

LESSON LEARNED FROM IRREGULARITIES COMMITTED IN PUBLIC PROCUREMENT

Syed Zafar Shahid Tabish and K.N.Jha

*Syed Zafar Shahid Tabish is PhD Scholar at IIT Delhi and Superintending Engineer, Central Public Works Department, Government of India His research interests include public procurement, procurement vigilance, and project management.
Dr.K.N.Jha is Asstt. Professor,IIT Delhi*

ABSTRACT

Every mistake is a learning lesson. Irregularities and case studies are also not different. These irregularities and case studies can be used to improve economy, efficiency, quality, transparency and fairness of any organization. Lesson learned also helps in installing confidence. This also helps in removing hesitancy in decision-making thereby avoiding delay in the completion of an activity. This paper seeks to identify and analyze various irregularities observed during technical vigilance audit by experts and reported case studies. Besides using lesson learned for prevention, it can also be incorporated into a policy or a guideline for improvement. Based on the analysis this paper presents actions under the five categories to improve Transparency, Professional standards, Fairness, Contract monitoring and regulation, and Procedural accountability in public procurement. The findings of the survey after final round of Delphi technique also reveal the ranking of these five categories.

A questionnaire survey was conducted to gather views from experts with experience in technical vigilance audit. As the group of expert was small, it was found appropriate to apply Delphi method to obtain the most reliable consensus of opinion of a group of experts.

INTRODUCTION

Every mistake that professionals might have committed honestly or deliberately while taking decision, may be a lesson for future. We can use both irregularities and case studies of past projects to improve our knowledge for preventive measures and policy making. Even World Bank has used lessons learned to avoid unnecessary mistakes and

achieve better results in projects funded for developing countries (World Bank 2006),

Not only lesson learned helps in improvement but also helps in installing confidence through awareness. This also helps in removing hesitancy in decision-making thereby avoiding delay in the completion of an activity, which is an integral part of any public procurement. Even lesson learned programs have been developed and are in use. Caldos et al.(2009) has stated that an effective lessons learned program is a critical element in the management of institutional knowledge; it facilitates the continuous improvement of processes and procedures and provide a direct advantage in an even more competitive industry.

Lesson learned can provide a solution to a problem or can suggest preventative action for future projects, where systematic study of various issues is still lacking, like in the field of corruption in public procurement. Arrowsmith and Hartley(2000) state that despite the scale and complexity of government purchases, the field of public procurement has remained a relatively under-researched area amongst economists, lawyers and other social scientists. Very few systematic studies of various issues pertaining to anti corruption and preventive measures for public procurement have been conducted.

Corruption has reached epidemic proportions and is becoming one of the major challenges for management thought and practice in the 21st Century (Pearce et al., 2008). Efforts are being made to bridle corruption and bring fair practices in public procurements at various levels. For example, American Society of Civil Engineers has come up with a “Zero Tolerance” policy for corruption in construction project management (PM World Today). Similarly, the Transparency International (TI) has developed an ‘integrity pacts’ to assist in the prevention of corruption. This includes measures like appointment of independent external examiner, commitment by all participants, signing of anti-corruption agreement and compliance of anti-corruption rules by all participants. The Multilateral Development Banks and International Financial Institutions have included Fraud and Corruption clauses in their Generic Master Procurement Document. Attempts have also been made to arrest corrupt practices in the planning, design, and construction phase of a project.

Public procurement

The public procurement as defined by Central Vigilance Commission (www.cvc.nic.in) has been adopted for the study. According to the

definition, Public Procurement can be defined as the procurement of goods, works and services by all Government Ministries, Departments, Agencies, Statutory Corporations and Public Sector Undertakings in the Centre and the States, Municipal Corporations and other local bodies and even by private Public Sector Undertakings providing public services on monopoly basis. Thai (2008) has quoted the United Nation's view of public procurement as an "overall process of acquiring goods, civil works and services which includes all functions from the identification of needs, selection and solicitation of sources, preparation and award of contract and all phases of contract administration through the end of services contract or the useful life of an asset". Thai (2008) has also stated that the public procurement system is built on four pillars: (i) Procurement laws and regulations,(ii) Procurement work force, (iii)Procurement process and methods and (iv) Procurement organizational structure, and can be ineffective if all or one of its pillar is not efficient.

In India, detailed rules and instructions relating to procurement by Union Government are contained in General Financial Rules (GFR) and Delegation of Financial Powers Rules (DFPR). In addition major Ministries such as Defense, Railways, Public Works, Central Purchase Organization (Directorate General of Supplies and Disposals) etc. have their own purchase procedures. Fundamental principles of public buying is " Every authority delegated with the financial powers of procuring goods in public interest shall have the responsibility and accountability to bring efficiency, economy, transparency in matters relating to public procurement and for fair and equitable treatment of suppliers and promotion of competition in public procurement (Rule 137 of GFR 2005).

Corruption and Public Procurement

Experience from developing and transition countries suggests that corruption is a major obstacle to growth and development. Several studies have concluded that corruption slows down development (e.g. Gould and Amaro-Reyes, 1983; World Bank, 1997; Askin and Collins, 1993). In addition, corruption can siphon a nation's resource towards illicit personal gain at the expense of productive investments in fields such as health, education and infrastructure (Schleifer and Vishny, 1993), and destroys citizens' trust in leadership and legitimacy of system (Farazmand, 1999). Corruption is a key element in the inability of poor societies to take advantage of development opportunities (Bardhan, 1997; Abed and Gupta, 2002). The African Commission, for example, has identified corruption as the single most important explanatory factor for the lack of economic development in Africa(Commission for Africa,

2005). Public procurement is a major development mechanism (Kashap, 2004). Public procurement is most prone to corruption (Søreide, 2002).

Eliminating risks of corruption in public procurement requires their prior identification and this again demands a precise understanding of the procurement process (Jourdain and Balgobin, 2003). They have further identified the key areas of concern in public procurement and proposed a systemic approach to curbing corruption in public procurement. Transparency International Argentina (Poder Ciudadano) found most problems in public procurement comes from the large discretion in designing and awarding public contracts and lack of public access to information (Steets, 2001). Cavill and Sohail (2007) have reported remedies for corruption in procurement which include increased transparency in public bidding process, independent monitoring of the procurement process, increased awareness and accountability among professionals for technical quality and financial management, increased confidence in and credibility of public servants, ethical and legal principles in service delivery, market based mechanism (price based comparison) as well as community monitoring of public procurement.

Central Vigilance Commission (CVC), India

The Central Vigilance Commission (CVC) and The Central Bureau of Investigation (CBI) fight corruption in India. The Central Vigilance Commission (CVC) follows a three-pronged strategy consisting of: (1) the simplification of rules and procedures so that the scope of corruption is reduced, (2) bringing greater transparency to the entire political system, and (3) implementing effective punishment (Vittal 2001). In India, towards preventive vigilance measures, the CVC has been issuing guidelines/instructions from time to time. In some of the cases, the CVC hands over the investigation to the CBI to prosecute the guilty (Quah 2003).

The CVC has a Chief Technical Examiner's Organization (CTEO) to examine the public procurement. The CTEO has two chief engineers called Chief Technical Examiners, who are supported by 8 Technical Examiners (TE) and their supporting staff whose duty is to technically inspect public procurement from a vigilance angle.

Fight against corruption

Corruption is perceived to be widespread in India and it ranks 85th out of 180 countries in Transparency International's (2009) Corruption Perceptions Index for 2008.

In order to mitigate and eliminate the debilitating effects of corruption, nations, organizations and individuals have proposed and implemented several anti-corruption strategies and guidelines. Narsimhan (1997) has proposed measures to tackle corruption under three heads: (i) preventive, (ii) punitive and (iii) promotional. Preventive measures include electoral and administrative reforms. Punitive measures relate to laws, rules and the mechanism for effective investigation, court trial, departmental disciplinary action and other means to deter the corrupt functionaries. The promotional measures cover encouragement of value-based politics, inculcation of moral and ethical principles.

In a move to combat global corruption within the construction industry, 19 international engineering and construction (E&C) companies have signed and adopted a set of business principles. The emphasis is on 'zero tolerance' policy on bribery and development of a practical and effective programme of internal systems and controls (Filtration Industry Analyst, 2004).

Sohail and Cavill (2008) report that corruption in the global construction market (estimated to be around US \$3,200 billion per year) alone accounts for an estimated \$340 billion. The total investment in the infrastructure projected for Eleventh Plan in India (2007-08 to 2011-12) amounts to Rs. 20,56,150 crore (US \$ 514.04 billion at an exchange rate of Rs 40 for \$1). Annual Government procurement in India is estimated to be Rs.500,000 crore (US\$ 125 billion) and may go up by at least 25-30% in the next two years (The Financial Express,2008). Despite huge money being at stake, the monitoring system of public procurement is weak. It is desirable that the public procurement is as transparent and free of irregularities as is feasible. But no mechanism exists which can measure or arrest all the irregularities leading to corruption, as it is something that those who know about it or committing it are always trying to hide it. So irregularities committed in the past can give better insight. Thus, the objectives set for the study are:

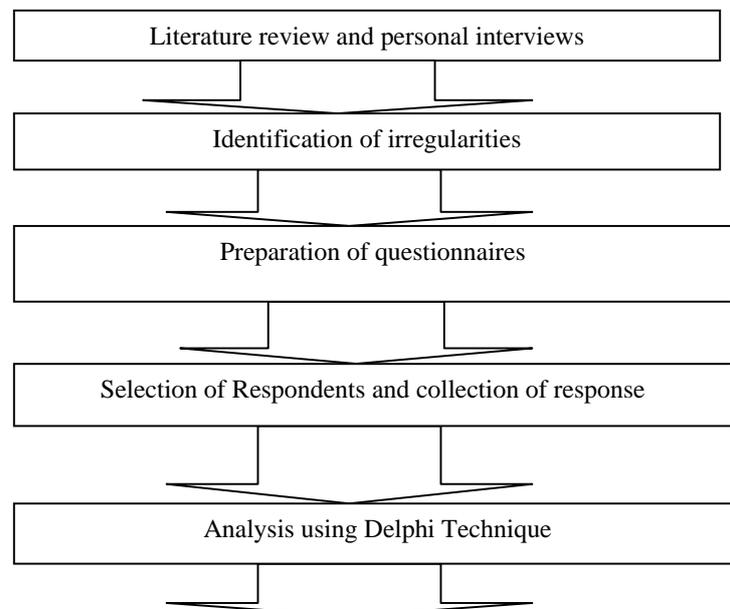
- (i) to identify and analyze irregularities in public procurement ,which can help in creating general awareness, helping professional to avoid it while taking decision.
- (ii) to identify key actionable categories to bridle corruption and provide government/ management with an analytical framework to design rules, procedures, and policies to bolster transparency and integrity in public procurement.

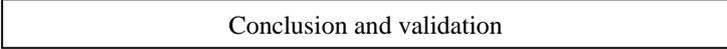
Based on the analysis of various irregularities observed during technical vigilance audit by experts and reported case studies, we present these

irregularities under five categories, namely (1) Transparency, (2) Professional standards, (3) Fairness, (4) Contract monitoring and regulation, and (5) Procedure related irregularities.

METHODS

First various irregularities, observed during technical vigilance audit by experts and reported case studies by TI, have been identified and listed. A questionnaire based on so identified 61 irregularity is prepared. The questions in the questionnaire requested the respondents to indicate the rate of occurrence on an average for each of the mentioned irregularities on a listed scale. The sample question is shown in Fig 3. As the group of expert is small, it has been found appropriate to apply Delphi method to obtain the most reliable consensus of opinion. The findings of the survey after final round of Delphi technique reveal the ranking of various irregularities which have than been grouped in five categories, ie, Transparency, Professional standards, Fairness, Contract monitoring and regulation, and Procedural accountability in public procurement and group ranking is also calculated. Research methodology is shown schematically in Fig 1. Literature review has already been presented in previous section. The other issues are explained briefly in the following sections:





Conclusion and validation

Fig 1 Research methodology

Identification of irregularities

CTEO identifies irregularities in public procurement under three stages/phases of a public project: (1) pre-tender stage consisting of project formulation, appointment of consultants, preparation of detailed project report/ detailed estimate, (2) tender stage consisting of prequalification, preparation of tender documents, inviting and opening of tenders, tender evaluation and award of work, and (3) execution stage consisting of compliance of agreement conditions, making payments, ensuring quality and timely completion. CTEO also posts some of the cases related to irregularities in public projects in the public domain, on their official website. Similarly, TI also publishes cases pertaining to public procurement. The researchers has also referred to a number of technical vigilance audit report.

Based on the literature presented above, the case studies reported by CVC and TI, observations of technical vigilance audit report, and the personal interviews of key officials involved in technical vigilance audit, a list of 61 irregularities observed in the public procurement have been identified and are shown in Fig. 2a, 2b and 2c. The figures 2a, 2b, and 2c outline the three phases of public procurement, key irregularities and kinds of corruption that might be found at each phase in public procurement.

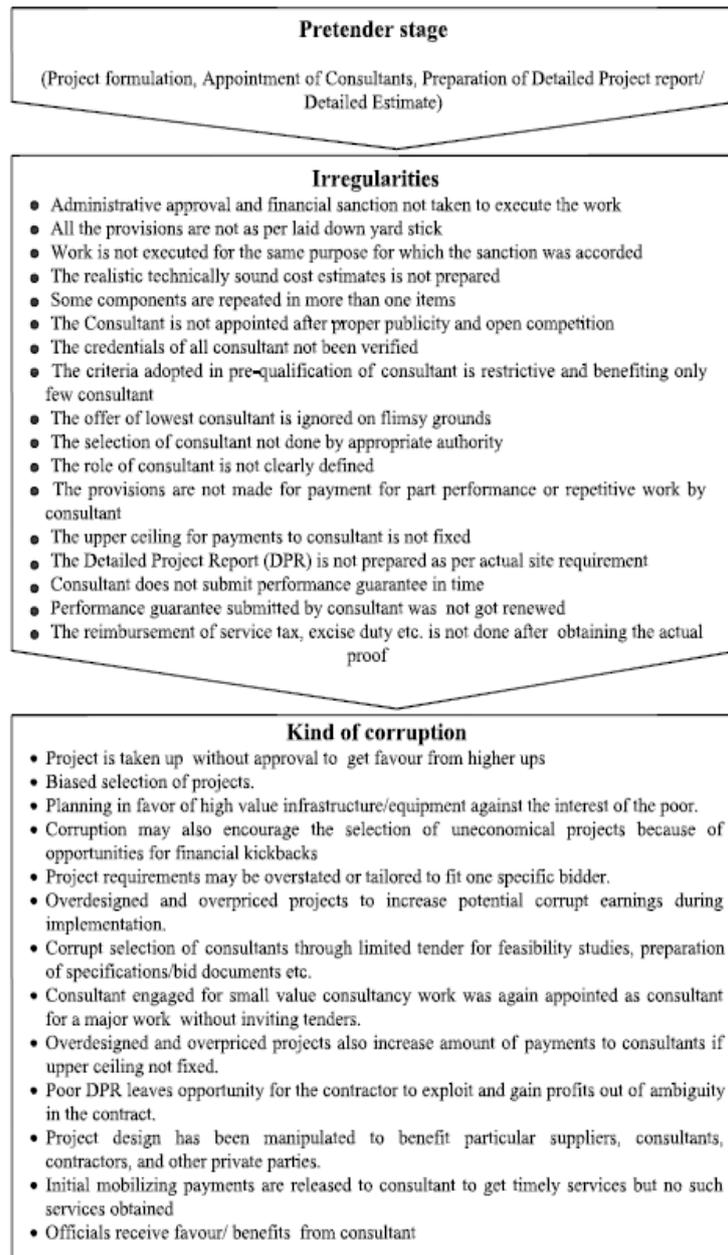


Fig 2a Pretender stage irregularities and kind of corruption

Tender stage

(Preparation of tender documents, Inviting & Opening of tenders, Prequalification, Tender evaluation & Award of work)

Irregularities

- The updated standard bidding document is not used for tendering
- The tender documents are not approved by competent authority
- Stipulated conditions in the contract are not feasible to be operated
- The performance guarantee clause not stipulated
- Condition regarding splitting of quantities, if required, is not stipulated in the tender document
- The nomenclature of the item, drawings and specifications do not conform to each other
- Adequate & wide publicity not given to tender
- Adequate time for submission of offers not given
- Complete address of place of tender submission not notified
- Documents for sale and opening of tender not properly maintained
- Unduly restrictive criteria stipulated
- The objective evaluation criteria for contractor not notified in the tender document
- Stringent prequalification (PQ) Criteria for selection of contractor is stipulated
- The PQ Criteria is not kept same during evaluation of potential bidders as notified
- The evaluation criteria is not notified to the bidders
- The pre-qualification is not carried out as per notified criteria
- The credentials of the bidders are not matched and verified with the notified criteria
- The evaluation of tenders are not done exactly as per the notified criteria
- The bids is not opened in presence of bidders
- All corrections, omissions, insertions, overwriting are not attested
- On the spot summary' is not prepared in tender opening register
- The decision on tender is not given by appropriate authority within validity period
- Some items are deleted after opening of tender
- The negotiation on tender not done as per laid down guidelines
- The conditions/specifications are relaxed in favour of contractor to whom the work is awarded
- The lowest bidder is ignored on flimsy grounds
- The work order / supply order is not placed within justified rates

Kind of corruption

- Poorly prepared bidding document leaves opportunity for the contractor to exploit and gain profits out of ambiguity in the contract
- The provision of equipment or goods of lower than specified quality
- The provision of equipment or goods not available in the market
- Non serious bidders also participate in the absence of the performance guarantee clause
- Discretion in interpretation are influenced by Kickbacks from construction and supply contractors.
- Officials receive excessive "hospitality" from biased selection of contractors/suppliers
- Due to inappropriate bidding procedures; excessively short bidding time or insufficient or inadequate advertising of tender, competitive bids not received.
- Easy manipulation due to poor maintenance of documents
- Unduly restrictive criteria, creating entry barrier for potential bidders and results in lack of fair competition.
- Not mentioning of a minimum threshold for parameters beyond which the offers shall stand rejected, leads to manipulation at later stage.
- Stringent PQ Criteria resulting in poor competition
- PQ Criteria relaxed during evaluation, thus creating entry barrier to the other-potential bidders fulfilling the relaxed criteria.
- Any condition which is modified after initial publicity and not given due publicity subsequently results in lack of competition/biased selection
- Collusion among firms or between public officials and bidders.
- Bids are easily manipulated to benefit particular suppliers/contractors
- Compensation payments for collusion are included in the tender price.
- Officials take percentages on award of contracts.
- Officials delay decision for want of favour/ benefits from contractor/supplier
- Bid rigging in construction contracts can be facilitated by corrupt project managers and quantity surveyors
- Corruption in procurement of equipment and spare parts.

Fig 2b Tender stage irregularities and kind of corruption



Fig 2c Execution stage irregularities and kind of corruption

Preparation of questionnaires

A questionnaire based on the above mentioned 61 irregularity is prepared. The questions in the questionnaire have requested the respondents to indicate the rate of occurrence on an average for each of the mentioned irregularities. The sample question is shown in Fig 3. The respondents are also given a choice to add any other irregularity not mentioned in the questionnaire. As can be seen 6-point scale commonly found to have interval properties is used for getting the response.

Q 1: As per your experience of vigilance inspection please rate occurrence of following irregularities on average, on a scale of 1 to 6 as below							
Sl. no	Statement	Level of endorsement					
1.	Administrative approval and financial sanction not been taken to execute the work from competent authority	1	2	3	4	5	6
2.	Work is executed without the availability of funds for the said purpose.	1	2	3	4	5	6
...	1	2	3	4	5	6
Legend: 1:True always 2:Mostly 3:Frequently 4:Sometimes 5:Seldom 6:Never							

Fig 3 Sample question of questionnaire

Selection of respondents and collection of response

There are very few personnel engaged in technical vigilance audit. In Indian context, there are only eight technical examiners conducting technical vigilance audit in public projects. It has been decided to contact all of them. Out of the eight respondents, six responses are collected in person and one through electronic mail. One respondent does not oblige.

Analysis of data

As the group of experts is small and large variation in opinion is observed, it has been found appropriate to apply Delphi method to obtain the most reliable consensus of opinion of these experts.

The Delphi method is one of the widely used group technique. It was developed about 60 years back as a means to collect and synthesize expert judgments. The technique allows obtaining highly reliable data from certified experts through the use of strategically designed surveys (Hallowell and Gambatese, 2009).

In general, in this technique the feedback or information from the experts are collected in number of rounds. The responses for each round are analyzed and the median of responses, inter-quartile ranges, and some extreme views of a respondent on a specific point are communicated to the respondents in the next round. The process is repeated up to the pre decided number of rounds. It may be pointed out that reaching consensus is not necessarily the central objective or a measure of success of such studies.

The questionnaires are administered in three rounds in the present study as explained below.

Round 1

The responses collected from round 1 administration of questionnaire are used to find out summary statistics of responses such as mean, median, inter-quartile range and standard deviations. Ranking of the 61 irregularities mentioned earlier is also done. There are wide variations in the respondents' consensus range (defined as relative inter-quartile range) and hence it is decided to reaffirm the responses by conducting round 2 administration of same questionnaire to the participating respondents.

Round 2

In the second round, values representing the medians and inter-quartile ranges are provided to the experts, as well as pertinent comments submitted by respondents on the previous round. Experts are asked to reconsider their responses, and if any of the new responses are outside the designated consensus range for the previous round they are asked to briefly support their position. There is found a marked improvement in the respondents' consensus range evaluated using the response of round 2.

Round 3

As in second round the respondents are provided with the response of the second round and a summary of the group's response mentioning median and inter-quartile range. If a respondent's latest response is outside the consensus range even now they are asked to briefly support this "extreme" position. Analysis of round 3 responses has brought no change in the response of round 2.

Validation of results

The summary of results of questionnaire survey is presented to the experts (one from the eight respondents and the superior officer of the eight respondents). Discussion with the experts has led to the validation of the results as the experts could relate most of the outcomes of the survey to their day-to-day technical vigilance audit findings.

RESULTS

The data are analyzed using the Statistical Package for the Social Sciences (SPSS 13.0). The reliability of the six-point scale used in the survey is determined using Cronbach's coefficient alpha, which measures the internal consistency. The value of the test is 0.962 (F statistic = 3.544; $p=.000$), which is greater than 0.5, indicating that the six-point scale measurement is reliable at the 5% significance level.

Ranking of 61 irregularities

Based on the mean values of the responses obtained from the final round, the 61 irregularities mentioned in the questionnaire are ranked. For obtaining the mean values of the responses corresponding to a given irregularity, the scale is reversed. In the revised scale '1' is assigned a weight of '6', '2' is assigned a weight of '5', '3' a weight of '4', and so on. The irregularities with the highest mean value is assigned rank 1, the next highest is assigned rank 2 and so on for all the 61 irregularities. Where ever two or more irregularities have the same mean value, the one with the lowest standard deviation is assigned the highest ranking.

Categorization of identified irregularities

Sohail and Cavill (2008) have identified a conceptual framework of four components: accountability, ethics, cultural norms, and corruption, for reducing the risk of corruption in construction projects. They have further observed that raising awareness, strengthening professional institutions, prevention of corruption, and enforcement and monitoring measures are the key aspects for the success of operationalizing the four components in the context of infrastructure services.

Based on this concept and on the outcome and discussion with the experts in CTEO, 61 irregularities are classified under five categories: (1) Transparency related irregularities (2) Professional standards related irregularities (3) Fairness related irregularities (4) Contract monitoring and regulation related irregularities (5) Procedure related irregularities. These categories with indicators are shown in Fig 4.

The irregularities in the long run leave scope for manipulation and corruption. Any action that would arrest these irregularities will minimize corruption and maximize the efficiency, economy, quality, transparency and fairness in matters relating to public procurement. In other words, the absence of the irregularities will be an indicator of anti-corruption performance in public procurement.

It should be ensured that the procurement activities are transparent at each stage, best professional standards are adopted, every decision is fair, all contract conditions are implemented, and no laxity in procurement procedures is allowed. The five categories of irregularities are discussed below:

Transparency Related Issues

Transparency means that laws, regulations, institutions, processes, plans and decisions are made accessible to the public at large or at least to “representatives” of the public so that the processes and decisions can be monitored upon and influenced by the stakeholders, and decision makers can be held accountable for them. It is observed that most of the irregularities either pertain to inadequate publicity or not clearly defining the criteria for selection at the time of publicity.

Professional Standards Related Issues

Professional standards means professionals must be committed to uphold high standards of integrity and liability, act according to the core values and guiding principles of organization and further these standards, values and principles. The irregularities on account of lack of professional standards occupy this domain. One possible example of such irregularity

is to prepare a faulty DPR (Detailed Project Report) or estimate which is not based on actual site requirement and prevailing cost.

Fairness Related Issues

Fairness means providing fair and equitable treatment to all prospective bidders/ suppliers. The irregularities pertaining to this domain fall under this category. It is observed that the criteria adopted in pre-qualification of consultant/bidder are many times restrictive and entry barrier is created with the aim to benefit only few consultant/bidder.

Contract Monitoring and Regulation Related Issues

Irregularities pertaining to non-compliance of agreement conditions/contractual obligation fall under this category. Many irregularities such as not taking licenses and insurance policies, not insisting for deploying technical staff etc. are committed by not complying with the stipulated conditions of agreement.

Procedure Related Issues

The irregularities occurring due to non-compliance of procurement principles and procedures come under this category. The centerpiece of procurement principles and procedures is contained in works manual of the department concerned.

Ranking of above categories

After categorization, the mean values for each of the groups are calculated. The groups are ranked based on the mean values. The group with the highest mean value is given first rank; the group with the next highest mean value is given rank two and so on. The rank of groups along with their mean values is shown in Fig 5.

The irregularities pertaining to transparency issues occupy first rank. Corruption thrives in the dark and manipulation for personal benefit is facilitated by opacity. It also suggests that opaque processes are quickly abused by criminal elements. Hence it is essential that transparency be created from the very beginning to avoid any scope for manipulation.

The irregularities pertaining to professional standards occupy second rank. The best and most suitable technical expertise should be employed in a non-discriminatory manner through fair and open competition to avoid irregularities of this category.

Occurrence of irregularities pertaining to fairness related issues occupy third rank. This calls for a fair and impartial selection of bidder besides a fair and impartial bid award decision. Public funds should not be used to provide favors to specific individuals or companies.

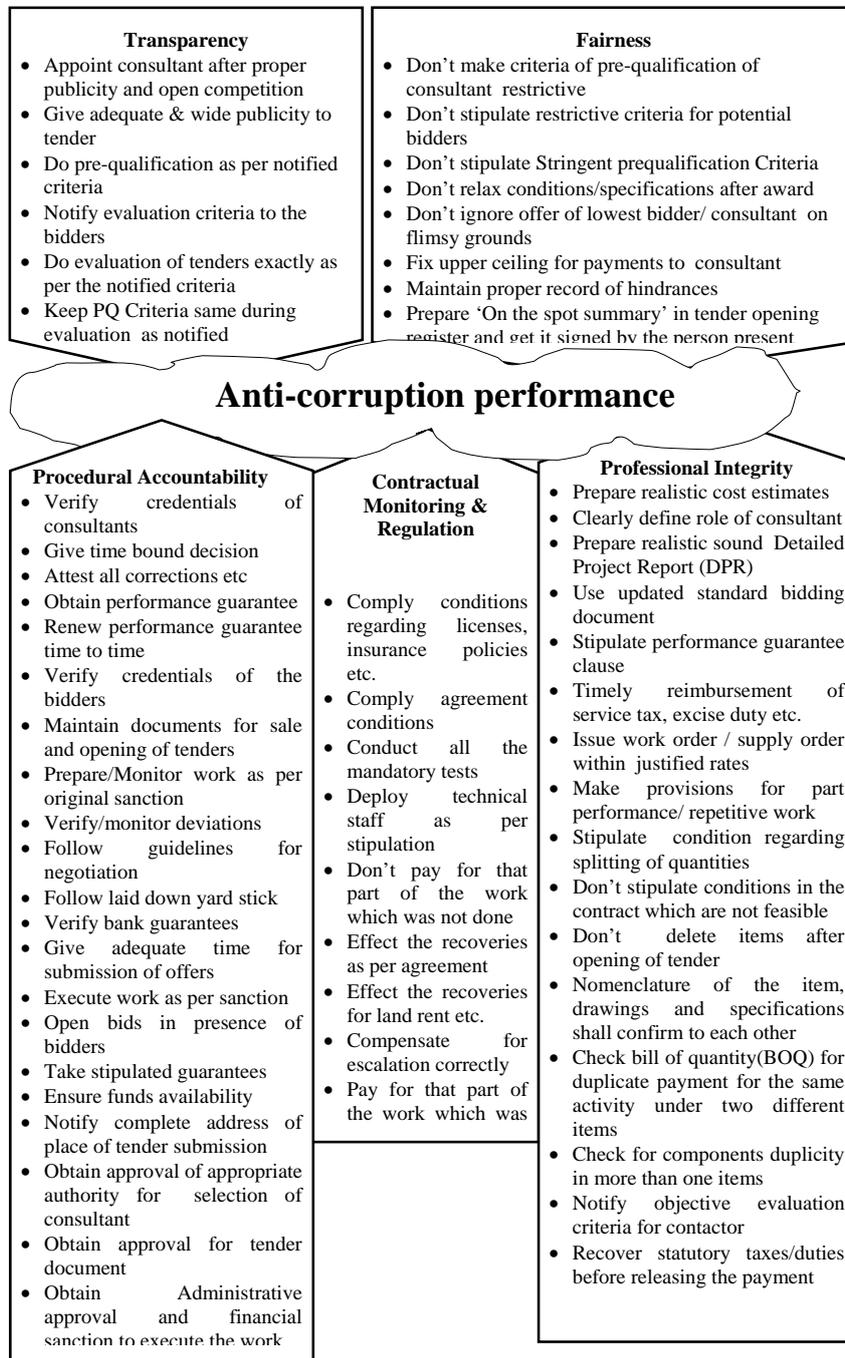


Fig. 4 Anti corruption performance indicators in public procurement

The contractual monitoring occupies fourth rank. The contractual obligations must be complied and whenever violation of contractual obligation occurs the perpetrator must be taken to task and accountability be fixed. The records pertaining to explanation and justification of all decisions and actions should be maintained.

The procedure related irregularities are at fifth rank. Systematic procedures with in built accountability of decision makers must be formulated to avoid such irregularities.

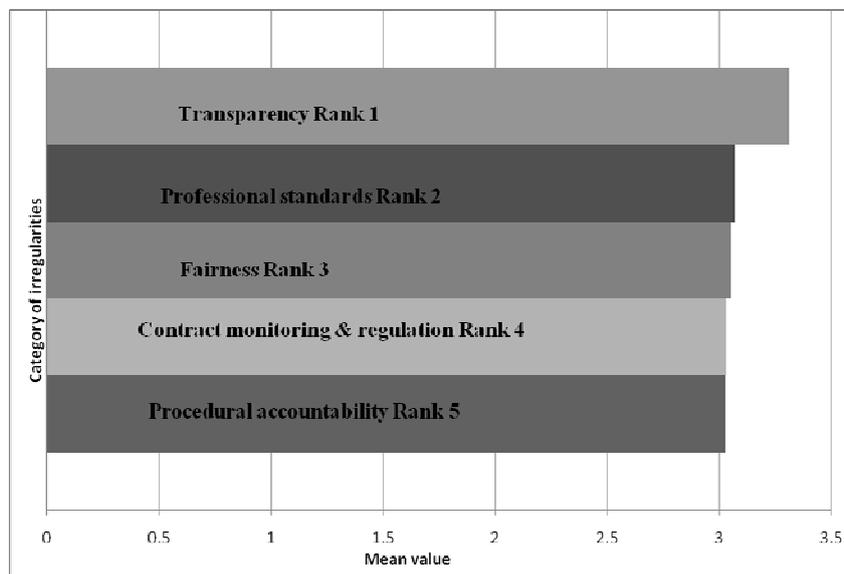


Fig 5 Ranking of different categories of irregularities

DISCUSSION

The opinions of the experts have been gathered on the occurrence of various irregularities observed during technical vigilance audit. The experts agreed with the ranking of the different categories of irregularities. Though it is difficult to draw a clear line between these categories because of overlapping nature of few irregularities but a general framework for effective action to bridle corruption in public procurement can be drawn.

Transparency Related Issues

The importance of transparency, as illustrated by the old adage “sunlight is the best disinfectant” can not be under estimated as it results in higher competitiveness and lower corruption. Transparency is the most prominent area (rank one) requiring management attention as suggested by this study. The procurement authorities are responsible for running and monitoring a transparent and efficient system and for providing public information to promote accountability and transparency. Ensuring an adequate degree of transparency that enhances anti-corruption measures, while at the same time not impeding the economy, efficiency and the effectiveness of the procurement process, is a common challenge for governments. Procurement regulations and systems should not be unnecessarily complex, costly or time-consuming, as this could cause excessive delays to the procurement and discourage participation. Following measures can be helpful-

1. The information on procurement procedures and the regulatory framework must be available to all potential suppliers in understandable terms. Lack of information may reduce the number of possible bidders, which may affect the competition and thereby the prices. Lack of competition may result in risk of collusion, formation of cartel, and less number of responsive bids. It would also increase opportunities for favoritism and nepotism. Lambsdorff (1999) noted that absence of competition is one of the causes of corruption. In order to attract the maximum possible number of bidders, tender notice must be published in the press, government gazettes, important procurement related web sites.
2. Transparent (Web-based) competitive procurement can be used for all major procurements.
3. Use of electronic systems can be explored to connect with the overall financial management system to ensure that procurement activities are conducted according to plans and budgets, and that all necessary information on public procurement is made available and tracked.
4. Some of the measures to bring in transparency could be: clearly defined procurement parameters, clarity in criteria employed for the evaluation of offers, clear contract terms, and so on. Pre disclosure of objective criteria is essential for fairness and transparency in the evaluation of tenders. Objectivity means that there is little room for subjective interpretation of the criteria by

the evaluator. For this reason it is desirable that evaluation criteria be quantifiable as far as possible, or stated in pass/fail terms. The regulatory framework should prohibit the use of evaluation criteria different from those set out in the tendering documents. An opaque dimension for such parameters would create opportunities for corruption-induced manipulation.

5. Information related to the evaluation process and results can be disclosed to interested parties after the evaluation is complete, not only by post but shall also be posted on web.

Professional Standards Related Issues

Such irregularities are committed when professionals do not uphold high standards of integrity and liability, and do not follow organizational values and guiding principles. Rose-Ackerman (2002) argues that without some moral commitments, like willingness to cooperate and attitudes toward corruption from corporate insiders, wide-ranging changes in behavior are unlikely. Motivation for following high professional ethical standards shall be inculcated through training, rules and regulations and through institutional design. The communication of integrity standards is essential to raise awareness among managers, high-level officials, as well as external employees and contractors involved in procurement. Furthermore, detailed guidelines could be provided for officials involved in public procurement, for instance in the form of a code of conduct. These guidelines help ensure impartiality in their interactions with suppliers, manage conflict of interest and avoid the leak of sensitive information. In addition, merit-based selection procedures and integrity screening processes for senior officials involved in procurement enhance resistance to corruption.

Integrity standards are a core element of professionalism, as they influence the daily behavior of procurement officials and contribute to creating a culture of integrity. To prevent the influence of individual private interests on public decision making, officials should be aware of the circumstances and relationships that lead to conflict-of-interest situations, like acceptance of gifts, financial benefits and hospitality or the promise of future employment.

The issues pertaining to payment for part payment/repeat work, duplicate payments, and not preparing drawing and specification as per actual requirement etc. can be dealt by inculcating the value of professional standards. Following measures can be helpful-

1. Efforts must be made to enhance integrity in the entire procurement cycle, from needs assessment to contract management.
2. Motivation for following high professional ethical standards shall be inculcated through training, rules and regulations and institutional design, like having in place a Code of Conduct/Ethics that applies to all public officials etc. Merit-based recruitment and promotion mechanisms that restrain biased and political patronage and create a more impartial professional service can help in increasing professional standards.
3. Adequate public employment conditions and incentives, in terms of remuneration, bonuses, career prospects and personnel development, can help to attract and retain highly skilled professionals.
4. Tendering documents should contain sufficient information to enable the submission of responsive tenders/proposals. Also, publishing and adopting standard bid document would encourage wider participation as there would be less instances of misunderstanding. Information not needed for the process should not be required as part of the submission. Excessive information and documentation requirements are considered to cost money and can reduce competition or even sometimes lead to disqualification of potential bidders on the basis of unnecessary requirements, whereas standard concise document promote and increases confidence in the system.
5. Professionals shall be encouraged to uphold high standards of integrity and liability, and follow organizational values and guiding principles in the procurement process.

Fairness Related Issues

If fair and equitable treatments are not provided to selected or all prospective bidders/ suppliers, irregularities of this nature occur. The criteria adopted in pre-qualification of consultant/bidder are many times restrictive creating an entry barrier. The restrictions so imposed may be framed to help select bidders domestic or international, small or large, and so on. Restrictive pre-qualification norms may limit competition and can abet the corruption. Clear and predetermined criteria for tender evaluation help ensure fair, impartial, and transparent selection and eliminate the risk of abuse.

Transparency of the criteria and transparency in the process of bid evaluation is crucial in bolstering the bidders' trust in the fairness of the procedures. Opening the offers in public or at least in the presence of all bidders or their proxies helps ensure that documents have not been altered or destroyed. This also allows manipulations if any to be detected at an early stage. Just as bidders should be allowed to be present at the opening of the bids, bidders should also be informed of the outcome of the selection, allowing them to review the evaluation result.

In India, CVC have issued direction for incorporating 'integrity pacts' to protect procurement processes from corruption. All potential suppliers that bid for a contract have to sign such pacts with the procuring agency and pledge to refrain from any form of corrupt practice. It further suggests appointment of independent external monitor of repute to oversee the entire procurement processes.

Following measures may be helpful-

1. One of the advantages of independent external monitor may be to generate Confidence in a procurement system. This is a powerful incentive to competition. The independent external monitor shall have the right to review procurement decisions by an efficient and functionally independent process. It will have the advantage of analyzing the procurement process with no direct interest.
2. Independent external monitor and the civil society organizations can ensure fairness through social audits and monitoring of procurement to protect the public interest.
3. In some of the organizations, the summary of bid opening is prepared on loose sheets which have a possibility of getting replaced in order to favor some bidder. Properly sealed register with proper authentication shall be used instead of loose sheets mentioned earlier. Public opening of tenders is a means of increasing fairness to an open tendering exercise. Bidders or their representatives must be encouraged to attend. The independent external monitor of integrity pact must also be involved during this process.
4. Pre-qualification should be defined by procedures in order to ensure that it is not abused and used as a method for limiting competition by restricting the qualification requirements arbitrarily. Assessment of qualifications can be combined with the tender documents as part of the specific procurement or it can be initiated as a separate exercise that is conducted before full offers are requested. In highly complex procurement, use of

pre-qualification as a separate process can make the procurement more efficient by ensuring only qualified participants are included and it can save money by limiting the number of participants incurring the expense of putting together a comprehensive bid. If technical capacity and/quality is a key criteria for selection of consulting services or other requirements, the law should specify clearly how this aspect is to be considered.

5. As a general principle, firms should not be excluded from participating in a tendering process for reasons other than lack of qualifications. Exclusions from tendering that are not based on the qualifications of the firm may arbitrarily limit competition and may result in inefficient procurement and higher prices.

Contract Monitoring and Regulation Related Issues

Contractual laxities are committed by not complying with the stipulated conditions of agreement/ contractual obligations. These laxities can be a cause of corruption and thus an in-built mechanism for compliance of contractual conditions shall be explored and formulated. The public procurement process should be closely monitored to detect these irregularities, which can be a potential source for corruption. Governments should set up mechanisms that help track decisions and enable the identification of potential risks. Management controls, approval and reporting are key to monitoring public procurement.

Following measures may be helpful-

1. Standardized, clear, and concise tender documents contribute in reducing such laxities.
2. Involvement of independent external monitor of repute could also be helpful in contract regulation and monitoring.
3. As soon as contract is awarded all the activity requiring monitoring and compliance shall be noted down and circulated with indicators as and when same shall be watched. For instance, a set of red indicators could be developed to draw attention to transactions that has high chance to depart from established norms for a project.
4. Officials in charge of contract monitoring and regulation should be aware of the type of irregularities in public procurement to facilitate the detection of misconduct.

5. Officials in charge of contract monitoring and regulation shall be given specialized training on a regular basis to inform them about irregularities used in procurement.

Procedure Related Issues

The procedure related irregularities occupy last rank. This could be due to the fact that the procedures and accountability are well defined in works manual for public procurement. The works manual of all organization deals with various issues such as threshold values, technical requirements, procedural details, and so on. There could be some cases requiring adaptation in non-routine circumstances which may bring in the scope for manipulations. Some regulatory mechanism for such non-routine circumstances should also be incorporated in the works manual. In absence of such mechanism, routine circumstance may be projected as a non-routine circumstances giving rise to manipulations. Sound verification procedures can have an important preventive role. The possibility that decisions can be overturned by higher authorities renders corrupt practices more difficult and, therefore, constitutes, together with credible sanctions, a strong incentive to respect the procedures.

Following measures may be helpful-

1. The procedure shall include a clear definition of the permissible procurement methods and the circumstances under which each method is appropriate. Complicated and ambiguous definitions create opportunity for corruption and should be avoided. There is a need for more fundamental and systemic reforms at root level.
2. To avoid leakage of information on the lowest bid to a preferred supplier and to exclude late bids, the bid opening shall ideally take place immediately after the tender period. Unnecessary delay in opening of bids causes doubts and should be avoided.
3. The law or regulations should establish that for open tendering, the names and addresses of the bidders and the tender prices (and any withdrawals or modifications to tenders duly submitted), and those of any alternative offers requested or permitted are read aloud and recorded. Records should be retained on a register duly certified by competent authority and must be available for review and audit purposes.
4. Auditors have important role to play and should promptly report to criminal investigators for follow-up investigation when there are suspicions of fraud or corruption.

5. Information from external audits on procurement should be publicized to reinforce public scrutiny. Furthermore, training on these issues shall also be modeled to avoid reoccurrence.

CONCLUDING REMARKS

A total of 61 irregularities have been identified in public procurement based on technical vigilance audit reports, case studies, and interviews of experts. Questionnaire survey involving the experts from technical vigilance audit is also conducted to analyze and evaluate these irregularities. The irregularities are ranked based on the mean values of the responses.

The 61 irregularities are categorized under five major categories of irregularities. These categories are: (1) Transparency, (2) Professional standards, (3) Fairness, (4) Contract monitoring and regulation, and (5) Procedure related irregularities. These major categories of irregularities are ranked based on the group mean values. The 'transparency related irregularities' occupied the top rank in terms of the frequency of occurrence while the 'procedure related irregularities' occupied the last rank. However, appreciable and significant differences in the mean values of the five categories are not noticed. Thus, it can be said that all the five categories of irregularities are of equal weight and require equal attention. The result can help the management to develop a suitable framework to bridle corruption in public procurement.

The absence of the irregularities can act as an indicator of anti-corruption performance in public procurement. There is a need to integrate actions proposed under five categories into the procurement processes. It would also increase the chance of identifying grey areas besides permitting corrective action before the occurrence of major problems.

More research needs to be done to further understand and refine understanding of how corruption can be prevented in public procurements. There is also a need to study projects undertaken in other environments, where different anti-corruption strategies are employed in order to validate our suggested interventions, and to identify successful strategies that can simultaneously curb corruption and improve performance on this front. By providing some initial insights into this topic, we hope to augment the work already done on anti-corruption strategies. This can also provide the crucial insights that will help policy makers to design appropriate measures to curb corruption more

effectively on public procurements through more discussions, and concerted work of the larger research community.

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