Accountability to Prevent Corruption in Construction Projects

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Abstract: The American Society of Civil Engineers claims that corruption accounts for an estimated $340 billion of worldwide construction costs each year. Corruption (including bribery, embezzlement, kickbacks, and fraud) in construction projects undermines the delivery of infrastructure services. Further, corruption poses significant risks to construction and engineering companies themselves. What progress has been made, therefore, in reducing the risk of corruption to construction projects? It is the purpose of this paper to argue that with improved accountability, attention to ethics and cultural considerations, and reduced corruption, it is possible to construct, operate, and maintain adequate quality and quantity of infrastructure on a more sustainable basis and thereby improve construction practice. This paper will demonstrate how accountability initiatives in construction projects in developed and developing countries can be of benefit internationally to the public and private sectors as well as nongovernment organizations and researchers in their efforts to reduce corruption in infrastructure services.

Introduction

The construction industry has a worldwide reputation for incidences of corruption, asset misappropriation, and bribery. Transparency International's Bribe Payers Index in 2005 repeatedly reveals corruption to be greater in construction than in any other sector of the economy. The global construction market is worth around US$3,200 billion per year. This market represents 5–7% of the gross domestic product (GDP) in developed countries and around 2–3% of the GDP in lower-income developing countries (Rodriguez et al. 2005). However, the American Society of Civil Engineers (ASCE 2004) claims that corruption accounts for an estimated $340 billion of worldwide construction costs each year and the Institution of Civil Engineers (United Kingdom) estimates that corruption affects 5% of consultancy work. Nonetheless, there is a growing desire to eradicate corruption from the industry as demonstrated by the corruption-free execution of a massive set of investment projects associated with the Airport Core Programme in Hong Kong (total capital cost exceeded HK$160 billion) (Rooke and Wiehen 1999) together with the aim of the Beijing Olympic Organizing Committee to make the US$16 billion construction project the most corruption-free Olympic construction project ever.

This paper is structured as follows: The purpose of the first section is to present a conceptual framework for this paper. The conceptual framework of this research consists of four components: "accountability," "cultural norms," "ethics," and "corruption." The next section moves on to examine how corruption affects the way infrastructure services are delivered in greater detail and gives examples of different types of corrupt practices, which can take place between stakeholders during the various phases of a construction project. Understanding these corrupt interactions is critical to effective policy making in the construction sector. The third section will then set out the key aspects for the success of operationalizing the four components: accountability, ethics, cultural norms, and corruption in the context of infrastructure services; the common elements uniting all of these measures are awareness raising, strengthening professional institutions, prevention of corruption, and enforcement and monitoring measures. Finally, the paper reviews the links between accountability, norms, ethics, corruption, and construction in practice.

It is the purpose of this paper to argue that with improved accountability, attention to ethical and cultural considerations, and reduced corruption, it is possible to construct, operate, and maintain adequate quality and quantity of infrastructure on a more sustainable basis. This will, thereby, improve construction practice by ensuring "capacity for continuance." This paper is based on a literature review and the initial findings of an on-going research project undertaken by the writers on anticorruption practices for infrastructure services in a number of countries in South Asia, Southern Africa, Central Eastern Europe, and Latin America. It is intended that this paper will be of relevance to both industry practitioners and researchers.

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Conceptual Framework

This paper brings together a number of key concepts to develop a conceptual framework for analyzing the issue of accountability in the context of construction. The conceptual framework for this paper is a relational model based on a set of four concepts: cor-

ruption, cultural norms, ethics, and accountability. These concepts are then linked to a system of functions and behaviors: the system consists of awareness raising, strengthening professional institutions, prevention of corruption, and enforcement and monitoring measures. The conceptual framework has been developed from the literature review and field research. The conceptual framework will be used to review the links between accountability, norms, ethics, corruption, and construction in practice, and to draw conclusions about the effectiveness of accountability in combating corruption in the sector.

Corruption

A general definition of corruption is the misuse of power for private gain either at one's own instigation or in response to inducements. Corruption can be "grand" (involving large amounts of money and taking place at the highest levels of society, and involving politicians, senior officials, political decision makers, leading elites, and major companies) or more commonly "petty" (involving small amounts of money and which citizens may experience in their daily encounters with junior public officials such as policemen). Various forms of corruption include:

- Bribe—payments made in order to gain an advantage or to avoid a disadvantage;
- Fraud—theft through misrepresentation;
- Embezzlement—misappropriation of corporate or public funds; and
- Kickbacks—sweeteners or rewards for favorable decisions.

Most commentators focus on those who abuse their public office for private gain; whereas the bribe payers are often given less attention and sometimes depicted as innocent parties. However, corruption can be "collusive" (the willing and planned cooperation of the giver and taker), and "anticipatory" (paying a bribe in anticipation of favorable actions or decisions from an authority) as well as "extortionary" (forced extraction of bribes or other favors from vulnerable people by those in authority) (Davis 2004). For instance, at least a dozen companies were found to have bribed the chief executive of the Lesotho Highlands Water Project (now serving a 12-year jail sentence for taking bribes), and the Lesotho courts have managed to gain convictions of a number of companies who were then debarred by the World Bank for their involvement in the scandal.

In the past commentators proposed that corruption might be an acceptable and normal means of obtaining routine low-level actions and/or approvals by officials. For example, Klitgaard (1988, p. 31) suggests that corruption can in fact benefit private actors by putting "goods and services in the hands of people who value them the most, who use them the most." Thus, corruption may benefit people by cutting red tape by making decision making predictable, motivating underpaid workers, and enabling some to obtain political power, e.g., selling a vote for services.

However, other observers claim that corruption is harmful and as such it has become increasingly unacceptable to a broad range of stakeholders, including businesses, governments, academics, and ordinary citizens (World Bank 2000). It is argued that corruption is a significant barrier to economic, social, and political development, and poverty reduction. Other serious consequences of corruption include:

- Lower economic growth rates (Robinson 1998), e.g., the Commission for Africa (2005) identified corruption as the single most important explanatory factor for the lack of economic development in Africa;
- Ineffective government (Rose-Ackerman 2004);
- Infringement of civil/political rights (Persson et al. 2003);
- Decrease in investment of foreign and domestic investors (Alesina and Weder 2002);
- Lower quality of public infrastructure as the loss of revenue, diversion of public funds, and evasion of taxes associated with corruption mean that governments have less to spend on infrastructure (Bo Dal and Rossi 2004; DFID 2002); and
- Reduced effectiveness of provision of public goods as sectors that do not lend themselves to grand corruption, such as social services, are given less emphasis than those that offer greater opportunities for corruption (Deininger 2003).

Cultural Norms

Different cultures have varying degrees of tolerance for corruption. Gift giving is particularly common among business partners, e.g., in Korea there is a set of practices called Chonji (which literally means money as a token of appreciation) and Kwan-Si (acquaintanceship culture) (Korea Centre for City and Environment Research 1999), in China there is *guanxi* (social relationships or social connection), and in Russia there is a set of practices similar to those described previously called *blat* (Andvig and Fjeldstad 2000, p. 72).

Williams (1987) states that how corruption is defined depends on the context in which it is located, the perspectives of the definers, and their purpose in defining it. This means that different cultures have differing explanations of corruption, its causes, and how to respond to it; thus corruption is constructed differently across cultures and is not constant or predictable. Thus, according to such a view, corruption isn't good or bad objectively; rather it may be tolerated in a society where it is "necessary" to conducting business, but disapproved in a different setting for whatever social, historical, and cultural reasons. Thus, any mechanisms designed to combat corruption must be a grounded, culturally appropriate approach.

Ethics

The Transparency International Corruption Perceptions Index consistently points to corruption as an international problem, irrespective of culture. It can, therefore, be argued that corruption is not a cultural problem but an ethical one: for instance, no matter how pervasive bribery may be in some countries, no country openly defends the demand for, or the payment of, bribes as ethically acceptable. Thus, culture cannot be used to excuse unacceptable behaviors or poor ethical practice..

Ethics is the study of what we ought to do (actions and decisions) when faced with ethical dilemmas and how we do it, both as part of an organization and as individuals (Sohail and Cavill 2006). The Committee on Standards in Public Life (the Nolan Committee) established the principles of ethical behavior as: fair reward, integrity, honesty, objectivity, accountability, reliability, and fairness. Ethics issues facing the construction sector include conflicts of interest, financial and accounting integrity, corruptionand bribery, consumer and employee privacy, and ethical advertising. The public sector and companies are currently

designing programs that give employees a level of ethical understanding that allows them to make appropriate decisions when faced with an incidence of corruption, rather than requiring compliance with organizational policy and procedures (written codes of business ethics and conduct) or external laws and regulations.

Accountability

The development of accountability is central to tackling corruption (Sohail and Cavill 2007). Accountability works by formalizing expectations of action or behavior, creating sanctions for failure, enabling trust, and providing the motivation and incentives to use resources efficiently and effectively (Cavill and Sohail 2005). There are many different types of accountability and many different routes to achieve it. By way of general definition, Schedler et al. (1999, p. 17) state, "A is accountable to B when A is obliged to inform B about A's (past or future) actions and decisions, to justify them, and to suffer punishment in the case of eventual misconduct."

It is hypothesized that greater accountability can be of benefit in combating corruption in terms of:

1. Making service providers explain and justify their actions against commonly agreed standards of effectiveness, together with increased citizen monitoring, is intended to increase the probability of detection and promote transparency in interactions between public and private sectors.
2. Reducing the incidence of corruption—by reducing bureaucratic procedures, increasing service standards, clarifying responsibilities for regulatory policy making, and delivery.
3. Reducing the kind of discretion in service delivery that may result in denying full service provision to certain people, or the selective provision of information.
4. Creating demand for better services by changing levels of tolerance for poor service leading citizens to reveal their demand for better quality and more accountable infrastructure services.
5. Creating sanctions for those found to have behaved immorally or performed ineffectively (Cavill and Sohail 2004)

Thus, the different elements of this framework are corruption, cultural norms, ethics, and accountability. It is hypothesized that any initiative to combat corruption through improved accountability will need to integrate both universal ethical principles as well as culture-bound attitudes and customs if it is to prove successful. This hypothesis will be reexamined later in the paper in the section entitled "Reviewing the Conceptual Framework" in light of the evidence presented in the following sections.

Corruption in Infrastructure Services

The construction sector is estimated globally to be worth some US$3,200 billion per year and some US$250 billion is spent annually on infrastructure in the developing world alone (Rodriguez et al. 2005). However, worldwide, the construction sector is known for its association with corruption (Zarkada-Fraser and Skitmore 2000; DFID 2002). Corruption in the construction industry covers new build contracts refurbishment contracts, as well as maintenance contracts. Corruption in the sector includes all forms and can be found at all levels from high ranking officials diverting funds and international companies offering bribes for contracts down to the petty local operators who falsify meter readings or seek bribes for water connections. Transparency International's Global Corruption Report (Rodriguez et al. 2005) highlights the devastating impact of corruption in construction (such as wasted tender expenses, tendering uncertainty, increased project costs, economic damage, blackmail, criminal prosecutions, fines, blacklisting, brand damage, and reputational risk). Table 1 summarizes the key corruption vulnerabilities in the construction project cycle and infrastructure service delivery. Table 1 outlines the key stakeholders involved and provides examples of the kinds of corruption that might be found at each stage in project delivery. Table 1 is also helpful in thinking about measures to address the problem.

Corruption in the construction industry often results from a combination of:
- Deregulating the infrastructure sector;
- Large flow of public money;
- Highly competitive nature of the tendering process;
- Lack of transparent selection criteria for projects;
- Political interference and discretion in investment decisions, the cost of sector assets;
- Monopolistic nature of service delivery;
- Tight margins;
- Close relationships between contractors;
- Subcontractors and project owners; and
- Complexity of institutional roles and functions the asymmetry of information between user and provider, or cronyism in the industry (Stansbury 2005; Rodriguez 2005; PricewaterhouseCoopers' 2003).

Global Economic Crime Survey examined data from 184 construction companies in 44 countries around the world and found that corruption and bribery are currently a substantial threat, with one-third of those surveyed having experienced some form of economic crime. The subsidiary Calcestruzzi (an Italian cement firm) of the construction materials giant Italcementi closed its operations in Sicily "as a sign of a refusal to submit to, or to show any compliance with" the Mafia, which extorts money from practically all public works contractors. In addition, corruption represents a threat to those institutions and companies which are financing, guaranteeing, or insuring construction projects. Although corruption might once have been viewed as a necessary requirement of doing business, it is increasingly seen instead as a form of misconduct. For example, Britain banned U.K.-based companies from making facilitation payments as part of the Anti-Terrorism, Crime and Security Act in 2001. Companies are increasingly establishing comprehensive anticorruption and bribery programs that include written policies, training, and auditing and internal controls.

Yet, PricewaterhouseCoopers' (2003) found that corruption generates immense opportunities for payoffs with comparatively low risk of detection and punishment as instances of corruption often only come to light as the result of either a tip-off or accidental discovery. This is a key problem in the construction industry where corruption can be obscured by:
- Complexity of projects: projects may be designed to ensure higher overhead recovery and profit for the contractor whereas an alternative cheaper design would have been adequate;

Table 1. Examples of Corruption in the Different Stages of Infrastructure Delivery

Stage of service delivery	Key stakeholders	Examples
Project selection	• Public clients • Private clients	• Corruption can negatively affect the selection of projects. For example, corruption can divert resources away from social sectors and toward major infrastructure projects. • Corruption may also encourage the selection of uneconomical projects because of opportunities for financial kickbacks and political patronage.
Planning stages	• Public clients • Private clients • Financiers • Legal advisors	• Project used as vote winners/opportunities for personal gain not on basis of priority/availability of financial resources. • Planning in favor of high value infrastructure (white elephant projects) and against the interest of the poor. • Project requirements may be overstated or tailored to fit one specific bidder.
Inspection stages	• Regulatory authorities	• Weak oversight and supervision mechanisms have been created that would prevent detection of fraud and corruption. • Kickbacks can be given to persuade inspectors to turn a blind eye to slow implementation of projects, unfulfilled contract requirements, and other instances of malpractice.
Design	• Design consultants • Public clients • Private clients	• Corrupt selection of consultants for feasibility studies, preparation of specifications/bid documents. • Overdesigned and overpriced projects to increase potential corrupt earnings during implementation. • Bribe for favorable environmental impact assessment/planning proposal/approval. • Project design has been manipulated to benefit particular suppliers, consultants, contractors, and other private parties. • The timing of the project has been altered to suit vested interests.
Bid and contract signing stage	• Contractors • Subcontractors • Suppliers	• Political parties levy large rents on international businesses in return for government contracts. • Officials take percentages on government contracts. • Officials receive excessive "hospitality" from government contractors and benefits in kind. • Kickbacks for construction and supply contracts. • Lack of competitive/inequitable contract practices. • Inappropriate bidding procedures; excessively short bidding time or insufficient or inadequate advertising of tender. • Corrupt practice on the part of bidders (e.g., unjustified complaints, misleading bids, etc.). • Collusion among firms or between public officials and bidders. • Bid rigging in construction contracts can be facilitated by corrupt project managers and quantity surveyors (people who are supposed to be policing contracts and making sure the clients get value for money). • Compensation payments included in the tender price: when two firms collude, and one prices itself out of one of the jobs and receives a compensation payment from the other as a reward. • Cash-plus contracts enable unscrupulous firms to inflate the value of the contract • The entrance fee, for example, a public authority agrees to give a private company the contract, provided that the company pays a fee. The company that pays the highest entrance fee wins the concession.
Construction	• Contractors • Subcontractors • Suppliers	• Changing subcontract party after receiving bribes. • Cutting corners, ignoring rules, bypassing procedures. • Payment for equipment, materials or services which were not supplied. • The provision of equipment or goods of lower than specified quality (typical examples include lesser cement or steel reinforcements). • Concealing substandard work. • Bribe the relevant official to certify that the work was done according to specification. • Nonimplementation. • Unjustified complaints from contractors as a way to obtain unjustified contract price increases. • Duplication of payments, alteration of invoices, lack of supporting records, ineligible payments, overbilling, misuse of funds (i.e. for purposes other than those aligned to project needs), misappropriation of discounts from suppliers/contractors, unauthorized payments, etc. • Unauthorized use of project property. • Theft of materials, equipment, or services. • Entrepreneurs and brokers that exist as "fixers" facilitating relations between government and business players and negotiate the various administrative and legal steps.

Table 1. (*Continued.*)

Stage of service delivery	Key stakeholders	Examples
Service delivery	• Public clients • Private clients • Contractors • Subcontractors	• Ghost/absent workers. • Siphoning off supplies to market. • Favoritism in hiring/promotions. • Use of contacts/money to get better/faster service or to prevent delays. • Elite capture of infrastructure services.
Maintenance and management stages	• Public clients • Private clients • Contractors • Subcontractors • Suppliers	• Corruption in procurement of equipment and spare parts. • Withholding needed approval/signatures of gifts/favors. • Corruption increases costs meaning lack of resources for O&M. • Bribes to win O&M contracts/personnel appointments. • Lower standard of construction creates need for expensive repair and maintenance.

- Large numbers of small-scale contractors: the number of small-scale local contractors engaged for construction and maintenance works can make monitoring time and resources intensive;
- Delays and cost overruns: subcontractors may deliberately overstate the time and cost requirements (and falsify time sheets) in order to achieve a higher price from the contractor; and
- Concealment of the quality of work: defective materials could be used, materials that are cheaper and of inferior specification or materials omitted such as structural steel (Stansbury 2005; Stansbury and Stansbury 2007; Rodriguez et al. 2005).

Arrangements to Combat Corruption

The discussion that follows highlights a range of initiatives that have targeted one or another type of aspect of the conceptual framework as a way of controlling corruption in the construction sector.

Awareness Raising

Corruption

Greater transparency can make a significant contribution to reducing corruption and embezzlement. Promoting greater transparency around the actions of officials creates disincentives for them to engage in corrupt transactions and also raises citizens' awareness of the goods and services they should receive. A survey by the Chartered Institute of Building Survey (2006) in the U.K. examines how common corruption is within the U.K. construction sector and what the perception of that corruption is within the sector. The authorities in The Netherlands have conducted two very large investigations into construction cartels and bid rigging. About 1,400 companies have been fined, and the penalties imposed are the equivalent of over £200 million.

Cultural Norms

The media can do much to disseminate information about corruption in the construction sector informing both the public and policymakers and prompting investigations by official bodies. Transparency International Bangladesh (TIB 2002) developed the "News Scan Database," a database of corruption stories from newspaper archives. This tool is intended not only to measure the nature and extent of corruption in Bangladesh, but also to encourage the media to further investigate and report instances of corruption. Similarly, Transparency Thailand produced a series of radio shows (in Bangkok and rural areas of Thailand) dealing with the problems of corruption and the lack of transparency in government and business circles.

Ethics

Increasing the amount of information (such as public accounts, budgets, contracting arrangements, and annual reports) available to the public can also reduce corruption in the sector by making it difficult for public officials to make decisions that misallocate resources, or tap into limited budgets. Transparency International Serbia developed the program "Towards More Transparent Budgeting and Public Procurement in Municipalities in Serbia" in order to increase the efficiency and quality of municipal services, to improve communication and relations between the municipal administration and citizens, and to establish a more efficient and transparent budgeting and public procurement system (Steets 2001).

Accountability

In Abra, a province in the Northern Philippines, a non-government organization (NGO) called Concerned Citizens of Abra for Good Government (CCAGG) trains community beneficiaries to conduct audits and monitor project implementation in order to reduce corruption in the construction of public works. CCAGG ensure that project specifications and proper equipment requirements are delivered satisfactorily. The presence of CCAGG monitors means that contractors are more likely to ensure that quality standards are met, hence ensuring project longevity. Public participation in budget formulation and spending reviews has been used to improve transparency in the financial administration of local authorities and contributes to a more equitable distribution of resources in Porto Alegre and Belo Horizonte, Brazil and Campo Elias, Venezuela. The experience in Brazil has shown that corruption has fallen and services are delivered more efficiently (Abers 1998).

Strengthened Professional Institutions

Corruption

Professional institutes have a key role in regulating the conduct of members on the basis of peer judgment. Currently, reported cases of professional misconduct in relation to corruption are rare.

Cultural Norms

It is reported that the statutory registration of engineers in the United States and Canada has improved professional ethics (Uff 2003). An Anti-Corruption Forum in the United Kingdom (including the Institution of Civil Engineers, Association of Consulting Engineers, the British Consultants and Construction Bureau, and TI-UK) is working on industry-led solutions to the problem of corruption in domestic and international infrastructure, construction, and engineering.

Ethics

Efforts are currently being made to develop ethical standards for the construction sector, as well as to ensure due diligence actions by construction companies to ensure that their business partners (e.g., agents, consortium and joint venture partners, and major subcontractors) do not engage in corrupt activities. For example, the Royal Academy of Engineering has developed a statement of four fundamental ethical principles which engineers should achieve in professional life (accuracy and veracity; honesty and integrity; respect life, law, and public good; and responsible leadership). The Society of Construction Law's Ethics Group issued a statement on ethical issues and has provided guidance on the application of ethical principles.

Accountability

Sector-wide institutional reform strategies have included focusing on incentives, competition, and internal checks. Further, at present not all trades in the construction industry have statutory registration or have their work regulated; indeed there is no single trade or professional association that governs the industry.

Prevention of Corruption

Corruption

Over the last decade, a number of theories and mechanisms have been developed and tested to prevent corruption in its various forms. These generally range from anticorruption legislation (such as the U.N. Convention against Corruption and the OECD Convention against Bribery of Foreign Public Officials in International Business Transactions in 1997), regulation, rules, and procedures. However, these top-down approaches are rarely accompanied by effective enforcement and so have proven largely ineffective. More recently a number of mechanisms have been developed specifically for the construction sector, which are proving particularly effective.

Cultural Norms

Individual, company, or industry-specific codes of business conduct and professional standards are also key in corruption prevention. South Korea has adopted a *Code of Conduct for Maintaining the Integrity of Public Officials*. This code specifies the standards of conduct to be observed by both state and local public officials. It covers areas related to the prevention of conflict of interest, of using public office for private purposes, the obligation of neutrality and impartiality, and regulates the acceptance of gifts. Anecdotal reports suggest that, as the code came into force, the number of duty-related offerings of gifts and hospitality have reduced substantially.

Corruption has generally been addressed in the public sector through civil service reform (including pay structures, promotions/appointments, recruitment, transfers, results-based management, terms and conditions, enforcement and sanctions, and local stakeholder involvement, as well as civil service size, financial policies, leadership, competition, separation of policy, regulation, and implementation). Yet it has been established that a focus on the public sector alone is not enough—increased salaries do not necessarily lower the incentive of officials to engage in corrupt practices—anticorruption needs to include the private sector. In the United Kingdom, a body called the Local Government Task Force works to help councils in their dealings with the construction industry. Recently, there have been a number of initiatives intended to build awareness and dialogue within the private sector on good business practices, transparency, and accountability for those training and working in the construction industry, as well as to seek to improve integrity in private companies, national governments, and construction companies, respectively. Initiatives with multinational companies and national companies operating in developing countries have mostly focused on achieving a greater level of integrity and professionalism among members through professional associations, codes of conduct, monitoring and benchmarking, and integrity pacts.

Ethics

The literature generally focuses largely on the "passive" corruption of government officials who accept bribes, rather than the "active" corruption of the corporations who pay them. *The Wolfsberg Principles* is an effort by private companies to fight corruption by practicing sound business and accepting to submit their social and ethical performance to public monitoring and scrutiny (corporate accountability). *Business Principles for the Construction Sector* have been developed to bolster transparent and ethical business conduct in the industry and have been endorsed by 19 leading international construction firms with annual revenues in excess of $70 billion (the initiative has been facilitated by the World Economic Forum, Transparency International, and the Basel Institute on Governance). An organization which adopts the Business Principles commits to adopt a "zero tolerance" policy on bribery and to develop a practical and effective program of internal systems and controls for implementing its antibribery policy. However, it is not possible to prescribe exhaustive guidelines to cover each and every single ethical concern that employees are likely to face in their work. In the private sector, a growing number of companies are designing programs that give employees a level of ethical understanding that allows them to make appropriate decisions.

Accountability

Transparency International advocates the use of an Integrity Pact to prevent corruption in the international private construction sector; this commits actors in a transaction (such as bidders and government agencies in a contractual relationship) to not offer or accept bribes in public contracting. The Integrity Pact is a tool that has also been successful in cutting the costs of dozens of procurement procedures around the world; for example, it has been used successfully in Pakistan, Nepal, Indonesia, and Colombia by the local Transparency International National Chapters. Transparency International Argentina (Poder Ciudadano) has adapted the Integrity Pact to include public hearings whereby municipal authorities convene citizens, businesses, experts, and

representatives of the opposition to express their objections and suggestions about the planned terms of the contracting. Poder Ciudadano first used these tools for monitoring the procurement process for waste collection services at the municipal level in the city of Morón. All bidders accepted the conditions imposed by the Integrity Pact without objection, and signed in September 2000. Poder Ciudadano monitored the Integrity Pact, the bid evaluation, the award decision process, and the implementation of the contract and ensured maximum coverage in the print and electronic media, at both local and national levels. The Integrity Pact gave the losing companies a concrete mechanism to monitor how the winning bidder addresses the terms of the contract. Most recently Integrity Pacts have been used in the EUR2 billion development of the Berlin–Brandenburg International Airport in Germany.

Increasing use is made of information technologies in the fight against corruption. For example, www.licitenet.com is an online database created to inform the public about the process of public procurement in Ecuador. It is a joint initiative between the private sector and civil society to create more transparency within public procurement, to allow the public to follow and monitor procurement of relevance to their community, and to decrease the discretionary powers of public officials in this area. e-procurement has been recognized internationally as an important instrument for checking corruption and misuse of power. An e-procurement system was introduced in the Republic of Korea in 1998 for purchasing goods and services and arranging contracts for construction projects. All procurement from purchase requests to electronic tendering, and payment is processed online. Automation has simplified the bidding procedure, improved competition, avoided preferential treatment, and eliminated nonarbitrary behavior.

Enforcement and Monitoring Measures

Corruption

It was noted earlier that for anticorruption approaches to prove effective it depends on effective enforcement. Tough sanctions are needed against companies caught bribing, including forfeiture of the contract and blacklisting from future bidding. For example, progress has been made in recognizing the problem of corruption by both multilateral development banks and export credit agencies. The World Bank includes fraud and corruption provisions in its procurement and consultant guidelines; companies found to have violated the provisions are placed on a public blacklist that is used by the World Bank and some credit agencies when considering loans and contracts (World Bank 2000). Nearly 70 firms have been permanently banned in this way from competing for World Bank contracts. Regional development banks have taken a similar approach. However, combating corruption requires political will, e.g., an investigation by the Serious Fraud Office stopped its investigation into BAE Systems' (U.K.) arms deals with Saudi Arabia, amid fears for its vast contract to sell Typhoon fighters.

Cultural Norms

Citizens have been directly involved in fighting corruption by monitoring their infrastructure delivery. For example, community-based audits where corruption is suspected in the delivery of public works have been organized in slum areas of Delhi by a NGO called Parivartan using the Right to Information Law (RTI) to access records of public works. The RTI has been recognized the world over as an important instrument for checking corruption and misuse of power. The documents requested under the Right to Information Act include copies of work order registers, measurement books (including record entries and abstract entries), sketches, details of estimates, and completion certificates and it is also possible to obtain a sample of any materials used in construction. After compiling this information Parivartan holds a series of street corner meetings to inform the people of the amount spent in their block on public works, the works purported to have been carried out under each contract, and the amount spent on each of the works, as per government records. It is then established whether the works have been carried out and if they are of satisfactory quality. Public hearings (jansunwai) are then organized to discuss publicly the works audited. The public hearings enable residents, government officers, and political representatives to give evidence regarding the stated expenditure and on the status and quality of works, to verify government records on expenditure and the status and quality of the works recorded as having been carried out. These hearings have exposed large scale corruption in public works. Social auditing of construction projects is particularly suitable in cases where projects do not need high technical skills (construction of culverts, bridges, roads, and irrigation and water systems).

Ethics

Organizational ethics initiative include: codes of conduct, leadership training and resources, due diligence and financial disclosure, communications and training [e.g., British Standards Institution (BSI) anticorruption training modules for the British construction industry], auditing and monitoring, enforcement, and voluntary disclosure. It is not possible to prescribe exhaustive guidelines to cover each and every single ethical concern that employees are likely to face in their work. A common approach to determine the ethical standards of behavior of its management and employees is to take into account legal requirements, a company's own ethical values, collective standards of practice, basic values, and general community expectations.

Recently, effective enforcement of accountability arrangements has been seen to depend on community monitoring, especially where the police and judiciary are themselves corrupt—making sanctions impossible. This has also been acknowledged by the World Development Report, Making Services Work for the Poor in 2004, which highlights the need to shorten and strengthen accountability relationships among policy makers/politicians, service providers, and citizens.

Accountability

Paul (1992) has demonstrated how organized public feedback in the form of report cards can be used to challenge service providers to be more efficient and responsive to consumers. Report cards were started by the Public Affairs Centre—a NGO based in Bangalore. First used in 1993, report cards use citizen feedback to rate the performance of public service agencies, such as the electricity board, water board, telecommunications, and public banks among others. More recently, the Citizen's Report Card has been conducted on the Nairobi Water and Sewerage Company by a consortium of civil society groups, on urban water, sanitation, and solid waste services. The results of the report cards are shared with NGOs, citizen bodies, other public interest groups citizens and service providers and widely publicized in the press. Public agencies are urged to respond to the report card by improving services. The data produced has been used to rate

the performance of public service providers and to highlight aspects of their services that need improvements. The findings can empower citizens to interact with service providers in a more informed manner. The report card process can also be repeated over time and compared across services and cities, putting greater pressure on public officials to listen. The success of report cards depends on the capacity and interest of civil society to lobby for change and the ability and willingness of agencies to respond.

A number of global nongovernmental anticorruption organizations have a major role in curbing corruption in the sector; e.g., Transparency International has developed *Minimum Standards for Public Contracting*, which provides a global baseline for public contracting rules that meet minimum international standards; *Transparent Agents and Contracting Entities* vets, certifies, and trains intermediaries such as consultants, brokers, sponsors, and agents; *Publish What You Pay* calls for businesses to release information about all payments made to governments to ensure the funds benefit the public rather than corrupt bureaucrats or politicians.

However, a critical aspect in the success of community monitoring and enforcement is the existence of an effective complaints redressal system as well as the institutionalization of mechanisms to strengthen civil society's role in monitoring the construction sector. These systems increase service users' power, create a direct relationship of accountability (giving service providers incentives not to engage in corruption), and provide a means of enforcement and sanctions for corruption, noncompliance, or poor performance.

Reviewing the Conceptual Framework

This paper introduced a conceptual framework, developed from the literature review, to draw conclusions about the effectiveness of combating corruption in the sector. This framework consists of four components: corruption, cultural norms, ethics, and accountability. This section brings together the framework and the previously discussed examples. The evidence presented in this paper suggests that successful initiatives to combat corruption through improved accountability have integrated both universal ethical principles as well as culture-bound attitudes and customs. For example:

Corruption

A general definition of corruption is the misuse of power for private gain either at one's own instigation or in response to inducements.

Cultural Norms

Corruption, particularly in developing countries, is often viewed as a cultural problem. However, the international experience described above suggests that corruption is no more acceptable or desirable in developing than developed countries. Although there are a number of generic approaches to combat corruption in the international construction sector, the case studies provided earlier also point to the importance of culturally relevant anticorruption methods. The evidence suggests that combating corruption is not a purely technocratic issue, capable of being carried out in isolation from a country's history, cultural tradition of politics, or political culture. Indeed, it is suggested that culture is crucial to combating corruption, since social change can only be sustainable if it can be internalized through the ways and values of people.

Ethics

Understanding corruption as an ethical problem is important for policy makers in the construction sector when developing models for improving accountability and reducing corruption. Codes of ethics and training around ethics issues have been developed by government and professional associations with the aim of ensuring that members' behavior is corruption free. Many companies require contractors, subcontractors, and third party agents like suppliers to be contractually bound to a company's corruption and bribery policies and respect the same codes of conduct as other employees, i.e., not engage in any form of collusive or unethical practices and to act ethically, fairly, and honestly. Other mechanisms include business principles to combat bribery, conflict of interest laws and rules, and whistleblower protection. However, there also needs to be consequences for not complying with ethical requirements such as: termination of contracts, loss of future work, loss of reputation, investigation for corruption, and matters being referred for criminal investigation.

Accountability

A number of accountability initiatives for the corruption sector have been developed and tested with success in both developed countries and developing countries. These initiatives are intended to make tender procedures, procurement, and project implementation more transparent, and ensure that construction management and procurement staff operate with less discretion, and that their actions are overseen and sanctions enforced if necessary.

Suggestions for operationalizing this framework are set out below in Table 2.

Conclusion

The challenges of corruption in the construction sector are significant: corrupt practices, such as bribery, embezzlement, kickbacks, and fraud, can occur at every phase of a construction project. In recent years, there has been a growing commitment to the anticorruption agenda in the construction sector. This paper has outlined a conceptual framework including examples of corruption in the construction sector, and the rationale for applying greater accountability, provided a comparative examination of international good practice in the construction sector and examples of the application of ethics to construction sector. The most promising strategies for operationalizing this framework focus on (1) awareness raising (improving demand, improving voice, and participation); (2) strengthening professional institutions; (3) prevention of corruption; and (4) enforcement and monitoring measures. It is hoped that with improved accountability and reduced corruption, it will be possible to construct, operate, and maintain adequate quality and quantity of infrastructure on a more sustainable basis and thereby improve construction practice.

Table 2. Summary for Operationalizing the Framework

Key concept	Awareness raising	Strengthening professional institutions	Prevention of corruption	Enforcement and monitoring measures
Corruption	Increased transparency around construction projects of government revenue and expenditure flows	Trade or professional associations take action on corrupt practices	Project owners implement Integrity Pact during tender and project execution phases	Companies caught bribing are blacklisted
Cultural norms	Understanding of cultural differences and their relevance to corruption; and the differences between bribes, hospitality, and gifts	Private sector implements and enforces corporate compliance programs relating to domestic laws criminalizing foreign bribery	As well as international good practice attention should be paid to national experience of anticorruption mechanisms	Programs should be tailored to each country's context
Ethics	Core ethical standards and codes of conduct should be developed to guide behavior	Trade or professional associations enforce their ethical policies and take action on corrupt practices	Training package created to support the application of ethics/promote ethics with other anticorruption measures	Give employees a level of ethical understanding that allows them to make appropriate decisions
Accountability	Build awareness and dialogue within the sector on good business practices, transparency, and accountability for those in the construction industry	Professionals in the construction industry have strong written policies, training in codes of conduct, and ethics program development and implementation with strong whistleblower policies to enable them to deal with petty bribery and corruption	Ensure all groups within a society have a role to play in promoting ethics in the sector	Monitoring by independent oversight agencies and the private sector

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