# Chapter 32 Analyzing the Conceptualization of and Challenges to Adopt Smart Public Library in Indonesia

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# ABSTRACT

A smart public library holds crucial roles in the current fast-moving smart environment. This study defines what constitutes a smart library and outlines the critical challenges affecting the readiness of the library to adopt a smart library in developing countries. Using a case study encompassing documentation analysis and in-depth interviews with 13 public officials at the Regency of Bojonegoro, Indonesia, this study demonstrates that expensive ICTs expenditures does not necessarily mean achieving a smart library. The findings showcase that a smart library started from the innovative and inventive programs and services that are progressively geared toward achieving the library as a place for the co-production of knowledge. The findings further demonstrate that technology per se is not the most critical challenge for a smart library. The findings highlight data awareness, organizational issues, insufficient policies and regulations, and public concerns as more significant challenges to the adoption of a smart library than technological capability and infrastructure.

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## 1. INTRODUCTION

Many government investments on information communication technologies (ICTs) such as open government and open data put less emphasis on the demand side (Jurisch, Kautz, Wolf, & Krcmar, 2015). They often assume that citizen's participation in the initiatives is given (Hellberg & Hedström, 2015). Data divide and lack of access to infrastructure or necessary skills were cited as critical determinants affecting the lack of participation (Gurstein, 2011). This condition gives rises to the crucial role of public libraries to mediate the connection between government and its constituents (Bertot, Jaeger, Langa, & McClure, 2006; Burke, Kowlowitz, Pardo, & Sutherland, 2014; Jaeger et al., 2014; Taylor et al., 2014). Through this mediation, digital inclusion could be increased, foremost, to the benefit of the "grassroots" populations and those challenged in using and benefiting from computers and the internet (Sey, Coward, Rothschild, Clark, & Koepke, 2013). The values offered by public libraries are significant in enhancing the achievement of the community open government ecosystem (Burke et al., 2014; Sayogo, Wang & Yuli, 2016). The library is also crucial in facilitating the implementation of smart cities (Loerke, Wyatt & McQuire, 2018; Mckenzie, 2000).

The change in information environment facilitated by the advancement of ICTs also transforms and enhanced libraries strategies and management (Little, 2013) concerning the libraries roles, contents, information services, data centers, and the relationships between a library and its user (Min, 2012; Salem et al., 2012). This situation gives rise to the phenomenon of smart libraries (Baryshev, Verkhovets, & Babina, 2018). The use of ICTs in facilitating the working and business processes of the library constitutes the "smart" aspect of the smart library (Freyberg, 2018). Schopfel (2018) proposes four dimensions of a smart library, namely: smart services, smart people, smart place, and smart governance. The smart library is users oriented, providing services that are "interactive, innovative, informative, real, changing and international" (Baryshev, Verkhovets, & Babina, 2018, p.537), and based on the information needs of the users (Alipour-Hafezi et al., 2019; Kim & Abbas, 2010). The smart library is less associated with physically collecting, storing, managing, and transferring knowledge (Koehler, 2004), but more on functioning as information commons, learning centers, and cultural infrastructure connecting community with information (Schöpfel, 2018).

On the one hand, the changes into the smart library further augment the crucial roles of the library in the open government and smart city ecosystems (Burke et al., 2014) considering that smart library could better facilitate the information needs of their patrons (McKenzie, 2000; Schopfel, 2018). On the other hand, libraries must overcome numerous challenges emanating from the complexities of smart library's adoption and implementation, more so in the developing countries (Chisita & Dick, 2018). This paper thus presents a critical analysis of public library readiness to adopt and implement a smart library in developing countries using the case of Indonesia. This paper outlines the challenges affecting the readiness of public libraries in Indonesia to adopt a smart library from the perspectives of technology, organizational, and policy. Hence, this study addresses the following research questions: a) to what extent do public officials at local governments in a developing county understand what constitutes as smart in the smart library? And b) what are the challenges facing local government in the developing country to implement smart library from the perspectives of technology, organizational, and policy?

This paper used document analysis and in-depth interviews to gather the data ascertaining the readiness to adopt a smart library in the regency of Bojonegoro in Indonesia. In-depth interviews were conducted with thirteen (13) public officials from the department of library and information services and also the department of information and communication in the regency of Bojonegoro. The analysis of the chal-

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