Testing vertical accountability: A cross-national study of the influence of information access on the control of corruption

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Abstract

This cross-national study used a vertical accountability model to examine the extent to which eight information-communication indicators would influence perception of corruption in 150 countries. The model appeared strong, given that all of the indicators were negatively and significantly correlated with perception of corruption and were individually supported in the literature for their inverse relationships with corruption. That is to say that corruption perception was strong in the absence of an access-to-information law and low media rights, electoral pluralism, political participation, political culture, length of time of the political regime and low cellular phone and internet subscriptions. The study found that low news media rights, short duration of the polity, weak political culture and low internet and cellular phone use were significant explanatory indicators for corruption. However, the presence of access-to-information legislation did not impact corruption.

Introduction

In 1989, when finance ministers met in Paris for a summit of the Group of Seven industrialized nations, one of the top issues on the agenda targeted ways to combat corruption (Florini, 1999, p. 18). Twenty years later, a global anti-corruption movement has taken hold that includes journalists, grassroots groups and transnational organizations that are attempting to advance public access to information, and in some cases, through naming and shaming governments and countries for corrupt acts. The measures have
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raised the international profile of the social cost of corruption,\(^1\) which the literature suggests leads to an unequal distribution of public benefits to citizens (Brunetti and Weder, 2003; Darch and Underwood, 2010; Mauro, 1995; Rose-Ackerman, 2005).

The World Bank (n.d.) has identified corruption as one of “the greatest obstacles to economic and social development” (paragraph 1). And in late 2010, the Group of 20 nations – representing two-thirds of the people in the world – developed an anti-corruption action plan at a meeting in Seoul, South Korea, to whittle away at the issue (G20, 2010).

More than $1 trillion in bribes alone are paid out around the world every year (United Nations, 2004); the literature indicates that graft affects the poor and disadvantaged in society the most (Brunetti and Weder, 2003; Darch and Underwood, 2010; Mauro, 1995; Rose-Ackerman, 2005). In some countries, corruption distorts elections, contributes to polluted water supplies and the food chain. Elsewhere, whether or not government officials pocket public money may predicate whether or not a villager receives a food-ration card; and in other countries excessive government regulations perpetuate perfect environments for public officials to seek bribes from citizens (Fleisher, 2010).

The literature indicates that institutions that support a check on corruption include a free news media and robust civil society, voter turnout, political participation, competitive elections, citizen use of information technology, and public use of freedom of information legislation (Besley & Burgess, 2001; Brunetti & Weder, 2003; Diamond & Morlino, 2004; Islam, 2006; Smulovitz & Peruzzotti, 2000, O’Donnell, 1996; Voltmer, 2000).

\(^1\) Corruption is defined in this paper as “the misuse of public office for private gain” (Treisman, 2000, p. 399).
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2010; Wampler, 2004). However, these indicators of accountability have not yet been tested together. This study examines the relationship among these indicators and their direct influence on control of corruption. The overarching research question in this study is to what extent does access-to-information legislation, a free news media, and other indicators of information communication contribute toward curbing corruption?

The following sections describe the framework of the accountability model in this study and how it applies to corruption in the literature, followed by a description of the data and method, the findings and discussion.

**Vertical accountability**

As scholar Guillermo O’Donnell (1996) writes, “Representation entails accountability” (p. 100). Governmental accountability and transparency frequently have been cited as key to anti-corruption campaigns (Snow Bailard, 2000); and studies have shown that one way to control public corruption is through external institutions that hold leaders accountable (Brunetti & Weder, 2003; Diamond & Morlino, 2004; Wampler 2004). The literature suggests the accountability model centers around governments’ “legal obligation to respect the legitimate interests of others affected by decisions, programs, and interventions” (Considine, 2002, p.21). Though horizontal accountability

2 – the monitoring of public activity through other government agencies or branches of government – is a critical and acknowledged checking system on the activity of public officials (Brunetti & Weder, 2003; Wampler 2004), this study focuses on the influence of vertical accountability, external sources that can reform the system from outside of

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2 Vertical accountability has been referred to as the way in which political and public leaders have their decisions and activities monitored by news media, civil society and citizens (Diamond & Morlino, 2004; Goetz & Jenkins, 2005; Wampler, 2004). Horizontal accountability would be the internal checks and balances within government that provide oversight of government activity (O’Donnell, 1998; United Nations Development Program, 2010, p. 9).
government. These potential corruption deterrents have been referred to as “vertical,”
given that these institutions “run ‘upward’ from citizens to leaders” (Diamond &

A robust news media and civil society, voter interest, political participation,
competitive elections, sharing of information through information technology, and public
use of freedom of information legislation, all have been individually cited in the literature
as conditions that support vertical accountability, control of corruption, or spur
government responsiveness (Behn, 2001; Besley & Burgess, 2001; Brunetti & Weder,
Voltmer, 2010; Wampler, 2004). Though vertical accountability often is framed as
citizens holding public officials answerable for their work activities through elections
(Diamond & Morrino, 2004; O’Donnell, 1996), non-electoral mechanisms also are
known to play out through news media reports and citizen groups exposing official
wrongdoing, advancing a public agenda, and triggering the attention of oversight
agencies. As noted by Smulovitz & Peruzzotti (2000), “The activation of legal actions or
claims before oversight agencies are examples of some of the available institutional
resources; social mobilizations and media exposés” are indicative of the others (p. 150).

Agency theory has been suggested as a conceptual foundation for examining this
vertical relationship between the government and the public, which includes the news
media, individual citizens and nongovernmental groups (Van Belle, 2010; Xin & Rudel,
2004). The influential principal-agent model posits that through the political process, the
news media and the rest of the public (the principals) exact accountability and control
corruption in government (the agents) by “limiting official discretion, increasing controls
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over officials, and reducing state power” (Xin & Rudel, 2004, p. 296). However, for this form of vertical accountability to work, it is necessary for the news media and the rest of the public “to exert influence on the political system and on public bureaucracies” (Smulovitz & Perruzzotti, 2000, p. 150). The study acknowledges the limitations of this approach that “information is never ‘perfect’; and asymmetries will always be a feature of the relationship between accountability objects and the agents that seek to hold them accountable” (Goetz and Jenkins, 2002, p. 10). This paper studies the potential of the non-state approach to curbing corruption through vertical accountability.

**Background on the issue of corruption**

Corruption has been described as an old issue (Bardhan, 1997, p. 1320). An Indian Sanskrit writer documented dozens of methods of stealing state money. And in the 14th century in the CE period in China, corruption was considered problematic during the Ming dynasty (Darch & Underwood, 2010, pp. 37-38). Some scholars suggest that corruption has been an issue that dates back to the concept of the state.

Still, corruption is an issue centuries’ later and public knowledge of it is keener with the advent of new technologies, the spread of access to information laws, and news media and citizens with many more voices. Public perception of government corruption in countries around the world is on the rise (Transparency International, 2010, p. 3). To some extent, no doubt, awareness about corruption is raised in the many news reports and grassroots groups’ attempts to expose government misdeeds through public records laws, the adoption of which have been on the rise for the last 20 years. Examples of disclosure abound.
In India, where millions of dollars a year are lost to bribes, kickbacks, and fraud in the public sector, a grassroots group of citizens that advocates for the right to public information is attempting to combat the corruption in that country through a zero-rupee note with a picture of Mahatma Gandhi on it that reads “Eliminate Corruption at All Levels” (Bloch, 2011). In addition, the website “Bribe Bandh” also is aimed at acquiring a million clicks to show the government of India that the public wants laws to crack down on corruption. In Mexico, newspaper journalists at El Universal used the federal freedom of information law to report on the funneling of public agriculture subsidies into the coffers of prominent drug traffickers and high-level government officials (Callamard, 2010). In Britain, a journalist used the Freedom of Information Act to request information about parliamentary expense accounts in the House of Commons in what turned into a five-year investigation and “set the stage for the resignation of the speaker of the House of Commons, an event not previously witnessed for 300 years” (Brooke, 2009; Nalder, 2009, p.1).

The following sections outline the framework related to the vertical institutions of accountability that may serve as checks on government.

**News media and corruption**

One of the tenets of the purpose for journalism is to serve as “an independent monitor of power” (Kovach & Rosenstiel, 2001, p. 12); news media are known to hold those in power accountable “most fully through what is now called the watchdog function of the press,” acting on behalf of the public (Cook, 2005, pp. 117-118) through “providing advance intelligence, advice, warning, and everything of general utility for information seekers” (Christians, Glasser, McQuail, Nordenstreng, and White, 2009, p.
31) W. Lance Bennett and William Serrin (2005) define watchdog journalism as “independent scrutiny by the press of the activities of government, business and other public institutions” (p. 169). Though there are stunning gaps and uneven practices, the public often looks to the news media for timely information (Bennett & Serrin, 2005; Curran, 2005; Ettema, 2007; Voltmer, 2010).

Though not conclusive, some research has shown holding back the news media from reporting leads to activities that are corrupt at high levels of government compared to nations with news media without these restraints (Freille, Haque, and Kneller, 2007). Another cross-national study found that corruption was negatively correlated with news media freedom (Brunetti and Weder, 2003, p. 1820-1821).

Scholars argue that news media performance is critical, and considered “one of the most effective institutions” of vertical accountability, when it comes to corruption (Brunetti & Weder, 2003, pp.1801-1802). This is largely because the professional code of ethics for journalists in many countries around the world advances the ideal that the news media conduct investigations to uncover wrongdoing; and though with some governments, the oversight agencies are co-opted by the architects of the corrupt acts, this is less likely to happen with journalists who have high incentives to report corrupt arrangements whether it is within the profession or not. According to Brunetti & Weder (2003), “As long as there is free entry in journalism and in publishing – which is one of the defining features of a free press – it will be difficult to form an effective cartel which encompasses all journalists” (p. 1805). Voltmer (2010) points out that “normative ascriptions, however, reveal little about the day-to-day reality” of reporting and “watchdog journalism plays a much lesser role . . . than the ideal might imply” (p. 141).
Control of corruption and access-to-information laws

It has been suggested that access-to-information legislation may be “a tool that can be used to gain accountability” in government (Piotrowski, 2007, p. 10). In theory, public use of access-to-information legislation leads to holding government accountable for its actions. The United Nations and other intergovernmental organizations have advanced protocols, initiatives, and conventions linking access to information and freedom of expression as deterrents to corruption (African Union, 2003; Asian Development Bank, 2004; Southern African Development Community, 2001; Steves & Rousso, 2003; United Nations, 2003). According to Roberts (2006), the key reason for the global phenomenon of nations around the world adopting access-to-information legislation is largely the corruption issue (p. 110).

Historically, access-to-information legislation has been one of the accountability institutions found in industrialized democracies (Feinberg, 1997; Piotrowski & Rosenbloom, 2002; Rosenbloom, 2003) yet a number of scholars have acknowledged that more recently a number of autocratic regimes have adopted the law in environments where access to information is not conducive (Ackerman and Sandoval-Ballesteros, 2006; Relly & Cuillier, 2010; Michener, forthcoming; Piotrowski, Zhang, Yu, & Lin, 2009; Roberts, 2006). One study found that the presence of access-to-information legislation significantly influenced a host of governance factors (Islam, 2006). Roberts (2006) found that nations that adopted access-to-information laws in 1990 or earlier had the lowest level of corruption followed by nations adopting from 1991 to 2000; but countries that adopted the legislation in 2001 or after had the highest level of corruption of all and were the poorest. Other research found that on average, nations with access-to-
information laws had lower levels of corruption than nations without the laws (Relly & Cuillier, 2010). A regional study, however, found that there was no correlation between perception of corruption measurements and the presence of an access-to-information law or draft of the law in African countries (Relly, 2011).

**Corruption, political pluralism, citizen participation, and political culture**

Though the news media and access-to-information legislation have been touted as institutions that fight corruption, critical conditions for vertical accountability include a robust civil society and citizen participation, voter interest and turnout, and political competition. According to Diamond & Morlino (2004), “The ongoing process of monitoring, questioning, and demanding justification through the work of civil society (the media, interest groups, think tanks, and so on) requires freedom for these groups to function and rule of law that protects them from intimidation and retribution” (p. 25). It has been posited that nations with free and fair elections tend to advance competition among leaders, which tends to provide a built-in form of accountability, though there are examples of a small number of democracies where there is party domination over a long period of time (Montinola & Jackman, 2002, p. 153-154). High turnover of political leaders, Montinola and Jackman argue, reduces the chances for these actors to engage in corrupt behavior. The researchers found evidence in one model that “higher levels of democracy reduce corruption” (p. 154).

Other scholars, too, have found that countries with strong democracies have lower levels of corruption than nations that have weaker political rights (Brunetti & Weder, 2003; Doig, 2000; Shen & Williamson, 2005). And some researchers found that nations with history of autocratic rule had the greatest degree of corruption (Xin & Rudel, 2004).
while others found that corruption was sometimes lower in dictatorships than in nations with only partial democratization (Montinola & Jackman, 2002, p. 147).

It is important to note that one study found that number of years as a democracy had the greatest impact on corruption (Treisman, 2000). Even countries with 30 years of democratic polity had less of an improvement on corruption than nations with 40 or more years of democracy that was not interrupted.

Studies also show that corruption is lower in nations where citizens have the freedom to communicate with one another, assemble, and associate (Brunetti & Weder, 2003; Johnston, 1998; Little 1996; Shen & Williamson, 2005). Treisman (2000) posited freedom of association and civic engagement foster public interest groups and may lead to tighter monitoring of government activity and exposure of misuse of public office, which could lead to social stigma, job loss, or criminal action (p.404). Another study reported weak civil liberties were correlated with higher levels of corruption compared with nations with strong civil rights (Stapenhurst, 2000, p. 8).

According to Schmitter (1996), “New democracies are usually born in a burst of civic enthusiasm and moral outrage against the corrupt decadence of the ancient régime” (p.88). However, as has been noted time and again, civil society enthusiasm may quickly be dampened when reforms that lead to deregulation, privatization and the sale of public enterprises and other market forces are rife with illegal government activity (p. 89). In some new democracies, where corruption levels are high, civil society has been weak. And in countries such as those in Eastern Europe, becoming a part of political or voluntary organizations hearkens back to a previous communist regime when
memberships were required and politicized (Voltmer, 2010). Still, grassroots mobilization in Latin America and Africa has been called “encouraging” (p. 139).

Plato’s *Republic* is lauded for affirming the importance of political culture in the argument that suggests while government may vary, “we cannot suppose that States are made of ‘oak and rock’ and not out of the human natures which are in them” (Plato quoted by Almond, 1989, p.2). Political culture, in many cases, may hold more power than formal institutions of accountability (Puddephatt, 2006, p. 10). Almond (1989) suggests that the explanatory value of indicators of political culture are open to testing (p. 26).

**Internet and mobile phone use and social change**

The leaps in information technology in the last two decades have made it easier for countless people around the world to access to information and learn about their governments (Lord, 2006). The technology boom also has revolutionized the ability of citizens to inexpensively share information across borders and has led to social change through reform movements that serve, in some cases, as deterrents to corruption (Bertot, Jaeger, & Grimes, 2010). Information Communication Technology initiatives in government have been tied to access-to-information legislation and a means to monitor government activity (Relly & Sabharwal, 2009).

The literature has examined the relationship between corruption and internet use and control of corruption (Bertot et al., 2010; Lio, Liu, & Ou, 2011) as well as corruption and mobile phone use (Snow Bailard, 2009). Some studies have shown a positive relationship between internet use, gathering of information, and public participation (Cuillier & Piotrowski, 2009; Katz, Rice, & Aspden, 2001; Norris, 2001; Richstad, 2003;
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Norris (2001) points out that developmental and technological theories presuppose that civic society is primarily online in nations that have developed telecommunication infrastructure, pinning internet use on economic development levels. However, Norris offers an alternative explanation through political theories of democratization whereby there would be greater “opportunities for civic deliberation and public debate, for group mobilization and for party activism on the internet in established democracies and open societies with a long tradition of civic engagement and pluralist engagement than authoritarian regimes” (p. 107).

There are a number of cases of autocratic countries, including that of China, where the issue of certain types of corruption provide a counterpoint. The nation has the largest number of Internet users in the world (298 million people), one of the most controlled internet-use environments around the globe, and a government attempting to mitigate corruption issues in the bureaucracy through encouraging whistleblowers (Deutsch Karlekar & Cook, 2009). Also, in other parts of the world, internet use has been heralded as a way for civil society to mobilize in the public sphere and has been trumpeted as contributing to a revolution in political participation in countries that have had closed and corrupt regimes (Fandy, 2000).

The relationship between corruption and public use of the Internet is not always clear, however. Lio et al. (2011) found that “the effects of internet adoption on corruption reduction are statistically significant but not too substantial.” On the other hand, Snow Bailard (2009) found a negative correlation between perceived corruption in a country
and the extent that mobile phones had penetrated; she also found that the greater degree to which mobile phone signals covered a country was associated with reduced corruption perception (p. 333). In theory, the mechanism is this: Corruption decreases with increases in mobile phone use because it decentralizes from where information is communicated. According to Snow Bailard (2010), “Mobile phones reduce the monopoly over information and communication that officials have traditionally exploited to shield their own corrupt behavior.” But mobile phone diffusion could promote rather than deter corrupt activity, as well (p. 338-339).

**Methodology**

**Data description**

The study uses a modified version of the vertical accountability framework of Smulovitz and Peruzzotti (2000), which provides a societal and electoral approach as a mechanism of providing a check on the activity of the public sector and politicians. The study utilizes secondary data from a number of respected sources to analyze the association between perception of public corruption and eight vertical institutions of accountability that the literature suggests curb monopoly control of information.

The study uses PASW Statistics v. 17 (PASW, 2009) to measure the correlation between perception of corruption and news media rights, the presence of access-to-information legislation, political participation, political culture, political pluralism, durability of the polity, and the use of internet and cellular phone subscriptions to obtain information. Then the study performs an Ordinary Least Squares regression to establish to what extent these lagged societal and electoral institutions of vertical accountability inhibit the public corruption indicator. The unit of analysis is the nation level ($N = 150$).
Perceptions of corruption

As scholars (Brunetti & Weder, 2003; Lambsdorff, 2010; Treisman, 2000) have noted, it is difficult to collect data that measures actual corruption levels, particularly cross-nationally. The aggregate perception of corruption index (Lambsdorff, 2010) is based on “the degree to which corruption is perceived to exist among public officials and politicians” (p.1). Though there are a number of indicators for measurement of corruption perception, the study choose this indicator because of the confidence interval and because the indicator has been published annually for 15 years.

The index is comprised of data collected from 2009 and 2010 that evaluate the degree to which corrupt activity is taking place in a country. The two sources of data are 13 surveys from 10 organizations\(^3\) and country experts, who are residents and non-residents. The data is standardized into the common scale using a technique based on matching percentiles within a 0 to 10 index. The scores were then standardized using a beta-transformation and then averaged for every nation. The corruption perception index has a confidence range of 90 percent, making the probability five percent that a value would be above or below the confidence range.\(^4\) The researcher reverse coded the 0-to-10 index so that 10 represents the most corrupt government perception and 0 represents least corrupt perception, or a clean government.

The independent variables for the vertical accountability model in this study are societal and electoral indicators. A description of these lagged variables follows.

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\(^3\)The organizations that conducted the surveys are the African Development Bank, the Asian Development Bank, Bertelsmann Foundation, Economist Intelligence Unit, Freedom House, Global Insights, Institute for Management and Development, Political and Economic Risk Consultancy, the World Economic Forum, and the World Bank.

\(^4\)See Lambsdorff’s (2010) methodological note for more detail.
Vertical societal indicators of accountability

News media rights

Given the literature that has shown an inverse relationship between corruption and news media freedom (Brunetti & Weder, 2003; Freille et al., 2007), the study uses the freedom of the press indicator for 2008 as a lagged indicator to examine the influence on corruption in the subsequent year(s). The Freedom House indicator was chosen because of its coverage of the political, economic and legal context for journalists performing their jobs in countries around the world. The value ranges from 0 to 100 and was reverse coded by the researcher so that 0 represents the lowest level of news media rights and 100 represents the highest level.

The news media rights indicator represents responses to 23 methodology questions for the measurement aimed to summarize the political, legal and economic environments for the news media; scholars and regional experts analyzed domestic and international news articles and reports from the news media, governments, human rights groups, foreign correspondents, human rights group representatives, and geopolitical experts. The researchers assigned up to 40 points for attributes of the political environment for the news media, up to 30 points for the legal context and up to 30 points for the economic environment.

Access-to-information law indicator

Though there is a growing body of normative literature that has linked access to information and its positive influence on curbing corruption and a small body of cross-national empirical studies that have examined a relationship (Islam, 2006; Relly & Cuillier, 2010; Relly, 2011; Roberts 2006). A limited number of studies have examined
the influence of access-to-information legislation on governance (Islam, 2006; Relly & Sabharwal, 2009); however, to the author’s knowledge, this is the first cross-national study to examine whether access-to-information legislation (or the conditions for a draft of the law) serves to curb corruption in the context of a host of vertical indicators that represent the potential for communication of information.

The study uses Banisar (2006) and Vleugels (2010) databases to code for the presence of an access-to-information law or draft of the legislation. These databases were used because they are considered to be the most complete; together the databases extend through 2009.

**Mobile cellular phone subscription**

The measurement of mobile cellular phone subscription per 100 inhabitants (International Telecommunication Union, 2008) is used because the literature suggests that it has served to curb information monopoly (Snow Bailard, 2010). Mobile phone subscriptions include digital and analog cellular systems, including pre-paid and postpaid subscriptions. Prepaid subscriptions are counted when the accounts are used at least every three months. The mobile subscriptions per 100 was determined through taking the number of mobile subscriptions and dividing it by the population and finally multiplying that number by 100 (International Telecommunication Union, 2010, p.12).

**Internet subscribers**

The fixed Internet subscribers per 100 people indicator (International Telecommunication Union, 2008) is the number of people with subscriptions, including fixed broadband or dial-up service subscribers. The figure is calculated through taking
the number of Internet subscribers and dividing it by the entire population and finally multiplying that number by 100 (International Telecommunication Union, 2010).

**Vertical political indicators of accountability**

The study uses the Economist Intelligence Unit’s (2008) data for electoral process and pluralism, political participation, and democratic political culture because of the link in the literature to control of corruption (Diamond & Morlino, 2004; Kelly, 2003; Montinola & Jackman, 2002; Shen & Williamson, 2005; Treisman, 2000; Xin & Rudel, 2004). Each indicator is based on experts’ assessments and public opinion surveys from World Values Survey, Eurobarometer surveys, Gallup polls, Asian Barometer, Latin American Barometer, and national surveys. The measurement consists of a three-point and dichotomous scoring system for each indicator.

**Political participation**

The political participation indicator is compiled from nine questions that focus on voter turnout; minority voices in the political process, civic engagement and participation in political parties and political nongovernmental groups, and the percentage of the public that show an interest and follows politics in the news media (Economist Intelligence Unit, 2008, pp. 24-26).

**Political pluralism and political process**

The electoral process and pluralism (2008) indicator is derived from 12 questions that examines whether elections for leaders heading government, the national-level legislatures and municipal-level government are fair and free, whether universal suffrage is honored, whether voters are free from threats from non-state or state entities, laws for campaigning allow for equality, campaign financing is transparent, power transfer after
elections is orderly, voters are independent of government to create a political party, opposition parties are able to win in elections, citizens have access to public office, and citizens are allowed to form civic or political organizations without government interfering (Economist Intelligence Unit, 2008, pp. 20-21).

Political culture

The democratic political culture indicator (2008) is comprised of responses to eight questions that examine the sufficiency of societal consensus as a foundation for a stable democracy; proportion of the public order that is not maintained well in a democracy; proportion of the public that holds the view that economic performance is enhanced by democracy; proportion of the public that leans toward military rule, popular support among the public for democracy, proportion of citizens preferring technocratic rule, and the strength of the church-state separation tradition (Economist Intelligence Unit, 2008, pp.26-28).

Political durability

The political durability indicator (2008) was chosen because it measures the length of time a particular regime has been in power with zero representing the initial year that a new government comes to power with the data dating back to the year 1800 (Marshall, Gurr, & Jaggers, 2010). The measurement serves as the context for the other political accountability indicators.

Findings

This cross-national study of 150 nations examined the relationship between perception of corruption and eight indicators representing the potential for freedom of information in a vertical accountability model. A bivariate correlation analysis of the
study’s variables presented in Table 1, indicates that all of the explanatory variables that have the potential to advance the flow of information were negatively and significantly correlated with the criterion variable, perception of corruption. News media rights and Internet use had the highest inverse correlation with perception of corruption ($r = -0.65$ and $r = -0.75$, $p < 0.001$). Though the presence of access-to-information legislation had the weakest correlation of all of the variables with corruption ($r = -0.39$, $p < 0.001$), the presence of an information-access law is moderately and inversely correlated with perception of corruption.

The study then sought to examine which vertical accountability indicators may demonstrate an influence on the perception of corruption in countries around the world.

To examine the extent to which indicators that advance the flow of information, or the communication of it, would curb corruption, the researcher conducted an Ordinary Least Squares regression analysis, which is represented in Table 2. The study found no issues with multicollinearity among the variables. The regression equation results for the explanatory variables was significant, $R^2 = .81$, $F (8, 141) = 77.13$, $p < 0.001$. Based on the adjusted R-square value for the model, the predictors explained 80 percent of the variance in the corruption perception.

The study found that news media rights, duration of the polity, political culture and Internet and cellular phone use were significant explanatory indicators for corruption, which is to say indicators for the context for news media rights, political durability, robust political culture, and high cellular phone and Internet subscriptions had a
significantly positive influence on the perception of corruption in the countries studied. Having a more democratic polity or an access-to-information law were not contributing factors to the perception of corruption level in a country. In fact, less of a democratic polity had a significant influence on corruption perception. The author acknowledges that the literature suggests that the mere presence of an access-to-information law is not sufficient; the degree to which the policy is carried out is the evidence (Asian Development Bank, 2004; Islam, 2003; Stiglitz, 2003; United Nations Development Program, 2003; 2004).

Discussion

This cross-national study used a vertical accountability model to examine the extent to which eight information communication indicators would influence perception of corruption in 150 countries. The model appeared strong, given that all of the indicators were negatively and significantly correlated with perception of corruption and were individually supported in the literature for their inverse relationships with corruption. That is to say that the absence of an access-to-information law and low media rights, electoral pluralism, political participation, political culture, length of time of the political regime and the lower the cellular phone and internet subscriptions the stronger the corruption perception.

Six of the eight indicators in the vertical accountability regression model had an influence on the perception of corruption indicator in the study – news media rights, political culture, political pluralism, political durability, cellular phone and internet subscription. Similar to other studies (Besley & Burgess, 2001; Smulovitz & Peruzzotti, 2000; Van Belle, 2010; Xin & Rudel, 2004) the news media has a significant influence
on quelling corruption, but in the case of this research, the effect size was small. This is reinforced by scholars who point out that the watchdog performance of the news media may, at times, be uneven (Coronel, 2010; Curran, 2005; Ettema, 2007; Voltmer, 2010).

The democratic political culture indicator had the strongest effect size in the study and had a significant influence on perception of corruption. Puddephatt pointed out that culture could be more powerful than formal institutions of accountability (Puddephatt, 2006, p. 10). The indicator for democratic political culture in this study indicates that popular support for democratic rule could exert enough influence on officials in government and in politics to make a difference with abating corruption.

Though political durability is highly significant in the model, the effect size is small. This could be explained by the number of new democracies in the sample and, also, the number of countries with long history of a particular polity yet one that is not democratic for the literature suggests the strongest influence of durable democracy on corruption was in polities with 40 or more years of democratic structure (Treisman, 2000). And though countries such as India, Finland, Norway, Canada, and the United States have more than four decades of democracy, countries such as China, Kuwait, United Arab Emirates, Saudi Arabia, Azerbaijan, and others have more than 40 years of autocratic rule. As the literature suggests, lack of stability in a nation also is a factor with issues related to corruption.

The study’s findings demonstrate that high cellular phone subscription significantly influenced control of corruption perception, adding to the limited literature with similar findings in Africa that may indicate reduced monopoly on information (Snow Bailard, 2010). Finally, it is unclear the extent that internet subscriptions represent
a nation’s wealth in the study, as have other studies with gross domestic product per capita and telecommunications infrastructure (Relly & Sabharwal, 2009). The study found that internet subscriptions significantly and positively influenced corruption perception.

Interestingly, though academic and intergovernmental organization literature indicate that the adoption of access-to-information legislation (Islam, 2006; Kocaoglu, Figari, & Darbishire, 2006; Puddephatt, 2004) and a vibrant civil society could serve as a curb on corruption (Brunetti & Weder, 2003; Johnston, 1998; Little, 1996; Shen & Williamson, 2005; Stapenhurst, 2000), neither the presence of an access-to-information law nor political participation influenced the criterion indicator for corruption in this study. This runs counter to Islam’s (2006) findings of 54 nations that had adopted access-to-information legislation through 2002. In the case of this study, 72 countries had an access-to-information law, 33 percent more than the period of Islam’s study. Further 29 countries have a draft of the legislation, which comprised one in five of the nations in the study. But recent research has shown that the the political, economic, social, and cultural context for the use of information-access laws in the new countries adopting the legislation has declined over the last two decades (Relly & Cuillier, 2010; Roberts, 2006). This may be a contributing factor as to why this indicator has little sway. In addition, the presence of such a law is a proxy and does not represent the ease of using the legislation to access public information. As Islam (2006) noted, adopting an access-to-information law “is clearly not enough to ensure that it is effective” (p. 134).

Perhaps the relationship between two other indicators and perception of corruption may, in part, be explained by each other. As noted, the study found that
political participation in society did not seem to influence the level of corruption perception. This may seem enigmatic, given that this indicator, in part, is a measurement of civic engagement, which the literature indicates is associated with stemming corruption (Brunetti & Weder, 2003; Johnston, 1998; Little, 1996; Shen & Williamson, 2005; Stapenhurst, 2000). These findings make it clear that, not surprisingly, vertical accountability alone is insufficient to control of corruption for, as Diamond and Morlino (2004) have noted, “Political competition and participation are crucial conditions for vertical accountability.”

 Nonetheless, given that in the last two decades there are a number of countries that are having a first foray with democracy with citizens who have little experience with monitoring government activity and exposing misdeeds, as Treisman (2000) suggests, it may be that civil society is nascent in a critical mass of countries in this study. This would fit with the findings for the influence of electoral pluralism on corruption. It appeared that free and fair elections processes did not positively influence corruption perception. Though perceptions of transparency in government policy making and those of corruption are slightly different concepts, it should be noted that Relly and Sabharwal (2009) had similar findings with low levels of democracy explaining transparency. In the case of this study, a few autocratic countries, such as Bhutan, Oman and the United Arab Emirates, had low levels of corruption perception. This would be supported by Xin and Rudel’s (2004) research that found that corruption is sometimes lower in dictatorships.
Corruption and vertical accountability

References


Corruption and vertical accountability


Corruption and vertical accountability

*The Emergence of a New Agenda.* Oslo, Norway: United Nations Development Program.


Kelly, J. M. (2003). Counting on the past or investing in the future? Economic and


Corruption and vertical accountability


<table>
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<tr>
<th>Variable</th>
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<th>2</th>
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<th>6</th>
<th>7</th>
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<td>0.50***</td>
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<td>4. Electoral pluralism</td>
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<td>0.64***</td>
<td>0.87***</td>
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<td>5. Political participation</td>
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<td>0.58***</td>
<td>0.77***</td>
<td>0.82***</td>
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<td>6. Political culture</td>
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<td>7. Polity duration</td>
<td>28.03</td>
<td>31.61</td>
<td>-0.52***</td>
<td>0.16*</td>
<td>0.32***</td>
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<td>8. Cellular phone</td>
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<td>9. Internet use</td>
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<td>0.51***</td>
<td>0.48***</td>
<td>0.79***</td>
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*Note. N = 150 ***Spearman’s rho correlation is significant at the < 0.001 level (2-tailed); *correlation is significant at the < 0.05 level (2-tailed)*
Table 2: OLS regression analysis criterion variable: Perception of Corruption ($N = 150$)

<table>
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<tr>
<th>Independent Variables</th>
<th>B</th>
<th>SE B</th>
<th>$\beta$</th>
<th>t-value</th>
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<td>-0.28</td>
<td>-3.56**</td>
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<td>Electoral Pluralism</td>
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<td>0.05</td>
<td>0.18</td>
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<td>0.07</td>
<td>-0.07</td>
<td>-0.98</td>
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<td>Political Culture</td>
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<td>-0.08</td>
<td>-0.20</td>
<td>-3.28**</td>
</tr>
<tr>
<td>Duration of Polity</td>
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<td>0.00</td>
<td>-0.17</td>
<td>-3.74***</td>
</tr>
<tr>
<td>Cellular phone subscription</td>
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<td>0.00</td>
<td>-0.11</td>
<td>-2.11*</td>
</tr>
<tr>
<td>Internet Use</td>
<td>-0.04</td>
<td>0.01</td>
<td>-0.44</td>
<td>-6.33***</td>
</tr>
</tbody>
</table>

Notes: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$
ANOVA: $F$ value = 77.13 ($p < 0.001$)
$R^2_{adj} = 0.80$