

A principal-agent perspective to transparency as a tool for anticorruption in public infrastructure projects

Abstract

Many transparency initiatives, such as open contracting, ethical code of practices, and whistle-blowing have been used to mitigate corruption in public infrastructure projects (PIPs). One such initiative is the Infrastructure Transparency Initiative (also known as the Construction Sector Transparency Initiative and widely called CoST). In this paper, we analyse how the CoST approach is used to fight corruption in PIPs and the opportunities and challenges of the initiative. We theorised transparency as a tool for fighting corruption through the lens of Principal-Agent theory and utilised NVivo thematic analysis to analyse data from CoST assurance reports (2016-2021), minutes of CoST Board meetings, and semi-structured interviews (n=25). We identified political, process and implementation antecedents which ensure that CoST features are enacted with varying levels of impact on the fight against corruption. Theoretically, we show how CoST helps to mediate the principal-agent relationship but also identified context where it can paradoxically condition corrupt practices. Our managerial contribution highlights the role of project professionals in enacting transparency to fight corruption and also calls for the governance of anticorruption in infrastructure projects to recognise the vulnerabilities identified.

Keywords: Public Infrastructure Projects (PIPs); Transparency; Accountability; (Anti)corruption; Infrastructure Transparency Initiative;

1. Introduction

Corruption in public infrastructure projects (PIPs) results in wastefulness and affects the quality of infrastructure (Liu and Mikesell, 2014). Corruption remains a global challenge and is especially challenging in developing countries where the expropriation of funds can affect the viability and quality of PIPs, thereby, hindering national development (Gillanders, 2014; Owusu et al., 2019; Paulo et al., 2022). The Halliburton scandal in Nigeria and Brazil's Odebrecht (Operation Carwash) corruption scandal are examples of how the problem of corruption in developing countries affects infrastructure projects delivery. Even in developed countries, press reports in 2022 alleged high-level corruption in the German state-owned railway company as part of widespread fraud at one of Europe's largest infrastructure projects, Stuttgart 21. Against this background, there is growing recognition that the delivery of PIPs for the attainment of sustainable development goals (SDGs) globally are threatened by corruption, mismanagement and inefficiency, requiring that project professionals take the lead in fighting corruption in PIPs (Signor et al., 2022).

Consequently, many initiatives such as transparency mechanisms, Freedom of Information (FOI), ethical code of practices, administrative rules, legislation and technical auditing systems, whistle-blowing and contract monitoring schemes have been developed to deal with corruption in PIPs (Chan and Owusu, 2017; Vadlamannati and Cooray, 2017). One such initiative is the Infrastructure Transparency Initiative (also known as the Construction Sector Transparency Initiative and widely called CoST). CoST was established in 2008 as an anticorruption initiative that aims to reduce corruption, mismanagement and inefficiency in PIPs by taking a multi-stakeholder approach to get information disclosed at all stages of an infrastructure project lifecycle (Hawkins and Prado, 2020). CoST is based on four core features. First is *multi-*

stakeholder working. This feature is hinged on the assumption that enhancing transparency and accountability in public infrastructure involves collaboration across multi-stakeholder groups (MSGs) from government, private sector and civil society organisations who have different perspectives and backgrounds (Hawkins and McKittrick, 2012).

The second feature is the *disclosure feature*. This feature ensures public access to project data including data about the purpose, scope, costs and implementation of infrastructure projects. The third feature of CoST builds upon the disclosed data to conduct an *assurance* process via an independent review of the disclosed data by CoST appointed assurance teams at national level (CoST, 2021). The final feature (*i.e., social accountability*) is, hence, hinged on the participation of stakeholders such as the media, civil society and academia in holding decision-makers to account. CoST is established on the linear assumption that improved transparency will result in greater accountability and good governance, and, therefore, a reduction in corruption within PIPs. But whilst there is evidence in favour of transparency as a tool to fight corruption (Knack et al., 2019), there is also concern about the effectiveness of these transparency policies when they do not consider some complexities of corruption in the infrastructure sector (Dominic, 2016; Sabet, 2012). For instance, there are many stages in the conceptualisation, design, engineering and delivery of PIPs and corruption can occur at any stage, particularly in large projects and more relevant in countries where there is poor citizenship engagement against corruption or in countries where corruption is endemic. So, *how is transparency norm implemented to deal with the problem of corruption in PIPs?*

Addressing this fundamental question allows us contribute to development studies literature on anticorruption in three ways. First, we add to the understanding of the role of

transparency initiatives in the governance of anticorruption in PIPs and how transparency is used to mitigate corruption (Bel, 2021; Davis and Pinto, 2022; Gillanders, 2014). Our work also provides empirical findings with managerial implications that put to focus the role of project professionals in enacting transparency to fight corruption in PIPs for sustainable development. (Hawkins and Prado, 2020; Love et al., 2022; Owusu et al., 2020a). Lastly, our work hearkens to the call in development literature on the need to understand the political, institutional and process complexities of anticorruption initiatives in the delivery of PIPs (Burrier, 2019; de Medeiros-Costa, 2022; Leonard and Leonard, 2004). We also explore the relationship between transparency and corruption through the lens of Principal-Agent theory. Our research method uses a qualitative case study design and drew from interviews (n=25) and archival data including CoST assurance reports (from 2016 to 2021) and minutes of CoST Board meetings. Consequently, we make empirical contributions by identifying how the CoST features are implemented with varying levels of impact. We also identify the political, process and implementation antecedents of the CoST features and how these antecedents mediate the principal-agent behaviours. Our theoretical contributions explore CoST as a mediating initiative to the principal-agent relationship and the vulnerabilities that emerges from the enactment of CoST features. These vulnerabilities emerge in the form interdependencies, incompleteness and contestations. Our managerial contribution puts to focus the role of project professionals in enacting transparency to fight corruption PIPs.

The rest of the paper is structured as follows: Section 2 discusses the nature of corruption in infrastructure projects. In section 3, we theoretically viewed corruption through the lens of Principal-Agent theory. Section 4 and 5 present our methods and results respectively. The

theoretical implications were discussed in Section 6 and the managerial implications in Section 7. We then made concluding remarks in Section 8.

2. The nature of corruption in PIPs

Walton (2015) provides three definitions of corruption from the perspectives of public office, abuse of power, and decay which we draw on to explain the nature of corruption in PIPs. The public office definition considers corruption to be the abuse of public office for private gain (Kasser-Tee, 2021). This definition focus on individuals working for public institutions and links corruption to public officials acting out of private regard. Drawing on this definition, one can conceptualise how corruption can manifest within infrastructure projects. For instance, the collection of a bribe by a public official to favour a contractor to win a contract is corruption perpetuated for private gain. Research estimates this kind of bribe payments account for 5% to 20% or even higher of global percentage of construction costs lost (Montero, 2015). Corruption has also been found to significantly limit sustainable development and green innovation (Lehtinen et al., 2022; Wang et al., 2019; Wen et al., 2023).

Corruption is also defined as the abuse of entrusted power for private gain (Khan et al., 2021; TI, 2021; Walton, 2015). This definition is widely used in economics and development literature and acknowledges the role that private actors can play in corruption, including improper activity of individuals across all organisational levels entrusted with powers within the private sector and civil society (Bahoo et al., 2021; Holmes, 2006). Davis and Pinto (2022) conceptualised how the abuse of entrusted power can emerge from the perspective of the normalisation of deviant behaviours that occur at both the individual and institutional level in organisations. The causes of deviance include a variety of potential contributing factors. This include active failures and latent conditions (Reason, 1991). Active failures are the specific

misguided actions taken by individuals at organisational decision-making level which can manifest as latent conditions (Ambituuni et al., 2019). For examples, the compromise of organisational oversight may lead to believes that it is acceptable to bend rules, collect bribes, cut corners or engage in deviant behaviours that can result in adverse incidents. In developing countries where mature legal and punitive systems are lacking, corrupted deviant behaviours may be worsened by insufficient legal punishments and penalties. Furthermore, the normalisation of deviant behaviours can be as a result of “fallacy of centrality” (Westrum, 1982). Here, corruption occurs when the abuse of entrusted power is not visible or discovered. As coined by the Sociologist Ron Westrum, fallacy of centrality is the assumption that no deviant behaviour is happening because, if it is happening, it would be known. For infrastructure projects this results in entrenched abuse of entrusted power perpetuated by rule-breaking, contract rigging, payment and collection of bribes and other violations because no one takes responsibility for reporting such behaviours or because individuals assume that such deviant behaviours are allowed. Consequently, the expropriation of funds can affect the viability and quality of PIPs, thereby, hindering national economic development (Alon et al., 2016; Bahoo et al., 2021; Franses and de Groot, 2016; Gillanders, 2014; Owusu et al., 2020a). Flyvbjerg and colleagues, for instance, coined the term “strategic misrepresentation” when they studied the phenomenon of obtaining approval of large public works projects to support political agenda or agency issues by deliberating using misleading and false information (Flyvbjerg, 2013, 2005; Flyvbjerg et al., 2002). The situation is even more vulnerable in developing countries undertaking large or mega projects which can be chaotic, and utilises complex technologies that are very difficult to understand (Locatelli et al., 2017).

As shown in Figure 1 there are several stages to infrastructure project delivery involving multiple players and corruption can occur at any stage. The figure illustrates corruption risks identified in literature as the different ways in which the project delivery stages can be manipulated with the intention of misappropriating project resources (Chan and Owusu, 2017). For examples, the extent of the problem of corruption at the tender and procurement stage of PIPs was revealed in 2009 when the UK Office of Fair Trading fined 103 construction companies the sum of £129.2 million for colluding with competitors. Similarly, a case of overcharging during project implementation stage was report in 2016 in Spain where 14 people were arrested on suspicion of fraud in the construction of the highspeed rail infrastructure, with allegations that the state had been overcharged by €82 million (Gee et al., 2021). There has also been reports of the abuse of compensation for the compulsory purchase of land and reduced value of property Kenya. Transparency International (TI) observed that the majority of people that are engaged in corrupt practices in the construction industry do this because they feel compelled because of the habitual way of operating in the industry and the political environment (Transparency International, 2005). *So, how is transparency helping to fight the aforementioned nature of corruption in PIPs?* In the next section, we theorise transparency and view corruption via the lens of principal-agent theory in order to make sense of the CoST approach.

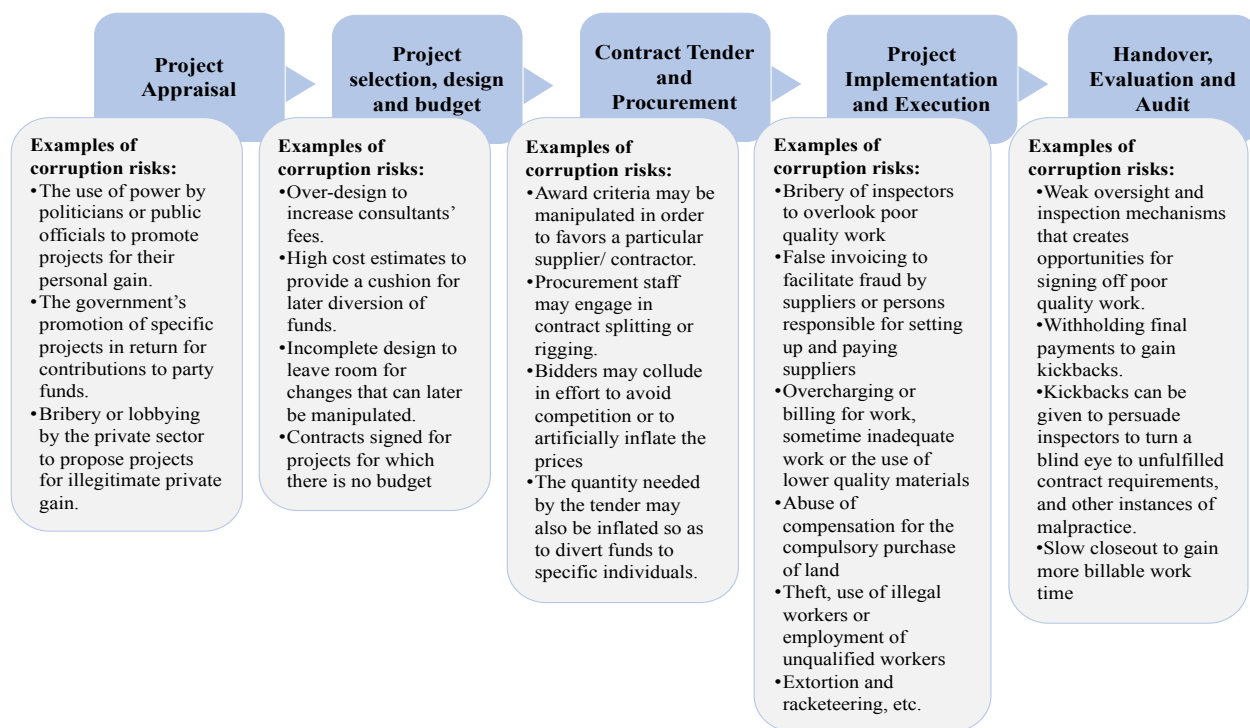


Figure 1. Major stages of infrastructure project cycle and examples of corruption risks (Chan and Owusu, 2017; Le et al., 2014)

3. Transparency and anticorruption: a principal-agent theoretical perspective

The Principal-Agent Theory (PAT) is a widely used framework in management and social science to analyse the relationship between the principal, or the person who hires the agent, and the agent, or the person who is hired to perform a task (Eisenhardt, 1989; Nwajei et al., 2022; Wang and Liu, 2015). The theory posits that the principal and agent have different goals and incentives, which can lead to problems of agency, such as moral hazard, deviant behaviours and adverse selection (Chang, 2014; Müller and Turner, 2005; Rose-Ackerman, 1978). In the context of corruption, the principal is the society or the state which, in a democratic setting, is usually represented by elected politicians. The agent is the public official, contractor, or supplier who is responsible for delivering public programmes such as infrastructure projects (Shleifer and Vishny, 1993). PAT is useful in understanding CoST as a transparency norm and the complexities of fighting corruption. But to discuss this we have to clarify the principal-agent

divide first. Indeed, there are philosophical argument about what constitutes a “principal” and an “agent” and there are debates as to whether the principal comprise the citizens or the politicians elected to represent them (Graycar, 2022). For the purpose of our research, we take the generally acceptable position in the literature which considers the principal to be the politician on the assumption that, in democratic setting, the citizens delegate their decision-making powers to politician willing to act as a principled principal (Persson et al., 2013).

An important aspect of the PAT is the concept of information asymmetry, which refers to the situation where one party has more information than the other. In the case of corruption in PIPs, the principal or, indeed, the agent may have access to privileged information and resources that allow them to engage in corrupt activities without being detected (Graycar, 2022; Müller and Turner, 2005). For example, a principal may use their position of authority to influence the procurement process, award contracts to their cronies, and manipulate the budget allocation. Transparency, therefore, serves as an antitrust norm that reduces the risk of collusion, monopolistic behaviour, and price fixing, and promote fair competition (Blair and Kaserman, 2009; Posner, 2012) in the infrastructure sector. Hence, it makes sense for transparency to be adopted as a means to mediating information asymmetry and monitoring, allowing the public to “see” through the activities of both the principal and the agent. This, perhaps, explains the multi-stakeholder and disclosure elements of the CoST. But in the conception of CoST, transparency is seen as a standardised behaviour with fixed boundaries, i.e., disclosure of information equals transparency equals anticorruption (Ejiogu et al., 2021). This proposition has ignored the social, institutional and power dynamics at play when corruption is involved, especially when corruption is no longer abuse of a system, but an alternative system in itself such that corruption fights back against transparency (Ejiogu et al., 2021, 2018).

Another key insight of the PAT is that agents may have different interests and objectives than their principals, which can lead to a potential for moral hazard, deviant behaviours and opportunism. For examples, politician may have personal interests and goals such as accumulating wealth by demanding for bribe from a contractor– a principal-agent misalignment of interest, or contractors colluding to rig a procurement process implemented by a principled principal– an agent-principal misalignment of interest (Ostrom, 2012). The social accountability feature of the CoST approach, therefore, seeks to empower the citizens to hold decision-makers to account. But given that social accountability strongly depends on information disclosure, one can see the potential challenges that the CoST approach could face. The level of transparency is hinged on the amount, understandability and usefulness of information disclosed (Hubbs, 2014). Research shows that it is possible for a corrupt principal(s) or agent(s) to obscure information access and, therefore, constraint social accountability (Sovacool et al., 2016). Corrupt principals have also found ways to antagonise the press and CSOs in order to institutionalise corruption by lowering the moral cost of corruption, and assisting in developing supporting networks among corrupt actors (Amegavi, 2022). So, *how is the CoST implemented to mediate the principal-agent relationship, and can we identify any nuanced anticorruption effects of the CoST transparency norm on the behaviours of agents and principals?* We present our method for data collection and analysis in the next section.

4. Method- a case study approach

We adopted Yin's (Yin, 2012, 2009) explanatory case study methodology as it is particularly suitable for answering "how" questions, and for exploring a phenomenon in-depth within its real-life context particularly when a holistic, in-depth investigation is required (Robson, 2015). The method allowed us to draw on existing knowledge in order to provide new perspectives for the

implementation of transparency norms as tools for anticorruption in PIPs. In so doing, we aligned our methodological fit to Edmondson and Mcmanus (2007) intermediate theory. Yin's five components of an effective case study research design were applied: (1) research questions; (2) propositions or purpose of study; (3) unit analysis; (4) logic that links data to propositions; and (5) criteria for interpreting findings. First, an explanatory case study was used to answer the research questions in real-life setting. The questions we tackled drew from the paper's problem context and theoretical framing. The second component of case study research design is to define the study purpose clearly. Hence, our study seeks to provide an understanding of how the CoST norm implemented, the opportunities offer to the delivery of PIPs, and the challenges it faces. We anticipate that this will provide understanding of the nuances of the moderating effects of transparency norms within the context of principal-agent dynamics. Consequently, the unit of analysis focus on "CoST as a global transparency norm". We were, therefore, able to examine CoST across the implementing countries shown in table 1 below. This also allowed us to draw from examples that are specific to these countries in our analysis and providing generalisable findings. The fourth component of our case study design was to connect data to propositions. We achieved this connection by following a well-designed protocol for data collection. We used a qualitative research approach which allowed us to explore diverse perspectives and uncover relationships that exist between the intricate layers of our multifaceted research questions (Creswell, 2013). We analysed the data whilst building explanations to the links that appear in the data to the theoretical propositions of the paper, thereby, answering the research questions. Finally, interpretation of findings was achieved through carefully extraction of meanings from the data analysis vis-à-vis the theoretical conception of the paper.

4.1 Data collection

Similar to the approach used in researching other transparency initiatives (David-Barrett and Okamura, 2016; Ejiogu et al., 2021), we collected 37 archival records of the minutes of CoST Board meetings, and CoST assurance reports on CoST implementing countries as shown in Table 1 involving 509 PIPs. We also conducted 25 interviews with strategic members of the UK CoST International Secretariat and the CoST country managers and MSG members within 8 CoST implementing countries including Afghanistan; Guatemala; Malawi; Thailand; Uganda; Honduras; Ghana and Ukraine. Our choice of these countries and participants used a combination of purposive and snowballing sampling techniques (Robson, 2015). We first identified and interviewed members of the UK CoST International Secretariat, and through their networks within the CoST implementing countries we gained access to country managers and members of the MSGs. This snowballing approach continued until we reached data saturation. All interviews were done with complete integration of ethical considerations and interviewees were promised anonymity. The interviews were conducted via Zoom which provided easier access. The interviews were then transcribed and analysed using thematic analysis.

Table 1. CoST Assurance reports and data sources

Assurance Reports	No. of projects 2016	No. of projects 2017	No. of projects 2018	No. of projects 2019	No. of projects 2020	No. of projects 2021
Afghanistan			8	20		20
Costa Rica				10		
El Salvador		19	22	20		12
Guatemala	20		22	20		12
Honduras	19	8	27	3		15
Malawi	26	33	1	13		6
Ghana (Sekondi-Takoradi)					5	8
Thailand		4	10	10	16	
Ukraine		2		2		
Uganda		9	18	10	13	22
Ethiopia			14	8		
Tanzania			2			

4.2 Data analysis

We began our thematic data analysis by reading through our qualitative data (interviews, assurance reports and minutes of meetings) to make sense of the themes that could emerge from the data within the context of our research questions. Concurrently, we tabularised the information from the assurance reports by extracting data related to different variables including disclosure rate, disclosure participations, issues of concern identified, etc over a period of 6 years (2016-2021). We used NVivo to thematically analyse of our data and applied the approach by Braun and Clarke (2006). We began by repeatedly reading the entire qualitative data set for ideas and identification of possible patterns. Meanings were created and notes taken during this period. Afterwards, initial codes were produced from the data. This involved working systematically through the entire data set, giving full and equal attention to each data item and identifying interesting aspects in the data items that may form the basis of repeated patterns (themes) across the data set. The next phase involved sorting the different codes into potential themes, and collating all the relevant coded data extracts within the identified themes. At this point, data analysis began as consideration was given to codes and how different codes were combined to form an overarching theme using tables. Subsequently, relationships were established between themes and codes and between themes, and the sets of theme candidates were revisited and refined. Methodological rigor was achieved through precision planning, data collection and analysis. This includes careful planning and tabularising our research data, engaging with data sources and focusing on verification and validation such as the responsiveness during the interviews, methodological coherence, appropriate sampling frame and data analysis (Robson, 2015).

5. Result and discussion

Findings emerging from our data analysis indicate that the CoST implementation is driven by many anticorruption factors reported in the literature. This include top strategic political support that ensures that the CoST at national and subnational levels are provided with the necessary support to domesticate the transparency norms (Quah, 2017). We also found evidence where CoST is enacted to improved public spending and deliver sustainable infrastructure. Evidence from the analysis of the CoST assurance reports show how the CoST transparency initiative serves as a means of gaining governance and political legitimacy through social accountability by using the MSGs to increase public support for government initiatives (Ejiogu et al., 2021, 2018). These findings are not surprising and align with the literature on how anti-corruption and transparency are implemented in public projects (Le et al., 2014; Locatelli et al., 2017; Owusu et al., 2020b). But alongside these findings, we also made discoveries of unique opportunities and some complexities that emerges from the mediating role of CoST features within the principal-agent relationship. We present our findings in the following sections.

5.1 Transparency via the CoST assurance feature

One of the more significant findings to emerge from this study is the use of the CoST assurance feature as a means of mediating the principal-agent relationship, the effectiveness of the feature and the complexities observed. In summary, the assurance feature involves (1) review of completeness and accuracy of disclosed project data by an independent team of engineers and project professionals appointed by the MSGs. (2) A sample of the projects are identified for in-depth review and recommendations. (3) Site visit to observe and verify project progress. (4) the propagation of medium of public communication to assesses aspects of the public's confidence. The assurance feature focusses on deliberately dealing with a single cause of corruption, i.e.,

secrecy (Blanc et al., 2019). We found that this process enables the identification of issues of concern within the principal-agent relationship in order to make recommendations for improvement as shown in Figure 2 . Notably, across our data we analysed, we observed *project preparation, poor tender management, and inadequate financial planning* as the persistent themes that emerge as issues of concern which are often cited as the reasons for project delays.

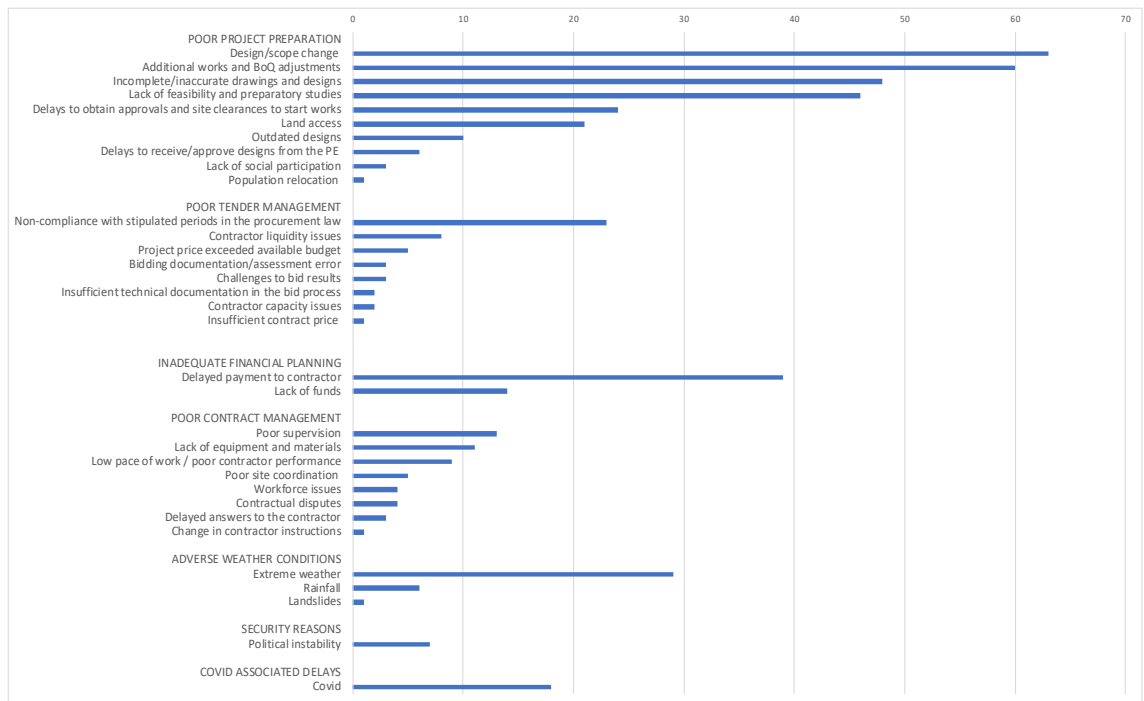


Figure 2. Issues of concern cited in CoST Assurance Reports across 437 projects

The use of the assurance feature to identify issues of concern within the lifecycle of PIPs can be attributed to the political, process and implementation antecedents observed in our data set (thematically highlighted in Table 2). For instance, at the first stage of the assurance feature, published project information is collected from the 40 data-points and the success of this stage depends on political antecedents such as *high-level political support, MSG inputs and the institutionalising of CoST by enacting transparency laws*. The political antecedents ensure that the assurance process is used to ‘shine the light’ on the interaction between the principal(s) and

the agent(s). The outcome of the process addresses: if the project has been carried out; if the procurement process is implemented fairly; whether the construction contract is completed efficiently and effectively; whether the construction work is completed to an acceptable standard; and whether an effective complaints procedure operates within this project. The implementation of the second and third stages of the assurance process is supported by process antecedents such as the *capabilities of the local contract administrators and the assurance team*, and guidelines for *random and systematic selection of project and site visits* to assess compliance with construction standards. The assurance team assess the physical progress of infrastructure projects and provides a platform for shared lessons learned, and recommendations with other stakeholders. The final stage relies on public communication to *assess four aspects of the public's confidence* in the project including value for money, the transparency of project procurements, efficiency and accountability. This stage strongly relies on implementation antecedents such as *developing local capabilities, public engagement and site visits*.

Table 2. CoST Assurance: antecedents and complexities

Approach	Antecedents	Complexities
<i>Applying a structured approach to deal with secrecy and ease information access.</i>	Political Antecedents <i>High level political support</i> <i>Institutionalising CoST by enacting transparency laws</i> <i>MSG inputs</i>	<i>Institutionalising of CoST without engendering transparency</i> <i>Dealing with corruption within processes but not at micro-level or underground subtleties</i>
	Process Antecedents <i>Capacity support for contract administrators</i> <i>Systematic approach</i> <i>Randomised project selection</i>	
	Implementation Antecedents <i>Assess aspects of the public's confidence</i>	

*Site visits**Developing local capabilities**Public communication via online portals*

Across the different domestication contexts of CoST, we observed that the political, process and implementation antecedents of the assurance feature impacts on the success of transparency in PIPs in a varying way. For instance, and as expected, where there is a strong political support and commitment from the highest levels of government (the principals), such commitments mitigate conflicting political and MSG interests and provides opportunity for the process to be effective. In other contexts, the political support can also be corrupted or laden with other interests (Sohail and Cavill, 2008). We discussed this and its implication in section 5.2. The process antecedents of the CoST assurance feature can also have a significant impact on effectiveness of the assurance feature. For example, a well-designed transparent and randomised process of selecting samples of projects to be included in the assurance process can help to provide some unpredictability by guaranteeing that the activities of the procurement entities (the agent) can be subjected to audits at any time. This then ensures that project information is collected and disclosed properly. Here, we found the assurance process helps in shaping the behaviours of procurement entities to be more transparent in their decision-making processes.

Amidst the observed varying effectiveness of the CoST assurance feature lies the nuanced intricacies that emerges from shining the light on corruption in PIPs. We observed a unique case where the institutionalisation of the CoST assurance process via legalisation appears not to engender the assurance process to achieve transparency. By legalisation, we mean a form of institutionalisation characterised by obligation to the law (Abbott et al., 2000). An example of

this is the case of the legalisation of CoST in Malawi where legalisation is constrained by the inability to comply with the commitment of data disclosure and assurance process as cited below.

“its [CoST and CoST assurance process] been in the law for Malawi for a while and it’s not made much difference, to be honest, in terms of getting data made public and improving the assurance process. I think, in terms of institutionalising it, I think policy and legal framework is important, but it needs a bit more than that, I think we’ve learnt.” (Intw 5).

Similarly, we observed that the assurance process focuses on transparency of process and unable to deal with corruption at micro-level or underground subtleties (Signor et al., 2022). The implication is that the process may be unable to deal with micro-level bribery, kickbacks, or collusion between individual actors involved in the procurement process. While the assurance process can help to identify inconsistencies or errors in project information provided by the procurement entity, we found no evidence it uncovers more subtle forms of corruption that are not reflected in the documentation. Another implication is that the assurance process may not be able to address the underlying structural or systemic factors that contribute to corruption such as the issue of strategic misrepresentation earlier discussed (Flyvbjerg, 2005).

5.2 Is data disclosure and MSGs helping?

We further explore the usefulness of disclosure and MSGs features to gain insight into the mediating role of these features within the principal-agent relationship dynamics, and the tensions that emerges from the features. We identified the political, process and implementation antecedents. The political antecedents of a functioning disclosure and MSG feature involves,

nurturing dynamic political relationships and, accepting to work with vested or even corrupt interests as shown in the findings of our thematic analysis in Table 3. These antecedents allow the MSGs to collaborate with diverse groups with different perspectives and political interests such as government agencies, civil society organizations and private sector companies. These groups can share information and resources, and leverage their different strengths to achieve common goals (Søreide and Truex, 2013). We found evidence of MSGs action that *supports public campaigns, information disclosure demands and lobbying for legislative changes*. The process and implementation antecedents of the disclosure and MSG features that emerged from our data should also be noted. These antecedents reflect the localisation subtleties of CoST and how to ensure that CoST fits the diverse local contexts in recognition that there is no ‘one-size fits-all’ principal-agent dynamic and solution for anticorruption as noted below.

“...we work in complex circumstances and contexts culturally, politically, we’re working in different political eco systems, the way power is negotiated as well is different.... we need to be able to manage the relationships, the values, the local cultures and the nuances. That’s where MSGs come in.” (Intw 14)

Table 3. Data disclosure and MSGs: antecedent and complexities

Approach	Antecedents	Complexities
<i>Data disclosure and MSGs rely on a more decentred and delegated process of formulating responses.</i> <i>Public campaigns, information disclosure demands and lobbying for legislative changes</i>	Political Antecedents	Disclosure without social accountability.
	<i>Accepting to work with vested or corrupt interests</i>	
	<i>Nurturing dynamic political relationships</i>	Transparency for some governments is about attracting investment and not really about anticorruption
	<i>Relying on networks to understand political economy and build local intelligence</i>	Selective anti-corruption that does not target the powerful.
	Process Antecedents	Potential of using corrupted data to enact transparency.

<i>Relying on local MSGs to build political intelligence</i>	Attempted capture of CoST processes
<i>Understanding local drivers, their shifting dynamics and adjusting accordingly</i>	Inactive MSGs Delivering quality infrastructure but within a corrupted context
<i>Ignoring or filtering out evidence that complicates the picture</i>	Protecting vested interest with CoST MSGs
Implementation Antecedents <i>MSGs legitimate the CoST norms.</i>	
<i>Sometimes focus on delivering quality infrastructure and cascading common norms</i>	

But we also noted several complexities in the enactment of the disclosure and MSGs features of CoST. Our first observation challenges the linear assumption that disclosure will lead to social accountability. A respondent noted.

“The public, in theory, can access that data but in reality, people have busy lives and analysing data is not going to be top of their list of priorities. So, the data is available. Now the next part is a difficult one, getting empirical evidence of people using that data and kind of exercising accountability” (Intw 3)

The findings above also deviate from research that shows how resistance to data-driven transparency is caused by purposive actions to resist disclosure pressure (Ruijter et al., 2020). In this instance, the communication model which assumes social accountability occurs when information is disclosed, is skewed by the reality of poor citizen participation. Poor participation can be a function of citizens’ priorities, contestations, power games, speed of information disclosure (Meijer, 2013; Roelofs, 2019). Similarly, because CoST relies on the role of ‘principled principal(s)’ we found complexities associated with accepting to work with vested or

corrupted interests. Where the principal(s) within the MSGs or with powers that control the MSGs are corrupt or have other vested interest beyond fighting corruption, then anticorruption reform based on PAT is at risk of failure (Lehne et al., 2018; Persson et al., 2013). Furthermore, transparency through data disclosure could be enacted using *corrupted disclosed data* and it may *not be possible to fight powerful corrupt principal*. However, we found evidence to suggest the CoST norm helps moderate the commitments of political actors such that they demonstrate their commitment to transparency in infrastructure development in order to attract investment.

I've met several individuals at senior levels, even ministers, say that they want that cover and if it's an international standard and club, like open government partnership, EITI, CoST, it helps provide that respectability. It also helps in terms of their global image, and I think there's a belief that for infrastructure, well if we're part of this club, it might help in terms of investment, as well (Intw 14).

We find that in many instances, politicians and the representatives of government agencies and departments are at the top of the MSG pyramid (shown in Figure 3) linked to their power structures. Government representatives are saddled with the responsibility of mentoring PIPs and securing the enforcement of laws, regulations and contracts. Therefore, they draw their legitimacy from the sector regulations, the knowledge of the procurement process or the top official that appointed them into the MSGs.

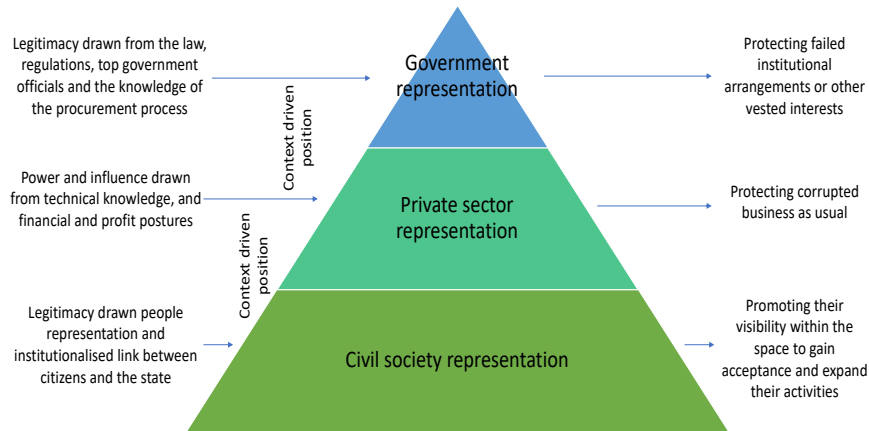


Figure 3. Context driven position of representation in MSGs

But since the emergence of MSGs is usually preceded by the failure of the same government agencies and departments upon which the MSG representation are drawn., it is possible to have representatives selected from among the loyal civil servants who can be trusted to protect the interests of the failed government departments. With the right political support, power and influence a such person is capable of capturing the MSGs to support other interests. In this instance, CoST paradoxically facilitate corruption conditions. It is, therefore, not surprising to find contexts in which a CoST champion and representative of government is also involved in alleged corrupt deals, or in other instance, the CoST norms are only applied where the secrecy of a powerful principal is not threatened as cited by interviewee 2 and 10.

“In Guatemala, the Deputy President got involved in a corruption scandal and her husband owned a big construction company and the scandal has no direct relationship with CoST but she was the CoST champion..., so we were worried what’s this going to say about CoST that the CoST champion has been revealed to be involved in all these corrupt deals” (Intw 2)

“Whereas I’ve been pleasantly surprised about Uganda, I must say. I thought it would be very difficult but actually, as long as you’re not upsetting the family, [of President] Museveni, you actually can do a surprising amount. Yes, you just have to be attuned to that...(Intw 10).

For the private sector representation in the MSGs, profit maximisation remains the motivation to the delivery of infrastructure projects. They are sustained by the pressure to capitalise gains from investments. It is, therefore, possible that private sector representation in MSGs may be motivated by the need to maintain business as usual and gain insider information on initiatives that will disrupt potential deals or corrupt contracts and procurement processes. However, as cited below, in some instances, the MSG provides a medium for constructive dialogue in the face of public pressure, even if such dialogue is laden with vested interests.

“very often I think if you speak to actors in different countries they will say, there is a lot of mismanagement and corruption, and it’s all the private sector’s fault and someone would say it’s due to the government, their processes are not transparent. So very often people are pointing fingers to each other, but when you bring them onto the same platform and you’re thinking about problem solving rather than just pinpointing fault, I think it becomes more proactive” (Intw 8),

Civil society organisations (CSOs) draw their legitimacy from representing people groups and establish an institutionalised link between the citizens and the state. Their participation in MSGs can be motivated by the need to do good or the need to be more visible in order to gain more acceptance and funding. We also observed that because of their lack of technical knowledge of PIP delivery processes, the CSOs are heavily dependent on training by the

contractors as cited below. Ideally, such training should come from independent parties to ensure that the CSOs are given objective knowledge for social accountability.

“So if we win the tender, we are going to go into these three regions to conduct training with the civil society and the media, so that they understand the concepts and the terminology that is used.” (Intw 21).

We also observed that vested interests have found ways to pacify the CSOs using “obscured transparency”. This include providing data in a format that can hardly be used or understood, or dumping data in the hope that the CSOs and citizens are overwhelmed by the data and, therefore, unable to make sense or use it for social accountability.

6. Theoretical implications

Our work empirically expands the theoretical conception of the nuances of enacting transparency norms such as CoST to ‘shine the light’ on the principal-agent relationship and fight corruption in PIPs. In a typical principal-agent relationship, the principal (such as the politician) employs an agent (such as contractors) to deliver public projects. Corruption can manifest in PIPs where the principal and/or the agent have conflicting interests (Graycar, 2022). We show how CoST helps to mediate this conflict by increasing transparency and accountability in the PIPs, but also identified context where it can paradoxically condition corrupt practices.

Three theoretical contributions can be observed in our findings. The first contribution relates to the role of citizens within the Principal-agent relationship. In the typical relationship dynamic, citizens delegate their powers to a principal with the hope that such a principal is a principled principal and able to act on their behalf (Eisenhardt, 1989; Leonard and Leonard, 2004). By providing citizens with information about how public funds are being used, and by promoting

public participation in the decision-making process, CoST extend its mediating role of transparency beyond the aforementioned typical principal-agent relationship such that citizens “see” the activities of procurement entities which increases public oversight of PIPs. In light of the general consensus in literature that the public infrastructure project sector is one of the most corrupt sector globally (Flyvbjerg, 2005; Gee et al., 2021), transparency measures as seen in the case of CoST helps to align the interests of the agent(s) with those of the principal(s), as the agent knows that their actions will be subject to public scrutiny. Second, principal-agent relationship is seen to be moderated by the assurance feature of CoST - enacted through unpredictable project selections which impact the behaviour of procurement entities to be more accountable to collating and disclosing project information, hence providing transparency to the processes. Whilst there are research that show corrupt principal(s) or agent(s) are able to obscure information access and, therefore, constraint social accountability (Aaronson, 2011; Sovacool et al., 2016), the assurance process mitigates this via random selection of projects and visits to project sites to ascertain factual project information. As the assurance process involves stakeholders, including the public, civil society organizations, and the media, the procurement entities are encouraged to be more accountable for their actions and to take steps to improve their practices in order to avoid negative publicity (Hawkins and McKittrick, 2012).

Finally, the challenges of the moderating effects of CoST within the principal-agent relationship should be noted. We observed that contestations occur within the power structures of the implementation of the CoST norm (Bautista-Beauchesne, 2021). Similarly, interdependencies is manifested in the relationship between transparency and corruption, such that the solution can, in some instances, present a new problem or fuel an existing one. CoST is also implemented within the context of other transparency and anticorruption institutional, legal and political

arrangements (Khan et al., 2016). The interdependency of CoST on powerful principals presents yet another vulnerability especially given that in many developing countries where CoST operate, political rents are used to maintain ruling partnerships. Incompleteness of the CoST norm is linked to the approach to deal with one causal factor of corruption- i.e., secrecy (Ejiogu et al., 2021). For example, the data disclosure, MSGs, and assurance process present specific, but incomplete solutions to the multi-dimensional facet of corruption in PIPs (Chan and Owusu, 2017; Owusu et al., 2020a). However, even the incompleteness of the CoST norm is important as it allows CoST to ignore or filter out evidence that complicates anticorruption targets and also focus the delivery of quality infrastructure even within a corrupt environment.

7. Managerial implications

We assessed the CoST transparency initiative and how it is enacted to fight corruption in PIPs, the opportunities it offers and the challenges observed. One of the significant findings to emerge from this study is the identification of the political, process and implementation antecedents of the assurance, MSG and disclosure features of CoST. This finding brings into focus the role of project professionals in the enactment of transparency as a tool for fighting corruption in PIPs (Love et al., 2022). Hence, whilst project professionals support the delivery of PIPs for the attainment of SDGs, this paper argues that their contributions should extend to the enactment of anticorruption tools such as CoST. The assurance feature, for example, strongly depends on the inputs of these professionals to review construction data, select projects to be involved in the assurance process, engage in fact finding site visits and mobilise community engagement. Similarly, project professionals also play an active role in the MSGs, disclosure and social accountability features of CoST. They provide technical support, train and develop local community-based capabilities, highlight issues of concerns from disclosed project data and make

recommendations for improvement (Hawkins and Prado, 2020). Our paper, therefore, provides insights into the antecedents of the implementation transparency norms. Project professionals can leverage the antecedents as they engage with governance processes of transparency and the fight against corruption in PIPs. Attention also needs to be given to the complexities of that emerges from the enactment of the CoST norm which can arise in the form of interdependencies, contestations and incompleteness. Politician, CSOs and professionals must learn to navigate these complexities and consider the ways in which these complexities can introduce vulnerabilities in transparency and anticorruption based on local contexts.

8. Conclusion

Our research illustrates the how CoST as transparency norms is enacted through its features and the antecedents that ensure varying impact on corruption in infrastructure projects. Theoretically, we explore the role of CoST in mediating the principal-agent relationship and paradoxical vulnerabilities that emerges as a result of the enactment of CoST to fight corruption. Our managerial contribution discusses the role of Project professionals in enacting transparency and also calls for the governance of anticorruption in infrastructure projects to recognise the vulnerabilities, identifying contextual opportunities to deploy effective transparency initiatives. Finally, the limitations of the paper should be recognised. At the moment, CoST is only domesticated in developing countries, so care needs to be taken in interpreting the findings of the paper as it does not address the nuances in developed countries where corruption is likely to be episodic and opportunistic compared to systemic in many developing countries.

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