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# NAVAL POSTGRADUATE SCHOOL

**MONTEREY, CALIFORNIA** 

#### MBA PROFESSIONAL REPORT

## MEASURING AIR FORCE CONTRACTING CUSTOMER SATISFACTION

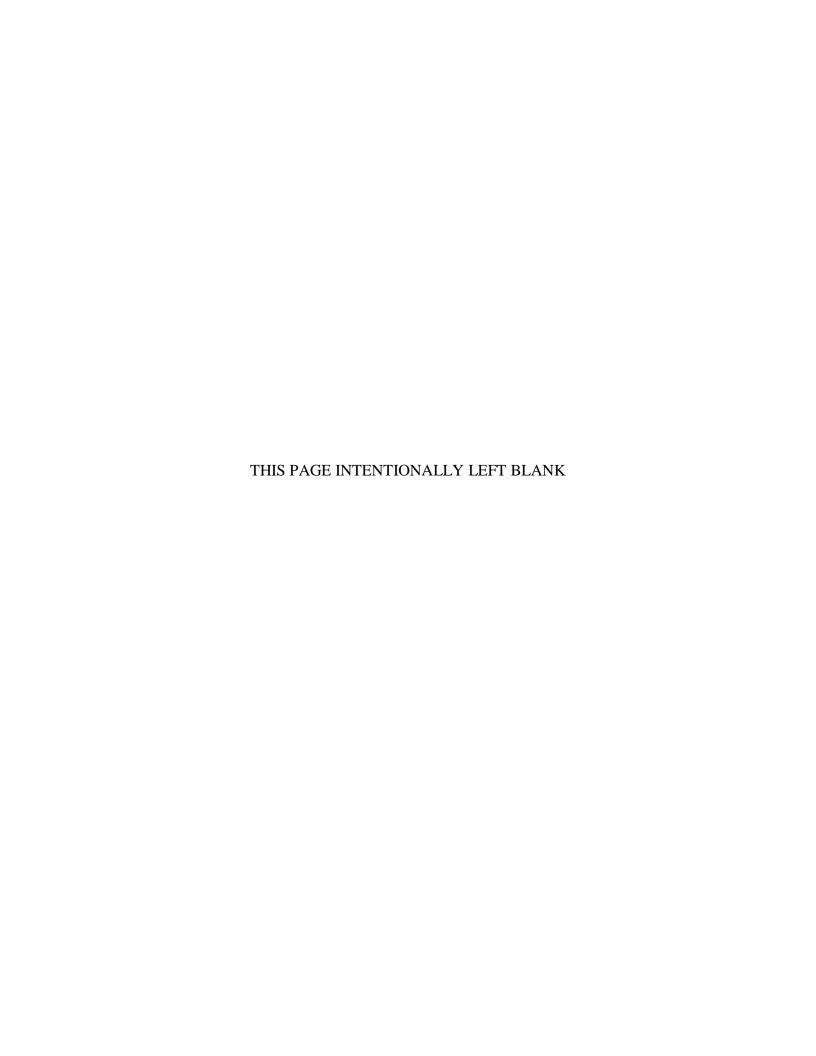
## December 2015

By: Jamie Davis

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#### 13. ABSTRACT (maximum 200 words)

This research gathers background information to identify which customer satisfaction elements should be included in a standardized tool that measures the level of customer satisfaction for AF Contracting's external and internal customers. This research conducts a comprehensive literature review of the prominent customer satisfaction trends, while exploring the idiosyncrasies of customer satisfaction that are unique to AF Contracting. For this research, two customer-specific questionnaires were used to interview AF Contracting's external and internal customers, in order to better understand their experiences. Based on the results of the interviews, it is apparent that AF Contracting's customers believe customer satisfaction is a critical component in enabling effective communication and strengthening customer relations.

Although AF Contracting does not currently use a standardized approach for collecting customer satisfaction information, this paper recommends the development of a customer satisfaction mechanism as an essential tool to fully capitalize on the benefits of improved communication and enhanced customer relations. This paper also proposes a six-step system for developing a customer satisfaction system and specifically focuses on incorporating the customer satisfaction elements as identified by the customers who participated in this research. Finally, this research concludes with suggestions for areas of further study.

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#### MEASURING AIR FORCE CONTRACTING CUSTOMER SATISFACTION

Jamie Davis, Captain, United States Air Force

Submitted in partial fulfillment of the requirements for the degree of

#### MASTER OF BUSINESS ADMINISTRATION

from the

## NAVAL POSTGRADUATE SCHOOL December 2015

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# MEASURING AIR FORCE CONTRACTING CUSTOMER SATISFACTION

#### **ABSTRACT**

This research gathers background information to identify which customer satisfaction elements should be included in a standardized tool that measures the level of customer satisfaction for AF Contracting's external and internal customers. A comprehensive literature review of the prominent customer satisfaction trends was conducted, while the idiosyncrasies of customer satisfaction that are unique to AF Contracting were explored. For this research, two customer-specific questionnaires were used to interview AF Contracting's external and internal customers, in order to better understand their experiences. Based on the results of the interviews, it is apparent that AF Contracting's customers believe customer satisfaction is a critical component in enabling effective communication and strengthening customer relations.

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# TABLE OF CONTENTS

I.	INT	RODUCTION	1
	A.	BACKGROUND	1
	В.	PROBLEM STATEMENT	3
	<b>C.</b>	RESEARCH OBJECTIVES	3
	D.	RESEARCH QUESTIONS	3
	<b>E.</b>	METHODOLOGY	4
	F.	LIMITATIONS	4
	G.	ASSUMPTIONS	4
	Н.	IMPLICATIONS	5
II.	LIT	ERATURE REVIEW	7
	A.	WHAT IS A CUSTOMER?	7
	В.	WHO ARE AF CONTRACTING'S CUSTOMERS?	8
	C.	WHAT IS CUSTOMER SATISFACTION?	10
	D.	VALUE OF MEASURING CUSTOMER SATISFACTION IN	
		AF CONTRACTING	13
	<b>E.</b>	IMPLEMENTING CUSTOMER SATISFACTION: METHODS	
		AND FREQUENCY	
	F.	CUSTOMER SERVICE FOCUS IN THE FEDERAL GOVERNMENT	
	G.	AF CONTRACTING'S INTEGRATED SUPPLY CHAIN	
	Н.	SUMMARY	22
III.	ME	THODOLOGY	23
	A.	SAMPLE	23
	В.	SUBJECT SELECTION PROCESS	23
	C.	INTERVIEW QUESTIONNAIRE	24
	D.	DATA COLLECTION PROCESS AND ANALYSIS	
	E.	SUMMARY	26
IV.	RES	SULTS	27
	A.	PARTICIPANT DEMOGRAPHICS	
	В.	EXTERNAL CUSTOMER RESULTS	
	C.	INTERNAL CUSTOMER RESULTS	41
v.	CON	NCLUSION	71
	<b>A</b> .	CUSTOMER SIMILARITIES	71

В.	RECOMMENDATIONS	75
С.	FUTURE RESEARCH AREAS	77
APPENDIX	A: EXTERNAL CUSTOMER QUESTIONNAIRE	79
APPENDIX	B: INTERNAL CUSTOMER QUESTIONNAIRE	83
LIST OF R	EFERENCES	87
INITIAL D	ISTRIBUTION LIST	91

## LIST OF FIGURES

Figure 1.	The Four Pillars of Category Management	2
Figure 2.	Expectation of Disconfirmation Model	11
Figure 3.	External Customer Project List Comparison	14
Figure 4.	AF Contracting Integrated Supply Chain	21

## LIST OF TABLES

Table 1.	Interview Question #1	28
Table 2.	Interview Question #2	29
Table 3.	Interview Question #3	30
Table 4.	Interview Question #4	33
Table 5.	Interview Question #5	34
Table 6.	Interview Question #6	36
Table 7.	Interview Question #7	37
Table 8.	Interview Question #8	41
Table 9.	Interview Question #1	42
Table 10.	Interview Question #1a	43
Table 11.	Interview Question #2	46
Table 12.	Interview Question #2a	47
Table 13.	Interview Question #2b	49
Table 14.	Interview Question #2c	51
Table 15.	Interview Question #3	52
Table 16.	Interview Question #3a	53
Table 17.	Interview Question #4a	55
Table 18.	Interview Question #4b	56
Table 19.	Interview Question # 5	59
Table 20.	Interview Question # 6	60
Table 21.	Interview Question # 7	62
Table 22.	Interview Question # 8	65
Table 23.	Interview Question # 9	68

#### LIST OF ACRONYMS AND ABBREVIATIONS

ACC Air Combat Command

AETC Air Education and Training Command

AF Air Force

AFB Air Force Base

AFCEC Air Force Civil Engineer Center

AFFSC Air Force Financial Services Center

AFGSC Air Force Global Strike Command

AFICA Air Force Installation Contracting Agency

AFIMSC Air Force Installation and Mission Support Center

AFMC Air Force Mobility Command

AFSFC Air Force Security Forces Center

AFSOC Air Force Special Operations Command

AFSPC Air Force Space Command
AFSVA Air Force Services Activity

AMC Air Mobility Command

CE Civil Engineering

CEM Customer Experience Management

CO Contracting Officer

COA Course of Action

COO Chief Operations Officer

COR Contracting Officer Representative

CPARS Contractor Performance Assessment Reporting System

CRM Customer Relationship Management

CS Contracting Specialist

DAU Defense Acquisition University

DFARS Defense Federal Acquisition Regulation Supplement

DFAS Defense Finance and Accounting Service

DOD Department of Defense

EDP Expectancy Disconfirmation Paradigm

EUCOM European Command

FAR Federal Acquisition Regulation

FSS Force Support Squadron

GPRA Government Performance and Results

ICE Interactive Customer Evaluation

ISO International Organization for Standardization

LOC Letter of Concern

MAJCOM Major Command

NPS Naval Postgraduate School

PACAF Pacific Air Forces

PL Priority List

PM Program Manager

PWS Performance Work Statement

SCM Supply Chain Management

SOO Statement of Objectives

SOW Statement of Work

TQM Total Quality Management

USAFE United States Air Forces Europe

WHS Washington Headquarters Services

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– Jamie Davis

#### I. INTRODUCTION

#### A. BACKGROUND

Air Force Contracting is the collective body of military and civilian personnel who acquire capabilities to enable the global AF (Air Force) mission ("Air Force Acquisition," 2015). Through the effective implementation and management of contract vehicles, AF Contracting identifies the best suppliers to provide the best services to the nation's war fighters. There are three main types of contracting: operational at the wing level, operational at the enterprise-level, and systems ("Air Force Installation & Mission Support Center," 2015). Operational contracting at the Wing level is focused on acquiring commodity, service, and construction capabilities. These capabilities support day-to-day mission requirements at the Wing level. Alternately, operational contracting at the Enterprise level seeks to strategically source commodities and services to support the Air Force enterprise. Systems contracting is focused on weapons capabilities. These capabilities support the Air Force's needs of the future while also maintaining its current weaponry consortium.

The Air Force Installation Contracting Agency (AFICA) was recently activated in an effort to drive strategic sourcing of commodities and services. AFICA now has authority over operational contracting at the Wing level and operational contracting at the Enterprise level. The primary focus of AFICA is to assist in the development and execution of strategically sourcing customer requirements. The Air Force, in its efforts to leverage strategic sourcing, has adopted the category management principle (Westermeyer, 2015). The category management principle looks to categorize spending based on the purchase of similar products and services. AFICA has established a business intelligence center which will provide critical data analysis for AFICA and its customers. The business intelligence center will gather and compare information from AF databases to industry, and create actionable data for use by decision makers. The most critical aspect of category management is assigning a responsible owner to manage the costs of a particular category. This cost owner not only manages costs, but also manages consumption and coordinates with other uses of the product/service. Figure 1 depicts

category management as it supports strategic sourcing initiatives. As seen here, the critical factors that support category management are the four pillars: "Management demand and consumption, issue policy, strategic/enterprise solutions, and industry best practices" (Westermeyer, 2015).

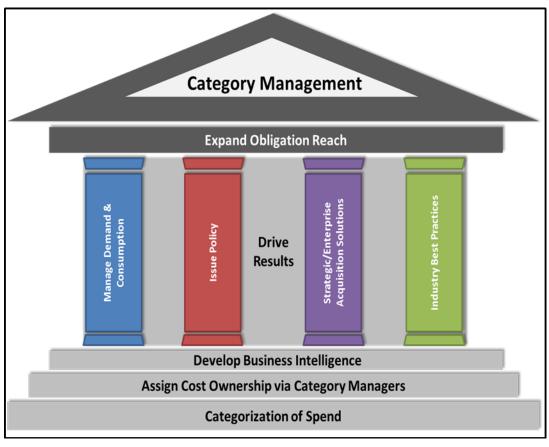


Figure 1. The Four Pillars of Category Management

Source: R. Westermeyer, (2015), State of AFICA: Current, and looking forward [PowerPoint slides], Naval Postgraduate School.

Compared to the private sector, AF Contracting personnel function similarly to procurement or purchasing professionals. Procurement/purchasing professionals, regardless of industry, are generally required to negotiate, manage, and execute contract actions to support their organization's objectives. AF Contracting personnel require the same business acumen and skillsets. These skills are required to properly engage and cost-effectively source the needs of the Air Force.

An integral part of sourcing the needs of the Air Force is understanding the customer's requirements and expectations. The Air Force Contracting Strategic Plan 2009–2013 states, "Instituting the right business practices is instrumental in freeing our resources to support our customers and stakeholders priorities" ("Air Force Contracting," 2015, p. 3). Essentially, to understand the customer is to understand their priorities. To better understand priorities, AF Contracting needs a measurement tool for evaluating customer satisfaction.

#### B. PROBLEM STATEMENT

AF Contracting does not currently use a standardized approach for collecting customer satisfaction information. A standardized customer satisfaction tool will enable AF Contracting to identify procedural inefficiencies, focus process improvement initiatives and better serve its customers.

#### C. RESEARCH OBJECTIVES

The purpose of this research is to gather background information to determine what customer satisfaction elements should be included in a standardized tool, which measures the level of customer satisfaction for AF Contracting's internal and external customers. Through the inputs of both customer bases, AF Contracting will be able to comprehensively understand its processes, procedures, and policies as viewed from the perspective of its customers. The following research questions are the focus of this project.

### D. RESEARCH QUESTIONS

#### **Primary Question**

1. Should AF Contracting develop a customer satisfaction/feedback mechanism?

If the answer to the Primary Question is affirmative, the Secondary Questions are:

2. What customer satisfaction elements should we be measuring?

- 3. What is the best method for measuring customer satisfaction/feedback?
- 4. Who is responsible for implementation and handling that feedback?
- 5. How can industry best practices help with the development of a customer satisfaction mechanism?

#### E. METHODOLOGY

For gathering the data needed to address the research questions, a qualitative approach is used. The data collection process consists of a literature review and customer interviews. The data will be used to identify what customer satisfaction elements should be included in a standardized tool as part of a customer satisfaction system. A literature review was conducted as a basis for contextualizing and understanding the customer satisfaction field. The data collection process is a combination of interviews from AF Contracting's internal and external customers.

#### F. LIMITATIONS

For the scope of this research, the customer satisfaction measurement tool is intended to support AF Contracting at the operational level. To address customer satisfaction at the enterprise level, additional research would need to be conducted, although the findings in this paper could be a source for beginning that research. This paper limits the pool of participants due to the extreme size of eligible AF Contracting customers across the United States. However, the data still provides generalizable results that are reflective of the level of satisfaction that AF Contracting's customers experience.

#### G. ASSUMPTIONS

This paper assumes the readers have a basic understanding of AF Contracting's processes: requirement definition, solicitation, source selection, award, contract management and contract close-out. This research assumes the sample size of the participants is large and diverse enough to supply relevant information to the project. Also, the sample size is a fair representation of the larger population of AF Contracting's customers.

## H. IMPLICATIONS

A standardized customer satisfaction tool will better enable AF Contracting to identify procedural inefficiencies, focus process improvement initiatives and better serve its customers. Customer satisfaction is a critical component for fostering communication and developing long-term relationships. It is essential for AF Contracting to employ customer satisfaction feedback as a strategic tool for improving operational effectiveness.

#### II. LITERATURE REVIEW

This chapter presents a comprehensive literature review on customer satisfaction. This literature review begins by defining the customer. Then, the definition of customer satisfaction and how to identify a satisfied customer are examined. Next, the literature review discusses the importance of measuring customer satisfaction and highlights federal regulations requiring agencies to measure customer satisfaction. Finally, the review explains AF Contracting's customer service chain.

#### A. WHAT IS A CUSTOMER?

Prior to developing a customer satisfaction measurement tool, it is necessary to define what and who are "customers." Customers are typically viewed as either internal or external and identified in this manner according to the scope of the organization (United States Office of Personnel Management, 1997). In the early 2000s, the Total Quality Management (TQM) model gained traction in the business world for its "customer focus" component of quality management (Sirvanci, 2004). One popular TQM definition is, "a continuously evolving management system consisting of core values, methodologies and tools, the aim of which is to increase external and internal customer satisfaction with a reduced amount of resources" (Klefsjö, Bergquist, & Garvare, 2008, p. 121). Based on this working definition, TQM acknowledges the distinction between internal and external customers, both of which should be evaluated for their level of satisfaction.

Klefsjö et al. (2008), discuss three definitions of a customer spanning from a very narrow definition to a very broad one. According to the authors, the narrower definitions are developed by the International Organization for Standardization (ISO) 90001:2000, one of which is: "...internal or external, an organization that, or a person who receives a product," or alternately, "actual and potential users of your organizations products and services," as suggested by the National Institute for Standards and Technology (p. 124). These definitions limit the scope of who qualifies as a customer, particularly excluding suppliers as customers. The authors offer the intermediary definition of a customer,

according to Garvare and Johansson, 2007, as: "Customers as individuals or organizations being down-stream in the product life cycle process, that is, receivers of a product" (p. 124). This latter definition is slightly broader than the previous one and flexes to include suppliers as customers.

The broadest definitions are practically inclusive of anyone, making it difficult to consistently apply those definitions across multiple industries and organizations. The authors credit Bergman and Klefsjö (2003), with the definition of a customer as "those we want to create value for" (p. 124). Similarly, Juran's *Quality Control Handbook*, defines a customer as: "Anyone who is impacted by the product or by the process used to produce the product" (Juran & Gryna, 1988, p. 6.4). These overly broad definitions frequently lead to miscommunication and misunderstanding about who should be included in customer-focused initiatives (Klefsjö et al., 2008, p. 124). Considering all the different definitions of a customer, it is very important for an organization to select a definition that is truly inclusive of all their pertinent customers.

For the purposes of this study, the following definition of a customer is used: "Anyone who is affected by the product or by the process used to produce the product" (Klefsjö et al., 2008, p. 124). This definition, although broad, considers both external and internal customers. External customers are "affected by the product," whereas internal customers are "affected by the process used to produce the product." From a Supply Chain Management (SCM) perspective, an external customer is a "downstream customer" and an internal customer is an "upstream supplier" (Ou, Liu, Hung & Yen, 2010, p. 527). When fluid communication up and downstream occurs, improved customer satisfaction is inevitable (Ou et al., 2010).

#### B. WHO ARE AF CONTRACTING'S CUSTOMERS?

Based on the previously-established definition of a customer, AF Contracting serves both internal and external customers. The external customers develop the requirements needing outsourcing and bring those requirements to AF Contracting personnel for execution. The Air Force is composed of the following 10 Major Commands (MAJCOMs): Air Combat Command (ACC); Air Force Space Command

(AFSPC); Air Mobility Command (AMC); Air Force Material Command (AFMC) United States Air Forces Europe (USAFE); Pacific Air Forces (PACAF); Air Force Global Strike Command (AFGSC); Air Force Special Operations Command (AFSOC); Air Education and Training Command (AETC) and Air Force Reserve Command (Westermeyer, 2015; Air Force Historical Research Agency, 2015). The commands are responsible for executing a specific mission and requiring a unique portfolio of goods and services. AF Contracting is solely responsible for supporting each command's requirements.

Effective May 5, 2015, the AF activated a new organization to centrally manage "installation and mission support capabilities," which allows "the Air Force to resource and sustain a standard level of support based on Air Force priorities" (Air Force Installation and Mission Support Center, 2015). This new organization, Air Force Installation and Mission Support Center (AFIMSC), combines the efforts of "ten major commands, two direct reporting units and multiple field operating agencies" (AFIMSC, 2015). AFIMSC aligns the following six mission support functions under the same command structure: Air Force Civil Engineer Center (AFCEC); Air Force Financial Services Center (AFFSC); Air Force Installation Contract Agency (AFICA); Air Force Security Forces Center (AFSFC); Air Force Financial Management Center of Expertise and Air Force Services Activity (AFSVA) (AFIMSC, 2015). With the activation of this organization, AF Contracting is now headquartered with several of its primary external customers. According to Westermeyer (2015), "AFIMSC affords unprecedented opportunity to team across the Center," and is perfectly structured for obtaining customer satisfaction feedback at the senior leadership level (12).

AF Contracting's internal customers are the collective group of suppliers who provide goods and services to the external customer. Across the globe, there are thousands of suppliers actively supporting AF Contracting via a customized contracting vehicle. AF Contracting's internal customers range from very large corporations like Boeing, Lockheed Martin, and General Electric, to small businesses such as Apexio Solutions Inc., Earthwinds LLC, and Pelatron Inc. There is currently no centralized body of suppliers; rather, every AF Contracting unit employs a portfolio of suppliers to support

their location. AF Contracting, through the governance of AFICA, intends to optimize its base of suppliers through strategic sourcing solutions (Landale, 2015).

### C. WHAT IS CUSTOMER SATISFACTION?

Richard Oliver, a pioneer in customer satisfaction research, is quoted as saying, "Everyone knows what satisfaction is until asked to give a definition. Then it seems, nobody knows" (Zeithaml, Bitner, & Gremler, 2013, p. 80). Without a clear understanding of what "customer satisfaction" is, it becomes increasingly difficult to measure. Customer satisfaction is a broad term, loosely used by servicing organizations to evaluate a customer's experience. Correspondingly, organizations often use customer satisfaction as an indicator of the organization's service or product performance (Anderson & Sullivan, 1993). The term customer satisfaction is typically determined by the customer's expectations, performance, and disconfirmation; collectively, these factors describe the Expectancy Disconfirmation Paradigm (EDP) (Churchill & Surprenant, 1982).

Figure 2 models the EDP logic, showing the interconnectivity of each factor. The "CS" at the end of the model represents customer satisfaction. For the purpose of this study, perceived performance and performance are used interchangeably because they reference the same aspect of customer satisfaction. The question marks signify the mixed findings of several studies where expectations may directly affect customer satisfaction, with little influence from performance. Similarly, performance may directly affect customer satisfaction, with little influence from expectations (Yi, 1993). These findings highlight the limitations of this model, but AF Contracting can still glean valuable insights about its customers' behaviors and how AF Contracting can influence their satisfaction.

Expectation ?

Disconfirmation CS

Perceived Performance ?

Figure 2. Expectation of Disconfirmation Model

Source: Y. Yi, (1993), The determinants of consumer satisfaction: The moderating role of ambiguity, *Advances In Consumer Research*, 20, 502–506.

EDP is a customer satisfaction theory from the 1970s. The theory correlates the effects of a customer's preconceived expectations with the performance of a product or service. These preconceived expectations either become validated or disproven, and the result is positive or negative disconfirmation. If the disconfirmation is positive, a customer is considered satisfied. Alternately, a negative disconfirmation is synonymous with being dissatisfied (Pallister, Rosidah & Robson, 2015). With this foundational understanding, organizations can tailor their efforts to maximize a customer's satisfaction.

According to EDP, a customer's preconceived expectation is their anticipatory response to how a product or service should perform. Outside the scope of this study but equally valuable, are several environmental, social and behavioral factors that influence a customer's preconception (Churchill & Surprenant, 1982). Internal and external customers formulate their expectations about how AF Contracting should operate based on their knowledge, experiences with and understanding about the contracting process. AF Contracting can use this knowledge to influence their customers' preconceptions

through early engagement and education about the purchasing process. Equally important, the availability, communication, professional knowledge and responsiveness of AF Contracting personnel can positively influence a customer's preconceptions (Montgomery County Government, 2012).

Pallister et al. (2015) echo Czepiel's (1990) definition of performance as "the customer's evaluation of product or service performance following the consumption experience" (p. 350). Essentially, once the customer receives their product or service, the evaluation for acceptability begins. Pallister et al. (2015), further expand their definition to, "subjective evaluations of the core product (i.e., attributes of the focal product), comprising both intrinsic (effectiveness) and extrinsic (packaging) characteristics" (p. 350). This is to say, acceptability of the product or service includes attributes such as: delivery time, condition of the delivery, effectiveness of contracted services and professionalism of contracted service providers. AF Contracting can positively influence the perceived performance of its external customers when relationships with their internal customers are strong and the product/service is acceptable. Also, internal customers can be positively influenced when AF Contracting clearly articulates and defines the external customer's requested good or service.

Disconfirmation is the summation of the customer's expectations plus perceived performance. The level of disconfirmation distinguishes satisfaction from dissatisfaction (Churchill & Surprenant, 1982, p. 493). When a customer's expectations exceed performance, dissatisfaction is likely. Conversely, when a customer's expectations are superseded by performance, satisfaction is likely. Managing expectations and performance is necessary to positively influence customer satisfaction. AF Contracting must continually monitor its internal and external customers' level of disconfirmation with the intent to positively influence customer satisfaction.

Churchill & Surprenant (1982) discuss an aspect of satisfaction worthy of consideration: "Satisfaction is similar to attitude in that it can be assessed as the sum of the satisfactions with the various attributes of the product of service" (p. 493). Customers can be satisfied with the product but not satisfied with the customer service they received. Similarly, a customer can be satisfied with the customer service and dissatisfied with the

product. In either situation, the probability of a dissatisfied customer is high. This is an aspect of satisfaction that AF Contracting must be mindful of when engaging with and serving its customers.

# D. VALUE OF MEASURING CUSTOMER SATISFACTION IN AF CONTRACTING

Lord Kelvin (1907, originally published in 1824) stated: "when you can measure what you are speaking about, and express it in numbers, you know something about it...[otherwise] your knowledge is of a meagre and unsatisfactory kind "(Neely, Gregory & Platts, 2005, p. 1228). Measuring customer satisfaction is important because it indicates an organization's awareness and understanding of what is valuable to the customer. Identifying what is valuable to the customer gives the organization a competitive advantage (Asher, 1989). An additional benefit, as stated by Anderson, Fornell, and Lehmann (1994) is, "firms that achieve high customer satisfaction also enjoy superior economic returns" (p. 63). Organizations are constantly lobbying to attract and retain customers (Kendall, 2008), and: "The fundamental reason customer satisfaction is important to your organization is because it allows your organization to stay in business" (Deviney, 1998, p. 16). When an organization invests in customer satisfaction, it typically yields increased customer loyalty, higher profit margins and subsequently increases performance (Anderson, Pearo, & Widener, 2008).

Although AF Contracting is not a profit-driven organization, superior customer satisfaction will strengthen the efficiency and effectiveness of the entire service chain (Neely et al., 2005). Increases in efficiency and effectiveness result in decreases in waste and ultimately decreases in costs. This decrease in costs enables AF Contracting's external customers to acquire more mission capability. Mission capability is often a function of the number of projects a customer completes within their budgetary constraints. Figure 3 provides a visual example of an external customers' increased mission capability. External customers create Priority Lists (PLs) that reflect their mission needs. For example, Air Force Security Forces Center (AFSFC) may compile a list of mission capabilities like veterinary services for their military working dogs, new protective gear or software upgrades for the base security system. AFSFC will then rank

the capabilities by priority. As seen in Figure 3, PL #1 is a sample list of 20 projects where 10 projects are able to be completed within budget. PL #2 is the same list of projects but 15 of 20 projects are able to be completed without increasing the budget. Delivering more capability to the customer is the objective for AF Contracting and measuring customer satisfaction assists in meeting this objective (Westermeyer, 2015).

Priority List #1

1. Project A
2. Project B
3. Project C
4. Project D
5. Project E
6. Project F
7. Project G
8. Project B
9. Project I
10. Project J
11. Project K
12. Project L
13. Project M
14. Project N
15. Project N
15. Project D
16. Project P
17. Project C
18. Project C
19. Pro

Figure 3. External Customer Project List Comparison

Source: R. Westermeyer, (2015), State of AFICA: Current, and looking forward [PowerPoint slides], Naval Postgraduate School.

Ultimately, measuring customer satisfaction is important because it influences actions and affects decisions. Short-term and long-term decisions will both be affected by how customer satisfaction is measured (Hauser & Katz, 1998). If organizations know their external customers are unhappy with the service or product they have received, the organization will have to decide how to react. If an internal customer is consistently underperforming, the organization will also decide how to react. Whether making strategic level decisions affecting the enterprise or operational decisions affecting a local unit, customer satisfaction will affect decision making, therefore; it is imperative to

measure customer satisfaction. In a fiscally constrained environment with limited resources, every decision warrants the input of the customer.

# E. IMPLEMENTING CUSTOMER SATISFACTION: METHODS AND FREQUENCY

Ways to measure customer satisfaction have been extensively researched, and according to Wilson (2002), usually consumes the largest portion of a firm's market research budget (Olsen, Witell & Gustafsson, 2014). With all the research and popularity surrounding Customer Relationship Management (CRM) and customer satisfaction, it is surprising to find "studies on how service firms collect and implement relevant customer satisfaction information are scarce" (Morgan et al., 2005 & Olsen et al., 2014). CRM has dominated business strategy for many years but recent literature is finding "that the contemporary consumer seeks more than competent services but also experiences...." (Nasution, Sembada, Miliani, Resti & Prawono, 2014, p. 255). The emerging concept of Customer Experience Management (CEM) has been broadly defined by several scholars, but Nasution et al. (2014) refer to Swinyard's (1993) CEM definition of, "service perceptions throughout each touchpoint with the firm" (p. 255). CEM provides deeper insights into how an organization can implement customer satisfaction.

CEM proponents Meyer & Schwager (2007) argue that the, method and collection frequency of customer satisfaction data are determined by the specific information the organization wants to evaluate. Past, Present and Potential patterns are the specific categories of CEM that determine the method for collecting and analyzing data. Each category produces different information and understanding of the customer. An organization choosing to analyze a customer's past pattern will collect data and employ analysis methods differently than an organization choosing to analyze present or potential patterns. Organizations are free to blend the categories as needed to achieve the insights they desire.

According to Meyer & Schwager (2007), an organization will analyze Past Patterns to collect recent customer experiences. The primary goals are: tracking trends, analyzing new initiatives and evaluating the success or failure of a new product or

initiative. Present Patterns capture current customer experiences and forecast potential opportunities. The primary goal is monitoring and strengthen customer relationships. The last category of CEM is, Potential Patterns which focus exclusively on future opportunities.

Let us consider how a Present Pattern analysis might look. Present Pattern analysis recommends collecting customer satisfaction quarterly and holds the business units accountable for managing the data. According to Meyer and Schwager (2007), the recommended method for collecting customer satisfaction data is through "web-based surveys preceded by preparation in person, direct contact in-person or by phone, user forums, focus groups [or any other] regularly scheduled formats" (p. 6). The benefit of an Internet-based method is the rapid flow of information. Immediately after customers provide a response, the information is accessible. With the proper software, the information is sorted and analyzed with the click of a button. The Present Pattern also encourages analysis at the "corporate, business unit or local level" with major trend issues being elevated to the "general manager" level (p. 6).

The optimal time to implement the recommendations from the Past, Present and Potential Patterns is during their initial implementation. Once the system is established and a steady stream of communication is flowing, the frequency of data collection can decrease to semi-annually, annually or as deemed appropriate by the organization. The data collection methods can also be periodically reviewed to keep pace with technological improvements.

#### F. CUSTOMER SERVICE FOCUS IN THE FEDERAL GOVERNMENT

#### 1. Executive Orders

Customer-focused service has been a federal government priority since the issuance of Executive Order No. 12862, Setting Customer Service Standards. On September 11th, 1993, President Clinton issued the order to federal government agencies as an initiative to ensure American citizens receive premier and quality service. The purpose of the order was to establish a set of customer service standards applicable across the entire federal government (Executive Order No. 12862, 1993). Ultimately the

objective is "for Federal agencies to deliver customer service that equals the best in business" (United States Office of Personnel Management, 1997, p. 1). The value of instituting customer service standards is not only to provide American citizens with great service but is also to create "a government that works better and costs less" (Wellens & Martin, 1995, p. 1). President Clinton published the following customer service standards:

- (a) identify the customers who are, or should be, served by the agency;
- (b) survey customers to determine the kind and quality of services they want and their level of satisfaction with existing services;
- (c) post service standards and measure results against them;
- (d) benchmark customer service performance against the best in business;
- (e) survey front-line employees on barriers to, and ideas for, matching the best in business;
- (f) provide customers with choices in both the sources of service and the means of delivery;
- (g) make information, services and complain systems easily accessible; and
- (h) provide means to address customer complaints. (Executive Order No. 12862, 2011)

On April 27, 2011, President Obama issued Executive Order 13571, Streamlining Service Delivery and Improving Customer Service. This order stems from Executive Order 12862, and states "the public deserves competent, efficient and responsive service from the Federal Government" (Executive Order No. 13571, 2011). In the 18-year gap between Executive Orders, the public has increased their expectation of transparency from the Federal Government. Technological advances over the past 18-years have provided more efficient service delivery systems like "lower-cost, self-service options accessed by the Internet or mobile phone and improved processes that deliver services fast and more responsively. The Federal Government has a responsibility to streamline and make more efficient its service delivery to better serve the public" (Executive Order

No. 13571, 2011). Each agency was charged with developing a Customer Service Plan. The plans must address six key actions for agencies to implement:

- (a) establishing one major initiative (signature initiative) that will use technology to improve the customer experience;
- (b) establishing mechanisms to solicit customer feedback on Government services and using such feedback regularly to make service improvements;
- (c) setting clear customer service standards and expectations, including, where appropriate, performance goals for customer service required by the GPRA (Government Performance and Results) Modernization Act of 2010 (Public Law 111–352);
- (d) improving the customer experience by adopting proven customer service best practices and coordinating across service channels (such as online, phone, in-person, and mail services);
- (e) streamlining agency processes to reduce costs and accelerate delivery, while reducing the need for customer calls and inquiries; and
- (f) identifying ways to use innovative technologies to accomplish the customer service activities above, thereby lowering costs, decreasing service delivery times, and improving the customer experience. (Executive Order No. 13571, 2011)

Beginning with the President, the Federal Government understands the value of investing in customer satisfaction initiatives. Seizing the opportunity to become more efficient with taxpayer dollars and reduce unnecessary processes is an important step towards achieving the president's vision of improving "the customer experience" (Executive Order No. 13571, 2011). In light of a shrinking fiscal budget, the efforts to mirror private sector practices may lead to reduced cost and better service.

### 2. ICE in the DOD

While the executive government focuses on creating orders and providing guidance to federal agencies, the Department of Defense (DOD) implemented a customer satisfaction feedback tool for service-focused agencies. The customer satisfaction feedback tool for the DOD is known as the Interactive Customer Evaluation (ICE) system. The push for the ICE system began in 1998 when the European Command

(EUCOM) Deputy Commander requested a customer evaluation system that was efficient and provided timely data on a customer's experience. As a result, the initial ICE system was created. A few years later, in 2001, the ICE version 2 was deployed as a more robust and globalized system that is still being used today (ICE Administrator, personal communication, 2015).

Currently, the ICE system is a web-based customer satisfaction feedback tool used by DOD entities across the globe. The system allows customers to provide anonymous feedback about their interaction with an organization through a comment card. The comment card has 6 standard questions, 5 of which can be removed as the organization deems appropriate. The ICE program recommends limiting the total number of questions to no more than 10, but the questions are tailored to meet the organization's specific needs. Comment cards are a common practice and, when combined with the speed and flexibility of the Internet, they become a valuable tool for the Commander in assessing a customer's level of satisfaction (ICE Administrator, personal communication, 2015).

Utilization of the ICE system spans across all branches of the military and several OSD agencies, including Defense Finance and Accounting Service (DFAS) and Washington Headquarters Services (WHS). Over 540 ICE sites, 24,000 comment cards created by feedback seekers and 2 million comment cards that have been submitted by customers (ICE Administrator, personal communication, 2015). The ICE system is clearly being used by customers, but it is not consistently used across AF Contracting units.

An example of an AF Contracting unit that has created a comment card on the ICE system is located at Cannon AFB. Their comment card is designed to obtain feedback from resource advisors, end users, technical experts, contracting officer representatives (CORs), and contractors. All of these positions represent either internal or external customers throughout the contracting process and therefore can provide valuable feedback. Although the site does not show how frequently the comment cards are used or how effective the data is to the commander, the ICE system does provide a free template on the site to use for developing a customer satisfaction tool.

## G. AF CONTRACTING'S INTEGRATED SUPPLY CHAIN

A supply chain is the aligning of: "three or more organizations linked directly by one or more upstream or down stream flows of products, services, finances and information from a source to a customer" (Hawkins, 2015). Supply chains' growth to multiple levels is possible depending upon the intricacies of the organizations within the chain. Supply chains become Supply Chain Management (SCM) when "the planning and management of all activities involved in sourcing and procurement, conversion and all logistics management activities," are combined (Hawkins, 2015). SCM has continuously evolved over the years. Many businesses use SCM as a barometer for organizational performance and to gain a competitive advantage over other vendors (Deshpande, 2012). Integrated supply chain is an extension of SCM. Each organization in the supply chain plans their activities in coordination with other relevant organizations, and requires a streamlined flow of information (Lambert & Cooper, 2000 & Fox, Chionglo & Barbuceanu, 1993).

Figure 4 provides an example of an integrated supply chain, representing the relationships between AF Contracting, its external customers, and its internal customers. This integrated supply accounts for AF Contracting's external and internal customers. Camm (2002) developed an integrated supply chain graphic, entitled "Players Relevant to an Integrated Air Force Supply Chain That Includes Contractors" (p.402). This graphic shows several of the important players in AF Contracting's supply chain. Many of the players are similarly reflected in Figure 4. AF Contracting's internal customers consist of prime contractors and subcontractors. Prime contractors are AF Contracting's main suppliers of goods and services, whereas subcontractors are the main suppliers to AF Contracting's prime contractors. The reason for the distinction between a prime contractor and a subcontractor is because AF Contracting only negotiates and forms a contract with a prime contractor. The interaction with a subcontractor is very limited, although the subcontractor is a vital member of the supply chain. The double arrows between AF Contracting and the prime contractors, and the prime contractors and their subcontractors, show the relationship and communication exchange that currently exists.

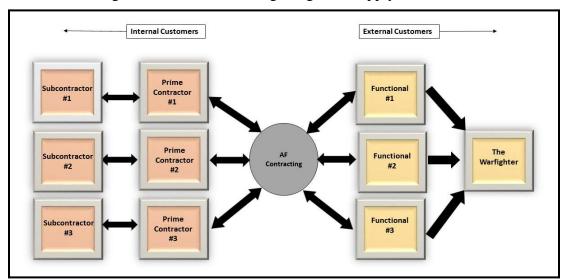


Figure 4. AF Contracting Integrated Supply Chain

The external customers' side of the supply chain shows the functional owners who are requesting a good or service from AF Contracting. As described by Camm (2002), a functional "is shorthand for an organization with a specific functional responsibility for the career field ('community') of personnel who maintain skills required to execute specialized activities associated with a functional responsibility" (p. 402). Examples of a functional owner include: Civil Engineering, Aircraft Maintenance, and Medical. AF Contracting serves multiple functionals. Functional representatives request goods and services to preserve and increase their mission capabilities. It is mission capabilities that enable the warfighter to execute their tasks in defense of the country.

The integrated supply chain is a valuable tool and helps convey the essential role of each organization. This chain also shows the importance of establishing clear channels of communication with both the internal and external customers. If the AF establishes a well-functioning chain with satisfied customers, then they are better positioned to achieve their goals.

## H. SUMMARY

This chapter provides a comprehensive overview of literature relevant to customer satisfaction. This literature review first defines a customer as it pertains to AF Contracting. It then identifies who AF Contracting customers are and distinguishes between internal and external customers. Next, it discusses what customer satisfaction is through the use of the EDP model, and then assesses the value and importance of measuring customer satisfaction through the lens of AF Contracting. The value of measuring customer satisfaction equates to AF Contracting's ability to deliver more capability within the same budgetary limitations. Literature pertaining to implementing customer satisfaction is also reviewed. Although there are many factors to consider when implementing customer satisfaction, the method and frequency of implementation are the focus. The chapter then discusses customer service regulations for the federal government in particular the two key statutes that focus on improving customer service. Lastly, this chapter illustrates AF Contracting's integrated supply chain. The purpose of the chain is to highlight the internal and external customers' relationships with AF Contracting. Altogether, this chapter establishes a foundation that supports the need for AF Contracting to develop a customer feedback mechanism to evaluate both internal and external customers.

## III. METHODOLOGY

This chapter describes the methodology employed to conduct this research. The chapter begins with a discussion about the sample selected. Next, the chapter will describe the subject selection process followed by an explanation of the development of the interview questionnaire. Following the interview questionnaire discussion, the data collection process is explained and the procedure used to analyze the data once the interviews were complete is provided.

### A. SAMPLE

This research uses a representative sample of AF Contracting's internal and external customers in order to equitably characterize the type of customers AF Contracting serves. It would have been unfeasible to interview all of AF Contracting's internal and external customers, therefore a smaller representative sample was chosen. The sample size was approximated, based on the scope of the study, and is limited to local area participants. Local area participants include internal and external customers who support Travis Air Force Base (AFB) and Naval Postgraduate School (NPS) students. A sample size of nine internal and external customers was gathered. They provided adequate and generalizable information about the experiences of AF Contracting's customers. Although the sample participants are locally based, they bring experiences from across the AF.

### B. SUBJECT SELECTION PROCESS

The subject selection process involved outreach efforts to acquire participants for the study, and establishing qualification criteria for potential subjects. Potential subjects needed to have experience working with AF Contracting and be able to clearly articulate their experiences. The potential subjects also needed to be familiar with AF Contracting's requirement definition, solicitation, source selection, award, contract management and contract close-out processes. The interview questions used terminology and concepts that require the participants to have a foundational understanding of AF Contracting's processes.

Once the criteria for the potential subjects were established, I sought out qualified subjects. To assist in identifying subjects, I requested a list of internal and external customers from the contracting office at Travis AFB. Travis AFB's contracting office supports a diverse group of units, each with specialized missions. There are nearly 20 different squadrons on the base representing a plethora of goods and services sourced by the contracting office ("Travis Air Force Base," n.d.). The contracting office provided me with a list of their internal and external customers who were qualified, based on the previously mentioned criteria.

A second method for identifying qualified subjects was through the Air Force contingent at NPS. The Air Force contingent at NPS consists of representatives from a variety of AF occupations. The variety of Air Force students at NPS provides a vast pool of experiences and interactions with AF contracting offices across the world. AF students were initially contacted via a weekly email distributed by the local AF commander. The email detailed the qualifying criteria and explained the purpose and scope of the research.

All potential subjects were initially contacted through email or phone. Potential subjects who were qualified and interested in participating in the research were interviewed following the format of the interview questionnaires in Appendices A and B. The following section describes the development of the interview questionnaires for both internal and external customers.

## C. INTERVIEW QUESTIONNAIRE

Before addressing customer satisfaction problems, it is imperative to obtain a baseline understanding of the customers' perspective about the organization. For the purpose of this research, this understanding is accomplished through separate interview questionnaires for both internal and external customers. Each customer base provided a different, yet valuable, perspective on AF Contracting processes which reinforced the need to create two distinct interview questionnaires. The interview questionnaire served as a method for gathering information about AF Contracting's internal and external customers' customer satisfaction experiences and expectations.

The internal customers' interview questionnaire integrated both closed- and openended questions. The closed-ended questions were designed to gather quantifiable information through the use of Likert-type questions. The open-ended questions were designed to allow the participants to discuss their experiences with AF Contracting. The internal customer questionnaire also allowed participants to share their best practices as they pertain to their companies' efforts to maintain and collect customer satisfaction data.

Similarly, the external customers' interview questionnaire was structured in the same manner as the internal customers' questionnaire. Both open- and closed-ended questions were utilized to garner information about AF Contracting from the lens of its external customers. The external customers' interview questionnaire used open-ended questions to examine AF-centric issues, particularly during the requirement definition process, and post-award administration. Requirement definition and post-award administration are the main duties of external customers in the contracting process. Both the external and internal customers' questionnaires provided the participants with the flexibility to address customer satisfaction concerns and expectations of AF Contracting.

## D. DATA COLLECTION PROCESS AND ANALYSIS

The data collection process involved telephone and in-person interviews with four internal and five external customers; however, a total of 89 potential subjects were initially contacted. The interviews were conducted over a five-week period with each interview conversation lasting approximately 25 minutes. Participants were provided the questions prior to the interview to help facilitate the conversation and allow them an opportunity to ponder their responses.

Once the interviews were complete, responses to the closed-ended questions were summarized according to the number of responses for each question. Each open-ended question was reviewed and sorted, with the goal of aligning common trends among all responses. The results section further defines and outlines the findings from the interviews.

## E. SUMMARY

This chapter describes the methodology employed to collect and explicate the data collection process for this research. The chapter begins with a discussion about the sample size and selection process of the participants. This process involved identifying and sourcing potential participants through multiple avenues. The chapter then explains the development of the interview questionnaire for AF Contracting's internal and external customers. Two separate questionnaires were created because the experiences and expectations of the different customer bases were expected to yield varied responses, as it pertains to their level of customer satisfaction. Lastly, this chapter briefly provides and overview of the data analysis process for assessing and evaluating the responses from each participant.

## IV. RESULTS

This chapter details the results from the interviews, beginning with a discussion about the participants' demographics. Next, the chapter will present the results of each question by describing the findings and trends of each. Lastly, the chapter will compare and identify similarities between the internal and external customers' interview responses.

#### A. PARTICIPANT DEMOGRAPHICS

There were a total of five external customers who participated in this research. All of the external customers interviewed had first-hand interaction with the contracting process. Most had experience drafting requirements and overseeing contractor performance. The external customers interviewed were representative of several AF functional specialties, each having unique experiences with multiple AF Contracting offices. The participants were a combination of military and civilian, ranking from a military equivalency of MSgt (E-7) to Major (O-4). Although the research was limited to five external customers, their responses reflected a broad range of experiences.

There were a total of five internal customers who participated in the research. All internal customers had multiple years of experience supporting AF Contracting. The internal customers were fluent in AF Contracting's processes and procedures and provided a unique perspective on AF Contracting's customer service abilities. Although the research was limited to five internal customers, their responses reflected their experiences supporting AF Contracting offices across the United States. The internal customers held positions within their companies ranging from Program Manager (PM) to Chief Operations Officer (COO). Both the external and internal participants shared their experiences working with AF Contracting, and these responses are detailed in the subsequent sections of this chapter.

### B. EXTERNAL CUSTOMER RESULTS

The external customers' interview consisted of nine questions, both open- and closed-ended. The interview results were compiled and sorted based upon the participants' responses. The results of the open-ended questions are presented according to the most frequent or noteworthy trends amongst the participants' responses. The results of the closed-ended questions are presented based on the total number of responses received. Each question is depicted in the form of a table and will be presented in the same sequence as the interview was conducted. The ensuing paragraphs report the external customers' interview results.

# 1. Question #1: On a scale of 1- 5 with 1 being "No Value" and 5 being "Very Valuable," how valuable is customer satisfaction to your unit?

The intent of this question was to determine the importance of customer satisfaction to AF Contracting's external customers. The data presented in Table 1 show that four of the five participants believed customer satisfaction was "Valuable" to "Very Valuable" to their representative organizations. During the interviews, a majority of the participants expressed their support and appreciation for addressing customer satisfaction.

Table 1. Interview Question #1

Question 1: closed-ended	
1- No Value	0
2- Little Value	0
3- Slightly Valuable	0
4- Valuable	1
5- Very Valuable	4

# 2. Question #2: Do you currently provide customer satisfaction feedback to other service functions? If so, in what manner?

This question was created to garner information about our external customers' current customer satisfaction feedback practices. This question was also designed to see how they have been providing customer satisfaction feedback to other organizations, if applicable. For example, our external customers may have given feedback to other AF

service-oriented functions, like Force Support Squadron (FSS) or Civil Engineering (CE) squadron. If our external customers are providing customer satisfaction feedback to other organizations, then there is an opportunity to learn how they are providing that feedback (i.e., which feedback methods they are familiar with using). Other service-oriented functions may be using customer satisfaction feedback mechanisms that AF Contracting may benefit from, either through adoption, or a derivative of their current practices. As seen in Table 2, all participants responded that they had not, and currently do not, provide customer satisfaction feedback to any other organization. Since this was true, no further line of questioning was conducted.

Table 2. Interview Question #2

Question 2: o	pen-ended	
Trend	"no"	5

# 3. Question #3: When working with AF Contracting, what determines your level of satisfaction?

The intent of this question was to identify which characteristics determine the external customers' level of satisfaction with AF Contracting. This question was created to be open-ended, and allowed the customers to share their perspectives about the factors leading to increased levels of customer satisfaction. As the participants responded to this question, there were five trends that emerged. The first trend was Timeliness, and four of the five respondents agreed. Timeliness refers to how quickly AF Contracting addresses their customers' concerns. Timeliness also considers the amount of time spent placing an item or service on a contract—the less time spent the better.

The second trend was Accuracy, which was mentioned by three of the five respondents. According to the respondents, Accuracy was described as how well the contract produced the right product/service requested. Accuracy was viewed as a component affecting Timeliness, because if the wrong or inaccurate item/service was procured, more time would be spent re-procuring the right item/service.

The third trend, Communication, was echoed by two of the five respondents and is also a component of Timeliness. As an item/service is being procured, the customers expect clear lines of communication throughout the entire process. When clear lines of communication are established, AF Contracting is better positioned to provide a timely response to their customers' concerns.

Approachability is the fourth trend and, similar to Communication, was acknowledged by two of the five respondents. Approachability addresses interactions with AF Contracting personnel (vice AF Contracting processes and procedures, as the aforementioned trends have addressed). The participants valued AF Contracting personnel who were approachable and made customers feel as though their contracts were important and valuable. Approachability also included being able to converse in a professional and friendly manner.

Similar to Approachability, Expertise is the fifth trend and refers to the Contracting Officer's (CO) or Contract Specialist's (CS) technical knowledge of traditional contracting practices. COs and CSs are trained to know the regulations and contracting strategies that are available to assist AF organizations in procuring the items/services they need. Although, there was only one respondent who mentioned Expertise as a factor that determined their level of customer satisfaction, it is a noteworthy response because a CO is judicially and financially responsible for the contract actions they authorize. Therefore, it is imperative that CO's have a firm understanding and expert knowledge of the regulations that govern their trade. Table 3 recaps the results of this open-ended question:

Table 3. Interview Question #3

Question 3: open-ended			
Trend #1	Timeliness	4	
Trend #2	Accuracy	3	
Trend #3	Communication	2	
Trend #4	Approachability	2	
Trend #5	Expertise	1	

# 4. Question #4: Concerning AF Contracting, in what areas would you like to give feedback?

The purpose of this question was to determine the aspects of AF Contracting where external customers would like to provide feedback. The list in Table 4, found at the end of this section, was provided to each interviewee, but was not designed to be an exhaustive and limited list of options. Rather, the intent of providing the list was to assist the external customers in exploring all the possible areas of AF Contracting. The last option on the list was Other, which allowed the customers to submit any additional areas where they would like to provide feedback.

Based on the participants' responses, there were three areas supported by four of the five participants. CO Expertise, CO Timeliness, and CO Communication. These areas focus on the CO's knowledge of his/her job, as well as their ability to quickly establish contracts, while maintaining communication with his/her customers. These findings align with the trends found in Question #3, and further emphasize the customers desire to be satisfied in these areas.

There were three areas that three of the five participants believed were important to give feedback. CO Responsiveness, CO Proactivity, and CO Availability. CO Responsiveness refers to the CO's ability to be approachable and responsive in, understanding the customers' needs. This area is similar to Approachability, which was mentioned in Question #3. CO Proactivity is characterized by the CO's foresight and dedication to frequently engaging with his/her customers in order to mitigate problematic situations. Lastly, CO Availability refers to their willingness to be accessible and reachable throughout the entire contracting process.

There were six remaining areas, each with two participants wanting to provide feedback. The first area was CO Innovation. CO Innovation recognizes the creativity and resourcefulness of the CO as he/she navigates his/her customers through the contracting process. Next, the Contracting Office's Processes were another potential area for customer feedback. The Contracting Office's Processes were divided into three specific areas: Solicitation, Award and Administration Processes (encompassing feedback areas two, three and four, respectively). The Solicitation Process occurs before the award of the

contract and often includes activities such as: market research, synopsizing the requirement, and posting the solicitation for bid. Following the Solicitation Process is the Award Process. During this process the solicitation is evaluated, and a contractor is selected and awarded the contract. Once the Award Process is complete, the Administration Process begins. This process involves monitoring the contract for contractor compliance, and all accompanying administrative actions needed to ensure the contract is completed.

Finally, the fifth and sixth areas were the Requirements Development Process, and Contracting Officer Representative (COR) Training. The Requirements Development Process occurs before the solicitation process and involves: identifying a requirement, developing a list of requirement objectives, and establishing performance standards. Finally, the sixth area was COR Training. A COR is a formally nominated representative of the CO, who is extended the authority to oversee and ensure contractor compliance with contractual obligations. The COR is typically identified during the requirement development process and is the visual extension of the CO, who is often geographically separated from contract performance site.

All of the areas mentioned in the preceding paragraphs were acknowledge by the customers as areas they would like to provide feedback to AF Contracting. The customers were satisfied with the list of areas provided and did not offer any additional areas.

Table 4. Interview Question #4

0	
Question #4: closed-en	ded
Contracting Officer	
(CO) Expertise	4
CO Responsiveness	3
CO Innovation	3 2 4 4
CO Timeliness	4
CO Communication	4
CO Proactivity	3
CO Availability	3
Contracting Office's Solicitation Processes	2
Contracting Office's Administration Processes	2
Contracting Office's Award Processes	2
Requirement's Development Process	2
COR Training	2
Other:	0

# 5. Question #5: How often would you expect to give customer satisfaction feedback?

The intent of this question was to identify how frequently a customer expected to provide AF Contracting with customer satisfaction feedback. For this question, participants were given the option to select multiple answers, as they deemed appropriate. The five options for this question were Annual, Semi-Annual, Quarterly, Every Contract Action, and Other. The results are presented in Table 5, and show that all participants believed customer satisfaction feedback should be collected at least Quarterly. Additionally, two participants believed Semi-Annual feedback was acceptable, and one participant thought feedback after Every Contract Action was appropriate. There was one participant who suggested an Other frequency of Monthly. Monthly feedback would be beneficial depending upon the requirements and specifications of the contract (e.g., a contract for ongoing services). All participants agreed that Annual feedback was too

infrequent. A year with no communication about the customers' satisfaction was not ideal.

Table 5. Interview Question #5

Question 5: closed-ended	
Annual	0
Semi-Annual	2
Quarterly	5
Every Contract Action	1
Other	1

# 6. Question #6: Concerning AF Contracting, what method of giving feedback is preferred? Please rank from most preferred (1) to least preferred (7)

This question was created to determine which methods the customers preferred to use when giving customer satisfaction feedback. This question required the participants to rank the methods from highest to lowest preference. The list in Table 6 was not intended to limit the customers to only these select options. Instead, the purpose for creating the list was to identify a variety of options that were practical and able to be implemented within the AF. The customers were able to suggest other methods and rank them accordingly.

The first column of the table lists the seven methods as they were presented to the participants (note: the seventh method is "Other"). The third row from the top of the table, lists numbers from one to seven. These numbers represent a rank position where 1 was most preferred and 7 was least preferred. Since the participants did not provide suggestions for a seventh method, the least preferred rank position defaulted to 6. This explains the absence of any numbers under rank position 7. Each rank position (counting down the columns) and each method (counting across the rows) totaled five responses. The data within the matrix is further explained in the following paragraphs.

Based on the participants' responses, the Online Survey, Handwritten Survey and In-person Interview, were the only methods that received a rank of 1. Two participants

gave the Online Survey and In-person Interview, a rank of 1. One participant gave the Handwritten Survey a rank of 1. The Online Survey would be a customer satisfaction survey administered through a web-based platform. Similar to the Online Survey, the Handwritten Survey would include the same type of questions, but instead customers would provide handwritten feedback. Lastly, the In-person Interview would be a face-to-face conversation with the customers, to acquire feedback about their level of satisfaction. The In-person Interview would allow AF Contracting to dialogue and pinpoint areas for improvement.

The Online Survey and Handwritten Survey also received a rank of 2, each by one participant. Telephone Interview was the only other method to receive a rank of 2 (from three participants). The Telephone Interview would involve engaging customers about their level of satisfaction over the phone.

In rank position 3, the Comment Card, In-person Interview, and Online Interview were the preferred methods. Two participants believed the Comment Card and the Online Interview were preferred in this rank position, while one participant preferred the Inperson Interview. The Comment Card and the Online Interview are the only methods that have not been previously explained. The Comment Card is typically a short list of questions that allow a customer to rate an organizations customer service, while the Online Interview utilizes Internet technology to visually connect AF Contracting with their customers, in order to acquire their feedback.

In rank position 4, there were five different methods preferred. The five methods were the Online Survey, Handwritten Survey, Telephone Interview, In-person Interview and Online Interview. Each participant selected a different method for this position. Next, rank position 5 had four preferred methods. Two participants preferred the Handwritten Survey while the Comment Card, Telephone Interview and Online Interview received preference from one participant each.

Finally, rank position 6, the least preferred rank, had four preferred methods. The four methods were Online Survey, Comment Card, In-person Interview and Online Interview. Two participants preferred the Comment Card while the Online Survey, In-

person Interview and Online Interview each had one participant preference. Table 6, summarizes these results:

Table 6. Interview Question #6

Question 6: closed-ended							
	F	Rankings (1-most prefered to 7-least prefered)				)	
	1	2	3	4	5	6	
Online Survey	2	1		1		1	
Handwritten Survey	1	1		1	2		
Comment Card			2		1	2	
Telephone Interview		3		1	1		
In-person Interview	2		1	1		1	
Online Interview	·		2	1	1	1	
Other							

## 7. Question #7: In what ways could AF Contracting improve customer satisfaction?

The purpose of this question was to identify adjustments AF Contracting could make to improve their customers' satisfaction. This question was open-ended, which allowed the customers to share their perspectives. Based on the data obtained from the interviews, two trends emerged. The two trends, in no particular order, were: Communication and Training. Table 7, shows the trends and the number of participants who supported each trend.

Communication was a trend identified by all five participants, and encompasses multiple aspects. First, it refers to the communication between the customer and the CO, particularly during post-award contract actions. Post-award contract actions include activities such as, modifications, payments, and other contract administrative efforts. The participants desire a level of communication that keeps them abreast of their contract's status, and makes them feel their concerns are a priority. Second Communication can be a tool for mitigating frustration, confusion and tension between the customer and the CO. Third, Communication brings visibility into the contracting process and allows the

customers to develop a relationship with the CO and CA for their contract. There are instances where the CO is geographically separated from the place of the contract's performance, and customer's still need to know who to contact for support. The visibility of the CO is also very import because as military customers rotate to different duty stations, and are replaced with new people, the responsibility for oversight of the contractor remains. In this situation, the CO's visibility helps the military customers recognize who they should contact if there are any issues or concerns with the contract.

Training, the second trend, was identified by one participant. Training specifically addressed the training of CORs. CORs are trained in two phases. The first phase includes on-line courses hosted by Defense Acquisition University (DAU). DAU courses are designed to give the CORs a foundational understanding of the contracting process and their specific role as overseers of a contract. The second phase of training teaches the CORs how to properly monitor their particular contract. Since each contract varies in their specifications, contractor requirements, and inspection frequencies, the CORs need to be trained on the intricacies of their contract. This level of understanding is taught by the COR's local CO or CA who is most knowledgeable about the contract. Based on the participant's response, the training from the contracting office did not sufficiently prepare him/her to oversee his/her contract.

Table 7. Interview Question #7

Question 7: open	-ended	
Trend #1	Communication	4
Trend #2	Training	1

# 8. Question #8: Concerning AF Contracting, provide an example of one good and one bad experience and explain why it was good or bad.

The purpose of this question was to gain further insight into what the customers experience when working with AF Contracting. This question required the customers to reflect on previous interactions with AF Contracting, and select one good and one bad experience. Once an experience was identified, the customers were asked to describe the

experience, and state why it was good or bad. From this question emerged four trends from the good experiences and three from the bad experiences. A few of the trends pinpoint contracting-specific topics that have not previously been discussed; therefore, these topics will be explained within the context of the trend they support. The trends are shown in Table 8, in no particular order.

### a. Good Experiences

From the participants' good experiences, there were four trends identified: CO Knowledge, Partnership, Communication, and Contractor Performance. CO Knowledge referred to the CO's knowledge of contracting regulations, and applying that knowledge to help the customer acquire the product or service needed. There was one participant who identified this trend, and they valued the CO's ability to work within the contracting regulations, while still addressing contractor problems, providing timely responses to inquiries, and offering sound business advice.

The next trend, Partnership, was identified by two participants. Partnership was viewed as the feeling of collaboration and team effort between the customers and AF Contracting. The participants' experiences reflected their appreciation for a contracting environment that promoted partnership. From these partnerships, contracts were successfully executed (deemed successful based on the customer's standards) and issues with the contractor were quickly and easily resolved. There was a particularly noteworthy situation, when the customer and the CO were able to work together to avoid the fallout of a protest. According the Federal Acquisition Regulation (FAR), a protest occurs when a potential bidder files a written complaint about any of the following contracting activities: a solicitation, a cancelled solicitation, a contract award or proposed contract award, or a termination/cancellation of a contract award (FAR 33.101). The strength of the partnership between AF Contracting and the customer enabled both parties to work efficiently, as they prepared all the documentation needed to defend the AF against the protest. In the end, the protest was not upheld and the participant credits the partnership with AF Contracting as the reason for success.

The third trend was Communication and it was identified by two participants. Communication has been a recurring trend and echoes the description found in Question 7. Essentially, the participants desire insight into the contracting process. They would like to know information such as the status of a contract award, or who has the next action on the contract. From the participants' experiences, it was clear they recognized the criticality of having strong lines of communication with their CO.

The last trend, Contractor Performance, referred to the exceptional performance of a contractor in meeting the criteria and requirements of the contract. The participant who identified this trend referenced several occasions where the contractor's adherence to the contract's specifications provided them with the expertise needed to conduct their mission. From the participant's perspective, the contractor's exceptional performance was a direct reflection of a well-written contract with clearly defined specifications.

## b. Bad Experiences

The participants' responses to this question also revealed three trends from their bad experiences. The three trends were CO Unknowledgeable, CO Unapproachable, and Contractor Performance. CO Unknowledgeable, was the opposite of the CO Knowledge trend mentioned earlier in this section. CO Unknowledgeable referred to the participant's experiences with a CO and/or CA, who were unfamiliar with standard contracting practices. According to the two participants who identified this trend, the CO and/or CA were unable to provide them with the contracting expertise they needed to resolve their concerns with their contractor's performance.

The next trend, identified by one participant, was CO Unapproachable. This trend encompasses the CO's ability to engage with the customers, in a manner that makes them feel their concerns are a priority. Based on the participant's response, the CO was very unapproachable and led the participant to feel as though their concerns were a burden and unimportant. This trend was similarly identified in Question 3, under the category of Approachability. In Question 3, the CO's approachability was a factor that determined the participant's level of satisfaction. Therefore, a CO that is unapproachable directly opposes one of the factors that determine the participant's level of satisfaction.

The third trend was Contractor Performance and there were three participants that identified this trend. According to the participants' responses, the bad experiences with Contractor Performance occurred for two reasons, poorly written contracts and satisfying small business requirements. The participants suggested poorly written contracts were one reason the contractor's performance was poor. The contracts were considered poorly written because they used vague language and confusing word choices to describe the requirement.

Traditionally, every contract incorporates a document that explains the specifications and desired outcome of the customers' requirement. The contractor then uses this document as instructions for governing the product or service they will provide. This document can be in the form of a Statement of Work (SOW) or Performance Work Statement (PWS). Any of these documents are susceptible to being written poorly, which may result in confusion that makes (or makes it appear as though) a contractor perform poorly.

The second reason the participants had bad experiences with Contractor Performance was due to satisfying small business requirements. In this case, satisfying small business requirements led to the award of a contract, to a contractor who was unable to provide the level of performance the customers desired. From the participant's perspective, the contract was awarded to ensure the contracting office met their small business goals. According to the FAR, small businesses should be given a fair opportunity to compete on government contracts. The FAR further requires contracting offices to establish goals for increasing the number of small business who participate in government contracting (FAR 19.201(a)(b)). This policy is a reflection of "acquisition-related sections of the Small Business Act (15 U.S.C. 631, et seq.), applicable sections of the Armed Services Procurement Act (10 U.S.C. 2302, et seq.), 41 U.S.C. 3104; and Executive Order 121" (FAR 19.00(a)). Essentially, the contractor's performance did not meet the customer's standards and additional time was spent re-procuring the requirement.

Table 8. Interview Question #8

Question 8: open-ended						
Good Experience Bad Experience						
Trend #1	CO Knowledge	1		Trend #1	CO Unknowledgeable	2
Trend #2	Partnership	2		Trend #2	CO Unapproachable	1
Trend #3	Communication	2		Trend #3	Contractor Performance	3
Trend #4	Contractor Performance	1				

## 9. Question #9: Please share any other comments.

The intent of this question was to allow the participants to share any additional information that had not previously been mentioned during the interview. This was also an opportunity for the participants to share or expound upon any aspects of the interview that were not adequately covered. No additional comments were received.

### C. INTERNAL CUSTOMER RESULTS

The internal customers' interview consisted of ten main questions and seven subquestions, both open and closed-ended. The interview results were compiled and sorted based upon the participants' responses. The results of the open-ended questions were presented according to the most frequent or noteworthy trends amongst the customer responses. The results of the closed-ended questions were presented based on the total number of responses received. Each question was depicted in the form of a table and was presented in the same sequence the interview was conducted. The following paragraphs report the internal customers' interview results.

# 1. Question #1: On a scale of 1- 5 with 1 being "No Value" and 5 being "Very Valuable," how valuable is customer satisfaction to your unit?

The intent of this question was to determine the importance of customer satisfaction to AF Contracting's internal customers. This same question was also asked of the external customers. The data shows five of the five participants believed customer satisfaction was "Very Valuable" to their company. During the interviews, a majority of the participants recognized customer satisfaction as a critical component of their

company's success; they take pride in making sure their customers are satisfied. Table 9 displays the results of this question:

Table 9. Interview Question #1

Question 1: closed-ended	
1- No Value	0
2- Little Value	0
3- Slightly Valuable	0
4- Valuable	0
5- Very Valuable	5

2. Question #1a: A customer is defined as "anyone who is affected by the product or by the process used to produce the product." Specifically, external customers are those who are "affected by the product/service" whereas internal customers are "affected by the process used to produce the product/service." Who do you seek feedback from? External customers, Internal customers or both?

The purpose of this question was to establish a common definition of who qualifies as an external or internal customer. Based on a common understanding of who is an external or internal customer, the question then asks the participants to state whether they collect feedback from their external customers, internal customers or both. In addition to a written description of an external versus internal customer, each interview questionnaire provided the participants with a visual aid, describing AF Contracting's external and internal customers. The purpose of the visual aid was to further assist the participants in clearly understanding the two different customer bases, as established for this research. Based on the participants' responses, all five participants stated they actively request feedback from both external and internal customers. Table 10 shows the participants responses.

Table 10. Interview Question #1a

Question	1a: open-ende	d
Trend	"Both"	5

# 3. Question #2: What method/methods is/are your company currently using to assess customer satisfaction?

This question was created to gain insight into the type of methods the participants were using within their organizations, to assess customer satisfaction. Based on the customers' responses six trends emerged. The six trends were CPARS, Meetings, Email, Customer Satisfaction Feedback Tools, Social Media, and Government Notifications. A few of the trends identify contracting specific topics that have not previously been discussed; therefore, these topics will be explained within the context of the trend they support. Each trend will be further explained in the subsequent paragraphs.

The first trend was Contractor Performance Assessment Reporting System (CPARS) and four participants use the outputs of this system to assess the government's satisfaction. According to the FAR, CPARS is the federal government-wide required system, for collecting and storing the past performance information for all contractors. Upon completion of a contract, or at least annually, past performance information on the contractor must be completed. Past performance information inputs are generally gathered from either the CO, CA, COR, program manager, external customer or quality assurance, or a combination thereof (FAR 42.1502(a)).

The system is designed to provide contractors with feedback about their performance through an adjectival rating system, and across metrics that are determined based on the type of work the contractor was performing. For example, if a contractor was performing a service/information technology/operations type of work, then the contractor would be evaluated on seven performance areas. The performance areas are Quality, Schedule, Cost Control, Business Relations, Management, Small Business and Other Areas. Each area receives a rating, supported by a narrative, that justifies the rating

the contractor was given. The objective is to provide contractors with both positive and negative feedback about their performance (FAR 42.1503(b)(2)).

Regardless of the type of work the contractor was performing, the same adjectival rating system must be used. The FAR provides detailed definitions for the following ratings: Exceptional, Very Good, Satisfactory, Marginal and Unsatisfactory. These are the only ratings that can be given to a contractor (FAR 42.1503, Table 42–1). The contractors, who for the purposes of this research are known as AF Contracting's internal customers, have a vested interest in the ratings they receive in CPARS, because this information is used by the government to assist in determining who will be awarded a new contract (i.e., used in past performance assessments in subsequent contracts).

The second trend, four participants used to assess customer satisfaction was, Meetings. Meetings were either face-to-face or virtual and were used with both external and internal customers. The purpose of the meetings was to engage with the customers, most often on a weekly or quarterly basis, about their experiences and any problems they were encountering. As often as possible, the participants traveled to the location of their customers to conduct their meetings. There was a participant who mentioned their company policy was to have monthly contact with their customers. This contact could be accomplished through in-person meetings, telephone, email or any other method of contact.

The third trend, mentioned by three participants was, Email. Email was used for both external and internal customers, and was most often used when physical meetings could not to take place.

The fourth trend one participant used to assess their customers' satisfaction was Customer Satisfaction Feedback Tools. These tools were used to help the company obtain confidential and anonymous customer feedback. One of the tools mentioned was Dunn & Bradstreet. Dunn & Bradstreet is a corporate business solutions provider, offering "a wide range of solutions for Risk & Finance, Operations & Supply, Sales and Marketing professionals" (Dnb.com, 2015). Dunn & Bradstreet focuses on collecting, analyzing, and interpreting data for their companies to use when making business decisions (Dnb.com,

2015). Dunn & Bradstreet is one method the participant used to gauge their non-AF customers' experience.

The second tool mentioned by the participant was Survey Monkey. Survey Monkey is a popular survey platform with the capability to support "Customer Satisfaction, Market Research, Event Planning, Education & Schools, and Employees & HR" survey needs (Surveymonkey.com, 2015). Survey Monkey allows companies to create web-based surveys that collect customer information, and through extensive analytics, provide companies with actionable data (Surveymonkey.com, 2015). The participant used Survey Monkey data for their other, non-AF contracts.

The fifth trend, Social Media, was used by one participant as a way to assess their internal customers' satisfaction. The participant's company used social media platforms like Facebook and Twitter to collect information about their internal customers' satisfaction. For this participant, their internal customers were also their employee's. This can occur when a company is involved in contracting for personal services. According to the FAR, personal services are "characterized by the employer-employee relationship it creates between the Government and the contractor's personnel" (FAR 37.104 (a)). According to the Defense Federal Acquisition Regulation Supplement (DFARS), examples of a personal service are consultants or healthcare professionals (DFARS 237.104). Since the participant's company supplied the AF with personal services, a social media platform was another way for them to obtain customer satisfaction information through a less formal venue.

The sixth and final trend, mentioned by one participant, was Government Notifications. This form of assessing customer satisfaction pertains particularly to the participant's external customers, who are part of the federal government. According to the FAR, federal government agencies are required to issues notifications prior to terminating a contractor for poor performance (FAR 49.402-3). The two required notifications are a cure and show cause notice. Before a notice is issued, a Letter of Concern (LOC) may be used to forewarn the contractor of the government's disapproval of their performance on a contract. If an LOC does not suffice to bring the contractor back into compliance with the contract terms, a cure notice will be given.

A cure notice is a preliminary notification, issued when a contractor has repeatedly failed to comply with a provision in the contract. The cure notice generally allows the contractor ten days to cure their failure. In the event the contractor does not correct the failure, a show cause notification is issued. A show cause notification requires the contractor to show the government why their contract should not be terminated (FAR 49.402-3). Although a government notification is not ideal, the participant understood the value of using the information in the notifications, to gauge and assess the AF's level of satisfaction. Table 11 recaps the results of this question.

Table 11. Interview Question #2

Question 2: open-ended				
Trend #1	CPARS	4		
Trend #2	Meetings	4		
Trend #3	Email	3		
Trend #4	Customer Satisfaction			
	Feedback Tools	1		
Trend #5	Social Media	1		
Trend #6	<b>Government Notifications</b>	1		

# 4. Question #2a: Given the method you have explained, what measurements do you use to assess customer satisfaction?

The intent of this question was to determine what measurements the participants use to assess their customers' level of satisfaction. This open-ended question allowed the participants to share which measurements, if any, their companies use to determine if their customers are satisfied. From this question, four trends were identified. The trends were Objective, Subjective, Based on the Contract, and No Formal Measurements. The list in Table 12 displays the results.

Table 12. Interview Question #2a

Question 2a: open-ended			
Trend #1	Objective	2	
Trend #2	Subjective	2	
Trend #3	Based on the Contract	2	
Trend #4	No Formal Measurements	2	

The first trend, identified by two participants, was Objective. Objective referred to the type of measurements the participants used to assess customer satisfaction. Based on the participants' responses, objective measurements included factors like, quality of product, business relations, key personnel and accuracy of invoice. These measurements allowed the participants to develop concrete data about their customers' experiences, which are then used to develop customer satisfaction metrics.

The second trend, identified by two participants was Subjective. Subjective referred to measurements that were qualitative in nature and allowed the customers to respond to a series of open-ended questions. These measurements allowed the participants' customers to provide narrative information about their customer satisfaction experiences while allowing the participants to gather detailed and specific information from their customers. The participants, who identified the Objective and Subjective trends, used a combination of both measurements to gain a comprehensive understanding of their customers' experiences.

The third trend, Based on the Contract, was identified by two participants. This set of measurements was not derived from the participants; rather, they were given to the participants through the requirements of a contract. For example, the participants may have a contract that requires a monthly report on specific metrics outlined in the contract. As opposed to creating another set of measurement to assess customer satisfaction, these participants elect to use their contract established metrics. This allows the participants to received performance and customer satisfaction feedback regularly.

The last trend, No Formal Measurements, was used by two participants. No Formal Measurements referred to the participants who did not have formal measurements for assessing customer satisfaction; rather, they focused on establishing frequent communication with their customers. These participants did not have defined customer satisfaction metrics or a specific list of questions for their customers to answer. According to the participants, constant communication with the customer was the priority and objective of this trend.

## 5. Question #2b: How does your company implement customer satisfaction feedback?

The purpose of this question was to assess how the participants implement the customer satisfaction feedback they receive. This question was open-ended and encouraged the participants to share the different techniques and methods they use, when implementing customer satisfaction feedback. From this question there were four trends identified. The four trends were: Address Immediately, Change Processes, Management Team Review and Plan of Action. The following paragraphs provide further explanations about each trend.

The first trend, mentioned by three participants was Address Immediately. Address Immediately, referred to the participants taking immediate actions to correct or remedy any negative customer satisfaction feedback they received. As often as feasible, the participants preferred to use this mode of implementation, because it shows the participants' customers that their concerns are a priority. The participants believe customer satisfaction affects future business, which is one reason they strive to address customer satisfaction issues immediately.

The second trend was discussed by two participants, and their method for implementing customer satisfaction feedback was to Change Processes. Change Processes was the participants' ability to adjust their company's processes to better accommodate their customers. The Change Processes method of implementation allowed the participants to improve their processes to better align with their customers' needs. An example of a processes improvement was sending out text messages and emails to

customers as reminders when an event requiring their action was approaching. The reminders were a result of the feedback a participant had received.

The next trend, Management Team Review, was used by one participant. Management Team Review was the process the participant's company's management team used to implement customer satisfaction feedback. The management team would review all the customer satisfaction feedback and strategically determine which processes to improve, and/or which actions to take, to address the customer satisfaction feedback they received.

The fourth and final trend was Plan of Action. Plan of Action was used by one participant, and was the company's formal process for addressing negative customer satisfaction feedback. This method of implementation required the participant to supply their customers with a plan addressing the customers' concerns and how the company intended to correct them. Table 13 recaps the aforementioned information.

Table 13. Interview Question #2b

Question 2b: open-ended		
Trend #1	Address Immediately	3
Trend #2	Change Processes	2
Trend #3	Management Team Review	1
Trend #4	Plan of Action	1

# 6. Question #2c: How does your company keep track of customer satisfaction once feedback has been received?

This question was created to gather insight into how the participants track the customer satisfaction feedback they received. The participants were asked to explain their procedures and methods for capturing and monitoring customer satisfaction data. From this question, four trends emerged. The four trends were File/Database, Program Reviews, Business Department/PM's, and No Formal Method. The paragraphs below, further explain the four trends.

The first trend, mentioned by two participants, was File/Database. The participants used web-based databases to file and track their customer satisfaction feedback. The database was used not only to track, but also manage, customer satisfaction information. It was also a system that congregated customer satisfaction data from multiple streams of input, and consolidated it into digestible information. This allowed the participants to quickly ascertain the status of all pending actions relating to their customers' satisfaction. One participant used their database to incorporate their quality metrics and CPARS information as well.

The second trend was Program Reviews. Two participants used this method to track their customer satisfaction feedback. Program Reviews were conducted periodically and involved reviewing the status of an entire program, to include customer satisfaction data. During these reviews, the company's leadership would assess the customer satisfaction feedback, to determine if it could be implemented and the best method for implementation.

The third trend, mentioned by two participants, was Business Department/PMs. The Business Department/PMs were responsible for tracking and monitoring customer satisfaction feedback. The participants' business departments would analyze and prepare the customer satisfaction information for review. This information was then used during company meetings to look for ways to improve.

The fourth and final trend, No Formal Method, was used by two participants. No Formal Method refers to the participants who did not have a formal, internally derived, system established for tracking customer satisfaction data. Alternately, the participants would use the parameters of a contract to track customer satisfaction, because some of their contracts required them to provide monthly status updates. Another non-formal method of tracking customer satisfaction feedback was to simply use PMs to interface with the customers. The PMs are responsible for oversight of an entire program, and ensuring the customers are satisfied is part of that responsibility. Table 14 recaps the results of this question.

Table 14. Interview Question #2c

Question 2c: open-ended		
Trend #1	File/Database	2
Trend #2	Program Reviews	2
Trend #3	Business Department/ PM's	2
Trend #4	No Formal Method	2

## 7. Question #3: How often do you collect customer satisfaction data?

The purpose of this question was to identify how frequently the participants collected customer satisfaction information. The participants were asked to share how often they collected customer satisfaction information from both their internal and external customers. Generally, the participants' responses to this question were associated with the methods their company used to assess customer satisfaction (reference Question #2). For example, for a participant who assessed customer satisfaction through CPARS, his/her response to this question would be "annually." From this question there were four identifiable trends: Quarterly, Annually, Monthly and Other.

The first trend was Quarterly. There were three participants who collected customer satisfaction data at this frequency. Two participants collected customer satisfaction information Annually and Monthly, for the second and third trends, respectively. Lastly, the fourth trend, Other, was used by one participant. The Other category consisted of collecting customer satisfaction at frequencies that ranged from daily to several times per week. Table 15 recaps the participants' responses.

Table 15. Interview Question #3

Question 3: open-ended			
Trend #1	Quarterly	3	
Trend #2	Annually	2	
Trend #3	Monthly	2	
Trend #4	Other	1	

## 8. Question #3a: Is there a reason for this frequency?

This question was a follow-up to the previous question, and sought to better understand the reason the participants collected customer satisfaction feedback, at the selected frequency. The participants' responses varied and were often associated with their methods for assessing customer satisfaction (reference Question #2). There were a few commonalities amongst the participants: Proactivity, Business Model, Increased Communication, and Contract Mandate. These trends are further explained in the ensuing paragraphs.

Proactivity was the first trend and it was identified by two participants. Proactivity referred to the participants' desire to be proactive in their interactions with their customers. The participants believed being proactive and anticipating problems before they manifest was important to their customers, therefore, the participants selected customer satisfaction frequencies that enabled them to engage with their customers regularly.

Business Model was the second trend and it was mentioned by two participants. These participants selected their frequencies based on their companies' business models. Their companies' business models dictated the frequency for collecting customer satisfaction data by encouraging regular communication with their customers, and fostering a corporate environment that emphasized every customer concern, no matter how small, was important. In pursuit of satisfying their organizations' business models, the participants aligned the frequency for collecting customer satisfaction information with their organizations' business practices.

The third trend was Increased Communication. Increased Communication was identified by two participants and was the reason they collected customer satisfaction data at the frequency they selected. The participants believed the frequency of collecting customer satisfaction data facilitated more communication and interaction with their customers. Through the increase in communication, the participants became more aware and understanding their customers' needs.

The fourth and last trend, Contract Mandate, was mentioned by one participant. This participant used the specifications and mandates within their contracts to determine how frequently they gathered customer satisfaction information. Table 16 summarizes the participants' responses.

Table 16. Interview Question #3a

Question 3a: open-ended			
Trend #1	Proactivity	2	
Trend #2	Business Model	2	
Trend #3	Increased Communication	2	
Trend #4	Contract Mandate	1	

# 9. Question #4: At what level does your company collect feedback from your internal and external customers?

The intent of this question was to determine the level at which the participants collected customer satisfaction feedback from both their internal and external customers. This question was closed-ended and provided the participants with five options. The options were Supervisory Level, Manager Level, Customer Level, Per Transaction Level, and Other.

The Supervisory Level referred to collecting customer satisfaction feedback from senior leadership, supervisors and/or upper level management, while the Manager Level was focused on collecting feedback from mid-tier managers. The Customer Level looked at collect feedback from the actual customer or end user of the product or service. The fourth option was Per Transaction Level, which focused on collecting customer

satisfaction information at the conclusion of every transaction between the company and their customers. The Other category allowed the participants to submit any additional levels they deemed pertinent. The participants' responses were separated into Question #4a and Question #4b to distinguish between their internal and external customers, respectively. The next two sections report the findings from this question.

## 10. Question #4a: If you collect internal customer satisfaction according to question 1a:

This question is a subset of Question #4, and first instructed the participants to recall the definition of an internal customer, found in Question #1a. Based on the participants' response to Question #1a, they selected (from the options given for this question) those options that best reflected the level of feedback they collect from their internal customers. All participants' response to Question #1a was affirmative, in favor of collecting internal customer satisfaction feedback; therefore, all participants provided a response to this question.

Four participants collected customer satisfaction feedback at both the Supervisory Level and Manager Level. All five participants collected feedback at the Customer Level, and three participants gathered feedback at the Per Transaction Level. There were no participants who selected Other as an option. A majority of participants selected multiple options and commented that collecting customer satisfaction feedback was easier at certain levels. Although the ease of collecting feedback varied, most of the participants found value in collecting feedback at multiple levels. See Table 17 for a summary of the participants' responses.

Table 17. Interview Question #4a

Question 4a: closed-e	nded
Supervisory Level	4
Manager Level	4
Customer Level	5
Per Transaction Level	3
Other	0

## 11. Question 4b: If you collect external customer satisfaction according to question 1a:

This question is a subset of Question #4, and first instructed the participants to recall the definition of an external customer, found in Question #1a. Based on the participants' response to Question #1a, they selected (from the options given for this question) those options that best reflected the level of feedback they collect from their external customers. All participants' response to Question #1a was affirmative, in favor of collecting external customer satisfaction feedback; therefore, all participants provided a response to this question.

There were three participants who collected feedback at the Supervisory Level while four participants collected customer satisfaction feedback at both, the Manager Level and Customer Level. Three participants gathered feedback at the Per Transaction Level and there were no participants who selected Other as an option. A majority of participants selected multiple options, which gave them a comprehensive understanding of their customers' experiences. Table 18 provides a summary of the participants' responses.

Table 18. Interview Question #4b

Question 4b: closed-e	nded
Supervisory Level	3
Manager Level	4
Customer Level	4
Per Transaction Level	3
Other	0
other	·

## 12. Question #5: Thinking about your experiences when working with AF Contracting, what factors affected your satisfaction?

The purpose of this question was to determine which factors affected the participants' satisfaction. This open-ended question was designed for the participants to reflect on their experiences working with AF Contracting, and deduce which factors affected their level of satisfaction. The participants provided multiple responses to this question. Their responses were combined into four trends. The trends were CO Responsiveness/Communication, AF Contracting Processes, Partnership, and Varied Contract Preparation Procedures. A few of the trends introduced contracting specific topics that have not previously been discussed; these topics will be explained within the context of the trend they support.

CO Responsiveness/Communication was the first trend identified by four participants. This factor was very important to the participants and included aspects like, the CO's ability to quickly respond to the participants' inquiries, and the CO's availability to address their concerns. For one participant, responsiveness also pertained to the CORs. The COR's ability to quickly respond and engage with the participant affected their level of satisfaction. CO Responsiveness/Communication also encompassed the CO's efforts to communicate with the participants. Communication expectations of the CO spanned from clarifications about the contracts requirements, to providing specific and detailed feedback throughout the entire life of the contract.

The second trend, AF Contracting Processes, was mentioned by three participants. AF Contracting Processes was comprised of four main aspects. The first aspect was the contracts source selection approach. According to the FAR, source selection approaches vary along on a best value continuum, from Lowest Price Technically Acceptable (LPTA) to Tradeoffs (FAR 15.101). Per FAR 15.101-2 (a), "The lowest price technically acceptable source selection process is appropriate when best value is expected to result from selection of the technically acceptable proposal with the lowest evaluated price."

Traditionally, LPTA is used for non-complex requirements, where technical capabilities are not valued more important than price. A source selection approach is chosen prior to a contract being put out for bid, and governs the evaluation process of those bids. Upon completion of the evaluation process, the apparent winner of the contract is identified and subsequently awarded the contract (pending any discrepancies with the evaluation). The factor affecting the participants was the use of a source selection approach that did not appear to reflect the complexity and uniqueness of the requirement. For example, a requirement may be very complex, require high knowledge and specialization, but the source selection approach used was LPTA. While this decision resides with the CO and the acquisition team, LPTA does not permit tradeoffs, meaning a proposal receiving a high technical rating but is also higher in price, has a significantly lower chance of winning the contract. The inconsistency between the requirement and the source selection approach adversely affected the participants' satisfaction.

The second aspect of the AF Contracting Processes trend was accuracy. Accuracy referred to the accuracy of the documents in a contract. Contracts that required several modifications to correct presumably simple errors or inaccurate specifications affected the participants' satisfaction. The third aspect was execution of contract actions. This aspect pertained to the time spent waiting for contract actions to be executed. AF Contracting is responsible for issuing contract actions ranging from a contract award to a contract modification. Subsequently, there may be times when these actions take more time to process than the participants expect. The final aspect of the AF Contracting Processes trend was flexibility of contract metrics. This aspect pertained specifically to service contracts that require contractors to regularly submit the status of contract-

specific metrics. The participants' satisfaction was affected by this trend because, they have little to no input on the metrics they are required to report, and the metrics are only quantitative which limits their ability to fully explain their reports.

Partnership, the third trend, was identified by three participants. Partnership referred to the relationship between the participants and AF Contracting, and AF Contracting and their external customers. The participants' satisfaction was positively affected when they felt the relationship between their company and AF Contracting resembled a partnership, where teamwork was the method for resolving contract issues. The relationship between the participants and AF Contracting was very important, but the relationship between AF Contracting and their external customers was equally important, from the participants' perspective. The participants took notice of instances where the relationship between AF Contracting and their external customers was rocky. The discord that was bred from those relationships put the participants in a difficult situation, where they felt they had to please both parties. Based on the participants' feedback, partnerships greatly affected their satisfaction.

The fourth and final trend was Varied Contract Preparation Procedures. This trend was identified by one participant who took notice of the variance, across several AF bases, in the procedures for preparing contractors to begin working on a services contract. For example, contractors who will be working on an AF base will need to obtain security credentials before they can begin working. At some bases, the CO and security manager allow the contractors to start working while completing the credentialing process, but other bases require the contractors to wait until the entire process is complete. The security processing time can take days or even weeks, which results in a contractor's inability to provide their service. The participants' satisfaction was negatively affected by the inconsistency of the procedures for preparing a contractor to work. Table 19 recaps the participants' responses to this interview question.

Table 19. Interview Question # 5

Question 5	: open-ended	
Trend #1	CO Responsiveness/Communication	4
Trend #2	AF Contracting Processes	3
Trend #3	Partnership	3
Trend #4	Varied Contract Preparation Procedures	1

# 13. Question #6: Concerning your experiences with AF Contracting, please rate how important it would be for you to be able to submit feedback in the following areas, where 1 = No importance and 5 = Very important.

This closed-ended question was created to determine the areas where participants would like to provide feedback to AF Contracting. The participants were asked to reflect on their experiences working with AF Contracting, and rate a list of nine possible feedback areas. The following rating system was provided to the participants: 1 equaled No Importance, 2 equaled Little Importance, 3 equaled Slightly Important, 4 equaled Important, and 5 equaled Very Important. This rating system was applied to all nine possible feedback areas. The nine feedback areas were: (1) Contracting Officer (CO) Expertise, (2) CO Responsiveness, (3) CO Innovation, (4) CO Timeliness, (5) CO Communication, (6) CO Proactivity, (7) CO Availability, (8) Contracting Office's Solicitation Processes, and (9) Contracting Office's Administration Processes. The participants were also given the option to suggest Other feedback areas that were not on the original list. Each of these feedback areas was thoroughly defined and explained in Question #4 of the External Customers Results; therefore, this question will not delve into specific details about the feedback areas.

Table 20 depicts the results of the participants' responses. The first column of the table lists the nine feedback areas as they were presented to the participants (note: the tenth area is "Other"). The third row lists numbers from one to five. These numbers represent a rank position from 1 (No Importance) through 5 (Very Important). Each feedback area (counting across the rows) totals five responses, and the numerical values within the cells represent the number of participants who gave the feedback area a

particular rank. The data within the matrix is further explained in the following paragraphs.

Table 20. Interview Question # 6

Question 6: closed-ended					
	Ranking	gs (1-No Im	portance to	5-Very Imp	ortant)
	1	2	3	4	5
Contracting Officer					
(CO) Expertise			1	1	3
CO Responsiveness					5
CO Innovation		1	1	2	1
CO Timeliness				1	4
CO Communication				2	3
CO Proactivity				2	3
CO Availability			1	1	3
Contracting Office's Solicitation Processes				1	4
				1	4
Contracting Office's Administration					
Processes		1		1	3
Other					1

Based on the participants' responses, CO Responsiveness was the only feedback area where all five participants ranked it 5, Very Important. CO Expertise was given three different ranks. One participant ranked it a 3 another participant ranked it a 4 and the remaining three participants gave it a rank of 5. Next, CO Innovation rankings were dispersed between a rank of 2 and a rank of 5. One participant ranked CO Innovation as a 2, another participant ranked it a 3, while two participants gave it a rank of 4 and one participant ranked it a 5. The next feedback area was CO Timeliness. CO Timeliness was given a rank of 4 by one participant, and a rank of 5 by four participants.

CO Communication and CO Proactivity both received the same rank dispersion where two participants gave them a rank of 4, while three participants ranked them a 5. The next feedback area was CO Availability. CO Availability was given a rank of 1 by

one participant, a rank of 4 by one participant, and a rank of 5 by three participants. The two remaining feedback areas were focused on AF Contracting's processes. The Contracting Office's Solicitation Processes was given a rank of 4 by one participant while the remaining four participants ranked it a 5. The Contracting Office's Administration Processes, was ranked 2 by one participant, 4 by one participant, and 5 by three participants. Lastly, there was one participant who suggested an additional feedback area. The suggested feedback area was COR Capability. The participant emphasized the value that the COR brings to the contracting process. The participant provided multiple instances where good COR interaction made contract administration much smoother than a contract without a COR or a disengaged COR. The participant gave COR Capability a rank of 5.

## 14. Question #7: Concerning AF Contracting, what method of giving feedback is preferred? Please rank from most preferred (1) to least preferred (7)

This exact question was also asked to AF Contracting's external customers (see Question #6 of the External Customers Results). The purpose of this question was to understand the participants' preferences for giving customer satisfaction feedback to AF Contracting. The participants were provided a list of six feedback methods. The six feedback methods were, Online Survey, Handwritten Survey, Comment Card, Telephone Interview, In-person Interview, and Online Interview. The list of methods was merely created to identify a variety of options that were practical and able to be implemented within the AF. The customers were able to suggest, Other methods, and rank them accordingly. This question required the participants to rank each method from highest to lowest preference. The following rank system was used; the most preferred method was given a 1, while the least preferred method was given a 7. Each feedback method was thoroughly defined and explained in Question #6 of the External Customers Results; therefore, this question will not delve into specific details about the feedback methods.

Table 21 depicts the results of the participants' responses The first column of the table lists the six methods, as they were presented to the participants (note: the seventh method is "Other"). The third row lists numbers from one to seven. These numbers

represent a rank position where 1 was most preferred and 7 was least preferred. Since the participants did not provide suggestions for a seventh method, the least preferred rank position defaulted to 6. This explains the absence of any numbers under rank position 7. Each rank position (counting down the columns) and each method (counting across the rows) totaled five responses. The data within the matrix is further explained in the following paragraphs.

Table 21. Interview Question # 7

Question 7: closed-ended							
		Ranking	s (1-most p	refered to	7-least pre	efered)	
	1	2	3	4	5	6	7
Online Survey			1	3		1	
Handwritten Survey		1			4		
Comment Card			1	2		2	
Telephone Interview	1	3				1	
In-person Interview	4					1	
Online Interview		1	3		1		
Other							

Based on the participants' responses, Telephone Interview and In-person Interview were the only methods to receive a rank of 1. In-person Interview impressively captured four participant responses while Telephone Interview was preferred by one participant. There were three methods that received a rank of 2. The three methods were Handwritten Survey, Telephone Interview, and Online Interview. Both Handwritten Survey and Online Interview were supported by one participant, while Telephone Interview was preferred by three participants. Rank position 3 included three methods, Online Survey, Comment Card, and Online Interview. Both Online Survey and Comment card were preferred by one participant and Online Interview was preferred by three participants.

Online Survey and Comment Card received a rank of 4. Online Survey was supported by three participants and Command Card was supported by two participants. There were two methods that received a rank of 5. The two methods were Handwritten Survey and Online Interview, where Handwritten Survey was preferred by four

participants and Online Interview was preferred by one participant. Lastly, there were four different methods that received a rank of 6. The four methods were Online Survey, Commend Card, Telephone interview, and In-person Interview. For two participants, the Comment Card was least preferred, and Online Survey, Telephone Interview, and In-person Interview were each least preferred by one participant. The participant who ranked In-person Interview as least preferred explained the reason for giving it a low ranking was because they are geographically separated from a majority of their customers, which makes In-person Interviews very impractical. If there was not a large geographic separation from their customers, then In-person Interviews would be given a higher ranking.

## 15. Question #8: In what ways does your company believe AF Contracting could improve customer satisfaction?

This exact question was also asked to AF Contracting's external customers (see Question #7 of the External Customers Results). The purpose of this question was to identify what adjustments AF Contracting could make, to improve their customers' satisfaction. This question was open-ended, which allowed the participants to freely share their perspectives. A majority of the participants' responses to this question were directly linked to the factors that affected their satisfaction (reference Question #5 of the Internal Customer Results). The overall consensus was that; AF Contracting could improve customer satisfaction addressing the factors that affected the participants' satisfaction. Considering this, there were four trends that were highlighted again in this question. These trends were, Better Feedback, Metrics, Communication, and Variance in Contract Procedures. These trends have the same undertones as the responses in Question #5, and will be further explained in the subsequent paragraphs.

The first trend, Better Feedback, was mentioned by two participants. Better Feedback referred specifically to the feedback given to the participants during their interactions with COs and CORs while the contract is in progress (i.e., the contract administration phase). Based on the participants' responses, they try to engage with the COs and CORs to gather feedback about their performance, but they are often given general feedback, if any at all. The participants value the feedback from the COs and

CORs, but the feedback needs to be more detailed. Thorough feedback allows the participants to identify problems and make corrections as quickly as possible.

The second trend was Metrics. Metrics was mentioned by one participant and referred to the rigidity of the metrics provided in the contract. The participant acknowledged the need for metrics, but the contention surfaced when the performance of the contractor is solely linked to metrics that do not provide AF Contracting with a holistic view of the contractors' status. From the participant's response, the metrics within a contract are typically all quantitative measures, but there are instances when qualitative metrics would provide a clearer understanding of what is actually happening. AF Contracting could improve the participant's satisfaction by permitting some flexibility for the participant to give input to, or provide feedback on, the metrics.

The third trend, Communication, was identified by two participants. Communication was viewed very similarly to the responses found in Question #5. For the participants, communication activities spanned a full spectrum of varying expectations. A few of these expectations were returning phone calls and emails or sharing the status of a modification to fix an oversight in the contract's PWS. The participants believed improving communication would increase their satisfaction.

The fourth and final trend was Varied Contract Preparation Procedures. This trend was mentioned by one participant, and expressed their frustration with the inconsistency of the procedures for preparing contractors to begin working on a service-type contract. The participant's explanation of this trend was nearly the same as the participants' response in Question #5. The participants from this question and Question #5 shared similar experiences, and were both dissatisfied with the process. The participant believed that addressing these inconsistencies would improve his/her company's satisfaction. Table 22 summarizes of the participants' responses.

Table 22. Interview Question # 8

Question 8	: open-ended	
Trend #1	Better Feedback	2
Trend #2	Metrics	1
Trend #3	Communication	2
Trend #4	Varied Contract Preparation Procedures	1

## 16. Question #9: Concerning AF Contracting, provide an example of one good and one bad experience and explain why it was good or bad.

This same question was also asked of AF Contracting's external customers (reference Question #8 of the External Customers Results). The purpose of this question was to gain further insight into what customers' experience when working with AF Contracting. This question requested the participants to reflect on previous interactions with AF Contracting, and select one good and one bad experience. Once an experience was identified, the participants were asked to describe the experience, and state why it was either good or bad. From the participants' good experiences there were four trends identified. The four trends were: Partnership, Communication, CO Responsiveness, and Metrics. From the participants' bad experiences there were three trends identified. The three trends were Communication, CO Unresponsive, and Partnership. The trends from both the good and bad experiences will be explained in further detail, in the paragraphs below.

#### a. Good Experiences

The participants' good experiences resulted in four trends. The first trend was Partnership and was identified by two participants. The participants' good experiences related to Partnership were characterized by the relationship between AF Contracting and the participants. Both participants identified specific situations where working as a team resulted in successfully meeting the objectives of the contract and accomplishing the mission. One participant's example of Partnership took place shortly after they were awarded a contract. The participant's company was geographically separated from the AF

base they were supporting, and they were in need of a local site to prepare their workers. AF Contracting was accommodating, and allowed the participant's company to use space in the contracting office to prepare their workers. To the participant, this signaled AF Contracting's willingness to partner and work together, to ensure the workers were ready to perform at the onset of the contract.

The second trend, Communication, was mentioned by one participant. Previous participant responses to Question #5 and Question #8, revealed Communication expectations vary across multiple aspects. In this particular situation, the participant was referencing their communication with a COR. The COR was very engaged and frequently communicated with the participant. The COR also provided detailed feedback and was fair in her assessment of the participant's company's performance on their contract. The communication between the COR and the customer made the contract run very smoothly, from the participant's perspective.

The third trend was CO Responsiveness. CO Responsiveness was mentioned by one participant, and referred to the CO's ability to be approachable, responsive, and understanding of the customers' needs. The participant had a very good experience with a CO who responded quickly to inquiries, and was easy to work with.

The fourth and final trend, Metrics, was identified by one participant. Metrics, referred to the performance measurements in a contract that the participant had been awarded. The participant appreciated the metrics because they provided guidance on the performance expectations of the contract.

#### b. Bad Experiences

From the participants' bad experiences three trends were identified. The first trend was Communication. While Communication has been referenced multiple times throughout the external and internal customer results, the two participants who mentioned this trend had bad communication experiences with their COs. An example of a bad communication experience for one of the participants involved receiving an LOC and negative feedback on CPARS after believing they had addressed the CO's and COR's concerns. Despite the participant's continued efforts to communicate with the CO and

COR throughout the span of the contract, the participant was unable to get the feedback they needed to ensure they were making proper adjustments. Both participants expressed frustration with the lack of communication they experienced when working with AF Contracting.

The second trend, CO Unresponsive, was mentioned by one participant. CO Unresponsive referred to the participant's interaction and communication with a CO during important contract matters. According to the participant, the CO was very slow in responding to the participant's questions, executing contract actions, and issuing contract modifications. For example, COs are responsible for issuing a notification letter telling the contractor that the government intends to exercise an option on the contract. According to the FAR, an option is defined as "a unilateral right in a contract by which, for a specified time, the Government may elect to purchase additional supplies or services called for by the contract, or may elect to extend the term of the contract" (FAR 2.101). Essentially, the government has the right to extend a contract for a specified period of time, typically a year.

Once the government has conducted research, and determined extending the contract is in the best interest of the government, the CO will modify the contract to extend the term of the contract; this is called exercising an option. Prior to exercising an option, the CO will give the contractor a preliminary notification of the government's intent to extend the contract. This notification is typically provided to the contractors sixty days before the contract's expiration (FAR 52.217-9). According to the participant, the CO did not issue a preliminary notification, and was unresponsive to the participant's request for an update, regarding whether or not the contract was going to be extended. This put the participant in a very difficult situation with his/her employees, because they were unable to let them know if they would have a job once the current contract term was complete.

The third and final trend was Partnership. Partnership was a bad experience for one participant, who recalled multiple situations where a lack of teamwork made it difficult to execute the contract. Based on the participant's response, when the contractor and the government do not work together, it becomes increasingly more difficult to meet

the needs of the mission. The more the contractor and the government can work as a team, the better the chances are of successfully achieving the contract's objectives. Table 23 summarizes the participants' responses to this question.

Table 23. Interview Question # 9

Question	9: open-ended				
	Good Experience			Bad Experience	
Trend #1	Partnership	2	Trend #1	Communication	2
Trend #2	Communication	1	Trend #2	CO Unresponsive	1
Trend #3	CO Responsiveness	1	Trend #3	Partnership	1
Trend #4	Metrics	1			·

#### 17. Question #10: Please share any other comments.

The intent of this question was to allow the participants to share any additional information that had not previously been mentioned during the interview. This was also an opportunity for the participants to share or expound upon any aspects of the interview that were not adequately covered. Three participants shared additional comments. These comments rehashed many of the concepts that were previously mentioned by other participants. One participant suggested an industry day where the contractors could provide inputs on how AF Contracting could improve their customer satisfaction. Another participant was happy that customer satisfaction was being addressed and input was being sought from the contractors.

#### D. SUMMARY

This chapter captured the results of the external and internal customers' interviews. The chapter begins with a brief description of the participants' demographics. The external customer participants were a mix of military and civilian, while the internal customer participants were each in leadership positions within their company. Following the description of the participant demographics, the external customer participant results were revealed. The external customer interview questionnaire consisted of nine questions

all of which were explained in this chapter. Lastly, the participants' responses to the internal customer interview questionnaire, consisting of ten questions, were discussed.

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#### V. CONCLUSION

This chapter concludes this research by first discussing some of the similarities between the external and internal customers' responses. There were six questions that were asked of both the external and internal customers, for the purpose of gathering the same type of information, from different perspectives. Next, the chapter recommends a system for using the information found in this research. Finally, two future research areas are discussed.

#### A. CUSTOMER SIMILARITIES

The external and internal customer satisfaction questionnaires were similarly structured, where six of the questions were created with the objective of discovering the same type of information from two different perspectives. These six questions were applicable to both the external and internal customers, each of whom provided their unique perspectives about the same customer satisfaction components. Table 24 displays consolidated participants' responses.

Table 24. Common Customer Responses

Q- E/I	Common Responses
Q-1/1	Very Valuable
Q-3/5	CO Responsiveness & CO Communication
Q-4/6	CO Timeliness & CO Responsiveness
Q-6/7	In-person Interview & Telephone Interview
Q-7/8	Communication
Q-8/9	Communication & Partnership

The first column shows how the external and internal customer interview questions correspond with each other. The Q stands for question, the E corresponds to the question number on the external customer questionnaire, while the I corresponds to the question number on the internal customer questionnaire. For example, Q-1/1 represents the first question on the external customer questionnaire and the first question on the

internal customer questionnaire. The right column, titled Common Responses, identified the common responses between the external and internal customers for each question. For example, the Common Response of Very Valuable is derived from the external customers' responses to the first question of their interview, and the internal customers' responses to the first question of their interview. Each common response is further explained in the subsequent paragraphs.

The first common customer response was Very Valuable. As previously mentioned, the first question on both the external and internal customer questionnaires asked how much the customers valued customer satisfaction on a scale of 1 to 5, where 1 was No Value and 5 was Very Valuable. Out of a total of ten collective responses, nine selected Very Valuable. Ninety percent of the customers believed customer satisfaction was very valuable to their organizations, thus further emphasizing the need for AF Contracting to develop a mechanism for collecting, evaluating, and strategically implementing customer satisfaction feedback.

The second common response identified two similarities between the customers' responses: CO Responsiveness and CO Communication. These similarities stemmed from the third question of the external customer questionnaire and the fifth question of the internal customer questionnaire, where the questions asked the customers to share which factors determined their level of customer satisfaction. CO Responsiveness and CO Communication were the only two responses that were shared amongst both the external and internal customers. The customers clearly value a CO who is responsive and communicates well. This finding is an opportunity for AF Contracting to implement training for COs, and I would also include CORs, on how to properly communicate with their customers. Whether the mode of communication is email, telephone or in-person, the customers want to have a level of communication and responsiveness that makes them feel they are a part of a team.

The third common response identified two similarities between the customers' responses: CO Timeliness and CO Responsiveness. These similarities were found in the

fourth question of the external customer questionnaire and the sixth question of the internal customer questionnaire, where the questions asked the customers to rate or identify the areas in which they would like to provide feedback. This question was posed slightly differently to each of the customers. External customers were asked to identify the areas where they would like to provide feedback. Internal customers were asked to rate the feedback areas on a scale of 1 to 5, where 1 was No Importance and 5 was Very Important. CO Timeliness and CO Responsiveness emerged as the common customer responses, based on the total number of responses received. Since the internal customers were asked to rate the feedback areas, only the number of responses that were Very Important (receiving a 5) were included in the calculation for determining the areas that received the greatest number of responses.

Based on this calculation method, both CO Timeliness and CO Responsiveness were supported by eight of the possible ten customer responses. CO Timeliness and CO Responsiveness are closely related. CO Timeliness most often refers to the COs quickly providing the documentation needed to execute contract actions, CO Responsiveness is COs efforts to quickly respond to the customers' inquiries about that status of the contract action documents. These findings show that, CO Timeliness and CO Responsiveness are combine to affect customer satisfaction. These feedback areas are distinctly important to the customers, and AF Contracting should expend effort to determine the best practices for addressing them.

The fourth common response identified two similarities between the customers' feedback mechanism responses: In-person Interview and Telephone Interview. These similarities were found in the sixth question of the external customer questionnaire and the seventh question of the internal customer questionnaire, where the questions asked the customers to rank their most preferred methods for giving feedback. From a list of seven options (one option was Other), the external and internal customers ranked the methods 1 through 7, where 1 was most preferred and 7 was least preferred. The customers' responses were widely distributed across the methods, with no strong preference towards one particular method. The In-person interview was the only method to receive external and internal customer responses for the most preferred method, while

the Telephone Interview was the second preferred method by a majority of the customers. Although the customers' responses were widely distributed, AF Contracting should still attempt to engage with customers in an environment that is most conducive for gathering customer satisfaction feedback. The environment will be significantly influenced by the level and frequency with which the information is collected. For example, if AF Contracting elects to gather customer satisfaction feedback annually at the senior leadership level, an in-person or telephone interview is feasible, and provides depth and richness to the feedback.

The fifth common response, Communication, was found in the seventh question of the external customer questionnaire and the eighth question of the internal customer questionnaire. These questions asked the customers to explain, ways AF Contracting could improve their customer satisfaction. Communication, a trend/characteristic that has been identified several times throughout this research, again surfaced as common response for improving AF Contracting's customers' satisfaction. Communication is a broad term that is measured differently by the customers, but engaging with the customers and learning their communication expectations, will supply AF Contracting with the information they need to meet the customers' communication needs. There is simply no better solution for improving communication than to communicate, attentively listen, and strategize the best method for addressing the customers' concerns.

The sixth and final common response identified two similarities between the customers' responses, Communication and Partnership. These similarities were found in the eighth question of the external customer questionnaire and the ninth question of the internal customer questionnaire. The questions asked the customers to share an example of one good and one bad experience they encountered while working with AF Contracting. While the customers were able to recall situations when Communication and Partnership were good, they also recalled situations where their Communication and Partnership expectations were consistently not met. Since Communication and Partnership were both good and bad experiences for the customers, this may indicate a lack of consistency across AF Contracting. Inconsistencies in processes and lack of

internal controls across AF Contracting may be contributing to the variances found in the customers' experiences.

#### B. RECOMMENDATIONS

Based on the results of this research, customer satisfaction is very valuable to AF Contracting's customers, and as such, attention needs to be dedicated towards developing a customer satisfaction system to gather, analyze and strategically implement customer satisfaction feedback. This research recommends a Six-Step Customer Satisfaction System. The customers' responses gathered in this research inform the key activities associated with each step. The objective of the six-step system is to incorporate the findings of this research into a process that can fully realize the benefits of improved customer satisfaction. The six steps are: (1) define customer satisfaction objectives, (2) establish metrics and develop survey instrument, (3) collect/analyze the customer satisfaction information, (4) develop course of action, (5) implementation of chosen course of action, and (6) follow-up. Each step is summarized in Figure 5 and is further explained in the following paragraphs.

The first step is to: define customer satisfaction objectives. The objective of this step is to establish the overall purpose and intent of the customer satisfaction system. This is accomplished through the completion of activities such as determining which level and frequency the feedback will be collected; defining objectives/focus areas for determining organizational success; and allocating responsibility and accountability as a means to oversee the customer satisfaction process. This step lays the foundation for the subsequent steps and AF Contracting must carefully consider the outputs of this step.

The second step is to: establish metrics and develop a survey instrument. The objective of this step is to actually create the tool for collecting customer satisfaction feedback. Results from this research can be used to develop questions pertinent to the areas where customers would like to provide feedback. For example, a few of the areas identified by the customers were CO Responsiveness, CO Timeliness and Communication. From these areas, a potential question might be, "On a scale of, 1 to 5 with 1 being "Not Good" and 5 being "Very Good," how responsive has AF Contracting

been at addressing your concerns and resolving your contracting problems?" Along with developing questions, this step also includes activities such as: determining the metrics to measure the objectives established in Step 1; linking the questions to the metrics; and inputting the question into a survey instrument.

Step 3 is to: collect/analyze the customer satisfaction information. The purpose of this step is to gather the feedback from the customer satisfaction mechanism created in Step 2 and search for trends or exceptional responses from the customers. Once the trends and exceptional responses have been identified, Step 4 seeks to strategize the best options for addressing these responses. Step 4 involves developing courses of action (coa), and a few of the key activities include considering policy, process or personnel adjustments; seeking best practices; and determining the best course of action.

Implementation of chosen course of action is the fifth step and the objective is to decide how the course of action identified in Step 4 should be implemented. This step includes activities such as determining if the course of action will be phased into the contracting process, or if an immediate change is more appropriate, implementing the course of action at the appropriate level.

The sixth and final step is: follow-up. During follow-up a few key activities take place. These activities include periodic review of the implemented customer satisfaction feedback; reviewing the metrics for adjustments; and course correct any customer satisfaction system processes as necessary. Figure 5 summarizes the Six-Step Customer Satisfaction System.

Figure 5. Six-Step Customer Satisfaction System

Step 1  Define Customer Satisfaction Objectives	Define objectives/focus areas for organization success Determine the level customer satisfaction will be collected Determine frequency for collecting feedback Allocate responsibility for accountability and oversight
Step 2 Establish Metrics & Develop Survey Instrument	<ul> <li>Determine metrics required to measure objectives</li> <li>Develop question bank</li> <li>Link questions to metrics/objectives</li> <li>Place questions in survey instrument (e.g., online, paper copies, smartphone app, etc.)</li> </ul>
Step 3  Collect/Analyze the Customer Satisfaction Information	•Implement the survey instrument • Sort and analyze the data •Identify trends
Stan A	
Step 4  Develop Course of Action	Consider policy, process or personnel adjustments Seek best practices Determine best course of action
	• Seek best practices

#### C. FUTURE RESEARCH AREAS

This research is primarily focused on gathering customer satisfaction feedback to assist in identifying pertinent customer satisfaction elements (i.e., customer satisfaction focus area for AF Contracting). Based on the customers' responses, this paper recommends a Six-Step Customer Satisfaction System for gathering, analyzing and strategically implementing customer satisfaction feedback. Naturally, all the outputs and specific details of the system are beyond the scope of this research. Delving deeper into the key activities and defining the outputs of each step is a future area to research. A second and final future research area to consider is using the data gathered in this study to create a customer satisfaction feedback tool. This research could also include pilot testing the tool and suggesting methods for implementing the feedback obtained.

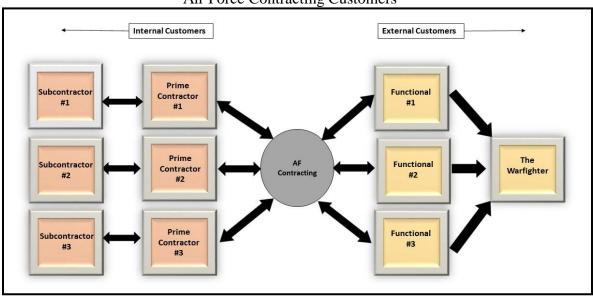
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## APPENDIX A: EXTERNAL CUSTOMER QUESTIONNAIRE

External Customer	Question #1				
	1) On a scale of 1- 5 with 1 being "No value" and 5 being "Very valuable,"				
	e is customer satisfaction to your unit?	•			
	ue (2) Little value (3) Slightly valuable (4)	Valuable (5) Very			
valuable					
2) D		-l- 44l			
•	rrently provide customer satisfaction feedba	ck to other service			
functions: If	so, in what manner?				
Customer R	esponse:				
	2a) Do you currently collect customer satisfa	action feedback? If			
	you do collect customer satisfaction feedback	k, how?			
	Customer Response:				
<b>2) 117</b>					
3) When wo	arking with A.E. Cantracting what datarmi	ines vour level of			
	orking with AF Contracting, what determi	ines your level or			
satisfaction?	ming with Ar Contracting, what determine	ines your rever or			
	orking with AP Contracting, what determine	mes your rever or			
	Ming with AP Contracting, what determine	ines your rever or			
satisfaction?					
satisfaction?	ng AF Contracting, in what areas would				
satisfaction?  4) Concerni	ng AF Contracting, in what areas would				
satisfaction?  4) Concerni					
satisfaction?  4) Concerni	ng AF Contracting, in what areas would  Contracting Officer (CO) Expertise				
satisfaction?  4) Concerni	ng AF Contracting, in what areas would  Contracting Officer (CO) Expertise  CO Responsiveness				
satisfaction?  4) Concerni	ng AF Contracting, in what areas would  Contracting Officer (CO) Expertise  CO Responsiveness  CO Innovation  CO Timeliness				
satisfaction?  4) Concerni	ng AF Contracting, in what areas would  Contracting Officer (CO) Expertise  CO Responsiveness  CO Innovation				
satisfaction?  4) Concerni	ng AF Contracting, in what areas would  Contracting Officer (CO) Expertise  CO Responsiveness  CO Innovation  CO Timeliness  CO Communication-the underlying issue				
satisfaction?  4) Concerni	ng AF Contracting, in what areas would  Contracting Officer (CO) Expertise  CO Responsiveness  CO Innovation  CO Timeliness  CO Communication-the underlying issue  CO Proactivity  CO Availability				
satisfaction?  4) Concerni	Contracting Officer (CO) Expertise CO Responsiveness CO Innovation CO Timeliness CO Communication-the underlying issue CO Proactivity CO Availability Contracting Office's solicitation processes				
satisfaction?  4) Concerni	ng AF Contracting, in what areas would  Contracting Officer (CO) Expertise  CO Responsiveness  CO Innovation  CO Timeliness  CO Communication-the underlying issue  CO Proactivity  CO Availability				
satisfaction?  4) Concerni	Contracting Officer (CO) Expertise CO Responsiveness CO Innovation CO Timeliness CO Communication-the underlying issue CO Proactivity CO Availability Contracting Office's solicitation processes Contracting Office's administration processes				
satisfaction?  4) Concerni	Contracting Officer (CO) Expertise CO Responsiveness CO Innovation CO Timeliness CO Communication-the underlying issue CO Proactivity CO Availability Contracting Office's solicitation processes Contracting Office's administration processes Contracting Office's award processes				

	Annually	
	Semi-annually	
	Quarterly	
	,	
	Every contract action	
	Other:	
() Concer	rning AF Contracting, what method of	aiving foodback is profor
	nk from most preferred (1) to least pre	_
. icase i a	ink from most preferred (1) to least pre	cicirca (1).
	Online survey	
	Handwritten survey	
	Comment card	
	Telephone interview	
	In-person interview	
	Online interview	
	Other:	
	_ CHICI.	
/) In who		customer satisfaction?
7) In wha	at ways could AF Contracting improve	customer satisfaction?
3) Conce		
3) Concer experience	rning AF Contracting, provide an example and explain why it was good or bad.	
3) Concer experience	rning AF Contracting, provide an example and explain why it was good or bad.	
3) Concer experience Good Ex	rning AF Contracting, provide an example and explain why it was good or bad.	
B) Concer experience Good Ex Bad Exp	rning AF Contracting, provide an example and explain why it was good or bad.	
Good ExBad Exp	rning AF Contracting, provide an example and explain why it was good or bad.  Experience: Descrience: Share any other comments.	
Good ExBad Exp	rning AF Contracting, provide an example and explain why it was good or bad.  Experience:	
Good ExBad Exp	rning AF Contracting, provide an example and explain why it was good or bad.  Experience: Descrience: Share any other comments.	
Good ExBad Exp	rning AF Contracting, provide an example and explain why it was good or bad.  Experience: Descrience: Share any other comments.	
Good ExBad Exp	rning AF Contracting, provide an example and explain why it was good or bad.  Experience: Descrience: Share any other comments.	
Good ExBad Exp	rning AF Contracting, provide an example and explain why it was good or bad.  Experience: Descrience: Share any other comments.	

Air Force Contracting Customers



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### APPENDIX B: INTERNAL CUSTOMER QUESTIONNAIRE

al Customer I	nterview Questions
	e of 1-5 with 1 being "No value" and 5 being "Very valuable,"
how valuable	is customer satisfaction to your company?
(1) No value	(2) Little value (3) Slightly valuable (4) Valuable (5) Very valuable
	1a) A customer is defined as "anyone who is affected by the product or by the process used to produce the product." Specifically, external customers are those who are "affected by the product/service" whereas internal customers are "affected by the process used to produce the product/service." Who do you seek feedback from? External customers, Internal customers or both?
2) What me customer sati	thod/methods is/are your company currently using to assess sfaction?
Customer Re	esponse:
	2a) Given the method you have explained, what measurements do you use to assess customer satisfaction?
	Customer Response:
	2b) How does your company implement customer satisfaction feedback?
	Customer Response:
·	2c) How does your company keep track of customer satisfaction once feedback has been received?
	Customer Response:
3) How often	do you collect customer satisfaction data?
Customer Re	esponse:
	3a) Is there a reason for this frequency?
	Customer Response:

4) At what level does your	company	collect feedback	k from	your	internal	and
external customers?						

4a) If you collect internal customer satisfaction according to question 1a:

Supervisory level	
Manager level	
Customer level	
Per transaction level	
Other:	

4b) If you collect external customer satisfaction according to question 1a:

Supervisory level	
Manager level	
Customer level	
Per transaction level	
Other:	

5) Thinking about your experiences when working with AF Contracting, what factors affected your satisfaction?

Carataman	D
Customer	Response:

6) Concerning your experiences with AF Contracting, please rate how important it would be for you to be able to submit feedback in the following areas, where 1 = No importance and 5 = Very important.

(1) No importance (2) Little importance (3) Slightly important (4) Important (5) Very important

Contracting Officer (CO) Expertise	
CO Responsiveness	
CO Innovation	
CO Timeliness	
CO Communication	
CO Proactivity	
CO Availability	
Contracting Office's solicitation processes	
Contracting Office's administration processes	
Other:	

7) Concerning AF Contracting, what method of giving feedback is preferred? Please rank from most preferred (1) to least preferred (7).

Online survey	
Handwritten survey	
Comment card	
Telephone interview	
In-person interview	
Online interview	
Other:	

8) In what ways does your company believe AF Contracting could improve customer satisfaction?

```
Customer Response:
```

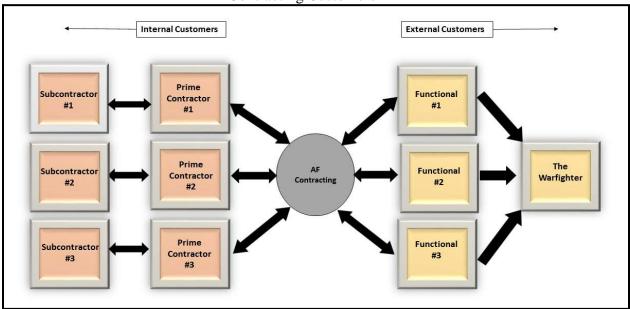
9) Concerning AF Contracting, provide an example of one good and one bad experience and explain why it was good or bad.

Good Experience:	
Bad Experience:	

10) Please share any other comments.

```
Customer Response:
```

**AF Contracting Customers** 



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