# Chapter 54

# What Drives the Adoption of Social Media Applications by the Public Sector? Evidence from Local Health Departments

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### **ABSTRACT**

Social media applications (SMAs) have been increasingly used by the public sector to interactively communicate with citizens, businesses, and other stakeholders, but we know little about what drives their adoption and usage. In this paper the author hypothesizes that SMA adoption is jointly shaped by top management characteristics, organizational attributes, and interorganizational and environmental factors. Drawing on a national survey of the U.S. local health departments (LHDs), his empirical findings suggest that the age and career background of top executives, organizational size, jurisdictional coverage, quality improvement initiatives, contracting-out experience, and emergency presence are key predictors of SMA adoption. The author also finds that the adoption and number of SMAs are affected by two different groups of antecedents. The results contribute to our understanding of SMA adoption and generate meaningful policy implications for LHDs and other public sectors.

# INTRODUCTION

As the most recent information and communication technology (ICT) revolution, social media applications (SMAs) and Web 2.0 technologies (e.g., Facebook, Twitter, and YouTube) have unprecedentedly transformed the virtual world and real lives. Due to its salience in immediateness, interactivity, and engagement, SMAs outperform traditional ICTs in attracting users and adding value (McAfee, 2009). Billions of users frequently visit and spend roughly half of their time in SMAs (Nielsen, 2012). Citizens also apply SMAs extensively in civil and political engagement, which steadily drives the public sector to adopt SMAs (Rainie, Smith, Schlozman, Brady, & Verba, 2012).

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A double-edged sword, SMAs generates both opportunities and threats to the public sector (Cromer, 2010). Some sectors pioneer in adopting them, whereas others largely lag behind. The variations of public sectors in using SMAs invoke our interest to uncover its antecedents (Bertot, Jaeger, & Hansen, 2012). As one type of cutting-edged organizational innovations, we still know little about its determinants and conditions. The adoption of SMAs was theorized by three stages including informal experiment, norm emerging, and formalization (Mergel & Bretschneider, 2013), but it has not been empirically verified. The strategies of SMA use by police departments were compared (Meijer & Thaens, 2013), but no formal theories generate. Despite the adoption of SMAs by state governments (Ahn & Berardino, 2014) and municipal governments {Bonsón, 2012 #12985} has been examined, the models are partially elaborated and tested. Although the literature has examined the extensive use of SMAs by public organizations, what drives their adoption has not yet been systematically investigated. It is vital to understanding the antecedents and mechanisms of SMA adoption, which help public sectors to promote their extensive usage and generate positive consequences.

This paper draws on the 2010 national survey of over 500 local health departments (LHDs) in the U.S. to empirically examine the key antecedents of SMA adoption. LHDs are local public agencies responsible for community health service delivery and policy implementation. They have intensive communications with local residents and other external stakeholders, e.g., local government agencies, health care service providers, policy advocators, and media. There are roughly 2,700 local health departments (LHDs) across the U.S, and the National Association of County and City Health Officials (NACCHO, 2011) defines a LHD as "an administrative or service unit of local or state government, concerned with health, and carrying some responsibility for the health of a jurisdiction smaller than the state." (p.2) Extensive communication with and intensive involvement by other stakeholders usually require LHDs to adopt more efficient and friendly ICTs to promote their mission and target their clients (Keane, Marx, & Ricci, 2001). Thus, it is imperative for LHDs to adopt SMAs to improve communication quality (McCaughey et al., 2014), and it is appropriate to empirically examine SMA adoption by LHDs.

The ubiquitous use of SMAs by ordinary citizens encourages public health organizations to harness SMAs to strengthen communication and promotion (Chou, Hunt, Beckjord, Moser, & Hesse, 2009; Thackeray, Neiger, Hanson, & McKenzie, 2008). Public health organizations and practitioners have been increasingly using SMAs (Avery et al., 2010; Park, Rodgers, & Stemmle, 2011). A recent investigation reveals that approximately 60 percent of reported state health departments (SHDs) in the U.S. have adopted at least one type of SMAs, and the most used tools are Twitter, Facebook, and YouTube (Thackeray, Neiger, Smith, & Van Wagenen, 2012). A network analysis finds that SHDs are densely connected with each other on Facebook and Twitter to facilitate bidirectional communication and information dissemination (Harris, 2013). SMA adoption by LHDs, however, has not yet been empirically examined and we want to fill this research gap in this paper.

In the remainder of this paper, we first briefly review the literature on innovation adoption and propose multiple hypotheses to explain SMA adoption. We then introduce the data and methods used in this study, followed by the key empirical findings. We finally discuss the contributions and implications of the results, and conclude with limitations and future research directions.

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