



# NAVAL POSTGRADUATE SCHOOL

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## MBA PROFESSIONAL REPORT

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### AN ANALYSIS OF VIABLE FINANCIAL NEGOTIATIONS PROCESSES AND RELATED INTERNAL CONTROLS FOR PROCUREMENT IN PAKISTAN

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June 2016

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# **AN ANALYSIS OF VIABLE FINANCIAL NEGOTIATIONS PROCESSES AND RELATED INTERNAL CONTROLS FOR PROCUREMENT IN PAKISTAN**

## **ABSTRACT**

In Pakistan, the process of public procurement procedure standardization started in 2002 with the establishment of the Pakistan Public Procurement Regulatory Authority (PPRA), based on the 1994 United Nations Commission on International Trade Law (UNCITRAL) Model Law. PPRA rules allow four types of procurement procedures but limit the ability to conduct financial negotiations. PPRA rules are aimed at implementing a unified procurement regime for federal and provincial organizations to ensure a transparent procurement system in Pakistan. The United States (U.S.) procurement model and the United Kingdom (UK) procurement model categorize negotiated procurement procedures under competitive procurement processes. The UNCITRAL Model Law also recommended financial negotiations in 2011.

The purpose of this research study is to analyze the financial negotiations process for public procurement in the U.S., the UK, and the UN along with the associated internal controls in order to develop a guide for Pakistan defense contracting. This research study focuses on the analysis of the negotiation processes of contemporary procurement models and the Committee of Sponsoring Organizations internal control policy guidelines to guide the financial negotiations process for defense procurement in Pakistan. This research study recommends a financial negotiations process and related internal control procedures for the Pakistan PPRA.

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## LIST OF ACRONYMS AND ABBREVIATIONS

ACFE	Association of certified fraud examiners
AFFARS	Air Force Federal Acquisition Regulation Supplement
API	Application Programming Interfaces
BAFO	best and final offer
CAAS	cost assurance and analysis services
CAS	cost accounting standards
CMI	Contract Management Institute
COSO	Committee of Sponsoring Organizations
CPRG	Contract Price Reference Guide
DAU	Defense Acquisition University
DE&S	Defence Equipment and Support
DFARS	Defense Federal Acquisition Supplement
DGDP	Director General Defense Procurement
DOD	Department of Defense
DSPCR	Defense and Security Public Contracts Regulations
EDI	Electronic Data Interchange
ESL&S	equipment, services, logistics, and support
EU	European Union
FAR	Federal Acquisition Regulations
FFP	firm fixed price
GAO	Government Accountability Office
GDP	gross domestic product
IFB	invitation for bid
IPT	integrated project team
ITPD	invitation to participate in dialogue
ITSFB	invitations to submit final bid
ITT	invitation to tender
JCIDS	Joint Capabilities Integrated Development System
LPTA	lowest price technically acceptable
MDAP	Major Defense Acquisition Program

MEAT	most economically advantageous tender
MoD	Ministry of Defence
MPM	Managing Public Money
NATO	North Atlantic Treaty Organization
NPS	National Procurement Strategy
OECD	Organization for Economic Cooperation Development
PC-1	Planning Commission -1
PCR	Public Contract Regulations
PPBE	Planning, Programming, Budgeting and Execution System
PPRA	Public Procurement Regulatory Authority
PQQ	pre-qualification questionnaire
RFP	request for proposal
RFQ	request for quotation
ROCO	revised or confirm order
SOW	statement of work
SRD	system requirement document
STANAG	Standardization Agreement
TFEU	Treaty on Functioning of European Union
UK	United Kingdom
UN	United Nations
UNCITRAL	United Nations Commission on International Trade Law
URD	user requirement documentation
WBS	work breakdown structure

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# I. INTRODUCTION

## A. BACKGROUND

Every nation in the world aims to keep its military updated with the latest technology and equipment required to meet defense challenges. Operational preparedness of armed forces takes precedence over comparatively less important functions of governance. A significant portion of the defense budget involves operational and maintenance expenses, as well as new acquisition expenditures that often require complex procurement procedures. These procurements are supported by taxpayers' money, in accordance with relevant procurement laws and regulations of state, and are scrutinized by various public and private organizations. Sequestration drives, budget cuts, and increased operational and maintenance costs have renewed the emphasis on getting the "best value" for taxpayer money. To carry out transparent and efficient use of taxpayers' money, states enact acquisition regulations for public procurement. These rules provide guidelines, procedures, and methods for efficient and transparent use of public money.

Pakistan's military expenditure is around 3.4% of the gross domestic product (GDP), amounting to \$8 billion in 2014 (World Bank, 2014). The Pakistan defense budget includes a significant amount of defense procurement from the United States, Pakistan procured \$5.4 billion of military hardware through foreign military sales from 2001 to 2014 (Tomkins, 2015). The Pakistan defense procurement system is under a strict requirement to follow the Pakistan Public Procurement Regulatory Authority (PPRA) rules. PPRA rules govern the public procurement process of Pakistan, which is either a single-step process involving just financial proposals or a two-step process involving (a) technical negotiations and proposals and (b) financial proposals. Under the existing PPRA rules, little or no room exists for financial negotiations, and contracts are awarded to the lowest bidder (PPRA, 2004).

PPRA rules are a manifestation of the United Nations Commission on International Trade and Law (UNCITRAL, Nazir & Nadeem, 2015). The Pakistan

procurement system lacked the capacity to carry out the financial negotiations process. Pakistan addressed the issue of financial negotiations by completely banning the financial negotiations process in the PPRA rules. PPRA rules also lack internal control policy guidelines and procedures to guide and monitor the financial negotiations process. Conducting financial negotiations without a system of internal controls may seriously undermine the legitimacy of the process and will likely cast doubts on the legitimacy of the negotiation teams themselves.

## **B. PURPOSE OF RESEARCH**

The purpose of this research study is to analyze the financial negotiations processes for public procurement in the United States (U.S.), the United Kingdom (UK), and the United Nations (UN), along with their associated internal controls, to develop a guide for Pakistan defense contracting.

## **C. RESEARCH QUESTIONS**

According to Garrett (2005), “In both public and private sectors, 50 percent to 80 percent of the total value of procurements are transacted via competitive negotiated performance-based contracts” (p. 6). A 2001 Contract Management Institute (CMI) study depicted the overall importance of the contract management negotiation skills in both public and private sectors (Garrett, 2005, p. 10). One of the most important questions asked was, “Which metrics do you believe your organization will use in the next 3 to 5 years to evaluate personnel performance?” (Garrett, 2005, p. 10). Negotiation skills were number four of the respondents’ top 10 choices. Contemporary procurement models, including the U.S. model, the UK model, and the UN model, have various forms of established competitive negotiation procurement procedures for defense or public procurement. In contrast, the PPRA rule two-stage bidding procedure allows for technical negotiations (PPRA Rule 36) and restricts financial negotiations (PPRA, 2004). According to Shah, Haq, and Shah (2008), the ban on negotiations in PPRA rules in 2004 has caused contractor pooling (monopolies) and an increase in the bid amounts. The financial clause of negotiations in the PPRA needs to be revised so that a “transparent and effective” negotiation process can lead to reasonable bids (Shah, Haq, & Shah, 2008).

The National Procurement Strategy (NPS) of Pakistan identified nine areas for improvement, one of which addresses situations for conducting financial negotiations (PPRA, 2013). A 2012 global survey of the Association of Certified Fraud Examiners identified purchasing as one of six major fraud areas (as cited in Tan, 2013). Because PPRA rules do not allow for negotiations, no internal control procedures exist to guide the negotiating team through the financial negotiations process. According to the Organization for Economic Cooperation Development (OECD), “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” (as cited in Tan, 2013, p. 25). PPRA rules require a negotiations guide to outline the processes for financial negotiations to reduce the risk of fraud.

This research study focuses on the creation and inclusion of financial negotiations procedures and related internal controls to help the Pakistan defense procurement system be more efficient and transparent. The U.S., UK, and UN procurement models and their related financial negotiations procedures, as well as the Committee of Sponsoring Organizations of the Treadway Commission (COSO) Internal Control Framework Model were analyzed in order to answer the following questions:

1. What processes should Pakistan put into place in order to perform defense-related financial negotiations?
2. What internal controls would help support the financial negotiations process for defense contracting in Pakistan?

#### **D. IMPORTANCE OF RESEARCH**

The importance of this research is that PPRA rules 2004 are followed by government agencies for public procurement, and these rules lack a financial negotiations process and associated internal controls. To ensure better procurement transparency and obtain the best value of taxpayers’ money, conducting financial negotiations is imperative. This research study assesses the financial negotiations process of the contemporary procurement models and recommends a financial negotiations process and associated internal controls for PPRA rules 2004.

## **E. BENEFITS AND LIMITATIONS**

This research study focuses on analyzing the financial negotiations process of contemporary procurement models and internal control policy guidelines to recommend a financial negotiations process for Pakistan public procurement. This research study identifies appropriate financial negotiations procedures for inclusion in the PPRA rules by the government of Pakistan for efficient and transparent utilization of taxpayer money. This research study also recommends a suitable internal control framework to guide the financial negotiations process in Pakistan and highlights in detail the financial negotiation procedures and related internal controls adopted by advanced acquisition models.

This research study includes access to literature from open sources only, which are limited to qualitative analysis (in the case of defense-related contracts). Thus, the research findings are somewhat limited in context. However, these limitations have minor impact on the research findings. This research study is applicable to all public procurement in Pakistan.

## **F. METHODOLOGY**

This research study provides a background of the federal government's approved and promulgated PPRA rules. This research study reviews and analyzes the U.S. defense procurement system, the UK defense procurement system, and the UNCITRAL model law of procurement, which the UN uses, in order to highlight the different procurement systems' financial negotiations processes and make recommendations for including financial negotiations in Pakistan's procurement system.

For this research, the internationally accepted COSO Integrated Internal Control Framework as well as Government Accountability Office (GAO) Internal Control Standards are discussed and applied to types of procurement frauds within the financial negotiations process. Through the prism of the frameworks, the U.S., UK, and UN procurement systems were analyzed and relevant factors derived from the analysis were used to formulate policy guidelines for the financial negotiations process for Pakistan defense contracting.

## **G. ORGANIZATION OF REPORT**

This research study is comprised of five chapters. Chapter I introduces the research. Chapter II consists of a literature review of PPRA rules; an overview of the contract management process and elements of financial negotiation; financial negotiations processes of the U.S. model, UK model, and UN model; and an overview of the COSO Internal Control Framework. Chapter III discusses the methodology of a comparative analysis of the three models in relation to financial negotiation elements and financial negotiations processes. Chapter IV consists of an analysis of the financial negotiations process and related internal controls and provides recommendations. Chapter V provides a summary, conclusion, and areas for further research.

## **H. SUMMARY**

This introductory chapter provided an overview of this research study, introducing the limitations on the financial negotiations processes in PPRA rules and defining the scope for further review of the financial negotiations process as practiced in contemporary procurement models. Pakistan recognizes that existing procurement laws and regulations are in accordance with UNCITRAL Model Law and are based on principles of “accountability, transparency, fairness, efficiency and value for money” (Public Procurement Regulatory Authority [PPRA], 2013, p. 1). The NPS of Pakistan, however, admits that although the first generation of procurement reforms have attained the basics (such as laws, regulations, and standardized documentation), “the performance of the public procurement system is still less than satisfactory” (PPRA, 2013, p. 5).

The main objective of this research study is to recommend a suitable financial negotiations process and related internal controls to increase the efficiency and transparency of the Pakistan defense procurement system. The following chapter provides a literature review of financial negotiations processes and internal controls.

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## II. LITERATURE REVIEW

In this chapter, a two-part literature review lays the foundation for a comparative analysis in a subsequent chapter. The first part of the literature review covers Pakistan Public Procurement Regulatory Authority (PPRA) rules, the contract management process, elements of negotiations, and financial negotiations processes in the United States (U.S.) procurement model, the United Kingdom (UK) procurement model, and in the United Nations Commission on International Trade and Law (UNCITRAL) Model Law. The second part of this literature review covers the Committee of Sponsoring Organizations of the Treadway Commission (COSO) Internal Control Framework, procurement fraud in relation to internal controls, and procurement fraud schemes.

### A. PAKISTAN'S PROCUREMENT MANAGEMENT

Pakistan's procurement cycle is divided into five parts, unlike the U.S model, which covers the process in six parts. In Pakistan's procurement system, *purchasing* has been narrowly defined as the acquisition of requirements in a limited way (Shah et al., 2008). Shah et al. (2008) define *procurement* as the broader form, which encompasses the complete cycle of procurement management in the following six stages:

#### 1. Acquisition Plan

In the acquisition planning stage, the requirement specifications, quantity, and delivery schedule are planned. Government organizations plan their acquisition activities based on quarterly released funds and/or annual budgetary allocations. A procuring agency is responsible for issuing the requirement specifications in approved documents such as the Planning Commission-1 (PC-1) form. The PC-1 form is the basic form on which project appraisals are made and approval is granted by the government of Pakistan (Sajid, 2010). The requirement specifications approved on the PC-1 are the minimum standards for acceptance by the acquisition team. A procuring agency must endeavor to procure requirements of a higher level of specifications than approved in the PC-1 form (Shah et al., 2008).

## **2. Contracting Plan**

During the contract planning stage of procurement management, bidding documents are developed and potential sellers are identified. In addition, the requirement is given widespread distribution and publicity to ensure maximum participation (Shah et al., 2008).

## **3. Request Sellers' Responses**

During the request sellers' response stage of procurement management, bids, proposals, or offers are collected. This stage also involves the opening of these responses (bids, proposals, and offers) to tender, which is the invitation sent to potential sellers. This process has to be transparent to ensure maximum competition among potential sellers. Bids must be opened in the presence of acquisition teams and potential sellers who have submitted bids (Shah et al., 2008).

## **4. Selection of Sellers**

During the selection of sellers' stage of procurement management, offers are evaluated, the best bid is chosen, and the contract is awarded. The evaluation criteria are mentioned in the bidding documents, and offers are evaluated per those criteria. After the receipt of an offer, a change in evaluation criteria is not allowed (Shah et al., 2008).

## **5. Contract Administration**

After successful completion of the contract award, the contract is executed in the contract administration stage. During this stage, the performance of the contractor is monitored and documented, and the relationship between buyer and seller is managed (Shah et al., 2008).

## **6. Contract Closeout**

After completion of the project, a contract closeout strategy is executed. Closure involves completing and settling all line items of the contract and resolving all open disputes (Shah et al., 2008).

In the previous section, Pakistan's procurement management process was discussed. The next section describes significant procurement rules/procedures of PPRA rules 2004.

## **B. PPRA RULES**

In the 1990s, public procurement in Pakistan was recognized as a critical function after the number of procurements increased significantly as part of overall government expenses. There was an increased awareness that, through better controls and transparency, the government could ensure significant savings and better utilization of taxpayers' money (PPRA, 2013). On the recommendations of a survey carried out by the World Bank, and after government consultation with relevant stakeholders, PPRA was established under PPRA Ordinance 2002 to enforce legislative and systemic procurement reforms in Pakistan. PPRA rules were promulgated in 2004 (PPRA, 2013).

PPRA is an independent body. The primary role of PPRA is to submit recommendations to the government for new laws and regulations related to public procurement. PPRA also monitors the application of PPRA rules and the performance of federal public organizations involved in public procurement (PPRA, 2013). The following section discusses the important procurement rules/procedures of PPRA rules 2004:

### **1. Principles of Procurement**

Article 4 of PPRA rules provides the guiding principles for procurement. It states that an acquisition team should ensure the following:

- The requirement is procured in a "fair and transparent manner."
- The procurement process is "efficient and economical."
- The procuring organization should get value for money from the procurement (PPRA, 2004).

### **2. Pre-Qualification Procedures**

PPRA Rule 15 mandates that the procuring agency start a pre-qualification process before publishing the notice for invitation of tender or request for proposal

(RFP). Pre-qualification questionnaires (PQQs) are mandatory in the case of services, civil works, and technically complex requirements. The main objective of the pre-qualification procedure is to ensure selection of technically and financially sound firms that have adequate managerial capacity to execute the project and its associated requirements. The procuring agency must take into account certain factors about the firm(s) for pre-qualification. These factors include past performance and experience; financial health; managerial capability; personnel and equipment capabilities; and any other factor deemed appropriate by the procuring agency (PPRA, 2004).

### **3. Evaluation Criteria**

PPRA Rule 29 describes the criteria for bid evaluation. Procuring agencies are responsible for establishing the evaluation criteria, and the criteria are required to be published in bidding documents. If the procuring agency fails to publish unambiguous evaluation criteria, it is tantamount to “mis-procurement” (PPRA, 2004). PPRA Rule 35 mandates the publication of an evaluation report giving justification for the acceptance/rejection of bids 10 days before the contract award (PPRA, 2004).

### **4. Clarifications of Bids**

PPRA Rule 31 describes the communication between the acquisition team and the offeror. Bids cannot be altered once opened by the acquisition team. The acquisition team is allowed to seek clarification from the offeror; however, clarification cannot change the substance of the bid. Clarifications sought by the acquisition team must be made in writing (PPRA, 2004).

### **5. Procedures for Open Competitive Bidding**

PPRA rules allow the following types of bidding procedures:

- Single-stage, one-envelope procedure
- Single-stage, two-envelope procedure
- Two-stage bidding procedure
- Two-stage, two-envelope bidding procedure (PPRA, 2004).

This research study focuses on the two-stage, two-envelope bidding procedure. The two-stage, two-envelope bidding procedure is used when more than one technical proposal has been received and negotiations on the technical proposals take place between bidders and the acquisition team (Shah et al., 2008).

## **6. Two-Stage, Two-Envelope Bidding Procedure**

Two-stage bidding is adopted when the requirement is complex and proposals may vary technically. In this procedure, questions may be raised about the technical aspects of the proposals, and all offerors are provided the opportunities to understand the requirement and to propose better technical solutions.

During the first stage, the technical proposal is received without the associated price quote. All the proposals are evaluated per the technical evaluation criteria, and offerors are given an opportunity to clarify the technical aspects of their proposals. After discussion, offerors can submit revised final proposals. The procuring agency can modify or delete evaluation criteria and requirement specifications before the submission of final proposals. Offerors not willing to change their proposals according to new specifications may withdraw their bids without forfeiture of their bid security, which is the amount deposited by the offeror before taking part in the bid. “The bid security may not exceed more than 5% of the bid amount” (PPRA, 2004, Rule 25).

In the second stage, revised final proposals are received. Technical and financial proposals are opened simultaneously. Technical proposals are again evaluated per the evaluation criteria. The acceptable proposal with the lowest evaluated bid is awarded the contract (PPRA, 2004).

## **7. Limitations on Financial Negotiations**

According to Shah et al. (2008), “PPRA has banned financial negotiations completely with bidders as it [negotiating] may lead to personal bias, temptations, [and the] tendency for kickback and corruptions” (p. 382). This limitation on financial negotiations in PPRA rules has resulted in increased bids. According to Shah et al. (2008), “The PPRA needs to revise this clause of provisions, as through effective and

transparent negotiations process, most reasonable bid[s] can be secured” (p. 382). Now that the details of Pakistan’s procurement system have been discussed, the following section addresses the U.S. contract management process.

### **C. U.S. CONTRACT MANAGEMENT PROCESS**

Generally, the contract management phases are discussed from the perspective of the buyer, which in this case is the government. In the U.S. procurement model, contract management can be divided into three phases: pre-award phase, award phase, and post-award phase (Garrett, 2010, p. 20). The pre-award phase includes procurement planning, solicitation planning, and issuing the solicitation. The award phase includes the source selection where a contractor is selected using the award criteria, and the contract is signed. The post-award phase includes contract administration and contract closeout/termination.

#### **1. Procurement Planning**

Procurement planning involves recognizing which needs can best be met by securing items or services outside the overall mission of the organization (known as the make-or-buy decision) (Rendon, 2010, p. 6). Procurement planning includes the following activities:

- Detailed outsource analysis;
- Requirement definition and determination;
- Market research and pre-solicitation conference (if required);
- Development of cost and preliminary budget estimates;
- Preliminary consideration for appropriate contract type selection, and
- Risk management process (Rendon, 2010, p. 6).

During the procurement planning phase, the stage is gradually set for the scope and possibility of financial negotiations. Contract negotiation begins at the first contact with the first communication concerning a possible opportunity between the buyer and the seller. At times, the first contact occurs when the buyer’s technical or operational representatives conduct some market research and contact their technical counterparts in

the respective industries (Garrett, 2005). Federal Acquisition Regulations (FAR) Rule 10.001(a) also mandates the conduct of market research by the procuring agency before establishing new requirement documents (FAR, 2015).

## **2. Solicitation Planning**

Solicitation planning involves preparation of solicitation-related documents required for the solicitation phase. This phase involves the identification of potential sellers and documentation of procurement requirements. Solicitation planning includes the following activities:

- Finalizing the procurement method
- Finalizing the contract type (cost versus fixed price);
- Maturing solicitation documents: RFPs, requests for quotations (RFQ), and invitation for bids (IFB)
- Finalizing contract award strategy and proposal evaluation criteria
- Developing the terms and conditions of the contract; and
- Determining solicitation service or product descriptions, the statement of work (SOW), and the work breakdown structure (WBS, Rendon, 2010, p. 7)

The procurement method is determined in this phase of the contract management process. The procurement method determines whether the award will be made through sealed bids or negotiated proposals. Sealed bidding is used for non-complex requirements where technical acceptability is easily defined and price is the most important factor. Sealed bidding uses the lowest price technically acceptable (LPTA) source selection method. Negotiations typically take place when technical acceptability is not as easily defined, and when the buyer may want to choose an offer that is not the lowest priced or that is not rated the highest technically. Negotiated procurements typically use the tradeoff source selection method. Both source selection methods are described in more detail next.

*a. Source Selection Method Selection: The Best Value Continuum*

The aim of the U.S. government is always to obtain the best value for the taxpayers' dollars. FAR 15.101 describes how the best value can be obtained for different types of acquisitions by applying different source selection approaches.

(1) LPTA

On one end of the best value continuum is the LPTA source selection method. A buyer typically chooses this method when the requirement is well defined, performance risk is low, and price is the most important factor. Technical acceptability is evaluated on a pass/fail or acceptable/unacceptable basis, and the offer with the lowest price and an acceptable technical rating is awarded the contract. While negotiations are permitted in LPTA acquisitions, they are not typically needed (FAR, 2015).

(2) Tradeoff Process

On the other end of the continuum is the tradeoff source selection method. A buyer typically chooses this method when the requirement is not as clearly defined, performance risk is higher, and “it may be in the best interest of the Government to consider award[ing] to other than the lowest priced offeror or other than the highest technically rated offer” (FAR 15.101-1). In this process, the evaluation criteria and any relevant subfactors are defined in the solicitation. Further, the relative importance of each factor and subfactor is stated in the solicitation, and the proposals are evaluated against the defined importance of the factors. The buyer may trade price for non-price factors, but the perceived benefits of accepting a higher-price proposal must be clearly stated in the source selection documentation. Because the tradeoff process deals with less-defined, higher risk acquisitions, negotiations are typically used to ensure the government achieves best value (FAR 15.101).

**3. Solicitation**

The solicitation phase involves “obtaining information (bids and proposals) from prospective sellers on how the requirement can be met” (Garrett, 2010, p. 90). The solicitation phase includes the following activities:

- Advertising the requirement publically;
- Conducting bidders' conference, if required; and
- Maintaining a qualified bidders' list (Rendon, 2010, p. 7).

From the contract negotiations prospective, bidders' conferences are important events. The meetings (also known as vendor, contractor, or pre-bid conferences) are conferences with sellers before the finalization of the proposals. These meetings ensure all the sellers have the same level of understanding and understand the requirement correctly. This ensures better quality proposals and maximizes competition by increasing the number of proposals in the competitive range. Responses to the sellers' queries are included in the procurement documents as amendments (Garrett, 2010, p. 91).

#### **4. Source Selection**

Source selection involves the receipt of the contractor proposals and assessment of the proposals in light of the evaluation criteria. This process may also include contract negotiations with the seller(s) on technical, cost, performance, and schedule-related matters. This process includes the following activities:

- Applying the contract award/evaluation criteria to the cost and technical proposal(s);
- Negotiating with prospective sellers; and
- Executing the contract award strategy (Rendon, 2010, p. 7).

Five processes form the core of the source selection phase. The source selection process commences with proposal evaluations, which are carried out in two parts—initial and final evaluations (Cole, 2001, p. 2). The initial evaluation commences after the receipt of the proposals. All proposals are subject to an initial evaluation, which applies the evaluation factors contained in the RFP. The process of initial evaluation culminates with the establishment of the competitive range. The competitive range “comprises all of the highly rated proposals” (FAR 15.306(c)). The contracting officer can limit the number of proposals included in the competitive range for efficient competition (FAR 15.306).

The financial negotiations are conducted with only those sellers whose proposals fall within the competitive range. A round or round(s) of negotiations are held with the sellers. The acquisition team may reduce the number of sellers in subsequent rounds of negotiations. According to Cole (2001), the purpose of negotiations is to “advise the offerors of any problems (deficiencies, weaknesses, excesses, etc.) with their proposals and afford them an opportunity to revise their proposal and improve their chances of the award” (p. 3). After completion of a round or rounds of negotiations, sellers are afforded an opportunity to submit their final proposals by a set date. Resubmission of proposals generally marks the culmination of the negotiation process. Final evaluation starts after the culmination of negotiations and upon receipt of the final proposal revisions. Final evaluation is based on the evaluation factors appended in the solicitation and applied to the seller’s basic proposal as revised in its final version (Cole, 2001, p. 2). Final evaluations are carried out by all or some of the same evaluators who were part of the initial evaluation team. The final evaluation process formally ends when the award recommendations and final evaluations are submitted to the competent authority.

## **5. Contract Administration**

The contract administration process ensures that contractual obligations/requirements are fulfilled and the performance of all parties is per the contract (Garrett, 2010, p. 162). The contract administration process will depend on the contract performance duration, type of contract, and so forth. The contract administration phase includes the following activities:

- Pre-performance conference (if required)
- Performance measurement system
- Change control system
- Contract monitoring (Rendon, 2010, p. 8)

Generally, “government contracts contain a changes clause that permits unilateral changes by the government, within the general scope of the contract” (FAR 43.201). These changes may pertain to schedule, requirements, and so forth. The government

negotiates the equitable adjustments arising from change orders with the sellers. However, such negotiations are not included in the scope of this research study.

## **6. Contract Closeout and Termination**

Contract closeout and termination involves verifying that all regulatory matters are completed on a contract that has met all performance requirements. Contract closeout of a government contract can result from three possible scenarios: (a) successful completion of the contract's performance requirement; (b) termination for convenience, where the buyer terminates the contract without penalty to the seller, and (c) termination for default, where the contract is terminated due to the seller's failure to perform to the standards set in the contract. Regardless of the scenario, the contract closeout process has to be performed. This process includes the following activities:

- Product delivery or service completion;
- Acceptance and final payment; and
- Documentation of final contractor past performance report (Rendon, 2010, p. 9).

Figure 1 summarizes the contract management process and phases in relation to financial negotiations based on the U.S. model.

U.S. Contract Management Process		
Contract Management Phases/Processes		Process Associated with Financial Negotiations
Phase I Pre-award	• Procurement Planning	<ul style="list-style-type: none"> <li>• Market research</li> <li>• Buyer Seller Interaction</li> </ul>
	• Solicitation Planning	<ul style="list-style-type: none"> <li>• Best Value Continuum</li> <li>• Performance Based Contracts</li> </ul>
	• Solicitation	<ul style="list-style-type: none"> <li>• Pre bid Conference (if required)</li> </ul>
Phase II Award	• Source Selection	<ul style="list-style-type: none"> <li>• Initial evaluation</li> <li>• Establishment of competitive range</li> <li>• Final evaluation</li> <li>• Negotiation process</li> <li>• Contract award recommendation</li> </ul>
		<ul style="list-style-type: none"> <li>• Negotiation for price &amp; schedule under clause change (Not in thesis scope)</li> </ul>
Phase III Post-Award	• Contract administration	
	• Contract closeout & termination	-

Figure 1. U.S. Contract Management Process

The following section discusses the elements of financial negotiations.

#### D. ELEMENTS OF FINANCIAL NEGOTIATIONS

Defense system acquisition is normally done in a fiscal resource-constrained environment. Acquisition teams are always under pressure from legislative and government oversight bodies to ensure the best value for taxpayer money, and negotiations help reach that goal. Government acquisition teams constantly engage industry to ensure the best utilization of taxpayer money. These exchanges allow the teams to better understand each other’s point of view. The U.S. Air Force Negotiation Center (AFNC) loosely defines negotiation as “a deliberate process where two or more people or groups work to solve a difference or problem” (AFNC, 2016). Financial negotiations are important tools to achieving the goal of getting the best value of taxpayer money. The U.S. GAO conducted a survey of 25 one-offer (i.e., single-offer) awards

from 2011 to 2012 and found that government negotiators managed a 1.4% decrease in contractors' profit rate after negotiating with contractors (GAO, 2013, p. 24).

Most people think of negotiations as occurring only during the source selection phase. However, the fundamental elements of the negotiation process are spread over the pre-award and award phases of the contract management process (see Figure 1). Basic elements that contribute toward successful negotiations are (a) market research, (b) maximizing competition, (c) appropriate contract type, (d) best value continuum, (e) cost and pricing data, and (f) negotiation exchanges (Office of the Secretary Defense [OSD], 2010). Each of these elements are described in detail in the following sections.

## **1. Market Research**

Market research is initially conducted during the procurement planning phase of the contract management process, typically by the requirement initiator. Government negotiation teams normally have access to initial cost estimates provided by sponsor program offices. However, using market research helps government negotiators develop a better understanding of the requirement, related market conditions, offeror's price, cost estimation processes, and so forth. Market research can produce the following important pieces of information:

- Historical pricing data (information pertaining to past prices and trends);
- Current competitive conditions (number of buyers and sellers in market);
- Impact of current demand (market reaction to current quantity of demand);
- Trends/patterns of supply and demand;
- Pricing strategies of offerors;
- Sources of supplies/services;
- Delivery/performance terms (commercial lead times and transportation costs, if any); and
- Problems such as claims or cost overruns on similar products in the past (OSD, 2010, p. 32).

Information obtained through market research must be recorded. The quality of information obtained through market research determines the confidence level of negotiators on price estimates and other vital information for the negotiation process.

## **2. Maximizing Competition**

Maximizing competition is an important tool in the acquisition process that encourages market players (firms) to offer better quality products or services at competitive rates. “Competition means maximizing price competition” (OSD, 2010, p. 56), Competition is universally known to lower prices while simultaneously increasing the quality of products and services. Acquisition teams must do the following to maximize competition:

- Attract competitive offers from suitable sellers.
- Obtain reasonably priced proposals (OSD, 2010, p. 56).

Having a competitive environment during the solicitation and source selection process facilitates successful financial negotiations. Armed with the competing offers of high quality products and services, financial negotiators are in a better bargaining position to obtain the best value with the constrained financial resources.

Financial negotiations in the sole source environment are a completely different domain than financial negotiations in the competitive environment. Sole source negotiations are protected by legislation that (under certain conditions) requires sellers to submit certified cost and pricing data for evaluation. Negotiators evaluate the data to ensure allowability of costs and to negotiate the profit margin. Cost and pricing data are discussed in detail later in this section.

## **3. Appropriate Contract Type**

Choosing a contract type that is commensurate with the level of risk is an important factor in shaping the financial negotiations process. Risk factors associated with the requirement are considered in the selection of contract type. Specifically, risk varies with product type and technology maturation status of the product currently prevalent in the market. The two main contract types are fixed-price and cost-type. In

fixed-price contracts, all the risk is borne by the contractor. Fixed-price contracts are typically used when the following conditions are met:

- The requirement is sufficiently defined.
- Contractors are well experienced in meeting the requirement.
- Stable market conditions exist.
- Insignificant financial risks are involved (OSD, 2010, p. 64).

On the other hand, in cost-type contracts, most of the risk is borne by the government. According to the *Contract Pricing Reference Guide (CPRG), Volume I*, a cost-type contract “is used only when formulas relating fee to performance would be unworkable or of marginal utility” (OSD, 2010, p. 66).

Selection of contract type has an impact on the negotiations process. If a fixed-price contract is selected when the technology is not mature, the requirement is not well defined, and the risk mitigation is beyond the control of the contractor, the price of the contract will increase, and competition will decrease. This situation will have a negative impact on the negotiations process for the government, placing it in a position of low power in relation to the contractor. On the other hand, if a cost-type contract is selected when the requirement is well defined and risk factors can easily be mitigated by the seller, the seller will not have enough motivation to reduce costs, as the government will be bound to reimburse all reasonable, allocable, and allowable costs. Appropriate use of contract type creates a favorable environment for subsequent negotiations.

#### **4. Best Value Continuum**

The best value and tradeoff process (best value continuum) includes procurement of products and services through a competitive, negotiated procedure in which the government reserves the right to buy products and services from the most economically advantageous seller by considering factors other than cost/price (Defense Acquisition University [DAU], 2016). The best value continuum has been previously discussed in detail in the U.S. contract management process section of this research study.

## **5. Cost and Pricing Data**

In government procurements, cost and pricing data may form the basis of analysis for financial negotiations. Cost and pricing data may include previous government acquisition data, historical price data, market data, proposals submitted by sellers, and certified cost and pricing data obtained from the bidders. The FAR states that cost and pricing data may include the following factors: vendor quotations, non-recurring costs, make-or-buy decisions, management decisions having significant bearing on cost, resources vis-à-vis business goals, labor efficiency unit cost, operations costs, and projection of business objectives and costs (FAR 2.101).

Initial evaluation of the cost and pricing data helps to set a competitive range. This range helps the procurement team negotiate only with the shortlist of sellers. Independent cost estimates also help set the competitive range. Once the competitive range is established and the shortlist is created, invitations to negotiate are extended to sellers in the competitive range.

## **6. Negotiation Exchanges**

After completion of the evaluation processes, the acquisition team carries out various rounds of negotiations with the sellers in the competitive range (FAR 15.306(c)). The number of rounds may vary according to the nature of the requirement and the completeness of proposals (Defense Equipment and Support [DE&S] & Ministry of Defence [MoD], 2014). The acquisition team may reduce the number of participants in the succeeding rounds by reducing the competitive range (DE&S & MoD, 2014). Generally, there is no limit on the number of negotiation rounds. Negotiations are formally completed upon submission of final and revised offers from the potential sellers.

In the previous sections, Pakistan's procurement system, the U.S. contract management process, and elements of financial negotiations have been discussed. The following descriptions of the U.S., the UK, and the UN procurement models are analyzed and compared later in this research study in order to make recommendations for Pakistan's procurement system.

## E. U.S. PROCUREMENT MODEL

The president of the United States is the commander in chief of the U.S. Armed Forces and presents the proposed budget for the U.S. Armed Forces to Congress. Congress has the authority to approve and provide oversight of spending, as the power of the purse resides with Congress (Stith, 1998). Congress has established a two-step approval procedure: The first step includes the authorization, and the second step involves appropriations (Kausal, Humily, Taylor, & Roller, 1999, p. 4–11). Within Congress, the committees with the most influence over Department of Defense (DOD) budgets are the Senate and House Armed Services Committees, and the Senate and House Appropriations Committees (Kausal et al., 1999, p. 4–5).

Figure 2 displays the graphical representation of the U.S. acquisition system and overlapping three support systems.

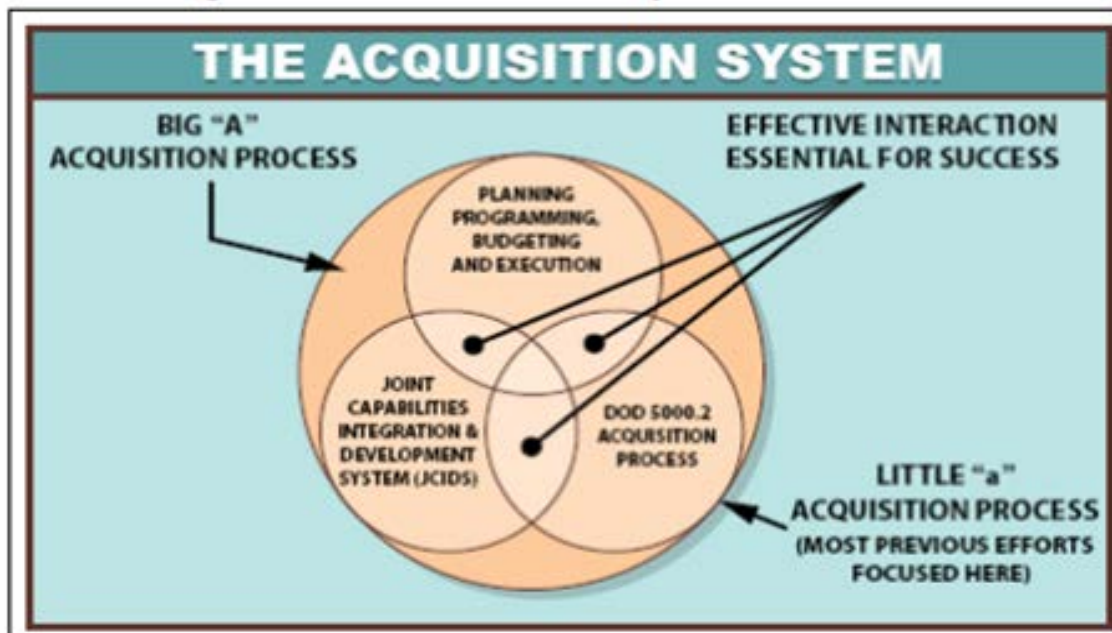


Figure 2. The U.S. Acquisition System. Source: Schwartz (2014).

## 1. DOD Acquisition Cycle

Title 10 of the U.S. Code is the statutory authority that governs the United States Armed Forces organization, operations, and structure. Secretaries of the respective services draw authority to equip the services from Title 10 (Schwartz, 2014). Provisions affecting Major Defense Acquisition Programs (MDAPs) fall under Title 10. Title 10 also covers the establishment of acquisition procedures and reporting requirements to Congress. Title 10 is also the source for the National Defense Authorization Act through which Congress modifies the defense acquisition structure.

DOD acquisition activities are generally governed by the FAR, Defense Federal Acquisition Regulation Supplement (DFARS), and a third set of service-specific regulations (e.g., the Air Force Federal Acquisition Regulation Supplement, or AFFARS). Kausal et al. (1999) define the DOD's acquisition as "the conceptualization, initiation, design, development, test, contracting, production, deployment, and logistic support, modification, and disposal of weapons and other systems, supplies, or services (including construction) to satisfy defense needs, intended for use in or in support of military missions" (p. 4–70).

The DOD acquisition system comprises three decision support systems, commonly referred to as the "Big A" of acquisition (see Figure 2).

- **The Joint Capabilities Integration Development System (JCIDS).** JCIDS is the DOD requirement generation system (CJCSI 3170.01I, 2015).
- **The Budgeting Process: Planning, Programming, Budgeting and Execution System (PPBE).** PPBE is the financial/budgetary overlay for the acquisition programs, including MDAPs.
- **The Defense Acquisition System.** The defense acquisition system— also known as the "little a" of the acquisition system—is governed by the DOD 5000 series and Defense Acquisition Handbook. It is the process through which the DOD procures and develops weapon systems for U.S. Armed Forces (Schwartz, 2014). The Defense Acquisition System uses the milestone concept for program management (see Figure 3). Milestones act as benchmarks, with specific entry and exit criteria that have to be fulfilled before entry to the next phase. Milestone A is the culmination of the Material Solution Analysis and entry into the Technology Maturation and

Risk Reduction phase. Milestone B is the culmination of the Technology Maturation and Risk Reduction phase and entry into Engineering and Manufacturing Development phase. Milestone C initiates the Production and Deployment phase of the weapons system development process (Schwartz, 2014, pp. 6–12).

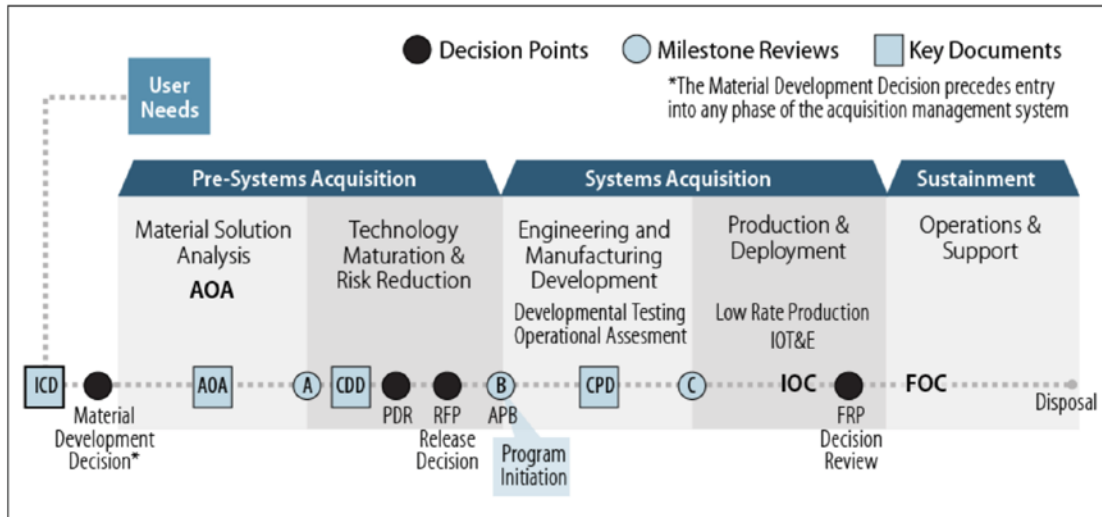


Figure 3. Defense Acquisition System. Source: Schwartz (2014).

## 2. Negotiated Procurement

The FAR defines *negotiations* as “exchanges, in either a competitive or sole source environment, between the Government and offerors that are undertaken with the intent of allowing the offeror to revise its proposal” (FAR 15.306). Negotiated procurements are those that intend to use exchanges with sellers to reduce the risk of the acquisition.

## 3. Types of Negotiated Procurement

FAR 15.022 discusses two types of negotiated procurements: (a) sole source acquisitions, in which the RFP is sanitized of any unnecessary information like proposal preparation instructions and evaluation criteria, and (b) competitive negotiated acquisitions, which follow a streamlined process to reduce the complexities of the solicitation and source selection process. FAR Part 15 describes the procedure in detail. Competitive negotiations procedures are described in the next section.

#### **4. Competitive Negotiations in the Solicitation Process**

FAR 15.203 states that for the competitive negotiation process, an RFP is required. RFPs are employed to solicit proposals and communicate the government's requirement to prospective sellers. FAR 15.202 gives the option of a multistep process. Before floating the RFP, the government can issue a pre-solicitation notice that gives the description of the requirement and asks potential sellers to submit information regarding their viability as potential offerors. The pre-solicitation notice also lays down the initial evaluation criteria that will be used by the government. The RFP content includes the description of the requirement, contract terms and conditions (sellers may propose alternate term and conditions), information to be included in the potential sellers' proposals, and proposal evaluation criteria. The acquisition team has the liberty to communicate with the potential sellers before the receipt of their proposals. FAR 15.201 allows exchanges of information through the start of the requirement formulation process to receipt of proposals process. The purpose of exchanges is twofold: to give the acquisition team insight into industry capabilities and to help industry understand the requirement. Exchange forums and techniques include industry conferences, market research, pre-solicitation notices, requests for information (RFIs), and so forth (FAR, 2015).

#### **5. Source Selection**

Source selection is the responsibility of the head of the acquisition agency (FAR 15.303(a)). Normally, contracting officers act as the source selection authority unless specified by the agency head (FAR 15.303(a)). It is the responsibility of the source selection authority to select a team with the appropriate specialties tailored according to the requirement and to evaluate the proposals and select the best offer. In the U.S. system, the main source selection methods are LPTA and tradeoff, both on the best value continuum as previously described. Award recommendations are based on the evaluation factors and sub factors specified in the solicitations (FAR 15.304). Evaluation factors must reflect the specific, important areas of the requirement, with emphasis on the factors that help the government distinguish among competing proposals (FAR, 2015). Title 10

U.S.C. 2305(a)(3)(A) (ii) and 41 U.S.C. 3306(c)(1)(B)) make evaluation of price or cost factors mandatory for all government contracts (FAR, 2015). Proposal evaluation and exchange with offerors are discussed next.

*a. Proposal Evaluation*

FAR 15.305 explains the proposal evaluation procedure to assess the sellers' ability to perform the contract successfully. Factors advertised in the solicitation are the sole criteria for proposal assessment. Cost/price and quality (typically in the form of a technical evaluation) are required evaluation factors for negotiated procurements, and past performance is required for negotiated procurements above the simplified acquisition threshold (currently at \$150,000, DAU, 2015). The proposal evaluation records significant weaknesses, risks, relative strengths, and deficiencies in the proposal.

(1) Cost or Price Evaluation

The FAR 15.305 identifies competition as the best criteria to judge the price factor. Price comparison of proposals submitted by the various sellers can satisfy the price analysis requirement, and cost analysis may not be required. "Price means cost plus any fee or profit applicable to the contract type" (FAR, 15.401). However, under certain conditions, cost analysis may be necessary to establish the price reasonableness of the proposal (FAR, 2015). For cost-type contracts, cost realism analysis is included in the evaluation criteria. This analysis determines sellers' ability to perform contract requirements within the stated costs (FAR, 2015). "Cost realism analysis may also be used on competitive fixed-price incentive contracts" (FAR 15.404-1(d)(3)).

(2) Past Performance Evaluation

Evaluation of contractors' past performance is another criterion to assess potential sellers' ability to fulfill contractual obligations. Solicitation documents clearly mention the need to evaluate past performance (FAR, 2015). FAR makes it clear that evaluation of past performance and responsibility determination are two separate issues. Responsibility determination is covered under FAR 9.1. FAR states that "in case of an offeror without a record of relevant past performance or from whom information on past performance is

not available, the offeror may not be evaluated favorably or unfavorably on past performance.” (FAR 15.305(a)(2)(iv)).

(3) Technical Evaluation

Technical factors are required for both LPTA and tradeoff acquisitions. The government assesses the quality of the product, very often by using technical criteria. In case of the LPTA acquisitions, technical evaluation results in the acceptance or rejection of the product. When tradeoffs are performed, the acquisition teams carries out an assessment of sellers’ ability to accomplish the technical requirements (FAR 15.305). The technical evaluation process should record a quantitative ranking or matrix for each technical proposal (FAR 15.305).

***b. Exchanges with Offerors***

FAR 15.306 addresses exchanges with the offerors after receipt of proposals, which in essence forms the negotiation exchanges (FAR, 2015).

(1) Clarifications without Discussion and Award

FAR defines *clarifications* as “limited exchanges” between the potential seller and government when award without discussion is being considered. Clarifications are an opportunity provided to the offeror to explain his or her position on different aspects of the proposal, including past performance information (FAR 15.306). Clarifications are purposefully limited as they are not part of the negotiation process. They are meant to clear up minor discrepancies or clarify minor misunderstandings. They are not an avenue to modify a proposal substantively.

(2) Communication before Establishment of Competitive Range

The FAR defines *communication* as the exchanges between the potential seller and the government that occur before the establishment of the competitive range. These communications may be used to enhance understanding of the proposal, address ambiguities in the offeror’s proposal, provide information regarding offeror’s past performance, and facilitate the evaluation process (FAR, 2015).

### (3) Exchanges after Establishment of Competitive Range

The FAR defines *exchanges* as the negotiations between the seller and the government (FAR, 2015). The FAR states that the process includes “bargaining, persuasion, alteration of assumptions and positions, give-and-take, and may apply to price, schedule, technical requirements, type of contract, or other terms of a proposed contract” (FAR 15.306(d)). Negotiations conducted after the formulation of the competitive range are termed *discussions*. The main objective of the government for conducting discussions is to achieve best value. Contracting officers can discuss different parts of a proposal that can be amended to enhance the proposal’s chance for award (FAR, 2015).

## **F. EU (UK) DEFENSE PROCUREMENT MODEL**

European Union (EU) Public Contract Regulations 2015 established the rules for public procurement in EU member states. However, defense and security equipment is procured under the EU Defense and Security Procurement Directive. The directive also acts as a framework to remove barriers in cross-border trade for defense and security equipment within the EU (Edwards, 2011). This directive is applicable to the procurements made by the member state authorities that exceed financial thresholds set under the EU Defense and Security Procurement Directive. The EU Defense and Security Procurement Directive has been implemented in the form of regulations by respective member countries.

### **1. The Defense and Security Public Contract Regulations 2011 Scope**

Rule 8 of Defense and Security Public Contract Regulations (DSPCR) Guidance Chapter 1 describes the scope of the DSPCR (DE&S & MoD, 2014). DSPCR Guidance Chapter 1 Rule 8 states that DSPCR is applicable for the procurement of “military and sensitive security equipment including parts, components, assemblies, and subassemblies” (DE&S & MoD, 2014, p. 2). DSPCR Guidance Chapter 2, Rule 7 states that DSPCR also applies to the “work, goods, and services related to military and sensitive security equipment” throughout the life cycle of the equipment (DE&S & MoD, 2014, p. 2). DSPCR Guidance Chapter 1, Rule 11 clarifies that procurement of

nonmilitary, nonsensitive, and civil equipment, works, and goods are covered by the Public Contract Regulation (PCR) 2015 (DE&S & MoD, 2014).

DSPCR Guidance Chapter 2 Regulation 8 defines the types of military equipment that can be procured. *Military equipment* is defined as “equipment specifically designed or adapted for military purposes and intended for use as arms, munitions, or war material” (DE&S & MoD, 2014, p. 2). However, DSPCR does not provide a strict interpretation of the definition of military equipment. DSPCR also applies to the procurement of equipment not specifically designed for the armed forces but adapted to serve a military purpose. DSPCR Guidance Chapter 2 states that dual use of equipment meant for civil use without adaptation is unlikely to be covered under its umbrella (DE&S & MoD, 2014).

DSPCR Chapter 2, Rules 15–19 define the types of sensitive security equipment that can be procured. DSPCR Chapter 2, Rules 16 state that security equipment procured through DSPCR must be used for security purposes and “does not have to be specifically designed or adapted for security purposes” (DE&S & MoD, 2014, p. 3). Security purposes may involve counterterrorism, communication and postal networks, border protection, energy and natural resources, crisis management missions, and so forth (DE&S and MoD, 2014).

PCR 2006 (now PCR 2015) covers the procurement of nonmilitary and security-related equipment for military and security institutions like the MoD (Wood & Wolfenden, 2011).

DSPCR Guidance Chapter 1, Rule 9 provides the monetary threshold for procurements with values exceeding or equal to (excluding value added tax)

- 345,028 (UK pounds) for goods and services
- 4,322,012 (UK pounds) for works (DE&S and MoD, 2014)

## **2. Statutory Requirement of Defense Procurements in the UK**

The UK has established DSPCR 2011 to implement the EU Defense and Security Procurement Directive. Each EU member state has developed national procedures for

procurement of defense and security equipment, which vary in terms of publications, and tendering procedures. This research study uses the UK DSPCR to explain the process of the EU defense model.

### 3. UK Defense Acquisition System

The UK MoD *Acquisition System Handbook* defines an acquisition system (see Figure 4) as a “set of discrete roles, accountabilities, functions and activities undertaken by key individuals to deliver the equipment, services, logistics and support (ESL&S) required principally by the armed forces—including procurement, in-service support and commodity management” (UK MoD, 2014, p. 6).

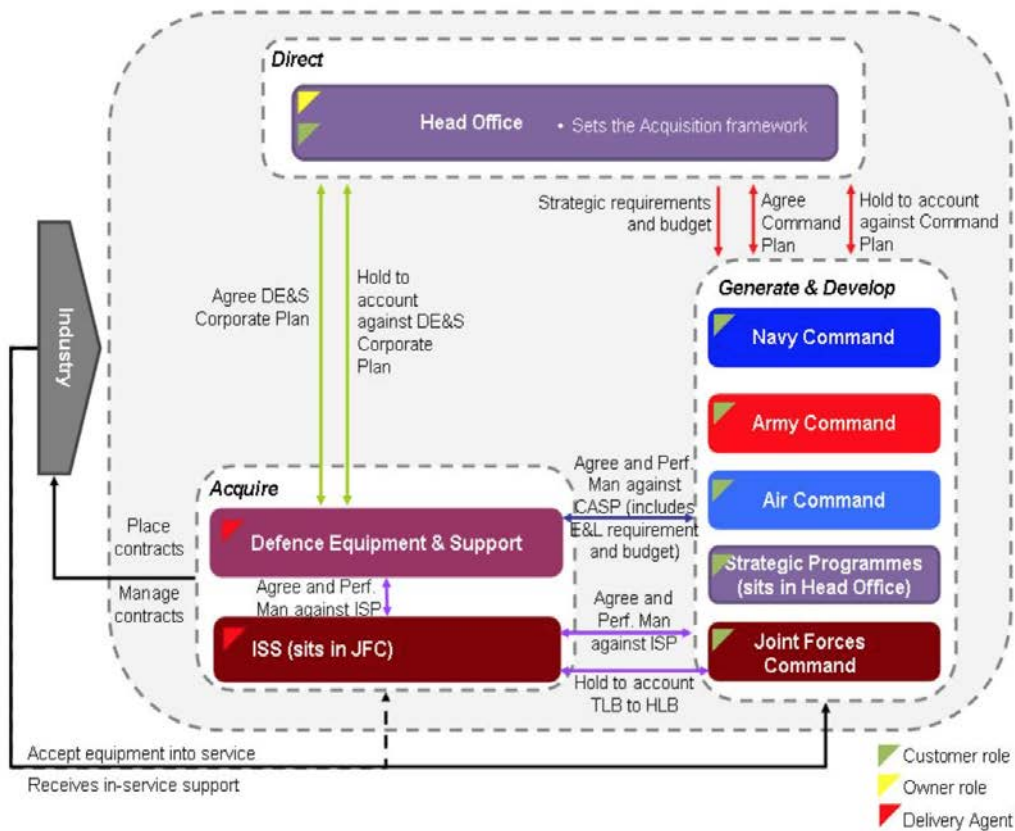


Figure 4. UK Defense Acquisition System. Source: *Acquisition System Handbook* UK MoD (2014)

The acquisition system is based on two principles:

- Simplicity of approach—using a simple and efficient process eliminating the complexity wherever possible
- Clarity of accountability—responsibilities and accountability on an individual basis are made clear through appropriate mechanisms built into the system (UK MoD, 2014, p. 6)

The DE&S Agency is assigned the responsibility of procuring military equipment and support services for UK Armed Forces. It is also responsible for providing support to operationally deployed forces.

#### 4. Acquisition Cycle

The objective of the UK acquisition cycle (see Figure 5) is to reduce risk associated with the program before the “main gate” so that the project is mature before entering the demonstration phase and the targets set for the cost, performance, and schedule are met (UK MoD, 2002). The hallmark of the acquisition cycle is the integrated project teams (IPTs), which ensure a continuous flow of responsibility throughout the acquisition cycle. Acquisition is a continuous process during which the six stages involve implementing the decisions agreed upon in the previous stage, analyzing the results, and planning for the next stage (Taylor, 2003).

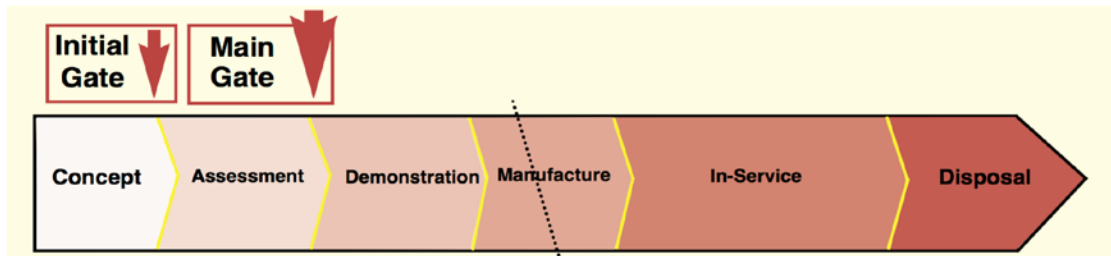


Figure 5. The New Acquisition Cycle. Source: Taylor (2003).

The main objective of the concept stage is to select options to satisfy the requirement. IPTs are formed at this stage and identify and produce a baseline statement of the outputs required by the user. The document providing the baseline outputs is

known as the user requirement document (URD). Through the initial involvement of the industry, technologies and products are identified that can fulfill the outputs spelled out in the URD. At the initial gate, the feasibility of the program is assessed, and the resources required for the program are approved (Taylor, 2003).

During the assessment stage, the system requirement document (SRD) is produced by trading time, cost, and performance parameters while remaining within the boundaries approved during the initial gate review (UK MoD, 2002). The SRD is the equivalent of the Technology Maturation and Risk Reduction phase in the United States. The main decision point of the phase is the main gate review. In this review, the IPT and the customer jointly provide recommendations to the approving authority on whether the program should enter the demonstration stage (Taylor, 2003). Projects not demonstrating acceptable cost, performance, and schedule parameters are recommended to be shelved (Taylor, 2003).

In the demonstration stage, the ability to produce integrated solutions is demonstrated. Developmental risk is methodically reduced, and linkage between the selected technological solution, SRD, and URD is ensured (Taylor, 2003). In the manufacturing stage, the production of the equipment takes place within cost, performance, and schedule parameters. System acceptance is validated in this stage to ensure conformity to the SRD and URD (Taylor, 2003).

In the “in-service” stage, the capability of the system is available for operational use and is gauged as per the SRD and UDR defined parameters. Support for the in-use system takes place, as well as agreed upon upgrades, and acquisition increments are ensured in this stage (Taylor, 2003). Finally, equipment disposal ensures safe and efficient disposal of end-of-life and obsolete systems (Taylor, 2003).

## **5. DSPCR—Formulation of Technical Specifications**

DSPCR Guidance Chapter 7, Rule 7 explains that the objective of the technical specification is to provide equal opportunity to all suppliers (including EU suppliers) by ensuring that particular products of domestic suppliers are not being favored and to avoid any unjustified obstacles in holding a free and fair solicitations process for other EU

member states' suppliers (DE&S & MoD, 2014). Technical specifications are attached to the contract notice (DE&S & MoD, 2014). DSPCR Guidance Chapter 7, Rules 12–17 mention two mandatory technical requirements that must be included in the specification of the goods, work, or services being solicited. The first part pertains to the requirements imposed by the national laws (specific to the countries in the case of EU), such as ingredients of a product which are harmful for public health and safety. The second part is the technical requirement imposed by the treaties between EU member countries and by international agreements (DE&S & MoD, 2014). The North Atlantic Treaty Organization (NATO) standardization agreements (STANAGs) are examples of military standards accepted by the UK and other EU member countries (DE&S & MoD, 2014). Technical specification assumes added importance in the negotiated procedure as the firms have leverage in negotiations with better technical specifications of their products.

## **6. Award Criteria for Contract**

DSPCR Regulation 31 lays the foundation for the award criteria. DSPCR Regulation 31(1) states that a contract may be awarded based on lowest price tender or most economically advantageous tender (MEAT) from the point of view of the procurer (DSPCR, 2011). Lowest price means the proposal is technically acceptable and fully compliant to the commercially acceptable standards. MEAT means the tender is assessed based on objective criteria to ensure best value of money. DSPCR Regulation 31(2) lays out detailed examples of the criteria for offer/tender assessment. Criteria include technical merit, life cycle costs, interoperability and operational characteristics, after-sales service and technical assistance, quality, price, security of supply, and so forth (DSPCR, 2011).

The document entitled “Managing Public Money” (MPM) sets out the UK’s procurement policy to buy goods and services through fair and open procurement processes to get best value (2015). Value for money remains the main concept of MPM. Value for money means, “securing the best mix of effectiveness, efficiency and economy in the use of resources. . The primary objective of procurers is to choose the compliant tender offering the best Value For Money solution” (Government of UK, 2015, Annex 4.6).

## 7. Weightage of Award Criteria—Price Factor

The UK MoD has given guidance (see Figure 6) in the form of a decision chart depicting the split between the pricing and other criteria. Price factor weightage ranges between 0% and 39%, depending on the requirement. When sufficient technical solutions are available in the market, the highest weightage for price factors is given in the award criteria (DE&S & MoD, 2015).

### Guide<sup>1</sup> to Deciding the Split between Price and other Factors

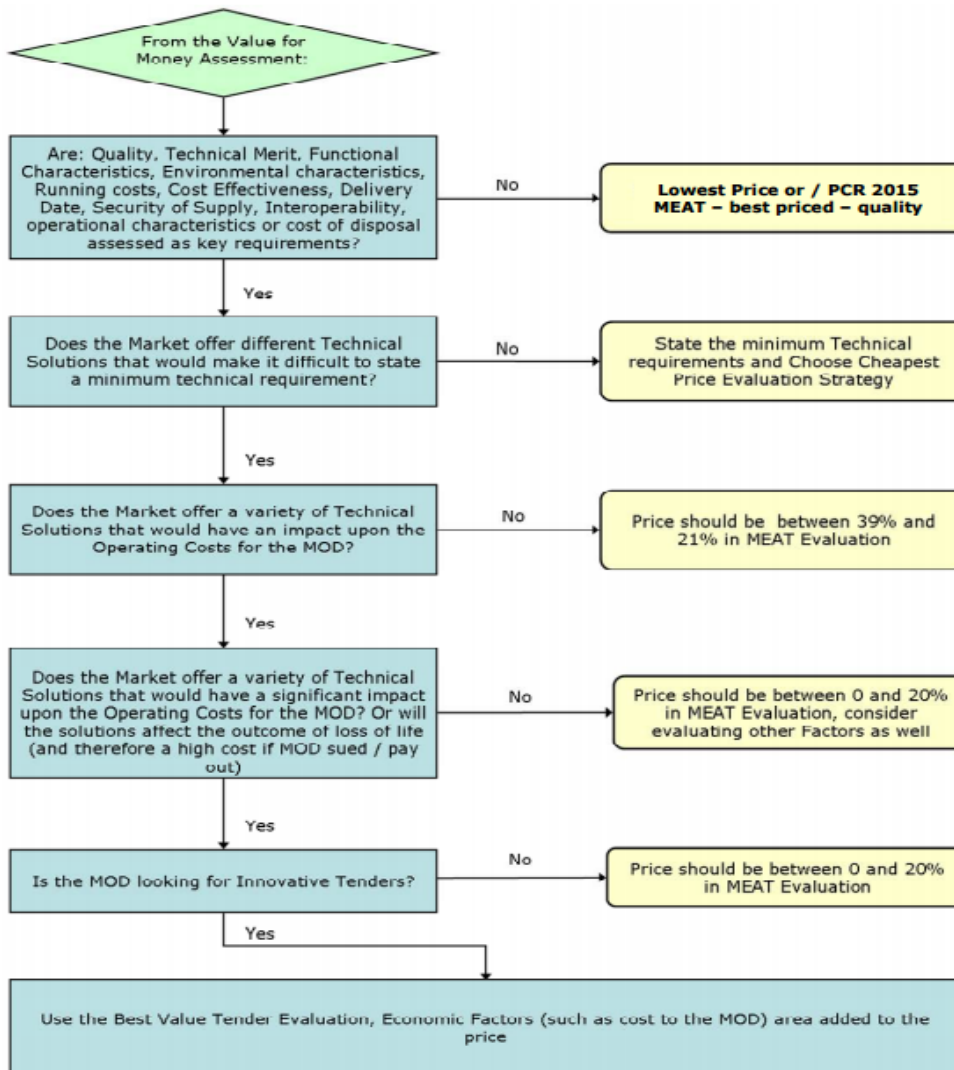


Figure 6. Guide to Deciding the Split between Price and Other Factors.  
Source: DE&S & MoD (2015).

## **8. Types of Procurement Procedures**

DSPCR Chapter 8, Rule 3 explains the procurement procedures (processes) that public institutions (military and security) should follow while contracting for goods, works, and services. The procedures are as follows:

- Restricted procedure
- Competitive negotiated procedure
- Competitive dialogue procedure
- Noncompetitive negotiated procedure (DE&S & MoD, 2014)

This research focuses on the competitive negotiated procedure and the competitive dialogue procedure.

### ***a. Competitive Negotiated Procedure***

DSPCR Regulation 18 covers the competitive negotiated procedure (see Figure 7). This procedure requires a prior publication of contract notice, with the possibility of negotiation and iterative bidding included in the notice. Before the receipt of the requests, a bidders' conference may be held to provide the potential suppliers an opportunity to examine the requirements in detail and the acquisition team to witness demonstrations and visit the tenderers' facilities (UK MoD, 2015). After the receipt of requests from tenderers, the suppliers are shortlisted. Shortlisting is done before issuing an invitation to negotiate based on responses to a PQQ by the tenderers. DSPCR Guidance Chapter 14 provides detailed instructions on the formulation of the PQQ and its use for shortlisting. The PQQ, in accordance with Rule 23 of DSPCR, asks for the eligibility of the suppliers. The PQQ also "assess[es] against the minimum standards of economic and financial standing, and technical and professional capability" (DE&S & MoD, 2014, p. 9). These standards must be published in the contract notice. To ensure transparency and competition, procurers should invite at least three tenderers for negotiation. Tender evaluation should be done in accordance with the articles of transparency, equal treatment, and non-discrimination of the Treaty on Functioning of European Union (TFEU, UK MoD, 2015). A tender evaluation board composed of technical, financial, commercial, and subject matter experts carries out the tender evaluation. DSPCR

Guidance Chapter 8, Rule 37 allows iterative tendering in competitive negotiated procedures (DE&S & MoD, 2014). DSPCR Guidance Chapter 15, Rule 88 states the aim of the competitive negotiated procedure “is to improve in value of money terms” (DE&S & MoD, 2014). DSPCR Guidance Chapter 15, Rules 87–92 describe that under the competitive negotiated procedure, negotiations are carried out in successive stages. Tenderers are reduced in the successive stages by applying the contract award criteria. In the advanced stages of the negotiation process, tenderers may be asked to submit a revised or confirm offer (ROCO). ROCO invitations are sent when the number of unresolved issues is high. ROCOs can be tailored according to issues specific to each tenderer. Tenderers can also be asked to submit best and final offer (BAFO). The aim of ROCOs and BAFOs is to get best value for money. A BAFO is obtained through “another round of tendering where the evaluation cannot clearly identify the tenderer to award the contract” (DE&S & MoD, 2014, p. 5).

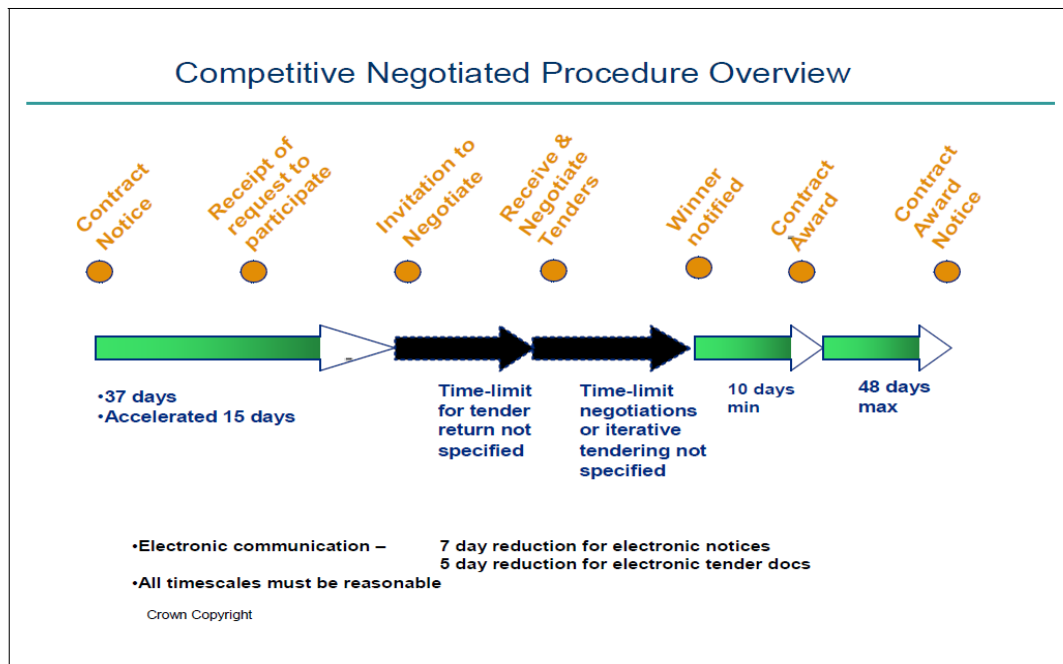


Figure 7. UK MoD Competitive Negotiated Procedure Overview.  
Source: DE&S & MoD (2014).

After BAFOs are received, the contract negotiations are culminated and the contract is awarded. An award decision notice is used to inform tenderers about the contract award decision (DE&S & MoD, 2014).

**b. Competitive Dialogue Procedure**

DSPCR Regulation 19 covers the competitive dialogue procedure (see Figure 8). DSPCR Guidance Chapter 8, Rule 9 states that competitive dialogue may be used for more complex contracts that may not be adequately pursued using the restricted or competitive negotiated procedure (DE&S & MoD, 2014). A structured dialogue to negotiate with bidders after the invitation to participate in dialogue (ITPD) is considered a competitive dialogue (DE&S & MoD, 2014).

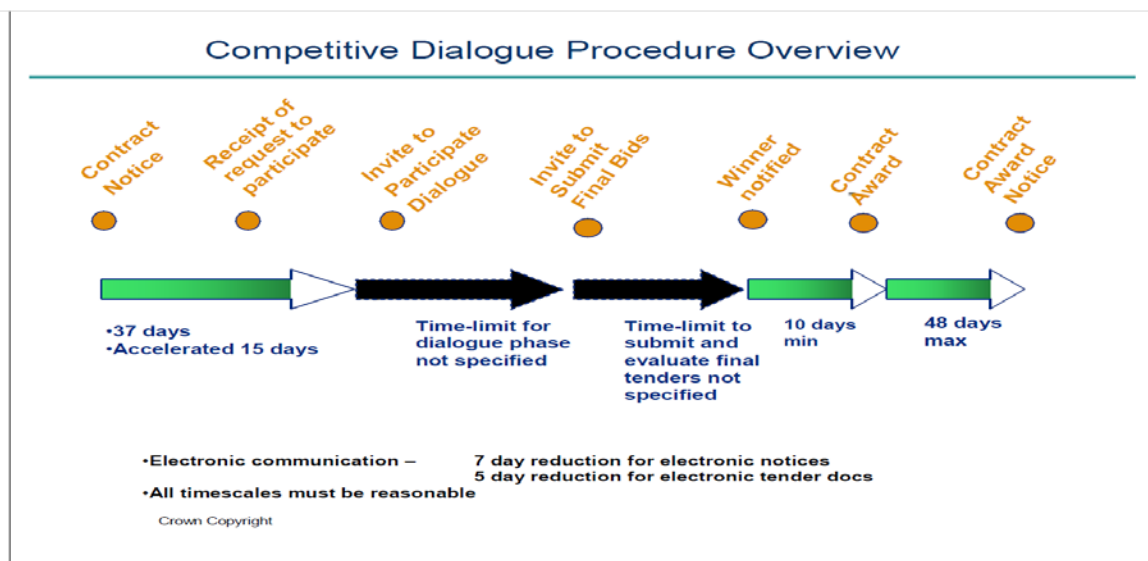


Figure 8. UK MoD Competitive Dialogue Procedure.  
Source: DE&S & MoD (2014).

The competitive dialogue process starts with the issuance of a contract notice. The contract notice for the competitive dialogue should specify the requirement, minimum number of candidates, objective and non-discriminatory criteria, intent to conduct negotiation in stages or not, permission for variant bids, and procedural time limits for receipt of requests (DE&S & MoD, 2014). A minimum of three candidates are required

to be issued ITPDs, provided they meet the minimum criteria. For more complex requirements, the bidders may form a consortium. However, making a consortium does not automatically confer qualifying status to the parties (DE&S & MoD, 2014).

The competitive dialogue process is usually a mix of negotiation and tendering at a meeting. Competitive dialogue can be carried out with individual candidates. Dialogue commences after the ITPD is issued. DSPCR does limit the number of dialogue rounds that can be conducted. DSPCR Guidance Chapter 8, Rule 15 states that ITPDs should include the following details:

- Contract details for acquisition team
- Modus operandi of dialogue—date, time and rendezvous for all rounds of dialogue
- Project program with sufficient cushion built in to allow for unforeseen requirements (DE&S & MoD, 2014)

DSPCR Regulation 19(29) states that an award should be made on the basis of the MEAT. The criteria are published in either the contract notice or the ITPD in accordance with the DSPCR Regulation 19(20). Contract award criteria must be assigned relative weightings (minimum to maximum range) or a descending order of significance. Up-front disclosure of the contract criteria is a challenge when conducting competitive dialogue procedures; however, it permits the acquisition team to hold dialogue until the requirement is met (DSPCR, 2011).

DSPCR Regulation 19 (23) puts a strict obligation on the acquisition team to adhere to equal treatment of all the participants and to ensure the security of the confidential information received from the tenderers (DSPCR, 2011). Tenderers may be asked before and during the conduct of dialogue to provide in writing which parts of the solutions they submitted can be revealed. DSPCR Guidance Chapter 8, Rule 26 clarifies that it is the responsibility of the bidder to specify what falls into the confidential category. However, it is at the discretion of the acquisition team whether to accept or deny such declarations from the tenderers (DE&S & MoD, 2014).

DSPCR Regulation 19(24) allows the gradual elimination of tenderers through the application of the contract award criteria. DSPCR Guidance Chapter 8, Rule 34 points

out that during the process the requirements may mature to an extent where the award criteria becomes obsolete and requires revision (DE&S & MoD, 2014).

The dialogue process formally closes with the issuance of the invitations to submit final bid (ITSFB). After receipt of ITSFB, no further dialogue is allowed (DSPCR Guidance, 2011).

## **G. UNCITRAL LAW ON PUBLIC PROCUREMENT (UN MODEL)**

UN General Assembly resolution number 2205 (XXI) of 17 December 1966 formed the legal basis for the establishment of the UNCITRAL (UNCITRAL, 2014). The UNCITRAL Model Law of 1994 was updated in 2004. The UNCITRAL Model Law offers guidelines for public procurement in the UN. States can adopt the provisions of the model law based on its unique statutory requirements.

### **1. Participation by Suppliers or Contractors**

Article 8 of UNCITRAL Model Law mandates that suppliers of all nationalities shall be allowed to participate in the procurement process. However, countries may restrict the participation of suppliers in the procurement process in accordance with the law of the land (UNCITRAL, 2014, p. 9).

### **2. Qualification of Suppliers and Contractors**

Article 9 of the UNCITRAL Model Law describes the following criteria for the qualification of suppliers and contractors:

- Suppliers have the necessary environmental, professional, and technical competencies, financial capacity, and managerial capability to execute contract.
- Suppliers meet the ethical standards of the state.
- Suppliers have adequate legal capacity.
- Suppliers are not insolvent or administered by court-appointed officials, and business activities are not under suspension.
- Taxes and social security obligations are fulfilled.

- Suppliers and their directors have not been convicted of criminal offenses (UNCITRAL, 2014, p. 10).

### **3. Evaluation Criteria**

Article 11 of UNCITRAL Model Law lays the foundation for the evaluation criteria related to procurement. Criteria may include the following:

- Price
- Cost of maintaining, operating, and repairing goods; requirement characteristics; and environmental characteristics of requirement
- Experience and professional competence of the contractor
- Statutory requirements of state law (UNCITRAL, 2014, p. 12)

The solicitation documents set out the (a) evaluation criteria, which may be set on the basis of price or price and other criteria, (b) relative weights of the criteria, and (c) manner of application of evaluation criteria (UNCITRAL, 2014, p. 13).

### **4. Evaluating the Value of Procurement**

UNCITRAL Model Law article 12 lays the guidelines for procurement cost estimation. UNCITRAL Model Law restricts the division of requirements and requires the use of specific valuation methods for requirement cost estimation to ensure free and fair competition. The procurement authority shall “include the estimated maximum total value of the procurement contract. Contract cost estimation includes total value of the contract or all procurement contracts under the framework agreement over its entire duration” (UNCITRAL, 2014, p. 14).

### **5. Pre-Qualification Proceedings**

UNCITRAL Model Law article 18 defines the procedure to identify qualified suppliers and offerors prior to commencement of solicitation process. The pre-qualification process commences with the publication of the invitation to pre-qualify. UNCITRAL Model Law encourages the procuring agency to publish the invitation to pre-qualify internationally (UNCITRAL, 2014, p. 18).

## **6. Methods of Procurement**

UNCITRAL Model Law article 27 mentions 10 different procurement methods.

This study focuses on the following methods:

- RFP with dialogue
- RFP with consecutive negotiations
- Competitive negotiations (UNCITRAL, 2014, p. 28)

### ***a. RFP with Dialogue***

UNCITRAL Model Law article 49 describes the procedure for RFPs with dialogue. Under this procedure, the acquisition team publishes an invitation RFP with dialogue proceedings. To limit the number of participants from which to request proposals, the acquisition team may engage in pre-selection procedures. Per UNCITRAL Model Law article 18, pre-selection proceedings have been discussed in the pre-qualification procedures. The pre-selection process clearly describes how selection of the suppliers will be carried out. The pre-selection process should ensure participation of enough suppliers for effective competition. The acquisition team shall assign ratings during the pre-selection process to the suppliers that meet the criteria as mentioned in the invitation to pre-selection. Suppliers with the best ratings are then selected and informed. An RFP is issued to selected suppliers after the pre-selection process. The RFP details the method for proposal price estimation and criteria for proposal evaluation. A minimum of three suppliers shall be selected for the dialogue process. The acquisition team conducts dialogue with all the suppliers who submitted responsive proposals. Suppliers' representatives cannot be changed during the dialogue process, and the subject matter of the procurement and the evaluation criteria cannot be modified by the acquisition team. The acquisition team shall request the presence of all suppliers at the time of submission of the final offer. Negotiations cannot take place after the submission of final offers (UNCITRAL, 2014, p. 52).

***b. RFP with Consecutive Negotiations***

UNCITRAL Model Law article 50 explains the procedure for consecutive negotiations. Sound proposals with acceptable technical, quality, and performance characteristics are considered to be responsive proposals. The acquisition team evaluates the proposals and assigns merit rankings based on the evaluation criteria. These rankings are conveyed to the suppliers. The supplier with the best ranking is invited to participate in financial negotiations. Other suppliers with responsive proposals are informed that their proposals will be considered for financial negotiations if the negotiations with the first supplier fail. Should that happen, financial negotiations commence with the second ranked supplier. This process continues until the acquisition teams conclude a successful financial negotiation, and a contract is formed. During the financial negotiations process the requirement is not modified. The acquisition team may not reopen financial negotiations with suppliers whose financial negotiations have already been terminated (UNCITRAL, 2014, p. 52).

***c. Competitive Negotiations***

UNCITRAL Model Law article 30(4) explains the circumstances under which the acquisition team may engage in the competitive negotiations process:

- Requirement is of urgent nature and other methods are time consuming.
- Requirement arises because of a “catastrophic event” and normal processes are impractical.
- The acquisition authority determines the use of any other procurement authority is not feasible owing to state security interests (UNCITRAL, 2014, p. 31).

Competitive negotiations are carried out with enough suppliers to ensure effective competition. During the competitive negotiations process, any requirement, clarification, and information is communicated to all the suppliers for equality and transparency purposes. After completion of financial negotiations, all the suppliers are requested to be present during the submission of their final offers. The acquisition team chooses the offer that best meets its needs (UNCITRAL, 2014, p. 54).

## **7. Two-Stage Tendering**

UNCITRAL Model Law article 48 describes a two-stage tendering process that is applicable to RFPs with dialogue, RFPs with negotiations, and competitive negotiations. In a two-stage tendering process, the procurement team requests tenders containing proposals without mentioning prices. The acquisition team may solicit a proposal containing technical and performance characteristics of the requirement. In the first stage of two-stage tendering, the acquisition team commences discussion with suppliers whose tenders have not been rejected. The acquisition team is responsible for ensuring all suppliers have an equal opportunity to participate in the discussion. In the second stage, suppliers present their revised technical proposals along with their price proposals. The final tenders submitted by suppliers are evaluated per the evaluation criteria (UNCITRAL, 2014, p. 48).

In the previous sections, the U.S., the UK, and the UN procurement models have been discussed. In the following sections, the COSO framework in relation to procurement fraud is described for later analysis in order to make recommendations for Pakistan's procurement system.

## **H. COSO INTERNAL CONTROL FRAMEWORK**

The scope of internal control and its applicability in any modern-day comprehensive management framework is not limited to deterring and managing fraud. An internal control system is also expected to provide reasonable assurances regarding operations, reporting, and compliance objectives (COSO, 2013). The results of a survey conducted by Willis and Lightle (2000) show that 86% of corporate sector companies believe that internal controls only provide reasonable assurance. The specifics of internal controls may tend to differ for profit and non-profit organizations, as in today's world, everybody seems to be taking risks, even governments, schools, and nonprofit groups (Grumet, 2009). For defense organizations, the mission requirements coupled with financial and non-financial objectives are the focus. Appropriate internal control procedures are required for each process of the procurement phases starting with the solicitation planning. In addition, an appropriate procurement model and an appropriate

contract type with solicitation documents and evaluation criteria are necessary. There is a need for a financial negotiations process in the public procurement system of Pakistan (Nazir & Nadeem 2015), as well as for a viable internal control framework. The implementation of internal controls may eventually lead to a reduction in operational problems, associated risks, and vulnerability for fraud (GAO, 1999).

For a better understanding of the requirements for the internal control procedures in the financial negotiations process, consideration of a credible time-tested internal control framework is necessary. According to Willis and Lightle (1995) “conscientious managements are already sufficiently motivated to monitor their internal control systems” (p. 17). A well-recognized and time-tested internal control framework by the COSO was established in 1985 by several private sector organizations in the United States (COSO, 2013). The mission of COSO 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” (as cited in Tan, 2013, p. 22). COSO has presented a framework to enable adaptive dynamic organizations to meet their objectives by effectively and efficiently maintaining internal control structures within organizations (COSO, 2013). The COSO internal control framework is flexible and is generally modified per the legal framework of the implementing country or specific organization. The COSO internal control framework is primarily based on the following concepts, objectives, and components:

## **1. Concepts**

The COSO’s integrated internal control framework defines the internal control process as follows: “Internal control is 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” (COSO, 2013, p. 39).

The scope and methodology in internal control processes is very broad to allow management to conduct and oversee internal control systems and to select the areas

needing reforms and implementation. According to Metzger (2007), “In order to foster a positive control environment, management and employees should establish and maintain an environment throughout the organization that sets a positive and supportive attitude towards internal control and conscientious management” (p. 38). This leads to implementation of an internal control environment that has flexibility in the practical domain and sustainment in its entirety. The management sets the tone at the top by using an established set of standards of conduct.

Internal controls differ from one organization to the other, mainly dependent on size, objectives, and nature of operations. For example, controls for financial reporting in an organization can be classified as preventive, detective, and corrective (Whittington & Pany, 2011). Any internal control procedure put in place in any organization or entity should help achieve the organization’s objectives. The organization adopts a mission and sets targets to achieve its mission. The internal control implementation is largely dependent on the managers and employees at every level of the organization to ensure the internal control procedures are working properly (COSO, 2013).

## **2. Objectives**

The COSO framework divides the objectives into three broad categories to streamline the entity’s internal controls at each level of management starting from the top level to the lowest level. The COSO integrated internal control framework is designed to provide reasonable assurance of meeting the organization’s objectives. Internal control system effectiveness may vary over time, which helps in identifying and assessing the risks within the organization (Willis & Lightle, 2000). The categories of these objectives are as follows:

### ***a. Operations Objective***

The operations objective relates to the basic mission of an organization and is based on financial performance, productivity, customer satisfaction, and employee satisfaction. The operational objectives also vary for profit and nonprofit entities. Most organizations, including defense, have established internal controls systems to safeguard their assets (COSO, 2013).

***b. Reporting Objective***

The production of reports for effective use by management and stakeholders is driven by the organization or the industry standards. The reporting objective includes internal and external financing as well as non-financing objectives. The content of reports may vary but the focus is on the effectiveness of internal controls (Willis & Lightle, 2000). These types of objectives are different from other objectives because they may be driven by internal and external needs (COSO, 2013).

***c. Compliance Objective***

The compliance objective is driven by the applicable laws and regulations and sets forth the level of conduct expected from an organization's employee. These objectives become part of the entity's mission and must be understood by members of the organization or entity for performance at all levels of the organization (COSO, 2013).

**3. Components of Internal Control**

The internal control components and commonly applicable principles are recommended by the COSO for every organization (COSO, 2013). The five components that form the core of the related principles are as follows:

- Control environment
- Risk assessment
- Control activities
- Information and communication
- Monitoring activities (COSO, 2013, p. 45)

The management of any organization bears the main responsibility for the organization's internal control system (Metzger, 2007). Making strategic decisions, selecting a capable board of directors for governance and oversight, and selecting and developing controls to mitigate the risks are all part of internal control processes based on the COSO components and related principles.

An understanding of each component of the COSO framework is imperative for setting up an internal control framework for the financial negotiations process in the procurement process. The following section describes the five internal control components along with the related principles.

*a. Control Environment*

The control environment forms the basis of setting up control procedures across an organization and forms an umbrella for four other internal control components (Noland & Matrejean, 2013). Once the methodology is established, methods and procedures and expectations are built around the control environment. The discipline and behaviors set the foundation, and the quality of the internal control system is further refined. Starting with the tone at the top, conduct standards, oversight, input, and documentation, the control environment focuses on the organizational structure and delegation of responsibilities (COSO, 2013; GAO 2014b). Moreover, this internal control component includes the recruitment, development, and retention of employees. This formal organizational control structure defines the areas of authority, responsibilities, and lines of reporting. The five principles in the control environment include the following:

- Commitment to integrity and ethical values is demonstrated by the organization
- The board of directors are independent from management and exercise oversight for performance of internal control and its refinement
- The proper lines of reporting authorities and responsibilities are made effective by management with organizational objectives in sight
- A commitment at every stage is shown by the organization in pursuit of workforce competence.
- The accountability is critical for holding individuals responsible for their internal control responsibilities to meet the objectives of the organization (COSO, 2013, p. 20).

Furthermore, an important aspect in the control environment is accountability. The management in any organization should enforce accountability for all individuals responsible for the internal control procedures. Through the timely performance appraisal of individuals, corrective actions should be taken. Management uses different tools to

help balance the employee workload periodically (GAO, 2014b). “The effectiveness of an organization’s internal control relies upon its leadership to set the tone at the top by enforcing control environment components” (Whittington & Pany, 2011, p. 248).

***b. Risk Assessment***

One of the most important factors in an internal control system is the correct and timely risk assessment process whereby the objectives are clearly defined and updated to meet new requirements (Whittington & Pany, 2011). Risks vary by types depending on the functions of the organization. For example, in financial organizations, there could always be the risk of fraud. For a government organization, risks could be bribery and other illegal acts leading to the waste and abuse of resources and power. When potential risks are identified, management should conduct a thorough analysis of the external and internal environment. If needed, the risk assessment strategy should be revised to ensure the achievement of the organizational objectives (COSO, 2013; GAO, 2014b). The related principles for risk assessment in the COSO’s framework are as follows:

- Specific, crystal-clear organizational objectives are set forth for timely identification and assessment of risks.
- After the objectives are set, potential risk factors are analyzed for future courses of action.
- Fraud risk elements that could undermine the objectives are also assessed.
- Potential changes that significantly underscore internal controls are identified and analyzed (COSO, 2013, p. 20).

An appropriate risk assessment level can only be achieved in an organization if the management constantly assesses the threats for all types of risks such as fraud, bribery, and other illegal acts (Noland & Metrejean, 2013). The risk assessment relates to timely detecting and responding to the risks (Porter, Simon, & Hatherly, 2014). The constant audit of risks and the constant revision in the internal control system are imperative for maintaining a viable minimum risk level (COSO, 2013; GAO, 2014b).

*c. Control Activities*

Control activities are the diverse set of actions ascertained and put into place by the management to mitigate constantly arising risk levels in the internal control system (Noland & Metrejean, 2013). As per COSO's framework, the control activities component is focused on the following three principles:

- Control activities are set and developed by the organization for risk mitigation and objectives achievement.
- General control activities over technology are developed and selected for objectives achievement.
- Control activities are deployed by the organization through policies and procedures and integrated with the risk assessment and response functions with suitable placement in organizations (COSO, 2013, p.p. 20-21).

Some examples of common categories of control activities are:

- management of human capital,
- top-level reviews of actual performance,
- reviews by the management at all levels,
- segregation of duties,
- physical control over vulnerable assets,
- controls over human processing,
- performance reviews and indicators,
- accurate and timely recording of transactions,
- appropriate documentation of transactions and internal controls, and
- access restrictions and accountability for all resources and records (GAO, 2014b, p. 46).

These control activities are designed to meet the objectives of accuracy and validity in the information processing system. Control activities may include the checks of data files, programs, and their backups. Control activities also apply to the application controls, which deal with the processing of data leading to accuracy, completeness, legitimacy, and concreteness of all performed transactions (GAO, 1999).

Furthermore, an important aspect in control activities is the segregation of duties within different tiers of the organization. In any organization, especially in a finance-related environment, segregation of duties can be defined as “no one individual should perform more than one of the functions of authorizing transactions, recording transactions, and maintaining custody over assets” (Whittington & Pany, 2011, p. 254). Segregation of duties reduces the risk of inappropriate and fraudulent actions. Through effective segregation of duties, the highly practiced management override of bypassing the established internal controls can be minimized (COSO, 2013). The likelihood of fraud can be reduced by segregation of duties. In addition, without collusion of at least two more employees, occurrence of fraud could be decreased. An example of segregation of duties in a finance-related environment could include having different personnel responsible for transaction authorizing, processing, and recording (GAO, 2014b).

*d. Information and Communications*

The importance of information in this technologically advanced age cannot be underestimated. Similarly, transmitting information at the right time to the right people within or outside the organization using the appropriate method is equally important. Information transmission is an ongoing process in which both the internal and external sources are used to provide management with useful, filtered, and relevant information for internal control responsibilities and managerial functions (Whittington & Pany, 2011). Information accessibility depends on the communication sources, like the use of an updated accounting information system, which can lead to benefits such as “proper execution of transactions, accurately and timely recording of transactions, access restrictions to and accountability for resources and records, appropriate documentation of transactions and internal control” (GAO, 2014b, p. 48). Open communication channels lead to proper functioning of an information system (Whittington & Pany, 2011). This is the key to the successful understanding of objectives by everyone in the organization and the roles expected of each individual for control responsibilities (COSO, 2013).

The efficacy of the information communication system also supports the functioning of the other components of the internal control framework. For example, in

risk assessment, an increased dependency on the use of credit cards in meeting consumer demands through online sales creates an increased risk of possible breaches of information security. Management, through the better use of information and communication sources, can monitor the non-compliance of the privacy and security issues (GAO, 2014b). An effective transaction monitoring system can help in risk evaluations of credit card monitoring systems. Similarly, in a defense system, a better use of information and communication systems can help monitor the risks regarding the abuse of authority or financial powers. The information can be obtained either by the use of manual systems or through the use of modern information tools like electronic data interchange (EDI) or application programming interfaces (API) (Whittington & Pany, 2011). However, keeping information filtered and quantified could reduce the risk associated with the hazards of information overload. Management can address these issues by keeping the quality of information accessible, correct, current, valid, and verifiable. The establishment of information management policies with clear lines of responsibility and accountability is the main responsibility of management. This holds true during communication within an organization, where robust controls are needed to ensure the confidential and foolproof relay of information (COSO, 2013). The following principles relate to improving information and communication in any organization:

- Quality information is generated and used by the organization to effectively support the internal control system.
- Information is internally communicated, including objectives and responsibilities required to support the internal control system.
- Communication with external parties is done on matters affecting the other components of the internal control system (COSO, 2013, p. 21).

One of the most important aspects in relaying information within an organization is the willingness of employees to report to appropriate stakeholders. This can only be achieved through added confidence of the employees and managers or subordinate officers that the information and communication issues being faced would be dealt with promptly (Whittington & Pany, 2011). This immediate and timely remedial action can only be possible through a very effective information communication system in place for lower, middle, and top-level management. This communication system should include a

number of sources available, such as frequent meetings at all levels, social media, memoranda, e-mails, and presentations. Having all these checks and balances in effect, would ensure added confidence that the internal control procedures are working properly (COSO, 2013).

*e. Monitoring Activities*

With changing times, the organization's objectives may change, leading to necessary changes in the internal control system (Rendon & Rendon, 2015). The organization's internal control procedures can also become redundant and questionable over time. To modify or design new internal control procedures to address changing requirements, management needs valuable, timely, and constant inputs. Constant evaluation of existing internal controls by management is only possible through sound monitoring activities. This monitoring would give management an idea about the effectiveness of the controls in order to ensure that the five components of internal control remain functional and effective (COSO, 2013).

The monitoring system can be based on two main drivers: ongoing evaluations and separate evaluations. A mix of both drivers can be used by management to monitor the rate of change and establish a basic understanding of the current state of changes taking place. According to Merten, Severance, and White (1981), "a company's assessments of the effectiveness of its present internal control system in response to its environment is a key determinant of whether, it will, in fact, improve its internal control" (p. 52). The assessments can be done by evaluating selected individuals within the organization. The frequency, as well as scope, can be varied by management per the threat perception and forecasted risk. The ongoing evaluations form an integral part of the design and operation of internal controls and provide timely information and solid evidence. The separate evaluations are based on management's judgment regarding when these evaluations will be conducted and what the intended scope is in each situation (COSO, 2013). All these monitoring system activities should be done on a regular basis, backed by sound reporting channels to appropriate management levels. In addition to the monitoring activities conducted by the internal auditors, monitoring can be outsourced to

external auditors per the nature of the organization's work processes. These outsourced audits should be monitored and supplemented by organizational internal control checks to verify the outsourced service provider interfaces with the organization's own internal control audits (COSO, 2013). The related principles for monitoring activities in the COSO's framework are as follows:

- Ongoing or separate evaluations are selected or developed to ascertain the presence and operation of internal control functions.
- Internal control deficiencies are evaluated and communicated in a timely manner to tiers within or outside the organization, such as senior management and the board of directors responsible for taking remedial actions (COSO, 2013, p. 21).

Once the internal control shortcomings are conveyed to the appropriate people at an organizational level or through the chain of command, management's responsibility should then focus on corrective actions. Any delay in the rectification process can lead to a risky situation and could result in further weakening of the internal control system (COSO, 2013). The following section discusses the summary of principles governing internal control components and their direct relationship.

#### **4. Summary of Principles Governing Internal Control Components – GAO Perspective**

Like any other organizational hierarchy, an internal control environment is based on some principles that support the design, implementation, and operational aspects of the control environment. The GAO's Green book has adopted the COSO framework along with the 17 principles to satisfy the governmental level internal controls. This process leads to an effective internal control system with components based on clearly defined principles, as shown in Figure 9.

Control Environment	Risk Assessment	Control Activities	Information and Communication	Monitoring Activities
1. Demonstrates commitment to integrity and ethical values.	6. Specifies suitable objectives.	10. Selects and develops control activities.	13. Uses relevant information.	16. Conducts ongoing and/or separate evaluations.
2. Exercises oversight responsibility.	7. Identifies and analyzes risk.	11. Selects and develops general controls over technology.	14. Communicates internally.	17. Evaluates and communicates deficiencies.
3. Establishes structure, authority, and responsibility.	8. Assesses fraud risk.	12. Deploys through policies and procedures.	15. Communicates externally.	
4. Demonstrates commitment to competence.	9. Identifies and analyzes significant change.			
5. Enforces accountability.				

Figure 9. Internal Control Components and Principles.  
Source: Burns & Simer (2013, p. 3).

While the components and principles work in their own domain, a direct relationship exists between the organizational structure, components, and objectives of the organization, as shown in Figure 10 (COSO, 2013, p. 46).



Figure 10. 2013 COSO Cube. Source: COSO (2013).

After having discussed the internal control standards and the widely accepted COSO integrated internal control framework in use, it is important to discuss the fraud issues associated with the procurement process, specifically with financial negotiations in the defense procurement process. An inadequate and ineffective internal control system in the financial negotiations environment can lead to fraud vulnerabilities. The next section focuses on the types of procurement frauds specifically associated with the procurement process in relation to internal controls.

## I. PROCUREMENT FRAUD IN RELATION TO INTERNAL CONTROLS

In simple terms, the procurement process follows a set life cycle that is based on a pattern starting with procurement planning and ending with contract closeout, as shown in Figure 11. An effective internal control system is vitally important throughout the procurement process. However, its importance becomes more critical in solicitation and source selection. Furthermore, throughout the phases of contract management, the potential for fraud may increase substantially.

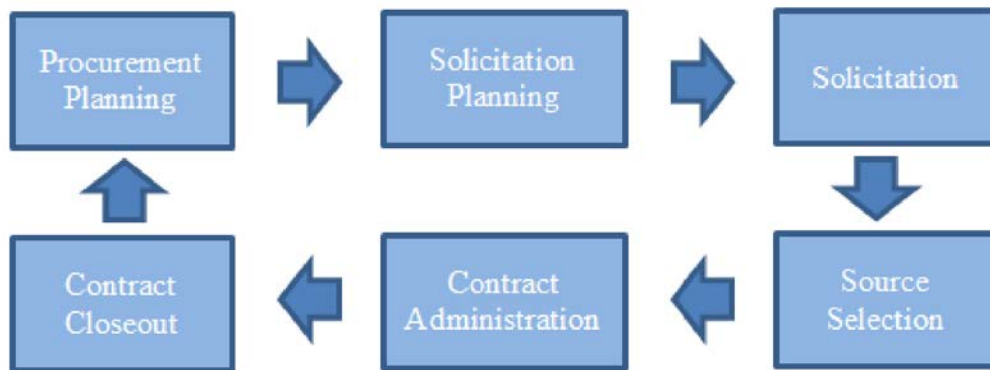


Figure 11. Process Contract Management. Source: Rendon (2008).

The concept of fraud includes a wide scope of actions ranging from misuse to misapplication, deception to concealment, lying to cheating, to any sort of dishonesty. The fraud triangle, which includes pressure, opportunity, and rationalization components, is a model for understanding the most recent ideas surrounding the concept of fraud, particularly the conditions that lead to fraud (see Figure 12).

# THE FRAUD TRIANGLE

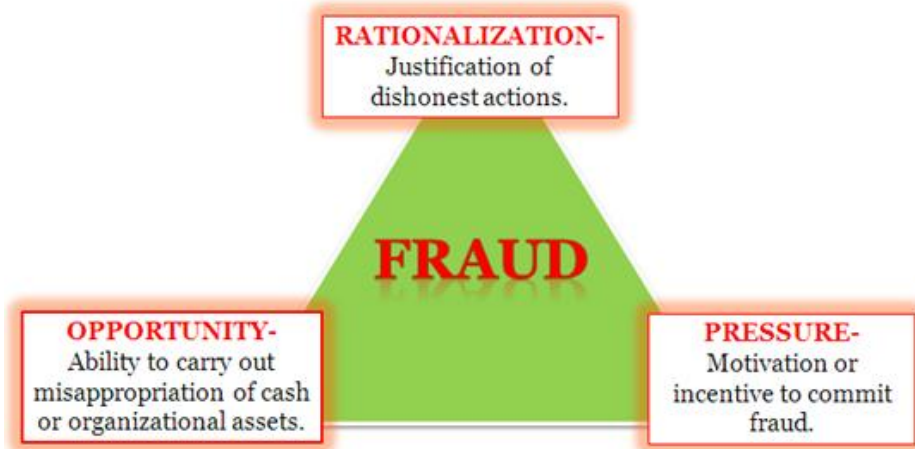


Figure 12. The Fraud Triangle. Source: Columbia University Finance Gateway (n.d.).

Procurement fraud is fast becoming a common occurrence globally, especially in defense contracting, due to huge budgets and the large amount of procurement conducted each year. Procurement fraud is a complex problem that has been defined as follows:

Illegal conduct, by which the offender gains an advantage, avoids an obligation or causes damage to his organization. The offender might be an employee, owner, an official, a public figure or a vendor who was involved in the purchase of services, goods or assets for the affected organization. (Surveillance, 2011).

Procurement fraud is not just limited to contracting, it can also be related to procurement functions, including financial negotiations. In financial negotiations, of the three elements of the fraud triangle, opportunity plays a major role. Weak internal controls create an opportunity for fraud. To understand this concept, some of the schemes in the procurement fraud categories are discussed in the next section.

## **J. PROCUREMENT FRAUD SCHEME CATEGORIES**

Procurement fraud occurs in many different categories that may involve a wide range of stakeholders. More specifically, procurement fraud revolves around two main stakeholders:

- individuals within the procuring organization and
- individuals outside the procuring organization who are directly involved in the procurement process.

### **1. Collusion among Main Stakeholders**

*Collusion* is defined by *Merriam-Webster* as “a secret agreement or cooperation especially for an illegal or deceitful purpose” (“Collusion,” n.d.). This definition signifies the variability in different methodologies that can be used in fraud collusions. The main stakeholders are the ones doing the procurement process, forming the core of the collusion fraud scheme. However, the most common forms of collusion in fraud schemes among main stakeholders include the following:

- Product / service need recognition
- Bid specification tailoring
- Bid tailoring / rigging to meet threshold requirements
- Conflicts of interests with personal interest
- Bid manipulation for unfair advantage (as cited in Tan, 2013)

The most specific collusion fraud scheme that leads to fraud in financial negotiations in the procurement process is collusion between the procuring agencies and the contractors. “The combined efforts of fraudsters enable them to circumvent or override anti-fraud controls” (ACFE, 2012, p. 43). The procuring agency represented by the government official may collude with the contracting party to obtain personal gifts, kickbacks, or bribes (ACFE, 2016; Tan, 2013). According to the research findings by Rendon and Rendon (2015), besides collusion, organizations are most susceptible to conflicts of interest.

## **2. Conflicts of Interest**

Conflict of interest is another very common type of fraud that causes significant damage to an organization. It is classified as a form of corruption under the occupational fraud and abuse classification system (ACFE, 2016). This type of occupational fraud can arise at any time in the procurement process, when persons involved have self-interests in conflict with organizational responsibilities (Tan, 2013). Another form of this type of fraud can involve multiple employees of the same organization who can act in unity to achieve their fraud scheme related to conflicts of interest. In conflicts of interest “an employee misuses his or her influence in a business transaction in a way that violates his or her duty to the employer in order to gain a direct or indirect benefit” (ACFE, 2016, p. 90).

## **3. Bid Rigging through Collusion among Supplying Firms**

Bid rigging is a fraud scheme in which bidding firms collude with each other to bypass the competition. It is also classified as a form of corruption under the occupational fraud and abuse classification system (ACFE, 2016). In this type of fraud scheme, the prices are inflated up to the desired level by the bidding firms. “If most bid prices are high, and one is low, that is an obvious anomaly” (Piper, 2012, p. 4) leading to bid rigging red flags.

## **4. Price Billing and Cost Schemes**

Price billing and cost schemes are types of fraud that are very difficult to uncover when dealing with the public procurement system. The procurement staffs of a public procurement organization have little knowledge of and insight into the working processes of the contracting firm, resulting in misinterpretation of costs by using various inflated methods. This situation leads to billing for products and services that are never rendered. The stronger the internal control and fraud detection systems within the procuring organization, the better the defense can be raised against this type of fraud scheme (Castillo & Flanigan, 2014).

## 5. Fraudulent Representation and Fraudulent Purchases

Fraud schemes involving fraudulent representation and fraudulent purchases are common, and occur in many government or commercial systems. The items purchased with business funds are actually intended for personal use, leading to fraud, the unnecessary use of procurement funds, and wasted money. Similarly, related to this scheme are frauds with respect to the purchase of substitute goods and services that do not conform to the required specifications. Both of these schemes are a waste of government funds (Castillo & Flanigan, 2014).

These fraud schemes can all be seen in an interrelationship that makes procurement-related fraud a reality. The possibility of fraud exists at any level, starting from the procurement planning to the calling of bids, engaging in negotiations, and finalizing of the purchase deal to the signing of the procurement contract (Castillo & Flanigan, 2014). The fraud matrix shown in Figure 13 (Rendon & Rendon, 2015) as an audit conceptual framework highlights the significance of internal controls and their efficacy in addressing organizational weaknesses at each level in the procurement process.

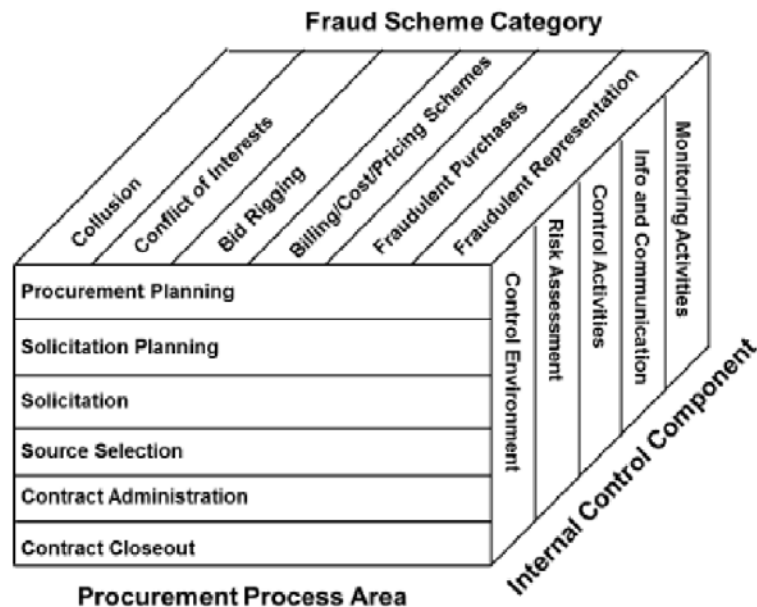


Figure 13. Matrix-Procurement Fraud. Source: Rendon & Rendon (2015).

Procurement fraud in relation to perceived internal controls relates to different procurement fraud schemes. The increased vulnerability to procurement fraud in defense procurement can never be underestimated, as it consumes the majority of the public budget. The unique nature of the defense market is based on four main factors:

- Technological pace
- Long term/period
- Budgetary aspect
- Volatile nature (Weidenbaum, 1960, p. 21)

Keeping these factors in mind can help one understand the defense procurement contracting dynamics and the overriding fraud risks associated with each phase of the procurement process. Some of the common possible fraud vulnerabilities associated with the different procurement process phases are shown in Table 1.

Table 1. Examples of Typical Risks and Fraud Vulnerabilities in the Procurement Process. Adapted from Office of the Inspector General (as cited in Tan, 2013).

<b>Procurement Process Phases</b>	<b>Possible Fraud Vulnerabilities/ Typical Associated Risks</b>
Procurement Planning	<ul style="list-style-type: none"> <li>- Market survey inadequacy</li> <li>- Project planning inadequacy</li> <li>- Need recognition scheme</li> <li>- Tailoring of bid</li> </ul>
Solicitation Planning	<ul style="list-style-type: none"> <li>- Inadequate or inappropriate and incomplete evaluation criteria usage</li> <li>- Incomplete and inadequate consideration of special terms and conditions</li> <li>- Procurement method inappropriateness</li> <li>- Contract type inappropriateness</li> <li>- Inappropriate/unjustified sole source award scheme</li> <li>- Bid manipulation and splitting</li> </ul>
Solicitation	<ul style="list-style-type: none"> <li>- Subcontracting fraud</li> <li>- Receipt of insufficient bids</li> <li>- Manipulation of bids</li> <li>- Bid rigging of bids</li> <li>- Inadequate or potential suppliers not</li> </ul>

Procurement Process Phases	Possible Fraud Vulnerabilities/ Typical Associated Risks
	responding
Source Selection	<ul style="list-style-type: none"> <li>- Established evaluation criteria compliance failure</li> <li>- Conflict of interest</li> <li>- Terms, conditions and price</li> <li>- Budget insufficiency</li> <li>- Unqualified contractor selection</li> <li>- Negotiation failure for a reasonable contract</li> </ul>
Contract Administration	<ul style="list-style-type: none"> <li>- Repeated failure of acceptance test by the contractor</li> <li>- Sub-standard goods delivery</li> <li>- Unable to reach agreement on the negotiated settlement</li> <li>- Shell company scheme</li> <li>- Cost overruns</li> <li>- Fluctuation of foreign exchange rate</li> <li>- Schedule delay</li> </ul>
Contract Closeout	<ul style="list-style-type: none"> <li>- No proper closeout</li> </ul>

The procurement workforce must know the existing relationship between procurement process phases and ineffective internal control components vis-à-vis fraud vulnerabilities (Rendon & Rendon, 2015). After identifying each associated risk, the organization can also develop internal controls for its future risk management. That future risk management is dependent, however, on the significance of the impact on the organization and the probability of occurrence of the risk (Tan, 2013). For example, in the solicitation planning phase, the risk of contract type inappropriateness has a greater likelihood of occurrence than bid manipulation and splitting. Similarly, in the procurement planning phase, the tailoring of the bid is less likely to occur than market survey inadequacy.

## **K. SUMMARY**

In this chapter, the Pakistan procurement management stages and rules of procurement (PPRA rules 2004), which regulate the public procurement followed in Pakistan were discussed. The need to incorporate the financial negotiations process for

PPRA rules was addressed. Additionally, the contract management phases with emphasis on the financial negotiations process involved in each phase were discussed. Elements of financial negotiations, deduced from the CPRG, were reviewed and summarized to form the basis for further analysis of contemporary procurement models. This led to a detailed review of the U.S., UK, and UN procurement models and focused on the financial negotiations process of these models for subsequent comparative analysis.

COSO integrated internal control components, along with associated principles, were discussed in detail to develop a suitable internal control system for the financial negotiations process in Pakistan's procurement system. A credible and time-tested internal control framework is considered a mandatory requirement for better understanding requirements for internal control in the financial negotiations process. The efficacy of the procurement system demands that each of the five internal control components be implemented in an integrated manner for best results.

Furthermore, different procurement fraud scheme categories were discussed for better comprehension of fraud possibilities in procurement scenarios. According to Tan (2013), "People who think that fraudulent acts will be detected often will be discouraged from committing the acts" (p. 36). Additionally, a few possible fraud vulnerabilities along with typically associated risks were discussed in relation to the procurement process phases.

The next chapter covers the methodology followed in this research study for an analysis of internal control requirements for the financial negotiations process, as well as an analysis of the different procurement models.

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### **III. METHODOLOGY**

This chapter outlines the methodology used to conduct this research study. This research addresses a dual set of audiences, that is, the United States (U.S.) and the Pakistani acquisition communities. This research discusses various data sources at length to address the unique requirements of a dual set of audiences. Data sources include negotiation processes in the Pakistan acquisition model, the U.S. acquisition model, the United Kingdom (UK) acquisition model, and the United Nations Commission on International Trade Law (UNCITRAL) Model Law, as well as the Committee of Sponsoring Organizations (COSO) internal control framework.

#### **A. DATA SOURCES**

The data (the U.S., UK and United Nations [UN] procurement models) used in this research are focused on designing a suitable financial negotiations process and related internal controls for the procurement system in Pakistan. It is important to understand the roots of the procurement methodology currently in place. Pakistan's present procurement system is mainly based on the UNCITRAL Model Law 1994. However, updated UNCITRAL Model Law allows financial negotiations in competitive procurement procedures. The Pakistan Public Procurement Regulatory Authority (PPRA), however, has not developed a detailed financial negotiations process and related internal control guidelines in line with contemporary procurement models.

To better understand and substantiate the lack of a financial negotiations process and related internal controls, the data sources begin with a brief overview of PPRA 2004, the understanding of which forms the foundation for looking into the financial negotiations processes of modern acquisition models. The financial negotiations processes practiced by advanced acquisition models, including the U.S. Acquisition Model (Federal Acquisition Regulations [FAR] and Contract Price Reference Guide [CPRG]), the UK Acquisition Model (Defense and Security Public Contracts Regulations [DSPCR]), and the UNCITRAL Model Law on Public Procurement (UNCITRAL), are discussed in detail. General aspects of the models emphasize the relevance of the

financial negotiations process in the overall acquisition framework. However, the focus remains on the financial negotiations processes of the different acquisition models to lay the foundation for further analysis.

When financial negotiations are carried out in isolation without any form of internal controls, they can lead to an inherent risk of fraud. To address this aspect, a substantive, well-placed internal control model study is deemed necessary to design a future path for financial negotiations to take place in Pakistan. The COSO internal control framework that has been successfully tailored and implemented in organizations like the U.S. Department of Defense (DOD) was chosen for this research study. This internal control framework provides a complete guide for meeting all organizational objectives at each tier of the financial negotiations process.

## **B. DATA ANALYSIS**

Elements of a financial negotiations process, discussed in the CPRG, are used as a primary framework for the analysis of the U.S., the UK, and the UN acquisition models. These models are analyzed to identify best practices and to find suitable processes that can be recommended for inclusion in the PPRA 2004 rules for conduct of financial negotiations for the Pakistan defense procurement.

An analysis of the present system (i.e., PPRA 2004 rules) has revealed areas pertaining to pre-award and award phases where financial negotiations planning processes are involved. Thereafter, a review of procedures and methods of procurements help identify in depth the internal control framework specifically needed within the financial negotiations process in the Pakistan procurement system.

## **C. SUMMARY**

This chapter presented the methodology for this research and discussed the sources of the data. It described the basis of the development of the rationale for the need of a financial negotiations process in Pakistan and for the need of internal controls for the financial negotiations process in Pakistan's procurement system. Chapter IV provides the research findings, analysis, implications of the findings, and recommendations for the

Director General Defence Procurement (DGDP) in initiating and improving internal controls during the financial negotiations process within the Pakistan procurement process.

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## **IV. ANALYSIS AND RECOMMENDATIONS**

This chapter provides a comprehensive analysis and is presented in two parts. The first part analyzes the financial negotiations processes of the United States (U.S.) model, the United Kingdom (UK) model, and United Nations Commission on International Trade Law (UNCITRAL) Model Law to draw recommendations for the Pakistan public procurement system. The second part discusses the application of internal controls for financial negotiations processes and recommends policy guidelines for the Pakistan public procurement system.

As discussed earlier, limitations on financial negotiations were imposed due to corruption issues in the Pakistan procurement system. However, the need for financial negotiations has been realized by the Pakistan Public Procurement Regulatory Authority (PPRA). In addition, PPRA has recommended an e-procurement portal that may also support online negotiations (PPRA, 2013). A comparative analysis of the financial negotiations process of the U.S. model, the UK model, and UNCITRAL Model Law (UN Model) is discussed in the following sections.

### **A. COMPARATIVE ANALYSIS AND FINDINGS OF FINANCIAL NEGOTIATIONS PROCESSES**

#### **1. Marketing Research**

Market research is mandated by the Federal Acquisition Regulations (FAR) in the U.S. procurement model. The *Contract Price Reference Guide (CPRG) Volume I* provides market research objectives, guidelines, and methods. The U.S. model comprehensively incorporates the mandated market research objectives in its model so the acquisition team has a better understanding of the prevailing market conditions when entering negotiations. The Government Accountability Office (GAO) has determined that market research guidance in the Department of Defense (DOD) is in accordance with the FAR in terms of its objective and “builds on the techniques for communicating with industry outlined in FAR” (GAO, 2014a, summary). However, the GAO has identified that federal agencies failed to document the basic elements of market research, which

limits the ability of an acquisition team to make informed decisions about future procurements (GAO, 2014a).

The UK acquisition cycle discusses exploring options for satisfying the requirement of market research. Options are explored with the collaboration of the industry through market research. The UK model uses a variety of tools to conduct market research, and its tendering processes use prior identification notices to inform industry of forthcoming requirements. The UK model also uses request for information forms to obtain rough order of magnitude costs, which guide procurement decisions (MoD, 2015). The UK model, like UNCITRAL, uses pre-qualification questionnaires (PQQ) to shortlist suppliers by the acquisition team to receive an invitation to tender (ITT) (MoD, 2015). However, these procedures cannot be taken as market research in the classic sense as market research is about better understanding the market, the cost drivers, the suppliers, and existing commercial options available to fulfill the requirements. Defense and Security Public Contracts Regulations (DSPCR) do not mandate market research as their U.S. counterpart, the FAR, does in the U.S. model.

UNCITRAL Model Law article 6 mandates informing potential suppliers about future planned requirements and procurements (UNCITRAL, 2014). However, UNCITRAL does not mandate market research for public procurement as the U.S. model does. The UNCITRAL uses the PQQ procedures like the UK model only to ascertain the qualification of the potential suppliers.

The U.S. model comprehensively lays down the guidelines, methods, and techniques for market research for better understanding of the market, the cost factors, the potential sellers, and existing commercial options available to fulfill the requirements. The U.S. model mandates market research, whereas the DSPCR and the UNCITRAL Model Law do not.

## **2. Maximizing Competition**

The U.S., UK, and UN procurement models all have open competitive negotiated procedures for public procurement (see Table 2). All three procurement models have

negotiated procurement procedures that encourage maximum and open participation by potential sellers.

Table 2. Open Competitive Negotiation Procedures of the U.S Model, the UK Model, and the UNCITRAL Model Law.

<b>Type of Competition</b>	<b>U.S. Model</b>	<b>UK Model</b>	<b>UN Model</b>
<b>Open negotiated procedures</b>	<ul style="list-style-type: none"> <li>• Competitive negotiated procedure</li> </ul>	<ul style="list-style-type: none"> <li>• Competitive negotiated procedure</li> <li>• Competitive dialogue</li> <li>• Restricted procedure (Not in thesis scope)</li> </ul>	<ul style="list-style-type: none"> <li>• Competitive negotiated procedure</li> <li>• Competitive dialogue</li> <li>• RFP with consecutive negotiations</li> </ul>

To maximize competition, the UK and the UN competitive negotiated procurement procedures respectively mandate/recommend a minimum of three participants for the procurement process. Restricting the minimum number of participants encourages more competition during the negotiation process. The U.S. model allows the acquisition team to subjectively set the competitive range to increase or decrease the number of participants before the start of the negotiation process. However, the UK model and the UNCITRAL Model Law use PQQ to filter the potential offerors.

The UK and the UN negotiated procurement processes respectively mandate/recommend a minimum number of participants in the negotiated procurement processes compared to the U.S. model, which allows subjective setting of the competitive range, by the acquisition team.

### **3. Appropriate Contract Types**

The U.S. FAR and the UK commercial policy tool kit: Pricing - Target Cost Incentive Fee Full Guidance procurement models discuss the selection of appropriate contract types for competitive negotiated procurements. The U.S. and the UK models mandate documentation of risk identification and mitigation (“risk owning” in the case of

the UK model) during the contract type selection process. The U.S. and the UK models give consideration to the type and complexity of the requirement in selecting contract type and have well-established procedures for cost and price analyses that support the selection of different types of contracts. Both models use fixed-price and cost-type contracts as appropriate for the requirement.

The UK model has developed broad ranges for dividing the split between the price and non-price factors. This split (see Figure 6 in chapter II) guides the acquisition team in selecting the appropriate contract type. In the U.S. model, the acquisition team selects the contract type based on the requirements, and sellers usually accept the contract type. The U.S. model also allows offerors to negotiate a change to the contract type through the financial negotiations process. The objectives of the contract type negotiation are reasonable seller's risk and efficient performance. The UNCITRAL Model Law does not have any criteria or procedure for contract type selection.

The U.S. model and UK model allow the use of different types of contracts according to the requirement. The U.S. model offers flexibility in contract type selection through the financial negotiations process. The acquisition team may negotiate the best suitable contract type according to the requirement and risk as compared to the UK model, which offers strict guidelines for contract type selection.

#### **4. Best Value Continuum**

The FAR mandates the use of best value continuum to get the best value for the taxpayers' dollar. The best value continuum is typically depicted with lowest price technically acceptable (LPTA) source selection on one end and tradeoff source selection on the other. LPTA source selections are often associated with firm fixed-price (FFP) contracts, while tradeoff source selections are often associated with cost-type contracts, although those pairings are not mandated. In the U.S. procurement model, the integrated project teams (IPTs) develop the evaluation criteria and assign weightage to each factor according to the dictates of the requirement to get the best value. The U.S. model insists that price is the most important factor for LPTA acquisitions. However, for tradeoff source selections, price is not the most important factor. IPTs develop the relative

importance of evaluation criteria according to the dictates of each requirement. The U.S. procurement model does not give any split or broad ranges for the price factor as the UK model does.

The UK procurement model uses a DSPCR guide (see Figure 6 in chapter II) to decide the split between the price and other factors to achieve best value. The guide provides guidance in the form of a decision chart depicting the split between price and other criteria in broad ranges. The UK model uses the most economically advantageous tender (MEAT), which allows the acquisition team to account for the price and non-price evaluation factors to get the best value for the contract.

The UNCITRAL Model Law allows proposal evaluation on price and other than price factors. The UNCITRAL Model Law allows evaluation criteria other than price factors. However, like the U.S. model, the UNCITRAL model does not give guidance on assigning weights to the evaluation criteria.

The U.S. model, the UK model, and the UNCITRAL Model Law allow proposal evaluation on relative weightage assigned to each factor. The U.S. model allows IPTs to develop evaluation criteria according to the requirement and offers more flexibility to the acquisition team than compared to the UK model, which lays broad ranges for the price factor for MEAT source selections.

## **5. Cost and Price Analysis**

The U.S. model lays down financial thresholds for price and cost analysis. Requirements using simplified acquisition procedures (SAP) do not require price or cost analysis. For price analysis (in fixed-price type contracts), the U.S. model usually accepts price comparison of different proposals as a form of price analysis. For the cost analysis (in cost and fixed-price contracts), the U.S. model goes beyond cost evaluation and mandates a cost realism analysis for determining the reasonableness of the proposed expenditures to complete the effort (requirement). Comprehensive procedures are laid down in CPRG to evaluate the costs as allowable and reasonable. Cost accounting standards (CAS) are implemented to achieve uniformity in financial reporting. The U.S.

procurement model has extensive procedures in place to evaluate price and cost reasonableness.

In the UK procurement model, the price is usually assessed relative to the average price submitted. For the cost analysis, cost assurance and analysis services (CAAS) assess the direct and indirect costs with associated risks and profit included in the financial proposal. The UK procurement model also caters to variations in prices of materials and wages. An important difference is the post-costing concept, in which the UK model carries out an audit of the contractor's books to obtain information for future contracts. The UK Ministry of Defence (MoD) commercial policy guidelines lay down extensive procedures on the price and cost analysis.

The UNCITRAL Model Law allows proposal evaluation on the basis of weightage assigned to price and non-price factors. However, unlike the U.S. and UK procurement models, the UNCITRAL does not give detailed guidance on the price and cost analysis. The UNCITRAL Model Law mentions specific methods for contract cost estimation but does not provide a discussion of these methods.

The U.S. model and the UK model have elaborate procedures for contract cost and price analysis. Both models use the same approach for price analysis, cost analysis, and accounting standards. In addition to the cost and price analyses, the UK model mandates post-costing to collect data to analyze the cost of future contracts.

## **6. Negotiations Exchanges**

All three procurement models have open competitive negotiated procurement procedures to facilitate negotiations between the acquisition team and potential sellers. The U.S. procurement model structures the negotiation exchanges into clarifications, exchanges, and discussions. This structured approach promotes clarity and defines expectations about the scope of exchanges during each stage of the contract management process.

The UK procurement model does not follow the same structured approach as the U.S. procurement model. The UK procurement model allows negotiations in successive

stages where the number of the participants is reduced in each successive stage. The UK procurement models allows communication with the offerors through a bidders' conference.

The UNCITRAL Model Law conducts negotiations in three methods: (a) negotiations with selected offerors simultaneously after the pre-qualification process, (b) negotiations with one offeror at a time, and (c) negotiations with all the offerors simultaneously. However, unlike the U.S. procurement model, this model does not structure or define the type of exchanges for each stage.

## 7. Summary of Results

Table 3 shows a summary of the comparison of the financial negotiations process of the U.S., the UK, and the UNCITRAL Model Law (UN Model).

Table 3. Summary of the Comparison of the Financial Negotiations Processes of the U.S. Model, the UK Model, and the UNCITRAL Model Law

<b>Element of Negotiations</b>	<b>U.S. Model</b>	<b>UK Model</b>	<b>UNCITRAL (UN Model)</b>
Market Research	<ul style="list-style-type: none"> <li>• Statutory requirement</li> <li>• Detailed procedures, techniques, methodologies appended in FAR</li> </ul>	<ul style="list-style-type: none"> <li>• Not a statutory requirement</li> <li>• Procedures exist to obtain information before requirement formulating and tender floating</li> </ul>	<ul style="list-style-type: none"> <li>• Not a statutory requirement</li> </ul>
Maximizing Competition	<ul style="list-style-type: none"> <li>• Open competitive negotiated procedure</li> <li>• Subjective setting of competitive range to allow number of participants</li> </ul>	<ul style="list-style-type: none"> <li>• Open competitive negotiated procedure</li> <li>• Mandated minimum number of participants</li> <li>• Use of PQQ to filter potential sellers</li> </ul>	<ul style="list-style-type: none"> <li>• Open competitive negotiated procedure</li> <li>• Mandated minimum number of participants</li> <li>• Use of PQQ to filter potential sellers</li> </ul>
Appropriate	<ul style="list-style-type: none"> <li>• Risk identification and mitigation</li> </ul>	<ul style="list-style-type: none"> <li>• Risk identification and mitigation</li> </ul>	<ul style="list-style-type: none"> <li>• No guidance is provided</li> </ul>

Element of Negotiations	U.S. Model	UK Model	UNCITRAL (UN Model)
Contract Type	<ul style="list-style-type: none"> <li>• Use of different contract types</li> <li>• Contract type selection—may be subject to negotiations</li> <li>• Contract type commensurate with risk ownership</li> </ul>	<ul style="list-style-type: none"> <li>• Use of different contract types</li> <li>• Contract type selection—Guidance provided for deciding fixed or cost-type contracts</li> <li>• Contract type commensurate with risk ownership.</li> </ul>	
Best Value Continuum	<ul style="list-style-type: none"> <li>• Flexibility in assigning weightage to evaluation factors</li> <li>• Detailed procedure for assigning weightage to evaluation factors for cost-type contracts</li> </ul>	<ul style="list-style-type: none"> <li>• DSPCR guidance on split between price and non-price factors</li> <li>• Detailed procedure for assigning weightage to evaluation factors for cost-type contracts</li> </ul>	<ul style="list-style-type: none"> <li>• Allows proposal evaluation on non-price factors</li> </ul>
Cost and Price Analysis	<ul style="list-style-type: none"> <li>• Price analysis based on price comparison of different proposals</li> <li>• Detailed procedures for assigning weightage to evaluation factors for cost type contracts</li> <li>• Accounting standards for cost evaluation</li> </ul>	<ul style="list-style-type: none"> <li>• Price analysis based on price comparison of different proposals</li> <li>• Detailed procedures for assigning weightage to evaluation factors for cost type contracts</li> <li>• Accounting standards for cost evaluation</li> <li>• Post-costing concept</li> </ul>	<ul style="list-style-type: none"> <li>• Allows price and cost determination</li> <li>• Does not specify cost analysis methods</li> </ul>
Negotiation exchanges	<ul style="list-style-type: none"> <li>• Structured negotiation system</li> <li>• Scope of negotiations clear at each stage</li> </ul>	<ul style="list-style-type: none"> <li>• Structured negotiation system</li> <li>• Scope of negotiations for each stage not defined</li> </ul>	<ul style="list-style-type: none"> <li>• Scope of negotiations for each stage not defined</li> </ul>

## **B. RECOMMENDATIONS BASED ON ANALYSIS REGARDING FINANCIAL NEGOTIATIONS**

### **1. Recommendations on Financial Negotiations Process for PPRA**

Based on the comparative analysis and findings of financial negotiations processes of the U.S. model, the UK model, and UNCITRAL Model Law, this research study recommends six elements of financial negotiations, which includes market research; maximizing competition; appropriate contract type; best value continuum; cost and price analysis; and negotiation exchanges, be incorporated in the PPRA rules 2004. The following changes to the PPRA rules 2004 to monitor and control the financial negotiations process are recommended based on this research study analysis:

#### ***a. Market Research***

Mandating the conduct of market research by the acquisition agency sets the stage for financial negotiations. The objective of the market research is to establish the financial aspects of the requirement prevalent in the market. The U.S model for conducting market research offers detailed guidelines, objectives, and procedures for the conduct of market research. PPRA lacks statutes for the conduct of market research, so it is recommended that PPRA amend the PPRA Rules to mandate market research based on the U.S. model.

#### ***b. Maximizing Competition***

Open competitive negotiated procurement procedures are a prerequisite for conducting financial negotiations. PPRA does not currently have an open competitive negotiated procurement procedure in Pakistan and will need to incorporate one to conduct financial negotiations. The UK model and the UNCITRAL Model Law recommend a minimum of three participants for the negotiated procurement process. Inviting a minimum of three participants will maximize competition, leverage financial negotiations, and ensure transparency of the financial negotiations process. It is recommended that the PPRA incorporate the open competitive negotiated procedure in its two-stage, two-envelope bidding process based on the UK/UNCITRAL model.

*c. Appropriate Contract Type*

Limitations on financial negotiations have restricted the contract types in PPRA rules 2004 to only fixed-price contracts. The U.S. model and UK model use different types of contracts according to the dictates of the requirement. The U.S. model allows flexibility for the acquisition team to negotiate the appropriate contract type during the financial negotiations process. The objective is to ensure the contract type is commensurate with the complexity and risk of the requirement. It is recommended that the PPRA adopt the U.S. model to incorporate cost-type contracts and negotiation procedures.

*d. Best Value Continuum*

The concept of best value is already embedded in PPRA rules 2004. However, excluding financial negotiations has tilted the balance of the best value continuum in favor of LPTA source selections. The U.S. model and the UK model mandate the use of the best value continuum and offer detailed guidance on assigning weightage to evaluation criteria to achieve best value. The U.S. model allows the acquisition team more flexibility to formulate the evaluation criteria to meet the needs of the requirement. It is recommended that the PPRA amend the rules pertaining to evaluation criteria and allow the acquisition team to assign weightage to the price and non-price factors to restore the balance of the best value continuum aligning with the U.S. model.

*e. Cost and Price Analysis*

Detailed procedures for analyzing the cost and price of the proposal are required to leverage the financial negotiations process. The objective of the cost and price analysis is to determine reasonable and allowable costs. The PPRA uses LPTA in a two-stage, two-envelope bidding procedure. The U.S. model has comprehensive procedures for cost and price analysis. It is recommended that the PPRA incorporate detailed guidance on cost and price analysis into the PPRA rules 2004 to align with the U.S. model. It is recommended that the PPRA develop requisite expertise and standardize accounting procedures for firms seeking public contracts for effective cost and price analysis.

*f. Negotiation Exchanges*

The concept of negotiation exchanges is not new for PPRA, as technical negotiations are already allowed in PPRA rules 2004. The objective of the financial negotiations is to get the best value by allowing negotiators to trade cost/price for another capability (technical, past performance, and so forth). The U.S. model offers a structured approach for conducting financial negotiations at each stage of the procurement process. It is recommended that the PPRA incorporate this structured approach into PPRA rules 2004 with detailed guidance on the conduct of financial negotiations based on the U.S. model.

Table 4 shows a summary of the recommendations for incorporation in PPRA rules 2004 for conducting financial negotiations.

Table 4. Summary of Recommendations for Incorporation in the PPRA Rules 2004

<b>Elements of Negotiations</b>	<b>Recommendations</b>
Market research	<ul style="list-style-type: none"> <li>• Mandate market research in the PPRA rules.</li> <li>• The U.S. Model of market research may be adopted.</li> </ul>
Maximizing competition	<ul style="list-style-type: none"> <li>• Incorporation of open competitive negotiated procedure in PPRA existing two-stage-two-envelope bidding process.</li> <li>• The UNCITRAL Model Law/UK model for maximizing competition may be followed.</li> </ul>
Appropriate contract type	<ul style="list-style-type: none"> <li>• Incorporate cost-type contracts in PPRA rules.</li> <li>• The U.S. model of different types of contracts and their selection may be adopted.</li> </ul>
Best value continuum	<ul style="list-style-type: none"> <li>• Amendment in the PPRA rules to incorporate evaluation criteria according to the requirement.</li> <li>• The U.S. model of best value continuum may be adopted.</li> </ul>
Cost and price analysis	<ul style="list-style-type: none"> <li>• Incorporate guidance on cost and price analysis in PPRA rules.</li> <li>• Development of cost and price analysis expertise by the PPRA.</li> </ul>

Elements of Negotiations	Recommendations
	<ul style="list-style-type: none"> <li>• Standardize CAS.</li> <li>• The U.S. model on cost and price analysis may be adopted.</li> </ul>
Negotiation exchanges	<ul style="list-style-type: none"> <li>• Guidance on structured approach to conduct negotiation exchanges in the PPRA rules.</li> <li>• The U.S. model's guidance on conduct of negotiations may be incorporated in the PPRA rules.</li> </ul>

In the previous section, the comparative analysis of the financial negotiations processes of the U.S. model, the UK model, and the UNCITRAL Model Law was discussed along with recommendations for incorporation in to the PPRA rules. In the following section, the internal controls for the financial negotiations process are analyzed, and the recommended policy guidelines are provided.

**C. APPLICATION AND RECOMMENDATIONS FOR INTERNAL CONTROLS FOR FINANCIAL NEGOTIATIONS PROCESS**

The process of negotiations holds certain levels of pros and cons as highlighted by Nazir and Nadeem (2015). The exercise of negotiations in the procurement process without proper internal controls would be disadvantageous and could lead to any of the following frequently observed scenarios:

- Conflict of interest of contracting parties
- Weak negotiations leading to high costs
- Less transparency in contract awarding process (Nazir & Nadeem, 2015).

However, to counter these main disadvantages, incorporating internal controls within all operations should be considered. Internal controls should be integrated throughout the organization. These internal control functions are performed by people at every tier of the organization. A formidable challenge for public procurement agencies is to conduct procurement functions with the highest level of integrity, accountability, and transparency (Rendon & Rendon, 2015).

As per the GAO's federal government internal control standards "Internal control is a dynamic, iterative, and integrated process in which components impact on design, implementation, and operating effectiveness of each other" (GAO, 2014b, p. 11). The Committee of Sponsoring Organization of the Treadway Commission (COSO) integrated internal control framework remains adaptive for any organization. However, the implementation of objectives like operations and compliance seem difficult as first one deals with national security and later with the regulations and industry standards. The defense market related factors such as technological pace, long term, budgetary aspects, and volatile nature (Weidenbaum, 1960, p. 21) must be kept in focus while designing and adapting internal controls for the defense procurement system.

Therefore, each procurement phase must be analyzed against the vulnerabilities and typically associated fraud risks in the elements of financial negotiations. The outcome of analysis is to recommend some viable internal controls that could aid in the financial negotiations process for defense contracting in Pakistan.

***a. Internal Controls for Market Research***

Market research is the start of the procurement process and is mainly focused on increasing the procurement agency's negotiator's knowledge of the requirements and prevailing market conditions. A host of other factors like market survey and project planning inadequacies (Tan, 2013) leading to buyer and seller interaction also matter in market research at a very early stage. This early stage interaction may open doors for the exchange of important information for negotiations at a later stage but could lead to many fraud vulnerabilities and risks. The set of internal controls shown in Table 5 could be helpful for conducting market research as part of the financial negotiations process for conducting financial negotiations.

Table 5. Internal Controls for Market Research

Phase	Financial Negotiations Process	Associated Risks & Fraud Vulnerabilities	Recommended Internal Controls
Procurement Planning	<ul style="list-style-type: none"> <li>-Market Research</li> <li>-Buyer Seller interaction</li> </ul>	<ul style="list-style-type: none"> <li>- Risk of market survey inadequacy</li> <li>- Risk of project planning inadequacy</li> <li>- Need recognition scheme</li> <li>-Tailoring of bids vulnerabilities</li> <li>- Collusion of stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>- Integrity and ethical values need to be demonstrated by management to set example for all.</li> <li>- A sample structure for procurement authorities and responsibilities for any public organization needs to be given in PPRA ordinance.</li> <li>- Fraud and ethics training must be made a mandatory feature for those directly involved in sensitive procurement function like market research.</li> <li>- Procurement teams with clear segregation of duties must be formed with job rotation to counter any opportunity for fraud.</li> <li>- Use of relevant information needs to be ensured by best use of information support systems to keep a database with respect to earlier market researches.</li> </ul>

Now that internal controls for the market research based on the recommended U.S. procurement model have been discussed, the next section focuses on internal controls with respect to maximizing competition.

***b. Internal Controls for Maximizing Competition***

To get best value of the product and services, maximizing open competitive negotiated procedures among bidders plays a lead role in public procurement. Its outcome is fair price and quality for public money, but it also leads to decreased complexity in source selection. However, excessive competition may also lead to a host of fraud vulnerabilities in a multi-source environment. According to research conducted by David (2008), “To reduce the risks of anti-competitive fraud in procurement, an organization should treat all potential vendors on an arm's-length and equal basis, and receive and handle all vendor communications in a rigorous, confidential, and transparent

manner.” Some recommended internal controls for maximizing competition are listed in Table 6.

Table 6. Internal Controls for Maximizing Competition

Phase	Financial Negotiations Process	Associated Risks and Fraud Vulnerabilities	Recommended Internal Controls
Solicitation and Solicitation planning	<ul style="list-style-type: none"> <li>- Best value and tradeoffs</li> <li>- Pre-bid conference</li> <li>- Performance based contracts</li> </ul>	<ul style="list-style-type: none"> <li>- Inadequate or inappropriate and incomplete evaluation Criteria usage</li> <li>- Incomplete and inadequate consideration of special terms and conditions</li> <li>- Inappropriate procurement method</li> <li>- Contract Type inappropriateness</li> <li>- Inappropriate/unjustified sole source award scheme</li> <li>- Bid manipulation and splitting</li> <li>- Subcontracting fraud</li> <li>- Receipt of insufficient bids</li> <li>- Manipulation of Bids</li> <li>- Inadequate or Potential Suppliers not responding</li> </ul>	<ul style="list-style-type: none"> <li>- A system of checks and balances for evaluation criteria needs to be implemented.</li> <li>- For public procurement agencies, a well devised risk assessment mechanism needs to be put in place for detecting manipulation and rigging in bids.</li> <li>- Control activities like top-level reviews by management needs to be done regularly to check on sole source award schemes.</li> <li>- Access restriction and accountability for all resources and records need to be enforced.</li> <li>- Viable internal/ external control mechanisms need to be defined in PPRA for guidance for public procurement companies to hold negotiations in sole source and multi-source environment.</li> </ul>

Market conditions may vary for developed and underdeveloped countries and accordingly impact the procurement system efforts toward maximizing competition. However, an efficient internal control system can provide a suitable environment not only for maximizing competition, but also for selecting appropriate contract types. The next section focuses on internal controls in the selection of appropriate contract types.

***c. Internal Controls for Appropriate Contract Type***

Due to the sensitive nature of defense requirements, the appropriate contract type selection plays a major role in timely meeting of defense forces’ demands. The

appropriate contract type is also a critical factor in the follow-on financial negotiations process. The shaping of source selection and solicitation planning, whether to include fixed-price type or cost-type contracts, would ultimately affect the operational preparedness of defense forces. Therefore, internal controls overlooking the fraud vulnerabilities and associated risks remain critical in contract type selection. Some of the recommended internal controls for appropriate contract type are shown in Table 7.

Table 7. Internal Controls for Appropriate Contract Type

Phase	Financial Negotiations Process	Associated Risks & Fraud Vulnerabilities	Recommended Internal Controls
Solicitation, Solicitation Planning & Source Selection	<ul style="list-style-type: none"> <li>- Best value and tradeoffs</li> <li>- Performance based contracts</li> <li>- Pre-bid conference</li> <li>- Initial evaluation</li> <li>- Establishment of competitive range</li> </ul>	<ul style="list-style-type: none"> <li>- Incomplete and inadequate Consideration of Special Terms and Conditions</li> <li>- Procurement Method inappropriateness</li> <li>- Contract Type inappropriateness</li> <li>- Inappropriate/unjustified Sole Source Award Scheme</li> <li>- Bid Manipulation and Splitting</li> <li>- Subcontracting Fraud</li> <li>- Receipt of Insufficient Bids</li> <li>- Manipulation of Bids</li> <li>- Inadequate or Potential Suppliers no responding</li> </ul>	<ul style="list-style-type: none"> <li>- A guide be given in PPRA ordinance for the conduct of ongoing and separate evaluations by the officers to monitor appropriate contract awards.</li> <li>- A system of well-defined policies and procedures be implemented for provision of clear award selection criteria at every tier in procurement channel.</li> <li>- PPRA rules should define mechanism for communication of deficiencies in all Government departments for future guidance in appropriate contract type selection. A good information management system could be used for the process.</li> <li>- A system of checks and balances could be implemented in all phases of planning and source selection for limiting ability of contracting officers to commit fraud.</li> </ul>

In addition to the above mentioned internal controls, training policies on fraud detection and prevention and background checks of management are also needed before hiring personnel (Wells, 2006). An appropriate contract type would eventually lead to the best value procurement. The next section recommends internal controls for best value procurements, and cost pricing data.

**d. Internal Controls for Best Value Procurement and Cost Pricing Data**

In the last aspect of the pre-award phase, the critical decisions for future contract awards take place. The path to negotiations is selected, leading to buying the most economical product or service not solely based on the lowest bidder offer. The cost and pricing data helps set the competitive range, while factors like non-recurring costs, and operations costs, may be considered by the management. Some recommended internal controls for both best value procurement and cost pricing data are shown in Table 8:

Table 8. Internal Controls for Best Value Procurement and Cost Pricing Data

Phase	Financial Negotiations Process	Associated Risks & Fraud Vulnerabilities	Recommended Internal Controls
Solicitation, Solicitation Planning & Source selection	<ul style="list-style-type: none"> <li>- Pre-bid conference</li> <li>- Initial evaluation</li> <li>- Establishment of competitive range</li> <li>- Best value procurement</li> <li>-Performance based contracts</li> </ul>	<ul style="list-style-type: none"> <li>- Established evaluation Criteria compliance failure</li> <li>- Conflict of Interest</li> <li>- Terms, conditions, and price</li> <li>- Budget insufficiency</li> <li>-Unqualified contractor selection</li> <li>- Negotiation failure for a reasonable contract</li> <li>- Inappropriate/unjustified sole source award scheme</li> <li>- Bid manipulation and splitting</li> <li>Subcontracting fraud</li> <li>- Receipt of insufficient bids</li> <li>- Bid Rigging of Bids</li> </ul>	<ul style="list-style-type: none"> <li>- A rigid and effective evaluations criteria for review of bid proposals followed by a valid system of checks and balances needs to be implemented.</li> <li>- For public procurement agencies a well devised risk assessment mechanism needs to be put in place to uncover price billing and cost schemes.</li> <li>- Integrity and ethical values needs to be demonstrated by management to set example at all times.</li> <li>- Continuous fraud risk assessment for trade off and cost pricing needs to be done.</li> <li>- Procurement teams with clear segregation of duties needs to be formed with job rotation to counter any opportunity for fraud.</li> </ul>

The internal controls for all the elements of financial negotiations have been discussed, so the focus is now on negotiation exchanges. The following section covers internal controls in negotiations.

e. **Internal Controls for Negotiation Exchanges**

Most negotiation exchanges occur at the award phase stage where the evaluation processes are completed and potential bidders are engaged in negotiations rounds for a better competitive range. The internal controls for negotiations are vital for success of subsequent contract stages and the delivery of goods or services per the contract specifications. Some proposed internal control for negotiation exchanges recommended for adaptation by defense procurement agencies under the guidelines of PPRA rules are shown in Table 9.

Table 9. Internal Controls for Negotiation Exchanges

Phase	Financial Negotiations Process	Associated Risks & Fraud Vulnerabilities	Recommended Internal Controls
Award Phase	<ul style="list-style-type: none"> <li>- Establishment of competitive range</li> <li>- Initial evaluation</li> <li>- Final evaluation</li> <li>- Negotiation process</li> <li>- Contract award recommendation</li> </ul>	<ul style="list-style-type: none"> <li>- Cost overruns</li> <li>-Fluctuation of foreign Exchange rate</li> <li>- Schedule delay</li> <li>- Conflict of interest</li> <li>- Terms, conditions, and price</li> <li>- Budget insufficiency</li> <li>- Unqualified contractor selection</li> <li>- Substandard goods delivery</li> <li>- Unable to Reach Agreement on the negotiated settlement</li> <li>- Shell company schemes</li> </ul>	<ul style="list-style-type: none"> <li>- Due to sensitivity of negotiations exchanges processes, setting up of an ethical tone at the top and culture of honesty is very important as source of ethical behavior starts at the top and forms the basis of a system.</li> <li>- Since it is an ongoing process so a mechanism be set forth in PPRA to devise the ongoing and separate evaluations for negotiation exchanges.</li> <li>- Mandatory job rotation with segregation of duties is vital for fraud deterrence.</li> <li>- A system of checks and balances for conduct of negotiations needs to be implemented.</li> </ul>

Any set of internal controls for a procurement system is never exhaustive. The best set of internal controls should be implementable, integrated, and have the capacity to increase the operational effectiveness of all internal control components (GAO, 2014b). Some of the most common internal controls may include setting up the tone at the top as well as rewards and penalty measures, leading to increasing morale and loyalty among employees (Tan, 2013).

## **D. SUMMARY**

This chapter was discussed in two parts. The first part presented the comparative analysis of the elements of financial negotiations of the U.S. model, the UK model and the UN model. Characteristics of each element of financial negotiations in these models were discussed. Relevant findings were deduced from the analysis to draw pertinent recommendations for PPRA rules 2004. This research study recommended inclusion of six elements of financial negotiations in the PPRA rules 2004 by adopting procedures of the respective models researched suitable for the existing Pakistan PPRA rules.

In addition, to recommend a viable set of internal controls in the financial negotiations process for Pakistan, procurement phases, vulnerabilities within the phases, and typically associated fraud risks in the elements of financial negotiations were discussed. The application of related internal controls for financial negotiations processes were also discussed. Some viable internal controls to help the financial negotiations process in the public procurement system, particularly in Pakistan defense, were presented in tabular form for better visibility for each likely fraud vulnerability. The most common internal controls highlighted included setting the tone at the top, maintaining an ethical environment in the organization, and implementing segregation of duties with mandatory job rotation (Tan, 2013). Recommendations based on the application of the related COSO internal control framework discussions were provided for inclusion in the Pakistan financial negotiations procurement process.

The following chapter discusses the summary, conclusions, and areas for further research.

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

### **A. SUMMARY**

The defense sector consumes a large portion of taxpayers' money; thus, saving taxpayers' money goes hand in hand with refined public procurement methods. Pakistan has been continually refining the public procurements procedures through the manifestation of PPRA rules in all public procurements. This research study was focused on analyzing the financial negotiations processes for public procurement and the internal controls necessary to support this process. Chapter I presented a brief introduction of the importance and organization of this research study. Chapter II detailed the associated literature that forms the basis of this research. Pakistan's procurement management system as appended in PPRA was summarized followed by contract management phases. The elements of financial negotiations were described to lay the foundation for the comparative analysis of the financial negotiations process. The procurement models of the U.S., the UK, and the UN were reviewed with emphasis on the financial negotiations processes. Lastly, Committee of Sponsoring Organization of the Treadway Commission (COSO) internal control objectives, components, and principles were reviewed along with procurement fraud schemes in relation to internal controls. Possible fraud vulnerabilities and typically associated risks were also discussed.

Chapter III discussed the methodology, sources of data, and data analysis. Chapter IV built on previous chapters by analyzing the financial negotiations processes of different procurement models and making recommendations for the Pakistani public procurement system. Chapter IV also discussed the internal controls required for an efficient and effective financial negotiations process and made recommendations regarding policy guidelines for Pakistan's public procurement system in relation to the financial negotiations processes.

In this chapter, previous chapters are briefly reviewed, and answers to the research questions are addressed. Areas for further research are also provided for future research for the implementation of the financial negotiations process in Pakistan.

## B. CONCLUSION

This research study has focused on analyzing the financial negotiations process for public procurement and the internal controls necessary to support this process, thus leading to the summarized findings presented in the following sections.

### 1. Research Questions

The purpose of this research study was to analyze the financial negotiations processes for public procurement of the U.S., the UK., the UN along with a credible internal control framework in order to develop a guide for Pakistan’s public procurement system. The two questions that were addressed in this research are as follow:

- a. *What processes should Pakistan put into place in order to perform defense related financial negotiations?*

This research study focused on the limitations of financial negotiations in the PPRA Rules 2004 in order to understand the procedural shortfalls. Suitable elements of the financial negotiations process, as discussed in *CPRG Volume 1*, were described in detail. Three contemporary procurement models, the U.S. model, the UK model, and the UN model, were discussed with emphasis on the financial negotiations process of each model. A comparative analysis of the six elements of the financial negotiations process was conducted: (1) market research, (2) maximizing competition, (3) appropriate contract type, (4) best value continuum, (5) cost and price analysis, and (6) negotiation exchanges. Based on the comparative analysis and findings, this research study recommends the PPRA rules 2004 adopt suitable changes from the appropriate models in order to monitor and control the financial negotiations process in Pakistan (see Table 10).

Table 10. Summary of Recommendations for Conducting Financial Negotiations

<b>Elements of Negotiations</b>	<b>Recommendations</b>
Market research	<ul style="list-style-type: none"><li>• Mandate market research in the PPRA rules.</li><li>• The U.S. Model of market research may be adopted.</li></ul>

Maximizing competition	<ul style="list-style-type: none"> <li>• Incorporation of open competitive negotiated procedure in PPRA existing two-stage-two-envelope bidding process.</li> <li>• .The UNCITRAL Model Law/UK model for maximizing competition may be followed.</li> </ul>
Appropriate contract type	<ul style="list-style-type: none"> <li>• Incorporate cost-type contracts in PPRA rules.</li> <li>• The U.S. model of different types of contracts and their selection may be adopted.</li> </ul>
Best value continuum	<ul style="list-style-type: none"> <li>• Amendment in the PPRA rules to incorporate evaluation criteria according to the requirement.</li> <li>• The U.S. model of best value continuum may be adopted.</li> </ul>
Cost and price analysis	<ul style="list-style-type: none"> <li>• Incorporate guidance on cost and price analysis in PPRA rules.</li> <li>• Development of cost and price analysis expertise by the PPRA.</li> <li>• Standardize CAS.</li> <li>• The U.S. model on cost and price analysis may be adopted.</li> </ul>
Negotiation exchanges	<ul style="list-style-type: none"> <li>• Guidance on structured approach to conduct negotiation exchanges in the PPRA rules.</li> <li>• The U.S. model’s guidance on conduct of negotiations may be incorporated in the PPRA rules.</li> </ul>

***b. What internal controls would help support the financial negotiations process for defense contracting in Pakistan?***

The list of internal controls required to completely address the fraud vulnerabilities is never exhaustive. The COSO integrated internal control framework remains adaptive for tailoring to the requirements of any particular organization. However, most important for an effective outcome is the joint applicability of the internal control principles to the procurement scenario for effective implementation. Each aspect of procurement is pitched against the vulnerabilities and typically associated fraud risks in the elements of financial negotiations. This results in the recommendation of some viable internal controls that could aid in the financial negotiations process for defense contracting in Pakistan (see Table 11).

Table 11. Summary of Recommended Internal Controls for Financial Negotiations Process

Elements of Financial Negotiations	Recommended Internal Controls
Market research	<ul style="list-style-type: none"> <li>- Integrity and ethical values need to be demonstrated by management to set an example for all.</li> <li>- A sample structure for procurement authorities and responsibilities for any public organization needs to be given in PPRA ordinance.</li> <li>- Fraud and ethics training needs to be made a mandatory feature for those directly involved in sensitive procurement function like market research.</li> <li>- Procurement teams with clear segregation of duties need to be formed with job rotation to counter any opportunity for fraud commitment</li> <li>- Use of relevant information needs to be ensured by best use of information support systems to keep a database with respect to earlier conducted market researches.</li> </ul>
Maximizing competition	<ul style="list-style-type: none"> <li>- A system of checks and balances for evaluation criteria needs to be implemented.</li> <li>- For public procurement agencies, a well devised risk assessment mechanism needs to be put in place for detecting manipulation and rigging in bids.</li> <li>- Control activities like top-level reviews by management needs to be done regularly to check on sole source award schemes.</li> <li>- Access restriction and accountability for all resources and records needs to be enforced.</li> <li>- Viable internal/external control mechanisms need to be defined in PPRA for guidance for public procurement companies to hold negotiations in sole source and multi-source environment.</li> </ul>

<b>Elements of Financial Negotiations</b>	<b>Recommended Internal Controls</b>
Appropriate contract type	<ul style="list-style-type: none"> <li>- A guide be given in PPRA ordinance for the conduct of ongoing and separate evaluations by the officers to monitor appropriate contract awards.</li> <li>- A system of well-defined policies and procedures needs to be implemented for provision of clear award selection criteria at every tier in procurement channel.</li> <li>- PPRA rules should define mechanism for communication of deficiencies in all Government departments for future guidance in appropriate contract type selection. A good information management system could be used for the process.</li> <li>- A system of checks and balances needs to be implemented in all phases of planning and source selection for limiting ability of contracting officers to commit fraud.</li> </ul>
Best value procurement, and cost pricing data	<ul style="list-style-type: none"> <li>- A rigid and effective evaluations criteria for review of bid proposals followed by valid system of checks and balances need to be implemented.</li> <li>- For public procurement agencies a well devised risk assessment mechanism needs to be put in place to uncover price billing and cost schemes.</li> <li>- Integrity and ethical values need to be demonstrated by management to set an example at all times.</li> <li>- Continuous fraud risk assessment for trade off and cost pricing needs to be done.</li> <li>- Procurement teams with clear segregation of duties needs to be formed with job rotation to counter any opportunity for fraud.</li> </ul>
Negotiation Exchanges	<ul style="list-style-type: none"> <li>- Due to sensitivity of negotiations exchanges processes, setting up of an ethical tone at the top and culture of honesty is very important as source of ethical behavior starts at the top and form a basis of a system</li> </ul>

Elements of Financial Negotiations	Recommended Internal Controls
	<ul style="list-style-type: none"> <li>- Since it is an ongoing process, a mechanism needs to be set forth in PPRA to devise the ongoing and separate evaluations for negotiation exchanges.</li> <li>- Mandatory job rotation with segregation of duties is vital for fraud deterrence</li> <li>- A system of checks and balances for conduct of negotiations needs to be implemented.</li> </ul>

Furthermore, most internal controls have their roots in setting the tone at the top level of the organization. Setting up the tone at the top leads to a code of ethics for implementation at every level in the organization. A sample code of ethics for U.S. federal government employees is in Appendix A.

**2. Areas for Further Research**

Three areas for further research are recommended.

**a. Price Analysis**

First, the cost and price analysis of submitted proposals is a prerequisite for successful financial negotiations. The U.S. model and the UK model have supporting organizations with specialties in cost and price analysis to conduct such analyses. Furthermore, uniform cost accounting standards are in place for the defense industry. PPRA lacks such supporting organization(s) for cost and price analysis and uniform defense accounting standards. Further research on establishing cost and price analysis organization(s) for PPRA is needed before the wholesale implementation of financial negotiations.

**b. Better Monitoring/ Oversight**

Second, the PPRA is the overall monitoring body responsible for overseeing the public procurement processes including defense contracts of Pakistan. The mandate of

the PPRA requires a dedicated internal control organization for issuing policy guidelines and exercising oversight of the internal controls of the procuring agency. Further research is needed to establish dedicated internal control organization(s) to oversee the internal control procedures of the procuring agencies.

*c. Understanding Elements of Financial Negotiations*

Finally, the elements of financial negotiations, like market research and types of contracts, hold great capacity for further refinements before implementation into Pakistan's financial negotiations process and related internal controls. An in-depth study into each of the financial negotiations elements might improve Pakistan's public procurement system. A detailed understanding of the financial negotiations elements would also help train procurement and internal control employees.

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## **APPENDIX. GOVERNMENT EMPLOYEES CODE OF ETHICS**

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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