Customer Relationship Management (CRM) technology and organizational change: Evidence for the bureaucratic and e-Government paradigms

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ABSTRACT

This paper examines the impact of Customer Relationship Management (CRM) technology on organizational change in local governments in the United States. The bureaucratic and e-Government paradigms are examined with regards to this technology impacting organizational change. Survey evidence on the adoption of CRM is examined from the perceptions of Chief Administrative Officers (CAOs) in cities and counties that have adopted this technology. Survey results indicate that both the e-Government and bureaucratic paradigms impacted organizational change from CRM adoption. Factor analysis shows that management change, efficiency change, and leadership and organizational change are the three most common factors in the models. Regression results indicate that local governments that score high on these factors are more likely to take an enterprise approach in the adoption of CRM for their local government. The results of this study imply that organizational change is not just influenced by the more recent e-Government paradigm, but traditional attributes of the bureaucratic model are present as well.

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1. Introduction

Most of the recent literature on IT and public administration has argued for the importance of the e-Government model to institute organizational change in government, while the bureaucratic model has received very little attention in the literature (Norris & Moon, 2005). [U1]

This paper examines both the bureaucratic and e-Government paradigms and their influence on the adoption of Customer Relationship Management (CRM) technology in local governments in the United States. CRM can be defined as a software application that is used to track interactions with residents in a local government on an ongoing basis and allows governments to manage this data. CRM for local governments incorporates, as part of the call center function, the ability to manage citizen non-emergency calls into one centralized system. CRM creates opportunities for citizens to participate in government (Schellong, 2008). Engaging citizens in government is one of the key visions of e-Government advancement (Thomas & Streib, 2003; Welch, Hinnant and Moon, 2004; Jones, Hackney and Irani, 2007; Caillier, 2009).

The bureaucratic paradigm is found in the traditional literature on the impact of Information Technology (IT) adoption in public administration (Fountain, 2001; Ho, 2002). In this literature, there is an emphasis on the improvement in the internal workings of government as a result of IT adoption. The e-Government paradigm, is more recent, and research in this area has proliferated with the rise of the internet in the mid-1990s. e-Government focuses on IT creating results in government, with its external and more transformative impact on public service delivery (Grant & Chau, 2005). Most of the recent literature on IT and public administration has argued for the importance of the e-Government model to institute organizational change in government, while the bureaucratic model has received very little attention in the literature (Norris & Moon, 2005). However, in this paper, there is an argument that one must understand both of these paradigms in order to realize the true potential of IT on organizational change (Heintze & Bretschneider, 2000; Kraemer & King, 2006).

This paper shows through survey evidence of Chief Administration Officers (CAO) the impact of CRM systems on local governments. The CAO is the top administrator for a local government and should have knowledge of the broad impact of CRM on organizational change. The research question of this paper is: *What is the importance of the bureaucratic and e-Government paradigms for explaining organizational change through CRM?* This article argues that in order to understand e-Government in the present context, one must understand the importance of IT on bureaucratic change as well.

Most of the existing research has examined CRM in private sector organizations (Fjermestad & Romano, 2003), with very little empirical research that examines this technology in the public sector organizations (King, 2007; Schellong, 2008). There needs to be more research on CRM in public sector organizations because of key differences from the private sector such as the absence of market incentives, the need for high levels of accountability, and multiple and

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Table 1
Bureaucratic and e-Government paradigms of CRM on organizational change.

	Bureaucratic paradigm			e-Government paradigm	
	Principles	Rationale		Principles	Rationale
Internal change	Efficiency	Creating more efficient service delivery in economic terms through CRM	External change	Accountable	Accountable to stakeholders such as citizens to create more open and transparent government through CRM
	Standardization	Making sure that service delivery is the same for all customers through centralized CRM		Information Sharing	Sharing information with different levels of government and citizens through CRM
	Cost savings	Reductions of costs through automation and removing duplication of efforts through CRM		Teamwork	Collaboration on CRM in service delivery
	Workflow management	Managing the workforce through CRM		Centralization of customer functions	Centralization of customer service through CRM
	Productivity	Increase output given a fixed amount of input using CRM		Effective management	Using CRM to promote change in management to focus on result
	Workforce reduction	Reducing workers handling calls in individual departments, creating a leaner workforce through CRM		Leadership	Having a champion of IT to development its full potential

ambiguous goals of public organizations (Bozeman & Bretschneider, 1986; Pan, Tan, Eric and Lim, 2006). In addition, citizens prefer to use different contact channels depending upon the problem they want to address. They prefer to use the internet more for research-oriented activities, but prefer the phone to solve problems (Pew Internet and American Life, 2007). Therefore, citizens prefer different channel choices when initiating contact with government, which makes understanding CRM adoption especially important (Ebbers, Pieterson and Noordman, 2008).

This study is different from existing research in that it examines through survey evidence the impact of CRM on organizational change. There is very little survey research completed on this important and emerging area of e-Government research. This study also examines the perceptions of CAOs and their influence on shaping organizational change in the public sector. CAOs are critical stakeholders in shaping IT and organizational change in their governments.

This paper is divided into several sections. The next section examines how CRM technology creates an enterprise approach in public sector organizations. This is followed by a discussion of the bureaucratic and e-Government paradigms and what both theories say about organizational change through CRM. Survey evidence is then presented examining the views of local CAOs on the adoption of this technology for their government. Statistical evidence on the impact of CRM for local governments is discussed in the final sections of the paper. The conclusion to this paper stresses the importance of knowing both the bureaucratic and e-Government paradigms in order to understand organizational change from IT.

2. Enterprise approach and CRM

One way that IT can improve the performance of government is by focusing on an enterprise approach (Bannister, 2001; Landsbergen & Wolken, 2001). IT is said to be able to integrate public sector organization to better focus on its mission (Ebrahim & Irani, 2005; Hjort-Madsen, 2007). CRM technology, for instance, has the ability to integrate the customer service function into a centralized information system. This technology will reduce or eliminate the need to have separate customer service functions in individual departments. An enterprise approach has the ability to focus on the needs of citizens because customer service representatives become specialists in identifying their needs. However, individual departments may lose control of their customer service function, which may create a tension between the departments and the call center.

One of the most important impacts of creating an enterprise approach is that it breaks down the silos of information in government (Bannister, 2001). The focus here is on changing the way the organization functions. Before CRM departments would provide services individually, this would lead to confusion by citizens

because they may be uncertain of where to go for information or services (ICMA, 2008; Schellong, 2008). A centralized customer service system has the potential to break down these silos since information is shared from the departments with the call center to better meet the needs of citizens. As a result, CRM is part of developing an enterprise approach to government, focusing on the needs of citizens, rather than asking citizens to navigate through government bureaucracy (King, 2007). Essentially, it provides a one-stop-shop to government information and services, breaking down the silos of government bureaucracy demonstrating the importance of government working together to attain results (Ho, 2002).

3. Bureaucratic paradigm and e-Government paradigms

Table 1 shows two common paradigm or models of IT adoption and their impact on organizational change (Ho, 2002), and applies them to CRM technology. The first paradigm is the bureaucratic and has the longest history in the literature on IT and public administration. The second paradigm is the e-Government, which has a relatively short history, but has a lot of say about organizational change in the public sector. The e-Government paradigm advocates for the transformation of the organization as a result of adopting this technology (West, 2004; Grant & Chau, 2005; Bekkers & Homburg, 2007). Through a literature search, each of these paradigms has several principles that are noted as being important.

There are six principles identified in the bureaucratic model and the same number for the e-Government model (see Table 1). The bureaucratic model focuses on *internal change* within government, while the e-Government model shifts the focus onto *external change*. These two paradigms are not mutually exclusive, in that some of the principles found in the bureaucratic paradigm can also be found in the e-Government paradigm. For example, effective management and leadership could fit into both paradigms since they deal with change internally. However, both of these principles are advocated strongly for in the e-Government research and are perceived to be a benefit of adoption. In addition, e-Government has some of the principles associated with the bureaucratic paradigm such as efficiency, standardization, cost savings, and productivity. Therefore, through the analysis presented here, some of the principles can be incorporated into the other paradigm. As the literature review discusses, the principles identified in each of the models are often cited as reasons for IT adoption and its impact on organizational change. In addition, there is the issue of omitting certain principles from each of the models, given that there are multiple principles that could be incorporated into each model. However, given the limited number of cases in the survey discussed later, it seemed reasonable to focus on the most important principles indentified in the literature.