



The Investigation and Elimination of Public Procurement Fraud in Government Sectors (A Case Study in Indonesia's Procurement System: Cases from 2006 to 2012)

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ABSTRACT

This paper offers insights to enhance our understanding of public procurement fraud through analyzing current 173 cases during 2006 to 2012 in Indonesia's procurement system using various points of view. These insights are synthesized from current research findings and contemporary thinking elaborated by practical knowledge and skills, the aim of which is to produce accurate analysis. The main aim of this paper is to participate in terms of combating procurement fraud by suggesting plausible and applicable measures in relation to investigating and preventing this kind of financial crime, and in terms of developing theory. The result of this study confirms that detection and deterrence of public procurement fraud are still longstanding antitrust problems, made difficult because collusive arrangements among bidders, between contractors and employers, and sole procurement committees are usually surreptitious. Because of complex and confusing procurement mechanisms with blurred and overlapping jurisdictions, information asymmetry and conflict of interest, the corrupt behaviors is likely to continue to flourish. This study reveals that cooperation between government and private sector to maintain high standards of integrity is viewed the most effective aspect that should be taken into account prudently when designing precaution measures for procurement fraud.

Keywords: Fraud, Public Procurement, Investigating, Preventing

JEL Classification: M41, M42

1. INTRODUCTION

Procurement wrongdoing, or contract wrongdoing as it is occasionally known, is understood by many professionals to be one of the most common and costly of all white-collar wrongdoings (Caulfield, 2014). The U.S general accounting officer/GAO (2015), reported that improper payments for government in fiscal year 2014 are estimated \$124.7 billion, a significant increase of approximately \$19 billion from the previous year's estimate of \$105.8 billion, and that figure for fiscal year 2014 were attributable to 124 programs spread among 22 agencies. In this concern, even though improper payment cannot directly be equated with fraudulent activities, it is still reasonable to be assumed that those figures may contain an intent to deceive (abusive practices).

Separately, one of comprehensive fraud studies conducted by ACFE (2014), found that 15, 1% of wrongdoing scandals happened in government departments, with a \$ 90,000 median

loss, and the purchasing department is categorized as the highest risk department (74% of fraud schemes). Furthermore, a survey carried out by PWC (2014), reported that 29% of case in UK come from procurement fraud, and three-fifths of this type of economic crime occurred during vendor selection and almost half occurred in the invitation to present a quote.

This paper choses Indonesia because Iswanto (2009), argued that collusive tendering is a common scene in Indonesia's procurement process even though the existing of competition law have clearly regulated bidders to perform fair competition. Separately, a report promulgated by OECD (2007), stating that Indonesia's procurement system in the aspects of efficiency of the appeals mechanism and functionality of procurement market cannot be managed well. Therefore, the important implications of this paper are to give significant contribution in terms of fighting against procurement fraud especially in Indonesia government departments and generally throughout the world, and to deliver

insights and knowledge as an additional reference to academic environment in relation to further studies.

2. INDONESIA PUBLIC PROCUREMENT SCANDALS

Undoubtedly, Indonesia public procurement system might only function well if it runs with high level of integrity among potential suppliers and tender committees. A study carried out by Simbolon (2014), suggested that competitions in Indonesian public procurement are always flooded by bid rigging scandals or conspiracy conducts between bidders or between bidder and tender committee. Surprisingly, nowadays, Indonesia procurement fraud scene also occurs in central government stage, where there are several Indonesia ministers, leader of local government, and leaders of political parties involved in "Hambalang Scandal" and it is reported as one of the biggest Indonesian procurement frauds due to complicated modus operandi with the biggest financial loss suffered by Indonesia government, approximately 760 billion of rupiah (CNN Indonesia, 2016).

Due to the competitive bids in the market of Indonesian procurement and complicated procedure of construction contract, the element of conspiracy obviously will exist at any stage of the tendering process. Procurement round table initiative carried out by World Bank and OECD (2007), mentioning that management of risk associated with Indonesia public procurement are not well organized due to complex and confusing procedures, complex political and governmental structure, and overlapping jurisdictions, resulting in ineffective and inefficient tendering.

Furthermore, speaking of transparency related to public procurement, it is not as simple as it looks. OECD (2012), noted that the full disclosure of the procurement information issued by tender committees, especially the identity of the bidders and the terms and condition of each bid, potentially can promote and facilitate a collusive agreement among tender participants. However, Frederick et al, (1985), found that asymmetric information is remarkable support for collusive behavior in auction markets. Similarly, Porter and Frederick (1988), observing federal auctions on the outer continental shelf for drainage leases, documented that in the competitive bidding model, the participants will behave professionally and competitively when all information including the value of a lease are publicly available.

Currently, Indonesia government witnesses the crisis situation of bid rigging scandals that are continuing to increase every year in public sector organizations. According to the report of the commission for supervisory of business competition or KPPU, there are 173 scandals from 2006 to 2012, 56% or 97 scandals accumulated as bid rigging scandals of procurement of products and services, 76 scandals associated with scandals of supply and pricing arrangement and abuse of dominant position, with total value of tender conspiracy 12, 35 trillion rupiahs (KPPU, 2014). Based on those figures, it can be concluded that the enforcement of the competition law and government policies to fight against governmental tender conspiracies still remain ineffective.

UNCTAD's Report (2012), stated that revising and enforcing Anti-corruption Act and minimizing KPPU's commissioners affiliated with political parties are strongly needed by Indonesia in order to enhance the competitiveness of public procurement and effectively to combat tender frauds or bid rigging cases in Indonesian public organizations.

3. THEORETICALLY ANALYSIS ON INDONESIA'S PUBLIC PROCUREMENT SCANDALS

3.1. Why and How Those Tender Frauds Become Success to be Perpetrated?

To begin with, it is generally accepted that the exclusive criminal syndicates above can be strongly triggered by the organization's internal control deficiencies, because there are several commentators documented that many organizations with poor internal control structure are always more experience of wrongdoing cases than ones with well-designed internal control structure (Cendrowski et al., 2007; Comes, 2010; Taylor, 2011). Furthermore, another empirical study undertaken by Rezaee (2005), proved that the opportunity of perpetrating unlawful acts will be bigger when the organization's internal control systems become less effective, the quality of corporate governance deteriorates and internal audit functions weaken. Organizations, therefore, should not override its internal control systems because the probability of fraud risks will be great and unavoidable (Albrecht et al., 2011).

Separately, OECD (2007) mentioned that the current audit structure is complex and confusing with blurred and overlapping jurisdictions, resulting in inefficiency, high overhead costs, while being ineffective due to weak capacity. In the light of this, Government of Indonesia (GOI) is currently in the process of reforming its audit functions at all levels of government as well as utilizing technical assistance to build audit capacity. The need to increase the effectiveness, efficiency and transparency of Indonesia's public procurement system, which utilizes public funds, including those provided through official development assistance routed through the budget process, is of concern to the GOI. Public procurement can be subject to abuse, resulting in "leakage" of public funds during the procurement process, and investments that are of substandard quality and often lacking the proper quantity (OECD, 2007).

The issue of ensuring integrity in public procurement processes has rightly received a good deal of attention at the international level in recent years, including Indonesia government. In realizing competition law enforcement in Indonesia Business Competition Supervisory Commission (KPPU) is crucial in improving the quality and efficiency of the national economy as a basis for improvement of the nation's competitiveness in the international world. Article 3 of Presidential Decree No. 80 of 2003 10 states to create fair competition, tenders or procurement of goods/services must apply the basic principles; efficient; effectively; open competition; transparent; fair/non-discriminatory; accountable, as stated by Simbolon (2014). However, public sector procurement

within Indonesia implies weak, and there are currently no formal requirements to submit procurement plans in order to assist in preparing the budget. i.e., Currently, procurement planning and data on costing is not really part of the budget process. It is substantially evidenced by OECD's (2007) report that integration into public sector governance system (BLI-3), on the Government's budget, marked 58.3%. It means that some problems in integrating procurement into the budget process still exist.

3.2. Who Commonly Commit Procurement Fraud?

Because those cases above are categorized as well-organized and complicated crimes, in order to be easier for analyzing them, they will be categorized into two broad clarifications based on the perpetrator of the fraud: Internal fraud and external fraud.

3.3. Internal Frauds

There are many different methods of committing fraud but, generally, acts of corruption and abuse scheme perpetrated by internal fraudsters are very common phenomenon in nonprofit organizations (Gerard, 2005). In relation to procurement frauds as discussed above, there is no doubt to opine that they occur due to conspiracy/collusion between bidders and disgruntled or greedy tender committees with main aim to enrich themselves, for example, by governing manufacturing requirements or special procedures of tender in order to get financial gains. It is demonstrated by many studies that have already confirmed that public procurement in nonprofit organizations is usually related to abuse of public resources, scandal, and corruption (Sharma, 2007; Mitra and Gupta, 2007; Mougeot and Naegelen, 2005; Liao et al., 2003) and those sectors are characterized as the most corrupt sector than other ones (Krishnan, 2009). Therefore, collusion between suppliers and staff will be a biggest challenge for fraud examiners to obtain valid evidence (O'gara, 2004).

Those affiliation are presumably become the most fundamental cause of other unlawful activities involved in the procurement fraud, such as kickbacks from vendor to individual in exchange for that individual's approval for payment of vendor invoices that overcharge the organization, changing to specifications for quantity, quality or other things opening the way for unjustified price increases, forcing competing vendors to withdraw, intentionally making duplicate payments, allowing contractors to prolong work, giving inside sensitive information to assist favoured vendor for distracting other competitors, last but not least, setting the basis of contract to benefit the favoured vendor. All of those kinds of fraudulent activities are very common to see in public procurement, especially conducted by government department, that are caused by lack of transparency (Mitra and Gupta, 2007; Liao et al., 2003; Gupta and Jana, 2003), asymmetrical information (Porter and Frederick, 1988; Frederick et al, 1985) and conflict of interest (Gerard, 2005; Comes, 2010).

3.4. External Frauds

Government sectors normally outsource their required services or works through various approaches namely, agreement through negotiation, competitive bidding via request for quotation and open-cry auctions (Bajari, 2001; Marshall and Marx, 2007). However those methods potentially contain vulnerabilities to be

defrauded by perpetrators as obviously demonstrated in Indonesia case above. That is also evidenced by empirical surveys conducted by Padhi and Mohapatra (2010) and CPWD (2003), finding that Indian government witnessed difficulty to select contractors to award contraction projects when auction participants compete based on low bid price to withdraw their rivals and win the projects, and such auction will opens collusive actions between bidders.

OECD (2007), mentioned that collusive tendering happens due to fierce/vigorous competition among suppliers, where they altogether make agreements to organize tender winner by pretending to make bids in the auction process (complementary bidding), and organizing bid rotation by making agreement that the particular suppliers, in certain circumstance, should inflate their bids or refrain from bidding in the expectation that they will become winner when their turn comes up. Gerard (2005), noted that bid rigging scheme can be more difficult to detect and prevent because it comprises all of parties participating in auction process. As consequence of that action, the owner of goods or services affirmatively cannot acquire more efficient price.

Furthermore, according to the study carried out by Murray (2014), the significant factor that contributes towards success of procurement fraud committed by potential vendors in tendering process is lack of procurement training for committees. That study is strongly supported by Langley (2003), stating that if tender committees do not have sufficient information of procurement activities, the probability of fictitious vendors/company risk will be higher and this become disastrous problem for that organization because fictitious company (shell company scheme) will lead to fictitious bills (bills for work/service not performed/delivered). A part from that, other frauds committed by outside parties without any assistance from employees of the victim organization are duplicated reimbursement, overstatement of hours worked and charging inflated price (Gerard, 2005; OECD, 2007).

4. RESEARCH QUESTION

How to fight again public procurement frauds that become rampant in public sector institutions, especially Indonesia local governments?

5. RESEARCH METHODOLOGY

5.1. Sample and Data Collection

This study employed both quantitative and qualitative research methods. The first step was a literature review to identify why Indonesia public procurement is very vulnerable to defraud and it would subsequently be included in a survey questionnaire intended to find out appropriate precaution measures that can mitigate or even terminate this kind of financial crime. This research employs questions with a 5-point Likert Scale, short answer questions and open-ended questions. To increase the survey response rate, potential respondents was contacted first by telephone to see whether they are willing to participate in this study. Accordingly, questionnaires and an information sheet explaining the research were sent only to department/asset management (BPKAD),

Inspectorate in Pamekasan City, including Regional Working Unit (SKPD) that had agreed by telephone to participate. A total of 143 completed questionnaires were received. All data and information on the questionnaire were used as references for the researcher.

The second stage of the study involved unstructured interviews with 13 respondents comprising individuals who are sitting at (at least) middle management in BPKAD, Inspectorate, and SKPD. They were selected through purposive sampling. All of the interviews were conducted in the meeting rooms in each institution after office hours and break session time. Content analysis was performed on the interview data aimed to identify and categorize patterns and themes (Patton, 1990). Face-to-face interviews were held using a mostly unstructured format consisting of two parts. The researcher first asked each respondent to describe his/her own responsibilities and roles in performing daily activities. After these general questions, he encouraged the participants to talk freely about their decisions and actions specially when facing impermissible behaviors in public procurement projects. The respondent's initial reply and the researcher probing for elaboration determined the direction. The researcher always attempted to elaborate on the potential impact of a respondent's self-described decision-making style on intentional or unintentional fraud. In the second part of the interview, the researcher revealed to the respondents that the goal of the interview was to explore how to investigate and eliminate systemic issues on white-collar crime especially in public procurement sectors. The interviews lasted for an average of 35-40 min. Comprehensive notes of the answers were taken and transcribed into an interview report immediately after each session. Follow-up questions were asked by telephone and/or e-mail when clarification was necessary.

5.2. Legitimation in the Collected Qualitative Data

The researcher adopts triangulation approach as validity checking. The strategy involved in this kind of triangulation is quite nearly dragged by its objective - examining the validity of descriptive inferences - and by the means for conducting this - matching data sources carrying distinctive intimidations to validity. The returned questionnaire data will be used to check information gained on the basis of unstructured interview in order for the researcher to assess the data produced by different participants in terms of how well they represent what went on. Indeed, obtaining further information about the research issues, through drawing on multiple sources of data, could lead the researcher to alter the category into that he originally placed it, and it could serve a validation and provide the most desirable kinds of complementary information in this study. Therefore, on this interpretation, triangulation approach comes to be treated as a feature of research design that can be encompassed in checklists considered to appraise the quality of this study.

6. RESULT AND DISCUSSION

6.1. Characteristics of the Sample

Demographic characteristics of respondents in this study are presented in Table 1. Those respondents according to a gender classification are quite balanced between male and female (51.80% are male and 48.19% are female) and based on age, 91.57% of respondents are in the range of 25-50 years. All respondents had

Table 1: Demographic characteristics

Characteristics	83, n (%)
Gender	
Male	43 (51.81)
Female	40 (48.19)
Work experience	
1-5	5 (6.02)
6-10	23 (27.71)
10-15	35 (42.17)
16-20	18 (21.69)
>20	3 (3.61)
Education level	
Undergraduate	62 (74.70)
Postgraduate	21 (25.30)
Experienced fraud	
Yes	32 (38.55)
No	51 (61.45)
Background of education	
Accounting/sector public	15 (18.07)
Management	23 (27.71)
Economy	9 (10.84)
Law	8 (9.64)
Public administration	7 (8.43)
Others/or N/A	21 (25.30)

either graduated from undergraduate or graduate programs, and most of them have an accounting background or a professional accreditation. These characteristics indicate that respondents of this study, on average, are mature and also have enough experience and competence in their field.

6.2. Preventing Procurement Frauds in Public Sector Organization

In relation to procurement fraud prevention, respondents of this study were required to rank which methods are appropriate to tackle financial crimes associated with public procurement in government sector. Those answers provided by respondents are presented in Table 2.

According to Table 1, most of respondents on this study assume that cooperation between government and the private sector to maintain high standards of integrity is viewed the most effective aspect that should be taken into account when designing precaution measures for procurement fraud. OECD (2009) outlined that fostering an open dialogue with suppliers' organizations contributes to improving value for money by setting clear expectations and reducing information asymmetry. For instance, engaging representatives of the private sector in the review or the development of procurement regulations and policies helps ensure that the proposed standards reflect the expectations of both parties and are clearly understood. To foster a more strategic approach to public procurement, governments could provide the opportunity for the industry to discuss innovative solutions so that governments know how marketplaces operate and align with those markets and the opportunities they create. Similarly, governments should regularly conduct market surveys and dialogue with the private sector to keep abreast of suppliers, products and prevailing prices for goods and services.

Furthermore, procurement fraud, as illustrated in previous subheading, is a truly ubiquitous and egalitarian scene. It, in

Table 2: Average responses to aspects enhancing procurement fraud prevention

Rank	To prevent procurement fraud should	Effectiveness	SD	Significant
1	Encourage close co-operation between government and the private sector to maintain high standards of integrity particularly in contract management	4.639	0.993	0.000**
2	Establish an effective control environment	4.636	0.689	0.000**
3	Enforce strict competition statute, including enforce contract requirements	4.627	0.689	0.000**
4	Establish and utilize a contract performance monitoring system	4.576	1.13	0.000**
5	Manage supplier payments	3.753	0.432	0.000**
6	Strengthen purchasing control	3.753	1.34	0.007**
7	Establish and implement a confidential hotline	3.654	1.18	0.000**
8	Maximize internal audit function	3.631	1.29	0.004**
9	Develop a fraud response plan	3.483	0.633	0.000**
10	Design an effective anti-fraud training program	3.475	1.45	0.851
11	Promote a good working relationship	3.384	0.378	0.000**

1: Not effective, 5: Very effective, **Significant at the 5% level, SD: Standard deviation

way of widespread consternation, plays no heed to the target's race, social status and as well as class, and it does not depend on time of days, without respecting for moral values and social rules. Most of respondents believed, as depicted in Table 2, that control environment is the underlying approach to enhance accountability and transparency, in peripheral organization atmosphere, as well as examination of wrongdoings and indiscretions in allocation and disbursement of public fund at collegial local government levels. In addition, professional environment is the fundamental point to press the abuse of power and trust or even the dark figure of unobserved misconducts, after cooperation between government and the private sector to maintain high standards of integrity, based on this study. Therefore, control environment can serve as the contingency variable across a wider range of directorate organizations to promote the accountability and transparency. Interestingly, even though promoting a good working relationship places the last rank, it still has significant impact on reducing the exploitation of organizational feeble points.

6.3. Investigating Procurement Frauds in Public Sector Organization

Caulfield (2014) documented that the search for collusion in public procurement can be elusive as on the surface it generally just leaves indicators to be discovered and it is surprisingly conducted by untrained observers. It is very essential for investigators to take into account the source of information (suspicions) in order to diagnose and allocate the most critical issues and see where the problems are rising.

Investigators, after analyzing data and producing investigation procedure, should create hypotheses of what might have happened based on the known facts. Birzer and Roberson (2011), emphasized in their book that in order to explain how the alleged fraud has been perpetrated and who the suspect might be involved, fraud examiners must establish hypotheses. The critical point is that examiners, when developing hypotheses, require to think the unthinkable way and become as creative as the fraud perpetrators. After that, examiners when testing hypotheses should look for and consider vertical connection as well horizontal one, including superiority of external information and records, to highlight the patterns of the flow of information, and then examiners should continually reassess those hypotheses when new information available. The major aim of doing these measures is to recognize

any management fraud involving employees at or near the top of organization or wrongdoing in which there is a related wrongdoing for the organization.

Furthermore, every individual commonly requires investigation's result sooner rather than later by employing tactical reasons "wrongdoing is uncomfortable for their organization." In this circumstance, investigators during process of investigation should not be pressured into taking less time to thoroughly complete investigation because it might be those people involved in those scandals. Joseph (2003) examining "thoughts on occupational fraud" noted that the concept of political theory may play role of the more mundane concerns of occupational fraud in high drama. Therefore, if those fraud examiners cannot manage this process well, obviously it will trigger to the quality of investigation. It is clearly evidenced by contemporary empirical study conducted by Bowrin and King (2010) indicating that public accounting firms for performing test need more time to advance the detection rate for all type of derivations. Similarly, studies performed by Svanberg and Ohman (2013), Gundry and Liyanarachchi (2007), Topi et al. (2005), and Pierce and Sweeney (2004), Tan et al. (2002), documented a negative causal relationship between audit quality and time pressure.

Because public procurement frequently and generally involves in number of quite distinct purchasing operations (large and high value projects), investigators should critically evaluate sources of documentation (e.g., bidding documents, contract, invoice, shipping documents, and other related documents), and then should sort and stratify the records for example based on type of purchase, and size of payment since a large amount in one category may not seem material in another. Basically, one of pivotal cornerstones of analyzing records is the quality of tender documents, because there are several studies suggested that the quality of tendering files/proposals in practice is often poor (Akintoye and Fitzgerald, 2000; Fang et al., 2002; Liu and Ling, 2005). Therefore, examiners in this case, should critically and carefully take into account altered files and documents especially scribbled-over or whited-out ones attempted to modify information or design them unreadable. This stage is very important to be considered by examiner because unclear tendering documents are assumed as one of strong indicators that suppliers and staffs commit mark-up pricing (Neufville and King, 1991; Bajaj et al., 1997; Shash, 1998; Smith and Bohn, 1999; Dulaimi and Hong, 2002).

Moreover, to deal with collusive contracting fraud, investigators should try to look at and evaluate the completeness of contract documents and any exceptions to standard terms in high level of professional skepticism. Generally speaking, negotiation processes between staff and vendor sometimes occur through mobile phone calling for example regarding price-fixing, or vendor billings/invoice. So, the telephone book in this circumstance is extremely helpful for investigators to gather valuable information because it relates to telephone inquiries between staff (who is responsible for negotiating contract) and vendor. If necessary, investigators should try to coordinate with government of communication and informatics to collect more data/information about communication records related to them. The last two vital things that should be considered by investigator in this case are E-mail analysis related to their communication (staff and vendor), and desk reviews of report and document because it probably contains signs of fraud for example missing documents, inconsistency in reporting, and unusual classification of cost.

Furthermore, in relation to vendor billings (false and duplicate invoices) including shell company scheme, the first appropriate measure for investigator that should be conducted is reference check. Obtaining names and telephone number of contacts, provided in a list of reference in vendor's proposal, can be a helpful step in reviewing potential vendors and it can also be a useful tool to confirm regarding the vital things such as the legitimacy of a post office box for a mailing address, an assigned ID number, and to check ownership of the vendor through state business registration database including number of payments made by organization especially unverifiable good and service. O'gara (2004), claimed that one of management fraud tricks related to vendor payment is a wife's maiden name which is always used by perpetrator to commit fraudulent payment. Under that situation, name of potential recipients stated in applications/references is extremely needed for investigator to trace that wrongdoing. After that, the pre contract analysis should be considered as well during investigation because it is associated with determining the cost to perform the operation and all incremental costs, including any increase in overhead, should be taken into account in this analysis.

6.4. Proving Collusive Tendering (External Fraud) Through Comprehensive Interview

To begin an investigation for proving bid-rigging conspiracy, Telpner and Mostek (2003), suggested that all forensic accountants should use their appropriate imaginative thinking based on all few element facts that has already obtained from numerous cross references, and take a few facts that has strong different characteristic. In this concern, author strongly believe that conducting interview and interrogation for collecting in-depth information with vendors who no longer bid on tenders, unsuccessful vendors, and a dissident cartel member or an ex-employee are extremely helpful for addressing this issues. Silverstone and Sheetz (2007), noted that in order for a financial crime to be successful detected by investigators, they must interact with third parties. Therefore, it can be concluded that third parties which did not exist on tender may become a

very valuable place to begin looking for other clues and source of information.

Cendrowski et al., (2007), argued that investigators during interview section should not be aggressive because it will impact on the level of openness of information, but put a natural curiosity on critical point/topic. It will be better if investigators do not schedule any appointment with potential interviewees but rather just show up. If interviewees contact with investigators without an appointment, they literally explode internally, both psychologically and physically (Silverstone and Sheetz, 2007). Based on that emotional perspective, it is reasonable to argue that interviewees may find few barriers during interview section in terms of managing their answer in uncontrolled physiological and psychological condition.

The benefit in that situation is that clues verbally and physically will appear for investigators, and investigators should condense all the superfluous information into a set of facts that can be used to prove the case. Broadly speaking, one of the most challenging tasks for investigator in relation to interview is "how to measure the truthfulness of the individual's statements." In this context, therefore, author extremely suggest that making various comparisons with technical investigative finding supplemented by interviewing employees is very effective to verify or detect person's deception. By doing that interrogative approach, investigator will notice the contradiction, and it can help to locate likely deception and consistency that can provide key piece of evidence and information linking the suspect to the crime.

6.5. The Probability of the Most Challenging Part of Procurement Fraud Investigation

This paper assumes one of the most probable difficult tasks for fraud examiners to investigate procurement fraud is collusive agreements among bidders. Even though there are several mechanisms proposed in the extensive literatures to detect collusion among potential participants in procurement auctions, they still have few weaknesses causing bidders to proceed with their unlawful acts. Current studies conducted by Caulfield, (2014), and OECD, (2009), documenting that the search of procurement fraud might be illusive and challenging where it is caused by the complex and diverse nature of auction process involving many various businesses, and those concerns cannot be measured by statistical numbers/patterns.

This research found that fraud examiners to recognize and detect collusive behaviors effectively and accurately, in complex modus operandi, should try to escalate their perspectives rather than just determining the statistical patterns, as proposed by Lundberg, (2005); Harrington, (2005); Abrantes-Metz et al. (2006); Bolotova, et al. (2008). O'gara (2004), confirmed that well-organized non-financial statement frauds is likely more difficult to prove because personal issues may also interfere with such actions. Related to that, a pattern of substantially uneconomical practices (collusive agreements) will be easier to identify if fraud examiners collect information from unsuccessful vendors supported by examining the file of pre-

Table 3: Average responses to the most frequent reasons why forensic accountants are ineffective to investigate procurement fraud (based on Indonesia perspective)

Rank	Why forensic accountants are ineffective	Frequency	SD	Significant
1	Inability to identify key issues	4.893	0.576	0.018**
2	Lack of investigative intuitiveness	4.674	1.46	0.052*
3	Ineffective oral communication	4.648	0.281	0.000**
4	Inflexible/close-minded	3.713	0.695	0.010**
5	Ineffective written communication	3.344	1.09	0.000**
6	Inability to understand the goals of a case	3.261	0.358	0.000**
7	Inability to synthesize results of discovery and analysis	2.642	1.21	0.018**

1: Less frequent, 5: Most frequent, *Significant at the 10% level. **Significant at the 5% level. SD: Standard deviation

Table 4: Result of test for coefficient of determination model summary

Model	R	R ²	Adjusted R ²	SE of the estimate	Significant
1	0.875 ^a	0.863	0.837	1.75328	0.00**

SE: Standard error, ^aPredictors: (Constant), AAWPPFP, ISANDK, RofSSIGNS, ^bDependent variable: The success of investigators to tackle procurement fraud

qualified vendors and details of their success and failure rates in competitive bidding.

In addition, fraud examiners in order to identify collusive behavior mechanisms among bidders are required to implement more direct manners reflecting real situation aimed to avoid bias information. Araia et al., (2011), obviously mentioned that statistical methods for detecting collusive action still need further advancement of theoretical and empirical study even though sophisticated and well-designed mechanism employed to diagnose conspiracy patterns. It means that proving collusive conducts cannot just heavily rely on numerical data. Therefore, recognizing suspicious signs as the first stage to get understanding of conspiracy among bidders are very important for fraud examiners because they will present the signals of collusion, and a number of those signs are set out in discussion below, where the following answers were provided by respondents.

Some common red flags might help to detect procurement fraud:

- The same company always wins a particular procurement.
- Certain companies always submit bids but never win.
- Uncontested price increases.
- The tender announcement is not informative while a certain bidder got more.
- A losing bidder is hired by the winning bidder.
- There are significant increases by most bidders over previous prices when there have been no substantial cost increases.
- Unwillingness to replace a supplier.
- An initial low bid is awarded, followed by multiple change orders.
- The committee informs certain bidder about the project earlier than the others.
- Some suppliers unexpectedly withdraw from bidding.
- The tender announcement is published in special edition of the newspaper.
- Prices mysteriously drop when a new bidder appears on the scene.
- The same supplier is often the lowest bidder.

After knowing suspicious signs, it will be better, if fraud examiner consider prudentially investigative skills in order to detect this financial crime effectively. In general, all accountants

need a good mix of both soft and technical skills. However, soft skills can be viewed as important one for forensic accountants, especially who often find themselves in stressful situations, for examples, collecting data in unexpected circumstances, interviewing suspected fraudsters or testifying in court. In relation to this concern, respondents of this study required to fill open question - what are appropriate soft skills for forensic accountants especially to tackling procurement fraud? - and the following answers are provided by respondents:

- Interviewing skills.
- Critical/strategic thinker.
- Communication skills.
- Investigative ability.
- Responsive.
- Independence.
- Analytical abilities.
- Skepticism.
- Agility and adaptability.
- Persistence.
- Capable to solve unstructured problems.
- Capable to organize an unstructured situation.
- Detail-oriented.
- Lobby ability.
- Investigative intuitiveness.
- Inquisitiveness.
- Reporting, experts and testimony.
- Able to think like the wrongdoer.
- Adaptive.
- Function well under pressure.
- Synthesize results of discovery and analysis.
- Generate new ideas and scenarios.

Furthermore, Table 3 provides reasons why forensic accountants are sometime ineffective to carry out investigation. Most of respondents assume and rank that inability to identify key issues is the most frequent reason which might drags to an ineffective exploration of relevant evidence and potential informants.

Broadly speaking, forensic accounting in its present state can be broadly categorized into two classifications encompassing litigation support and investigative accounting. In this point,

Table 5: Significance test (test statistics)

Model	Unstandardized coefficients		Standardized coefficients		Collinearity statistics		
	B	SE	Beta	t	Significant	Tolerance	VIF
AAWPPFP	0.641	0.076	0.367	3.440	0.018**	0.963	1.032
ISANDK	0.715	0.089	0.330	2.423	0.001**	0.880	1.136
RofSSIGNS	0.558	0.103	0.162	3.309	0.001**	0.963	1.038

SE: Standard error, *Dependent variable: The success of investigators to tackle procurement fraud, *Significant at the 10% level, **Significant at the 5% level.

if a forensic accountant cannot be able to diagnose key issues, it obviously will drive to unidentified cases or she/he cannot convince judge because they do not know how to identify and present the key documents that should be made available as evidence.

6.6. Additional Analyses

It is very reasonable, in this point, to examine the link between aspects associated with public procurement fraud prevention proposed in this study, investigators' skills and knowledge, recognition of suspicious signs and the success of investigators to tackle procurement fraud. This study confirms that the result of validity test for each item stated in the questionnaire suggests more than 0.7; meaning that all of data used in this study can be argued valid. Meanwhile, the result of reliability test shows that statements used to measure all of variable have already met a statistical reliability in the form of Cronbach alpha. (Aspects associated with public procurement fraud prevention (AAWPPFP), 0.802; investigators' skills and knowledge (ISANDK), 0.786; recognition of suspicious signs, (RofSSIGNS), 0.938 and the success of investigators to tackle procurement fraud, 0.864).

6.7. Result of Normality Test

The result of Kolmogorov-Smirnov suggests that the value of asymptotic significant is 0,633 which is higher than alpha ($\alpha = 0.05$); meaning that the analyzed data have normal distribution.

6.8. Result of Test for Coefficient of Determination

According to the Table 4, it demonstrates that the proportion of observed outcomes replicated by the models (AAWPPFP, ISANDK, RofSSIGNS) is considered as good figure, with value of adjusted $R^2 = 0.837$ or 83.7% and standard error of the Estimate 1.75328. It means that the proportion of those models employed in this study can contribute effectively to the success of investigators to tackle procurement fraud.

6.9. Individual Parameter Significance Test (Test Statistic t)

Based on the results of individual parameter significance test (statistical test t) as illustrated Table 5 above, it can be noted that (1) AAWPPFP has a marked positive regression coefficient of 0.641 and gives a positive influence to the success of investigators to tackle procurement fraud, with significant value of 0.18, Similarly, (2) ISANDK has a marked positive regression coefficient of 0.715 and gives a positive influence to the success of investigators to tackle procurement fraud, with great significant value of 0.01, (3) RofSSIGNS also has a marked positive regression coefficient of 0.558 and gives a positive influence to the success of investigators to tackle procurement

fraud, with great significant value of 0.01. Therefore, in general, to tackle public procurement fraud, investigators should prudently take into account precaution measures put in place within organization, and scrutinize suspicious symptoms which is supported by updating soft skill in order to make investigation runs effectively.

7. CONCLUSION

The aim of this study is to identify and fight against fraudsters involved in public procurement fraud in local government. This study confirms close relationship between government and private sector intentionally intended to foster integrity and transparency is considered as the most effective solution to mitigate or even terminate this exclusive scandal. During investigation or interrogation processes, a fraud examiner is required to think and behave as creative as perpetrator (perform unthinkable ways beyond fraudsters' prediction). Due to sophisticated modus operandi employed by perpetrators, the comprehensive methods (statistical and non-statistical analysis) supported by confirmation from various parties are obviously needed by fraud examiners to collect accurate evidence.

Apart from that, it is very important for Indonesia governments especially and throughout the world generally to consider legal framework aspect strengthened by establishing an independent appeals body, probably comprising individuals from private sector professional organizations as well as civil servants, that will be dedicated to receiving or resolving reasonable grievances.

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