

## Chapter XXVI

# E–Government Payoffs: Evidence from Cross–Country Data

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### ABSTRACT

Using secondary data from 99 countries and IT impact literature as the guiding theoretical perspective; we examine the payoffs from e-government in the form of national performance. We do this by initially examining the relationship of e-government development with the first order government process efficiency parameters (resource spending efficiency and administrative process efficiency). Subsequently we examine the association of these first order efficiency outcomes with the two second order dimensions of national performance (reduction of social di-

vide and business competitiveness). Our analysis reveals significant association of ‘e-government development’ with both the first order ‘government efficiency parameters’. Further analysis reveals significant relationships of ‘government efficiency parameters’ with the dimensions of ‘national performance’. Important role of ‘national business competitiveness’ in the reduction of ‘social divide’ is brought forth through post-hoc analysis. Through this research, we make some important contributions which have implications for researchers, practitioners, public administrators, and policy makers.

## **INTRODUCTION**

E-government can be defined as the use of information and communication technologies (ICTs) and the Internet to enhance the access to and delivery of all facets of government services and operations for the benefit of citizens, businesses, employees, and other stakeholders. In recent times, e-government has generated a lot of interest among researchers. Studies on e-government can be roughly classified into three broad areas: e-government development and evolution (Kunstelj & Vintar, 2004; Layne & Lee, 2001; Srivastava & Teo, 2004; Tan & Pan, 2003), e-government adoption and implementation (Koh et al., 2005; Li, 2003; Melitski et al., 2005), and the impact of e-government on citizens and businesses (Banerjee & Chau, 2004; West, 2004). Though research in all the three identified areas is important, governments, policy makers, practitioners, and academics are often intrigued by the *payoffs* from e-government. The facts that research on e-government impact is still in a nascent stage, and its relationship with national performance has not been adequately addressed in previous research, are the prime motivators for this research.

The link between information technology (IT) investments and organizational performance, termed as IT payoffs, has been researched by numerous scholars (Brynjolfsson & Hitt, 1996; Devaraj & Kohli, 2003; Melville et al., 2004). The practical relevance of IT impact continues to motivate researchers to investigate the relationship between IT and performance (Srivastava & Teo, 2007). Although IT impact research continues to be a major component of information systems (IS) research, relatively few studies have been conducted to gauge the relationship of e-government with national performance. Past research on the e-government impact has highlighted some of the benefits it offers for citizens, businesses, and governments. E-government has not only helped in improving service delivery (Kibsi et al., 2001;

Von Haldenwang, 2004; West, 2004) and increasing democratization (Von Haldenwang, 2004; West, 2004), but has also helped in reducing corruption and increasing government transparency (Banerjee & Chau, 2004; Cho & Choi, 2004; Von Haldenwang, 2004; Wong & Welch, 2004). Most e-government payoff variables investigated in past studies are intermediate process variables, which may eventually impact the national performance (Barua et al., 1995). But this link has not been clearly examined in the current e-government literature. In our study, we address this gap by conceptualizing the relationship between e-government development and national performance, mediated through intermediary payoff variables. We construe national performance as consisting of two dimensions: *reduction of social divide* and *business competitiveness*. Further, we posit that e-government development impacts government process efficiency (*resource spending efficiency* and *administrative process efficiency*), which in turn impacts national performance on the two construed dimensions. Through our research, we investigate the relationship between e-government development and first order impacts, and consequently the linkage between first order efficiency variables and higher order performance variables (Barua et al., 1995; Melville et al., 2004).

Further, most e-government studies are either conceptual (Kibsi et al., 2001; Layne & Lee, 2001; Warkentin et al., 2002; Wimmer, 2002), or case studies (Heeks, 2002; Lee et al., 2005; Li, 2003; Srivastava & Teo, 2005). Though e-government literature also has some theoretically-grounded empirical survey studies (Phanget al., 2005; Bretschneider, 1990), such empirical studies are relatively few and are often limited to analyzing a particular e-government implementation within a country (Kaylor et al., 2001; Norris & Moon, 2005; McNeal et al., 2003; Moon, 2002; West, 2004). Cross-country and country level empirical studies are very few (for example, Wong & Welch, 2004; Singh et al., 2004). Moreover, empirical studies assessing the impact of e-government are even

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