



# **NAVAL POSTGRADUATE SCHOOL**

**MONTEREY, CALIFORNIA**

## **THESIS**

**AN ANALYSIS OF INTERNAL CONTROLS AND  
PROCUREMENT FRAUD DETERRENCE**

by

Li Huang Joyce Tan

December 2013

Thesis Co-Advisors:

Juanita M. Rendon  
Rene G. Rendon

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| <b>REPORT DOCUMENTATION PAGE</b>  |   |  | <i>Form Approved OMB No. xxxxx</i>                         |  |
| Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.   |   |  |  |  |
| <b>1. AGENCY USE ONLY (Leave blank)</b>   |   | <b>2. REPORT DATE</b><br>December 2013                         | <b>3. REPORT TYPE AND DATES COVERED</b><br>Master's Thesis |  |
| <b>4. TITLE AND SUBTITLE:</b> AN ANALYSIS OF INTERNAL CONTROLS AND PROCUREMENT FRAUD DETERRENCE   |   |  | <b>5. FUNDING NUMBERS</b>                                  |  |
| <b>6. AUTHOR(S)</b> Li Huang Joyce Tan  |   |  |  |  |
| <b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b><br>Naval Postgraduate School<br>Monterey, CA 93943-5000   |   |  | <b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>            |  |
| <b>9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b><br>N/A  |   |  | <b>10. SPONSORING/MONITORING AGENCY REPORT NUMBER</b>      |  |
| <b>11. SUPPLEMENTARY NOTES</b> The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. government. IRB protocol number N/A   |   |  |  |  |
| <b>12a. DISTRIBUTION / AVAILABILITY STATEMENT</b><br>Approved for public release; distribution is unlimited   |   |  | <b>12b. DISTRIBUTION CODE</b><br>A                         |  |
| <b>13. ABSTRACT (maximum 200 words)</b><br><br><p>The rise in globalization, coupled with the use of technology to accelerate approval, and payable cycles, the increase of outsourcing of goods and services, and the pressure to cut costs, have resulted in government organizations being more exposed to the risk of fraud in their procurement process. Hence, appropriate internal controls and fraud prevention strategies are necessary for deterring, detecting, and managing procurement fraud.</p> <p>The purpose of this research was to develop a guideline to help government organizations design an effective system of internal controls to deter fraud in public procurement processes and practices. This was done through a review, analysis, and discussion of 20 case studies of actual fraud incidents. In each case study, internal control weaknesses were identified and analyzed in terms of the fundamental principles that are associated with the five internal control components. The analysis revealed that the majority of the organizations in the case studies lacked three internal control components, namely control environment, control activities, and monitoring activities. Recommendations for improvements for each case study were presented by applying relevant internal controls into its procurement process to deter procurement fraud. The areas for further research were also provided.</p> |   |  |  |  |
| <b>14. SUBJECT TERMS</b> Procurement fraud, Internal Controls, fraud prevention, control environment, control activities, monitoring activities   |   |  | <b>15. NUMBER OF PAGES</b><br>147                          |  |
|   |   |  | <b>16. PRICE CODE</b>                                      |  |
| <b>17. SECURITY CLASSIFICATION OF REPORT</b><br>Unclassified  | <b>18. SECURITY CLASSIFICATION OF THIS PAGE</b><br>Unclassified | <b>19. SECURITY CLASSIFICATION OF ABSTRACT</b><br>Unclassified | <b>20. LIMITATION OF ABSTRACT</b><br>UU                    |  |

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**AN ANALYSIS OF INTERNAL CONTROLS AND PROCUREMENT FRAUD  
DETERRENCE**

Li Huang Joyce Tan  
Civilian, Defence Science & Technology Agency, Singapore  
B.A., National University of Singapore, 1994

Submitted in partial fulfillment of the  
requirements for the degree of

**MASTER OF BUSINESS ADMINISTRATION**

from the

**NAVAL POSTGRADUATE SCHOOL  
December 2013**

Author: Li Huang Joyce Tan

Approved by: Juanita M. Rendon  
Thesis Advisor

Rene G. Rendon  
Co-Advisor

William Gates, PhD  
Dean, Graduate School of Business and Public Policy

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## **ABSTRACT**

The rise in globalization, coupled with the use of technology to accelerate approval, and payable cycles, the increase of outsourcing of goods and services, and the pressure to cut costs, have resulted in government organizations being more exposed to the risk of fraud in their procurement process. Hence, appropriate internal controls and fraud prevention strategies are necessary for deterring, detecting, and managing procurement fraud.

The purpose of this research was to develop a guideline to help government organizations design an effective system of internal controls to deter fraud in public procurement processes and practices. This was done through a review, analysis, and discussion of 20 case studies of actual fraud incidents. In each case study, internal control weaknesses were identified and analyzed in terms of the fundamental principles that are associated with the five internal control components. The analysis revealed that the majority of the organizations in the case studies lacked three internal control components, namely control environment, control activities, and monitoring activities. Recommendations for improvements for each case study were presented by applying relevant internal controls into its procurement process to deter procurement fraud. The areas for further research were also provided.

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## **LIST OF ACRONYMS AND ABBREVIATIONS**

|        |   |
|--------|---|
| ACFE   | Association of Certified Fraud Examiners                        |
| AGO    | Auditor-General's Office  |
| ASB    | Asian Development Bank  |
| CICA   | Competition in Contracting Act                                  |
| COSO   | Committee of Sponsoring Organization of the Treadway Commission |
| COR    | Contracting Officer Representative                              |
| COTRs  | Contracting Officer Technical Representatives                   |
| DCAA   | Defense Contract Audit Agency                                   |
| DCMA   | Defense Contract Management Agency                              |
| DOD IG | Department of Defense Inspector General                         |
| DOI    | Department of the Interior                                      |
| DOT    | Department of the Treasury                                      |
| EVM    | Earned Value Management   |
| FAR    | Federal Acquisition Regulation                                  |
| GAO    | Government Accountability Office                                |
| GDP    | Gross Domestic Product  |
| LPTA   | Lowest Price Technically Acceptable                             |
| NCMA   | National Contract Management Association                        |
| NECI   | National Education Consulting Inc                               |
| OECD   | Organisation For Economic Co-operation Development              |
| OMB    | Office of Management and Budget                                 |
| SEC    | U.S. Securities and Exchange Commission                         |
| SOO    | Statement of Objectives   |
| SOW    | Statement of Work   |
| SSA    | Source-Selection Authority                                      |
| UK     | United Kingdom  |

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## **ACKNOWLEDGMENTS**

First, I wish to thank my organization, the Defence Science and Technology Agency, for this invaluable opportunity to pursue the MBA at the Naval Postgraduate School. Next, I would like to express my deep gratitude to Professor Juanita M. Rendon and Professor Rene G. Rendon, my thesis advisors, for their professional and patient guidance, valuable support, and useful critiques and recommendations on this project.

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## **I. INTRODUCTION**

### **A. BACKGROUND**

Perhaps, the first recorded instance of fraud occurred in 300 B.C., when a Greek merchant named Hegestratos took up a loan known as bottomry and agreed to pay it back with interest when he received his goods. The moneylender could confiscate Hegestratos' boat and goods if he failed to pay back the loan. Hegestratos' plan was to sink his empty boat, pocket the loan, and sell the goods. The plan did not work out since he drowned while trying to escape from his crew when they caught him in the act (Beattie, 2009).

The origin of fraud is traced as far back as 300 B.C. However, it was the rise in globalization in the last decade that drove companies to grow in international markets and that took fraud to its height. As correctly predicted in the first edition of the *Fraud Examiners' Manual* in 1989, the Association of Certified Fraud Examiners (ACFE) claimed that "fraud will be the crime of choice for the 21<sup>st</sup> century" (ACFE, 2013, p. 1). The rise in globalization, coupled with the use of technology to accelerate approval and payable cycles, the increase of outsourcing of goods and services and the pressure to cut costs, have resulted in government organizations being more exposed to the risk of fraud in their procurement process. Hence, appropriate internal controls and fraud prevention strategies are necessary for deterring, detecting, and managing procurement fraud.

### **B. PURPOSE OF RESEARCH**

The purpose of this research is to develop a guideline to help government organizations design an effective system of internal controls to deter fraud in public procurement processes and practices.

### **C. RESEARCH QUESTIONS**

According to the 2012 Global Fraud Study conducted by ACFE, of the 1,388 cases of occupational fraud reported by the certified fraud examiners who investigated

them, purchasing is one of the six areas where the majority of fraudulent activities were committed (ACFE, 2012). This trend was similar to the findings in ACFE's 2010 study. Procurement fraud is pervasive, and organizations are vulnerable to fraud in their procurement process. Government organizations are generally more susceptible to fraud due to the complex nature of purchases and the enormous amount of funds involved. The ACFE study (2012) found that government and public administration is one of the industries most commonly victimized by fraud. Moreover, as the amount of public funds being channeled into the market through public procurement procedures increases, the procurement process continues to be highly vulnerable to fraudulent activities (Organisation For Economic Co-operation Development (OECD), 2013). According to the OECD, government procurement constitutes about 15% of the Gross Domestic Product (GDP) and 80% of world merchandise and commercial services exports in 1998 (OECD, 2005). Data has also shown that governments in the Asia-Pacific region generally pay about 20% to 100% more for public goods and services due to procurement fraud (Asian Development Bank (ASB) & OECD, 2007). This means that government organizations have less money to fund public services such as education, health, and public transportation needed to reduce poverty and improve their citizens' quality of life (ASB & OECD, 2007).

In addition, procurement fraud damages the government organizations' reputation, causes financial loss, and undermines the public's confidence in the governmental structure and management. While the risk of fraud cannot be eliminated entirely, it can be greatly reduced with an appropriate procurement fraud prevention strategy. Hence, in recent years, worldwide efforts have been channeled into fighting corruption and promoting integrity in public procurement. For example, among other things, in an effort to combat corruption, Section 302 of the Sarbanes-Oxley Act of 2002 requires that Chief Executive Officer and Chief Financial Officer certify on a quarterly basis that they have internal controls and have evaluated the effectiveness of these internal controls within the previous 90 days (SOX-Online, 2012). In addition, Section 406 of the Sarbanes-Oxley Act of 2002 requires that all publicly held companies establish a code of ethical conduct and business ethics for their directors and employees (U.S. Securities and Exchange Commission (SEC), 2003).

The proper application and enforcement of internal controls in the procurement process can help to deter fraudulent activities within government organizations. By analyzing the internal control components and how they can be used to deter procurement fraud through a detailed analysis of case studies of procurement fraud incidents, this research project aims to answer the following questions:

1. How are internal controls and procurement processes integrated?
2. What factors contribute to public procurement fraud incidents?
3. How can internal controls within the procurement processes deter public procurement fraud?

#### **D. METHODOLOGY**

This research consists of a detailed review of recent literature regarding internal controls and the procurement process and recent procurement fraud case analysis. The literature review includes a discussion of the public procurement process, the internal control components and the types of procurement fraud. The literature review will also discuss how internal controls can be integrated into the public procurement process to deter fraudulent activities. The procurement fraud case studies will be drawn mainly from the *Encyclopedia of Ethical Failure* (updated as of July 2013) (Department of Defense General Counsel's Office, 2013) compiled by the Standards of Conduct Office of the Department of Defense General Counsel's Office, Early Bird Current News, and other news articles. The literature review will be followed by a review and analysis of procurement fraud cases to identify weaknesses in internal controls or lack of internal controls within the procurement process. Finally, this research will conclude with recommendations for improvements in the procurement process to deter procurement fraud and areas for further research. These recommendations serve to provide guidelines for other government organizations to develop and design an effective system of internal controls to deter fraud.

#### **E. BENEFITS AND LIMITATIONS**

This research will analyze and discuss how internal controls and procurement processes are integrated. One benefit of this analysis will shed light on the extent of

integration of internal control components in the public procurement process. Another benefit of this research is to identify the factors that contribute to public procurement fraud incidents through detailed analysis of case studies of procurement fraud incidents. The result will provide insight on the areas of weaknesses in internal control or lack of internal controls in public procurement. A final benefit of this research is to analyze how internal controls can be integrated within the procurement processes to deter public procurement fraud. This analysis will emphasize and highlight the importance of the integration of internal controls into the procurement process to deter procurement fraud.

As this research focuses primarily on literature reviews which are limited to collecting and analyzing past information across various government organizations, the research findings will be limited in context. Moreover, the research findings are generalized to all government procurement fraud.

## **F. ORGANIZATION OF REPORT**

This thesis is composed of five chapters including this introduction chapter. Chapter II consists of a literature review of the procurement process, internal control components, types of procurement fraud and the integration of internal controls in the procurement process. The literature review in Chapter II focuses on building the basic foundation of the research. Building on this foundation, Chapter III examines case studies of procurement fraud incidents and identifies internal control weaknesses or lack of internal controls in these cases. Chapter IV provides recommendations for improvement by discussing the relevant internal controls in the procurement process to deter procurement fraud so as to provide guidelines for other government organizations to be able to develop and design an effective internal control system to deter fraud. Chapter V consists of a summary, conclusion and areas for further research.

## **G. SUMMARY**

This chapter provided an introduction and overview of the research. The extent of government organizations' exposure to procurement fraud was reviewed, which emphasized the need to put in place effective internal controls within the procurement process to deter procurement fraud. Government organizations are more exposed to

fraud due to the rise in globalization, the increased use of technology in the procurement process, proliferation of outsourcing of goods and services and pressure to cut costs. Public procurement is also most vulnerable to fraud considering the complexity of purchases and the enormous size of its financial flows to the market. As stated by Cendrowski, Martin, & Petro (2006) in *The Handbook of Fraud Deterrence*, the removal of opportunity (which is one of the three elements in the fraud triangle), that focuses on augmenting the system of internal controls, is probably the most effective tool to fraud deterrence. Therefore, it is essential that proper application and enforcement of internal controls be employed in the procurement process to help deter fraudulent acts within government organizations.

The objective of this research, which is to provide a guideline for government organizations to develop and design an effective system of internal controls to deter fraud in the public procurement process, was presented. This was followed by the framing of the three research questions, the benefits, and the limitations of the research. Lastly, the methodology of the research was summarized. The following chapter lays the foundation of this research by reviewing the literature on public procurement processes, internal control components, types of procurement fraud and the application of internal control components in the procurement process to deter procurement fraud.

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## **II. LITERATURE REVIEW**

### **A. INTRODUCTION**

In this chapter, a literature review of the public procurement processes, internal control components and the different types of procurement fraud are presented. In addition, a discussion on the integration of internal control components in the procurement process is presented. This review builds the basic foundation of knowledge for this research and sets the stage for the subsequent chapters. The public procurement process is discussed in the following section.

### **B. PUBLIC PROCUREMENT PROCESS**

A main difference between public procurement and private sector procurement is that public procurement is subject to more stringent legislative regulations and controls. The main reasons for the stringent regulations and controls are to ensure that the taxpayers' money is spent effectively and economically, that contracts are awarded to suppliers on a fair, transparent and value-for-money basis, and that any fraudulent acts by the buyers and/or suppliers are prevented. For example, the U.S. federal government procurement is governed by the Federal Acquisition Regulation (FAR) (FAR, 2013), while the government procurement process in the United Kingdom (UK) is governed by the European Union Procurement Directives and the UK Procurement Regulations (UK Cabinet Office, 2013). Often, public procurement officers are also governed by a set of stricter rules and regulations as a high standard of discipline and conduct is expected of these public officers. Generally, private sector procurement officers are not subject to any legislative requirements to conduct a competitive procurement process. Private sector procurement is governed by its organization's procurement guidelines, which are formulated to meet the organization's objectives. However, if the organization's procurement guidelines mandate the use of a competitive procurement process, the principles of fairness, transparency and value-for-money will apply as in the public sector (National Education Consulting Inc (NECI), 2013).

The public procurement process can be categorized into six phases, namely procurement planning, solicitation planning, solicitation, source selection, contract administration and contract closeout (Rendon & Snider, 2008). Together, these phases provide direction for the government organizations to purchase public goods and services in the most effective and economical manner based on the principles of fairness, transparency and value of money. In addition, these processes assist the government organizations in their planning and executing of procurement strategy. These processes ensure that the organizations' purchases stay within the allocated budget throughout the product lifecycle and meet the user's requirements and that the contractor performs in accordance with the contract (Rendon & Snider, 2008). The following section discusses each of these phases and their associated activities.

## **1. Procurement Planning**

The procurement process starts with the procurement planning phase, which involves recognizing and identifying the organization's needs and determining the user's specific requirements, the mode of purchase, the quantity to purchase and the period of purchase so as to meet the organization's specific needs (Rendon & Snider, 2008). The main activities of the procurement planning phase include determining and defining the procurement requirement, conducting market research, developing requirement documents (such as specifications, statement of work (SOW), or statement of objectives (SOO)), developing preliminary budgets and cost estimates, and considering initial contract types, risk assessment and special terms and conditions (Rendon, 2007). These activities, which play a significant role in determining the contracting strategy of the purchase, have to be duly documented for subsequent review and approval (Rendon & Snider, 2008).

### ***a. Determining and Defining the Procurement Requirement***

The activity of determining and defining the requirement initiates the procurement process. In this activity, the organization first identifies its need in terms of functions to be performed, performance and technical characteristics. Next, it defines the needs or requirements by considering the following questions (Rendon, 2007):

- Do the requirements encourage bidders to supply commercial items or non-development items (if commercial items are not available)?
- Can the requirements be altered appropriately such that they can be met by commercial items or non-development items?
- Do the organizations want to make the goods or perform the services themselves in-house or buy the goods or services from an outside supplier or adopt a hybrid approach through joint-partnership with the outside supplier?

The answers to these questions serve to drive the organization to encourage competition wherever possible and expedite the subsequent procurement processes by scoping the contracting alternatives. Once the requirement is approved, the procurement process officially begins.

#### ***b. Conducting Market Research***

After the requirement has been identified and defined, the next activity is to conduct market research. Market research is the process of collecting and analyzing information to determine if there are available potential suppliers and products within the markets to meet the organization's needs (FAR, 2013). The degree of market research effort depends on the level of risk of the requirement. For small and simple acquisitions, a check of past contracts may suffice. However, for complex acquisitions, an extensive market research is required. For example, under FAR market research is required for acquisitions with an estimated value above the simplified acquisition threshold of \$150,000 or when there is no adequate cost information (FAR, 2013). The result of market research is then used to decide if there are potential sources and products within the market that can satisfy the requirement. In addition, the market survey result also determines if commercial items or non-development items are available to meet the requirement, and if not, whether the requirements can be refined such that commercial or non-developmental items could be incorporated at the component level (FAR, 2013). Lastly, the market survey can be used to establish a "ball-park" cost estimate of the requirement. All these results will affect the subsequent activities and phases of the procurement process.

***c. Developing Requirement Documents***

Subsequent to the completion of the market analysis and the refinement of requirements (if required), the next step is to develop the requirement documents. The requirement documents consist of specifications, SOW, or SOO. A specification is a document that spells out the detailed technical requirements and delivery schedule for the goods or services that a contractor is required to meet. The SOW is a document that states the detailed non-specification of the work and delivery schedule that a contractor is required to fulfill or perform under the contract. Both the specifications and SOW are often incorporated as an integral part of the resultant contract. Specifications and SOWs must be written in a clear and comprehensive manner to avoid any future misinterpretation and disputes. Specifying brand names in specifications and SOWs is not allowed, unless the word “or equivalent” is included (FAR, 2013). The SOO, on the other hand, captures only the fundamental and top-level objectives of the requirement to allow bidders to have the flexibility to develop cost-effective and innovative solutions to meet the organization’s needs. The SOO does not become part of the contract. The bidders use the SOO to develop their own SOW, and the successful bidder’s SOW is incorporated as an integral part of the resultant contract (FAR, 2013).

***d. Initial Consideration of Contract Type, Risk Assessment, and Special Terms and Conditions***

Another important factor that impacts the success of the resultant contract is the contract type used (e.g., fixed-price contract or cost-reimbursement contract) considering the nature and risk associated with the requirement. Therefore, early assessment and consideration of contract type and risk assessment and exchange of such information during the procurement planning phase allow organizations to identify and address or resolve concerns early in the procurement process. Early consideration of any special terms and conditions for special circumstances of the specific procurement which are not addressed in the standard terms and conditions is also crucial. Unique or special procurement requirements may constitute including exceptions to the standard terms and conditions or further tailoring some of the conditions (Rendon, 2007).

## **2. Solicitation Planning**

Solicitation planning begins once the organization has gone through the procurement planning phase. In this phase, solicitation documents are prepared to support the solicitation based on the information collected during the procurement planning phase (Garrett & Rendon, 2005). The main activities in the solicitation planning phase consist of determining the appropriate procurement method, selecting the appropriate contract type, developing the solicitation documents, such as finalizing specifications, SOW, or SOO, and contract terms and conditions and establishing evaluation criteria (Rendon & Snider, 2008).

### ***a. Determining the Appropriate Procurement Method***

The appropriate procurement method to be used varies for different types of goods and/or services as it is conditional on the estimated value of the requirement, the nature and specifications of the requirement, availability of potential suppliers and availability of period contract or framework agreement. The estimated value of the requirement will determine the procurement method. For example, depending on the estimated value of the purchase, the procurement method for Singapore Government purchases could be by way of a small value purchase (up to S\$3,000), quotations (between S\$3000 up to S\$7,000), or tender (more than S\$70,000) (Ministry of Finance, Singapore, 2013). Similarly, in the U.S. federal government, the procurement method could be by way of a micro-purchase (up to \$3,000), simplified acquisition procedures (between \$3,000 to \$150,000), sealed bidding or negotiated procurement (more than \$150,000) (FAR, 2013).

Another important part of determining the appropriate procurement method involves selecting the appropriate mode of solicitation/tender procedures for a procurement activity. Open competition, where any supplier can participate, is the preferred mode of most government organizations. Open competition assures that organizations procure the goods and services in the most efficient and economical manner. Government organizations, in particular, find competition crucial for ensuring fairness and transparency in their procurement process. Many government organizations

demonstrate their commitment to open competition by limiting the circumstances whereby limited competition or non-competition can be used. For example, the Federal Government's Competition in Contracting Act (CICA) of 1984 requires that its agencies and departments use "full and open competition" in purchasing goods and services. As listed in FAR 6.302 (2013), there are seven exceptions to CICA. Some of the commonly used exceptions include instances when only one responsible source is available and when there is an unusual and compelling urgency. A Justification and Approval is required for exception to full and open competition (FAR, 2013). Similarly, the Singapore Government has open tenders as a norm to ensure fairness and transparency in their procurement process as well as to obtain value for money through open competition (Ministry of Finance, 2013).

***b. Selecting the Appropriate Contract Type***

As previously mentioned, one crucial factor that contributes to a successful procurement is selecting the appropriate contract type to be used. In the solicitation planning phase, government organizations use the information on contract types and risk assessment that they gathered from the procurement planning phase to decide on the appropriate contract type to be used. The two major contract types are fixed-price and cost-reimbursement contracts (Rendon & Snider, 2008).

The commonly used fixed-price contracts include firm-fixed price, fixed-price contracts with economic price adjustment and fixed-price incentive contracts. In a firm-fixed price contract, the contract price payable does not change regardless of eventual actual cost incurred by the contractor in the performance of the contract. In a firm-fixed price contract, the contractor assumes all cost risk. As for a fixed-price contract with economic price adjustment, the contract price payable is adjusted for economic uncertainties such as price of fuel, steel or copper and electricity, which tends to fluctuate over times. The formula for the economic price adjustment is often pre-agreed upon prior to contract award and stated in the contract for ease of post-management. Fixed-price incentive contracts, on the other hand, cater to profit adjustment depending on the contractor's performance. Contractors receive a higher profit if they achieve better performance results and vice versa. Besides motivating

contractors to enhance their contract performance, fixed-price incentive contracts also serve as a deterrent for contractors not to underperform; otherwise, they will receive a lower profit (Rendon & Snider, 2008).

In a cost-reimbursement contract, the contractor is reimbursed for the allowable costs incurred in accordance with the contract terms and conditions. Some commonly used cost-reimbursement contracts include cost contract, cost-plus-fixed-fee contract and cost-plus-incentive fee. In a cost-plus-fixed-fee contract, organizations pay the allowable incurred cost plus a fixed profit (fee) regardless of the actual cost of performing the contract. As for cost-plus-incentive contract, an organization pays the allowable incurred cost plus a certain amount of fee (subject to a minimum and maximum fee) depending on the contractor's effort in cost reduction. The contractor will be rewarded with more fees if it can perform the contract at less than the pre-agreed target cost and vice versa (Rendon & Snider, 2008).

Period contracts, also known as indefinite-delivery contracts, can be implemented in a fixed-price or cost-reimbursement contract or a hybrid of both contract types. It is often used for a recurring requirement when the exact time and quantities are unknown upon contract award.

While fixed-price contracts are preferred by government organizations as they are less risky, they may not be the appropriate contract type for a requirement where cost could not be reasonably estimated due to the high degree of uncertainties in achieving the desired organization's needs such as research and development requirements. Hence, according to the FAR, choosing the appropriate contract type is "generally a matter for negotiation and requires the exercise of sound judgment" (FAR, 2013, §16.103(a), p 16.1-1).

### *c. Developing Solicitation Documents*

With the requirement, appropriate procurement method, and contract type identified, the next step is to start developing the solicitation documents, also known as tender documents elsewhere, such as in the UK and Singapore. The solicitation document is a document that the government organizations send to bidders (or tenderers

in the context of the UK and Singapore) to request for an offer or information for purchases. The solicitation documents must contain all of the necessary information, such as the description of goods and services, specifications, SOW, and SOO, contract terms and conditions, delivery or performance schedules, solicitation closing date, etc., to enable the bidders to submit a timely and comprehensive offer or information. The main types of solicitation documents include the Request for Quotation (RFQ), Invitation for Bids (IFB) and Request for Proposals (RFP). The type of solicitation documents to use is conditional on the procurement method adopted. For example, the U.S. federal government uses the RFQ for simplified acquisition procedures, while it uses the IFB and RFP for sealed bidding and negotiated contracts, respectively (Rendon & Snider, 2008).

*d. Establishing Evaluation Criteria*

The purpose of establishing the evaluation criteria is to provide a tool to be used during the source selection process for objectively determining which offers received provide the best value to fulfill the organization's requirement. Evaluation criteria include the "key areas of importance" and "emphasis to be considered" in the source selection process (FAR, 2013, §15.304(b), p. 15.3-1). Offers received must be evaluated solely based on the pre-determined evaluation criteria and procurement method to ensure a fair and transparent evaluation. In determining best value, price alone is often not the primary evaluation criteria. Some non-price criteria, such as quality, availability, reliability, maintainability and past contractor performance are evaluated together to determine the best value for purchases. Organizations may choose to award contracts on the basis of the lowest acceptable price, also known as Lowest Price Technically Acceptable (LPTA) in the U.S. federal government, or most economical offer, also known as a tradeoff process in the U.S. federal government. When the evaluation method is based on the lowest acceptable price, the contract is awarded to the supplier who submitted the lowest price that meets all of the technical requirements. However, if the evaluation method is based on the most economically advantageous offer, the price and non-price factors with relative weighting for each criterion are used to determine the best value for the organization's requirement. Regardless of which evaluation method is used, once the potential contractor is selected, cost or price analysis of the potential

contractor's offered price is conducted to determine if the proposed price is fair and reasonable. After analysis, if the contracting officer assesses that the price is not fair and reasonable, negotiations may be conducted with the potential contractor to lower the price.

### **3. Solicitation**

With the completion of the solicitation planning phase, the government organizations start the solicitation phase by soliciting proposals or offers from industry on how their requirements can be met. Solicitation documents can be issued either by mail or electronically on the Internet, as in the case of open solicitation or tender. For example, all federal solicitations with estimated purchase values exceeding \$25,000 must be advertised on the Government Point of Entry which is located at <http://www.fedbizopps.gov> (Rendon & Snider, 2008). The government organizations in Singapore are required to post open tender notices openly on the Government Electronic Business website located at [www.gebiz.gov.sg](http://www.gebiz.gov.sg) (Ministry of Defence, 2013). Advertising government opportunities electronically on the Internet benefits both the government, in terms of increased competition which results in lower price and better quality, and suppliers, in terms of enjoying broader access to government solicitations which may have been hidden in the past. In a limited competition process where requirements are exempted from competition, solicitation documents are sent to one or a few shortlisted suppliers to request for offers. Some government organizations also conduct pre-proposal conferences for complex requirements by posting a draft solicitation document to facilitate the solicitation process before the release of the final solicitation document. Such pre-proposal conferences aim to explain complex requirements to potential bidders, identify new sources in the case of limited solicitations and address any queries or questions from the suppliers or changes from the conferences that can be made before the release of the final solicitation document (Rendon & Snider, 2008).

### **4. Source Selection**

The purpose of source selection is to select the proposal that gives the best value based on the pre-determined evaluation criteria and procurement method. The main

activities in the source selection phase consist of evaluating the received offers and conducting negotiations with the potential contractor to resolve differences and reach an agreement that achieves the most cost-effective outcome for the organization. Proposal evaluation involves assessing the bidders' proposals based on the pre-established evaluation criteria and procurement method to select the proposal that offers the best value. Basically, contracts can be awarded on the basis of the lowest acceptable price (or LPTA) or most economically advantageous offer (or tradeoff process). In an LPTA process, the proposal with the lowest price that meets all the technical requirements is deemed to provide the best value. In the tradeoff process, best value is defined as a process whereby the technical evaluation factors, collectively, are more important than price (FAR, 2013, §15.101), and "the perceived benefits of the higher priced proposal shall merit the additional cost" (FAR, 2013, §15.101-1(c), p. 15.1-1).

Therefore, in such cases, it may be in the best interest of the government organization to award the contract "to other than the lowest priced offeror or other than the highest technically rated offeror" (FAR, 2013, §15.101-1, p. 15.1-1). As such, FAR Part 15.101 requires that all solicitations indicate whether all the technical evaluation factors combined are significantly more important than, equal to, or significantly less important than price or cost (FAR, 2013, §15.101). Negotiations are conducted with potential contractors whose proposals offer the best value to resolve differences and reach an agreement on all aspects of the contracts such as the price, schedule, special terms, technical issues and performance incentives. However, in the case of LPTA, negotiations with potential contractors are limited to price related issues. A formal source selection organization is often set up to manage negotiated procurements as they involve more complex source selection processes. In the U.S. federal government, the source selection organization is comprised of the source-selection authority (SSA), who manages the evaluation process and selection of the proposal with the best value, the source-selection advisory council, who provides advice to SSA, the source-selection evaluation team, who is a cross-functional team who evaluates contract proposals and the contracting officer, who is the point of contact with the industry who manages information exchanges with the bidders during the source selection phase (Rendon & Snider, 2008).

## **5. Contract Administration**

Contract administration, also known as post-award administration, begins when the contract is awarded to the successful contractor. Contract administration plays a critical role in ensuring the success of the resultant contract as it makes sure that parties perform in accordance with the contractual requirements. For example, a contractor is required to provide services or supply goods in accordance with the contractual requirements, while the government organization is responsible to pay the contractor promptly when work has been completed. It is important to note that issues which are unforeseeable at the time of award are sure to occur during the course of the contract. Therefore, an effective contract administration is essential to ensure that issues are identified and dealt with early. The contract administration activities vary from contract to contract. Generally, the more complex a contract, the more activities are expected. The main activities in the contract administration phase include monitoring and measuring the contractor's performance and monitoring and managing the change-control process (Rendon & Snider, 2008).

### ***a. Monitoring and Measuring Contractor's Performance***

Monitoring and measuring the contractor's performance is a process of observing the contractor's performance, collecting information and measuring the contractor's actual contract achievement. The reason for observing, collecting and measuring achievement is to establish a basis for comparing it with the planned achievement stated in the contract in order to exert control. It is the process of "quantifying" the work done by the contractor. The effort involved in the monitoring and measuring tasks depends on the size and complexity of the contract. In a small and simple contract, an occasional phone call to check on the contractor's performance and visual inspection of the item will suffice. However, for a large and complex contract, the organization will require extensive reports, regular progress meetings, technical reviews, formal testing, and audits to ascertain the contractor's performance. In the U.S. federal government, designated administrative contracting officers and contracting officer technical representatives (COTRs) are assigned to monitor the contractor's performance. (Rendon & Snider, 2008) The government contracting officer and COTR may be

stationed physically at the contractor's premises to assess the contractor's performance. The contractor's performance is monitored and measured against general control points, including cost, schedule and compliance with specifications, SOW, SOO, quality, and compliance with terms and conditions. A quantitative method used in contract administration to measure performance is earned value management (EVM). EVM measures performance by comparing the actual cost, schedule, and performance results with established cost, schedule and performance baselines. EVM is effective as it highlights potential issues relating to cost, schedule and performance. EVM helps the contractor and organization to identify issues and deal with them early in the process (Rendon & Snider, 2008).

#### ***b. Management of Contract Changes***

Management of contract changes is important as it is the process for preventing unnecessary and unauthorized changes and incorporating necessary changes into the contract. Effective contract change management is achieved through establishing sound and formal contract change procedures, restricting the number of people authorized to make and approve changes and formally documenting the changes (Rendon & Snider, 2008). There are three types of contract changes, namely: unilateral, bilateral and constructive changes. Unilateral changes occur when the contracting officer issues a change without requiring any consent from the contractor. Such unilateral changes, which often are administrative changes, such as a change in point of contact details and do not involve any monetary adjustment, are stated and legalized in the contract. Bilateral changes, on the other hand, require both the contractor and contracting officer to agree on the changes including changes on terms, specifications, schedule and cost. Bilateral changes are not contractually binding until the authorized personnel of both the contractor and organization have formally incorporated the change. Constructive changes are informal agreements between the contractor and unauthorized official without complying with the proper legal and regulatory procedures. Such unauthorized commitments include work that is often beyond the scope of the contract such as accelerated delivery schedule and additional work. Effective contract change management serves to prevent the occurrence of such constructive changes.

## **6. Contract Closeout/Termination**

Contract closeout is the last phase of the procurement process. In the contract closeout phase, a contract can either be successfully completed or suffer a termination under default or convenience (Rendon & Snider, 2008).

### ***a. Contract Termination***

A contract may be terminated when the contractor defaults on the contract or when the government organization decides to cancel the requirement prematurely for any reason other than the contractor's default. The former is known as contract termination for default, while the latter is known as contract termination for convenience. Every government contract contains a clause on contract termination for default which gives the government the right to terminate the contract unilaterally, in part or in whole, if the contractor defaults on the contract. In such a termination, the contractor, besides not being paid for any work in progress, is often required to pay any excess re-procurement costs. The default contractor will also receive a poor past-performance assessment from the government organization. Under termination for convenience, the contractor is entitled to a negotiated settlement for the work done and a reasonable profit (FAR, 2013, §49).

### ***b. Contract Closeout***

Contract closeout occurs when the contractor completes the contract. The closeout process includes activities such as final acceptance of goods and services, final payment and documentation of the contractor's past performance report. The extent of effort involved in contract closeout depends on the size and complexity of the contract itself. For a small and simple contract, contract closeout is generally straightforward. However, for a high dollar value and complex contract, which involves progress payments or termination issues, the procurement officer has to ensure that the contract is properly closed out. Typically, the contract is considered completed when (FAR, 2013, §4.8):

- the contractor has completed the deliveries and performed all of the services and the government has accepted the goods and services;
- all of the optional requirements (if any) have expired;
- the government organization has given the contractor a notice of complete contract termination, and
- the government organization has ensured that all of the contractual obligations are fulfilled and that the post-sales support and services (such as warranties) are clearly defined.

Thus far, this chapter has discussed the six phases of the public procurement process. An effective procurement is not achieved by simply following the six phases of the procurement process. It requires proper internal controls to be incorporated into the procurement process. In the next section, a review of the literature covering the internal control components in the public procurement process is presented.

### **C. INTERNAL CONTROL COMPONENTS**

A good internal control system is a key factor in helping organizations achieve its goals and missions and reduces operational problems or risks such as potential fraudulent activities (Government Accountability Office (GAO), 1999). An organization's success is dependent on its familiarity with the nature of risks that may occur in the environment and the enterprise itself, as well as by the adequate risk management. In the past, the concept of internal control was focused on accounting controls with respect to safeguarding assets and reliability of financial records. However, with rapidly changing economic and competitive environments, the scope of internal controls has expanded beyond the accounting arena. Today, internal control is viewed as "a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance" (Committee of Sponsoring Organizations of the Treadway Commission (COSO), 2013, p. 3).

For example, to improve its internal control systems to combat potential fraud, waste and abuse, the U. S. Office of Management and Budget (OMB) issued OMB Circular A-123 entitled "Management's Responsibility for Internal Control" (OMB,

2004), and Congress enacted the Federal Managers Financial Integrity Act (Heim & Steinberg, 1984). An internal control system is also viewed as the first line of defense against fraudulent activities (Staats, 1980). One of the most widely-recognized and used models which presents good internal control practice is the COSO model, defined by the Committee of Sponsoring Organizations of the Treadway Commission. In fact, OMB's standards of internal control systems are identical to those used by COSO. OMB Circular A-123 requires that every federal agency develop and maintain internal controls that align with the COSO model (Candrea, 2006; OBM, 2004).

In addition, GAO is in the process of revising the standards for internal control in the federal government by incorporating the new COSO internal controls standards which were updated in 2013 (GAO, 1999; GAO, 2013; COSO, 2013).

The COSO, which was formed in 1985, is a joint initiative of five private sector organizations, namely the Financial Executives International, the American Institute of Certified Public Accountants, the American Accounting Association, the Institute of Internal Auditors and the Institute of Management Accountants. COSO's mission is to provide "thought leadership through the development of comprehensive frameworks and guidelines on enterprise risk management, internal control, and fraud deterrence designed to improve organizational performance and governance and to reduce the extent of fraud in organizations" (COSO, 2008, p. 1).

With the intention of developing frameworks to provide guidance to organizations in their development and maintenance of systems of internal control effectively and efficiently, this led to the publication of the COSO model in 1992, and its subsequent amendments in 1994 and 2013, titled *Internal Control—Integrated Framework*. According to the COSO's Internal Control Framework, there are five integrated components, namely control environment, risk assessment, control activities, information and communication and monitoring activities (COSO, 2013). In the following section, a literature review is presented covering the key concepts and objectives of the COSO's Internal Control Framework that sets the foundation of internal control standards. The following section also discusses each of the five components including the fundamental principles supporting each of the five components.

## **1. Key Concepts of COSO's Internal Control Framework**

- Internal control directs the organization towards the achievement of objectives in one or more separate but overlapping categories to include operations, reporting and compliance.
- Internal control is a process. It is not a single, separate event but a chain of continuous actions and activities taking place throughout the entire organization's operations. Internal control is vital to the organization in achieving its objectives and should form an integral part of the organization's system to control and guide its operations (GAO, 1999; COSO, 2013).
- Internal control is implemented by people as it is people who make internal controls work. Managers are responsible for establishing good internal controls within the organization. Managers establish the objectives, devise and put in place the appropriate control measures and subsequently, keep track and measure the effectiveness of internal controls. Internal control is not just about policy, procedure manuals, systems, and forms. Internal control is about the people at every level of an organization. The people at every level in the organization play an important role in making internal control systems work.
- Internal control provides reasonable (not absolute) assurance in meeting an organization's objectives. An effective internal control system should be designed and implemented on the basis of cost and benefits. Regardless of how robust the internal control system is designed and implemented, internal control does not provide a total and complete guarantee that the organization's objectives will be met. Factors such as human error and errors in judgment that are beyond management's control can disrupt the organization's effort in achieving its objectives (GAO, 1999; COSO, 2013).
- Internal control is flexible and should be adjusted depending on the organization's structure, management's decisions, and legal or regulatory requirements.

## **2. Objectives of the COSO Internal Control Framework**

The COSO framework is designed to provide reasonable assurance for three distinct but overlapping categories of objectives. The purpose of this design is to allow organizations to have a directed focus on differing aspects of internal controls to meet their separate needs. These objectives include:

***a. Operation Objectives***

Operation objectives focus on the “effectiveness and efficiency of the entity’s operations, including operational and financial performance goals, and safeguarding of assets against loss” (COSO, 2013, p. 3).

***b. Reporting Objectives***

Reporting objectives focus on the reliability, timeliness, and transparency of financial and non-financial reporting (both internal and external) (COSO, 2013, p. 3).

***c. Compliance Objectives***

Compliance objectives focus on compliance with applicable laws and regulations to which the organization is required to adhere (COSO, 2013).

**3. Five COSO Internal Control Components**

Internal control components are standards that support an organization in more effectively handling changing economic and competitive environments, evolving business models, and managing risk. COSO’s Internal Control Framework consists of five components resulting from the way management runs a business and integrates internal controls within the management process. The five components serve as a general framework to provide guidance to management in their effort to develop policies, procedures and practices that are appropriate for their operations (GAO, 1999; COSO, 1992; COSO, 2013). These components, when combined and operating together, represent the minimum level of quality standards required by an organization to achieve their objective. At the same time, they provide the standards upon which a system of internal controls is to be measured. The five internal control components include those described in the following subsections.

***a. Control Environment***

The control environment represents the “atmosphere in which members of the organization carry out their control activities and responsibilities” (Godwin, 2010, p.

91). A positive control environment of an organization can be considered the basis for the success of achieving all the other internal control components as well as the success of achieving the organization's objectives (COSO, 1992; GAO, 1999; COSO, 2013). The control environment is defined as "the set of standards, processes and structures that provide the basis for carrying out internal control across the organization" (COSO, 2013, p. 4). The management of the organization sets the tone at the organization depicting the importance of internal control including the expected ethical behavior for the entire organization (COSO, 1992; COSO, 2013). The internal control environment comprises the code of ethics and conduct of the organization, management's philosophy and operating style, the organizational structure, area of authority, and reporting lines of authority and responsibility. In addition, it also includes human resource policies and practices to attract, develop, and retain competent individuals, commitment to competence through performance measures, incentives and rewards to drive accountability for performance, and oversight groups (COSO, 1992; COSO, 2013).

Management's proper behavior, which displays integrity and ethical behavioral values, plays a key role in setting the organization's ethical tone and provides guidance to staff for proper behavior and deters potential unethical behavior (GAO, 1999). Management must also be committed to competence through performance measurements and incentives and rewards to drive accountability for performance by all staff members. Management must ensure that all staff members possess the right level of competency and skill-set to complete the work that they are assigned and provide any needed training. Management's philosophy and operating style has a significant impact on the environment of the organization as it determines the degree of risk the organization is prepared to take. In particular, management's beliefs and viewpoints towards information technology, monitoring, audits and evaluations can have a significant effect on the control environment component. An organization needs to have a formal structure that defines key areas of authority, lines of responsibility and lines of reporting. The organization must have good human resource policies and practices that are able to attract, develop, and retain competent individuals. Lastly, the organization needs to establish relationships with oversight groups such as Congress and OMB so as to

enable them to carry out their governance oversight responsibilities, which can contribute to a good overall control environment (GAO, 1999).

***b. Risk Assessment***

Risk assessment is the process of determining the likelihood that a specified risk will occur and the possible adverse impact on the achievement of objectives. Prior to risk assessment, objectives, which are connected at different levels of the organization, have to be established first. The risk assessment component is an ongoing iterative process that is often integrated into the planning process and consists of identifying and analyzing risks that could adversely impact the organization and prevent it from achieving its objectives. For example, it is necessary to repeatedly ask what threats could prevent the organization from achieving its operational goals until all threats are identified. After the risk has been identified, management is expected to assess the probability of its occurrence, determine the acceptable level and then define a strategy and its associated activities in order to maintain the desired risk level. Therefore, risk assessment requires management to consider on a regular basis the effect of possible changes in the internal and external environment that may potentially reduce the internal control effectiveness. If any changes that may negatively impact internal control effectiveness are identified, management must revise the strategy and the system of internal control in order to maintain the desired risk level (COSO, 1992; COSO, 2013).

***c. Control Activities***

Control activities are the standards, policies, procedures, and rules that the organization has put in place to address the risks identified under the risk assessment section and to keep risks to an acceptable level. Control activities occur throughout the organization at all levels and in all functions. Control activities can be in the form of a preventive or corrective nature. Some common control activities adopted by organizations include (GAO, 1999):

- (i) conduct top level and functional level reviews of actual performance against established goals and objectives;
- (ii) manage human resources effectively to ensure that the staff possesses the required skills to accomplish the work that is

assigned to them. Otherwise, training needs to be provided. Effective management also includes establishing good human resource policies and practices to attract, develop, and retain competent individuals and having an effective reward system to reward competent individuals;

- (iii) ensure physical control and safeguard of vulnerable assets such as cash, inventories, and essential equipment that have an impact on the business continuity;
- (iv) incorporate segregation of duties rules throughout the organization to deter fraud and inappropriate actions. Segregation of duties restricts any one staff member from having complete control of an entire purchase.

The organization also needs to put in place control activities for information systems. The two main groups of information systems control are general control and application control. General control applies to all information systems. The common control activities include back-up and recovery procedures, contingency and disaster planning to ensure business continuity, control over inappropriate access and unauthorized use by hackers or staff, and control for development of new systems. (COSO, 1992)

Application control, on the other hand, applies to the processing of data within the application software (COSO, 1992). Effective application control assures the comprehensiveness, accurateness, legitimacy, and soundness of all data or transactions during the application processing (GAO, 1999). General control and application control are tightly coupled as the effectiveness of general control can influence the effectiveness of application control. Therefore, both controls are required to work hand-in-hand to ensure complete and accurate information processing. (COSO, 1992) For example, if general control is lacking, the application control will not be able to work properly. Due to the rapidly changing nature of information technology, information systems control must also progress to stay effective (GAO, 1999).

#### ***d. Information and Communication***

Information is necessary for the organization and should be properly recorded and communicated to the right person at all levels, both internally and externally, in the right form and at the right time. With this, the people concerned will be

able to adequately perform their internal control responsibilities to support the achievement of its objectives (GAO, 1999). Information systems play a key role in internal control systems as they produce reports, including operational, financial and compliance-related information for management and staff so that they are able to run and control the organization. Management uses the relevant and valuable information from these reports to support organizational operations and the decision-making process, as well as the functioning of other internal control components. Organizations require effective communication to ensure that information flows in a timely manner to all in the organization, both vertically and horizontally. Effective communication should also be ensured with external parties, such as customers, suppliers, regulators and shareholders who have a significant impact on the organization's effort in achieving its goals. Another criterion for effective communication is the ongoing process of providing, sharing and obtaining necessary information. Relevant, reliable and up-to-date information and effective communication enable management to make informed decisions (COSO, 1992, COSO, 2013). Hence, organizations need to ensure that accurate, relevant, and up-to-date information be identified, captured, and exchanged (communicated) in a timely manner to enable the accomplishment of an organization's objectives. In addition, as management communicates policies or information to staff and external parties, they also learn whether the internal controls are working as intended (GAO, 1999).

*e. Monitoring Activities*

Monitoring activities tie the other four internal control components together. Monitoring activities, which can be ongoing and/or separate evaluations, are used to determine whether “each of the four components of internal control, including controls to effect the principles within each component, is present and functioning” (COSO, 2013, p. 5). Monitoring activities enable management to detect changes and deficiencies in the other components. Ongoing evaluations, which are built into business processes, provide well-timed information and assessment of the design and operation of internal controls. Separate evaluations, on the other hand, with varying scope and frequency which are dependent on risk assessment and effective ongoing evaluations, provide the information and assessment of the quality of internal control performance.

Effective monitoring requires that any internal control deficiency detected during the evaluation be reported upstream and that policies and procedures are in place to ensure that deficiencies are promptly resolved. Effective monitoring activities should also include monitoring of risks, measuring the effectiveness of the treatment of risks on a regular basis and taking corrective actions when needed to ensure continuous improvement of the system. Therefore, monitoring activities require management to monitor the effectiveness of an internal control system on a regular basis. In the event that internal control activities are found by managers, staff or oversight committee to be ineffective at adequately addressing the identified risk, there would be a need to communicate the findings to management and take the necessary corrective action on the internal control system to address the risk in order to maintain the desired risk level (COSO, 1992; COSO, 2013).

#### **4. Fundamental Principles Supporting Internal Control Components**

Drawing on and summarizing from the discussion of COSO's five internal control components in this section, 17 fundamental principles were established as shown in Figure 1 (COSO, 2013). These principles, which illustrate the basic concepts associated with each component of internal control, are used to assess whether the five components are present and functioning.

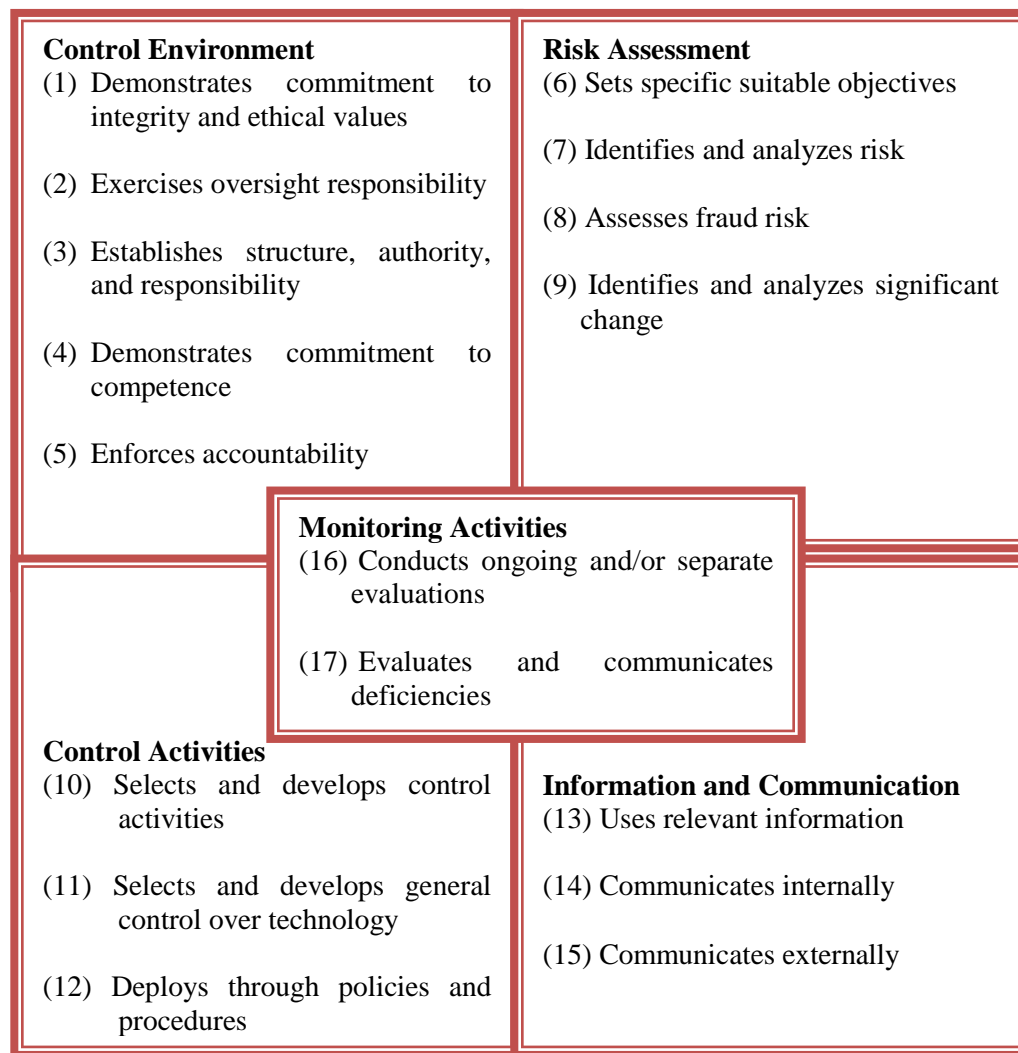


Figure 1. COSO's 17 Fundamental Principles. Adapted from COSO, 2013.

In the previous two sections, the six phases of the public procurement process and COSO's five internal control components, including the relevant principles, were discussed and presented. An effective internal control system is essential to the success of the procurement process. The lack or absence of an effective internal control system is often the root cause of procurement fraud and is discussed in the next section, which defines and differentiates types of procurement fraud.

## **D. DEFINING AND DIFFERENTIATING TYPES OF PROCUREMENT FRAUD**

### **1. Fraud Definition**

*Black's Law Dictionary* (1979) defines fraud as:

All multifarious means which human ingenuity can devise, and which are resorted to by one individual to get an advantage over another by false suggestions or suppression of the truth. It includes all surprise, trick, cunning or dissembling, and any unfair way by which another is cheated.

There is, however, no standard definition for fraud as it varies from dictionary to dictionary. ACFE defines occupational fraud and abuse as “the use of one’s occupation for personal enrichment through the deliberate misuse or misapplication of the employing organization’s resources or assets” (Wells, 2008, p. 8; ACFE, 2013, p. 6). Some define fraud as a crime of getting money by deceiving people (Cambridge Dictionaries Online, 2013). Others define fraud as “an act or course of deception, an intentional concealment, omission, or perversion of truth, to gain unlawful or unfair advantage, induce another to part with some valuable item or surrender a legal right, or inflict injury in some manner” (BusinessDictionary.com, 2013). Fraud is a broad term, and despite the different definitions, fraud essentially refers to a variety of wrongful or criminal offenses that always involve some sort of dishonest act. A person’s main impetus to commit fraud is to obtain something that is of value (in the form of money or other valuables such as jewelry, property, valuable assets, etc.) by lying, cheating, or tricking someone into thinking something that is false.

The conditions that enable people to commit fraud are best explained by the fraud triangle. It consists of three elements, namely motive (the need for committing fraud, such as in need of money which is often unshareable), perceived opportunity (the situation that allows fraud to occur, such as when internal controls are weak or lacking) and rationalization (the fraudster’s perceived justification that committing fraud is morally acceptable) (Wells, 2008; ACFE, 2013). Fraudster refers to a person who commits fraud. As these three elements are often present in every fraud incident, the key to deterring fraud is to remove any one of the three components in the fraud triangle

(ACFE, 2013). Of the three elements, opportunity is most directly affected by the system of internal controls; therefore, removing opportunity will provide the most direct and effective tool to fraud deterrence (Cendrowski, Martin, & Petro, 2006).

## **2. Differentiating Types of Procurement Fraud**

Procurement fraud is becoming an increasingly common problem globally as most international fraud cases are somehow linked to the procurement process through bid manipulation or bid rigging in order to manipulate contract awards to a particular favored supplier. Procurement fraud is defined as an intentional deception to negatively influence any stage of the procurement process so as to make a financial gain or cause a loss to the organization (University College London, 2013). Procurement fraud is a complex problem that can occur in any phase of the procurement process of a product or service. It can be committed by an outside supplier, by an employee, or by a few employees working together within the organization (ACFE, 2013). It involves a wide range of fraudulent acts from a need recognizing scheme, solicitation irregularities and bid rigging during the pre-contract award phase to falsifying invoices for claims of goods and services that are either not delivered or not meeting contract specifications in the post-contract award phase (ACFE, 2013). Procurement fraud comes in many forms, and it can be described and categorized in many different ways. In this section, procurement fraud is categorized into two main groups: procurement fraud that involves employees and procurement fraud that need not involve any employees meaning that the contractors collude among themselves.

### ***a. Collusion between Employees and Contractors***

Procurement fraud often involves internal procurement staff such as an employee or employees working together, colluding with an outside supplier to deceive the employer in exchange for personal benefits such as kickbacks, bribes, gifts or other benefits. The common types of such collusion between employee(s) and suppliers include a need recognition scheme, bid tailoring, bid manipulation, bid splitting, unjustified sole source award, and conflicts of interest (ACFE, 2013).

(1) Need Recognition Scheme. A need recognition scheme occurs when the employee(s) colludes with a supplier by recognizing a need for a particular product or service that is unnecessary and that could only be purchased from the supplier or fulfilled by the supplier. In exchange, the employee receives a gratuity or kickback (ACFE, 2013).

(2) Bid Tailoring. A bid tailoring scheme occurs when the employee, with sufficient influence over the product specification or service scope of work, colludes with a supplier to tailor the bid specifications so as to give an unfair advantage to the supplier. The various methods of committing a bid tailoring scheme include drafting narrow specifications, broad specifications, vague specifications and change order abuse. Drafting narrow specifications accommodates a specific supplier's capability and disqualifies other competitors, which guarantees that the favored supplier will win the contract. Drafting especially broad specifications, on the other hand, is to intentionally qualify an otherwise unqualified supplier. Drafting vague specifications is to intentionally overlook certain specifications so that the contractor can increase the contract price through subsequent contract variation. In a change order abuse scheme, a supplier submits a low bid to ensure the contract award, with the assurance from the employee that contract change order(s) will be effected during the course of the contract to compensate for the low bid (ACFE, 2013).

(3) Bid Manipulation. A bid manipulation scheme occurs when the employee manipulates the bidding process to give an unfair advantage to a favored supplier. Basically, a bid manipulation scheme attempts to influence the source selection process by limiting the pool of competitors from whom bids are sought. Some common ways to commit this scheme include opening bids in too early, calling solicitations during public holidays, leaking pertinent information to the favored supplier in advance and shortening the solicitation time for submitting bids so that only the favored supplier with the advance information has adequate time to prepare a comprehensive bid (ACFE, 2013).

(4) Bid Splitting. A bid splitting scheme occurs when a large project is split into smaller procurements so that the total dollar value of each contract stays under the threshold for competitive requirements. The result is that it facilitates

sole source or less competitive contract awards to a favored supplier rather than through the process that would produce the lowest or best price. Bid splitting is also used to avoid higher level signature or approval to facilitate other schemes (ACFE, 2013).

(5) Unjustified Sole Source Awards Scheme. An unjustified sole source award scheme is often used to avoid competition and award contracts directly to a favored supplier. Such awards can be accomplished by ignoring competitive bidding requirements, falsifying sole-source justification or by splitting requirements to avoid competitive bidding thresholds. In such a case, the price payable by the buyer is often higher than what the buyer could have obtained through competitive bidding, which is designed to produce the lowest or best price (ACFE, 2013).

(6) Conflict of Interest. A potential conflict of interest occurs when employees, often holding a position of authority and trust, have a personal interest that is in conflict with their official responsibilities. Such employees may make decisions in their job that give preference to a company in exchange for personal benefit to themselves or their families. For example, an employee who is the purchasing approving authority approves the contract award to an unqualified company in exchange for gifts from the company or a future employment (usually with very attractive remuneration) by the company for themselves or their families (ACFE, 2013).

***b. Employees Acting Alone***

Another form of fraud involving employees is committed without any involvement of an outside supplier. The common types of this fraud include false accounting scams such as a shell company scheme as well as conflicts of interest (AFCE, 2013).

(1) Shell Company Scheme. A shell company scheme occurs when an employee or group of employees working together establish a shell company account in the company's procurement systems so as to steal from the employer via fraudulent contracts, invoices, and/or payments. Typically, a shell company scheme involves the provision of fictitious services rather than the purchase of fictitious goods as it is more difficult to verify that the services have not been performed. However, there is another sub-category of the shell company scheme which involves the purchase of goods

known as a pass-through scheme. In a pass-through scheme, instead of buying the goods directly from the vendor, the employee sets up a shell company to buy the goods for the organization. The employee then resells the goods from the shell company to the organization at an inflated price (ACFE, 2013).

(2) Conflicts of Interest. As described earlier, a potential conflict of interest occurs when employees make job-related decisions that give preference or favor to a company in exchange for personal benefit to themselves or their families. However, such conflicts of interest can also be committed by the employee alone with no supplier involvement. For example, an employee awards a contract to an unqualified company where the employee holds a significant amount of shares of that company or where the employee's family member is an employee of that company. For the latter example, awarding the contract to the company may assure the survivability of that company, which will indirectly secure the employment of the employee's family member with that company (ACFE, 2013).

*c. Collusion among Contractors or Contractor Acting Alone*

Another main group of procurement fraud is committed by contractor(s) with no involvement of internal procurement staff. Often, competitors of the same industry may collude to defeat competition and to inflate the prices of goods and services artificially (ACFE, 2013). A common type of this procurement fraud is bid rigging. Another example of procurement fraud committed by a contractor acting alone is product substitution (ACFE, 2013).

(1) Bid Rigging. Bid rigging is a form of price fixing whereby competing companies coordinate their price proposals (OECD, 1993). It occurs when competing companies collude so that a competing company can secure a contract for goods or services at a pre-agreed price. Almost all forms of bid-rigging schemes have one thing in common: an agreement among some or all of bidders which predetermines the winning bidder and limits or eliminates competition. Bid rigging limits or eliminates true competition, as it predetermines the winning company, and the rigged price will be unfairly high. There are five common types of bid rigging: bid suppression, complementary bidding, bid rotation, market division and subcontracting, which are

described in the following paragraphs (ACFE, 2013; Office of the Connecticut Attorney General, 2009).

(2) Bid Suppression. Bid suppression occurs when some of the “competing” companies agree not to submit a bid so that another company can win the contract (ACFE, 2013).

(3) Complementary Bidding. Complementary bidding, on the other hand, occurs when some of the “competing” bidders agree to submit bids that are intended not to be successful, so that another conspiring company can win the contract. For example, some of the “competing” bidders submit offers that they know the buyer will reject because the price is too high or the terms are unacceptable in order to create a perception of legitimate bidding while ensuring that a pre-arranged “competitor” will win the bid (ACFE, 2013).

(4) Bid Rotation. Bid rotation refers to the practice of competitors taking turns to win a contract award. Each conspiring company is designated to be the successful bidder on certain contracts, while other conspiring companies are designated to win other contracts. Bid rotation is, in effect, a form of market allocation where competitors are entitled to their “fair share” of the total business without having to truly compete with others for that business. Like subcontracting arrangements, bid rotation schemes are often employed in combination with bid suppression. For example, company A might agree to submit a high bid that is sure not to win the job in order to let company B win the job at a higher price. In exchange, company B will agree to do the same at the next offering. This enables company A and company B to effectively take turns to win the contract, while giving the impression of legitimate competitive bidding. The result is that both companies are able to charge more for their services. The buyers will lose the benefit of true competitive bidding, and the price payable by the buyers will often be higher than the buyer could have obtained through true competitive bidding (AFCE, 2013).

(5) Market Division. Market division schemes are agreements among competing firms whereby the competitors divide the market among themselves. In such schemes, the competitors basically divide the market according to geographic area or based on type of customers. In the agreement, the competitors agree not to

compete against each other's designated portion of the market. The result of these schemes is that the competing firms will either not bid against each other, or they will submit intentionally high prices to bid solicitations in a geographical area that is not allocated to them. In such cases, the buyer will lose the benefit of true competition and end up paying a higher price than the buyer would have obtained through true competitive bidding (ACFE, 2013).

(6) Subcontracting Fraud. Subcontracting fraud occurs when one company gets awarded a contract and then awards subcontracts to the other conspiring companies in exchange for not submitting a winning bid. Similar to other bid rigging frauds, such subcontracting arrangements cause the buyer to lose the benefits of true competition and end up paying a higher price than the buyer would have obtained through true competitive bidding (Office of the Inspector General, 2013).

(7) Delivering Sub-Standard Goods (Product Substitution). Another form of fraud, which is committed by a contractor acting alone, occurs when the contractor delivers goods of inferior quality. Often some parts of the goods were mislabeled so as to cover up the sub-standard nature of the goods (Grant & Eisenhofer, P.A, 2013).

With the knowledge gained from the previous three sections concerning the six phases of the procurement process, COSO's five internal controls components and the various types of procurement fraud, the next section will discuss the application of the COSO internal control components in the procurement process so as to maintain the integrity of the procurement process and protect public resources against procurement fraud.

## **E. APPLICATION OF COSO INTERNAL CONTROL COMPONENTS IN THE PUBLIC PROCUREMENT PROCESS**

According to ACFE (2013), "The perception of detection, not internal control, per se, is arguably the strongest deterrent to fraud" (AFCE, 2013, p. 1.205). People who think that fraudulent acts will be detected often will be discouraged from committing the acts. Therefore, a strong, thorough and functioning internal control system is essential for fraud prevention. As discussed in the previous section, there are 17 fundamental

principles associated with the five COSO internal control components. These principles can be used to assess whether the five COSO internal components are in place and functioning effectively. The application of each of the 17 principles in the procurement process is discussed in the following subsections (COSO, 2013).

## **1. Control Environment**

### ***a. Principle 1: Organization Demonstrates Commitment to Integrity and Ethical Values***

Management, when establishing and setting the ethical tone of the organization, must be committed to minimizing procurement fraud. For example, organizations such as the U.S. federal government and National Contract Management Association (NCMA) have established codes of ethics as shown in Appendix A and Appendix B, respectively, that define the acceptable ethical behavior that their employees are required to uphold. ACFE has also established a code of ethics as shown in Appendix C to which all certified fraud examiners are required to adhere. Effective control starts from the top management level. Unless management leads by example to demonstrate their firm commitment to safeguard procurement integrity and uphold ethical values, employees are not likely to commit to or comply with the ethical code and standards. For example, when every employee and contractor is required to read and sign the established code of ethics, management must show its commitment by signing the code and be seen doing so (COSO, 1992; ACFE, 2013; COSO, 2013).

### ***b. Principle 2: Exercises Oversight Responsibility***

An auditor must be given the power and mandate to perform their oversight responsibilities independently. For example, in the U.S. Government, the Government Accountability Office (GAO), the Department of Defense Inspector General (DoD IG) and the Defense Contract Audit Agency (DCAA) are the three independent and objective auditing agencies that perform audits on DoD contracts. GAO works for Congress, and they support congressional oversight by auditing federal government contracts and investigating allegations of illegal and improper activities including

procurement fraud (GAO, 2013). The DoD IG, on the other hand, works for the Secretary of Defense, and their main task includes acting as the chief advisor to the Secretary of Defense on matters relating to DoD fraud as well as conducting audits on DoD contracts and investigations to combat fraud (DoD IG, 2013). The DCAA is under the direction of the Under Secretary of Defense (Comptroller) and is responsible for auditing all DoD contracts (DCAA, 2013). Similarly in the Singapore government, the Auditor-General's Office (AGO) is the "national auditor" that reports directly to the President of Singapore and parliament, and its primary responsibility is to audit the Government, Statutory Boards and other bodies managing public funds. These agencies have a commonality in that they have the independent authority to conduct audits and investigations so that they can adequately perform the necessary governance and oversight responsibilities (AGO, 2013).

*c. Principle 3: Establishes Structure, Authority and Responsibility*

The procurement organization's structure, which includes areas of authority and line of reporting and responsibility, is a critical part of the procurement function because, without it, the organization cannot control the flow of procurement activities. Organizations are often faced with questions such as: To what extent is procurement centralized or decentralized? To what extent is decentralized procurement affecting the implementing of effective control management? What is the appropriate reporting line? Is the level of authority and responsibility properly assigned? Who is involved in the procurement? Do the levels of procurement skills match the procurement portfolio? Depending on the organization's needs and the level of risk that it is prepared to take, its procurement office can generally be organized into three structures, namely, centralized, decentralized or a hybrid model, and each structure has its own advantages and disadvantages.

In a centralized procurement structure, decision-making comes from the top, and its purchasing activities are handled by a central procurement group. A strong and effective centralized procurement team enables the organization to achieve better value through economies of scale by effectively consolidating spending across the organization. An important advantage of a centralized procurement structure is that it

encourages good transparency provisions such as effective management controls, efficient documenting of procurement contracts, and activities, clearer audit trails and knowledge sharing. Such transparency features enable purchases to be checked for evidence of procurement fraud or any illegal activities. The procurement employees of a centralized structure are also more easily trained, and are, therefore, more skillful and knowledgeable with the proper and efficient use of the procurement rules and regulations (COSO, 1992; COSO, 2013).

However, a centralized structure is more bureaucratic, and end-users are not able to enjoy the flexibility and speed that is possible from a decentralized structure. While decentralized purchasing is more flexible and responsive to the end-users' needs due to its informal reporting line and responsibility where decision-making happens at a lower organizational level, it is more difficult to ensure that efficient practices and policies are consistent and to achieve tight management control in this model, which may potentially create the opportunity for fraudulent acts. The inconsistencies in the purchasing process across various departments or business units become a challenge for organizations to have effective control management (COSO, 1992; COSO, 2013).

A hybrid model, in which some purchasing, such as usually the higher value and more complex purchases, is done at the centralized procurement team level and purchasing, such as the low value and simple purchases, is done at the respective departmental level, may be considered. A survey conducted by Johnson and Leenders (2004) in the U.S. and Canada included 67% of the 287 respondents from large international organizations and showed that organizations are moving towards the hybrid structure (Johnson & Leenders, 2004). The hybrid structure enhances the organization's leverage through economies of scale, and at the same time, improves the service level to the end-users. Many organizations embarking on a goal-driven performance optimization strategy are delegating more authority and responsibility to front-line managerial levels. However, it is important for organizations to ensure that responsibility and accountability are delegated only to qualified and ethical procurement staff employees and are given the ability and authority to respond accordingly to changing priorities of the organization. Delegation also means turning over the management control to a lower managerial level,

so it is important that organizations only delegate to the extent of achieving the objectives (COSO, 1992; COSO, 2013).

*d. Principle 4: Demonstrates Commitment to Competence*

Organizations must show commitment to attract, develop and retain competent and ethical procurement professionals in alignment with the organization's objectives (COSO, 2013). One of the easiest ways to establish a strong and moral tone in the organization is to hire morally sound procurement employees. The hiring process of employees who hold corruption prone positions, such as the procurement staff, should be conducted in a more thorough manner, including detailed background checks and interviews to ensure that they have adequate skills and the right moral mindset to perform the duties. In the context of procurement, employees holding corruption prone positions refer to employees, such as contracting officer, program manager, and COR, involved in the acquisition process as they are more prone to the risk of committing fraud. Next, organizations need to ensure that these qualified and ethical employees, who are sometimes placed in ethical dilemmas, strive to perform their job without resorting to fraudulent acts.

Therefore, well-defined job descriptions and achievable performance goals must be communicated to the employees. Performance goals should also be constantly reviewed to ensure that they are not unrealistic. Regular training and re-training of the procurement staff on effective procurement techniques and ethical behavior is also important to improve the employees' procurement professionalism and ensure that they maintain the skills to perform effectively. The procurement staff must also be trained and kept current on the organization's policies and procedures regarding how to respond when faced with ethical dilemmas and to emphasize the importance of behaving ethically at work. The standards in hiring qualified and ethical employees and the training policies established show commitment by the organization in attracting and developing competent and ethical people. Finally, rewarding outstanding performance and ethical conduct through advancement and better remuneration packages based on performance appraisals shows that the organization is committed to retaining competent and ethical employees.

It is also important to ensure that the remuneration package of a public procurement professional is competitive with the private sector (COSO, 1992; COSO, 2013).

*e. Principle 5: Enforces Accountability*

It is important that organizations ensure that employees are held accountable for their internal control responsibilities. Sufficient punishment for procurement fraud or illegal conduct is obviously a critical element to an effective internal control environment. A well-defined set of disciplinary measures must be established and communicated effectively to all employees, and it must apply to anyone who is found guilty of fraud or corruption. Such consistent disciplinary measures will enhance the credibility of the organization and deter people from committing fraudulent acts (COSO, 2013).

**2. Risk Assessment**

*a. Principle 6: Specifies Suitable Objectives*

The organization should specify clear objectives to facilitate the identification and assessment of risks relating to objectives (COSO, 2013). In setting objectives, an organization must establish a mission statement which spells out the organization's goals and guides its actions and decision-making and links to all activities throughout the procurement process and organization. An effective mission statement not only consists of the purpose statement, but more importantly, it explains the value statements that the members of the organization must uphold and practice throughout the procurement process. Value statements guide and motivate the employees in performing their procurement work ethically. Examples of values include a commitment to honesty, integrity, and transparency, and so on. A mission statement should be challenging but achievable and measurable. For example, the objective of procurement activities within the government organization is to achieve timely acquisition of goods and services based on the guiding principles of fairness, transparency, integrity and value for money to meet the organization's overall needs. Finally, mission statements, once established, must be well communicated to the procurement staff (COSO, 1992; COSO, 2013).

***b. Principles 7 and 8: Identifies and Analyzes Risks (including Fraud Risk)***

The organization should identify risks including potential for fraud that might keep the organization from achieving its objectives and analyze risks, including fraud risk, so as to decide how the risk should be managed (COSO, 2013). Risk can be categorized as internal, such as project complexity, inadequate project planning and fraud, and external risks, such as technology changes, weather and economic conditions (COSO, 1992; COSO, 2013). There is risk in every phase of the procurement process, with certain risks having a potentially greater impact on the organization's objectives. Therefore, organizations must ensure that the risk identification and analysis process is a comprehensive and ongoing iterative process. Table 1 summarizes some of the typical risks and possible fraud vulnerabilities in each procurement phase (ACFE, 2013; Office of the Inspector General, n.d.):

| <b>Procurement Process Phase</b> | <b>Typical Risks and Possible Fraud Vulnerability</b>  |
|----------------------------------|--|
| Procurement Planning             | <ul style="list-style-type: none"> <li>• Need Recognition Scheme</li> <li>• Bid Tailoring</li> <li>• Inadequate Market Survey</li> <li>• Inadequate Project Planning</li> </ul>  |
| Solicitation Planning            | <ul style="list-style-type: none"> <li>• Inappropriate Procurement Method</li> <li>• Inappropriate Contract Type</li> <li>• Use of Inadequate or Inappropriate Evaluation Criteria</li> <li>• Inadequate Consideration of Special Terms and Conditions</li> <li>• Unjustified Sole Source Award Scheme</li> <li>• Bid Manipulation</li> <li>• Bid Splitting</li> </ul> |
| Solicitation                     | <ul style="list-style-type: none"> <li>• Bid Manipulation</li> <li>• Bid Rigging</li> <li>• Subcontracting Fraud</li> <li>• Insufficient Bids Received</li> <li>• No Response From Potential Suppliers</li> </ul>  |

|                         |  |
|-------------------------|--|
| Source Selection        | <ul style="list-style-type: none"> <li>• Conflict of Interest</li> <li>• Failure to Comply With Established Evaluation Criteria</li> <li>• Selection of Unqualified Contractor</li> <li>• Failure to Negotiate a Reasonable Contract Price and Terms and Conditions</li> <li>• Insufficient Budget</li> </ul>  |
| Contract Administration | <ul style="list-style-type: none"> <li>• Cost Overrun</li> <li>• Fluctuation of Foreign Exchange Rate</li> <li>• Schedule Delay</li> <li>• Contractor Failing Acceptance Test Repeatedly</li> <li>• Delivery of Sub-Standard Goods (Product Substitution)</li> <li>• Unable to Reach Agreement on The Negotiated Settlement</li> <li>• Shell Company Scheme</li> </ul> |
| Contract Closeout       | <ul style="list-style-type: none"> <li>• No Proper Closeout</li> </ul>   |

Table 1. Examples of Typical Risks and Fraud Vulnerability in Procurement Process.  
Adapted from Office of the Inspector General, n.d.

These risks bring about consequences such as limited competition, higher acquisition cost, delivered goods and services not meeting the user's requirements, inability to enjoy economies of scale and damage of an organization's reputation and image due to improper use of public fund and resources. After identifying the risks, organizations should analyze the significance of each risk and probability of the risk occurring for the purpose of determining how the risk could be managed. A risk that does not have a significant impact on the organization and has a low probability of occurring may not warrant serious concern. However, a risk that has a significant impact on the organization with a high probability of occurring will usually demand considerable attention by the organization (COSO, 1992).

***c. Principles 9: Identifies and Analyzes Significant Change***

The organization should identify and assess changes that could significantly impact the system of internal control to adequately manage the risk (COSO, 2013). Risk management involves developing the effective internal control targeted at a specific identified risk. Typically, organizations have four approaches to risk

management: mitigate it, transfer it, avoid it or accept it (Rendon & Snider, 2008). The best approach to managing risk such as fraud in general that has a significant impact on the organization but lower likelihood of occurring is to mitigate it by developing internal controls tailored to the specific risk. For risks, such as cost overrun, schedule delay and unjustified sole-source award scheme that have a high likelihood of occurring and a high significant impact on the organization, the best approach is to avoid them through effective internal controls. For example, to avoid risk such as an unjustified sole-source award scheme, an organization's strategy should restrict the circumstances whereby non-competition can be used.

However, in some situations, avoidance may not be feasible for risk with a high likelihood of occurring and significant impact on the organization. For example, the best approach to manage risk, such as exchange rate fluctuation, is to transfer it through currency hedging. Current hedging is a financial instrument to protect against currency exchange rate risk (Western Union Business Solutions, 2013). As for risk that has a low impact on the organization, the approach would be to either mitigate or accept it depending on whether it is cost-effective to bear the risk. However, considering the possible changes in the external and internal environment, risks that are assessed to have a low probability of occurrence or low impact on the organization today may not be true tomorrow. Thus, organizations should consider on a regular basis the impact of possible changes in the external and internal environment that may make an internal control ineffective, and when necessary, the organization should revise the strategy and the system of internal control so as to maintain the desired risk level (COSO, 1992; COSO, 2013).

### **3. Control Activities**

#### **Principles 10, 11 and 12: Selects and develops control activities and general control over technology, and deploys through policies and procedures**

The organization should select, develop and deploy policies and procedures to address the risks that are identified during the risk assessment phase, to an acceptable and desired level (COSO, 2013). Besides segregation of duties, some other common control

activities adopted by organizations to manage fraud risks in the procurement process include the conflict of interest rule, mandatory job rotation for procurement professionals, whistleblower systems, and regular training on the organization's code of ethics for procurement professionals. Employees are required to sign a statement that they have read and understand the code of ethics policies. Management must document all control activities in the procurement manual and ensure that all employees have access to it and that employees clearly understand the manual. Management must also conduct regular reviews of the effectiveness of the control activities and make the necessary changes where control failures are identified. With the widespread use of e-procurement to accelerate purchase approval and payment cycles, general controls are required over the procurement system to ensure that the system configuration is in compliance with the control activities. For example, under segregation of duties, the person who approves the award of purchases must not be the person who approves payment to the contractor. In this case, organizations need to establish control activities in the procurement system to prevent any unauthorized access by the person who approves the award of purchase to the payment module of the procurement system (COSO, 1992; COSO, 2013).

#### **4. Information and Communication**

##### **Principles 13, 14 and 15: Uses relevant information and communicates internally and externally**

The organization should obtain relevant, accurate and up-to-date information and communicate it effectively and promptly to managers, staff and external parties to support the achievement of its objectives efficiently and effectively (COSO, 2013). In the context of fraud prevention in the procurement process, pertinent information and effective communication are important to ensure that essential information, such as objectives, control activities and compliance information, is not buried within unnecessary information. Through timely and accessible communication, management ensures that all employees know the importance of observing and upholding the internal control rules, understand their roles in the internal control system, understand the organization's value statement and code of ethics and understand that internal control has a high priority as well as understand the disciplinary measures for violations of internal

controls (ACFE, 2013). Effective communication flows in all directions and at all levels within the organization (COSO, 1992; COSO, 2013). It is important that organizations provide an independent hotline for employees or external parties to report to someone in authority about alleged dishonest activities or misconduct taking place in the organization. Employees and the public who might want to report a fraudulent act are more inclined to do so if a hotline is operated independently. Effective communication for external parties such as suppliers must also be in place to allow exchange of pertinent information in achieving the organization's objective. Without an effective communication system, the internal control system is vulnerable to failure. Thus, it is important that constant review of the effectiveness of the communication procedures be performed.

## **5. Monitoring Activities**

### **Principles 16 and 17: Conducts ongoing and/or separate evaluations and evaluates and communicates deficiencies**

In the context of fraud prevention within the procurement process, monitoring activities determine if the other four internal control components are effective in deterring fraudulent acts. Ongoing evaluations of the daily activities of the procurement staff by managers and employees, which are built into the business process, include verifying and ensuring that the staff understand and comply with the code of ethics, verifying the accuracy of financial information, and verifying and ensuring that payment to a supplier is in compliance with the contract. Separate evaluations on the internal control system, which are conducted from time to time, are often independent and conducted by governance or audit departments. Such separate evaluations include verifying that the segregation of duties policy is effective and that the procurement staff is abiding by the policy or verifying that the ongoing evaluations by managers are properly carried out. Finally, any internal control activity found to be ineffective or inadequate in addressing the identified risk in the procurement process needs to be reported upstream and corrected immediately. For example, if it is found that the procurement system is not in

compliance with the segregation of duties policy, immediate action must be taken to align the procurement system with the segregation of duties policy (COSO, 1992; COSO, 2013).

## **F. SUMMARY**

In this chapter, the basis of the research, which consists of the six phases of the public procurement process, the five COSO internal control components, the types of procurement fraud and the application of the internal control components to the procurement processes were reviewed and summarized. The six phases of the public procurement process are procurement planning, solicitation planning, solicitation, source selection, contract administration and contract closeout. These processes working together serve as guidelines for the procurement staff to purchase public goods and services in a cost-effective and economical manner. The five COSO internal control components consist of control environment, risk assessment, control activities, information and communication and monitoring activities. An effective system of internal controls requires that each of the five components and relevant principles be present and functioning, and that the five components be operated together in an integrated manner. All of the five components, including their relevant principles, will collectively help reduce the organization's risk of not achieving its objectives at an acceptable and desirable level. This chapter also defined procurement fraud, which was followed by the discussion of the different types of procurement fraud. Essentially, procurement fraud can be committed in a variety of ways and can occur during any phase of the procurement process. Procurement fraud can be broadly categorized into two main types: procurement fraud that involves employees and procurement fraud that does not involve employees. Often, procurement fraud is committed by employees in collusion with an outside supplier. Examples of this type of procurement fraud include need recognition, bid tailoring, bid manipulation, bid splitting, unjustified sole source award and conflict of interest. Another common procurement fraud is when competing suppliers collude among themselves through bid rigging.

Lastly, proper incorporation and enforcement of the COSO internal control components, which include the 17 fundamental principles, into the public procurement

process is essential to maintain the integrity of the procurement process and protect public resources. People who think that fraudulent acts will be detected often will think twice before committing such acts (ACFE, 2013). Therefore, a strong, thorough and functioning internal control system is essential for procurement fraud deterrence. The presence of the 17 fundamental principles associated with the five internal components in the internal control system helps ensure that the internal control system is in place and functioning effectively.

Based on the foundation built by this research, the next chapter begins by presenting 20 case studies of procurement fraud incidents, followed by a review and analysis of the internal control weaknesses in each of the procurement fraud incidents.

### **III. CASE STUDIES OF PROCUREMENT FRAUD INCIDENTS**

#### **A. INTRODUCTION**

This chapter reviews and analyzes 20 case studies of actual procurement fraud incidents and discusses the internal control weaknesses that contributed to the fraudulent activities. Essentially, for each case study the chapter reviews and analyzes the internal control weaknesses in the procurement processes that caused the fraud incidents and the types of fraud schemes used by the fraudsters. Fraudsters refer to the people who commit the fraudulent acts.

#### **B. CASE STUDIES**

In this section, 20 procurement fraud case studies, which are drawn mainly from the *Encyclopedia of Ethical Failure* (Department of Defense General Counsel's Office, 2013), are presented. The background and details of the procurement fraud case studies are provided in Appendix D.

The next section presents in each case study, an analysis and discussion of the internal control weaknesses as well as the type of fraud scheme used by the fraudsters. Due to the lack of background for some case studies, reasonable assumptions were made to facilitate the analysis and discussion.

#### **C. ANALYSIS OF CASE STUDIES**

##### **1. Case Study 1 (Navy Bribery Scheme)**

###### ***a. Internal Control Weakness in the Procurement Process***

Principles 1, 3 and 4 (demonstrates commitment to integrity and ethical values; establishes structure, authority, and responsibility; and demonstrates commitment to competence, respectively), which are associated with the control environment component, were lacking in this case study. The tone at the top depicting the importance of integrity and ethical values were lacking (specifically at a U.S. Navy readiness center).

This attitude was apparent considering that the line of workers who colluded in the scheme reached the supervisory level. Typically, employees who feel that top management is not upholding ethical values or showing a commitment to standards are more prone to commit fraud. In this case study, the procurement in the U.S. Navy readiness center occurred in a highly decentralized organizational structure. The tone set by the U.S. Navy on the importance of internal control, which included the expected ethical behavior for all staff, was also poor due to its failure to establish an effective organizational structure for managing decentralized procurement. Essentially, the U.S. Navy failed to establish an effective organizational structure to ensure that consistent and efficient practices and policies were followed for decentralized procurement to achieve tight and effective management control. The U.S. Navy also did not demonstrate a strong commitment to develop and retain competent and ethical procurement employees. For example, the U.S. Navy former civilian employee claimed that the workers at the center had resorted to committing the fraudulent acts because they were pressured to meet unrealistic goals which were not achievable through the normal procurement process (Moran, 2013). These control weaknesses increased fraud vulnerability throughout the procurement process.

Principles 7, 8 and 9 (identifies and analyzes risk; assesses fraud risk and identifies and analyzes significant change, respectively), which are associated with the risk assessment component, were lacking in this case study. There is a Chinese saying “heaven is high and the emperor is far away” (Zhao, 2006) which refers to a situation whereby the central authorities have little control or oversight over the local affairs as that control is far away from the central authorities. Recognizing that there can be some truth in this saying, it is thus safe to assume that it is difficult to ensure consistent and efficient practices and policies and achieve tight management control in a decentralized procurement structure. In addition, the risk of fraudulent acts occurring in a decentralized procurement structure is often expected to be higher compared to a centralized procurement structure. For example, the U.S. Navy former civilian employee was able to exclude the yearly audits and contracting officer representative (COR) requirements as normally required from the contract (Moran, 2013), and no one reviewed his work. Moreover, according to the Association of Certified Fraud Examiners,

procurement fraud is six times more likely to occur during the contract administration phase than in the pre-contract award phase (ACFE, 2013). In view of this, the organization failed to identify the risks associated with a decentralized procurement structure, especially in the contract administration phase, and also failed to decide how the risks should be managed.

Principles 10 and 12 (selects and develops control activities; and deploys through policies and procedures, respectively), which are associated with the control activities component, were lacking in this case study. First, the U.S. Navy failed to adopt some common control activities such as segregation of duties, mandatory job rotation or vacation for employees holding corruption prone positions. For example, the U.S. Navy former civilian employee was given the authority to determine the requirement and create the statement of work during the procurement planning phase; approve the purchase and award contract during the source selection phase and, at the same time, administer the contract during the contract administration phase (Moran, 2013). This was clearly a violation of the segregation of duties rule. Another potential control activities weakness in this case study was that the U.S. Navy failed to establish a relationship with the oversight groups, such as auditors or governing department, for them to carry out their oversight responsibilities for decentralized procurement. Instead, the yearly audit requirement was simply removed by the U.S. Navy former civilian employee with just the stroke of a pen. Lastly, there was a lack of a “checks and balances” system in the organization’s procurement process. For example, the U.S. Navy former civilian employee intentionally wrote the contracts vaguely, and there was no system of “checks and balances” to verify the contract before release (Moran, 2013). These control activities weaknesses increased fraud vulnerability in the procurement planning, source selection and contract administration phases.

Principle 16 (conducts ongoing and/or separate evaluations), which is associated with the monitoring activities component, was lacking in this case study. For example, the fact that the scheme went unnoticed for a decade and no staff reported this misconduct revealed that the ongoing evaluation procedure was not functioning effectively (Moran, 2013). The failure of the ongoing evaluation procedure was largely

due to the fact that the scheme involved collusion from the line workers to the supervisor level. This control weakness increased fraud vulnerability throughout the procurement process.

***b. Type of Fraud Scheme Used***

The lack of internal controls in the procurement process as previously mentioned created the opportunity for the staff at the U.S. Navy readiness center to collude with the contractors to commit bid tailoring and a need recognition scheme. Using bid tailoring and a need recognition scheme, the staff at the center when determining the procurement requirement had intentionally drafted a vague specification to overlook certain requirements so that they could exploit the vagueness of the contract to request “additional services” that were not necessary and not performed (Moran, 2013). Specifically, the staff at the center had defined these “additional services” under the pretext of services that were allowable under the contract but were not necessary and not performed. The payment for these “additional services” was then used to pay for the bribe items received by the staff (Moran, 2013).

**2. Case Study 2 (U.S. Army Corps of Engineers Fraud)**

***a. Internal Control Weakness in the Procurement Process***

Principle 1 (demonstrates commitment to integrity and ethical values), which is associated with the control environment component, was lacking in this case study. The tone at the top depicting the importance of integrity and ethical values appeared to be lacking considering that the fraud involved several public officials within the same organization. Besides the poor moral tone set at the top, the behavior of co-workers can also influence employees’ ethical conduct. In this case, the other co-workers after observing the former program manager of the U.S. Army Corps of Engineers engaging in misconduct would be more likely to commit fraudulent acts or collude with him. This control weakness increased fraud vulnerability throughout the procurement process.

Principles 10 and 12 (selects and develops control activities and deploys through policies and procedures, respectively), which are associated with the control activities component, were lacking in this case study. First, the organization failed to adopt some common control activities such as segregation of duties, mandatory job rotation or vacation for employees holding corruption prone positions. For example, the former program manager was given the authority to issue orders for goods and services against government term contracts as well as the authority to certify the completion of goods and services (Federal Bureau of Investigation (FBI), 2013). Being the program manager, the U.S. Army Corps of Engineers' employee would also have had the authority to oversee the development of the specifications. If so, the former program manager had total control of the purchase, and this was a violation of the segregation of duties rule. Second, there was also a lack of a "checks and balances" system in the source selection phase. For example, the lack of independent checks or evaluation of price or quotations from the contractor and sub-contractors resulted in the inflated and falsified invoices. These control weaknesses increased fraud vulnerability in the procurement planning, source selection, and contract administration phases.

Principle 16 (conducts ongoing and/or separate evaluations), which is associated with the monitoring activities component, was lacking in this case study. The organization failed to build into the procurement process a systematic standardized ongoing evaluation in determining whether the employees were complying with the procurement and ethical policies and rules. The lack of effective ongoing evaluations and the absence of management review caused the fraudulent activities to proliferate throughout the procurement process. The separate evaluations, which were supposedly to be conducted by the auditors or governance department when the ongoing evaluations were not effective, were also not implemented effectively based on the fact that the fraudulent acts were discovered five years later. The ineffectiveness of separate evaluations increased fraud vulnerability in the contract administration phase.

***b. Type of Fraud Scheme Used***

The lack of internal controls in the procurement process as previously mentioned created the opportunity for the U.S. Army Corps of Engineers staff to collude

with contractors to commit bid tailoring and bid rigging (sub-contracting fraud scheme). Using bid tailoring, the former program manager, along with his other colleagues, when determining the procurement requirement may have intentionally drafted narrow specifications that accommodated the conspiring contractors' capabilities and disqualified other competitors so as to guarantee that the conspiring contractors would win the contracts. At the contractors' end, using a bid rigging fraud scheme (sub-contracting fraud), these contractors conspired and agreed that when a particular company was awarded a contract, it would then award sub-contracts to the other conspiring companies in exchange for not submitting a winning bid.

**3. Case Study 3 (Bribery and Fraud Lands Program Manager in Jail) and Case Study 4 (Misconduct of a First Lieutenant)**

***a. Internal Control Weakness in the Procurement Process***

Principles 10 and 12 (selects and develops control activities and deploys through policies and procedures, respectively), which are associated with the control activities component, were lacking in both case studies. The organizations failed to adopt some common control activities such as segregation of duties, mandatory job rotation, or vacation for employees holding corruption prone positions. For example, in order for the program manager (PM) (in case study 3) and the First Lieutenant (in case study 4) to successfully commit the fraudulent acts, they were most probably given the authority to determine the procurement requirement, to issue orders for goods and services against government term contracts as well as the authority to certify the completion of goods and services. As such, both the PM and the First Lieutenant had total control of the purchase, and this was a violation of the segregation of duties rule. This control weakness increased fraud vulnerability in the contract administration phase. There was also a lack of a "checks and balances" system in the source selection and contract administration phases. For example, the lack of independent checks (or evaluation) of price or quotations from the contractor and sub-contractors in case study 3 resulted in the inflated and falsified invoices, and the lack of independent checks of services or goods acceptance

and invoices submitted by the contractors resulted in the payment for goods and services that were never delivered or performed in both case studies (Department of Defense General Counsel's Office, 2013).

Principle 16 (conducts ongoing and/or separate evaluations), which is associated with the monitoring activities component, was lacking in both case studies. The organizations failed to build into the procurement process a systematic and standardized ongoing evaluation in determining whether the employees were complying with the procurement and ethical policies and rules. The separate evaluations, which were supposedly conducted by the auditors or governance department when the ongoing evaluations were not effective (Committee of Sponsoring Organization of the Treadway Commission (COSO), 1992), were also not implemented effectively. This was based on the fact that the damages involved in both cases were in the thousands and millions of dollars, respectively, and that multiple contracts were involved in both cases, which indicates that the fraudulent acts were most probably discovered years later. The ineffectiveness of separate evaluations increased fraud vulnerabilities in the contract administration phase.

***b. Type of Fraud Scheme Used***

The lack of internal control in the procurement process as previously mentioned created the opportunity for (a) the PM (in case study 3) to collude with contractors to commit a need recognition scheme and a shell company scheme; and (b) the First Lieutenant (in case study 4) to collude with contractors to commit a need recognition scheme. Using a need recognition scheme, the PM and the First Lieutenant identified "additional goods or services" that were not necessary and not performed or delivered. The payment for these "additional goods or services" was split among the employees and the conspiring contractors. Using a shell company scheme the PM set up a shell company account to receive payments for the falsified or inflated invoices. In addition, the PM used the pass-through scheme (a sub-category of a shell company scheme) to re-sell generic equipment as branded products at an inflated price (Department of Defense General Counsel's Office, 2013).

#### **4. Case Studies 5 to 8**

##### ***a. Internal Control Weakness in the Procurement Process***

Principles 1 and 5 (demonstrates commitment to integrity and ethical values and enforces accountability, respectively), which are associated with the control environment component, were seriously lacking in these case studies. The fact that the officials who committed the fraudulent acts in these case studies were senior executive or officials, such as contracting officers, a lieutenant colonel and high-ranking U.S. Army officers with approval and decision-making authorities vested in them, illustrated the poor moral tone set at the top management. According to the ACFE (2013), employees who commit procurement fraud tend to be those who have authority in the procurement bidding process. Currently, if a fraudulent act is committed by senior officials, they will be subject to punishment (e.g., fine or sentence to serve jail term or both). Despite these punishments, these senior officials continued to engage in misconduct, and this served to show that the punishments were not sufficient to deter their fraudulent ways. These control weaknesses increased fraud vulnerability throughout the procurement process.

Principles 10 and 12 (selects and develops control activities and deploys through policies and procedures, respectively), which are associated with the control activities component, were lacking in these case studies. The organizations failed to adopt the mandatory job rotation policy for employees holding corruption prone positions. For example, in these case studies, the senior officials abused their authority to override existing internal controls to steer contracts to conspiring companies. Mandatory job rotation will help prevent collusion between people who have the same motive to commit fraud (Giles, 2012). The lack of this control activity resulted in fraud vulnerability in the procurement planning, solicitation planning, and source selection phases.

Principle 16 (conducts ongoing and/or separate evaluations), which is associated with the monitoring activities component, was also lacking in these case studies. Considering that the fraudsters in these case studies were senior officials, it would be a challenge to establish an effective ongoing evaluation procedure in the

procurement process. The organizations did not have sufficient controls and did not take proper care to design controls for providing reasonable assurance of compliance by these senior officials. This control weakness increased the risk of corrupt practices throughout the procurement process.

***b. Type of Fraud Scheme Used***

The lack of internal controls in the procurement process as previously mentioned created the opportunity for the senior officials in the case studies to collude with contractors to commit fraud schemes such as bid tailoring and bid manipulation. In three case studies (i.e., case studies 5, 6, and 7), the contracting officers with authority to oversee the procurement bidding and source-selection processes most probably used bid manipulation schemes to leak pertinent information, such as requirement and evaluation criteria, to conspiring contractors or influenced the source selection decision-making process. Such pertinent information gave unfair advantages to the conspiring contractors and ensured that they would win the contracts. As for case study 8, the senior Army officers, often with authority in determining the requirement and significant influence over the source selection decision-making process, most probably used a bid tailoring scheme, such as drafting narrow specifications to accommodate the conspiring contractors' capability, and a bid manipulation scheme, such as disclosing pertinent information including evaluation criteria to the conspiring contractors, to ensure that the conspiring contractors would win the contracts. These contracting officers and senior Army officers, vested with decision-making and approval authorities, were able to abuse their authority to override existing controls to steer contracts to the conspiring contractors.

**5. Case Studies 9 to 15**

***a. Internal Control Weakness in the Procurement Process***

Similar to case studies 5 to 8, Principles 1 and 5 (demonstrates commitment to integrity and ethical values and enforces accountability, respectively), which are associated with the control environment component, were seriously lacking in

case studies 9 to 15. The fact that the officials who committed the fraudulent acts in these case studies were senior officials (such as contracting officers, a program director, and an Army Colonel) illustrated the poor moral tone set at the top management. In addition, despite the disciplinary measures for purposeful wrongdoing, these senior officials continued to commit fraudulent activities, and this served to show that the punishment was not sufficient to deter their fraudulent ways. These control weakness increased the risk of corrupt practices throughout the procurement process.

Principles 10 and 12 (selects and develops control activities and deploys through policies and procedures, respectively), which are associated with the control activities component, were lacking in these case studies. The organizations failed to adopt the mandatory job rotation policy for employees holding corruption prone positions. For example, in these case studies the contracting officers, a program director and the Army colonel abused their authority to override existing internal controls to direct contracts to conspiring companies. Specifically, in case study 13, the Army colonel, who was authorized with official duties such as supervising solicitation, award and oversight of contracts in Korea, abused his authority to overrule the decision of technical experts to award a contract to a contractor that was assessed as capable of providing the best value, and instead recommended that the contract be awarded to his future potential employer (Department of Defense General Counsel's Office, 2013). Mandatory job rotation will help prevent collusion between people who have the same motive to commit fraud (Giles, 2012). The lack of this control activity increased fraud vulnerability in the procurement planning, solicitation planning, and source selection phases.

Principle 16 (conducts ongoing and/or separate evaluations), which is associated with the monitoring activities component, was lacking in these case studies. Similar to case studies 5 to 8, considering that the fraudsters in these case studies were senior officials, it would be a challenge to establish effective ongoing evaluation procedures in these case studies. The organizations did not have sufficient controls and did not properly design controls to provide for reasonable assurance of compliance by these senior officers. As a result, this control weakness increased the risk of corrupt practices throughout the procurement process.

***b. Type of Fraud Scheme Used***

The lack of internal controls in the procurement process as previously mentioned created the opportunity for the senior officials in the case studies to collude with contractors to commit fraud schemes such as conflict of interest, a need recognition scheme, bid tailoring, bid manipulation, and an unjustified sole-source award scheme. In all of the seven case studies (case study 9 to 15), a conflict of interest occurred as the senior officials had intrinsic incentives, such as future employment or other personal benefits to themselves or their families, to give favorable treatment to the conspiring contractors. In combination with other fraud schemes, such as bid tailoring, bid manipulation, and an unjustified sole-source award scheme, these senior officials who were vested with decision-making and approval authority were able to abuse their authority to override existing controls to steer contracts to the conspiring contractors. For example, the program director (in case study 9), with oversight authority in determining the requirement and development of technical specifications as well as significant influence over the source selection decision-making process, most probably used bid tailoring schemes, such as drafting narrow specifications to accommodate the conspiring contractors' capability, and bid manipulation schemes, such as providing evaluation criteria or setting evaluation criteria in a manner that gave an unfair advantage to the conspiring contractors, so as to ensure that the conspiring contractors would win the contracts.

For case study 10, the former senior Air Force official, who was a contracting officer and vested with oversight authority of the solicitation process and purchase approval authority, would have used a combination of fraud schemes such as a need recognition scheme and unjustified sole-source award scheme to steer the contracts to the conspiring contractors. For example, using a need recognition scheme and an unjustified sole-source award scheme, the former senior Air Force official might have promoted the idea of leasing tanker planes (even when the current fleet of KC-135s had plenty of life span left), and thereafter perhaps sought an exemption to the Competition in Contracting Act (CICA) to justify an "unjustified" sole-source contract to Boeing. A contracting officer is vested with a vast amount of power in deciding on sole-source

procurement (Lansing, Burkard, 1991). As for case studies 11 to 15, the contracting officers and the Army colonel, vested with oversight authority of the solicitation process and purchase approval authority, most probably used bid manipulation, such as providing confidential or pertinent information to conspiring contractors, to steer contracts to the conspiring contractors.

**6. Case Study 16 (Special Operations Command Bribery Scandal Nabs Two Retired Officers)**

***a. Internal Control Weakness in the Procurement Process***

Principles 10 and 12 (selects and develops control activities and deploys through policies and procedures, respectively), which are associated with the control activities component, were lacking in this case study. There was a lack of a “checks and balances” system in the solicitation planning and source selection phase. In this case study, when Special Operations Command (SOCOM) signed the contract to delegate the evaluation of proposals function, which is considered as an inherently government-like function, to the retired Army lieutenant colonel, SOCOM would have most probably continued to maintain the responsibility for the success of the program and its responsibility to manage the contractor. However, despite retaining the final decision authority, SOCOM failed to provide adequate management and technical checks or oversight of the contractor. For example, the inadequate checks or oversight by SOCOM resulted in the first official (i.e., the SOCOM contractor to evaluate bid proposals) to abuse his position of power to give favorable review of proposals submitted by those conspiring contractors (Department of Defense General Counsel’s Office, 2013). The first official, who was responsible for evaluating bid proposals, would have had significant influence over the development of evaluation criteria during the solicitation planning phase. The lack of adequate oversight by SOCOM might have caused the evaluation criteria to be established in a manner that gave unfair advantages to the conspiring contractors.

***b. Type of Fraud Scheme Used***

The lack of internal controls in the procurement process as previously mentioned created the opportunity for the first official to collude with the second official to commit the bid manipulation scheme. For example, and as previously mentioned, the first official might have attempted to influence the source selection process by tailoring the evaluation criteria to accommodate the conspiring companies' capability or create highly subjective or unbalanced evaluation criteria so that he could manipulate the bid scores during the source-selection phase.

**7. Case Study 17 (Awarding Contracts to Spouse Earns Couple One Year in Prison)**

***a. Internal Control Weakness in the Procurement Process***

Principles 10 and 12 (selects and develops control activities and deploys through policies and procedures, respectively), which are associated with the control activities component, were lacking in this case study. The organizations failed to adopt some common control activities such as segregation of duties, mandatory job rotation, or vacation for employees holding corruption prone positions. For example, in this case, besides being given the responsibility to determine the training needs, the employee was most probably given the authority to approve the contract award, to issue contracts for the training services as well as the authority to certify the completion of training services. In this case, the employee had total control of the purchase, and this was a violation of the segregation of duties rule. This control weakness increased fraud vulnerability in the procurement planning, source selection, and contract administration procurement phases.

Principle 16 (conducts ongoing and/or separate evaluations), which is associated with the monitoring activities component, was lacking in this case study. The organization failed to build into the procurement process a systematic standardized ongoing evaluation in determining whether the employees are complying with the procurement and ethical policies and rules. The separate evaluations, which were supposedly to be conducted by the auditors or governance department when the ongoing evaluations were not effective (COSO, 1992; COSO, 2013), were also not implemented

effectively based on the fact that the fraudulent acts were discovered two years later. The ineffectiveness of separate evaluations increased fraud vulnerabilities in the contract administration process.

***b. Type of Fraud Scheme Used***

The lack of internal controls in the procurement process as previously mentioned created the opportunity for the Department of the Treasury (DOT) employee to commit fraud schemes such as conflict of interest, bid tailoring, and bid manipulation. A conflict of interest occurred as the employee had intrinsic incentives or interest to favor her husband's company. In view of this and in order to steer training service contracts to her husband's company, the employee most probably used bid tailoring and bid manipulation schemes. Under bid tailoring, the employee could have, when determining the training needs, drafted a narrow specification that accommodated her husband's company capability so as to disqualify other competitors. At the same time, using bid manipulation, the employee would have leaked pertinent information to her husband in advance so that he had adequate time to prepare a comprehensive bid.

**8. Case Study 18 (Marine Corps Say Goodbye to Officers who Schemed with Thai Vendors)**

***a. Internal Control Weakness in the Procurement Process***

Principle 1 (demonstrates commitment to integrity and ethical values), which is associated with the control environment component, was lacking in this case study. The tone at the top depicting the importance of integrity and ethical values seemed to be lacking in the organization based on the fact that the fraud scheme involved three officers within the same organization. Besides the poor morals set at the top management, the behavior of co-workers can also influence employee's ethical conduct. In this case, the other co-workers, after observing their colleague engaging in misconduct, would be more likely to commit fraudulent acts or collude with him. This control weakness increased the risk of corrupt practices throughout the procurement process.

Principles 10 and 12 (selects and develops control activities and deploys through policies and procedures, respectively), which are associated with the control activities component, were lacking in this case study. First, the organization had failed to adopt mandatory job rotation or vacation for employees holding corruption prone positions. Without a mandatory job rotation or vacation rule in place, it created the opportunity, time and space for people who have the same motive to collude and commit fraud (Giles, 2012). This control weakness increased the fraud vulnerability in the procurement planning and solicitation planning phases. For example, the officers most probably leaked pertinent information, such as requirement, program budget, and evaluation criteria, to the Thai vendor to defeat competition. Second, there was a lack of a “checks and balances” system in the contract administration phase. For example, the lack of independent checks of services or goods acceptance and invoices submitted by the Thai vendor resulted in the payments of goods and services that were not delivered or performed.

Principle 16 (conducts ongoing and/or separate evaluations) of the monitoring activities component was lacking throughout the procurement process. Similar to the other case studies, the organization had failed to build into the procurement process a systematic and standardized ongoing evaluation in determining whether the employees were complying with the procurement and ethical policies and rules. The lack of effective ongoing evaluations and the absence of management review caused the fraudulent activities to proliferate throughout the procurement process.

***b. Type of Fraud Scheme Used***

The lack of internal controls in the procurement process as previously mentioned created the opportunity for the three Marine Corps officers to collude with the Thai contractor to commit fraud schemes such as bid manipulation. For example, using a bid manipulation scheme, the first two officers leaked pertinent information, such as program allocated budget, incumbent contractor’s price, evaluation criteria, etc., to the Thai contractor so that it could inflate its bid and still outbid the other competitors (Department of Defense General Counsel’s Office, 2013). A part of the scheme involved

the third officer, who had vested authority to accept goods and services, to abuse his authority as a receiving officer to accept incomplete goods that were delivered by the Thai contractor.

## **9. Case Study 19 (Friends in Low Places)**

### ***a. Internal Control Weakness in the Procurement Process***

Principle 4 (demonstrates commitment to competence), which is associated with the control environment component, was lacking throughout the procurement process. The organization had not demonstrated a strong commitment to develop and retain competent and ethical procurement employees. In this case, based on the fact that the U.S. Department of Interior (DOI) officers planned to defraud the government immediately after their retirement when they were still in service, showed that the organization lacked a commitment to attract, develop, and retain competent and ethical employees. Employees often commit wrong doings in a work environment where they feel discouraged or feel no loyalty towards the organization. In addition, based on the fact that no staff reported any misconduct when the second officer bid on the contract for the requirement that he had created prior to his retirement, indicated that the organization had failed to put in place a training policy for the procurement staff on fraud awareness, prevention, and detection training so as to prepare them when they detect any misconduct or when they are faced with ethical dilemmas.

Principles 10 and 12 (selects and develops control activities, and deploys through policies and procedures, respectively), which are associated with the control activities component, were lacking in this case study. First, there was a lack of regular training for procurement staff on fraud awareness and ethical code of conduct. Next, there was a lack of a “checks and balances” system in the procurement planning, solicitation planning, and source selection phases. For example, in this case, the lack of independent checks of the technical specification, evaluation criteria and evaluation report had created the opportunity for the two DOI officers, who were involved in the development of specification, evaluation criteria and the source selection decision-making process, to steer the contracts to the conspiring company.

***b. Type of Fraud Scheme Used***

The lack of internal control in the procurement process as previously mentioned created the opportunity for the two former DOI officers to collude and commit fraud schemes such as conflict of interest, bid manipulation and bid tailoring schemes. For example, in this case the first officer's future employer was engaged by the second officer as a sub-contractor to bid on a contract. A conflict of interest occurred as the first officer, who had the authority to influence the source selection decision-making process, had a personal interest (such as a better remuneration package from his future employer) to give favorable reviews of the second officer's proposal. Using a bid manipulation scheme, the first officer, who was also responsible for creating the evaluation criteria, might have leaked pertinent information, such as evaluation criteria, to the second officer or might have established the evaluation criteria in such a manner that gave an unfair advantage to the second officer's company during the source selection process. Using the bid tailoring scheme, the second officer, when creating the requirement for the solicitation while still in service, could have drafted the specification in such a manner that gave an unfair advantage to him when he bid on the contract immediately upon his retirement.

**10. Case Study 20 (Patrick Air Force Base Engineer Violates Conflict of Interest Statute)**

***a. Internal Control Weakness in the Procurement Process***

Principle 1 (demonstrates commitment to integrity and ethical values), which is associated with the control environment component, was lacking throughout the procurement process. The tone set by the management of the organization on the importance of internal control, which included the expected ethical behavior for all staff, was poor. The fact that the fraud scheme involved numerous government officials within the same organization indicated that the ethical tone at the top was poor.

Principles 10 and 12 (selects and develops control activities, and deploys through policies and procedures, respectively), which are associated with the control activities component, were lacking in this case study. First, there was a lack of regular

training for procurement staff on ethical code of conduct. Second, the organization failed to adopt mandatory job rotation for employees holding corruption prone positions. Mandatory job rotation will help prevent collusion between people who have the same motive to commit fraud (Giles, 2012). Third, there was a lack of a “checks and balances” system in the procurement planning, solicitation planning and source selection phases. For example, in this case the lack of independent checks of the technical specification, evaluation criteria and evaluation report created the opportunity for the Air Force engineer, who was involved in the development of the technical documents and the source selection decision-making process, to steer contracts to his own company. The lack of these control activities increased fraud vulnerability in the procurement planning, solicitation planning and source selection phases.

Principle 16 (conducts ongoing and/or separate evaluations), which is associated with the monitoring activities component, was lacking throughout the procurement process. Similar to the other case studies, the organization failed to build into the procurement process a systematic and standardized ongoing evaluation in determining whether the employees were complying with the procurement and ethical policies and rules. The lack of effective ongoing evaluations and the absence of management review caused the fraudulent activities to proliferate throughout the procurement process.

#### ***b. Type of Fraud Scheme Used***

The lack of internal controls in the procurement process as previously mentioned created the opportunity for the Air Force base engineer, together with numerous government employees, to commit fraud schemes such as conflict of interest, bid tailoring, and bid manipulation schemes. In this case, a conflict of interest occurred as the Air Force engineer and other government employees had personal interests to give favorable reviews of their company’s proposal. Using a bid tailoring scheme, the base engineer, who was involved in the drafting of technical specifications, could have drafted the specification to tailor to accommodate his company’s capability. Using a bid manipulation scheme, the Air Force engineer could have influenced the source selection process by setting the evaluation criteria in a manner that gave an unfair advantage to his

own company. For example, the engineer could have created highly subjective or unbalanced evaluation criteria so that he could manipulate the bid scores during the source selection phase.

Through the analysis of the 20 case studies, Appendix E summarizes for each case study, the procurement processes that are vulnerable to fraud, the weaknesses of internal control components, including its associated principles, and the type of fraud scheme used. Table 2 provides a summary of the analysis. From the analysis of the 20 case studies, source selection and contract administration procurement phases were found to be most vulnerable to fraud. In terms of internal control weaknesses, organizations in the 20 case studies typically lack control in three the internal control components, namely the control environment, control activities and monitoring activities. In addition, conflict of interest, bid manipulation and bid tailoring were found to be the most common fraud schemes used.

| <b>Procurement Process Phase</b> | <b>Number of Case Studies</b> | <b>Internal Control Component</b> | <b>Number of Case Studies</b> | <b>Procurement Fraud Scheme</b>       | <b>Number of Case Studies</b> |
|----------------------------------|-------------------------------|-----------------------------------|-------------------------------|---------------------------------------|-------------------------------|
| Procurement Planning             | 17                            | Control Environment               | 16                            | Need Recognition Scheme               | 4                             |
| Solicitation Planning            | 17                            | Risk Assessment                   | 1                             | Bid Tailoring                         | 7                             |
| Solicitation                     | 16                            | Control Activities                | 20                            | Bid Manipulation                      | 13                            |
| Source Selection                 | 19                            | Information and Communications    | 0                             | Unjustified Sole Source Awards Scheme | 1                             |
| Contract Administration          | 20                            | Monitoring Activities             | 19                            | Conflict of Interest                  | 10                            |
| Contact Closeout                 | 16                            |                                   |                               | Shell Company Scheme                  | 1                             |

Table 2. A Summary of the Case Studies Analysis.

As previously mentioned, the analysis of the 20 case studies suggested that the organizations studied typically lacked control in three internal control components, namely control environment, control activities and monitoring activities. In terms of

control environment, the organizations in the case studies were vulnerable to fraud or abuse or mismanagement because these organizations (a) lacked a high ethical tone at the top; and (b) failed to demonstrate a commitment to develop and maintain a competent, professional, and ethical procurement workforce. In terms of control activities, there were weaknesses in key control activities to provide reasonable assurance that the organizations' internal control decisions were followed. The key procurement control activities that were lacking include mandating regular anti-fraud and ethics training to employees holding corruption prone positions, implementing segregation of duties, mandating job rotation or vacation for employees holding corruption prone positions, and setting up a "checks and balances" system in the procurement planning, solicitation planning, source selection, and contract administration phases. In terms of monitoring activities, the organizations lacked effective ongoing and separate evaluation procedures. The organizations in the case studies failed to incorporate into the procurement process a systematic and standardized approach for assessing whether the employees were carrying out their duties in compliance with the procurement and ethical policies and rules.

#### **D. SUMMARY**

This chapter reviewed and analyzed 20 case studies of actual fraud incidents and discussed the weakness of internal controls that led to the fraudulent activities. The next chapter analyzes and provides recommendations for improvements in each of the case studies by applying the relevant internal controls into its procurement process to deter procurement fraud.

## IV. ANALYSIS AND RECOMMENDATIONS

### A. INTRODUCTION

In this chapter, recommendations for improvements are identified from the analysis in each of the 20 case studies of fraud incidents. Specifically, for each case study this chapter provides recommended improvements by applying the relevant internal controls in the procurement process to deter procurement fraud. These recommendations serve to provide guidelines for other government organizations to develop and design an effective internal control system to deter fraud.

### B. RECOMMENDATIONS

#### 1. Case Study 1 (Navy Bribery Scheme)

The key internal control improvements recommended in the procurement processes for the U.S. Navy to deter procurement fraud are as follows:

##### *a. Control Environment*

**Maintain and enhance an ethical tone at the top and a culture of honesty throughout the procurement process and establish effective organizational structures for managing decentralized procurement.** Top management cannot just talk about acting ethically but needs to lead by example and actions, which will improve loyalty and staff morale. For example, talking about commitment to combat fraudulent acts but not deploying resources to oversee the execution of decentralized procurement activities is an indication of not “walking the talk.” Thus, the organization must establish an effective organizational structure for managing decentralized procurement. Adequate and competent resources must be deployed to oversee the proper execution of the delegation by its decentralized procurement activities at the center (Committee of Sponsoring Organization of the Treadway Commission (COSO), 1992; COSO, 2013).

**Set challenging but realistic and achievable goals.** Procurement performance goals should be regularly reviewed to ensure that they are realistic and achievable (COSO, 1992; COSO, 2013).

**Reward integrity.** While sufficient punishment for procurement fraud is essential for an effective control environment, rewarding staff for ethical behavior is also a critical element in fraud prevention. To encourage ethical behavior, the organization should not reward procurement staff only for meeting procurement performance goals; staff should also be rewarded for acting ethically and with integrity (Association of Certified Fraud Examiners (ACFE), 2013).

***b. Risk Assessment***

**Conduct detailed risk analysis and adopt proactive risk management methods for a decentralized procurement structure.** As previously mentioned, the risk of fraud occurring in a decentralized procurement structure is often higher compared to a centralized procurement structure. Therefore, effective management oversight requires that detailed risk analysis and management be carried out regularly for a decentralized procurement structure taking into account the organization's vulnerabilities and the impact decentralized procurement can have on achieving an effective internal control system. In this case, having identified that consistent and efficient practices and policies are difficult to enforce in a decentralized procurement structure, the U.S. Navy must establish a relationship with the oversight group, such as DCAA or Defense Contract Management Agency (DCMA), for them to carry out a mandatory audit. Effective risk management process may include implementing proactive audit procedures such as a surprise audit, where possible, to demonstrate the organization's commitment to aggressively and proactively deter fraudulent activities instead of waiting for fraud cases to be brought to their attention. Another effective risk management approach is to analyze procurement trends or payment patterns to see whether there is any correlation between the winning contractor and a specific purchasing agent (COSO, 1992; COSO, 2013).

*c. Control Activities*

**Adopt the segregation of duties rule.** No single procurement staff member should have the authority to write a statement of work, initiate request for proposals, evaluate bids, approve award of purchases and issue contracts or orders to the contractor, perform acceptance of goods and services and make payment to the contractor. In this case, the U.S. Navy former civilian employee who wrote the statement of work should not have been allowed to approve the award of the purchase. It is essential that periodic reviews be conducted to ensure that there are independent checks for proper segregation of duties. When segregation of duties is properly enforced, it will create accountability among employees who are responsible for the specific areas of the procurement cycle and will also help minimize collusion. Although, in this case, the fraudulent acts may still have occurred even with segregation of duties since the scheme was colluded from the line workers to the supervisor level. Segregation of duties is essential to fraud prevention as it requires collusion among people, and as the number of people involved in a fraud incident increases, the likelihood of detection is increased. Therefore, for more effective control, segregation of duties must be implemented in conjunction with mandatory job rotation. Skipping either control will reduce the effectiveness of the other control. When the segregation of duties rule is enforced in conjunction with the mandatory job rotation rule, it limits the fraudsters' opportunity to commit fraud as segregation of duties requires collusion with two or more like-minded people to commit a fraudulent act (ACFE, 2013).

**Introduce mandatory job rotation or vacations for employees holding corruption prone positions.** As some fraud requires manual intervention by the fraudsters themselves, the enforcement of mandatory job rotation or vacations among the employees with corruption prone positions will help in fraud prevention. The enforcement of mandatory job rotation is especially essential to prevent employees holding corruption prone positions from abusing their authority to override existing internal controls. Mandatory job rotation will reduce collusion between like-minded people. For example, on 1 October 2013, the Public Service Department of the Singapore Government announced that mandated job rotation and leave will be required

for officers holding positions that are “more susceptible to being suborned and exploited,” and the policy will be effective beginning in 2014. Officers holding corruption prone positions will not be allowed to serve in the same position for more than five years (Ng, 2013).

**Enforce compulsory anti-fraud and ethics training for employees holding corruption prone positions.** It must be made mandatory for staff members holding corruption prone positions (including top-level management) to receive regular anti-fraud training, including fraud awareness, prevention and detection, as well as ethics training. The training scope must cover the organization’s position on corporate compliance, its code of ethical conduct, the staff’s roles and responsibilities in the system of internal control, which includes the responsibility to report misconduct in the organization, the organization’s reporting mechanism, procurement fraud awareness, including awareness of potential red flags and identification of common red flags. This training should be conducted regularly, at least once a year. Such training, when conducted on a regular basis, is essential to fraud prevention as it strengthens and reinforces the staff’s personal integrity and prepares them when faced with ethical dilemmas (ACFE, 2013).

**Implement a system of “checks and balances” in the procurement planning, source selection and contract administration phases.** During the procurement planning phase, specifications or a statement of work must be independently checked by a supervisor of the author of the documents or procurement personnel to ensure that they are clear in defining what is needed, consistent with other similar specifications, unbiased and do not favor any particular company. During the source selection phase, the contract must be independently checked by the Head of Contracting Activity before release to ensure that there is no vague contract language. During the contract administration phase, often documents such as delivery orders or service reports endorsed by the Goods/Services Receiving Officer are used as evidence of receiving goods and services. An effective system of “checks and balances” requires delivery orders or service reports to be independently verified and checked by a supervisor independent of the purchasing process of those particular goods and/or services. In particular, where services are performed and delivered, the system requires an

independent check of work being done by a contracting officer of another program, which is essential to fraud prevention. The system of “checks and balances” will limit the power of others to commit fraud and help reduce fraudulent activities.

*d. Monitoring Activities*

**Establish effective evaluations in the procurement process.** Build into the procurement process, effective ongoing evaluation procedures to determine whether the system of internal control is implemented and functioning properly. Since ongoing evaluations may be rendered ineffective when co-workers collude among themselves, separate evaluations that are conducted by auditors or governing departments, such as DCMA, must be made mandatory. Separate evaluations must also be conducted regularly regardless of whether the ongoing evaluations are deemed effective or not as the perceived effectiveness of ongoing evaluations may just be a false impression given by the colluding employees (COSO, 1992; COSO, 2013).

**2. Case Study 2 (U.S. Army Corps of Engineers Fraud Case)**

The key internal control improvements recommended in the procurement processes for the U.S. Army Corps of Engineers to deter procurement fraud are as follows:

*a. Control Environment*

**Maintain and enhance an ethical tone at the top and a culture of honesty within the organization.** Both the behavior of management and co-workers can impact an employee’s ethical conduct. When management acts ethically, employees will more than likely act ethically. If employees see their co-workers acting ethically, they too, will be more than likely to act ethically. Hence, the source of ethical behavior starts from the top and is the foundation for the organization (COSO, 1992; COSO, 2013).

**Reward integrity.** Similar to the Navy Bribery Scheme case, in addition to ensuring there is sufficient punishment for procurement fraud, the U.S. Army Corps of Engineers must also reward staff for ethical behavior to encourage ethical behavior (COSO, 1992).

*b. Control Activities*

**Adopt segregation of duties and mandate job rotation or vacations for employees holding corruption prone positions.** Similar to the Navy Bribery Scheme, a segregation of duties policy must be established to ensure that no single procurement staff member will have the authority to write statements of work, initiate requests for proposals, evaluate bids, approve award of purchases, sign contracts or orders, perform acceptance of goods and services, and make payment to the contractor. If the segregation of duties had been in place and enforced, the former program manager for the U.S. Army Corps of Engineers who issued orders for goods and services would not have been allowed to certify the completion of goods and services. For more effective control, segregation of duties must be implemented in conjunction with mandatory job rotation or vacations for employees holding corruption prone positions.

**Enforce compulsory fraud awareness and ethics training for employees holding corruption prone positions.** Similar to the Navy Bribery Scheme, it must be made mandatory for staff members holding corruption prone positions, including top-level management, to receive anti-fraud and ethics training on a regular basis, preferably on an annual basis.

**Implement a system of “checks and balances” in the source selection phase.** During the source selection phase, prices or bids from contractors and sub-contractors must be independently checked by a contracting officer or price analyst of another program to ensure that no falsified or inflated costs or prices are used. The system of “checks and balances” will help limit the power of others to commit fraud and help reduce fraudulent activities.

*c. Monitoring Activities*

**Establish effective evaluations in the procurement process.** Similar to the Navy Bribery Scheme case, the U.S. Army Corps of Engineers must build effective ongoing evaluation procedures into the procurement process. Likewise, separate evaluations must be made mandatory regardless of the effectiveness of the ongoing evaluations.

**3. Case Study 3 (Bribery and Fraud Lands Program Manager in Jail) & Case Study 4 (Misconduct of a First Lieutenant)**

The key internal control improvements recommended in the procurement processes for the organizations to deter procurement fraud are as follows:

***a. Control Activities***

**Adopt a segregation of duties policy and mandate job rotation or vacations.** Similar to the earlier case studies, a system of “checks and balances” must be established to ensure that no single procurement staff member will have total control of the purchase. With the segregation of duties rule established and enforced, the PM (in case study 3) and the First Lieutenant (in case study 4) would not have had total control of the purchase as their power would have been limited. As previously mentioned, segregation of duties must be implemented in conjunction with mandatory job rotation or vacations for employees holding corruption prone positions to ensure more effective controls.

**Enforce compulsory fraud awareness and ethics training for employees holding corruption prone positions.** Similar to the earlier case studies, it must be made mandatory for staff members holding corruption prone positions, including top-level management, to receive fraud awareness (types of frauds and its red flags) and ethics training on a regular basis, preferably on an annual basis.

**Implement a system of “checks and balances” in the source selection and contract administration phases.** Similar to case study 1, a system of “checks and balances” must be established so that the contractor’s price or quotation and delivery orders or service reports are independently checked and verified by a supervisor independent of the purchasing process of that particular goods and/or services contract. The system of “checks and balances” will limit the power of others to commit fraud and help reduce fraudulent activities.

*b. Monitoring Activities*

**Establish effective evaluations in the procurement process.** Similar to the earlier case studies, the organizations must build effective ongoing evaluation procedures into the procurement process. Likewise, separate evaluations must be made mandatory regardless of the effectiveness of the ongoing evaluations.

**4. Case Studies 5 to 15**

As the officials committing fraudulent acts in case studies 5 to 15 were senior officers, the key internal control improvements recommended in the procurement processes were also similar. The internal control improvements recommended for the organizations in these case studies to deter procurement fraud are as follows:

*a. Control Environment*

**Maintain and enhance an ethical tone at the top and a culture of honesty.** Both the behavior of management and co-workers can impact an employee's ethical conduct. When management acts ethically, employees will more than likely act ethically. If employees see their co-workers acting ethically, they will more than likely also act ethically. Hence, the source of ethical behavior starts from the top and is the foundation for the organization.

**Enhance enforce accountability.** If contracting officers or senior officials commit a fraudulent act, tougher punishment must be enforced. There is another Chinese saying that "people who make the law, but break the law, have committed a more serious crime," which refers to a situation in which people with authority who break the rules should be subject to a tougher punishment. Often, people will not be deterred from their fraudulent ways until they understand that they will be held to a higher standard and punished more severely (Lansing, Burkard, 1991).

*b. Control Activities*

**Introduce mandatory job rotation or vacations for employees holding corruption prone positions.** Segregation of duties alone is not effective at deterring

fraud committed by senior officials, as these individuals are often uniquely positioned to override even the best-designed control measures. As previously mentioned in case study 1, the implementation of the segregation of duties and the enforcement of mandatory job rotation are essential to prevent employees who hold corruption prone positions from abusing their authority to override existing internal controls. Mandatory job rotation will help prevent collusion between people who have the same motive to commit fraud (Giles, 2012).

**Enforce compulsory fraud awareness and ethics training for employees holding corruption prone positions.** Similar to the earlier case studies, it must be made mandatory for staff members holding corruption prone positions, including top-level management, to receive anti-fraud and ethics training on a regular basis, preferably on an annual basis. Such training, conducted on a regular basis, is essential to fraud prevention as it strengthens and reinforces the staff's personal integrity and prepares them when faced with ethical dilemmas.

**Enhance existing whistleblower system.** Considering that the officials committing fraud in these case studies were top-level officials, tips from whistleblowers become an effective fraud detection method. A whistleblower is a person who reports suspected dishonest activities or misconduct taking place in government agencies or private organizations (ACFE, 2013). Although some people are comfortable with reporting unethical or illegal acts openly, many are not. To encourage staff to report misconduct without fear of being retaliated against by management or co-workers, organizations must ensure that the whistleblower hotline, with dedicated phone numbers, is independent so that the whistleblower's identity can remain anonymous. In addition, the existence of the whistleblower system has to be made known to all employees, contractors, the general public and other stakeholders.

### *c. Monitoring Activities*

**Establish effective evaluations in the procurement process.** As previously mentioned, considering that the fraudsters in these case studies were senior officials, ongoing evaluations may not be as effective. Thus, it is critical that separate

evaluations by auditors or governing departments be made mandatory regardless of the effectiveness of ongoing evaluations. It is also essential that auditors or governing departments be vigilant in reviewing transactions involving senior officials.

**5. Case Study 16 (Special Operations Command Bribery Scandal Nabs Two Retired Officers)**

The key internal control improvements recommended in the procurement processes for SOCOM to deter procurement fraud are as follows:

***a. Control Activities***

**Implement a system of “checks and balances” in the solicitation planning phase to provide adequate review of the evaluation criteria.** An adequate review of the evaluation criteria is essential for ensuring that the evaluation criteria include “key areas of importance and “emphasis” to be considered during the source selection phase, and that they can be objectively measured.

**Implement a system of “checks and balances” in the source selection phase to provide adequate checks of the evaluation process and oversight of the contractor.** Evaluation or technical review reports of the proposals must be checked to ensure that they are objectively evaluated solely based on the pre-determined evaluation criteria and procurement method.

**6. Case Study 17 (Awarding Contracts to Spouse Earns Couple One Year in Prison)**

The key internal control improvements recommended in the procurement processes for the Department of the Treasury (DOT) to deter procurement fraud are as follows:

***a. Control Activities***

**Adopt the segregation of duties rule and mandate job rotation or vacation.** Similar to the earlier case studies, a system of “checks and balances” must be established to ensure that no single procurement staff member has total control of the

purchase. If segregation of duties were enforced, the DOT employee would not have had total control of the purchase. As previously mentioned, segregation of duties must be implemented in conjunction with mandatory job rotation or vacations for employees holding corruption prone positions to ensure more effective controls.

**Enforce compulsory fraud awareness and ethics training for employees holding corruption prone positions.** Similar to the earlier case studies, it must be made mandatory for staff members holding corruption prone positions, including top-level management, to receive fraud awareness (types of fraud and its red flags) and ethics training on a regular basis, preferably on an annual basis.

**Implement a system of “checks and balances” in the procurement planning, source selection, and contract administration phases.** Similar to case study 1, a system of “checks and balances” must be established so that the technical specifications, contractor’s price or quotation and delivery orders or service reports are independently checked and verified by a supervisor independent of the purchasing process of that particular goods and/or services contract. The system of “checks and balances” will limit the power of others to commit fraud and help reduce fraudulent activities.

***b. Monitoring Activities***

**Establish effective evaluations in the procurement process.** Similar to the earlier case studies, the organizations must build effective ongoing evaluation procedures into the procurement process. Likewise, separate evaluations must be made mandatory regardless of the effectiveness of the ongoing evaluations.

**7. Case Study 18 (Marine Corps Say Goodbye to Officers who Schemed with Thai Vendors)**

The key internal control improvements recommended in the procurement processes for the U.S. Marine Corps to deter procurement fraud are as follows:

*a. Control Environment*

**Maintain and enhance an ethical tone at the top and a culture of honesty.** As previously mentioned, the behavior of both management and co-workers can impact an employee's ethical conduct. When management acts ethically, employees will more than likely act ethically. If employees see their co-workers acting ethically, they will be more than likely to act ethically as well. Hence, the source of ethical behavior starts from the top and is the foundation for the organization.

**Reward integrity.** Similar to the Navy Bribery Scheme case, in addition to ensuring there is sufficient punishment for procurement fraud, the U.S. Marine Corps must also reward staff for ethical behavior to encourage ethical behavior.

*b. Control Activities*

**Adopt the segregation of duties rule and mandate job rotation or vacations.** Similar to case study 1, implementing the segregation of duties alone is not adequate as shown in this case study. Segregation of duties will become ineffective when employees holding different authorizations collude. Therefore, besides establishing segregation of duties to ensure that no single staff member will have total control of the purchase, mandatory job rotation or vacations must be implemented simultaneously for more effective control.

**Enforce compulsory fraud awareness and ethics training for employees holding corruption prone positions.** Similar to the earlier cases, it must be made mandatory for staff holding corruption prone positions, including top-level management, to receive anti-fraud and ethics training on a regular basis, preferably on an annual basis.

**Implement a system of “checks and balances” in the contract administration phase.** A system of “checks and balances” must be established so that delivery orders or service reports are independently checked and verified by a supervisor independent of the purchasing process of that particular goods and/or services contract. The system of “checks and balances” will help limit the power of others to commit fraud and help reduce fraudulent activities.

*c. Monitoring Activities*

**Establish effective evaluations in the procurement process.** Similar to the earlier case studies, the U.S. Marine Corps must build effective ongoing evaluation procedures into the procurement process. Likewise, separate evaluations must be made mandatory regardless of the effectiveness of the ongoing evaluations.

**8. Case Study 19 (Friends in Low Places)**

The key internal control improvements recommended in the procurement processes for the Department of the Interior (DOI) to deter procurement fraud are as follows:

*a. Control Environment*

**Maintain and enhance an ethical tone at the top and a culture of honesty.** Both the behavior of management and co-workers can impact an employee's ethical conduct. When management acts ethically, employees will more than likely act ethically. If employees see their co-workers acting ethically, they will more than likely act ethically as well. Hence, the source of ethical behavior starts from the top and is the foundation for the organization.

**Establish or enhance existing training policies on anti-fraud, including fraud awareness, prevention, detection and fraud management, and ethical behavior.** Such anti-fraud training will equip the procurement staff with the basic skills to detect and manage potential fraud when they see possible fraudulent activities. Early anti-fraud and ethics training at the time of employment and annual refresher training are essential to the overall effectiveness of the internal control system. At the time of employment, anti-fraud messages such as, "The Organization's vision is to strive for zero fraud," "The Organization does not tolerate fraud" and "The Organization shall take disciplinary action against staff members who do not abide by our policies" should be communicated clearly to the staff members and reinforced during the annual code of conduct refresher training. Staff members should also be encouraged to talk to their managers when they suspect that something is not right. An informed staff which is on

board and proactively involved in fighting fraud provides and reinforces the desired anti-fraud culture within the organization and the necessary foundation for a fraud prevention program. Skipping this step reduces the effectiveness of other internal control measures and undermines the organization's effort in fighting fraud. Anti-fraud and ethics training are not one-time efforts. To have an effective internal control system, regular refresher training (preferably on an annual basis) should be conducted for staff at all levels. In this case, with the capability to detect the misconduct of the two former DOI officers, the procurement staff, if adequately trained, would have taken immediate and appropriate steps to address the fraud and would have brought the matter to management's attention.

*b. Control Activities*

**Enforce compulsory fraud awareness and ethics training for employees holding corruption prone positions.** Similar to the earlier cases, it must be made mandatory for staff members holding corruption prone positions, including top-level management, to receive anti-fraud and ethics training on a regular basis, preferably on an annual basis.

**Implement a system of “checks and balances” in the procurement planning phase to provide adequate checks of specifications or statements of work before release for solicitation.** Specifications or statements of work must be independently checked by a supervisor of the author of the document or procurement personnel to ensure that they are clear in defining what is needed, consistent with other similar specifications, unbiased and do not favor any particular company.

**Implement a system of “checks and balances” in the solicitation planning phase to provide adequate review of the evaluation criteria.** Adequate review of the evaluation criteria is essential in ensuring that the evaluation criteria include “key areas of importance” and “emphasis” to be considered during the source selection phase, and that they can be objectively measured.

**Implement a system of “checks and balances” in the source selection phase to provide adequate checks of the evaluation process.** Independent evaluation

or review of the proposals must be checked to ensure that they are objectively evaluated solely based on the pre-determined evaluation criteria and procurement method.

*c. Monitoring Activities*

**Establish effective evaluations in the procurement process.** Similar to the earlier case studies, DOI must build effective ongoing evaluations procedures into the procurement process. Likewise, separate evaluations must be made mandatory regardless of the effectiveness of the ongoing evaluations.

**9. Case Study 20 (Patrick Air Force Base Engineer Violates Conflict of Interest Statute)**

The key internal control improvements recommended in the procurement processes for the U.S. Air Force to deter procurement fraud are as follows:

*a. Control Environment*

**Maintain and enhance an ethical tone at the top and a culture of honesty.** As previously mentioned, the behavior of both management and co-workers can impact an employee's ethical conduct. When management acts ethically, employees will more than likely act ethically. If employees see their co-workers acting ethically, they will more than likely act ethically as well. Hence, the source of ethical behavior starts from the top and is the foundation for the organization.

**Establish or enhance existing training policies on anti-fraud, including fraud awareness, prevention, detection, and fraud management, and ethical behavior.** Similar to case study 19, anti-fraud and ethical behavior training will equip the procurement staff with the basic skills needed to detect and manage potential fraud when they see possible fraudulent activities.

*b. Control Activities*

**Mandate job rotation or vacations for employees holding corruption prone positions.** Once again, this case study has shown that mandatory job rotation or

vacations for employees holding corruption prone positions is essential to deter procurement fraud.

**Enforce compulsory fraud awareness and ethics training for employees holding corruption prone positions.** Similar to the earlier cases, it must be made mandatory for staff members holding corruption prone positions, including top-level management, to receive anti-fraud and ethics training on a regular basis, preferably on an annual basis.

**Implement a system of “checks and balances” in the procurement planning phase to provide adequate checks of specifications or statements of work.** Specifications or statements of work must be independently checked by a supervisor of the author of the documents or procurement personnel to ensure that they are clear in defining what is needed, consistent with other similar specifications, unbiased and do not favor any particular company.

**Implement a system of “checks and balances” in the solicitation planning phase to provide adequate review of the evaluation criteria.** Adequate review of the evaluation criteria is essential in ensuring that the evaluation criteria determined includes “key areas of importance” and “emphasis” to be considered during the source selection phase, and that they can be objectively measured.

**Implement a system of “checks and balances” in the source selection phase to provide adequate checks of the evaluation process.** Independent evaluation or review of bid proposals must be conducted to ensure that they are objectively evaluated solely based on the pre-determined evaluation criteria and procurement method.

*c. Monitoring Activities*

**Establish effective evaluations in the procurement process.** Similar to the earlier case studies, the U.S. Air Force must build effective ongoing evaluation procedures into the procurement process. Likewise, separate evaluations must be made mandatory regardless of the effectiveness of the ongoing evaluations.

Tables 3 to 11 provide a summary for each case study and the key internal control improvements recommended in the procurement processes to deter fraud.

| <b>Case Study 1 (Navy Bribery Scheme)</b> |  |
|---|--|
| <b>Internal Control Component</b>         | <b>Recommended Internal Controls at Various Procurement Processes</b>  |
| Control Environment                       | <ul style="list-style-type: none"> <li>• <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Maintain an ethical environment and a culture of honesty within the organization</li> <li>○ Establish an effective organizational structure for managing decentralized procurement at the U.S. Navy readiness center</li> <li>○ Set challenging but realistic and achievable procurement goals</li> <li>○ Establish a positive work environment</li> <li>○ Reward integrity</li> </ul> </li> </ul>   |
| Risk Assessment                           | <ul style="list-style-type: none"> <li>• <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Conduct detailed and periodic risk analysis for decentralized procurement structure</li> </ul> </li> <li>• <i>Contract Administration phase</i> <ul style="list-style-type: none"> <li>○ Adopt proactive risk management methods such as <ul style="list-style-type: none"> <li>❖ surprise audit</li> <li>❖ analysis of procurement trends to see whether the same contractor is winning a contract lead by a specific purchasing agent</li> </ul> </li> </ul> </li> </ul>   |
| Control Activities                        | <ul style="list-style-type: none"> <li>• <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Implement segregation of duties rule in conjunction with mandatory job rotation or vacations for employees holding corruption prone positions</li> <li>○ Mandate compulsory anti-fraud and ethics training for employees holding corruption prone positions, including top-level management, on a regular basis (preferably on an annual basis)</li> </ul> </li> <li>• <i>Procurement Planning phase</i> <ul style="list-style-type: none"> <li>○ Implement a system of “checks and balances” for reviewing specification or statement of work before release of solicitation</li> </ul> </li> <li>• <i>Source Selection phase</i> <ul style="list-style-type: none"> <li>○ Implement a system of “checks and balances” for reviewing contract before release of contract</li> </ul> </li> <li>• <i>Contract Administration phase</i> <ul style="list-style-type: none"> <li>○ Implement a system of “checks and balances” for acceptance of goods and services</li> </ul> </li> </ul> |
| Monitoring Activities                     | <ul style="list-style-type: none"> <li>• <i>Throughout the procurement process</i> <ul style="list-style-type: none"> <li>○ Build ongoing evaluation procedures throughout the procurement process</li> </ul> </li> <li>• <i>Contract Administration phase</i> <ul style="list-style-type: none"> <li>○ Mandate separate evaluations (to be conducted regularly and if possible surprise audit) regardless of whether the ongoing evaluation is effective or not</li> </ul> </li> </ul>  |

Table 3. Summary of Key Internal Control Improvement for Case Study 1.

| <b>Case Study 2 (U.S. Army Corps of Engineers Fraud Case)</b> |   |
|---|---|
| <b>Internal Control Component</b>                             | <b>Recommended internal controls at various procurement processes</b>   |
| Control Environment   | <ul style="list-style-type: none"> <li>• <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Maintain an ethical environment and a culture of honesty within the organization</li> <li>○ Reward integrity</li> </ul> </li> </ul>   |
| Control Activities  | <ul style="list-style-type: none"> <li>• <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Implement segregation of duties in conjunction with mandatory job rotation or vacations for employees holding corruption prone positions</li> <li>○ Mandate compulsory anti-fraud and ethics training for employees holding corruption prone positions, including top-level management, on a regular basis (preferably on an annual basis)</li> </ul> </li> <li>• <i>Source Selection phase</i> <ul style="list-style-type: none"> <li>○ Implement a system of “checks and balances” for evaluating the price or quotation from the contractor and sub-contractors</li> </ul> </li> </ul> |
| Monitoring Activities   | <ul style="list-style-type: none"> <li>• <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Build ongoing evaluation procedures throughout the procurement process</li> </ul> </li> <li>• <i>Contract Administration phase</i> <ul style="list-style-type: none"> <li>○ Mandate separate evaluations, to be conducted regularly and without advance notice, if possible, regardless of whether the ongoing evaluation is effective or not</li> </ul> </li> </ul>  |

Table 4. Summary of Key Internal Control Improvement for Case Study 2.

| <b>Case Study 3 (Bribery and Fraud Lands Program Manager in Jail) &amp; Case Study 4 (Misconduct of a First Lieutenant)</b> |   |
|---|---|
| <b>Internal Control Component</b>   | <b>Recommended internal controls at various procurement processes</b>   |
| Control Activities  | <ul style="list-style-type: none"> <li>• <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Implement segregation of duties in conjunction with mandatory job rotation or vacations for employees holding corruption prone positions</li> <li>○ Mandate compulsory anti-fraud and ethics training for employees holding corruption prone positions, including top-level management, on a regular basis (preferably on an annual basis)</li> </ul> </li> <li>• <i>Source Selection phase</i> <ul style="list-style-type: none"> <li>○ Implement a system of “checks and balances” for evaluating the price or quotation from the contractor and sub-contractors</li> </ul> </li> <li>• <i>Contract Administration phase</i> <ul style="list-style-type: none"> <li>○ Implement a system of “checks and balances” for acceptance of goods and services</li> </ul> </li> </ul> |
| Monitoring Activities   | <ul style="list-style-type: none"> <li>• <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Build ongoing evaluation procedures throughout the procurement process</li> </ul> </li> <li>• <i>Contract Administration phase</i> <ul style="list-style-type: none"> <li>○ Mandate separate evaluations, to be conducted regularly and without advance notice, if possible, regardless of whether the ongoing evaluation is effective or not</li> </ul> </li> </ul>  |

Table 5. Summary of Key Internal Control Improvement for Case Studies 3 and 4.

| <b>Case Studies 5 to 15</b>       |  |
|-----------------------------------|--|
| <b>Internal Control Component</b> | <b>Recommended internal controls at various procurement processes</b>  |
| Control Environment               | <ul style="list-style-type: none"> <li>• <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Maintain an ethical environment and a culture of honesty within the organization</li> <li>○ Enhance enforced accountability</li> </ul> </li> </ul>   |
| Control Activities                | <ul style="list-style-type: none"> <li>• <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Mandate job rotation or vacations for employees holding corruption prone positions</li> <li>○ Mandate compulsory anti-fraud and ethics training for employees holding corruption prone positions, including top-level management, on a regular basis (preferably on an annual basis)</li> <li>○ Establish or enhance existing whistle-blower system</li> </ul> </li> </ul> |
| Monitoring Activities             | <ul style="list-style-type: none"> <li>• <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Build ongoing evaluation procedures throughout the procurement process</li> </ul> </li> <li>• <i>Contract Administration phase</i> <ul style="list-style-type: none"> <li>○ Mandate separate evaluations, to be conducted regularly and without advance notice, if possible, regardless of whether the ongoing evaluation is effective or not.</li> </ul> </li> </ul>      |

Table 6. Summary of Key Internal Control Improvement for Case Studies 5 to 15.

| <b>Case Study 16 (Special Operations Command Bribery Scandal Nabs Two Retired Officers)</b> |  |
|---|--|
| <b>Internal Control Component</b>   | <b>Recommended internal controls at various procurement processes</b>  |
| Control Activities  | <ul style="list-style-type: none"> <li>• <i>Solicitation Planning phase</i> <ul style="list-style-type: none"> <li>○ Implement a system of “checks and balances” to provide adequate review of the evaluation criteria</li> </ul> </li> <li>• <i>Source Selection phase</i> <ul style="list-style-type: none"> <li>○ Implement a system of “checks and balances” to provide adequate technical checks of the evaluation process and oversight of the contractor</li> </ul> </li> </ul> |

Table 7. Summary of Key Internal Control Improvement for Case Study 16.

| <b>Case Study 17 (Awarding Contracts to Spouse Earns Couple One Year in Prison)</b> |   |
|---|---|
| <b>Internal Control Component</b>   | <b>Recommended internal controls at various procurement processes</b>   |
| Control Activities  | <ul style="list-style-type: none"> <li>• <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Implement segregation of duties in conjunction with mandatory job rotation or vacations for employees holding corruption prone positions</li> <li>○ Mandate compulsory anti-fraud and ethics training for employees holding corruption prone positions, including top-level management, on a regular basis (preferably on an annual basis)</li> </ul> </li> <li>• <i>Procurement Planning phase</i> <ul style="list-style-type: none"> <li>○ Implement a system of “checks and balances” for reviewing specification or statement of work before release of solicitation</li> </ul> </li> <li>• <i>Source Selection phase</i> <ul style="list-style-type: none"> <li>○ Implement a system of “checks and balances” for evaluating the price or quotation from the contractor and sub-contractors</li> </ul> </li> <li>• <i>Contract Administration phase</i> <ul style="list-style-type: none"> <li>○ Implement a system of “checks and balances” for acceptance of goods and services</li> </ul> </li> </ul> |
| Monitoring Activities   | <ul style="list-style-type: none"> <li>• <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Build ongoing evaluation procedures throughout the procurement process</li> </ul> </li> <li>• <i>Contract Administration phase</i> <ul style="list-style-type: none"> <li>○ Mandate separate evaluations, to be conducted regularly and without advance notice, if possible, regardless of whether the ongoing evaluation is effective or not</li> </ul> </li> </ul>  |

Table 8. Summary of Key Internal Control Improvement for Case Study 17.

| <b>Case Study 18 (Marine Corps Say Goodbye to Officers who Schemed with Thai Vendors)</b> |   |
|---|---|
| <b>Internal Control Component</b>   | <b>Recommended internal controls at various procurement processes</b>   |
| Control Environment   | <ul style="list-style-type: none"> <li>• <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Maintain an ethical environment and a culture of honesty within the organization</li> <li>○ Reward integrity</li> </ul> </li> </ul>   |
| Control Activities  | <ul style="list-style-type: none"> <li>• <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Implement segregation of duties in conjunction with mandatory job rotation or vacations for employees holding corruption prone positions</li> <li>○ Mandate compulsory anti-fraud and ethics training for employees holding corruption prone positions, including top-level management, on a regular basis (preferably on an annual basis)</li> </ul> </li> <li>• <i>Contract Administration phase</i> <ul style="list-style-type: none"> <li>○ Implement a system of “checks and balances” for acceptance of goods and services</li> </ul> </li> </ul> |
| Monitoring Activities   | <ul style="list-style-type: none"> <li>• <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Build ongoing evaluation procedures throughout the procurement process</li> </ul> </li> <li>• <i>Contract Administration phase</i> <ul style="list-style-type: none"> <li>○ Mandate separate evaluations, to be conducted regularly and without advance notice, if possible, regardless of whether the ongoing evaluation is effective or not</li> </ul> </li> </ul>  |

Table 9. Summary of Key Internal Control Improvement for Case Study 18.

| <b>Case Study 19 (Friends in Low Places)</b> |  |
|--|--|
| <b>Internal Control Component</b>            | <b>Recommended internal controls at various procurement processes</b>  |
| Control Environment                          | <ul style="list-style-type: none"> <li>• <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Maintain an ethical environment and a culture of honesty within the organization</li> <li>○ Establish or enhance existing training policies on anti-fraud and ethical behavior</li> </ul> </li> </ul>  |
| Control Activities                           | <ul style="list-style-type: none"> <li>○ <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Mandate compulsory anti-fraud and ethics training for employees holding corruption prone positions, including top-level management, on a regular basis (preferably on an annual basis)</li> </ul> </li> <li>• <i>Procurement Planning phase</i> <ul style="list-style-type: none"> <li>○ Implement a system of “checks and balances” for specification or statement of work before release for solicitation</li> </ul> </li> <li>• <i>Solicitation Planning phase</i> <ul style="list-style-type: none"> <li>○ Implement a system of “checks and balances” to provide adequate review of the evaluation criteria</li> </ul> </li> <li>• <i>Source Selection phase</i> <ul style="list-style-type: none"> <li>○ Implement a system of “checks and balances” to provide adequate checks of the evaluation process</li> </ul> </li> </ul> |
| Monitoring Activities                        | <ul style="list-style-type: none"> <li>• <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Build ongoing evaluation procedures throughout the procurement process</li> </ul> </li> <li>• <i>Contract Administration phase</i> <ul style="list-style-type: none"> <li>○ Mandate separate evaluations, to be conducted regularly and without advance notice, if possible, regardless of whether the ongoing evaluation is effective or not.</li> </ul> </li> </ul>  |

Table 10. Summary of Key Internal Control Improvement for Case Study 19.

| <b>Case Study 20 (Patrick Air Force Base Engineer Violates Conflict of Interest Statute)</b> |  |
|--|--|
| <b>Internal Control Component</b>  | <b>Recommended internal controls at various procurement processes</b>  |
| Control Environment  | <ul style="list-style-type: none"> <li>• <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Maintain an ethical environment and a culture of honesty within the organization</li> </ul> </li> </ul>  |
| Control Activities   | <ul style="list-style-type: none"> <li>○ <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Mandate job rotation or vacations for employees holding corruption prone positions</li> <li>○ Mandate compulsory anti-fraud and ethics training for employees holding corruption prone positions, including top-level management, on a regular basis (preferably on an annual basis)</li> </ul> </li> <li>• <i>Procurement Planning phase</i> <ul style="list-style-type: none"> <li>○ Implement a system of “checks and balances” for reviewing specification or statement of work before release of solicitation</li> </ul> </li> <li>• <i>Solicitation Planning phase</i> <ul style="list-style-type: none"> <li>○ Implement a system of “checks and balances” to provide adequate review of the evaluation criteria</li> </ul> </li> <li>• <i>Source Selection phase</i> <ul style="list-style-type: none"> <li>○ Implement a system of “checks and balances” for evaluation of bid proposals</li> </ul> </li> </ul> |
| Monitoring Activities  | <ul style="list-style-type: none"> <li>• <i>Throughout procurement process</i> <ul style="list-style-type: none"> <li>○ Build ongoing evaluation procedures throughout the procurement process</li> </ul> </li> <li>• <i>Contract Administration phase</i> <ul style="list-style-type: none"> <li>○ Mandate separate evaluations, to be conducted regularly and surprise audit, if possible, regardless of whether the ongoing evaluation is effective or not.</li> </ul> </li> </ul>  |

Table 11. Summary of Key Internal Control Improvement for Case Study 20.

## 10. Other General Improvements

In addition to the specific internal control improvements recommended for each case study, the following common internal controls are recommended for all the case studies for more effective controls:

*a. Control Environment*

**Set a high ethical tone at the top.** Top management must show their commitment to combat fraudulent acts. Talking about its commitment to combat fraudulent acts is not adequate; top management has to lead by example.

**Establish a positive environment.** Create a positive work environment to promote morale and loyalty of employees. Employees who are loyal to the organization are less likely to defraud the organization since the fraudulent act will hurt the organization.

**Reward integrity.** While sufficient punishment for procurement fraud is essential to an effective control environment, rewards to staff for ethical behavior is also a critical element to fraud prevention. To encourage ethical behavior, the organization should not reward procurement staff only for meeting procurement performance goals, but staff should also be rewarded for acting with integrity and ethically.

*b. Risk Assessment*

**Implement proactive risk management techniques.** Proactive risk management techniques such as surprise audits or analysis of procurement trends to see whether the same contractor is winning a contract led by a specific purchasing agent should be implemented in the contract administration phase. If employees know that an audit may be conducted at any time, procurement fraud may be less likely to happen.

**C. SUMMARY**

This chapter presented the recommended improvements for all of the 20 case studies of fraud incidents by applying relevant internal controls into the procurement process to deter procurement fraud. While the suggested improvements for each case study are recommended to address specific weaknesses identified in each case study, they share several similarities. Such improvements include maintaining an ethical environment in the organization, implementing segregation of duties in conjunction with mandatory job rotation or vacations for employees holding corruption prone positions, mandating compulsory anti-fraud and ethics training for employees holding corruption

prone positions, establishing effective evaluations in the procurement process and so on. A majority of these improvements are also recommended to be applied throughout the procurement process, with some improvements recommended for a specific phase of the procurement process. For example, for case studies 1, 17, 19 and 20, it is recommended that a system of “checks and balances” for reviewing specifications or statements of work before release be implemented in the procurement planning phase. Finally, some common internal controls, such as setting a high ethical tone at the top, establishing a positive work environment, rewarding integrity and engaging in proactive risk management techniques, are also recommended for all the case studies for more effective controls. The next chapter summarizes and concludes the research and identifies areas for further research.

## **V. SUMMARY, CONCLUSIONS, AND AREAS FOR FURTHER RESEARCH**

### **A. SUMMARY**

With the rise in globalization, the use of technology to accelerate approval and payable cycles in the outsourcing of goods and services and the huge financial flow it generates, government organizations have increasingly become more exposed to the risk of fraud in their procurement process. In this research, an analysis and discussion of how internal controls can be integrated into the procurement processes to deter procurement fraud was presented. To build the foundation of knowledge of this research, Chapter II presented the literature review concerning the six phases of public procurement process, Committee of Sponsoring Organization of the Treadway Commission (COSO)'s five internal control components, the different types of procurement fraud, and the application of internal control components in the procurement process.

Chapter III provided a review and analysis of 20 case studies of actual fraud incidents and discussed the weakness of internal controls that led to the fraudulent activities in each case. In each case study, its internal control weaknesses were identified and analyzed in terms of the fundamental principles that are associated with the five internal control components. The analysis revealed that the organizations in the case studies mostly lacked three internal control components, namely control environment, control activities, and monitoring activities. Chapter IV provided the recommended improvements for each case study by applying relevant internal controls into the procurement process to deter procurement fraud.

### **B. CONCLUSION**

#### **1. Research Questions**

The purpose of this research was to develop a guideline to help government organizations design an effective system of internal controls to deter fraud in public

procurement processes and practices. The following three research questions were addressed through the literature review and analysis of actual case studies of fraud incidents:

*a. How are Internal Controls and Procurement Processes Integrated?*

Proper integration and execution of the five internal control components in the procurement process is essential to deter procurement fraud. The existence of the 17 fundamental principles associated with the five internal control components in the internal control system will suggest whether the internal control system is functioning effectively. Drawing from the literature review concerning the application of internal control components in the procurement process in Chapter II, Table 12 summarizes and presents the integration of the respective principle of the 17 fundamental principles in the procurement process (COSO, 2013):

| Internal Control   | How can Internal Control be integrated in the Procurement Process?   |
|--|--|
| <b>(1) Control Environment</b>                                       |  |
| Principle 1: Demonstrates commitment to integrity and ethical values | <ul style="list-style-type: none"> <li>• Top management must set an ethical tone throughout the procurement process and lead by example</li> </ul>   |
| Principle 2: Exercises oversight responsibility                      | <ul style="list-style-type: none"> <li>• Auditors must have the independent authority to conduct contract audits and investigations</li> </ul>   |
| Principle 3: Establishes structure, authority and responsibility     | <ul style="list-style-type: none"> <li>• Organizations must establish a procurement organization structure (i.e., centralized, decentralized or hybrid model) and include areas of authority and line of reporting and responsibility to control the flow of procurement activities</li> </ul>   |
| Principle 4: Demonstrates commitment to competence                   | <ul style="list-style-type: none"> <li>• Organizations must be committed in recruiting, developing, and retaining competent and ethical procurement staff through:               <ul style="list-style-type: none"> <li>(a) hiring morally sound procurement staff;</li> <li>(b) conducting regular training on effective procurement techniques and ethical behavior;</li> <li>(c) setting challenging but realistic and achievable performance goals; and</li> <li>(d) rewarding outstanding performance and ethical behavior</li> </ul> </li> </ul> |
| Principle 5: Enforces accountability                                 | <ul style="list-style-type: none"> <li>• Organizations must ensure that:</li> </ul>  |

|  |   |
|--|---|
|  | <ul style="list-style-type: none"> <li>(a) procurement staff members are held responsible for their internal control responsibilities; and</li> <li>(b) there is sufficient punishment for fraudulent conduct, and that the punishment is applied consistently to anyone who commits procurement fraud</li> </ul>   |
| <b>(2) Risk Assessment</b>   |   |
| Principle 6: Specifies suitable objectives   | <ul style="list-style-type: none"> <li>• Organizations must               <ul style="list-style-type: none"> <li>(a) specify clear and achievable objectives by establishing effective mission statement that consists of purpose statement and value statement; and</li> <li>(b) set clear and achievable objectives to guide and motivate the employees in performing their procurement work</li> </ul> </li> </ul> |
| Principles 7 & 8: Identifies and analyzes risks  | <ul style="list-style-type: none"> <li>• Organizations must identify and analyze risks (such as bid tailoring) in the procurement process that may upset the achievement of its objectives.</li> </ul>  |
| Principle 9: Identifies and analyzes significant change  | <ul style="list-style-type: none"> <li>• Organizations must identify and assess how the identified risks should be managed. For example, the best approach to manage risk (such as bid tailoring) that has a significant impact on the organization but lower probability of occurring is to mitigate it by developing specific internal controls to address it.</li> </ul>   |
| <b>(3) Control Activities</b>  |   |
| Principles 10, 11 and 12: Selects and develops control activities and deploys through policies and procedures  | <ul style="list-style-type: none"> <li>• Organizations must select and implement relevant control activities in the procurement process to adequately address the identified risk. For example, to address the risk of bid tailoring, some specific control activities include segregation of duties and mandatory rotation of duties for employees holding corruption prone positions.</li> </ul>                    |
| <b>(4) Information and Communication</b>   |   |
| Principles 13, 14 and 15: Uses relevant information and communicates internally and externally                 | <ul style="list-style-type: none"> <li>• Organizations must communicate relevant information (such as organization's objectives, control activities such as whistle-blower hotline) to procurement staff and contractors</li> </ul>   |
| <b>(5) Monitoring Activities</b>   |   |
| Principles 16 and 17: Conducts ongoing and/or separate evaluations and evaluates and communicates deficiencies | <ul style="list-style-type: none"> <li>• Organizations must ensure that evaluations are built into the procurement process to assess if the other four internal controls are functioning effectively to deter procurement fraud and, if not, to report to management and correct inefficiency immediately.</li> </ul>   |

Table 12. Integration of Internal Control and Procurement Process.

***b. What Factors Contribute to Public Procurement Fraud Incidents?***

The analysis of the 20 case studies in Chapter III suggested that the main factors that contributed to the procurement fraud incidents were the lack of enforcement in three internal control components, namely the control environment, control activities, and monitoring activities. In terms of the control environment, the organizations in the case studies were vulnerable to fraud because these organizations lacked a high ethical tone at the top, and they failed to demonstrate a commitment to develop and maintain a competent, professional and ethical procurement workforce. In terms of control activities, the organizations failed to (a) mandate regular anti-fraud and ethics training for employees holding corruption prone positions; (b) mandate segregation of duties and compulsory job rotation or vacation for employees holding corruption prone positions; (c) set up a “checks and balances” system in key procurement processes and so on. In terms of monitoring activities, the organizations lacked effective ongoing and separate evaluations procedures.

***c. How Can Internal Controls within the Procurement Processes Deter Public Procurement Fraud?***

The analysis and the recommendations chapters suggested that procurement fraud can be deterred by applying relevant internal controls into the procurement processes. The main recommendation for improvements include: (a) maintaining an ethical tone at the top and a culture of honesty throughout the procurement process; (b) implementing segregation of duties in conjunction with mandatory job rotation or vacations for employees holding corruption prone positions throughout the procurement process; (c) compulsory anti-fraud and ethics training for employees holding corruption prone positions on a regular basis (preferably on an annual basis); (d) establishing effective evaluations into the procurement process and (e) implementing a system of “checks and balances” in procurement planning, solicitation planning, source selection and contract administration phases. In the next section, areas for further research will be presented.

## **2. Areas for Further Research**

The following areas for further research are suggested:

One area for further research is to conduct an analysis of internal control limitations and the impact on the organization's effort in meeting objectives. There is no such thing as a perfect internal control system. No matter how well an internal control system is designed and implemented, it does not guarantee that the organization's objectives will be met. Factors such as human error and poor judgment can limit the effectiveness of any well designed internal control system. Understanding the internal control limitations and the potential impact will assist and direct government organizations in their effort to develop and design an effective and realistic internal controls system to deter fraud in the public procurement processes and practices.

Another area for further research is to conduct a study to assess the effectiveness of Australia, United Kingdom (UK), and U.S. governments' procurement fraud prevention strategies by comparing them with the COSO's model of an internal control so as to identify areas of strengths and weaknesses and any relevant improvements that need to be implemented.

These two possible research areas will aid other governments in their effort for the development of practical and effective internal control systems so as to further help reduce fraud in the public procurement processes and practices.

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## **APPENDIX A. CODE OF ETHICS FOR GOVERNMENT SERVICE**

Any person in Government service should:

1. Put loyalty to the highest moral principles and to country above loyalty to Government persons, party, or department.
2. Uphold the Constitution, laws, and legal regulations of the United States and of all governments therein and never be a party to their evasion.
3. Give a full day's labor for a full day's pay; giving to the performance of his duties his earnest effort and best thought.
4. Seek to find and employ more efficient and economical ways of getting tasks accomplished.
5. Never discriminate unfairly by the dispensing of special favors or privileges to anyone, whether for remuneration or not; and never accept for himself or his family, favors or benefits under circumstances which might be construed by reasonable persons as influencing the performance of his governmental duties.
6. Make no private promises of any kind binding upon the duties of office, since a Government employee has no private word which can be binding on public duty.
7. Engage in no business with the Government, either directly or indirectly, which is inconsistent with the conscientious performance of his governmental duties.
8. Never use any information coming to him confidentially in the performance of governmental duties as a means for making private profit.
9. Expose corruption wherever discovered.
10. Uphold these principles, ever conscious that public office is a public trust.

**Source: U.S. House of Representatives, 2008**

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## **APPENDIX B. NCMA'S CODE OF ETHICS**

Each member of the profession shall:

1. Strive to attain the highest professional standard of job performance, to exercise diligence in carrying out one's professional duties, and to serve the profession to the best of one's ability.
2. Conduct oneself in such a manner as to bring credit upon the profession, as well as to maintain trust and confidence in the integrity of the contract management process.
3. Avoid engagement in any transaction that might conflict or appear to conflict with the proper discharge of one's professional duties by reason of a financial interest, family relationship, or any other circumstances.
4. Comply with all laws and regulations that govern the contract management process in the jurisdictions in which one conducts business, including protection of competition-sensitive and proprietary information from inappropriate disclosure.
5. Keep informed of developments in the contract management field, utilizing both formal training and ad hoc means, to continuously increase knowledge, skill, and professional competence.
6. Share one's knowledge and experience openly to contribute to the development of other professionals, improve performance quality, and enhance public perception of the profession.
7. Not knowingly influence others to commit any act that would constitute a violation of this code.

**Source: NCMA, 2012**

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## **APPENDIX C. CODE OF PROFESSIONAL ETHICS FOR CERTIFIED FRAUD EXAMINERS**

- A Certified Fraud Examiner shall, at all times, demonstrate a commitment to professionalism and diligence in the performance of his or her duties.
- A Certified Fraud Examiner shall not engage in any illegal or unethical conduct, or any activity which would constitute a conflict of interest.
- A Certified Fraud Examiner shall, at all times, exhibit the highest level of integrity in the performance of all professional assignments and will accept only assignments for which there is reasonable expectation that the assignment will be completed with professional competence.
- A Certified Fraud Examiner will comply with lawful orders of the courts and will testify to matters truthfully and without bias or prejudice.
- A Certified Fraud Examiner, in conducting examinations, will obtain evidence or other documentation to establish a reasonable basis for any opinion rendered. No opinion shall be expressed regarding the guilt or innocence of any person or party.
- A Certified Fraud Examiner shall not reveal any confidential information obtained during a professional engagement without proper authorization.
- A Certified Fraud Examiner will reveal all material matters discovered during the course of an examination which, if omitted, could cause a distortion of the facts.
- A Certified Fraud Examiner shall continually strive to increase the competence and effectiveness of professional services performed under his or her direction.

**Source: ACFE-online, 2013**

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## **APPENDIX D. PROCUREMENT FRAUD CASES**

### **Case Study 1 (Navy Bribery Scheme)**

The bribery scheme involved a program for the maintenance of military airplanes at a U.S. Navy readiness center. The U.S. Navy had contracts with L&N Industrial Tool & Supply, Centerline Industrial, Inc. and X&D for supplying tooling and tooling-related products to repair the military airplanes. A former civilian employee of the U.S. Navy was the tool control manager at the center. His responsibilities, amongst other things, included writing statements of work and contracts, supervision and authorizing purchase and replacement of tools for the maintenance of the planes as well as administering the contracts. This employee and four co-workers working at the center first intentionally wrote those “to be exploited” contracts vaguely to avoid some normal procurement procedures. They also excluded the requirements for yearly audits and a contracting officer’s representative to monitor the contractor’s performance which was normally required. After the contracts were established, the U.S. Navy former civilian employee began to ask the contractors to pay for personal items for him and the co-workers. After paying for the bribe items, the contractors would then convert these payments into invoices for services allowed under the contract but which were not required and not performed. The bribery started small with gift cards to Lowe’s, Best Buy or the Apple store, a bottle of liquor and later, it evolved into more expensive bribe items such as massage chairs, computers for the office, remote-controlled airplanes, 42-inch flat screen TV. The fraud scheme also involved asking contractors to provide goods and services for the center that were beyond the scope of contract. The contractors would then bill the government organization under the pretext of kitting or reamer services that were allowable under the contract. The five conspirators benefited in the range of \$50,000 to \$400,000 in the form of cash, gift cards, labor and so on. The contractors, on the other hand, received about \$4.5 million of government work. The fraud scheme went unnoticed for almost a decade and would have continued if not for an anonymous tip to a government anti-fraud hotline. No one noticed the fraudulent activity because the scheme involved collusion from the line workers’ level to the supervisory level (Moran, 2013).



### **Case Study 2 (U.S Army Corps of Engineers Fraud)**

A former program manager for the U.S. Army Corps of Engineers, together with other corrupt public officials and his family members, colluded with six contractors to steal over \$30 million from the government through inflated and falsified invoices. The fraudulent activities occurred from 2007 to 2011. The former U.S. Army Corps of Engineers employee, being a program manager and contracting officer's technical representative, was given the authority, amongst other things, to issue orders for goods and services against government term contracts as well as the authority to certify the completion of goods and services. Through bid tailoring and bid-rigging schemes, the former U.S. Army Corps of Engineers employee steered contracts to conspiring contractors (directly and indirectly), in exchange for kickbacks or bribes. In this case, the former U.S. Army Corps of Engineers employee and other corrupt public officials obtained contracts for conspiring contractor A, and contractor A would in turn sub-contract work to other conspiring contractors. These conspiring contractors and sub-contractors often provided goods and services in accordance with the contract but would submit inflated and falsified quotations for goods and services. A portion of the payment received would be given to the former U.S. Army Corps of Engineers employee and other corrupt public officials as bribes or kickbacks (Federal Bureau of Investigation (FBI), 2013).

### **Case Study 3 (Bribery and Fraud Lands Program Manager in Jail)**

A program manager (PM), who was responsible for administering computer contracts to the U.S. federal government, colluded with a contractor and set up a shell company to defraud the government. The PM inflated the price of computer storage equipment by \$500 per unit. The inflated price was due to the "additional services" for the maintenance of the equipment that were allowed under the contract but were not required and not performed. The \$500 for the performance of the "additional services" was then paid to the shell company owned by the PM's wife. In addition, the PM used the shell company to purchase generic equipment and re-sell it to the government as a branded product above the market price. As a result, the PM had stolen about \$3.2M from the government (Department of Defense General Counsel's Office, 2013).

#### **Case Study 4 (Misconduct of a First Lieutenant)**

A retired First Lieutenant, who was responsible for administering contracts at Bagram Airfield, Afghanistan, colluded with contractors to defraud the government. The retired First Lieutenant falsified the number of bunkers and barriers delivered at Bagram, which resulted in DoD paying for additional bunkers and barriers that were not required and received. As a result, the retired First Lieutenant had stolen about \$120,000 from the government (Department of Defense General Counsel's Office, 2013).

#### **Case Study 5 (Major Wrongdoing)**

An U.S. Army Major, a contracting officer at Camp Arifjan, Kuwait, accepted bribes from five DoD contractors that supplied bottled water and other goods and services to the bases in Kuwait. The U.S. Army Major abused his authority as a contracting officer, awarded contracts and Blanket Purchase Agreement to the five contractors, and in return, he received approximately \$5.8 million of cash bribes (Department of Defense General Counsel's Office, 2013).

#### **Case Study 6 (Former Federal Highway Administration Official and Wife Engage in Corrupt Scheme)**

A former federal Highway administration official colluded with a contractor to defraud the government. He engineered the award of contracts involving traffic engineering services to a contractor, and in return, the contractor granted a sub-contract to the employee's wife's "consulting firm." The "consulting firm" had no traffic engineering experience (Department of Defense General Counsel's Office, 2013).

#### **Case Study 7 (Air Force Contracting Officer Pays \$6,000 for 18 U.S.C. 209 Violation)**

An Air Force contracting officer colluded with a contractor to defraud the government by providing favourable treatment to the contractor. In return, the contracting officer received bribes in the form of condominium rental payments and other valuable goods and items for the condominium (Department of Defense General Counsel's Office, 2013).

#### **Case Study 8 (Contractors and Federal Personnel, Working Together, Defraud the Government and Go to Jail)**

A former lieutenant colonel with the United States Army Reserves together with numerous public officials (including two high-ranking U.S. Army officers) colluded with

a U.S. contractor to defraud the Coalition Provisional Authority - South Central Region (CPA-SC) involving contracts in the reconstruction of Iraq. These public officials collaborated to rig the bids on contracts awarded by CPA-SC such that all the contracts were awarded to the U.S contractor. In return, these public officials received bribery money of over \$1 million in terms of cash, sports cars, computers, jewellery, liquor and future employment with this U.S contractor (Department of Justice 07-449, 2007).

#### **Case Study 9 (One Happy Family Spends Time Together in Jail)**

A program director for the General Services Administration colluded with the two contractors to defraud the U.S. federal government by steering contracts to these contractors. In exchange, these contractors granted sub-contracts to his personal business and his daughters. These sub-contracts received over \$800,000 in payment but did not perform any services for the government (Department of Defense General Counsel's Office, 2013).

#### **Case Study 10 (Conflict of Interest Results in Jail Time for Acquisitions Executive)**

A former senior Air Force official while participating personally as a chief negotiator in the negotiation for a \$23 billion leasing of tanker aircraft contract with Boeing (on a sole-source contract basis), was simultaneously negotiating with Boeing for a possible job offer. The former senior Air Force official kept secret her negotiation with Boeing on the job offer. When the former senior Air Force official finally submitted her letter in which she disqualified herself from working on matters involving Boeing, she collaborated with Boeing's senior executive to lie regarding the timing of her employment discussions and negotiation. The former senior Air Force official also abused her position in the U.S. federal government to get her daughter and son-in-law jobs at Boeing (Department of Defense General Counsel's Office, 2013).

#### **Case Study 11 (Awarding Contracts to Spouse II)**

A contracting officer for the General Services Administration defrauded the organization by directing contracts to her husband's employer. A total of about \$11.5 million worth of contracts for purchase of food preparation and servicing equipment items was awarded to the company. In exchange, the contracting officer's husband was rewarded with higher salary and a Jaguar from his employer (Department of Defense General Counsel's Office, 2013).

### **Case Study 12 (Army Employee Sentenced for Conflicts of Interest)**

An employee of the U.S. Army was involved in the awarding and administration of contracts that involves a company that the employee owned stock. The employee failed to disclose his financial interest in the company (Department of Defense General Counsel's Office, 2013).

### **Case Study 13 (Contractors and Army Officer Face Five Years for Conflict of Interest)**

An Army colonel while performing his official duties of supervising solicitation, award and oversight of more than 17,000 contracts in Korea was negotiating with two contractors for a possible job offer. In addition, the Army colonel had overruled the decision of technical experts to award a contract to a different company, and instead recommended the award of the contracts to his potential employer. In return, the Army colonel received bribes from the companies and job offers from the companies. The Army colonel had in total pocketed over \$700,000 of bribes. These bribes had resulted in almost \$25 million worth of contracts awarded to conspiring contractors for building facilities and security guard services in Korea (Department of Defense General Counsel's Office, 2013).

### **Case Study 14 (Post Employment "Lifetime Ban")**

A government employee was involved in the approval and award of a supply contract for audio/visual equipment to his future employer. This resulted in the government having to pay about \$6 million for equipment that was only worth \$841,000 (Department of Defense General Counsel's Office, 2013).

### **Case Study 15 (Family Business Venture Ends in Violation of 18 U.S.C. 209)**

A contracting officer at the Naval Surface Warfare Center together with his father-in-law defrauded the government. The contracting officer directed government contracts for the purchase of computer equipment to a company that was co-owned by him and his father-in-law. They would purchase computer equipment from a vendor and charged the government an inflated price for the equipment. As a result, the government paid \$29,000 for computer equipment that was only worth \$11,000 (Department of Defense General Counsel's Office, 2013).

### **Case Study 16 (Special Operations Command Bribery Scandal Nabs Two Retired Officers)**

Two retired military officers of Special Operations Command (SOCOM) colluded with contractors to defraud the U.S. federal government by engineering the award of weapons contracts to conspiring contractors. In return, the retired military officials received kickbacks from these contractors. The first official, a retired Army lieutenant colonel, was engaged by SOCOM as a contractor to evaluate the proposals for the supply of weapons for the special operations forces. The second official, a retired Army colonel who was formerly the chief of special programs at SOCOM, set up a consulting firm to provide consultation services to companies to successfully secure SOCOM's contracts. The first official gave favorable reviews of the conspiring contractors' proposals for weapons so that the conspiring companies could win SOCOM contracts. In return, the consulting firm would pay kickbacks to the first official. To pay for the kickbacks, the conspiring companies would inflate the prices of goods and services artificially (Department of Defense General Counsel's Office, 2013).

### **Case Study 17 (Awarding Contracts to Spouse Earns Couple One Year in Prison)**

An employee development specialist of the Department of the Treasury (DOT) defrauded the organization by directing contracts to the companies owned by her husband over the course of a two-year period. The employee was responsible for determining training needs and procuring training services for DOT employees. Over the two-year period, the employee had awarded 105 training contracts amounting to \$139,600 to her husband's companies (Department of Defense General Counsel's Office, 2013).

### **Case Study 18 (Marine Corps Say Goodbye to Officers Who Schemed with Thai Vendors)**

Three officers of the U.S. Marine Corps Forces Pacific, Joint U.S. Military Group, Thailand, colluded with a Thai contractor to defraud the U.S. federal government. The first two officials passed inside information to the Thai contractor so that it could increase its bid and profit margin while still ensuring that it submitted the lowest bid. In exchange, the two officers received bribes and kickbacks of more than \$100,000 in the form of gifts such as a truck, free hotel rooms and a loan for a house. The third officer abused his authority as the receipt officer, signed delivery notes from the conspiring Thai contractor even though the contractor had only delivered incomplete shipments. The Thai

contractor then billed the government for the complete shipments. In exchange, the third official received bribes for the ghost shipments (Department of Defense General Counsel's Office, 2013).

#### **Case Study 19 (Friends in Low Places)**

Two former U.S. Department of Interior (DOI) officers colluded to defraud DOI through a bid tailoring scheme. The first officer, a former deputy associate director of DOI, accepted a job offer from a contractor six months before he retired from DOI. His future employer was a sub-contractor to a DoD contractor owned by another former DOI employee (known as the second officer). During this six-month period, the first officer established the evaluation criteria for the bid for this same contract and sat in the evaluation committee that recommended the award of the contract to the DoD contractor owned by the second officer. The second officer, a former DOI employee, was a friend of the first officer. Prior to the second officer's retirement from DOI, the second officer created the technical specifications of the requirement for the same contract with the intent to bid on the contract immediately after his retirement. Together with the first officer who was responsible for creating the evaluation criteria and evaluating the proposal, the second officer was successfully awarded the contract with a grade of "excellent" on every evaluation criteria (Department of Defense General Counsel's Office, 2013).

#### **Case Study 20 (Patrick Air Force Base Engineer Violates Conflict of Interest Statute)**

An Air Force base engineer in the contracts department at Patrick Air Force Base colluded with a contractor to defraud the government. A company, formed by the engineer and numerous government employees, submitted a bid to the base. The engineer, who was responsible for the technical evaluation of the bids, gave a favorable review of the bid submitted by his company, and the company was awarded the contract (Department of Defense General Counsel's Office, 2013).

## APPENDIX E. SUMMARY OF CASE ANALYSIS

| Case Study | Which Procurement Process is Vulnerable to Fraud?   | Which Internal Control Component is lacking?  | Which Fraud Scheme(s) was Used?   |
|------------|---|---|---|
| 1          | <ul style="list-style-type: none"> <li>All procurement process</li> </ul>                           | <ul style="list-style-type: none"> <li>Control Environment (Principles 1, 3 and 4)</li> <li>Risk Assessment (Principles 7 to 9)</li> <li>Control Activities (Principles 10 and 12)</li> <li>Monitoring Activities (Principle 16)</li> </ul> | <ul style="list-style-type: none"> <li>Bid Tailoring</li> <li>Need Recognition Scheme</li> </ul>              |
| 2          | <ul style="list-style-type: none"> <li>All procurement process</li> </ul>                           | <ul style="list-style-type: none"> <li>Control Environment (Principle 1)</li> <li>Control Activities (Principles 10 and 12)</li> <li>Monitoring Activities (Principle 16)</li> </ul>  | <ul style="list-style-type: none"> <li>Bid Tailoring</li> <li>Bid Rigging (sub-contracting scheme)</li> </ul> |
| 3          | <ul style="list-style-type: none"> <li>Source Selection</li> <li>Contract Administration</li> </ul> | <ul style="list-style-type: none"> <li>Control Activities (Principles 10 and 12)</li> <li>Monitoring Activities (Principle 16)</li> </ul>   | <ul style="list-style-type: none"> <li>Need Recognition Scheme</li> <li>Shell Company Scheme</li> </ul>       |
| 4          | <ul style="list-style-type: none"> <li>Contract Administration</li> </ul>                           | <ul style="list-style-type: none"> <li>Control Activities (Principles 10 and 12)</li> <li>Monitoring Activities (Principle 16)</li> </ul>   | <ul style="list-style-type: none"> <li>Need Recognition Scheme</li> </ul>                                     |
| 5          | <ul style="list-style-type: none"> <li>All procurement process</li> </ul>                           | <ul style="list-style-type: none"> <li>Control Environment (Principles 1 and 5)</li> <li>Control Activities (Principles 10 and 12)</li> <li>Monitoring Activities (Principle 16)</li> </ul>   | <ul style="list-style-type: none"> <li>Bid Manipulation</li> </ul>  |
| 6          | <ul style="list-style-type: none"> <li>All procurement process</li> </ul>                           | <ul style="list-style-type: none"> <li>Control Environment (Principles 1 and 5)</li> <li>Control Activities (Principles 10 and 12)</li> <li>Monitoring Activities (Principle 16)</li> </ul>   | <ul style="list-style-type: none"> <li>Bid Manipulation</li> </ul>  |
| 7          | <ul style="list-style-type: none"> <li>All procurement process</li> </ul>                           | <ul style="list-style-type: none"> <li>Control Environment (Principles 1 and 5)</li> <li>Control Activities (Principles 10 and 12)</li> <li>Monitoring Activities (Principle 16)</li> </ul>   | <ul style="list-style-type: none"> <li>Bid Manipulation</li> </ul>  |

|    |   |   |  |
|----|---|---|--|
| 8  | <ul style="list-style-type: none"> <li>• All procurement process</li> </ul> | <ul style="list-style-type: none"> <li>• Control Environment (Principles 1 and 5)</li> <li>• Control Activities (Principles 10 and 12)</li> <li>• Monitoring Activities (Principle 16)</li> </ul> | <ul style="list-style-type: none"> <li>• Bid Tailoring</li> <li>• Bid Manipulation</li> </ul>  |
| 9  | <ul style="list-style-type: none"> <li>• All procurement process</li> </ul> | <ul style="list-style-type: none"> <li>• Control Environment (Principles 1 and 5)</li> <li>• Control Activities (Principles 10 and 12)</li> <li>• Monitoring Activities (Principle 16)</li> </ul> | <ul style="list-style-type: none"> <li>• Conflict of interest</li> <li>• Bid Manipulation</li> <li>• Bid Tailoring</li> </ul>                                |
| 10 | <ul style="list-style-type: none"> <li>• All procurement process</li> </ul> | <ul style="list-style-type: none"> <li>• Control Environment (Principles 1 and 5)</li> <li>• Control Activities (Principles 10 and 12)</li> <li>• Monitoring Activities (Principle 16)</li> </ul> | <ul style="list-style-type: none"> <li>• Conflict of interest</li> <li>• Need Recognition Scheme</li> <li>• Unjustified Sole Source Awards Scheme</li> </ul> |
| 11 | <ul style="list-style-type: none"> <li>• All procurement process</li> </ul> | <ul style="list-style-type: none"> <li>• Control Environment (Principles 1 and 5)</li> <li>• Control Activities (Principles 10 and 12)</li> <li>• Monitoring Activities (Principle 16)</li> </ul> | <ul style="list-style-type: none"> <li>• Conflict of interest</li> <li>• Bid Manipulation</li> </ul>   |
| 12 | <ul style="list-style-type: none"> <li>• All procurement process</li> </ul> | <ul style="list-style-type: none"> <li>• Control Environment (Principles 1 and 5)</li> <li>• Control Activities (Principles 10 and 12)</li> <li>• Monitoring Activities (Principle 16)</li> </ul> | <ul style="list-style-type: none"> <li>• Conflict of interest</li> <li>• Bid Manipulation</li> </ul>   |
| 13 | <ul style="list-style-type: none"> <li>• All procurement process</li> </ul> | <ul style="list-style-type: none"> <li>• Control Environment (Principles 1 and 5)</li> <li>• Control Activities (Principles 10 and 12)</li> <li>• Monitoring Activities (Principle 16)</li> </ul> | <ul style="list-style-type: none"> <li>• Conflict of interest</li> <li>• Bid Manipulation</li> </ul>   |
| 14 | <ul style="list-style-type: none"> <li>• All procurement process</li> </ul> | <ul style="list-style-type: none"> <li>• Control Environment (Principles 1 and 5)</li> <li>• Control Activities (Principles 10 and 12)</li> <li>• Monitoring Activities (Principle 16)</li> </ul> | <ul style="list-style-type: none"> <li>• Conflict of interest</li> <li>• Bid Manipulation</li> </ul>   |

|    |   |   |   |
|----|---|---|---|
| 15 | <ul style="list-style-type: none"> <li>• All procurement process</li> </ul>   | <ul style="list-style-type: none"> <li>• Control Environment (Principles 1 and 5)</li> <li>• Control Activities (Principles 10 and 12)</li> <li>• Monitoring Activities (Principle 16)</li> </ul> | <ul style="list-style-type: none"> <li>• Conflict of interest</li> <li>• Bid Manipulation</li> </ul>                          |
| 16 | <ul style="list-style-type: none"> <li>• Solicitation planning</li> <li>• Source Selection</li> </ul>                                   | <ul style="list-style-type: none"> <li>• Control Activities (Principles 10 and 12)</li> </ul>   | <ul style="list-style-type: none"> <li>• Bid Manipulation</li> </ul>  |
| 17 | <ul style="list-style-type: none"> <li>• Procurement Planning</li> <li>• Source Selection</li> <li>• Contract Administration</li> </ul> | <ul style="list-style-type: none"> <li>• Control Activities (Principles 10 and 12)</li> <li>• Monitoring Activities (Principle 16)</li> </ul>   | <ul style="list-style-type: none"> <li>• Conflict of interest</li> <li>• Bid Tailoring</li> <li>• Bid Manipulation</li> </ul> |
| 18 | <ul style="list-style-type: none"> <li>• All procurement process</li> </ul>   | <ul style="list-style-type: none"> <li>• Control Environment (Principle 1)</li> <li>• Control Activities (Principles 10 and 12)</li> <li>• Monitoring Activities (Principle 16)</li> </ul>        | <ul style="list-style-type: none"> <li>• Bid Manipulation</li> </ul>  |
| 19 | <ul style="list-style-type: none"> <li>• All procurement process</li> </ul>   | <ul style="list-style-type: none"> <li>• Control Environment (Principle 4)</li> <li>• Control Activities (Principles 10 and 12)</li> <li>• Monitoring Activities (Principle 16)</li> </ul>        | <ul style="list-style-type: none"> <li>• Conflict of interest</li> <li>• Bid Tailoring</li> <li>• Bid Manipulation</li> </ul> |
| 20 | <ul style="list-style-type: none"> <li>• All procurement process</li> </ul>   | <ul style="list-style-type: none"> <li>• Control Environment (Principle 1)</li> <li>• Control Activities (Principles 10 and 12)</li> <li>• Monitoring Activities (Principle 16)</li> </ul>        | <ul style="list-style-type: none"> <li>• Conflict of interest</li> <li>• Bid Tailoring</li> <li>• Bid Manipulation</li> </ul> |

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