e-Government in developing countries. In case of Cambodia, e-Government is improving but it is still lack of quality because these four factors cannot be implemented successfully. JICA and NiDA conducted survey in the public organization in Cambodia to find out what makes e-Government in Cambodia moving slowly. Furthermore, KOICA helped to conduct the master plan for Cambodia to improve this sector as well.

#### MPTC action planned (priority policies)

In this fifth legislature, the government gives the priority for the Ministry of Post and Telecommunications (MPTC) to expand the telecommunication services and to lower the price of the services. In order to achieve this, MPTC has set some action plans as following:

- Improve the service quality and make post network efficient.

- Attract more investors in this field to upgrade the technology and offer the better price for the services.
- Developing the standard and regulation of ICT
- Increasing market growth through new technology use
- Promote E-Commerce to national and international market
- Build and repair the infrastructure at national and sub-national level
- Develop ASEAN-Cambodia Internet Exchange System.
- Developing E-Government by building and upgrading the infrastructure.

According to the political and administrative reform in Cambodia, Government of Cambodia has changed the responsibility of NiDA work to be under the supervision of Ministry of Posts and Telecommunication. As before NiDA is under the Council of Ministers, however to avoid the work duplication and bureaucracy, NiDA has been moved to Ministry of Posts and Telecommunication. E-Government is a part of responsibility of the Ministry which the department of E-Government responsible for the process and work of E-Government and work with other ministries in order to update and develop the E-Government in term of inter-ministerial work. It is showed that government tried to decentralize the work on E-Government to each ministries and ministry of Posts and Telecommunication is the responsible for coordination and cooperation the other ministries.

Ministry of Posts and Telecommunications has set its own vision in the law on the creation of Ministry of Posts and Telecommunications. The vision of

this ministry is to promote the effective network infrastructure connectivity and accessible services of Posts, Telecommunications, and ICT sectors across the Kingdom of Cambodia, the region and the world in order to contribute to socio-economic development and poverty reduction.

In order to achieve the vision, the ministry has established its missions as following:

- Manage the posts, telecommunications and ICT sectors in the Kingdom of Cambodia based on free market and social equity principles.
- Expand effective, reliable and secure backbone infrastructure nationwide.
- Further modernize posts, telecommunications and ICT sectors with high-quality, affordable price and nationwide service coverage.
- Develop e-Government at the national and sub-national levels to improve administrative management of the government institutions and to enhance timely, transparently, effectively, safely and economically public services.
- Mainstream awareness on the use and the benefits of ICT through wider dissemination, training and capacity building for officials, students, and the private sector.
- Encourage investors to modernize the posts, telecommunications and ICT sector, and organize efforts to promote research and development in the ICT sector.

- Encourage posts, telecommunications and ICT operators to comply with relevant regulations ensuring fair competition and protecting the consumers' rights.

Recently, Ministry of Posts and Telecommunication have created its own policy which is called Information and Communications Technology (ICT) Development Policy 2020 in response to the world fast development of technology and in order to move toward the new technology in working process with the slogan “Toward ICT connectedness and readiness”. This policy is mainly focusing developing ICT factor in government in regarding to the other countries in ASEAN for better connectivity and communication. During the International Telecommunication Union (ITU) in Busan, South Korea, 2014, all the members of the union agreed on the development on the connectivity between each member to ensure the development on ICT and to decrease the gap of digital divide to help people to have the better life. They have found that Digital Divide is remaining the obstacle for people related to the use of internet and also the difficulty in infrastructure. Therefore all the members of Asia Pacific start to build and create the good infrastructure and policy to develop this ICT program in their country and make the good connectivity with other countries in region in order to improve the people living standard and environment surround them to be the modern living experience according to the new digital economic system. Particularly, ASEAN members have worked together closely in order to create the

integration and better connectivity between each other for the region development and economic development. ASEAN has created its own master plan for ICT development which was implemented in 2015 by focusing on developing the economics into the digital economy that is secure, sustainable and transformative and enabling innovative, inclusive and integrated ASEAN Community. The ASEAN ICT Master plan 2020 enables Cambodia to create its own ICT policy 2020 to adapt with the massive movement of the economy in region. In the ICT development policy 2020, E-Government is one of the important elements to develop this policy. Meanwhile, E-Government was under the sponsorship of Korean government since 2003. This project seems to be idle when the first stage was completed. Nowadays the government of Cambodia is trying to develop and promote this project by themselves through the government strategic plan and according to the administrative reform. Recently, the government have built the national information infrastructure and created some new software such as vehicle registration application, Accommodations registration and Electronic Approval System (EAS) and encouraged all the government officials to use official email and webpage. In addition, there are other new software that government has developed for some specific ministries to use for their public service offering such as Trade mark registration application for Ministry of Commerce, Tax system for Ministry of Economy and Finance, Automatic Costumes Data and Information Management system for Ministry of Health, etc. In 2016, 27 applications were created according to the needs of other ministries and

institution in order to make the administration work and other related work can process effectively.

*Table 1: E-Government applications in Cambodia*

Ministries/Institutions	Application
Ministry of Posts and Telecommunications	1. Human Resources Management Information System (HRMIS) 2. E-Document 3. E-Letter 4. Billing System
Ministry of Labours and Vocational Training	1. Enterprise Labour Registration System 2. Technical and Vocational Education and Training System (TVET) 3. Work allocation system
Ministry of Rural Development	1. Rural road registration system 2. Interior Administrative System 3. Human Resource Management System
Ministry of Woman Affairs	1. Administration Management Syatem

	<ol style="list-style-type: none"> <li>2. Human Resource Management System</li> <li>3. Information Management System</li> <li>4. Project Implementation and Monitoring System</li> </ol>
Ministry of National Defense	<ol style="list-style-type: none"> <li>1. E-Administration</li> </ol>
Ministry of Health	<ol style="list-style-type: none"> <li>1. Patient registration and management data system</li> <li>2. Financial management system</li> <li>3. Health training system</li> <li>4. Human Resource Management System</li> <li>5. National Health Accountability System</li> <li>6. Notification System on animal flu</li> <li>7. Illness management System</li> <li>8. Information Management System</li> <li>9. Ministry of Health Webpage</li> </ol>

Beside these applications, Cambodia still needs more application related to business registration mainly on E-Commerce and One Window

Service Office because Cambodia needs to make better connection system on One Window Service Office and E-Commerce to get into the ASEAN integration in 2015. To be ready for the integration, E-Commerce system and One Window Service Office are the sufficient factor to advance the economy development in Cambodia. The lack of these ICT systems is the obstacle for Cambodia to attract foreign investors and to develop economy. According to UN Economy news 2015 on Business and development, Cambodia was ranked 92 out of 130 countries on the E-Commerce readiness. Particularly, Cambodia are confronting with some barriers which slowdown the E-Commerce development. Those barriers are Security system of ICT and online payment system in Cambodia is not widely in practice yet. Significantly, people do not have enough confidence in using online transaction and payment because Cambodia does not have law on E-Commerce and Law on Cyber Crime yet. Moreover, the infrastructure of online business is still lacking of security and warranty. Therefore, the government of Cambodia has to find solution and make policy to show these problems. At the moment, the Law on Cyber Crime is still in draft and the Law on E-Commerce is still in progress as well with some issues that the government needs to discuss for more detail.

<http://www.phnompenhpost.com/moc-says-registration-online-will-boost-rank>

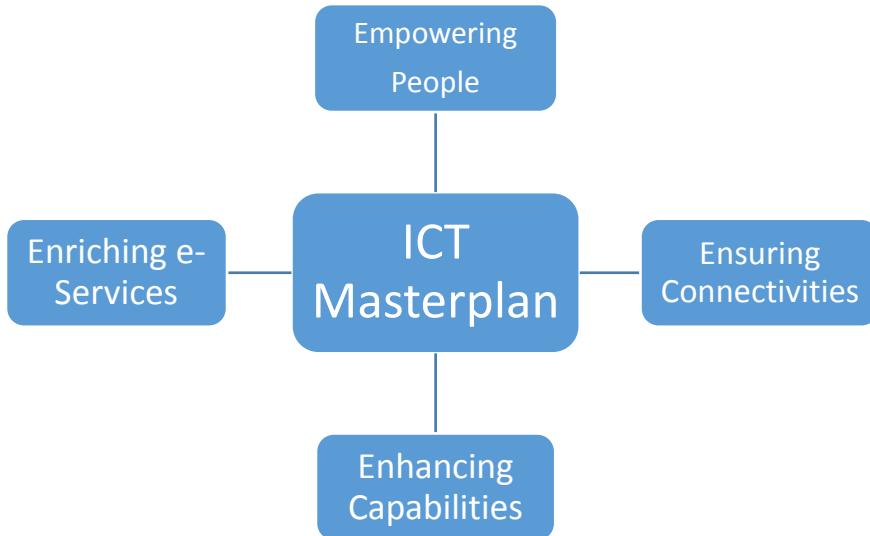
According to the former Minister of Commerce Sun Chanhol who was initiated the reform especially on the E-Commerce said that by 2015, Cambodia's ease of startup business in Cambodia ranking would jump from

184 to 21. It was really a successful reform for his term that he had initiated the setup of online business registration portal which helped to boost the number of business registration in Cambodia. As before, it was really complicated and bureaucratic as well as corruption along the way in order to set up and register for doing business Cambodia. It was the barrier to block the investor from doing business in Cambodia. Nowadays, it is an ease for investors who want to register their business in Cambodia by using the online portal of Ministry of Commerce and they can transfer the fee by using the authorized bank account of Ministry of Commerce. Moreover, people can access to Ministry webpage to get more information and read the newsletter of business in Cambodia by using the Ministry webpage at ease. This reform has showed the development of E-Government and E-Commerce in Cambodia.

Cambodian ICT Masterplan 2020, is mainly focusing on the development ICT in parallel with the ASEAN vision of ICT by setting up four main focal points such as Empowering People, Enriching e-Services, Ensuring Connectivities and Enhancing Capabilities. Empowering People is the main strategic plan which can promote the ICT development through training program for human resource development and making the e-Awareness of People of Cambodia to get to know and participate in using the online service. Secondly, this masterplan will stress on the infrastructure of ICT in Cambodia which include the legal framework and national ICT infrastructure and Cyber Security. In addition, to improve and reform the way of delivering public service, government will introduce the E-Services which consist of E-Government services, E-Public Services, E-Education and E-

Economy services. Lastly, government plan to enhance the capability of ICT in Cambodia by developing ICT into ICT industry, Research and Development center and implementing the ICT standards. The government of Cambodia believes that these four strategic would enhance the development of ICT and E-Government in the near future.

*Figure 7: E-Government four strategic*



### 1. Empowering People

This strategic mainly focusing on the Human Resource development in ICT sector. There are many People in Cambodia who do not understand about ICT. Cambodia aims to build the national ICT Human Resource Development System to provide ICT training to both public and private employee. The Ministry of Labor and Vocational Training (MOVLT) needs to responsible for this system by cooperate with the Ministry of Education, Youth and Sports

(MoEYS). In addition, Ministry of Posts and Telecommunication (MPTC) needs to provide training course on ICT to government official. At first, government officials need to have computer in their office and MPTC needs to responsible on setting up the computer network and train those government officials to know how to use computer. In order to make this project success, government will create ICT training centers in the city and also in the provinces to provide ICT education to all government official in both national and sub-national level officials.

## 2. E-Awareness

Government of Cambodia will create the social environment where people can access to the ICT in the ease and the government will promote the ICT system for people to use to improve their living standard and make them feel convenience to get the information and access to the government services. Cambodia believes that by 2020, 70% of Cambodia's citizen will be able to use the internet.

Significantly, NiDA will responsible to build Digital Mind and create the Social Campaign to promote the use of ICT. There will be a special organ in NiDA will work on the E-Awareness by conducting the survey and doing the analysis in order to initiate policies and projects to promote E-Awareness. Moreover Mass Media is the main resource to provide information to all the audience around the

countries to get to know more about the use of ICT and learn on how to use them.

### 3. Ensuring Connectivities

To ensure that everyone in countries can access to internet, government would put the priority on the connectivity of ICT. The government should encourage the telecom and broadcasting companies to build more infrastructure and providing internet service in the good price for all the citizens. This is the way to bridge the digital divide in the country. To achieve this goal, government have set five strategies to develop the national ICT infrastructure as following:

- Royal government of Cambodia responsible to create the social environment where people get to know more about ICT
- People can access to internet anywhere
- Encourage private sector to invest in ICT in Cambodia
- Provide the good condition to adopt new ICT with the advantages for user
- ICT infrastructure needs to parallel with the global concept especially with the ASEAN ICT master plan 2020 for the better competitiveness.

### 4. Legal Framework

Cambodia is still lack of regulation related to ICT and it was ranking at 118<sup>th</sup> among 133 countries related to the number of regulation related to ICT. Later on, Cambodia came to 89th in 2013 but it is still the slow develop of ICT related to regulation. Therefore, the

government of Cambodia should produce more acts related to ICT in order to take care of ICT development and to improve the E-Government system. There are some laws are still in draft. We hope that this ICT policy will boost the other related law to be adopted. Especially the law related to E-commerce, Cybercrime law, and E-Government act should be adopted as soon as possible.

## 5. Enhancing Capabilities

Cambodia wants to bring ICT into ICT industry. In order to develop this ICT industry, Cambodia needs to focus of ICT ecosystem, set up its own ICT standards and build the ICT research and development.

## 6. Enriching E-Services

E-Services is including the E-Government services and E-Public services. Firstly, the E-Government in Cambodia is needed to be expanding. In addition, the Royal Government of Cambodia has implemented five strategies to achieve the E-Government service expansion as following:

- Create the standard for E-Government and improve the technical factor.
- Create a clear policy to manage and develop ICT
- Ensure transparency and accountability
- Widely introduce new technology and service and provide more convenience services

- All E-Government projects needs to be supervised by one establish institution under a clear policy.

(KOICA summary ICT Cambodia)

### **3.2 E-Government Challenges in Cambodia**

There are many points that the Royal Government of Cambodia needs to work on to develop and expand the E-Government. However, they are still facing with many obstacle that make the working team could not develop this program to the next level. According to the study of Sang, he identified the challenges of the E-Government in Cambodia into 6 factors including, Infrastructure Development, Law and ICT policy, Management, Equity Issues, Digital Divide and Privacy and Security.

#### a. Infrastructure Development

ICT infrastructure in Cambodia remains the same as the first project with Korea finish. There is less development and upgrade of the infrastructure. As we can see that there is some slightly development but it still remains below the expectation. As the United Nation E-Government survey 2016, E-Government in Cambodia is still in low ranking comparing to the other countries in the world and in the region. There are many factors that lead Cambodia to face this problem as Cambodia does not get any support on the development of E-Government and the RGC does not put the E-Government as the priority comparing to the other factors. Without financial and technical support from donors, it seems to be hard for Cambodia to develop the telecommunication infrastructure. For instance, some of government

webpages were hacked by anonymous because of the lack of security. Therefore, ICT infrastructure is still in concern up till now even the infrastructure index is increasing from 0.0118 in 2008 to 0.2486 in 2016. (See Table 2) (United Nations, 2016). It is just the slightly increasing. However, The United Nation's E-Government survey report 2016, ranked Cambodia in 158<sup>th</sup> country among 193 country members of United Nation while Cambodia was standing in 139<sup>th</sup> place in 2008. The United Nation's E-Government report was measured by using the E-Government Development Index (EGDI) which was conducted through assessment of three dimension which are provision of human capacity, telecommunication infrastructure and online service.

*Table 2: Cambodia E-Government readiness index*

EGDI	Online Service Component	Telecommunication Infrastructure Component	Human Capital Component
0.2593	0.0507	0.2486	0.4785

*Table 3: E-Government Readiness Ranking in ASEAN countries (2008 Vs. 2016)*

Country	2008 Index	2016 Index	2008 Ranking	2016 Ranking
Singapore	0.7009	0.8828	23	4
Malaysia	0.6063	0.6175	34	60
Thailand	0.5031	0.5522	64	77

Philippines	0.5001	0.5765	66	71
Brunei Darussalam	0.4667	0.5298	87	83
Vietnam	0.4558	0.5143	91	89
Indonesia	0.4107	0.4478	106	116
Cambodia	0.2989	0.2593	139	158
Myanmar	0.2922	0.2362	144	169
Timor-Leste	0.2462	0.2582	155	160
Lao PDR	0.2383	0.3090	156	148
World	0.4514	0.4922		

b. Law and ICT policy

There are many law and policy have been drafted and implemented recently. However, law and regulation that related to E-Government is still limited and the government of Cambodia does not put much effort in producing and pushing these law to be effected lately. We can see that number of laws are still in draft for years and we do not know what the real reason that postpone those law to be implemented. Fortunately, the ICT policy has been in effect and we hope that this policy will be in practice and be effective to develop the ICT sector and E-Government program shortly. However, the cybercrime law and law on Electronic Commerce are still in draft since the year 2008. Cambodia definitely needs those law and regulation in order to upgrade and expand the E-Government program as other countries in the

world. Cambodia is really in the slow process comparing to the neighboring countries.

c. Management

E-Government program in Cambodia was supervised by the GAIS and NiDA but these agencies do not perform well in leading this project. After the first project with the Korean government had finished, the project seems to be idle. There is very slow process and there is no clear management and goal. NiDA which was under the Council of Ministers, was move to stay under the management of Ministry of Posts and Telecommunications. There is no new role and clear structure in management is established yet. Even there is E-Government department in the MPTC, but that department is not powerful enough to work with other ministries. Therefore, each ministry needs to work on their own to develop the E-Government. The Prime Minister encourages all the ministries to improve their management on the development of the E-Government in their own ministries. NiDA of MPTC has its role as coordinator and supporter related to technical and human resource development at the moment.

d. Equity Issues

Women in Cambodia used to think that they do not have equal rights to men in terms of education and technical work. Most of them have no interest in technology and the literacy of women in Cambodia was below the men. However, nowadays women have the same rights of men in Cambodia and they can do anything and learn whatever they like. Even the number of

women study Information Technology is lower than man but the number of them enrolling in IT education is increasing. Equity issues is believed not the serious challenge anymore in Cambodia. According to the fast economics growing in Cambodia, both men and women achieve the same treatment in term of education.

#### e. Digital Divide

Sang mentioned in his research that digital divide was the greatest challenge of the E-Government in Cambodia as it was hard for people in Cambodia to get access to internet with some constrains such as the price of internet using, the skill of using ICT, and the ICT infrastructure was still in the poor condition. There was a big gap of ICT usage comparing between capital city and the other provinces. The literacy rate played the important role in the digital divide as well. People in Cambodia could not access to the internet because they do not understand English well and most of the information in website are in English and the number of Khmer language website is still in the limited number and they are not updated as well. Moreover, ICT infrastructures only develop in the main city but at the countryside, the infrastructure is in poor condition due to the lack of demanding of using the ICT infrastructure.

#### f. Privacy and Security

The capability of government official related to the ICT is still in concern. Anti-cyber-crime law has not yet been adopted and the security system is not well protected. The technical staffs could not handle the

problem related to hacking and stealing the information from the government website. Cambodia is in need of technical training and support related to the ICT security and how to prevent the hacker against the government. This is the biggest challenges that Cambodia is facing right now.

## **Chapter IV: Research Finding**

### **4.1. Data Collection**

This chapter is going to show the research finding by using the interview method with the actual government official who is working at this field of E-Government. This research is focusing on them because these people are working in this related sector and they have learnt and experienced a lot with this work. They have experience both bad and good since the start of the E-Government in Cambodia so they will understand and know more about the nature of challenges and issues in their offices that slow down the development of E-Government. This interview with them will help this research to get in to the deep understanding about the challenges in E-Government in Cambodia especially with the services that have been implemented it Cambodia for a while. We will compare their opinion and experience and then we will figure out what are the similarity and differences and what are the cause that lead to the challenges and barrier for E-Government in Cambodia.

This interview is conducted for the purpose of collecting information and data on E-government in Cambodia regarding to the challenges that Cambodian government are confronting with. Therefore, this interview is intended to collect data and information from the government officials who are working related to this field and we would like to know about the challenges and obstacles that they are facing right now in order to develop my

research and to identify those challenges for further development of E-government in Cambodia.

In this case, we would like to keep the answer and the information of interviewee as confidential because some answer might be sensitive regarding to the government and the work confidential. The study will group and idea of interviewee and conclude in the finding of this research.

## **4.2. Analysis**

### **4.2.1. Response from the interviewees**

#### **4.2.1.1. E-Government Updated**

The government official at the Council of Minister has mentioned that Cambodia was suffering in the civil war which turned this country into zero and it was really hard for the Royal Government of Cambodia to restore this country back to stable like nowadays. Cambodia have been through a very long history of tragedy including civil and then the political instability up till the year 1998. The government tried to use many strategies including Win-win strategy, Rectangular strategy and National Development Plan to shape this country into the right direction. These strategies are mainly focusing on doing reform in every factor in Cambodia for better development and especially to maintain the political stability. Even Cambodia got the peace but there were still some political tension between the government and the opposition party. Nowadays, we can say that Cambodia obtain the peace and political stability that is the reason that government turn its focus from

political reform to administrative reform and aim to raise the economic growth for sustainable development. At first, Administrative reform is just the new concept for the government where every work in the government office following the traditional way for thinking and leading from the previous time. Bureaucracy and long processing paper work becomes the habit of the government in Cambodia. Government officials in Cambodia mostly are the old people who have lots of experience in the public work therefore all the work in the government office are following the concept of the old worker with no new initiative in the modern era. During that period of time the citizens do not really care about the public services and they only focused on their daily life for living. However, as the country keeps developing and people's living standards are developing; people start to understand more about their rights and needs in the society. In addition, people start to understand more about democratic and they know about their role and the government role in the society. Therefore, the government would like to pay more attention on the citizens' needs and their feedback is really crucial for the government use as an input in the government policy agenda. Citizens will show their concern and they will raise their idea and suggestion for government and government has to solve the issues and create policies in order to solve those issues as the citizens want.

As before the citizens is really scare and hate the government because citizens think that the government is the one who has massive power and they use the power to control the citizens. However, as the time pass by and the living standard and knowledge of citizens have improving, the citizens start to

change the concept about the government and they start to realize on the government as the voter realize on the politician. Particularly, government receives the power from citizens in order to serve their citizens. People vote for the political party according to their propaganda on the policy and strategies to improve the people life. In the return, the government must keep the promise in the election campaign to get more support from the citizens in the next mandate. Therefore the government will try to serve its citizens to the best and try to solve all the problem that citizens have especially related to the public service that the citizens is really need for their living in the country. At the moment, the administrative reform is taking place in every ministries and government institution in order to improve the administrative work for government officials and to update the public services to be more convenience for the citizens.

They have added that as in the 21<sup>st</sup> century, technology is playing an important role in any kinds of work both public and private sectors. Therefore, the E-Government was introduced to all the countries in the world. Cambodia as one of the member of ASEAN, has adopted the concept of E-Government as one of the administrative reform in the rectangular strategy. Actually, it is really useful to use technology or internet to connect people and government to be closer. The Prime Minister of Cambodia encourages the followers to equip the E-Government in their ministries and to improve the public service by using the technology. As the result, since the E-Government program was decentralized to be the responsible of the ministry by itself, the E-Government is working properly only in some ministries that the ministers put the priority

on the E-Government and they understand more about the technology. Mostly they are the ministers who are understood about technology and ICT. As the result, all of the ministries in Cambodia are connected by the technology. Each ministry office has computer and internet for the officials to use for their work. It is the way to improve the government officials to have more knowledge in the ICT and there are more training related to ICT for government official both inside the country and oversea training.

As updated, all of the ministries in Cambodia have their own official page which publishes the information and some services on their website. However, there is low participation from the citizens. There are some challenges related to these matters because some of citizens do not know about the official website and some of the websites are not well updated. It is not really useful and convenience for citizens yet. Moreover, people could not ask for information or there is no one who can answer to the people's questions in the webpage. Subsequently, the Prime Minister of Cambodia has established some new concept idea of E-Government in Cambodia which adapt to the real situation of Cambodia right now. All of the interviewees mentioned about the Facebook page of their ministries which the Prime Minister encouraged all the ministries to have their own Facebook pages to connect with the people.

#### **4.2.1.2. Facebook government**

In September, 2015, the Prime Minister, Hun Sen has created his own official face page account to encourage the other fellow government official to use Facebook Official page as the main source of E-Government. During that time, the Prime Minister managed the page by himself and he always post

information and his working activities on the page. Therefore, people can see the Live Video and information posting on his official page. The Prime Minister announced and encouraged all the ministries in the cabinet meeting to create their official page on Facebook to share information and to receive any concern and feedback from the citizens. The Prime Minister Facebook Official page name is “Samdech Hun Sen, Cambodian Prime Minister”. He received lots of support from the citizens who are using Facebook as the social media. He was really glad that there are many number of Cambodian people have used Facebook and supported his page. Since he created this official page, he has received many comments, complains and requests from the citizens related to various issues in the society. Nowadays, there are estimated 9 million likes on his Facebook page. Therefore, the Prime Ministry believed that Facebook is the good start for Cambodia in term of E-Government as there are many Cambodian people using Facebook and Facebook becomes the best tool for Cambodia to introduce the concept of E-Government. It will obtain more interest from the participation and encourage more people to use the public services through the Facebook page which also link to the government official website. In 2016, Prime Minister has created the Facebook team to assist his work with the official page. Their work is to collect the comments from people and report them to the Prime Minister. They assist the work related to the content of posting and live video of Prime Minister during the official events. At the same time, Prime Minister expressed his Facebook page as the sample for other ministries to do the same. He announced that all ministries including the sub-national level, need to

create their official Facebook page to get connected to the citizens and make them feel closer to the citizens. This tool is really help Prime Minister to know and understand more about the work of government officials at the lower level because he can receive the complaint from the citizens when they are not happy with the government officials related to public service or in case there is corruption or ignorance to the request from the citizens. For instance, the government official from ministry of interior has raised that there was a land dispute which lower government officials could not find the best solution for citizens and they ignored this issue. The citizens has reported to the Prime Minister Facebook page and then the Prime Minister had made the best movement to solve this problem and give punish to the lower government official who did not perform well with the citizens.

As the result, nowadays, all the ministries and other public institution have created the official Facebook page and Facebook team to manage and give response to the citizens as soon as possible. Within the Facebook page, government can establish all the information and news as well as announcement for citizens. Citizens can get into the Facebook page to get the information and download any documents from there. If they have any concern or request, they can leave comment or leave message to the Facebook and the official will give the response as soon as possible. This is the new way of E-Government that work in Cambodia nowadays. Each ministries, use this tool to promote their works and policies and they have shown their working activities to the citizens and the information is really updated for the citizens. It is really effective way to connect people and the government. The Prime

Minister believes that Facebook page will turn people of Cambodia to be E-People and they will participate with the E-Government very actively in the future.

#### **4.2.1.3. E-Government public services in some ministries**

There is developing in the E-Government in Cambodia but not every ministry achieves the success in implementing in E-Government. There are some remaining constraints to the development of the E-Government in Cambodia especially the way of introducing public services through online portal. It required a lot of things including the leadership and initiative of the minister. His Excellency Mr. Sun Chanhol, former minister of Ministry of Commerce (MoC) and recently the minister of Ministry of Public Works and Transportation (MoPWT) and His Excellency Mr. Hang Chounnarong are the ministers that are well-known in administrative reform. Both of them have developed and reform the administrative work in their ministries very effectively. Citizens called them the Ministers of Administrative reform. They have introduced the new way of working and they turned public services to be more attractive and more convenience for the users. Following are the online services that the government has been implemented for the citizens.

##### **a. Ministry of Commerce**

While Minister Sun Chanhol was the minister of MoC, he has changed the business registration process to be more convenience and he also introduced the online registration for everyone who wants to register their business in Cambodia and those people can make payment online with the

cooperated bank such Acleda Bank and Canadia bank. Nowadays, people can find information and required document for business registration through the ministry new portal which is [www.businessregistration.moc.gov.kh](http://www.businessregistration.moc.gov.kh). Within this website, people can check information and do the registration on the webpage anytime they want and it ensures the transparency and there is no commission and bribery that would occur as before. According to the World Bank's Ease of Doing Business Rank, Cambodia was rank 180 out of 189 countries in the business startup and registration in Cambodia (Kang, 2015). Former Minister, believed that this portal will make Cambodia achieve better score in the next year because this new webpage would help people to be easy to do the online registration by spending around 1 hour to complete all of the process while before they needed to spend several week to finish the registration business. In addition, the minister also encourages the team to create more online service for citizens which can benefit both government work and citizens. As the result, Minister Sun Chanthol was appraised by the Prime Minister and the citizens that he is the best minister in implementing the E-Government service in Cambodia. There are more online information and services of this ministry (Chheang, 2016).

b. Ministry of Posts and Telecommunication

The official at the E-Government department of Ministry of Posts and Telecommunication explained that this ministry is the core of E-Government sector as this ministry received the obligation from the Prime Minister to develop the E-Government system after the NIDA. This ministry has worked

with other ministries to help those ministries in developing the E-Government in their work. MPTC provides both technical support and training course for those ministries to understand more about ICT. On the other hand, MPTC has also developed all of the services to be available online as well. People can do the registration related to domain website, apply for licensing in providing internet service or open the internet shop and radio communication licensing. People can access to the website of MPTC which is <https://www.trc.gov.kh/>. This website is available in two languages, Khmer and English which make both Cambodian people and foreigner to get access to the ministry's services and information. There is statistics and more useful information in the website as well. Moreover, this ministry also responsible for the work related to post and the ministry is building the new online service which is E-Post service. E-Post provides many services in total 29 services will be implemented for people to use. These services including:

- Public Internet access point in post office: People can go to use internet at the post office for free.
- Postal Electronic Mailbox: People can send electronic letter which has an authenticated mailer and authenticated addressee.
- Online direct mail: this provides the opportunity to advertise your business and products through online website.
- Postal registered electronic mail: this service provides the well protected electronic mail and it is secured by the ministry.

In addition, the MPTC has worked with Ministry of Civil Service to create an application which is called “Cambodia Public Services”. This application is available to download both Android and IOS device. This application provides all the information related to public services in Cambodia including the fee of the service, procedure and application process. It is really useful and helpful for people who are seeking for information related to public services. It clusters all the information from other ministries in one application and it helps to improve the knowledge and make people can adapt to the new technology of E-Government. This portal will introduce all the online services and it helps to explain how to use it and all the benefit that people can get from the online services of public services.

Significantly, MPTC has created the National Institute of Posts, Telecoms and ICT to provide knowledge to people on the ICT. E-Learning is also available in Cambodia right now as well with the work of MPTC and Ministry of Education, Youths and Sports.

- Ministry of Public Works and Transport (MPWT)

The Minister of Ministry of Public Works and Transport has established the online registration service on the vehicle and people can check their vehicle information and registration information through the online service and there is QR code on the Plate number in order to scan to get more information on the vehicle. As before, people will stay the whole day at the office to get the registration vehicle number but nowadays, it is really easy for people to register their vehicle with the easy process and with the actual price.

They can get the application and information through online website and they can check the available plate number and the price as well. This is the improvement of E-Government services in MPWT. There are more online services that people can find within the ministry website. People can extend their driving license and apply for driving license test through the ministry website as well.

- The Office of Council of Ministers (OCM)

The Office of Council of Ministers is the core of the government which has responsibility to coordinate all the work between other ministers with the Prime Ministers. Moreover, this ministry coordinates on the policy and regulation, research and review the draft law or regulation of other ministries before submit it to the cabinet meeting. The interviewee who works at the Office of Council of Ministers told us that in 2014, The OCM created E-Document system and team to convert all the regulation and policy into the electronic document. An E-Document team was created to work on this system. Their work is to convert all the regulation from 1993 up till now to be soft copy by scan and type all the old document and store them in one database. Moreover all the new adopted law and regulations are scanned into electronic file and put them in the national archive. In the future, all the ministries can access to the database and they can search and find any document and regulation through the government portal for the reference. They can search and sort those documents with the easy way.

- Ministry of Interior (MoI)

Ministry of Interior has cooperated with MPTC to create online services for people such as Digital Identity (Digital ID) and Online passport application. The MoI have developed the new identity card which is safe and include the microchip that can show the identity and all the information of holder. With the new technology, the people identities are recording in one database and it can help the ministry to be easy to track the people and their information. When there is crime or issue occurs, the police will be easy to identify the people with their identity card and the online information of that person. People can check their card information and application information for the new identity card from the ministry website. Furthermore, People can download the passport application and check the price and application process through the ministry website which give the clear information to people to avoid the scammer outside to get the over price application.

#### **4.2.1.4. E-Government challenges in Cambodia**

According the interviewees, we have classified the challenges by the similarity and the actual experience of those interviewees who working in that field for long time. There is slightly different between the other studies with the actual experience in the country. By analyzing the answer from the interviewees from other ministries, we can identify the challenges of E-Government that Cambodia is facing right now as following:

- a. Government support and leadership

The government support is really the crucial factor that can encourage the E-Government project to work properly according to the plan. As we have

discussed in the literature review that the government really support the program but the actual activity is not really as what the government said. Especially, the follower of the government needs to put the Prime Minister initiative into action work as well. The government already gave the support but the minister does not give the priority on the E-Government program. As we can see, only the ministry that the ministers gave support and encourage to the program, can run the program smoothly and get many supports from the users. At this point, top-down approach is the best approach to push the E-Government project as the Prime Minister has decentralized the power to each ministry to do reform on their public service so the rest of the works are depending on the ministers and their followers. Leadership and management is the biggest challenge to develop E-Government. The leader needs to put much effort and create clear action plan, vision and structure in order to improve this project. In addition, there is the conflict of interest in creating this project because each ministry wants power and the benefit from this project therefore it is hard for those ministry to cooperate with each other to develop the program. The government should consider of this point as well.

In addition, clear working structure and motivation need to be had in the ministry. Government who are working in E-Government department would expect for motivation and incentive from the government. When there is no motivation and clear structure, there will be working conflict and discourage the government official to focus on their work.

#### b. Digital Divide

At this point, Digital Divide is still a challenge for E-Government in Cambodia. There is an improvement of the knowledge related to ICT in Phnom Penh, the capital city. However, at the countryside, the resident there has low knowledge on technology and most of people in the rural area are farmer and older people who are staying at home to look after their grandchildren while their parents as the labor force come to the capital city for work. Therefore, there is still big gap between people in the city and the rural area and it is the barrier to expand E-Government to sub-national level. There is no problem between the gap of women and men in Cambodia. The problem is related to the gap between people in the city and countryside. This is the reason that nowadays, the E-Government service users are mainly in Phnom Penh and for the provinces, there is only One Stop service which can develop the public service.

### c. Security

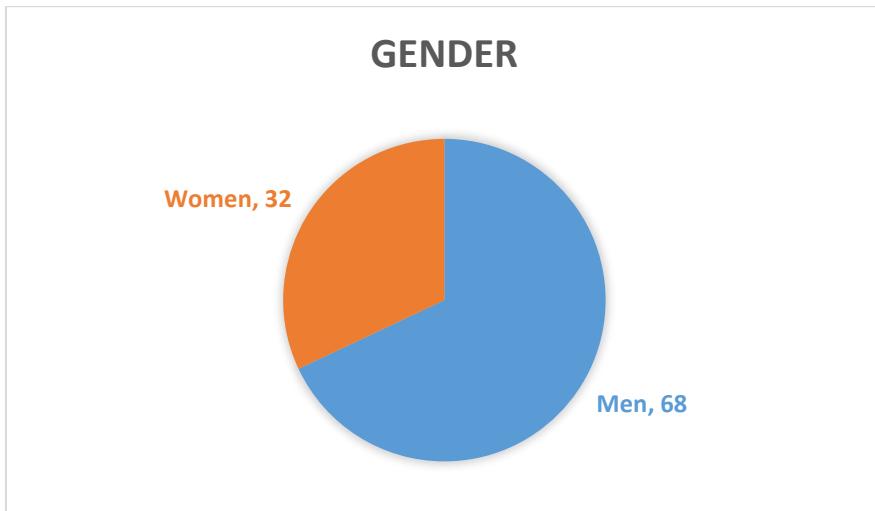
Security is still remaining as the concern for E-Government of Cambodia. As the law of cybercrime is still in the draft law, there is low confidence from the users to use the E-Government program especially with the online payment. There are so many issue related to the hacker and how to build the good network to avoid the cybercrime that is the reason that the cybercrime law need to be review for so many times and with many relevant institution and technical team. Government of Cambodia needs the technical and financial support to secure the E-Government program to avoid hacker and data stealing. Government would like to encourage Cambodian people to

work on the security rather than the foreigner as they can steal our data and information. However our human resource in this field is really rare which make the E-Government security system is still in concern.

#### **4.2.2. Result from the internet users**

##### **4.2.2.1. General information**

This survey was conducted to interview a hundred of male and female internet users from various backgrounds who are using internet or social media nowadays. The social statuses were divided into 4 different groups such as Student, Government official, Private Employees, and Businessmen. The interviewees were range from 18 to over 50 years old.



*Figure 8 Gender*

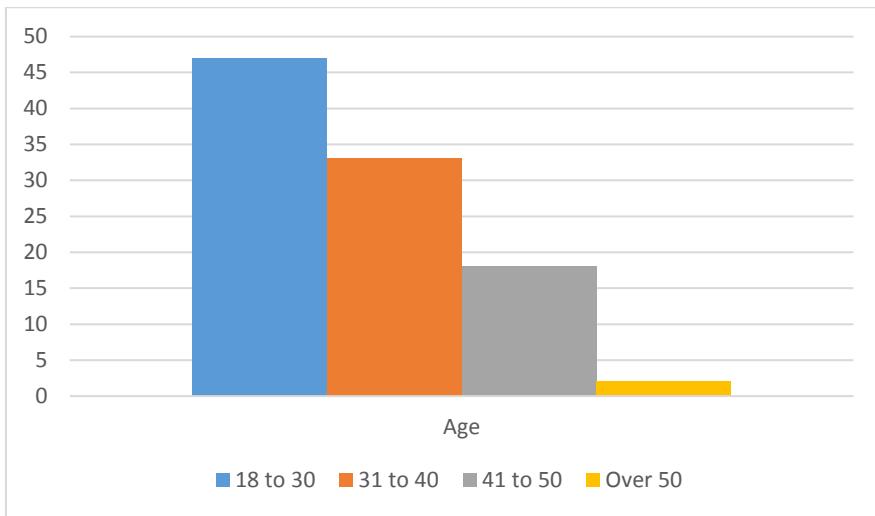
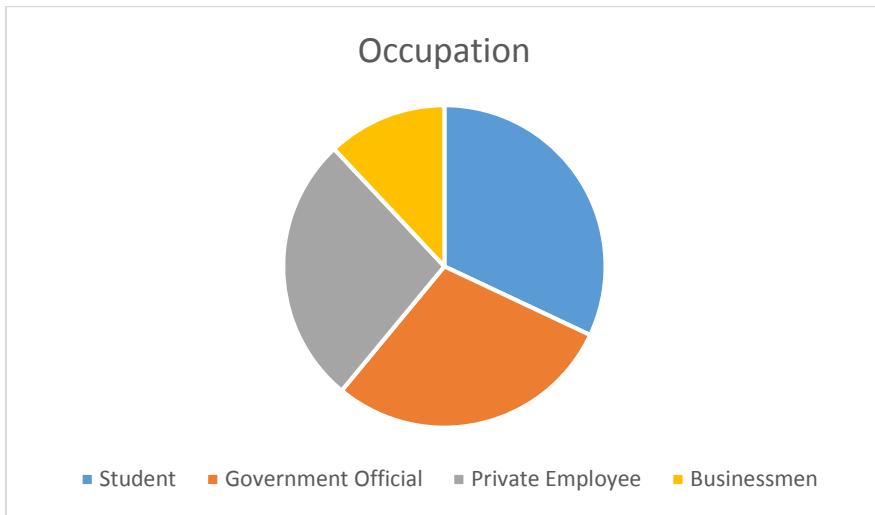


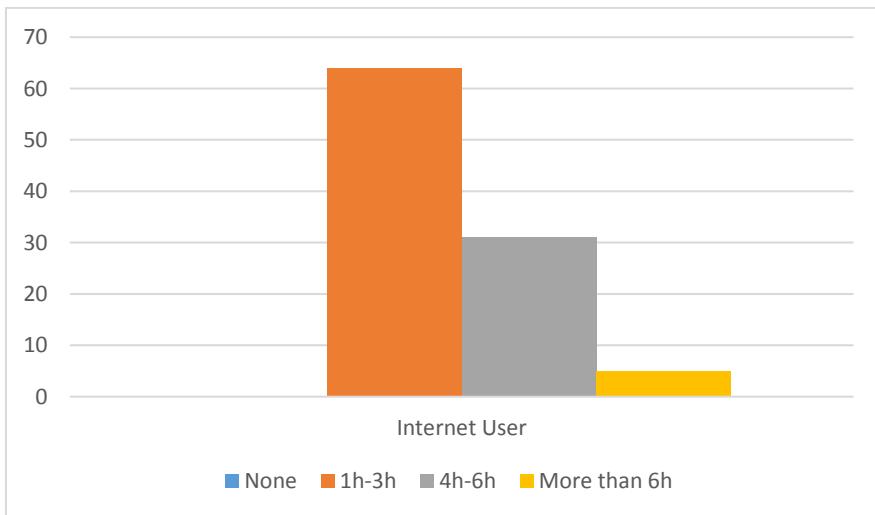
Figure 9: Age

The majority of the respondents are the teenager and younger adult who are in the age between 18 to 30 years old. This illustrated that most of people in Cambodia are young people and they are really interested in technology and especially social media for their everyday life and routine. However, the number of people who are in the age of over 40 are really adapt into the new era of technology as well. We can see the amount of respondent from that age is noticeable and it can show that not only young people are interesting in technology but adult and older people are using internet for their daily life as well.



*Figure 10 Occupation*

All the respondents are from various institutions including student, government official, and private employee. These three categories cover the majority of the survey answer. They are active in social media and they understand more about the ICT.



*Figure 11 Internet usage*

Most of the respondents spend around 1hour to 3 hours per day using internet for their entertainment and working. Most of the students use the internet for their research on study and beside that they use it for entertainment like watch movie, listen to music and get into the social media. Government officials surf internet for their research and work related to their job and they also use it for entertainment as well. We can say that most of the people use internet for entertainment as the main purpose beside their work. Nowadays, Facebook is a main tool for people to communicate and update all the news in the newsfeed from their friends and families as well as from the public figures. In Cambodia, people start to use Facebook as the path to connect one person into the big group of people. Even politician and seller, they start to have their own official page to advertise their products and vision.

There are only 52% of respondent who ever access to the government webpage. There are some reasons that they do not access to the web page. They do not know the webpage of government webpage and they could not get what they want from the webpage. For those who do not use the government webpage gave the reason that the government webpage is not really useful and information inside is not updated. They could not find the information that they need and they could not access to the information center of the webpage for other inquiries. People prefer to go to the ministry directly to get the actual information from the government official at the place.

The majority of respondents aware the Facebook page of the government rather than the webpage of the government. They like to get into the Facebook

page of each ministry because they can get the updated news and the news that related to the ministry sector. As the government has put much effort on the improving the public service through Facebook page, there are many people are interested with this new service because they can get the information from the webpage and they can get the response back from the government in the short period of time. Beside the update on the Government Facebook page, there are less people who know about other government online services such as E-Document from the Council of Ministers, Business online registration from Ministry of Commerce, Identification card registration from Ministry of Interior, Transportation registration from Ministry of Public Works and Transportation, DNS and telecom online licensing from Ministry of Posts and Telecommunications. Only people who are working related to the field know about those services such as the businessmen have known about the Business online registration and only government officials who know more about these online services. Student and other citizens do not know clearly about these services as there are less information and advertisement about these online services.

#### **4.2.2.2. Level of Satisfaction**

Generally, all of the respondents mentioned that they are satisfied with the new online services from government especially the new updated webpage and Facebook official page of government institutions. 60 of respondents over 100 showed that they are satisfied, while 30 are somewhat neutral, 7 of respondents are dissatisfied while other 3 are very dissatisfied.



*Figure 12: Level of satisfaction*

#### **4.2.2.3. Feedbacks and comments from respondents**

##### a. Management

According to the answers from the respondents, we can see that the number of people who know about the E-Government program in each ministry is really low. Most of them have experienced accessing to the official Facebook page of the each ministry to get the update news and to request for their concerns. Some of respondents said that not every Facebook of ministries provide useful information and be active. Some ministries pages have not update their posts every day and have not showed their activities for citizens to get the information. Therefore, they said that the management of E-Government is the main important factor to implement the E-Government in Cambodia. The majority of the respondents have raised this idea and feedbacks on the

leadership and management of the government official to be more active and get closer to their citizens.

b. Accessibility

The majority of respondents have stressed about their accessibilities to the E-Government program. There are some factors that they could not access to the program. First of all, they have no knowledge of the program which mean that the government has not promoted the program widely to all the citizens and the program is not convenience for people to get access to. The citizens would like to suggest the government to have an official announcement about how the program works and how to use it openly to the public. The government should promote it in their Facebook which there are many people using Facebook in Cambodia right now. Secondly, the infrastructure of E-Government is very low and people cannot rely on it. When government introduce something new for people, they have to teach people how to use it so people can understand more about it and they can adapt themselves in that new way.

c. Security

Most of the people still concern about the security of using internet as there are many threats through the internet and they could not find the one who are really responsible for the loss while using the internet. The cyber security in Cambodia is not strong enough to protect people and make people reliable. There were some hacking issues happened on the government official websites and they could not find the real hacker. They have added that the

online payment on the E-Government services is not convenience yet for them. Online payment is still complicated for them and the mobile banking in Cambodia is not really effective yet as there are small amount of bank that provide the online banking service.

## **Chapter V: Conclusion, Recommendations and Limitations**

### **5.1 Conclusion**

This study shows the different concept on the E-Government development. We try to understand more about the challenges of E-Government in Cambodia as there is no significant development with this system. There are many studies on the successful factor of E-Government in other countries which is successfully developing the E-Government. However there are less study on the challenges of E-Government and why some countries could not develop the E-Government in their countries like the other countries especially the developing country. To understand more about one country' challenges, we need to do the deep study and learn the real situation at that place. We cannot apply the other countries cases to one country. It can be different in term of political situation or population situation or the culture differences. Therefore, the study of challenges of E-Government in Cambodia can help Cambodia to identify the problem and find the solution in order to develop E-Government to be success. I would like to choose the interview methodology with the government officials who are working at that field so they have enough experience to understand about the root of the problem. They stay there and they experience it so their opinion and sharing would be useful and crucial for this study. On the other hand, we cannot see on the one side only, we have to see the other side as well which is the thought and idea of the citizens who are the customers and users of the public services.

Therefore this study aims to collect the data and opinion from both the government and citizens to classify and identify the real challenges which are the barrier to the development of E-Government in Cambodia. As we can see from other researchers and studies, there are many factors that make the E-Government becomes idle. There were a few studies on the E-Government of Cambodia and one study identified the challenges of E-Government in Cambodia into 6 points such as Infrastructure Development, Law and ICT Policy, Management, Equity Issues, Digital Divide and Privacy and Security. This research was done in 2010, so the purpose of this study is to update the challenges of E-Government in Cambodia at the current situation. There might be some differences between the year 2010 and 2017. Actually, according to the study we can see that some of the challenges are not the challenges at this moment anymore but some challenges are still remaining the problem to the development of E-Government. According to the study, the challenges of E-Government in Cambodia nowadays are the government support and management, Digital Divide, and Privacy and Security. E-Government infrastructure development in Cambodia is not the challenges anymore as most of the infrastructure has been built and it is not difficult for Cambodia to connect the infrastructure anymore. Furthermore, even there is still lack of Law and ICT Policy but at the moment the ICT policy is adopted and we hope that this policy can improve the E-Government system in the future. The main problem is the leadership and management at this moment, in order to improve E-Government, the leader needs to consider about these challenges and push this project to be success. Conflict of interest between

ministries is also the serious factor as well. Therefore the clear structure and job description including the share benefit should be clearly mentioned in the regulation to avoid this conflict.

## **5.2 Recommendation**

There are so many factors that the government should consider in order to make the E-Government of Cambodia to be success. The government should find the core of the problem and make sure that the problem will be solved with the clear action plan. There are a lot of policies that have been implemented but there is lack of monitoring and evaluation system which makes those policies remain not be able to solve the problem. In my point of view, after we identified the challenges, the government should find the solution to the problem as soon as possible. For instance, the E-commerce law and law against the cybercrime should be adopted because it can secure and protect the online service from any kinds of crime and accident that could occur. In addition the government should encourage young people to join the public sector work because they are the new generation that have good knowledge with the ICT. Cambodia has a lot of youth who has good education and experience both in country and abroad so the government should encourage them to join the government and assign them to responsible the important work with the supervisor who are the senior government official. Both junior and senior should work together so that they can improve the way of working in the government to be modernized. Actually, in Cambodia there are many senior government officials at the workplace and most of them are

the decision makers because they have lots of experience and leadership. However, they are not familiar with the technology and the modern way of thinking. Therefore, they should insert the young talent into their work as their assistant or advisor to help them with the technology or help them to give new idea which can be effective for this new era. This action can help to reduce the digital gap between older people and younger people in term of technology.

### **5.3 Limitations**

There are some limitations of this research as Cambodia is country which has not really open for the data source especially related to E-Government. It is really hard to get information about E-Government in Cambodia. Moreover, most of the document is in Khmer language and the data collection is not up-to-date. When we want to get data or information, we have to contact directly to the people in charge of the work at the ministry. Since, we are far away from Cambodia and the online source of Cambodia is scarce therefore this is the big limitation of the research. In addition, we cannot guarantee the bias of the interviewee's answer that is why the interview was conducted with the people in charge and we guarantee to keep their profile confidential. There is difficulty in contacting with the interviewee for interview because they are busy with their works and we have to translate the question between English and Khmer.



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# **Appendix**

## **Interview Questions for the Government Officials**

### **The Purpose of the study**

This interview is conducted for the purpose of collecting information and data on E-government in Cambodia regarding to the challenges that Cambodia government are confronting with. As a Master degree student at Graduate School of Public Administration (GSPA), Seoul National University, my research will focus on the challenges of E-government and its implementation in Cambodia. Therefore, this interview is intended to collect data and information from the government officials who are working related to this field and we would like to know about the challenges and obstacles that they are facing right now in order to develop my research and to identify those challenges for further development of E-government in Cambodia. We ensure that all the information will be kept confidential and it is only used for academic purpose only.

Thank for your cooperation.

### **Interview information:**

1	Date	
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2	Name	
3	Sex	
4	Occupation/Position	
5	Organization	

## Part I: Personal Information

1. Would you please give me brief introduction about yourself?
2. How long have you been working in this organization and this field?

## Part II: Interview question

1. Would you tell me about the development and evolution of E-government in your organization?
2. How is the management in this program? And how many people working in this program?
3. Are there any supportive (fund) and incentive for this program?
4. How is the implementation of E-government?
5. How is the evaluation and monitoring program that your organization has for the E-government project?
6. How would your organization respond to the feedbacks from the public?
7. What are the challenges that your organization are facing right now? And how can your organization overcome with these challenges?
8. What do think about the impact of the E-government project in your organization?

9. What is the plan and goal of the E-government project in this organization?
10. What factors do you think that can make E-government become successful in the future?
11. How does the government of Cambodia strive to develop the E-government? What are the main factors that the government of Cambodia emphasize in order to develop E-government?
12. Why do you think E-government is important?

I truly appreciate for your precious time participating and answering these question.

For further information and inquiry please contact:  
[chanpanha2016@snu.ac.kr](mailto:chanpanha2016@snu.ac.kr).

## **Questionnaire**

### **The Purpose of the study**

This survey is conducted for the purpose of collecting information and data on E-government in Cambodia regarding to the challenges that Cambodia government are confronting with. As a Master degree student at Graduate School of Public Administration (GSPA), Seoul National University, my research will focus on the challenges of E-government and its implementation in Cambodia. Therefore, this survey is intended to collect data and information from Cambodian

citizens as the users who are using public service related to E-government service from the Royal Government of Cambodia. We would like to know about your opinion and feedback of your experience using E-government service from some ministries in Cambodia which provide the public service through online platform. Your answer would be useful for this research in order to identify the challenges and suggestion from public opinion in order to develop and update the E-government of Cambodia into next level and it will provide the easy accessible for all citizens as well. We ensure that all the information will be kept confidential and it is only used for academic purpose only.

## I. Personal Information

Gender:

Male       Female

Age:

18-30       31-40       41-50  
 Over 50

Occupation:

Student       Government Official  
 Private Employee     Businessman     Other: \_\_\_\_\_

## II. Internet usage

1. How often do you surf internet?

None       1-3 Hours/day       4-6Hours/day  
 More than 6hours/day

2. What is your purpose of using internet?

Working     Entertainment     Business      
Study/Research       Other: \_\_\_\_\_

3. Have you ever access to government webpage?

Yes       No (Why? \_\_\_\_\_)

(Skip to question 6)

4. If Yes, What is your purpose of getting into government webpage?

- Searching for information
- Download document and data
- Read news and updates
- Access to public service
- Other: \_\_\_\_\_

5. What do you think about the government webpage/Facebook?

- Very satisfied       Satisfied       Neutral
- Dissatisfied       Very dissatisfied

6. Have you ever used or heard about these public services from government?

- Facebook page of each ministries
- E-Document from the Council of Ministers
- Business online registration from Ministry of Commerce
- Identification card registration from Ministry of Interior
- Transportation registration from Ministry of Public Works and Transportation
- DNS and telecom online licensing from Ministry of Posts and Telecommunications
- None

7. What are your opinion to improve the government webpage/Facebook page and online service?

- Provide clear information
- Always update information
- Security
- Infrastructure (Easy to use/access)
- Management
- Other: \_\_\_\_\_

8. Please give any additional suggestion and feedback about the online service of E-government of Cambodia.

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9. Please give us your idea how to improve the performance of government in order to provide better public service for you as the citizens:

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I truly appreciate for your precious time participating and answering these question.

For further information and inquiry please contact:

[chanpanha2016@snu.ac.kr](mailto:chanpanha2016@snu.ac.kr).

## 국문초록

# 캄보디아 전자정부 프로그램: 정책과제와 전망

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글로벌행정전공

전자정부는 기술발전이 심화됨에 따라 최근에 세계각국에서 화두로 떠오르고 있다. 기술의 발전은 행정처리를 보다 생산적으로 처리할 수 있고, 행정처리 과정을 낭비를 줄일 수 있다. 전자정부 프로젝트를 성공적으로 도입한 국가들도 많다. 그러나 개발도상국가들에서는 몇가지 제약조건들로 인하여 어려움을 겪고 있다. 전자정부에 대한 연구는 앞서 제시한 제약조건들에 대한 이해를 높이고, 제약조건들에 대한 이해를 바탕으로 해결책을 제시하는데 도움을 줄 수 있다. 개별 국가별로 정치 상황이나, 인구, 문화 등 환경이 다르기 때문에 다른 국가의 사례를 그대로 적용하기는 어렵다. 따라서 캄보디아 전자정부의 발전을 위해 캄보디아 사례를 연구하는 것이 필요하다.

이 연구의 목적은 현재 캄보디아 전자 정부가 직면한 과제를 분석하는 것이다. 캄보디아는 전자정부(E-Government)의 개념이 생소하고, 인적자원은 매우 부족한 상태이다. 전자정부는 공공 행정개혁의 가장 중요한 부분 중 하나이며, 모든 시민들에게 훌륭한 공공 서비스를 제공할 수 있다. 캄보디아 전자정부에 대한 연구들은 몇가지 존재하는데 그 중 하나인 2010년에 수행된 전자정부에 대한 연구를 살펴보면 6 가지 항목으로 과제를 정리했다. 6 가지 과제는 전자정부 기반시설 개발, 법률과 ICT 정책, 전자정부 관리, 공정성, 디지털 격차와 개인정보 보호이다. 따라서 본 연구는 캄보디아 전자정부의 현재 발전사항을 정리하고, 캄보디아 전자정부 프로그램에 대한 전문가 인터뷰 및 사용자 인터뷰를 바탕으로 한 정책적 제안을 하고자 한다.

주제어: 전자정부, 캄보디아, 공공행정, 공공서비스, 정책과제, 정책집행  
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