Critical Success Factors of Open Government and Open Data at Local Government Level in Indonesia

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ABSTRACT
This article explores the complexity of open government and open data implementation from the perspective of local government in developing countries by addressing the challenges, success factors, lesson learned and the indicators of success. Using focus group discussions and in-depth interviews with public managers and other actors at the Bojonegoro regency, this study found five major challenges to open government and data, namely: a) the misappropriation and misused of the data, b) limitedness of technological capabilities, c) ensuring data credibility, d) the availability of information policy to govern openness, and e) maintaining public involvement and enthusiasm. The authors also identified four critical success factors driving the success of open government and data: a) collaboration between government, academics, private entities and general public, b) the openness of government office to accept criticism and suggestion, c) the accommodating leaders, and d) the commitment of government agencies to engage in open government and open data.

KEYWORDS
Challenges, Critical Success Factors, Indonesia, Local Government, Open Data, Open Government

1. INTRODUCTION
A smarter governance structure, facilitated by the advancement of information and communication technology, is necessary to benefit from the enormous capability of the public to congregate, interact, and collaborate in finding solutions to intricate and complex social problems (Scholl & Scholl, 2014). For the government, the key to enabling such structure is embracing the open and shared information culture in managing their data and information (Dawes, 1996). Open government and open data initiatives received prevalent attention in the last decade especially in developed countries where the initiatives are deemed to encourage innovations, new business models, and economic development (Huijboom & Van den Broek, 2011). Using open government and open data, the government, private entities and general public are able to work collaboratively to learn and generate novel public innovation to solve complex social problems based on published data (Evan & Campos, 2013). For instance,
eToilet apps in Chennai combine public toilet data and GPS (global positioning satellite) to solve public sanitation issues in India (Raman, 2012).

Notwithstanding the benefits, the implementation of open government and data is associated with numerous challenges including: sharing capability, privacy issues, data standardization, and political and financial barriers (Chui & Farrell, 2014). Government agencies are also challenged by related technical and organizational problems (Janssen et al., 2012) including violations of privacy, misuse of data, and misinterpretation of data (Zuiderwijk & Janssen, 2014). There are also challenges from the user’s perspective, including difficulties in processing data, lack of access, and fragmentation of data (Zuiderwijk, Jeffrey & Janssen, 2012). The interest to adopt open government and open data is not only prevalent in developed countries but also in the developing countries such as: Kenya, Ghana, and Nigeria. While open government and open data implementation in the developed countries are met with numerous challenges, one can argue that these challenges can be more acute in the developing countries. Sayogo, Pardo & Cook (2014) found that countries have different levels of open data development in terms of content, data manipulation capabilities, and participation capabilities depending on their national contexts.

Government’s interest in adopting open government and open data is not only manifesting at the national level, but also at the local level. For instance, more than 500 cities adopted open data model in one form or another on their websites (Yavuz & Welch, 2014). As such, the challenges to adopt and implement open government and open data are more prevalent in local governments where capabilities and resources are lacking compared to the National government. Agencies within local government must have the capability to share data and information both technically and organizationally (Melin, 2016; Janssen et al., 2014). Lacking the capabilities have resulted in immature efforts and publishing data was just used as a front to improve the image and increase the legitimacy of local government (Yavuz & Welch, 2014, p. 582).

Presumably, the above-mentioned challenges are more profound in local governments in developing countries compared to those in developed countries. Nevertheless, ascertaining whether the assertion is correct is not easy given the limited number of studies focusing on local government level in the context of developing countries. For that reason, the purpose of this paper is to critically analyze the implementation of open government and open data initiatives at the level of local government in Indonesia focusing on the challenges, success factors and lessons learned, as well as the strategies used to mitigate the challenges. In addition, this paper aims to evaluate the characterization of success of open government and open data from the perspective of local government in developing countries. Hence, this study addressed the following research questions: a) what are the challenges facing local government in developing countries to implement open government and open data? b) what lessons and success factors can be learned from the situated local government case in the developing countries? and c) what characterized the success of open government and open data implementation at local government in developing counties?

This paper focuses on the supply side of open government and open data, meaning that we investigate factors that affect the implementation of open government and open data from government’s perspective, particularly that of local governments. This paper follows the Obama’s three pillars of open government – transparency, participation, and collaboration - to center our arguments. However, in conjunction to Sayogo, Pardo & Cook (2014), we acknowledge that the development of open government and open data in developing countries follows incremental approaches comparable to the e-government development stages. Furthermore, we argue that open government and open data are closely related because open data is one of the tools to realize open government (Gonzalez-zapata & Heeks, 2015; Janssen et al., 2012; Yu & Robinson, 2011). Thus, we focus only on the challenges and critical factors that encompass both open government and open data.

The remainder of this paper is organized in the following manner: Section two will introduce previous studies on open government and open data focusing on the challenges and lesson learned. The research methods will be described in section three. Section four will discuss the results and
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