Strategizing E-Government Development Using an Actor-Network Theory Perspective

Johanes Eka Priyatma, Informatics Engineering Department, Sanata Dharma University, Yogyakarta, Indonesia

Agnes Maria Polina, Informatics Engineering Department, Sanata Dharma University, Yogyakarta, Indonesia

Agung Hernawan, Informatics Engineering Department, Sanata Dharma University, Yogyakarta, Indonesia

ABSTRACT

The potential benefits of e-government are not easily manifested due to its many implementation failures. These failures partly come from inappropriate strategy to implement it as a socio-technical entity. The paper proposes a strategy for e-government development based on Actor-Network Theory (ANT). The proposed strategy was developed from one important tenet of ANT in perceiving reality as a network of actors using a translation process. The strategy is then critically reviewed using an e-government development to support a regency administration. The review concluded that the proposed strategy was qualified as appropriate and relevant.

Keywords: Actor-Network Theory, Developing Country, E-Government, Strategy

INTRODUCTION

Many strategies have been proposed to better manage the development of e-government as its failure is very high (Heeks, 2003). However, a good development strategy should be based on the most appropriate conception of e-government. To achieve this, one should focus on the ontological level of understanding of e-government. As a complex socio-technical system that involves many issues and actors (Stanforth, 2006; Yildiz, 2007; Akther et al., 2007), e-government could be conceptualized from different perspectives and assumptions. One promising perspective is offered by Actor-Network Theory (ANT) as used by some researcher (Madon et al., 2004; Stanford, 2006). Unfortunately, there is no study to link ANT with strategy formulation for e-government development as it needs many re-engineering process.

This re-engineering process requires the establishment of an appropriate and context-sensitive strategy. This seems to be a very difficult task, requiring a focus on many aspects and processes, a holistic vision, realistic focus and objectives. Meanwhile many public institutions limit their
activities to simply transfer of their information and services online without taking into consideration the needed for a re-engineering process (Ndou, 2004). Tan et al. (2005) believe that the core of e-government strategy involves a fundamental realignment of development objectives with the needs of primary stakeholders. Therefore the development of e-government must start with stakeholder management: identifying who stakeholders are; understanding stakeholder interests; and working out how to align stakeholder interests (Wong et al. 2007).

This approach offers the consequence that e-government operates in the context of interconnected relationships among various stakeholders that form a network. From a strategic viewpoint, these relationships affect the nature and the outcome of the systems actions and provide their potential sources of efficiency and effectiveness. Therefore ‘Strategizing’ e-government development is about ‘identifying the scope for action, within existing and potential relationships and about operating effectively with others within the internal and external constraints that limit that scope’ (Hakansson and Ford, 2002: p. 137). Further, Johanson and Mattsson (1992) argue that ‘strategic action’ in the literature on strategy usually concerns efforts by one actor to influence relationships with an outer environment.

In this respect, Actor-network Theory (ANT) seems to offer an appropriate framework for strategizing e-government for at least two reasons. First, by perceiving e-government as a network of diverse actors or stakeholders, ANT provides a framework and vocabulary on how to identify actors and their relationships that affect its performance. Second, through the notion of the four moments of translation, ANT offers a mechanism to understand why a network becomes stable or unstable. This mechanism is very important since it can be used by actors to influence relationship within the network. It thus relates to strategic action as notified by Johanson and Mattsson (1992).

One relevant question then is how effectively can ANT be used to develop strategy for e-government development. Answering this question will have a significant contribution as research on e-government strategy is sparse. Moreover, most research on e-government strategy was developed from a resource based view in which its formulation relates intensively with the availability of resources and pays less attention to the process of re-engineering (e.g. Chen et al., 2006). In addition, strategizing e-government using ANT may result in context-sensitive strategy as ANT holds assumptions on the nature and context of the relationship among actors within network. This assumption in turn will offer more appropriate conceptions of agency, power and action that are heavily involved in e-government development.

Following this section, the paper provides six more sections. First, it provides a literature review on e-government strategy and ANT. Second, it presents the research methodology. Third, it outlines the e-government strategy framework. Fourth, it describes the use of the framework to understand the development of e-government projects from a strategy point of view. Learning from the project development, the paper provides discussion on the effectiveness of the proposed strategy. The last section provides conclusions and recommendations on the potential contribution of ANT for strategizing e-government development.

**BRIEF LITERATURE REVIEW**

The literature review aims to identify the knowledge gap in the field of strategy used for developing e-government. It also argues that ANT provides a potential theoretical framework to study this knowledge.
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