Examining the anti-corruption effect of e-government and the moderating effect of national culture: A cross-country study

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ARTICLE INFO

ABSTRACT

This study addresses whether e-government influences the level of corruption control in a cross-country view. To that end, it examines the influence of e-government service maturity on corruption control considering inter-national-level political, economic, and cultural differences. The path analysis on the relationships among various global indicators reveals that e-government service maturity contributes to controlling corruption, and national culture moderates the anti-corruption effect of e-government. Cross-country disparities in political, economic, and cultural conditions influence the variation in the impact of e-government on corruption control. While convincing evidence that affluent democracies can control corruption more effectively than other countries is presented, an examination of cultural moderation finds that national cultures characterized as having unequal power distribution and uncertainty avoidance have a decreased anti-corruption effect of e-government.

1. Introduction

Much research has analyzed the determinants of country-level corruption. An increasing number of countries are joining anti-corruption movements specified as e-government strategies, open government initiatives (e.g., U.S. Open Government Initiative and the Open Government Partnership), and transparency efforts in terms of data, information, and policy processes. Meanwhile, traditional conditions such as political and economic factors exert determining effects on levels of corruption. Whether national endeavors (projects, programs, or initiatives) for controlling corruption can outperform the traditional antecedents of corruption has become an inquiry for in-depth research. E-government is increasingly considered an important manifestation of such national anti-corruption endeavors (Bannister & Connolly, 2011; Bertot, Jaeger, & Grimes, 2010, 2012; Cho & Choi, 2004; Choi, 2014; Kim, Kim, & Lee, 2009). Regarding this rising recognition, the paper asks the following research question: given political and economic conditions, does e-government service maturity influence corruption control?

While political and economic conditions can be considered as national capacity for anti-corruption, a wide array of studies have argued that the extent to which national efforts for anti-corruption achieve goals, whether in a digital form or not, can differ across national cultures (e.g., Husted, 1999; Park, 2003; Seleim & Bontis, 2009; Zhao, Shen, & Collier, 2014). Only a few studies, however, have captured a culture-based account of e-government effects (Khalil, 2011; Singh, Das, & Joseph, 2007). Specifically, a research gap lies in the dearth of

empirical and rigorous research addressing cultural influence on the anti-corruption effect of e-government-driven openness and transparency efforts compared with ample literature regarding the culture-corruption relationship. This study aims to fill the gap, raising another research question: given political and economic conditions, does national culture moderate the cross-national effect of e-government on corruption control?

To answer the two research questions, this study establishes a path model that captures the relationships among various global-scale indicators. The rest of the article is structured into five sections. Section 2 explains the theoretical and empirical backgrounds of corruption control and e-government's anti-corruption effects. Section 3 describes the data, variables, and measurements of this cross-national study. Section 4 reports the results of the path analysis. Section 5 discusses theoretical implications, practical suggestions, and research limitations. Section 6 concludes this article.

2. Theoretical and empirical background

2.1. Modernization theory

Fundamental arguments for the theoretical suggestion of this study are drawn from modernization theory (Barker, 2005; Bernstein, 1971; McClelland, 1967), which helps explain the influences on social change, development, and progress. The theory focuses on macro-environmental facets such as political enlightenment, economic growth, and technological progress. In line with the purpose of this study, further

application of the theory covers the impact of technological advancement across societies (Barker, 2005). This study aligns key terminologies of the theory with political capacity, economic capacity, e-government (as technological advancement), and corruption control (as social change and development).

The theory extends to the contention that modernized societies would utilize and benefit from services made by emerging technologies compared to less technologically-sophisticated societies (Barker, 2005). If e-government is an innovative, recent stimulator of social change, countries that possess macro-environmental resources and capacities (political democracy and economic capital) would be better poised to accomplish e-government actions than their counterparts, for which accomplishments are restricted to basic-level benefits in an initial phase of e-government maturity (Azad, Faraj, Goh, & Feghali, 2010; Layne & Lee, 2001; Norris, 2001; Singh et al., 2007). This study considers anti-corruption to be one of the accomplishments of social change. However, modernization would fail if a society did not have requisite factors such as human resources (McClelland, 1967). Therefore, human capital should be considered in the relationships of political capacity, economic capacity, and e-government as technological progress, with anti-corruption as social progress. In addition, modernization theory considers the influence of contextual conditions (Barker, 2005). The impact of macro-environmental capacities on social progress can depend on the cultural context. Fig. 1 simply illustrates modernization theory.

The remaining part of this section discusses corruption as a socially undesirable status, political-economic capacities as traditional determinants of country-level corruption, e-government maturity as technological progress, and the relation of e-government maturity to other components. This section then considers national culture as a contextual component and discusses how diverse dimensions of national culture influence country-level corruption. Finally, a review of the literature backs the proposal of a research framework specified as a path model.

2.2. Corruption as a target of modernization

Corruption is a universal (i.e., existing across time and place) and pathological (i.e., undermining the effectiveness and legitimacy of governments, the political system, and the market system) phenomenon (Choi, 2014: 219). Observing the pervasive global phenomenon, many scholars have tried to refine this concept. Definitional components of corruption help explain it as a concept for research. As McMullan (1961: 184) stated, corruption is an *illegal* act by definition. Because a common understanding regards corruption as exploiting public authority for private gains (Aladwani, 2016), the deviation from *public* responsibilities for the pursuit of *private* interests is central to the concept. Corruption appears in various types of illegal financial and/or administrative behaviors conducted by individuals with public jobs or duties for their own private tangible and/or intangible benefits. The representative types comprise bribery such as kickbacks and pay-offs,
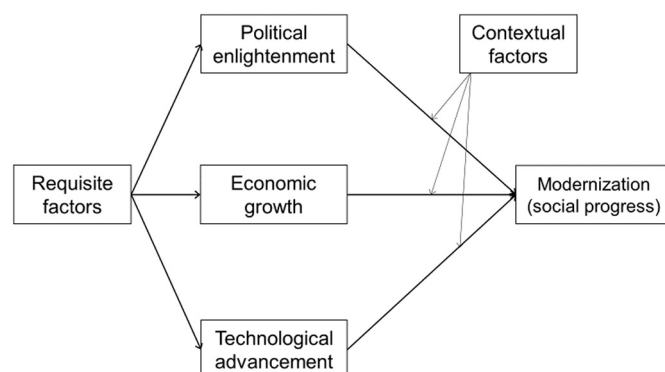

Fig. 1. The simple illustration of the modernization theory.

embezzlement or misappropriation, nepotism shown as favoritism and preferential treatment, abuse of public authority, and extortion profiting by coercive means (Caiden, 2001; Caiden & Caiden, 1977; Rose-Ackerman, 1975, 1978, 1996, 1999).

2.3. Traditional determinants of corruption: political-economic capacity

Causes of corruption have been of keen interest to academics. For example, research inquiries such as the determinants of corruption, the reasons for corruption, and the proneness of some countries to corruption over others have attracted consistent attention (Choi, 2014: 219). An array of studies has highlighted macro-level determinants of corruption (Abu-Shanab, Harb, & Al-Zoubi, 2013; Aladwani, 2016; Doig & Theobald, 2000; Klitgaard, 1988; McMullan, 1961; Rose-Ackerman, 1999; Shleifer & Vishny, 1993; Treisman, 2000; Wraith & Edgar, 1963). Their country-level and cross-country findings have commonly revealed that corruption is deeply rooted in political and economic capacities.

Politics-based corruption primarily results from coercive powers found in a closed, non-competitive political environment of the developing world (Doig & Theobald, 2000; Hardoon & Heinrich, 2013). Existing studies (Das & DiRienzo, 2009; Park, 2003; Serra, 2006) have derived reasons and sources of coercive political powers invoking corruption from institutional and practical suppression of political rights. The extent to which basic political rights are guaranteed in practice influences the extent to which politically coercive authoritative powers are exercised for corruption (Saha, Gounder, & Su, 2009; Serra, 2006). Promotion of political rights reflects the overall level of democracy, which implies the constitutional and actual guarantee of freedom of expression, freedom of association, and freedom of the press.

Not only democracy but also economic prosperity offers an advantage for country-level corruption control. Despite variances within similar levels of economic wealth, there is a strong association between economic prosperity and economy-based corruption. Expectedly, economic prosperity has a negative relationship with level of corruption (Choi, 2014: 220). According to Lipset (1960), advanced economies—characterized as having more access to better education, greater literacy, and more impersonal relations—can detect and deter corrupt behaviors of government officials more easily than less developed economies. Economic prosperity can produce economic freedom and economic globalization. Economic liberalism is more prevalent in relatively wealthy countries. Economic freedom enhanced through economic liberalism dampens corrupt behaviors, encouraging economic openness and discouraging insecurity in economic relations (Graeff & Mehlkop, 2003; Shen & Williamson, 2005). Goel and Nelson (2005) found that economic freedom matters more than political freedom when trying to reduce corruption. Economic liberalization based on a high level of economic freedom notably influences the effect of democracy on corruption (Saha et al., 2009). As such, liberalism-driven economic globalization can promote economic freedom and decrease the level of corruption (Akhter, 2004). For example, participants in international trade or aid organizations should follow rules and regulations for economic globalization that force countries to reduce domestic corruption, and currently wealthy countries can afford to comply with those external requirements (Sung & Chu, 2003; Williams & Beare, 1999).

2.4. E-government as a corruption reducer

An increasing number of studies have touted e-government as an effective tool for combating corruption and improving transparency in developing countries (e.g., Abu-Shanab et al., 2013; Andersen, 2009; Bertot et al., 2010, 2012; Bhatnagar, 2002; Cho & Choi, 2004; Choi, 2014; Ciborra, 2005; Corojan & Criado, 2012; Elbahnasawy, 2014; Kim, 2014; Krishnan, Teo, & Lim, 2013; Shim & Eom, 2008). Cumulated evidence underscores substantial relationships of e-government services with anti-corruption performances (Bannister & Connolly, 2011; Bertot