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Policy Formulation on Social Engineering Information and Communication Technology

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Abstract
Revolution in ICT has led to widening economic and social space, and causing widespread speculation and debate about the potential of ICT to improve human development (UNDP, 2005). Many technological and market developments have provided evidence that the Information Communication Technology (ICT) can greatly contribute to social and economic development of extensive, especially in developing countries (infoDev Project Concept Note, 2008). It has been recognized that the telecommunications services is the driving force of economic growth. In the future, the information is no longer the domain of the state, but also the public domain that can be followed by every member of the community, and even become part of the social construction in the context of ICT USO. This study construct institutional, socio-economic in social engineering ICT USO.
This study used action research approach based on Soft Systems Methodology with consideration of research emphasis on Institutional Strategy, in this case the researchers looked at the real world as a versatile system of human activity. This study analyzes the Information Communication and Technology Universal Service Obligation (USO ICT) using experience-based knowledge - moving between perceived about real- world (reality) and feeling about real world (actuality) to construct strategy in improving the performance of ICT USO. Improved performance of ICT USO need the systemic and holistic approach in policy formulation ICT USO through the National Medium Term Development Plan.
Keywords: Technological competitiveness, Institution-Based View, Information communication and technology, Universal service obligation

1. Introduction

In recent years, a number of literature has been to articulate the relationship between ICT and socio-economic development (Avgerou, 2001, Madon, 2000; Mansell and When, 1998). ICT contributes to social and economic development widely, especially in developing countries. Telecommunications services is driving economic growth (Waverman, Meschi & Fuss, 2005). It is not surprisingly that ICT has created new opportunities for economic and social development for developing countries and the poor (Hamelink, 1997, Pohjola 2002).
The problems arise, when some developing countries face a bottleneck in the development of ICT, including the cost of devices and connections, low speed and lack of quality broadband connections, the limited availability of ICT services at outside major cities, and the high levels of poverty and literacy disparity (ITU, 2012) which affects the digital disparity. Castells defines the digital disparity as "the gap of access to the Internet" (Castells, 2001, Christian, 2008). Norris saw the digital disparity as a "form of a gap in the online community" (Norris, 2001, Christian, 2008), Wilson III sees the digital disparity is the gap of access, distribution, and use of information technology and communications between two or more populations (Wilson, 2006, Christian, 2008). Digital divide as "the gap between those who do and do not have access to computers and the Internet" (Van Dijk, 2006, Christian, 2008). That is, the digital divide is a result of the digital divide will continue to grow if the technology is not used correctly (Camacho 2001).

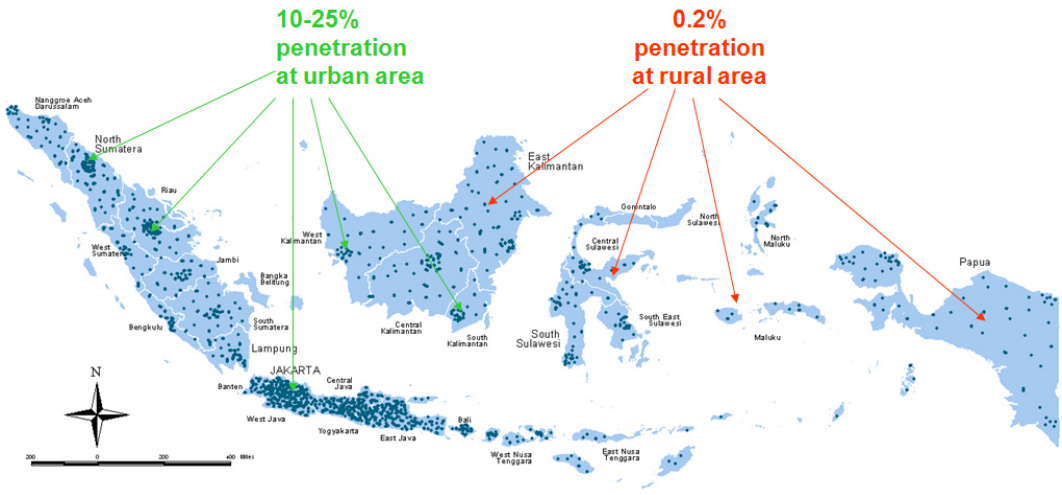


Figure 1. Penetration of telecommunications maps in rural and urban areas in Indonesia
Source: Sura, 2007

In fact, the majority of Indonesian people who live in rural areas is about 60% of the total Indonesian people. Rural areas is described with low economic productivity, high poverty, and poor quality of rural settlements. On the other hand, the level of poverty in rural areas of very high based on statistical indicators. The data obtained by the Central Statistics Agency (BPS) shows that the number of poor people in Indonesia from year to year tend to increase. Recent data show that the number of poor people in April 2011 reached 32.02 million and amounted to 12.49 per cent in urban areas. This shows that the percentage of the poor rural areas have more than urban areas. Unfortunately telecommunications services ICT penetration is still very small rural areas compared to urban areas.

Indonesia is an archipelago with a very diverse geographic characteristics and resources. There are many areas with good economic potential which needs the support of infrastructure, especially telecommunications infrastructure. The main problem in building rural ICT is a very high cost of investment and operation. While the revenue generated from the service is low. Therefore, ICT investments in rural areas, remote areas and border areas that do not have commercial value setting is done by the government through the Universal Service Obligation or the Universal Service Obligation (see Grimaud and Laffont, 2001). Many countries to address this gap use the Universal Service Obligations instrument / USO (universal service obligation) to reduce the ICT gap. For developing countries the Universal Service Obligations / USO is widely seen by politicians and policy makers as an important component of the development strategy of equitable redistribution to the poor and disadvantaged areas as part of the USO (Estache, Laffonty and Zhangz 2004).

2. ICT USO and Policy Formulation on Social Engineering

Revolution in ICT contributes to social and economic development widely, especially in developing countries (infoDev Project Concept Note, 2008). The concept of the Universal Service Obligation (USO) in Indonesia basically refers to the government's obligation to ensure the availability of public services for every citizen even though the state does not directly play a role as providers of public service activities intended. Provision of access to telecommunications and information services USO in Universal Telecommunication Service Area (UTSA) is in the region among other disadvantaged areas, remote areas, planting areas, border areas, and areas that are not economically feasible as well as areas not reached by the access and telecommunication services . To achieve this goal required the participation of all parties, both the central government, local governments (provincial, district, city), as well as the private sector and the public in respect of the construction of telecommunications facilities and informatics.

To achieve this goal required the participation of all parties, both the central government, local government (province, county, city), as well as the private sector and community development programs relating to telecommunication and informatics facilities.

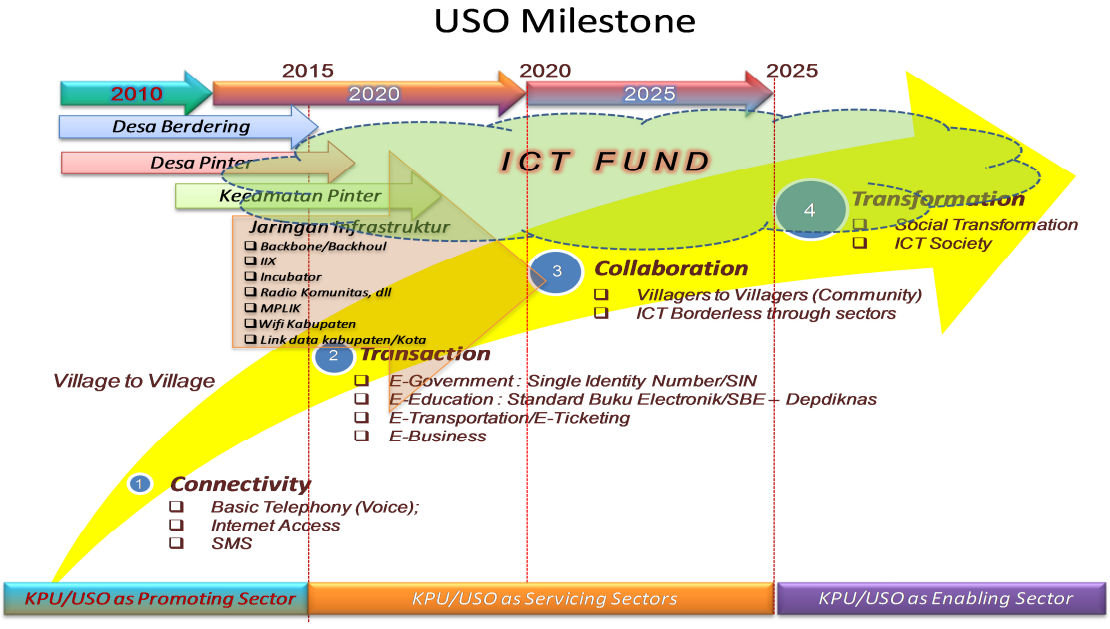
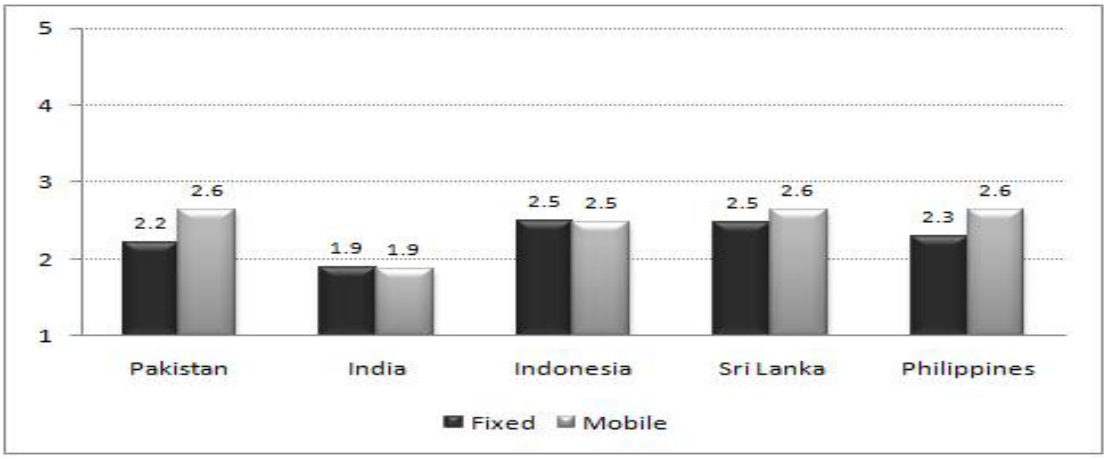


Figure 2. USO Milestone

However, as a survey conducted by LIRNE Asia's Sector Performance Review (SPR) / Telecom Regulatory Environment (TRE) [1] research project, the International Development Research Center (Canada) and the Department for International Development (United Kingdom) (2011) shows that the value for the USO in Indonesia is one of the lowest in the survey. This

clearly shows on Universal Service Fund / USF (Universal Service Fund) which has failed to fulfill its obligations in expanding telecommunications networks for rural / remote (Chanuka Wattegama and Soehardjo June 2011). USO Indonesian ICT development is still under the Philippines, Sri Lanka, and Pakistan. The picture of the performance comparison of ICT development USO some countries can be seen in Table 1 below:

Table 1. Performance Comparison of ICT USO



Source: Asian LIRNE 2006

Referring to the results of an assessment of ICT development in Indonesia USO shows that in 2011 TRE scores have not improved since 2006 and 2008. Furthermore, the same pattern continues, the low dimensional assessment (such as USO) continued to score low. Aggregate fixed or mobile sector is slightly better than in 2008, but only two dimensions contribute to minor repairs. In broadband, the aggregate has declined. All scores TRE - except in two dimensions in the mobile sector - below the average (Chanuka Wattegama and Soehardjo June 2011).
When referring to how services are provided in the ICT USO program by some countries, it will be seen that each country has their kind of different services. This is consistent with the level of socio-economic needs of the infrastructure in the region that is experiencing the ICT gap. In the table shown, that India has a low TRE scores actually have 6 (six) USO ICT services most of the comparator countries, is inversely proportional to South Korea only 3 USO ICT services, namely e-business, ICT training, and internal.

Table 2. Comparison of the services application of ICT USO

COUNTRY	APPLICATION						
	Tele phony (VOIP incl)	e-bussiness	e-admi-nistration	e-education	e-health	ICT training	Internet and Email
Bhutan		X		X		X	
India	X	X	X	X	X	X	
Nepal	X						
Syria	X	X	X	X		X	
Korea		X				X	X
Nepal				X			
Papua New Guinea				X	X		

Source: ITU-D SG2 Q10-2 / 2

Reduction of information gaps at low cost is very important for the poor. ICT can be a powerful tool to eliminate the asymmetry of information that often prevent the poor in remote areas of market access (Goyal 2008). Atkinson (2004) examined the causes of the slow development of advanced ICT infrastructure in rural communities. The results show that the low demand combined with higher costs for society (or company) often can not make an adequate return on the return on the investment.
Granting the right to participate in the search, processing and dissemination of information needs to be balanced with a sense of responsibility as part of the community members a sovereign state. So as to create a healthy climate and the distribution of information to encourage the creation of an information society that is prosperous and has a high competitiveness. The right of citizens to obtain the same information that can manifest destiny as a nation together, and encouragement to realize the right to participate in advancing the nation as a whole.

To determine whether or not ICT can have a significant impact on the socio-economic development and people's lives will depend how far this technology corresponds to the socio-economic, political, and cultural especially at the local level where ICT is. In the construction of Community Empowerment, which is also the focus of Priority / Priority Activities of Information and Communication at the National Medium Term Development Plan (2009-2014), that the aspect of community empowerment macro, meso, and micro. At the meso level into a strategic aspect to optimize the use of technology in society.
Faced with the above complex problems, and ICT USO is a problem of human activity systems (HAS) to the appropriate methodology related to the condition of the problem is Action Research based on Soft Systems Methodology (SSM) where the aim is to improve the practice and understanding of the situation through self-reflective inquiry participants (Rose, J., 2002). ICT USO development strategy is not only faces problems of ICT technology alone but has the involvement of management strategies, institutions, social, and economic. Conditions USO ICT issues can be categorized as "wicked problems", namely "... ill-defined, with shifting definitions and multiple elements Whose resolution necessitate conflicting objectives through a complex, holistic perspective" (Hasan and Kazlauskas, 2009). The simultaneous nature of SSM will bring changes in social engineering in action situations USO ICT in the learning process-based participatory culture in the form of human activity systems (Flood and Jackson 1990, Rose 2002, Checkland and Scholes 2006). Based on the explanation above, the purpose of this research is to explain social engineering-based Socio-Technoinfo Institution on three institutional level information communication and technology universal service obligation in Indonesia.

3. Methodology

This study used action research approach based on Soft Systems Methodology (SSM). SSM appropriate approach for the research looking at the world (social) as a complex, problematic, mysterious, characterized by the conflecting viewpoint or clashes of worldview (Checkland and Poulter, 2006: 21-22) and is soft ill structured (Checkland, 1981 : 95). Therefore, SSM approach is not seen from the standpoint of (mainstream) social science methodologies. SSM is soft systems thinking. SSM initiated from the concept of typology systems, is human activity systems. Human activity systems departed from human intentions are rooted in human free choice, to attribute meaning, and all its implications in the form of the holon (s). SSM is a methodology for experience-based knowledge (Checkland and Scholes, 1990) that moves between reality or perception about real world and actuality or feeling about real world (Uchiyama, 1999).

In this case the researchers see the real world as a human activity systems using three level of New Intitutional Economic and Sociology (NIES) (Nee, 2003) by using experience-based knowledge - moving between perceived about real world and feeling about real world (Checkland & Scholes 1990 and Uchiyama, 2009) to see social engineering-based Socio-Technoinfo-Institution on three institutional level information communication and technology universal service obligation in Indonesia.

Checkland and Poulter (2006) describes the seven stages of SSM is based on four basic processes. First, search the problematic situation (stages 1 and 2), Second, modeling relevant to explore the problematic situation based on different worldview (stages 3 and 4), Third, manufacture of questions based on the model created previously to find desirable and feasible change (stage 5), and the Fourth, determination and taking actions that produce change for the better for the problematic situation (stages 6 and 7).

This assessment systems to manage human activity through a learning system (Checkland and Poulter, 2006; Checkland and Scholes, 1990; Hardjosoekarto, 2012) which takes place in a participatory and based culture as a form of institutional frameworks that are in an open system that is complex and shaped complex human activity systems (Flood and Jackson, 1991), such that the base transformation of institutional strategies to meet the criteria for systemic logical and can be agreed on a three-level stakeholders on the institutional development of ICT.

4. Results and Discussion

The process of problems identification in the implementation of ICT USO in the current year or earlier is based on the data and the results of the evaluation of the National Development Planning Agency (BAPPENAS) (2012). Researchers look at development programs being carried out by Indonesia in connection with the demand of ICT development is still very limited. This is caused by the low potential use of ICTs for development at national and regional level. In the aspect of the provision of funding and quality of ICT USO facilities is still considered innovative. This is not in line with the current development of information technology and the ongoing program of cooperation between government and the private sector to reduce the burden on the government budget. The use of ICT USO provision fund is currently sourced in proceeds from the implementation of the BP3TI which is the contribution of telecommunications providers through BP3TI - as semi autonomous authority (BLU) Ministry of Communications and Information - and the allocated state budget in the form of Tax State Revenue (non-tax) BLU. Of Commission funding projections, the cash balance in 2011 has reached 3.1 trillion.

However, in late 2015, after payment of the Commission and investment projects carried Palapa Ring, projected cash balance shrank to Rp565 billion.

Another problem encountered in the implementation of ICT in Indonesia, according to the data in the ICT USO program achievements Strategic Plan 2010-2014 Minister of Information, at the end of 2008 that the level of the household computer ownership is still very low at only 4.40% with distribution in Java amounted 5.30%, amounting to 2.90% of Sumatra, Bali and Nusa Tenggara of 2.90%, amounting to 4.50% of Kalimantan, Sulawesi amounted to 2.70%, and Maluku and Papua, at 2.10%. By the end of 2008 there are more than 31,000 villages that do not have telecommunication and internet facilities, more than 80% of the postal and telecommunications infrastructure is concentrated in Java, Bali and Sumatra, as well as the distribution of Internet Service Providers (ISPs) are concentrated in Java (64% of 306 ISPs) and 18% in Sumatra. This indicates that the level of infrastructure availability differences between urban and rural areas over the western and eastern Indonesia is still great.

The problems mentioned above, can be formulated that is predicted to face challenges in 2015-2019 RPJMN subfields ICT is still the existence of a digital divide between rural and urban communities due to the low level of knowledge and the ability to access digital information. In addition, utilization and maintenance of ICT infrastructure Commission will dormant due to lack of human resources representative of the organizers of ICT in providing understanding to the community and provide guidance to use ICT effectively and efficiently. On the other hand, the limited ability of government funding in the field of ICT infrastructure provision can inhibit the accelerated development of ICT to support the implementation of the government's commitment to the international forum WSIS and the opening of the free market ASEAN (AFTA) in 2015. The implementation of AFTA will also be a challenge for the Indonesian government given the ability and a source of knowledge and information held by the public is still low so there needs to educate the public through the facilities of the central government level with regard to the utilization and use of ICT.

Issues on ICT USO are making researchers aware the complexity interplay between ICT and in the social context is selected, developed, implemented, and used (Kling, 2000; Orlikowski, 2000; Fountain, 2001; Orlikowski and Iacono, 2001). Orlikowski and Iacono (2001) through the study they did propose that the social context of the study of ICT are recursive and complex relationship between ICT and social structure. For it requires a solution to the construction of the ICT USO development strategy in the future. Strategy formation is a reactive process in response to the challenges imposed by the external environment. Whereas the other schools see the environment as a factor, but the environmental school view it as an actor. Gives a central role to the environment in strategy formation is a form of the Environmental School in management strategy (Mintzberg, 1998). The resultant increase the convergence process, it is driven by the practices and behaviors mimic, and called in the institutional theory, institutional isomorphism.

In this context Bromley (1989) put the conceptual foundations of public policy. At each level, the public policy embodied in the form of institutional arrangements or regulations that are tailored to the level of the hierarchy. It thus becomes very essential for the Commission ICT strategy by strengthening the institutions began with the construction of policy at the macro level (Nee, 2004). Construction of the policy on the macro level, the preparation of the National Medium Term Development Plan (RPJMN) is an elaboration of the vision, mission, and programs are guided by the president of the National Long Term Development Plan (RPJPN). Referring to the order flow RPJMN preparation as stipulated in Government Regulation No. 40/2006 on Procedures for the Preparation of the National Development Plan, the preparation of ICT subfields RPJMN 2015-2019 compiled by the direction in the implementation of ICT USO policy in Indonesia. Preparation of RPJMN 2015-2015 subfields ICT also consider and synergizing priorities in 2015-2019 RPJMN subfields ICT, vision, mission, and program priorities of President Elect, and international commitments / current global.

Based on the formulation of the problem and the direction of flow in the formation of policy RPJMN previous year, ie the period 2010-2014, the researchers describe the preparation of the Commission ICT policy towards Indonesia as follows.

1. Identify the problem in the implementation of ICT USO has been running and looking for the cause based on the data of the research in the field.
2. Estimating the problems and challenges that will be faced in Development Plan 2015-2019 the subfields of ICT on the basis of the results of the evaluation Development Plan 2010-2014, the mission to improve the science and technology that has not been done in previous years are based on input from ICT stakeholders management bodies, namely Ministry of Communications and Information and BP3TI.
3. Establish the main targets the implementation of ICT in Development Plan 2015-2019 Commission subfields of ICT on the basis of priorities, vision, and mission of the concerned ministries and programs, as well as international

commitments / global, such as a commitment to the forums The World Summit on the Information Society (WSIS) which held in Geneva and Tunis and the implementation of the ASEAN free trade (AFTA) in 2015.

4. Determination of the direction of the Commission ICT policy based on national priorities that measured impact indicators, identification of strategic issues, and program implementation of the ICT Ministry of Communications and Information Technology (outcomes), priority activities (output indicators), and the available resources (input indicators) .

Through problems and challenges that have been formulated, the next step can be implemented in setting program priorities in accordance with the provision of ICT issues and challenges. Meanwhile, further policy direction needs to be done to reconstruct the policy that has been run in accordance with the priorities.

Based on the above, then the Root Definition (RD) is a background paper Development Plan 2015-2019 subfields ICT USO. Background paper Development Plan 2015-2019 subfields ICT USO is a system that is owned and operated by the Directorate of Energy, Telecommunications and Informatics Bappenas in order to produce a regulation (P) through the preparation of a background paper Development Plan 2015-2019 subfields ICT USO in harmonious and quality (Q) to ensure achievement of institutional transformation ICT USO strategy (R). "

Table 3. CATWOE and 3E in Root Definition

Customers	Directorate General of Post and Information Technology Ministry of Information and Telecommunications RI; BP3TI; Directorate of Energy, Telecommunications, and Information Board; Directorate General of Budget, Ministry of Finance; Telecommunication Providers; Local Government.
Actors	Directorate of Energy, Telecommunications, and Information Bappenas.
Transformation	Realization of the background paper Commission ICT Development Plan 2015-2019 subfields higher quality and harmonious.
Weltanschauung	Formal and informal legal convention is very important in the preparation of a background paper Development Plan 2015-2019 subfields ICT USO quality and harmonious.
Owner (s)	Directorate of Energy, Telecommunications, and Information Board; Directorate General of Post and Information Technology Ministry of Information and Telecommunications RI; BP3TI
Environment	Coordination problems in the process of preparing background papers Development Plan 2015-2019 the subfields ICT USO quality and harmonious.
E-Efikasi	The existence of formal law and informal conventions in the preparation of a background paper Development Plan 2015-2019 subfields ICT USO.
E-Efisiensi	Use of resources (financial and time) is minimal.
E-Efektif	Establishment of the background paper Development Plan 2015-2019 subfields ICT USO.

Researchers assess RD is an overview of the most relevant to the system at the macro level, which aims to produce through formal legal regulations and informal conventions in the preparation of the background paper Development Plan from 2015 to 2019 sub field of ICT USO by using the resources (financial and time) are the minimum that structured background paper quality and harmony to ensure the achievement of institutional transformation ICT USO strategy.

Furthermore, the preparation of conceptual models. In this phase, researchers build conceptual models without reference to the real world. This means that the conceptual model is built on the notion of researchers based on the theory used (Nee 2003) and formal rules that apply, so the idea of systems thinking to be important in this stage. For Checkland, systems thinking is based on two sets of ideas, ie emergent properties paired with hierarchy (also called layer structure in Checkland 2006) and communication paired with the control (Checkland 1993). Two pairs of this idea requires a system for the survival of the system.

According to Checkland, conceptual models is a model that describes the state of interdependence between the activities and elements of the system or the verb based root definition and structure of the verb that refers to the logic base (Checkland, 1993; Wilson: 2001). Success in a conceptual model can be achieved by identifying the major tasks in the activity system and identify transformations and the linkages between elements that exist. While the substance of the root definition is defined as 'what is the system (what the system' is ')', a conceptual model describes what the system should do (what the system must

'do' to be the one defined).

Henceforth, the activities of the system for the preparation of a background paper on the macro level Development Plan 2015-2019 is as follows.

Activity 1	Prepare Background Paper Drafting Team Development Plan 2015-2019
Activity 2	Studying the results of the study: 1. Results Evaluation ICT USO 2. Policy Paper the ICT USO 3. Policy Paper Palapa Ring
Activity 3	Preparation Academic Paper Background Paper Development Plan 2015-2019
Activity 4	Organizing Workshop Ministry of Information and Telecommunications RI
Activity 5	Conduct: a. Consultation Bappenas b. Consultation Telecommunication Providers
Activity 6	Background Paper Drafting Development Plan 2015-2019 ICT USO
Activity 7	Conduct: a. Local Government Consultation b. Consultation Ministris
Activity 8	Finalization Background Paper the Development Plan 2015-2019 ICT USO

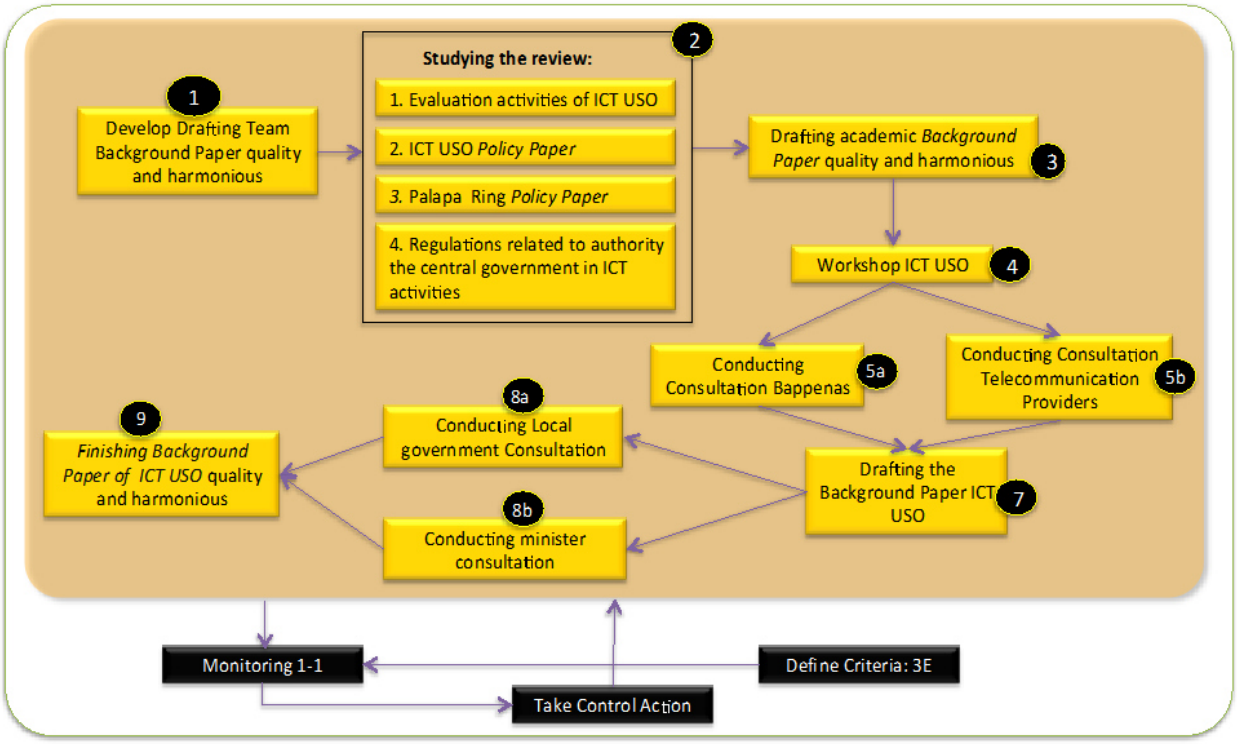


Figure 3 - Conceptual Model System

The first conceptual model is the preparation of background papers Development Plan 2015-2019. To prepare background papers Development Plan, there are several steps that must be executed in accordance analysis of real world circumstances. The first activity is forming the editorial team of the background paper quality and harmonious. Parties involved are the Directorate of Energy, Telecommunications, and Information Bappenas. Then Directorate Energy, Telecommunications, and Information Bappenas. They propose candidates for members and assign members of the editorial team of the background paper, forming the editorial team of the background paper.

After drafting team was formed, the activities carried out by the drafting team is studying the results of studies of ICT USO. The results of these studies include the evaluation and the ICT USO policy paper, the policy paper of Palapa Ring, and

regulations related to the central and local government in ICT activities. The expected outcome of this work is the identification of stakeholders, the absence of data, information, agenda, division of labor, and technical preparations, as well as the results of the background paper studies the conceptual framework.

Furthermore, the drafting team did academic papers that are tailored to the results of the previous study of ICT USO. Details of activities of academic papers covering the preparation, implementation, inviting experts for input, analysis and formulation, and the adoption or finalization of the draft academic paper. From this drafting, drafting team is expected to produce a full academic paper that has been treated by previous activities. This is consistent with the technocratic approach in forming National Medium Plan systematically arranged, directed, integrated, comprehensive, and responsive to change, as stipulated in Law No. 25 of 2004 on National Development Planning System (Law 25/2004)

If an academic paper has been structured as a whole, the drafting team and ICT experts carry out the ICT USO workshop. In order to be workshops held properly, the drafting team together ICT experts should prepare terms of reference and structure of the workshop materials and identify ICT experts beforehand. After that, then held a workshop ICT USO and formulate the results. The workshop is expected to produce crystallization issues ICT USO development and formulation of the results of the workshop.

After the ICT USO workshop, the drafting team held consultations to Bappenas Telecommunication Providers. It aims to get the viewpoint of each party to the development of ICT USO as well as the formulation of the results of the consultation. Before carrying out consultations Bappenas, the drafting team prepare terms of reference and prepare materials consultation. After that, then the drafting team and Telecommunication Providers of Bappenas held consultations to produce formulation of the consultation results.

The next consultation, drafting team conducted consultation with telecommunication provider. Prior to hold consultations, drafting team preparing terms of reference and consultation material. The consultation is expected to produce formulation results of consultations. This consultation also aims to get the viewpoint of each party against the ICT USO development.
This consultation activity is a reflection of the industry-based view that emphasizes the external industrial structure (ie, competitive forces and their bargaining power) as the most important parameters (McGahan and Porter, 1997; Porter, 1979, 1980). In the strategic management perspective shows that companies need to look for a strategic match between the external environment, for example, opportunities and threats, and internal resources, such as the strengths and weaknesses (eg, Andrews, 1967; Itami, 1987). It was built to dynamic relationship among the three sectors of community life and its institutions, namely the scope of the culture (spiritual-cultural sphere), the economy (economic sphere), and politics (political sphere). This relationship is interdependent and interact dynamically as a unified whole, systemic and holistic although each sector is autonomous (Nutt & Backoff, 1992).

The next step performed by the compiler after consulting team is drafting a ICT USO background paper. Drafting team to collect the academic papers, workshops, and consultation then reconstruction it. Then the editorial team of is drafting a background paper of the ICT USO quality and harmonious.

After the draft background paper of ICT USO quality and harmonious composed, the drafting team held a consultation with the local government in communication sector (SKPD Kominfo). Prior to conducting the consultation, the drafting team prepare terms of reference of the consultation, register SKPDT Kominfo invited, and prepare materials consultation ICT USO paper background. After the consultation undertaken, the drafting team to formulate the results of consultations. In addition, this consultation needs to be done to get the viewpoint of each party to the development of ICT USO.

Systemic dynamic interdependence occurs because basically the societies are the one and the whole, while the dimensions or sectors there are basically supporting the whole community integrated whole and sole in the whole process of conversion. In the world of dynamic, heterogeneous perception is more important than heterogeneous resources per se (Lewin, 2005; Lewin & Phelan, 2002). That requires mutual openness, connectedness and inter-institutional synchronization. The next step, the time of the drafting team to hold consultations with the concerned ministries. Drafting team should draw up terms of reference of the consultation, make a list of ministries / institutions relating to ICT are invited, as well as preparing materials consultation ICT USO paper background before carrying out consultation with the ministry / agency. After consultation carried out, then the drafting team to formulate the results of consultations. This consultation also actually facilitate the drafting team in order to get the viewpoint of each party to the development of ICT USO.
After the drafting team has consulted with the ministries / agencies, the drafting team to enter the final activity in this one system, which resulted in a background paper of ICT USO quality and harmonious. To produce a background paper of ICT

USO quality and harmonious, the drafting team to first construct the result of consultation with local governments and ministries / agencies, enhance the ICT USO draft background papers, conduct Focus Group Discussion (FGD) with expert ICT USO, and finalization ICT USO background paper.

5.Conclusion, Limitation and Future Research

Revolution in ICT contributes to social and economic development widely, especially in developing countries. However premises are still faced with the situation at the low level of infrastructure availability differences between urban and rural areas over the western and eastern Indonesia is still great. This clearly shows on Universal Service Fund / USF (Universal Service Fund) which has failed to fulfill its obligations in expanding telecommunications networks for rural / remote (Chanuka Wattegama and Soehardjo June 2011). This study used action research approach based on Soft Systems Methodology with consideration of research emphasis on Institutional Strategy, in this case the researchers looked at the real world as a versatile system of human activity. This study analyze Information Communication and Technology Universal Service Obligation (USO ICT) using experience-based knowledge - moving between perceived about real- world (reality) and feeling about real world (actuality) to construct strategy in improving the performance of ICT USO. This study supports the idea of Orlikowski and Iacono (2001) that in the social context of the study of ICT are recursive and complex relationship between ICT and social structures.

Overcoming the ICT USO gap requires systemic approach to construct strategies through policies in all institutional levels. This is in accordance with idea Bromley (1989) put the conceptual foundations of public policy at each level. Likewise Nee (2004) is positioned at the level of macro policy will be institutional arrangements (Bromley, 1989) on the lower hierarchy. However, the position of public policy at the macro level is not going to optimization when the policy formulation is not prepared to accommodate a more comprehensive perspective. For that in this study the activities of human rights set forth in the policy-making is to do a lot of consultation with relevant agencies and lower level institutions.

It is also in line with the idea Nutt & Backoff (1992 which puts the importance of dynamic community life sectors and its institutions, namely the scope of the culture (spiritual-cultural sphere), the economy (economic sphere), and politics (political sphere) interdependently and interacting dynamically as a unified whole, systemic and holistic although each sector is autonomous. Systemic dynamic interdependence occurs because basically the people are the one and the whole, while the dimensions or sectors there are basically supporting the whole community integrated whole and sole in the whole process of conversion. In the world of dynamic, heterogeneous perception is more important than heterogeneous resources per se (Lewin, 2005; Lewin & Phelan, 2002). This guarantees materialize background paper ICT USO quality and harmony, through constructing the result of consultation with local governments and ministries / agencies, enhance the ICT USO draft background papers, conduct Focus Group Discussion (FGD) with expert ICT Commission draft background papers, and finalization background ICT Commission paper.

This study looks at the policy level in building a strategy based on institutions. Institution-based strategy when referring to Bromley (1989) and Nee (2004), the strategy should be built at all levels of policy, organizational, and operational (Bromley, 1989) or at the level of the macro, meso, and micro (Nee, 2004). All of a level are interrelated, dynamically interact, mutually dependent because of activity in the strategy has established systems.

This study therefore still need to continue to review the policy, organizational, and operational in all levels. The advantage of this study will be able to look at the issue holistically equitable development of ICT USO or, both studied at the national and regional levels to the user or the use of ICT USO.

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