Understanding Success and Failure of E-government Development in a Developing Country from Actor Network Theory Perspective

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***Abstract*— As a complex technological innovation, e-government needs a suitable framework to understand its success/failure. For its ability to capture the complexity of the interaction between the socio-cultural components as well as the involvement and the need to align the technical and political factors involved in e-government initiative, Actor Network Theory was chosen to understand the success/failure of e-government in a developing country. This paper provides evidences on the contribution of Actor Network Theory in such success/failure. The paper also recommends strategy for better design and implementation of the e-government.**

Keywords—e-government; actor network theory; developing country; e-government success; e-government failure

I. INTRODUCTION

E-government is a broad-based transformation initiative, facilitated by ICT to deliver public services, manage constituent relationship and support the economic and social development [24]. However, most implementation of the e-government in developing countries fail with 35 % being classified as total failures (not implemented or implemented but immediately abandoned), and 50 % as partial failures (major goals were not attained and/or resulted in undesirable outcomes) [1]. This is a disturbing fact, especially given that developing countries have a limited number of resources and cannot afford to wastefully spend large amounts of money for such ICT based projects.

Though challenges, strategies and tips have been provided by many researchers and practitioners to help the development of the e-government in developing countries, there has been limited studies that employ comprehensive approach using relevant theoretical framework. As a complex socio-technical systems that involves many issues and actors ([13],[6],[3]), e-government could be conceptualized from different perspectives and assumptions. One promising perspective is offered by Actor-Network Theory (ANT) as used by some researchers [3],[4]. It is because ANT provides framework to capture the complexity of the interaction between the socio-cultural components as well as the involvement and the need to align the technical and political factors.

This paper aims to fill this gap by using ANT perspective to provide a more comprehensive understanding of two e-government projects in Indonesia. By using this perspective, the development of the e-government in developing country could be better analyzed in such a way that its development could be more successful.

II. LITERATURE REVIEW

A. *Mapping E-government Success and Failure in Developing Countries*

Using the 'design-reality' gap framework [1], there exists a simple framework to comprehensively mapping the failures of e-government in developing countries. E-government implementation failure could be classified into one of the three gaps, namely, 'Hard-Soft', 'Private-Public' and 'Country-Context' [2].

1)Hard-Soft Gap

Hard-Soft gap refers to the difference between the actual technology (hard) and the reality of the social context (people culture, politics, etc.) in which the system operates (soft). This argument is also concurred by several research findings such as [3] that technology is just one aspect of heterogeneous socio-technical elements that must be managed in the information systems project. This is supported by the fact that the success of e-government in Kerala India depends on resources, skill-level, values, beliefs and motivation of those involved in the project in question [4]. It means that lacks of training, skills and change management efforts would all affect the rate of failure, as they create a wide gap between the technology and its social context.

Therefore, it is imperative for e-government projects to establish the service and information needs for the benefit of the served community; and the technology itself should be developed in collaboration with the local staff. Most importantly, local administrative and political actors should be involved, or otherwise the possibility of failure would likely increase [5]. This would considerably decrease the Hard-Soft gap, and create a sense of local ownership. It is also important to involve the people most closely related to the project by

improving local awareness of the project through some promotional campaigns [6].

The issue of change is also part of the Hard-Soft gap, as an e-government initiative constitutes the realignment of working practices and government functions. Since public sector must change and reengineer its processes to adapt to the new technology and culture of an e-government, this can be problematic and may result in some stakeholders political conflicts due to their reluctance to share information, hence perceived as a reduction of their authority [7], [8]. In the developing countries where corruption and rents are abound, the realignment of information flows and the underlying power structures are heavily resisted by actors with vested interest. That is why developers of e-government systems have to contend with politics, power struggle, and conflict, although the literature that deals with this is to date sparse [9], [10]. If the resistance is not dealt with by using change management or similar initiatives [11], the gap between the technology and its social context cannot be bridged.

2)Private-Public Gap

Private-Public gap refers to the difference between the private and public sectors, due to gaps between systems designed for the private sector and the reality of the public sector into which the systems is transferred. A common problem associated with the public sector is uncompetitive rates of pay as compared to the private sector. The prevalence of this situation impedes the recruitment of high quality IT professionals [12], which leads to a lack of public sector skills. As a result, e-government projects are often outsourced to the private sector, fuelling a clash of culture and values, as well as leaving even larger gaps between the design and the reality [1].

Some governments try to adopt private sector approach that brings consequence to change their view of the recipients of these e-government projects from citizens to customers. This represents a substantial paradigm shift and many developing countries face difficulties with e-government application. Reference [13] identifies numerous problems with seeing a citizen as a customer. A customer needs market mechanisms, and the right to choose between different alternatives. This is not possible for an e-government application that operates as a monopoly. Furthermore, the private sector sees customers as a means to increase profitability and it introduces price discrimination and similar mechanisms to create inequalities between customers. In the meantime, the government must provide an equal service to all customers (citizen) to create a successful e-government platform.

3) Country-Context Gap

Country- Context gap refers to the difference that exists when applying the e-government systems for both developed and developing countries, which arises from the gap between systems designed for one country and the reality of a developing country into which the system is transferred. Developing countries often have a poor ICT infrastructure, which constitutes a further obstacle for the implementation of the e-government [14]. This lack of infrastructure can cause problems if an e-government model from developed country is adopted in its entirety by a developing country. One of the benefits of the e-government in developed countries is cost reduction in terms of the transfer of information and online transactions. However, due to a lack of infrastructure in most developing countries, the telecommunication costs can be high, thereby nullifying this benefit. In situation like this, it may be more appropriate to look at low-tech solutions that fit in with the existing infrastructure [5].

Though there were many researches on e-government success-failure, studies on the political consideration thereof is still rare [15], [9]. By political consideration, it means the way in which different stakeholders in an e-government project relate to one another via political processes such as coalition and conflict. This may happen as most e-government research attempts tend to draw more from the IS (Information Systems) discipline rather than from the domains of governance such as political theory and public administration [16]. However, following the notion of IS development paradigm, the sparse research on political factors of e-government might be caused by the way how e-government is conceptualized. If e-government was conceptualized as actor-network, it might entail the important of political and alignment process in e-government research. It is in accordance with what [3] concluded that 'the application of ICT is an inherently political process and that a successful outcome requires continuous incremental action and improvisation to address the ongoing issues as they emerge.' Further, reference [1] and [2] conclude that the success-failure of IS development is much affected by its design process then ANT is seen as having a potential and promising theoretical framework for the design and implementation of e-government. Additionally, reference [17] points out that one of the key success in e-government initiative is to make coordination among actors who have different interests.

B. Actor Network Theory (ANT)

Some specific characteristics of ANT need to be mentioned to lay foundation to use as research framework.

- ANT perceives social reality as a complex network of relationship that always involves human and non-human entities [18].
- It holds radical assumption that neither human nor non-human should be given a privilege in determining the stability of certain social reality.
- It rejects essentialism and instead embraces "relational" point of view by stating that both human and non-human entities are just an effect or outcome of a network (in relation to one another) [19].
- ANT refers all entities (human or non-human) involved in this complex network of heterogeneous element as "actors" or "actor-network" [18].

ANT labels a stable actor-network as a black box so its analysis may focus only on its inputs and outputs. Since a black box is an actor-network then its stability is also influenced by all material involved. The black box could be opened up and analyzed as an actor-network by tracing all its relevant actors and their relationship [21].

In opening up a "black box" of reality, ANT uses the notion of translation [22] to make sense why certain social reality finally becomes stable/ unstable over time. Translation could be described as a process in which actor(s) mobilizes resources or another actor-network to form allies that result in a stabilized actor-network. Therefore, translation explores the ways in which the networks of relations are composed, maintained, and made more durable over time. The translation process involves four moments (phases) as follows [23]:

1) *Problematization*. In this moment, one or more key actors define the nature of the problem and the roles of other actors to fit the proposed solution. The solution is offered in such a way that all actors participated will be subjected to some centralised control mechanism labelled as an "obligatory passage point (OPP)."
2) *Interessement.* Here, all actors identified in the first phase are given specific roles and identities and the strategies that need to be acted upon which will attract them. This attraction is the interessment device that will lead them to the next phase.
3) *Enrolment.* The success of the strategies related to the interessement device will result in the enrolment of actors to establish a stable network of alliance. However, the stability of this alliance depends on the negotiation process to define their roles in the network.
4) *Mobilization.* Once the proposed solution gains wider acceptance, then an even larger network of absent entities are created through some actors acting as spokespersons for others.

III. RESERCH METHODOLOGY

Data used for this interpretive case study were gathered in 2009 to 2010 from two e-government projects in Indonesia. Yogyakarta Cyber Province Initiative (YCPI) and Sragen One Stop Service Initiative (SOSSI) projects were selected. These two projects are the appropriate cases since the first is considered as problematic but the second is a successful one. Data gathered include factual (numerical), textual, audio, and visual event. Data were collected by conducting some observation at the two project sites, inspecting archival documents, browsing their websites, and recording semi structured interviews. The interviews were conducted in local language and involved 22 and 15 personnels respectively. All interview sessions lasted from 30 to 90 minutes. Recorded interviews were transcribed fully before they were analyzed thematically. Twenty themes were used to code data and were developed mainly from ANT translation processes, e-government development elements, and some related social issues such as prosperity, values and beliefs.

IV. CASE DESCRIPTION

A. Case 1 : Yogyakarta Cyber Province Initiative (YCPI)

Realizing the potential contribution of ICT to improve the low quality of public services from the provincial administration of Yogyakarta, YCPI aimed to promote a new model of managing province that would transform the way the state government efficiently and effectively delivered its services to public. The model aimed to enable the provincial government to serve public better and to speed-up/expedite the state development by intensively using ICT. To solve this transformational problem, YCPI involved many actors. The actors's roles, interest and conditions could better be described by a network of interests owned by each actor as presented in Figure 1. This network may represent the fact that government transformation would only happen if an alliance occurs as follows. (a) The head of various offices want to fully participate in government reform program to serve people better; (b) Province Information Office (PIO) staffs are consistently willing to manage the implementation of YCPI; (c) The Governor of Yogyakarta keeps wanting to serve people better; (d) ICT infrastructure functionally operates well; (e) Team for Innovation and Change (TiMPII) is continuously supporting change initiatives; (f) Partnership for Government Reform Organization wants to make governance reform successful.

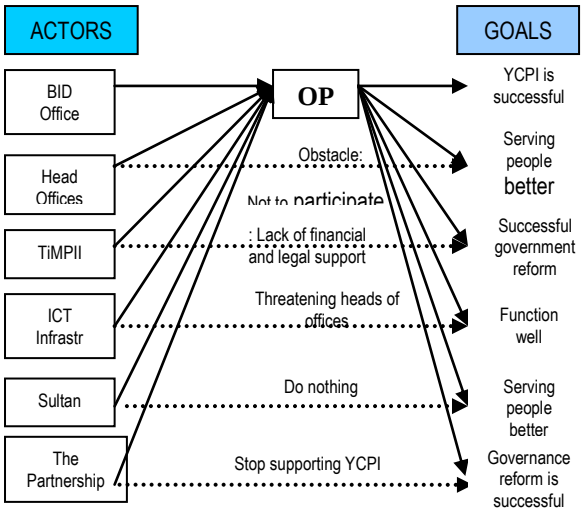

Figure 1. Actor-Network of YCPI

To solve the problems, YCPI involved six offices to develop its own service of excellence as follows:

1) Education Office: To improve education quality through Yogyakarta learning gateway, regional digital library and knowledge center network.
2) Industry and Commerce Office: To improve revenue and welfare of the society by enhancing commercial growth. It is achieved by increasing access to global as well as

regional market and building SME (Small Medium Enterprise) business center.

3) Agriculture Office: To improve farmers' welfare through agro-business programs by providing information on agro-business and market.
4) Transportation Office: To improve regional economic activities through the development of a good transportation services.
5) Tourism Office: To improve people's welfare and competitiveness through tourism promotion.
6) Fishery Office: To facilitate the development of fishery community and their competitiveness.

Staffs of PIO expressed differently in perceiving the progress of YCPI ranging from being realistic to pessimistic. Those who were realistic consider YCPI as a long term dream and it would automatically be successful as public's readiness and demand increases over time. Those who were pessimistic argued that such similar initiatives had been introduced many times long before the notion of e-government existed and had never been successful. One of PIO staffs who had been actively involved in developing computer-based application for government sectors expressed his pessimistic stance by having this to say:

> "*Though there are many small-scale IT applications that have been used to support government activities like SIMPEG (personnel records system), but after waiting for a long time many people keep questioning what the real contributions to society of all these initiatives are?"*

Among the six services of excellence, only education and commerce programs were considered moving to achieve their goals. The education service of excellence even received support from Ministry of Communication and Information through a Japan-funded project to strengthen school ICT-readiness by distributing computers and connecting school computers to the province's library network. The industry and commerce service of excellence program managed to set up and maintain the so-called Yogyakarta Business Service Center (YBSC) to help business community easily get support from and exchange information with government agencies and business communities. This center offered several services to SME (Small Medium Enterprise) in the form of advice, consultation, and training in the area of marketing, management, ICT adoption, and partnering.

Although the Governor of Yogyakarta officially launched the *Agricenter* (the service of excellent of Agriculture Office) on July 1st, 2009, less than one year later (May 2010) *Agricenter* was down and could no longer be accessed. When the staffs managing the website in Agriculture Office were interviewed, one of them explained thus:

> "… *honestly we have no competence to manage this. Now we have only one non-permanent staff who has ICT background and we are still planning to hire one more staff*."

Meanwhile. the Transportation Office planned an ambitious transportation information system by integrating it with IP-based digital camera installed in some crowded main road in Yogayakarta. The system was projected to provide real time vehicles traffic situation in some main roads in down town Yogyakarta. Unfortunately, until March 2010 the transportation information systems had never been implemented. The head of Transportation Office explained why its service of excellence could not be successfully implemented as follows:

> "*Obstacles from our office to implement our service of excellence include low understanding, readiness and commitment of our staffs. We also face organizational and financial problems. Besides, I think for the last 4 years of implementing YCPI, the even bigger problems were found in the provincial level*…"

The tourism service of excellence program has been developing a good website to promote tourism in Yogyakarta. The website published information on some tourist destination sites, hotels, events, and the tourism activities. It also published news related to tourism and tourism office activities. Unfortunately, the website was written only in the Indonesian language with which many foreigners were disappointed and felt cheated since the name of the website was in English *www.visitingjogja.com*. Though the published information was very interesting and could help tourists when visiting Yogyakarta, they were neither accurate nor complete as reflected by many visitors' complaints in its guest book.

A promising result from fishery service of excellence was the development of Fishery Business Center. It was a website (http://fbc.perikanan-diy.info/home.php) to effectively connect buyers and suppliers of fish products. Buyers could easily distribute their demand via SMS (Short Messaging Systems) to Fishery Office that subsequently distributed them to all registered suppliers. Conversely, anytime a supplier could send information about their available products by sending massage to Fishery Office that will forward it to all registered buyers. Although the initiative was in line with the formulated service of excellence from Fishery Office, the number of users of this facility was very limited. As of March 2010, there were less than 20 registered suppliers and less than 15 registered buyers. More importantly, the recorded activities of selling and buying fishery products were limited and were not done daily.

Not only did those implementation failures affect YCPI performance, but the introduction of government regulation No. 41/ 2007 also made YCPI uncertain. This regulation that limits the number of offices in the province as well as in local administration level had eventually been used to dissolve the existence of PIO and was finally reduced into just a section of the Transportation and Communication Office.

B. Case 2: Sragen One Stop Service Initiative (SOSSI)

The main idea of establishing SOSSI was very simple but fundamental, namely how local administration of Sragen regency fulfilled its mandate to better serve public license inquiry by providing simple, transparent, accountable, and one-stop service. This new kind of service tried to replace the common practice of government service where citizens had to undergo complicated and unclear process as passing through several different office red-tapes. Using this idea, the local administration of Sragen tried to implement not only an effective and efficient government administration but also a new paradigm of work culture that focused on treating citizens as government's customers.

The most crucial part in establishing SOSSI was to get support from various heads of offices who were currently holding authority to issue licenses. It was common that not only the head office but also some lower-level government staffs abused "power" and authority to manage, control, and complicate the issuance of licenses for their personal benefits. Another problem was how to efficiently run the one-door service just like a private entity. To manage this situation, the head of Sragen regency (the "Bupati") conducted many meetings to promote, explain and solicit support by involving related heads of offices, some important personnel from his own office and other local legislative bodies. He then problematized the establishment of SOSSI by defining the roles of each involved actor. Figure 2 provides the description of the roles and relationship of some important actors involved in the problematization process. This description precisely portrays that the establishment of this one stop service involved complex actor-network of heterogeneous elements.

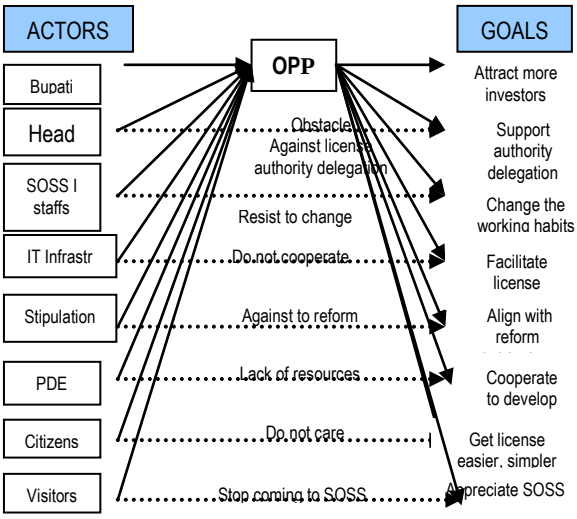

Figure 2: The Problematization Network of SOSSI

The Bupati attempted to influence and stabilize all the actors he defined in the previous step by introducing several attractive programs. These programs extended and materialized the hypothesis he made concerning the success of SOSSI which include the following:

(a) License inquiry should be simple, fast, and transparent,
(b) Offices involved should support the new process of delivering licenses by returning its authority back to Bupati,
(c) SOSSI staffs could be transformed to become professional workers,
(d) ICT and private sector practice could be fully adopted,
(e) Excellent license services would attract more investors.

Using these hypotheses, Bupati implemented three new important interessement devices which are:

(a) Granting SOSSI unit an authority to issue licenses after retracting that authority from various offices.
(b) Facilitating SOSSI to adopt corporate work culture and management equipped with new reward system.
(c) Providing incentives to members of the business community who wants to initiate operation in Sragen.

Some indicators could be attributed to account for the success of SOSSI. From the citizens' point of view, the simple, transparent, and accountable services are found satisfactory for them. Based on service satisfaction survey with 150 respondents conducted twice a year, the customer satisfaction index increased from year to year. On the last two surveys, the customer satisfaction index scored 83.995 % and 84.005% respectively. One customer who was also an entrepreneur justified SOSSI performance by saying thus:

> *"This SOSSI is very beneficial for business since I always get help whenever I apply a business license. To get a business license I do not have to wait for a long time, I am provided with convenience facilities and served excellently by SOSSI staffs. Based on my experience, I just needed less than one week to get license to start my business."*

From some government and non-government organizations' point of view, SOSSI has also been considered as a good model of a quality public service provider. It did not come as a surprise that SOSSI then obtained some recognition from different parties starting from non-government organization, local government nation-wide, to the president of Indonesia. Moreover, the central government of Indonesia had chosen SOSSI as the best practice public service agency in Indonesia and encouraged other local governments to use it as a model. Consequently, many times Sragen had been appointed by the central government to be the consultant in developing some government stipulations on public services. Sragen was also consulted by Indonesian Commission on Anti-Corruption because the way SOSSI promoted transparency was reportedly able to minimize corruption practices.

From the Sragen local government point of view, SOSSI was indeed something to be proud of. Now, local government and people of Sragen were so proud of having at least two visitors coming to SOSSI every day doing comparative studies. Being proud as a model of service excellence, staffs in

SOSSI eventually instilled their confident that they were able to contribute good things not only to the people of Sragen but to people and government of Indonesia at large. This kind of accomplishment also happened particularly every time Sragen was invited by other local governments to help the establishment of similar services. Staffs of SOSSI now started believing that employing new paradigm of work to serve public and not to be served was really meaningful and rewarding.

From the economic point of view, SOSSI has managed to directly and indirectly increase revenue and investment to local government. In 2002 Sragen's revenue was only IDR 22.56 billion but in 2006 it rose to IDR 72.77 billion. Similarly, total investment to Sragen was only IDR 592 billion in 2002 but it increased to IDR 1.2 trillion in 2006.

In promoting SOSSI, Bupati stressed that ICT would be intensively used. In many occasions Bupati unintentionally became a rightful spokesperson of voiceless ICT too especially when he himself frequently used ICT to present his ideas. He removed over-head projector (OHP) from his meeting room to condition all his staffs to used laptop and viewer projector instead. Bupati also acted as a legitimate spokesperson of ICT when he strongly encouraged KPDE to come up with a computer-based system which enabled him to digitally monitor all office performance at any time.

V. DISCUSSION

By holding ontological assumption of e-government as actor-network, the main concern of its development is maintaining its dynamic association or relationship among involved heterogeneous entities. As outlined by Callon ([2]), maintaining these relationships will definitely relate to the above mentioned four moments of translation.

The stage of problematization is very important in the translation process. This stage is not only important to rightly define how to include actors and proposing problems to solve but will also affect the understanding of the subsequent stages, especially in the interessement stage. In the YCPI case, the very broad problem as how to serve public better does not guarantee that the problematization process will result in direct enrolment of government actors, especially when there is no clear benefit to government actors. Although using the same notion of improving better public services, SOSSI addressed a clearer and simpler problem of how to make various license processing easier and faster. This simpler problem resulted in easier actors identification and interessement strategies formulation.

Although the problematization in both YCPI and SOSSI involved human as well as non-human actors but SOSSI had more non-human actor than YCPI. SOSSI also included office technology, such as the CCTV, local regulations and ISO standards in addition to the ICT infrastructure as non-human actors. YCPI only involved the ICT infrastructure in its problematization.

Interessement can be defined as a mechanism or strategy used by actors to attract other actors to participate in their problematization network. This stage is not easy to formulate in a government setting since it cannot be easily based on economic and organizational measures, such as efficiency and customer satisfaction. It is because government agency is not a business entity. Therefore, the interessement strategy formulation should be more based on the assumption that e-government is a network of heterogenous actors having diverse interests. Using this assumption, the interessement formulation should account for the sociological perspective in which the actors' interest relates to their sociological interrelationship, such as trust, political alliance, resource access, and power sharing. In the SOSSI case, the interessement strategies were more sociologically-oriented than in YCPI because they accommodate many aspects of social life: economic (incentive salary), managerial (ISO standards), technical (ICT infrastructure and its system), legal (local and central regulation), as well as spiritual (the notion of '*ikhlas*') and ideal ('coloring' Indonesia).

Related to the role of non-human entities involved in the interessement strategies of SOSSI, the new reward system, the ISO standards, the ICT, the local regulations, and the office technology, such as the CCTV, have all contributed significantly to the network stabilization, as ANT assumes that durability of a network depends to the durable materials participating in the interessement strategies. This findings help explain why the SOSSI network was more stable than YCPI network since YCPI had fewer durable materials in the interessement strategies.

Enrolment as a result of successful interessement is then can easily be explained. The sociologically comprehensive interessement strategies in SOSSI finally enrolled all related actors. On the contrary, weak and limited interessement strategies in YCPI failed to enroll most actors especially heads of offices though their offices had been appointed as parts of the excellence service program. Interestingly, the comprehensive interessement strategies in SOSSI also resulted in more committed staffs since they involved the spiritual aspect, namely the notion of 'ikhlas.' Many staffs gave assurance that they were happy if they could serve public better. Their enrolment to SOSS was not be based merely on the benefits they got but was attached to something deeper within their belief.

As all relevant actors enrolled faithfully to the SOSSI network, some of them became spokespersons and they represented the rest. Through this representation all involved actors were easily mobilized by those who acted as spokespersons. This representation involved different actors for different mobilization. However, most of the time, the Bupati represented many other actors, both human and non-human.

Although the success and failure of an e-government initiative is a problematic notion (Dada,2002), here in this present study they refer to the situation in which the stated objectives of the initiative can be, or cannot be, achieved significantly. Looking at both cases, SOSSI has been more

successful than YCPI. Not only that finally the SOSSI project can serve the public better in processing their licenses but SOSSI has also received a lot of recognitions from various parties and has resulted in increased revenues. Meanwhile for YCPI, there was no apparent benefit to the public except that they could get free internet access and some schools received computer sets and access to the local government's library.

As presented in the preceding section, many findings supported the fact that weak problematization of YCPI resulted in limited and weak interessement strategies. As such, YCPI subsequently failed to enroll actors and consequently made it difficult to mobilize them in order to stabilize the network. On the contrary, in the SOSSI project, the clear and simple problematization equipped with comprehensive interessement strategies resulted in faithful enrolment of many actors who became legitimate spokespersons so that, in turn, they could mobilize other actors to stabilize the network. To sum up the discussion, Table 1 presents the comparison of the four moments of translation processes happened in YCPI and SOSSI respectively.

Table 1. Translation Process Comparison Between YCPI and SOSSI

Stage	YCPI	SOSSI
Problematization	The very broad problem as how to serve public better did not result in direct enrolment of government actors, especially when there was no clear benefit to government actors. It also made difficult to formulate interessement strategies.	SOSSI addressed a clearer and simpler problem of how to make the processing of various licenses easier and faster. This resulted in easier identification of actors and formulation of interessement strategies
Interessement	There were limited interessement strategies and they were focused only on the aspect of formal and legal approaches.	The interessement strategies were more sociologically-oriented for they accommodate many aspects of social life.
Enrolment	The limited interessement strategies failed to enroll most actors especially heads of offices though their offices had been appointed as parts of the excellence service program.	The sociologically comprehensive interessement strategies finally enrolled all related actors.
Mobilization	Involved actors were difficult to mobilize because of limited legitimate spokespersons.	All actors were effectively mobilized because leadership was unintentionally exercised using de-centered notion of power.

Using success/failure framework ([2]) to interpret these findings, the success of SOSSI and the partial failure of YCPI could be categorized in the hard-soft gap. In the case of YCPI, the social context (people, culture, and politic) was not appropriately managed and aligned while in the SOSSI, it was well managed along the project life cycle. In both cases, ANT translation process has helped pinpoint how and to what extent the hard-soft gap occurred.

VI. CONCLUSION

Learning from these two cases, the ANT translation process has helped explain why YCPI was a problematic initiative and SOSSI was a successful one. This conclusion may provide guidance to e-government designers to use the ANT translation as a development framework. Using this framework, designers of the e-government should pay attention on how to formulate appropriate problem to address, identify the relevant actors, determine suitable objectives, and propose a set of strategies to attract all relevant actors to participate in the project. Moreover, they should make sure whether the created network can produce some legitimate spokespersons representing the rest of the actors so that the mobilization process can effectively take place.

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