Info Sheet: Corruption Risks in Public Procurement

iMonitor

Public procurement is the foundation for the activities of governments and state-owned enterprises, encompassing the purchase of goods, services, and works. In the European Union, approximately 14% of GDP is allocated through annual public procurement processes, playing a significant role in critical sectors like energy, transportation, health, and education services. Even marginal enhancements in this market can yield substantial savings, with a 1% efficiency gain potentially saving €20 billion annually. Therefore, preventing losses due to corruption and other irregularities may have a large impact on public services and society more broadly.

The Public Procurement process

The public procurement process can be divided into four main phases (Figure 1). The Planning & Advertisement phase starts with detailed planning, including specifications, implementation timelines, and procurement details. Here, budget estimation takes place and sufficient funding has to be secured for the project. The Selection & Submission phase involves bidders expressing interest, pre-screening bids, and detailed specification review by bidders, allowing for questions and modifications to the tender documents. This is when bidders submit their bids following the tender specifications and award criteria. The Evaluation & Award phase includes an eligibility assessment and comprehensive evaluation, leading to the selection of the winning bidder(s). Finally, the contract management phase includes project execution by the supplier, the buyer verifying deliverables, and payment. Contract renegotiation might take place by modifying specific contract terms. Corruption risks at any stage can undermine fair competition, transparency, and the overall integrity of the process.

Figure 1: The public procurement process

Planning & advertisement	Selection & submission	Evaluation & award	Contract management
Procurement plan	Short-listing	Eligibility assessment	Contract negotiation
Advertisement	Proposal submission	Bid scoring	Contract implementation
Request for proposals	Opening of technical/ financial proposal		

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Corruption in Public Procurement

Corruption is often generally defined as the "abuse of entrusted public authority for undue private interest." A more specific definition applicable to public procurement highlights that the aim of corruption in this context is to **limit competition to favor a connected bidder without detection**. Corruption in this context is particularistic, institutionalised, and grand, often involving high-level politicians and business persons.

Corruption can manifest through a wide range of schemes and tricks throughout the different phases of the public procurement process. In an entrenched system, it might involve all of its four main stages. Figure 2 indicates a few common examples for corruption techniques in each procurement phase.

Public procurement corruption is typically particularistic, institutionalized and grand.

Particularistic: it involves a relationship between public and private actors, which they use to exclude anyone who is not part of their interest group.

Institutionalized: it is recurrent, stable and systemic.

Grand: it includes high-level politicians and business persons and usually involves a large amount of public funds.

Risk assessment of corruption in Public Procurement

Risk indicators serve the purpose of screening a large number of public procurement procedures and identifying (or “flagging”) those where corruption is more likely. Although each indicator individually can offer only an approximation of real corruption, even a slightly imperfect indicator can help to better direct oversight and monitoring efforts towards more relevant (i.e. riskier) procedures. Furthermore, combining separate, independent indicators can increase the reliability of this screening process.

iMonitor relies on a risk assessment methodology developed and tested by the Government Transparency Institute (GTI), based on quantifiable risk indicators that seek to detect the (potential) occurrence of corruption in a given tender or contract. These indicators are designed to capture corruption technologies such as the ones described in Figure 2. They are estimated with an extensive amount of public procurement data collected by GTI from national public procurement websites and the EU-wide Tenders Electronic Daily (TED).

Following a rigorous validation process, GTI has defined nine key risk indicators that can be accessed and used on Opentender.eu to assess the level of corruption risk associated with individual tenders. **As Opentender aims at promoting integrity, instead of highlighting corruption, they are presented as integrity indicators that actually measure the opposite of corruption: where corruption risk is high, the integrity level is low, and vice-versa**. Each indicator is capturing specific corruption risks and can take a value between 0 and 100, where 100 indicates the highest integrity, i.e. the lowest corruption risk. In addition to the nine individual indicators, Opentender also uses a composite integrity score, which is the arithmetic average of each available integrity indicator, also ranging from 0 to 100. An overview of all **11** integrity indicators is presented in Table 1.

Figure 2: Common corruption techniques by procurement phase

Planning & advertisement

Shortened advertisement period: Potential bidders do not have enough time to obtain documents and prepare their bids. Connected bidders who know about the tender beforehand are likely to be the only ones bidding.

Splitting procedures: A public agency planning to buy computers for a new office in a total amount of € 200.000 could split this purchase into multiple contracts below the limit above which a competitive tender would be required and award them directly to a connected supplier.

Avoiding publication of the call for tenders: Publishing a call for tenders in channels of limited visibility or not publishing it at all reduces the number of potential bidders, favoring connected bidders with insider information.

Selective information provision: In addition to getting privileged information when tenders are intentionally advertised with restrictions, connected bidders may also be favored by receiving detailed information on what will be purchased while the call is published with an intentionally vague description.

Selection & submission

Biased product specifications: To restrict the number of short-listed bidders, a procurement procedure may include biased specifications deliberately tailored to exclude bidders other than those with connections to the purchasing agency.

Biased eligibility requirements: Similarly, eligibility requirements to be fulfilled by short-listed bidders can be manipulated, establishing excessively specific or restrictive criteria concerning the technical or financial capacity (e.g. a certain amount of capital or level of revenue) that potential bidders must demonstrate to be pre-selected, also restricting the pool of potential bidders.

Evaluation & award

Shell companies: These firms that exist only on paper and are often registered in tax havens may be used to disguise a conflict of interest situation (e.g. a contract awarded to a shell company truly owned by a public official or politician). They can also serve to hide the fact that the contract will be executed by another firm, and even to funnel money out of the contract.

Strategically annulling the tender: Annulment can be used strategically for corrupt purposes either to circumvent a requirement for more competitive procedures – as the repeated procedure may be conducted with more flexibility –, or also when other tricks to manipulate the tender fail to favor the intended supplier and an unconnected firm would have to be awarded the contract.

Unfair scoring: When bids are evaluated based on other criteria in addition to the offered price, scoring may rely on subjective components that can be abused to favor a given supplier.

Contract management

“Bogus” subcontracting: Information on subcontractors is often less transparent even in relatively developed procurement systems. Therefore, subcontracting can be exploited to make corruption more difficult to detect. For instance, an otherwise qualified supplier could be awarded a contract and subcontract it to an obscure firm, sometimes registered abroad, to siphon out funds and disappear without completing the project.

Substandard work: This is the case when goods, works, or services provided do not comply with the specifications stipulated in the contract. This process may include corrupt contract supervisors or could be the result of a company taking advantage of poor contract management practices.

Table 1: Opentender's integrity indicators

Integrity indicator	**Level of calculation**	**Integrity risk**	**Values**
Single bidder tender	Contract	Single bidding is the simplest indication of restricted competition reflecting our corruption definition when only one bid is submitted for a tender on a competitive market.	100: more than 1 bid received 0: 1 bid received
Call for tenders is published	Tender	Not publishing the call for tenders makes it less likely that eligible bidders notice the bidding opportunity, weakening the competition and allowing the contracting bodies to more easily award contracts repeatedly to a well-connected company.	100: call for tender/ prior information notice is published 0: no call for tender/prior information notice is published
Use of non-open procedure types	Tender	Less transparent and less competitive procedure types can indicate the deliberate limitation of the range of bids received as well as creating more opportunities for contracting bodies to repeatedly award contracts to the same well-connected company.	100: open; procedure type is not a red flag for the country 50: limited; procedure type is a mild red flag for the country 0: non-open; procedure type is a red flag for the country
Length of advertisement period	Tender	A short submission period, i.e. the number of days between publishing a tender and the submission deadline, leaves less time and thus makes it harder for non-connected companies to bid successfully, whereas a well-connected firm can use its inside knowledge to win repeatedly as the buyer can informally inform the favored bidder about the opportunity ahead of time.	100: number of days between publication of call for tenders and submission deadline is in an interval not considered a red flag for the country 50: number of days between publication of call for tenders and submission deadline is in an interval considered a mild red flag for the country 0: number of days between publication of call for tenders and submission deadline is in an interval considered a red flag for the country
Length of decision period	Tender	An excessively short or long decision period, i.e. the number of days between the submission deadline and the contract award decision, can signal integrity risks. Snap decisions may reflect premeditated assessment, while long decision periods may signal extensive legal challenges to the tender, suggesting that the issuer attempted to limit competition.	100: number of days between submission deadline and the tender award decision is in an interval not considered a red flag for the country 50: number of days between submission deadline and the tender award decision is in an interval considered a mild red

			flag for the country 0: number of days between submission deadline and the tender award decision is in an interval considered a red flag for the country
Supplier is registered in a tax haven	Supplier	Awarding public contracts to companies registered in tax havens presents a risk that anonymous company ownership could be concealing a conflict of interest in the award of a contract to a politically connected beneficial owner. This indicator relies on an independent ranking by the Tax Justice Network of countries' legal frameworks with regard to banking and corporate secrecy.	100: supplier is not registered in tax haven country 0: supplier is registered in tax haven country
Benford's law	Buyer	Benford's law is an observation about the leading digits of a naturally occurring collection of numbers. It states that the first digit is likely to be small, for example, in sets that obey the law, the number 1 appears as the leading digit about 30% of the time, while 9 appears as the leading digit less than 5% of the time. If this indicator has a high value, it indicates that the price of the contract obeys Benford's law, thus it's similar to a naturally occurring collection of numbers, and it's less likely that the price is manipulated.	100: tender price is less likely manipulated 0: tender price is most likely manipulated
Supplier's tender share of buyer spending on public procurement	Supplier	Suppliers' share in a buyer's total spending in a given year can be used as a measure of market competitiveness and openness. A high share of supplier spending can signal that a supplier or a group of suppliers are part of a network, potentially leading to higher prices, and/or lower quality and value for money.	Continuous number between 0 and 100. 100: the winner's share is close to 0% 0: the winner's share is 100%
Distinct markets	Supplier	The number of distinct markets a supplier is present, weighted with the number of contracts they win can catch implausibly broad supplier market presences. If a supplier is present in a relatively high number of different markets compared to the total number of contracts it has won, this may indicate that the main reason for winning contracts in some markets is due to some form of corruption, e.g. political connections with the buyer in a particular market. Participation in fewer markets with many contracts results in a very low ratio, while participation in many markets with few contracts results in a higher ratio.	100: The supplier is present in a reasonably small number of markets compared to their total contract volume 0: The supplier is present in a suspiciously large number of markets compared to their total contract volume

Tailoring of eligibility requirements or product descriptions (to be detected by LLM models)	Tender	The text-based indicator measures the extent to which tender documentation may have been subtly tailored to favor a specific bidder. Three parts of the documentation are available for analysis: product descriptions, which may over-specify items so only one supplier can reasonably deliver the products; eligibility criteria, which can be worded to exclude unwanted bidders; and award criteria, where non-price scoring rules can discreetly benefit a preferred firm. The resulting risk score is a predicted probability between 0 and 1. The higher the probability the higher is the chance of receiving only a single bid based on the text of the tender publications.	Continuous predicted risk score (no threshold).
Exclusion of all but one bid	Contract	The indicator is formally defined in the data as a scenario where only one received bid is NOT excluded. To quantify this in practice, the difference between the total number of submitted bids and the number of valid bids is examined. The indicator signals corruption risks whenever the total number of received bids is greater than one, but the number of valid bids is precisely one.	100: There are more than one bid not excluded. 0: All bids except one are excluded.