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future implementation comparing successful  
and failed approaches**

Osborn, Rachelle R.; Schoonmaker, John S.

Monterey, California, Naval Postgraduate School

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**MBA PROFESSIONAL REPORT**

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**Air Force Commodity Councils: A Template for Future Implementation  
Comparing Successful and Failed Approaches**

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**By: Rachelle R. Osborn and  
John S. Schoonmaker**

**December 2007**

**Advisors: Bryan Hudgens  
Raymond Franck**

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**AIR FORCE COMMODITY COUNCILS: A TEMPLATE FOR FUTURE  
IMPLEMENTATION COMPARING SUCCESSFUL AND FAILED APPROACHES**

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Submitted in partial fulfillment of the requirements for the degree of

**MASTER OF BUSINESS ADMINISTRATION**

from the

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# **AIR FORCE COMMODITY COUNCILS: A TEMPLATE FOR FUTURE IMPLEMENTATION COMPARING SUCCESSFUL AND FAILED APPROACHES**

## **ABSTRACT**

In an effort to align sources with requirements, the Department of Defense has implemented initiatives that mirror industry's strategic sourcing practices. These initiatives include Consolidated Purchasing, Commodity Councils and Regionalization. This project will be to examine a successful Commodity Council (CC), a failed CC, and one in the early stages of development. We will seek characteristics common to both successful and unsuccessful councils, as well as characteristics that differentiate the outcomes. We will include a brief history of strategic sourcing as a long-term supply-chain management solution in the private sector; the impetus behind AF implementation of strategic sourcing through CCs; associated transactions costs; and, finally, the resource management practices necessary to move beyond theory to practical application. The results are illustrated in a case study which will provide a template for successful implementation.



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## LIST OF ABBREVIATIONS AND ACRONYMS

ACE	Acquisition Center of Excellence
AFFAR	Air Force Federal Acquisition Regulation
AFITCC	Air Force Information Technology Commodity Council
AFMC	Air Force Material Command
AFMCC	Air Force Medical Commodity Council
AMC FPCC	Air Mobility Command Furnishings Portfolio Commodity Council
ARP	Acquisition Research Program
CAMP	Commodity Acquisition Management Plan
CAO	Chief Acquisition Officer
CC	Commodity Council
CFO	Chief Financial Officer
CIO	Chief Information Officer
CONOP	Concept of Operations
DAU	Defense Acquisition University
DoD	Department of Defense
DWSS	DoD-Wide Strategic Sourcing
FPCC	Force Protection Commodity Council
IG	Informational Guidance
IOMA	Institute of Management and Administration
MAJCOM	Major Command
MSCC	Medical Services Commodity Council
MTF	Medical Treatment Facility
OFPP	Office of Federal Procurement Policy
OMB	Office of Management and Budget
PSCM	Procurement and Supply Chain Management
SAF	Secretary of the Air Force



SAF/AQC	Secretary of the Air Force Acquisition Contracting
SSP	Strategic Sourcing Plan
TCE	Transaction Cost Economics

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# I. INTRODUCTION

## A. BACKGROUND

As the Department of Defense (DoD) strives to enhance its warfighting capability on a global front, the need to provide world-class support is intensifying. Within dynamic political, economic, and military environments, the service branches must increase the capabilities and support provided to the warfighter. All branches are confronted with determining how best to support their unique missions in dynamic environments with scarce resources.

Scarce resources are not unique to the DoD. The commercial landscape has evolved into a global environment—requiring companies to transform their business strategies to maintain competitive advantage. By examining how commercial industry deals with these issues, the DoD and the individual services can begin to adopt new business practices that are more in-line with industry. One of commercial industry’s current initiatives to realize competitive advantage is strategic sourcing. This strategy provides the potential to realize the cost savings necessary to remaining competitive. To save on its unique costs, the DoD has implemented initiatives that closely mirror strategic sourcing practices found in commercial industry.

In 2005, 45% of the Air Force budget (\$55 billion) was spent procuring equipment and support (*Air force contracting strategic plan, 2005*; Lorenz, n.d.). To achieve the Air Force contracting vision of: “Agile sourcing through innovative strategic solutions developed by multi-skilled professionals who anticipate and deliver warfighting capabilities” (*Air force contracting strategic plan, 2005*), the acquisition community needs to understand industry practices, transform and adapt those practices applicable to the government arena, and implement them through strategic alliances. The following sections serve to highlight the chapters in the remainder of this project.

## B. LITERATURE REVIEW

As the global market becomes more competitive, commercial industries strive to gain, or maintain, competitive advantage. One avenue for achieving this is through

strategic alliances. Emerging theories on Procurement and Supply Chain Management (PSCM), strategic alliances, joint ventures, and lean initiatives have begun to shift procurement activities from a tactical to a more strategic function within industry. In order to effectively implement strategic alliances, a company must consider procurement to be an integral part of the overall business strategy. Strategic alliances result in long-term commitments of both personnel and monetary resources to ensure both the buyer and supplier benefit from the relationship. These alliances have potential to drive down costs, improve productivity, and increase margins. However, these choices have consequences; companies must weigh all factors before embarking on such ventures.

Many factors must be considered prior to entering into an alliance. These factors include, but are not limited to: core competencies, transaction costs, PSCM, relationship management, long-term advantages/disadvantages, cost savings, integration, and risk management. A company must determine if strategic alliances help provide a sustainable competitive advantage.

Until 2003, with the implementation of the Air Force Information Technology Commodity Council (AFITCC), the service approached buying almost entirely as a tactical activity. In 2003, the Air Force began to closely examine the way it performed procurement functions. Recent mandates by the Office of Management and Budget (OMB) are directing the Air Force, and the DoD as a whole, to “identify [...] commodities that could be purchased more effectively and efficiently through the application of strategic sourcing” (Johnson 2005, p. 1). This policy is inconsistent with the DoD’s overarching policy, instructions and regulations that push procurement activities down to the operational, or decentralized, level. Only in the case of major weapon system platforms has the service seriously considered long-term relationships with vendors.

Strategic sourcing is the current trend in commercial industry and, as indicated by current OMB directives, the future for federal procurement. To effectively transform federal procurement activities from the tactical to the strategic level, the DoD and the Air Force must adjust their orientation to buyers’ needs and supplier capabilities. This

requires the services to realign procurement activities, refine funding allocation processes, and ensure proper people and skill sets are in place.

### **C. PROBLEM IDENTIFICATION**

Current directives are driving the Air Force to pursue commodity council possibilities. The Air Force must determine how to meet OMB directives within current guidelines for procurement, while aligning strategic sourcing decisions to the best interests of the service as a whole. This research will examine how well the Air Force is currently implementing OMB directives through commodity councils. It will also examine trends and obstacles experienced within the commercial industry.

The research will help the Air Force determine the way ahead by investigating the following:

- Is federal procurement capable of performing strategic sourcing effectively, considering the Federal Government is not a profit-oriented organization?
- Are the incentives of the Government the same as commercial firms?
- If not, is the Government's incentive structure adequate to be successful in this arena?

Other questions asked include:

- What makes commodity councils successful?
- What factors make commodity councils fail?
- Is the Air Force properly allocating its resources to ensure commodity councils succeed?
- Are the correct commodities and services selected for strategic sourcing?
- Is Air Force leadership helping commodity councils succeed?
- Are procurement professionals properly trained to achieve success?
- Is the Air Force's acquisition strategy aligned with current Federal guidelines, or does it need to be tailored?



## **D. METHODOLOGY**

This study was conducted using literature reviews, qualitative interviews, and comparative analysis. Industry best practices were compiled to establish a benchmark for successful implementation of strategic alliances in the Air Force. This research examined three commodity councils: one considered a success, one a failure, and one in the early stages of development. The interview results were used in a comparative analysis case study method (Yin, 2003) to determine common practices, as well as differences, within these councils.

This data was compared to industry best practices to indicate strengths, weaknesses, and potential pitfalls of current Air Force practices. The results of this data were compiled to suggest means for successful implementation of strategic sourcing commodity councils within the Air Force.

## **E. ANALYSIS AND FINDINGS**

Brief backgrounds on the three commodity councils researched will be addressed; the study will also include a brief overview and discussion of the Air Force strategic sourcing position, a snapshot of current commodity councils and progress toward Air Force goals, and an idea of the future of strategic sourcing in the Air Force. Responses to interview questions will be addressed in order to compare processes within the Air Force to current industry practices.

## **F. RECOMMENDATIONS AND LIMITATIONS**

Specific recommendations for the Air Force in regards to commodity council practices are discussed in the final chapter. These practices are compared against industry practices to formulate a roadmap for successful strategic alliances implemented through commodity councils. This section also includes some of the limitations in this research, as well as future areas of research. The limitations of this research project were time, funding, comparison of commodity councils available within the Air Force, and the limited number of councils currently available for comparison. Future areas for research

include commodity council determination factors, utilizing best business practices, overall strategic sourcing opportunities, other approaches to strategic sourcing, and expanding strategic sourcing to joint levels.

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## **II. LITERATURE REVIEW**

### **A. CHAPTER OVERVIEW**

This purpose of this chapter is to provide an overview of strategic sourcing as it relates to commercial industry and government practices. It addresses topics common to both industry and government—such as transaction cost economics, supply chain management, partnerships and alliances. Finally, this chapter will examine the theory and practice of strategic sourcing and its application within the government. It will discuss government-specific topics to include Air Force initiatives, OMB directives, and the implementation of commodity councils.

### **B. STRATEGIC SOURCING**

Strategic sourcing is a new term for a very old philosophy. In order to understand the practicality of strategic sourcing in today's marketplace, one must first understand how sourcing has transformed. Sourcing began in a decentralized format at the tactical level, with individual organizations purchasing commodities to meet their specific needs. Sourcing is evolving into a highly sophisticated strategy at the corporate level affecting cost, productivity, and performance.

In the past, finding sources of supply typically involved finding suppliers who could provide the desired product or service and then deciding who provided it at the lowest cost. As organizations begin looking more at total lifecycle cost and less at purchase price as the major factor in the decision process, it becomes imperative for firms to make a best-value decision. This thought process brings the supplier into the folds of the company—as a subsidiary, not just an outsider. Examples of this trace back to the keiretsu models from the Meiji period (1868-1912), when Japanese corporations were structured around hierarchy, loyalty, and dependency (Schoonmaker & Osborn, 2007). Under this philosophy, large corporations owned shares of smaller organizations. To effectively maintain control of all aspects of the conglomerate, the large organizations directed business to the smaller organizations, thus creating wealth for all parties. A full

discussion of how keiretsu models are structured, as well as a comparison to the competitive market model, can be found in Appendix C.

The keiretsu model was not viewed as viable in the western world, in large part because of anti-collusion laws and the capitalist firm structure. In competitive markets, as practiced in the United States, firms can enter or exit the market at will. Firms are concerned with individual goals as opposed to the goals of a conglomerate. As the marketplace changed, from a domestic to a global environment, companies needed to find new ways to stay competitive. Theories such as keiretsu, Total Quality Management, and Lean Management created paradigm shifts within companies hoping to leverage their internal capabilities. These capabilities are described by Hart, in Carr's work, as consisting of procurement, technology, design, production, distribution and service (Carr & Pearson, 2002).

In order to effectively leverage their capabilities, businesses must determine what products or services are best developed internally, and which should be obtained through external sources. In general, four sourcing strategies are available to all players in the market: make-or-buy, outsourcing, insourcing, and strategic sourcing (Oberoi & Khamba, 2005). The remainder of this project will focus on strategic sourcing and its relation to commodity councils within the DoD and, specifically, the Air Force.

The idea of strategic sourcing was born out of two needs. As Kocabasoglu stated, "introduction of new manufacturing and information technologies prompted a need to closely align buying cycles with production requirements [...] [C]ost containment started to become an absolute necessity to remain competitive" (Kocabasoglu & Suresh, 2006 p. 4). However, there is no consistent definition of strategic sourcing in the literature. Various definitions found are described in Table 1. For purposes of this project, strategic sourcing is synonymous with strategic purchasing; it is defined by Zsidisin, Ellram and Ogden as, "the process of planning, implementing, evaluating, and controlling strategies and operating purchasing decisions for directing all activities of the purchasing function toward opportunities consistent with the firm's capabilities to achieve its long-term goals" (Zsidisin, Ellram & Ogden, 2003 p. 134).

Definitions	Authors
1. “The process of planning, implementing, evaluating, and controlling strategies and operating purchasing decisions for directing all activities of the purchasing function toward opportunities consistent with the firm’s capabilities to achieve its long-term goals.”	Zsidisin and Ellram, 2001 p.632, as attributed to Carr and Smeltzer, 1997
2. “The process of determining competencies provided by this supplier network contain a high degree of knowledge and are those most complementary to in-house core competencies.”	Oberoi and Khamba, 2005 p. 278
3. “A systematic process that begins with thorough analysis of spend across an enterprise and then organizes that spend focusing on selected suppliers for best results on cost, product development, quality and services”	Smock, 2004 p. 15
4. “A logical and systematic process for managing and prioritizing an organization’s spending.”	Newhart, 2006 p. 26
5. “The collaborative and structured process of critically analyzing an organization’s spending and using this information to make business decisions about acquiring commodities and services more effectively and efficiently.”	Johnson, 2005 p. 1
6. “The leveraging of an organization’s buying power to obtain goods and services at better terms and conditions over their life cycle.”	Caporal, 2006 p. 3
7. “The process of planning, evaluating, implementing, and controlling highly important and routine sourcing decisions.”	Carr and Pearson, 2002 p. 1032, as attributed to Carr and Smeltzer, 1997
8. “The process of designing and managing supply networks in line with operational and organizational performance objectives.”	Kocabasoglu and Suresh, 2006 p. 4, as attributed to Narasimhan and Das, 1999
9. “Process of analysis of the internal and external environment via industry analysis, vendor analysis, business need assessment, competitive analysis, and supply/demand forecasting.”	Oberoi and Khamba, 2005 p. 279, as attributed to Carr and Smeltzer, 1997, and Narasimhan and Das, 1999
10. “The use of supplier competencies to achieve flexibility goals through: establishing relationships with suppliers with fast response capabilities to schedule or design changes; and formal incorporation of supplier technological capabilities in design, engineering, and manufacturing strategies.”	Narasimhan and Das, 1999 p. 692
11. “An initiative to build competitive advantage through early supplier involvement in product engineering, sharing of supplier technology, and supplier assistance in developing product and process improvement.”	Narasimhan and Das, 1999 p. 685, as attributed to Carter and Narasimhan, 1990

**Table 1. Strategic Sourcing Definitions**

Just as the current body of research uses varying definitions of strategic sourcing, there are many different theories about how to implement strategic sourcing successfully. Several sources present their approaches in a step-by-step format. These range from the fifteen-step and eight-step approach by the Institute of Management and Administration (IOMA) to the three-step approach by Newhart. These processes are detailed in Table 2 below.

<b>IOMA 15 Step</b>	<b>IOMA 8 Step</b>	<b>Newhart 3 Step</b>
<ol style="list-style-type: none"> <li>1. Understand different business/corporate cultures involved</li> <li>2. Identify external/internal factors that work for/against effort</li> <li>3. Determine annual spend members</li> <li>4. Ascertain percentage of spend currently under contract or obtained through strategic sourcing</li> <li>5. Calculate savings potential through developing new procurement organization</li> <li>6. Establish personal/team credibility</li> <li>7. Develop customer and purchasing involvement</li> <li>8. Survey all existing procurement-related systems</li> <li>9. Create a business case</li> <li>10. Develop strategic vision statement/schedule</li> <li>11. Evaluate existing procurement staff skills</li> <li>12. Role of suppliers</li> <li>13. Involvement of Senior Management</li> <li>14. Implementation of strategic plan</li> <li>15. Formulating metrics to track results achieved by new procurement organization</li> </ol>	<ol style="list-style-type: none"> <li>1. Access High-level spend analysis</li> <li>2. Create sourcing teams</li> <li>3. Evaluate needs, develop strategy</li> <li>4. Gather market information</li> <li>5. Develop supplier portfolio</li> <li>6. “To be” or future state</li> <li>7. Negotiating and selecting suppliers</li> <li>8. Supplier relationship management/maintenance</li> </ol>	<ol style="list-style-type: none"> <li>1. Understand commodity and how it is procured</li> <li>2. Market research and Industry analysis</li> <li>3. Develop a commodity strategy with recommendations of specific action for both near term and long term to procure services in a more efficient manner</li> </ol>

**Table 2. Strategic Sourcing Process Steps**  
(After IOMA, 2003; IOMA, 2005; Newhart, 2006)

All three of these approaches to successful strategic purchasing have certain commonalities. They include spend analysis, market research, and strategy development. Additional research identifies other key factors—such as the positioning of the purchasing function at a strategic level, senior-level management support throughout the process, early supplier involvement, and the cultivation of buyer and supplier relationships based on trust (Oberoi & Khamba, 2005; Ellram & Carr, 1994; Zsidisin & Ellram, 2001; Rajagopal & Bernard, 1993; Else, 2002).

As more firms' purchasing functions evolve from short-term individual transactions towards strategic practices, they recognize many benefits associated with long-term goal achievement. Proponents for strategic sourcing demonstrate benefits of forming alliances within the supply base to include: shorter lead times, cost reduction, improved support service from suppliers, increased capacity, greater efficiency, heightened competition from a broadened pool of qualified suppliers, accurate pricing, and more accurate measurements of performance (Olorunniwo & Hartfield, 2001; Zsidisin & Ellram, 2001; Dupray, 2005). Within the government specifically, proponents see the benefits as reduction in cost per unit, change in consumption and volume, improved operating efficiency, and improved focus on socio-economic goals (*SAF/AQC*, 2005, November 5).

Opponents of strategic sourcing offer valid reasons for concern. Just as there are many benefits associated with implementing these strategies, there are several drawbacks that must be considered. Some of these include a reduction in the supply base, loss of freedom to change sources, switching costs, and reduced competition (to include small businesses) (Olorunniwo & Hartfield, 2001; Rogin, 2006). Both parties also face increased risk by entering into an alliance, as each is possibly subject to hold-up or opportunistic behavior by the partner (Franck, 2004). Additionally, these alliances may well create bi-lateral monopolies—thwarting new entrants and possibly decreasing innovation and technology. Finally, there are transaction costs associated with long-term relationships with a limited supplier base. The achievement of significant cost savings and efficiencies requires oversight of the partners. This requires committing the time and



effort of resources which could be better used elsewhere (Franck, 2004). Transaction costs are discussed in more depth in the following section of this chapter.

In pursuit of strategic goals, organizations need to weigh both the benefits and risks of all sourcing strategies to determine the best solution to meet their requirements. Although strategic sourcing has both positive and negative connotations, it continues to gain momentum as a possible solution to meet the diverse threats present within the marketplace.

### **C. TRANSACTION COST ECONOMICS**

The theory of Transaction Cost Economics (TCE) was first introduced by Ronald Coase in 1937. Coase's statement, "a firm will tend to expand until the costs of organizing an extra transaction within the firm become equal to the cost of carrying out the same transaction by means of an exchange on the open market or the costs of organizing in another firm" (Coase, 1937 p. 395), was the impetus behind this theory. However, TCE was not specifically applied in the marketplace until forty years later, when it was further developed by Oliver Williamson in the 1970's. Williamson described TCE as, "an interdisciplinary undertaking that joins economics with aspects of organization theory and overlaps extensively with contract law" (Williamson, 1979 p. 261).

Transaction costs can be defined very basically as the costs of carrying out any type of exchange within the market (Hobbs, 1996). More specifically, the literature offers three categories of transaction costs: information, negotiation and monitoring costs. The costs are not generally recognized in financial accounting methods and are often hard to measure. The theory of TCE has been widely publicized in literature; however, it is still not widely applied by organizations making sourcing decisions, strategic or otherwise (Rindfleisch & Heide, 1997).

The theory of TCE has four foundational elements: bounded rationality, opportunism, asset specificity and informational asymmetry (Williamson, 1989). Bounded rationality is explained as behavior that is intended to be rational but has limits (Williamson, 1981). The fact that individuals are self-seeking and devious is what

creates opportunism (Williamson, 1989). Asset specificity occurs when one firm makes investments in people, capital or other areas that are specific to a particular transaction or relationship, and those investments hold virtually no value for any other transaction or relationship (Hobbs, 1996). The last element is informational asymmetry. Informational asymmetry is the idea that organizations are privy to different information, and not all players in the market have identical or perfect information.

Williamson proposed that TCE could be applied to three specific areas: career marriage, corporate finance and non-standard commercial contracting (Williamson, 1989). This project will focus on TCE as it applies to non-standard commercial contracting and strategic sourcing. TCE provides a firm a method for determining which transactions need to be internalized and which can be strategically sourced (Murray, Kotabe & Wildt, 1995).

TCE ensures the costs of each transaction are factored into the sourcing decision process. Sourcing and purchasing decisions normally examine those items that can be accounted for: e.g., production costs, labor costs, raw materials, overhead, and tooling. When a firm utilizes TCE in its analysis, then items such as contract negotiation costs, oversight, opportunity costs, relationship management costs, and contract administration are also considered. These items cannot generally be quantified in specific dollar amounts; however, this limitation does not diminish the role these items should play in the decision process.

There are transaction costs with every type of sourcing decision. These costs increase or decrease as a firm moves through the spectrum of supplier relationships: from a transaction-by-transaction relationship, to an arm's length relationship, and finally to that of a strategic sourcing relationship. For TCE to be effectively utilized in the decision-making process, all transaction costs need to be examined. Transaction costs should be evaluated from all perspectives. Therefore, firms should examine transaction costs as they apply to each individual purchase, as well as their application to strategic supplier relationships.

When a decision to strategically source is made, there are additional costs associated with the contractual agreement between the buyer and supplier. Literature

states that complex contracts are costly and inherently incur transaction costs. These costs include drafting, revising, negotiating, re-negotiating, administering, and monitoring the contract (Franck, 2004; Williamson, 1981). Clearly, deciding to enter into a strategic sourcing relationship is not the best solution for the organization if the transaction costs of a strategic sourcing relationship are higher than the production cost savings.

Even though there is a strong foundation for the application of TCE to sourcing decisions, industry has been slow to respond. This might be partially due to transaction costs not being easily measurable (Hobbs, 1996). Even though this theory has not been fully embraced in industry, it is imperative that TCE be utilized by the government (specifically the DoD and the Air Force) when it considers what commodities to strategically source.

#### **D. SUPPLIER/BUYER RELATIONSHIPS**

In individual transactions, where cost is the primary driver, developing relationships between the buyers and suppliers is not essential to achieve desired results. Yet, in strategic sourcing, developing relationships is critical to the process, even though these relationships come at an expense to both parties.

The process of selecting the right supplier is one of the most critical steps in developing long-term supplier relationships. Literature shows supplier selection is not only based on the type of supplier, but on the particular commodity and the importance of the commodity to the organization (Ausink, Baldwin & Paul, 2004; Oberoi & Khamba, 2005). Effectively evaluating suppliers is considered to be essential, but is not always properly implemented. Research shows that supplier evaluations are generally based only on price, quality and delivery; however, other factors such as reliability, trust, communication, commitment to a long-term alliance, supplier financial stability, and cultural compatibility also need to be considered when contemplating strategic sourcing (Ellram, 1995; Oberoi & Khamba, 2005; Simpson, Siguaw & White, 2002). It is imperative that buyers develop well-defined criteria prior to selecting potential suppliers in order to mitigate the risks and transaction costs associated with strategic alliances.

Research reveals there are vulnerabilities, risks and costs commonly associated with strategic alliances. When a strategic alliance is formed, organizations are vulnerable to opportunistic behavior by both parties. Investment in specific assets may create a bilateral monopoly between buyer and seller (Williamson, 1981). Asset specificity enables suppliers' opportunistic behaviors through their ability to hold-up the buyer. It allows them to have power in terms of price and availability (Franck, 2004; Murray et al., 1995). Buyers also possess the ability to hold-up the suppliers by changing specifications, decreasing or increasing production requirements, or both. Supplier hold-up is possible because the investments made by the supplier have limited or no value with a different buyer (Murray et al., 1995). This hinders the suppliers' ability to readily disengage from this alliance or shift production elsewhere. Researchers cite well-crafted, detailed contracts as means to limit these vulnerabilities and mitigate the cost and risk of legal enforcement and litigation (Franck, 2004; Wuyts & Geyskens, 2005).

The literature that addresses disadvantages associated with alliances contains heavy emphasis on opportunistic behavior and asset specificity. Other risks of strategic alliances referenced in literature are: loss of corporate knowledge (Rossetti & Choi, 2005), switching costs (Olorunniwo & Hartfield, 2001), decreased competition, and information sharing (Jennings, 2002).

A significant amount of research concludes there are many benefits associated with strategic alliances. Asset specificity, previously noted as a negative aspect of long-term relationships, is also beneficial. The potential for a supplier, who is heavily invested in specific assets, to exhibit opportunistic behavior is inhibited if the long-term gains in the relationship outweigh the gains possible in other opportunities (Kaufman, Wood & Theyel, 2000; Kocabasoglu & Suresh, 2006; Wuyts & Geyskens, 2005). Strategic partnering fosters an environment in which organizations can create a continual flow of communication. This communication flow allows for a better understanding of each others' capabilities, behaviors and motives (Zsidisin & Ellram, 2001). This understanding cultivates mutual trust, which improves the chances of a competitive advantage for each organization and an overall collaborative advantage (Murray, 2001; Paulraj & Chen,

2005). Gillen sums up these effects very appropriately by stating, “Communication and collaboration are therefore key to the success of the councils” (Gillen, 2006).

Other benefits addressed in literature are cost reduction, improved service and reliability (Zsidisin & Ellram, 2001), increased profits (Burt, 1989), information sharing, improved innovation and technologies (Ellram, 1995; Handfield, Krause, Scannell & Monczka, 2000), and risk sharing (Ellram, 1995; Oberoi & Khamba, 2005).

There are references to the downsides of strategic alliances; however, the preponderance of the literature indicates the benefits of strategic partnerships outweigh the risks. The DoD has recognized these benefits and has decided strategic sourcing improves mission accomplishment.

## **E. DIRECTIVES**

The Federal Government is consistently challenged to maximize the value of each dollar spent (Johnson, 2005). Since industry has also been forced to adapt to an ever-changing market and resources continue to become scarcer, strategic sourcing has gained widespread acceptance as a means of improving efficiency, cutting costs, and increasing profits. In 2005, the Office of Management and Budget (OMB) issued a memorandum to all Chief Acquisition Officers (CAO), Chief Financial Officers (CFO), and Chief Information Officers (CIO) within the Federal Government, stating the Government must leverage the almost \$300 billion it spends on goods and services each year to the maximum extent possible through strategic sourcing. These three officers within each agency of the government have been tasked for the overall development and implementation of their respective agencies’ strategic sourcing efforts (Johnson, 2005).

The memorandum specifically mandated each agency, by October 1, 2005, “identify no fewer than three commodities that could be purchased more effectively and efficiently through the application of strategic sourcing.” Agencies were allowed to report strategic sourcing efforts already initiated (Johnson, 2005 p. 1). The OMB also placed the onus on these individuals to develop the agencies’ strategic sourcing plans, to be cognizant of cost and performance goals while ensuring compliance with regulatory statutes and socio-economic goals. Although strategic sourcing has many benefits, it

directly contradicts many current acquisition regulations. These mandates include: *Buy American Act*, *Small Business Act*, subsequent *Small Business Reauthorization Acts*, and the *Javits Wagner O'Day Act*.

In addition to these requirements listed above, agencies must annually report to the Office of Federal Procurement Policy (OFPP) regarding their strategic sourcing initiatives. They must identify any reductions in the prices of goods and services, business cost reductions, performance improvements, and changes in achieving socio-economic goals (*OMB memorandum*, 2005, May 20). Each agency is tasked to input all requested data into the OMB Competitive Sourcing Tracking System. These results are consolidated and reported annually to Congress in accordance with the *Consolidated Appropriations Act of 2004* (Dennett, 2006).

Higher acquisition costs (due to structural inefficiencies, budgeting and staffing limitations, and external oversight) forced the DoD to find more efficient and effective ways to meet its mission (*DoD-wide strategic sourcing*, 2005). Following industry best practices, a DoD-Wide Strategic Sourcing (DWSS) program was developed in 2003, well ahead of the 2005 OMB suspense. To further refine its commitment to strategic sourcing, the DoD also developed a Concept of Operations (CONOP); it was implemented in January, 2005. This document provides guidance for DoD agencies to achieve strategic sourcing initiatives.

The Air Force was on the cutting edge of the strategic sourcing movement and had already initiated several commodity councils at the enterprise and command levels. At the Air Force level, the AFITCC was initiated in 2003 and the Medical Services Commodity Council (MSCC) in 2004. At the command level, Air Force Material Command (AFMC) has initiated eight commodity councils at the Air Logistics Centers (*Report to OMB*, 2006).

In order to promote implementation, the Air Force developed Informational Guidance (IG) in the *Air Force Federal Acquisition Regulation (AFFAR)*. *IG5307.104-93, Commodity Council Implementation and Operations*, solidified the Air Force commitment to strategic sourcing and provided a tangible tool to guide the process.

## **F. COMMODITY COUNCIL**

The term commodity council is a generic definition used to describe a group from different functions within an organization tasked to consolidate needs up to the corporate level. The Secretary of the Air Force (SAF) CONOP defines a commodity council as “a cross functional group charged with formulating a centralized purchasing strategy and establishing centralized contracts for enterprise wide requirements for a selected commodity grouping” (Reese & Hansen, 2003 p. 1). This is also the definition used by industry. For purposes of this research, commodity refers to goods or services and not to an expendable or non-complex item (Reese & Hansen, 2003).

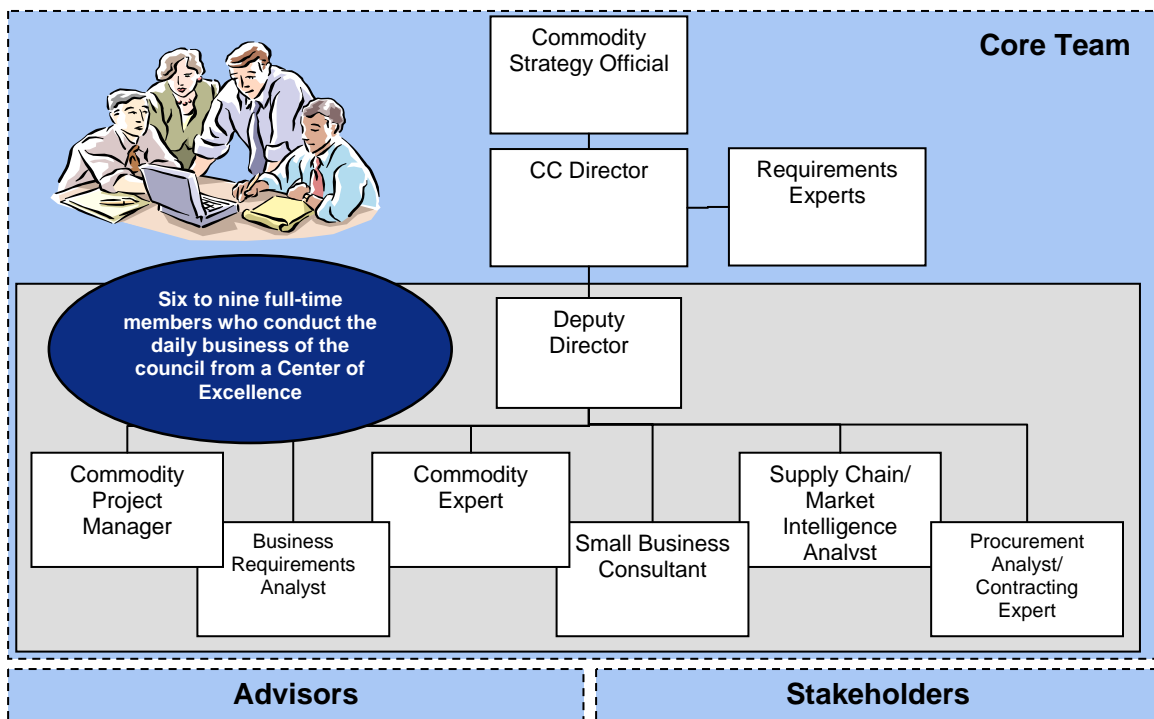
The composition of a commodity council may vary depending on the size and complexity of the procurement. According to Gillen, “the council should contain commodity expertise, as well as, knowledge in maintenance, engineering, procurement, technology, market analysis, project management, business processes, and acquisition strategy and analysis” (Gillen, 2006 p. 35). For the council to function effectively, all members must possess a variety of skills common to successful teams.

Literature reviews of commercial-sector commodity councils have shown membership on a council requires each individual to possess skill sets in computing, teaming and interpersonal relationships, creative problem solving, statistical analysis, technical contracting, and purchasing and supply management cost analysis (Ausink et al., 2004). A good example of a corporation which adeptly analyzes necessary qualifications for all levels of buyers within commercial firms is BMW. Its analysis revealed over one thousand areas for improvement, including linguistics, technical knowledge, and contract law (Wolf, 2005). It even created a cost-engineering function with engineers who worked in purchasing. Although these engineers didn’t buy anything, they provided specialized knowledge in particular areas of expertise (Wolf, 2005).

The roles and responsibilities of the commodity council also vary across commodities and organizations. Research has shown commodity councils in industry have no standard set of procedures to follow (Irvine, 2005). This allows businesses within industry to develop councils to meet specific commodity needs as they arise. This lack of structure poses some potential drawbacks as it does not clearly define the roles of

the council or the responsibilities of the individual members. Furthermore, it does not establish a reporting hierarchy or define metrics to indicate success or failure.

To remedy this lack of structure, the Air Force issued *Informational Guidance* for implementing and operating a commodity council. This document states the primary purpose of the council is to develop strategies at the enterprise level for the specific commodity group through proper execution at the appropriate level. This is accomplished by team members closely watching industry trends, monitoring supplier performance, and tracking requirements. Other responsibilities outlined in the guide include creating and maintaining supplier relationships, integrating suppliers into the business operations, seeking standardization and commonality of the requirements, using enterprise-wide volume as a leveraging tool, reducing costs throughout the supply chain, developing specific guidelines, strategies and scorecards for each commodity group, determining the level of effort to be centralized, and executing the contracts (*FarSite*, 2006). Figure 1 shows the Air Force organizational chart for a commodity council, outlining its composition and decision-making hierarchy.



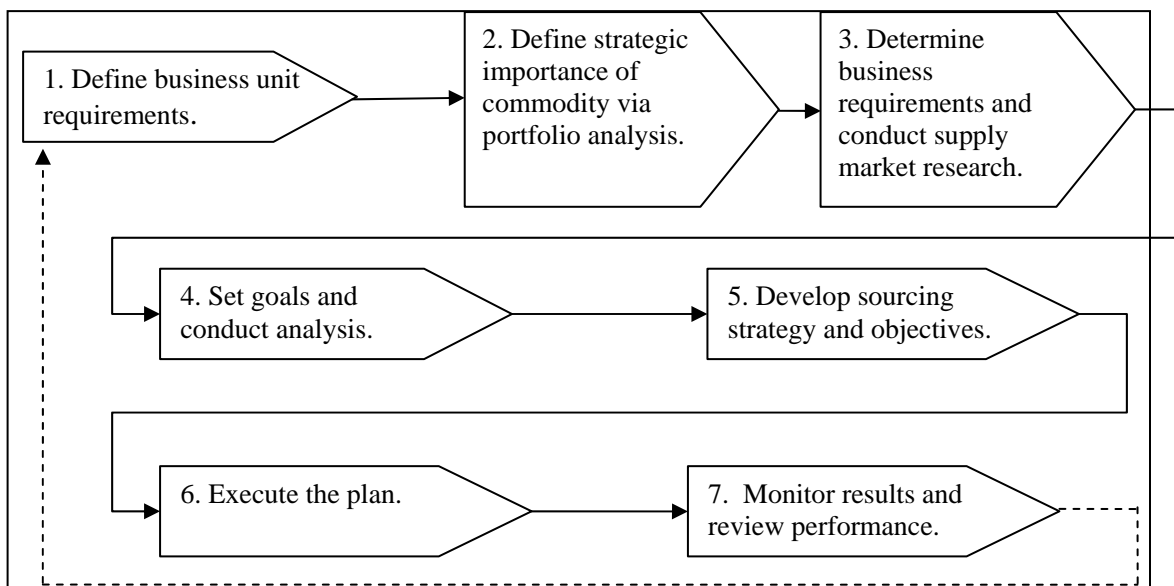
**Figure 1. Commodity Council Organization Chart**  
(From *SAF/AQC*, 2005, November 5)



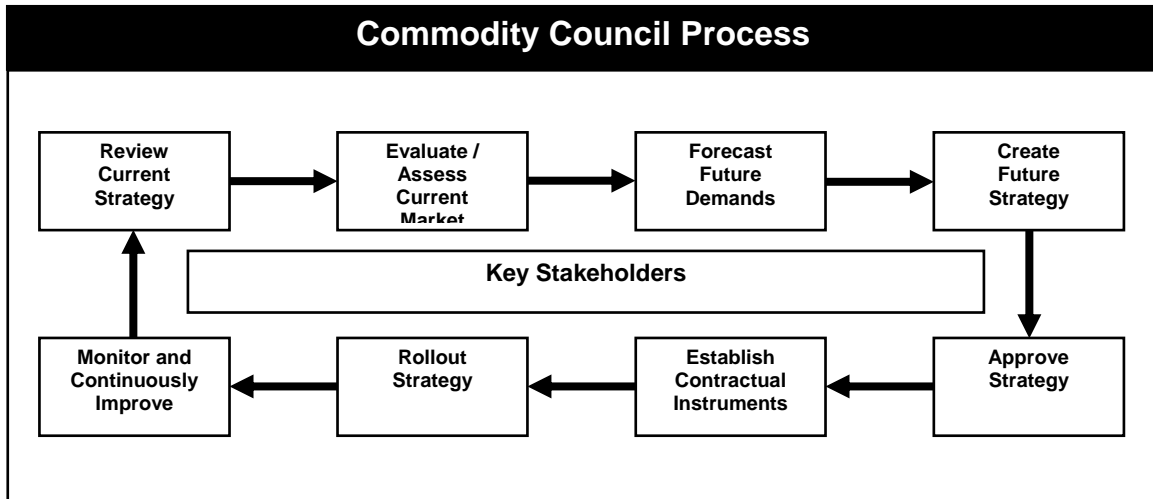
The processes for commodity councils also vary. Avery offers a process consisting of five phases (Avery, 1999):

- Phase I–Investigate, analyze, and formulate commodity strategy; solicit upper management support and identify key users; estimate savings potential.
- Phase II–Select suppliers; benchmark with industry’s best; develop and issue RFP.
- Phase III–Negotiate terms and conditions and develop contract; make final selection, sign contract, and issue order.
- Phase IV–Develop implementation plan with supplier(s); report total cost of ownership savings; develop new policies and procedures.
- Phase V–Continuous improvement; supplier management activities; perform periodic reviews of supplier performance.

Similarly, Monczka, Trent and Handfield (2005) offer a general commodity council process consisting of seven steps. This process is presented in Figure 2. The Air Force recommends a continuous eight-step process of constant improvement, which is in a diagram format similar to Monczka’s. Figure 3 shows how the Air Force process starts with reviewing the current strategy and completes the cycle with monitoring and improving the implemented strategy.



**Figure 2. Industry Process Chart**  
(From Monczka et al., 2005)



**Figure 3. Air Force Commodity Council Process**  
(From *FarSite*, 2006)

Commodity councils are designed to examine requirements at the unit level and to decide what can feasibly be centralized at the enterprise level. Centralizing creates economies of scale as well as leverage. As some researchers noted, this is no different than mutual funds, wholesale club memberships, or buying twelve packs instead of six packs (Reese & Pohlman, 2005). With government buyers spending 25% of the gross national product (Callender & Matthews, 2000), and operational and sustainment spending accounting for over 42% of the Air Force budget (Reese & Pohlman, 2005), centralizing commodities that are currently decentralized could increase efficiency and improve effectiveness through volume contracts.

The use of commodity councils in strategic sourcing has achieved significant savings. In 2001, ChevronTexaco used strategic purchasing to save 39.3% in office supply costs and 22.4% in furniture costs. They also showed savings of \$10.3 million in information technology hardware (Reese & Pohlman, 2005). In the federal sector, the Department of Homeland Security's commodity council for weapons and ammunition competitively awarded two contracts, one small and one large, to supply 65,000 firearms in various calibers and sizes over the next five years. The results were a 35-percent price reduction and a doubled warranty period (Bearden & Morton, 2006). Finally, the

AFITCC “saved \$4 million in 2003 by analyzing and consolidating desktop and notebook computer purchases” (Matthews, 2005).

Air Force commodity councils are charged with developing effective strategies. In order to be successful, each council must examine potential suppliers at the local and global level, determine the number of suppliers that will receive awards and the amount each supplier will receive, create plans to develop the suppliers’ abilities, develop methodologies for supplier relationships, determine the contractual type, length, and terms and conditions, and ensure socio-economic programs are adequately incorporated (*FarSite*, 2006). These responsibilities highlight the need for experts within the specific commodity group. As noted in the DoD strategic sourcing CONOP, “success of the program is contingent on its ability to effectively operate within the larger DoD acquisition environment and to engage key stakeholders in the planning and implementation of approved commodity sourcing strategies” (*DoD-wide strategic sourcing*, 2005 p. 9).

## **G. CHAPTER SUMMARY**

This chapter provided the background information that will serve as the foundation of our research project. The literature reviewed allows us to begin answering the questions posed in Chapter I. The review examined the history and implementation of strategic sourcing in both industry as well as the Air Force. It also addressed how transaction costs and relationship management factor into the strategic sourcing process, as well as provided an overview of Government directives and initiatives. This chapter concluded with the commodity council process, roles and responsibilities, and Air Force implementation, which is the impetus behind this research project.

### **III. METHODOLOGY**

#### **A. CHAPTER OVERVIEW**

The purpose of this chapter is to describe and detail the research objectives and the methods utilized in this study. Specifically, it will discuss the case study methodology that was followed in order to formulate the research objectives, create the interview questions, and collect the data. It will also discuss the factors that ensure the reliability/validity of the data that was collected, as well as how the data was analyzed.

#### **B. RESEARCH OBJECTIVES**

The objective is to conduct comparative case studies of differing commodity councils within the current Air Force environment. Yin validates this approach by stating, “case studies, like experiments, are generalizable to theoretical propositions and not to populations or universes. In this sense, the case study, like the experiment, does not represent a “sample,” and in doing a case study, your goal will be to expand and generalize theories [...] and not to enumerate frequencies” (Yin, 2003 p. 10). The results are compared to current industry practices in order to provide a roadmap for successful implementation of the commodity council concept within the Air Force.

Data was collected from Air Force commodity councils in varying stages of growth and implementation. The research focuses on a council that is considered a success, one that is viewed as a failure and one that is just emerging. Eisenhardt discusses the strengths of using commonalities and differences in both cross-case and within-case approaches (Eisenhardt, 1989). Comparing and contrasting the various characteristics of each council will provide a framework for in-depth analysis of the factors contributing to the success (or lack thereof) of commodity councils within the Air Force. The use of commodity councils is just one method the Air Force is using to implement strategic sourcing. If the Air Force continues to utilize this method, this research will identify key characteristics that must be present to ensure commodity council success.

In order to effectively examine the success of commodity councils within the Air Force, an overview of industry best practices was presented and discussed. The discussion of industry best practices highlights instances of success within industry, which we can then benchmark. It also identifies industry practices that can not and should not be applied within the public sector.

### **C. RESEARCH DESIGN**

Yin describes the case study strategy as applicable when the required answers to research question are how or why a phenomenon occurred. It is best suited when focusing on contemporary events rather than on the control of behavioral events (Yin, 2003). The research methods utilized in this project meet the criteria Yin describes, as the objective is to answer the questions of how and why commodity councils in the Air Force succeed or fail. As the implementation of commodity councils has already occurred, the focus of the research was aimed at discovering the processes undertaken vice controlling the individual events and outcomes.

Choosing the case study methodology enabled the researchers to examine the subject from many perspectives, due to the multitude of resources at their disposal. These resources include: best practices within industry, subject-matter experts, commodity council team members, directives, and theory. This systemic approach is reinforced by Yin's statement: "the case study's unique strength is its ability to deal with a full variety of evidence—documents, artifacts, interviews and observations—beyond what might be available in a conventional historical study" (Yin, 2003 p. 8).

To ensure the subject was thoroughly examined, the research team chose to investigate three commodity councils at the enterprise-wide level within the Air Force. Enterprise-wide procurement is a strategic approach that consolidates the needs across the entire Air Force—versus a tactical procurement approach at the individual unit levels. Polonsky, Waller and Eisenhardt reinforce this approach of examining several cases (Polonsky & Waller, 2005; Eisenhardt, 1989).

The research team examined documents, conducted interviews, and observed processes in an effort to analyze and present evidence in a qualitative fashion. In order to

obtain a more in-depth understanding of the issues faced by the Air Force commodity councils, the case study methodology was determined to be the most effective approach for this research.

#### **D. DATA COLLECTION/ANALYSIS**

In order to gain a comprehensive understanding of commodity councils and their effectiveness within the Air Force, it was necessary to collect data using multiple techniques. According to Yin:

The case study [...] copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result benefits from the prior development of theoretical propositions to guide data collection and analysis. (Yin, 2003 pp. 13-14)

The triangulation of data for this research included: literature review, examination of critical government directives and guidance documents, and transcriptions of interviews with senior DoD and Air Force personnel and commodity council team members.

Interviewees at the DoD and Air Force levels were selected based on their specific positions within the strategic sourcing arena of defense procurement. Interviews were conducted with personnel in a variety of positions across the commodity councils to ensure various disciplines within the teams were adequately represented. As Polonsky noted, “The semi structured interview [...] gives you the opportunity to gather in-depth responses that reflect the insights of the interviewee. It allows you to probe into issues and pursue unexpected revelations” (Polonsky & Waller, 2005 p. 131). All interviews were conducted in accordance with the Naval Postgraduate School Institutional Review Board requirements to ensure the confidentiality of all participants. The responses are presented anonymously, and respondents are not identified by name or job title.

Utilizing the methods, theories, initiatives, and directives presented in the literature review, a preliminary set of interview questions was established. After discussions with subject-matter experts and meetings with research advisors, a final version of interview questions was developed. The interview questions are attached as

Appendix A and B. All interviews were digitally recorded and later transcribed by an outside agency. The transcripts from these interviews were the primary source of data for this research.

The data was analyzed qualitatively utilizing both the interview results as well as information gathered from the literature review. Each team member analyzed the data individually. Discrepancies were addressed and resolved through the presentation and discussion of researchers' interpretation of findings.

**E. RELIABILITY/VALIDITY**

Three widely used tests to ensure validity and reliability in case studies are internal validity, external validity, and reliability (Yin, 2003). Each test, the tactic used, and the phase of research are displayed below (Figure 4).

Tests	Case study tactic	Phase in which tactic occurs
Internal Validity	<ul style="list-style-type: none"> <li>• Do pattern-matching</li> <li>• Do explanation-building</li> <li>• Address rival explanations</li> <li>• Use logic models</li> </ul>	Data analysis Data analysis Data analysis Data analysis
External Validity	<ul style="list-style-type: none"> <li>• Use replication logic in multiple case studies</li> </ul>	Research design
Reliability	<ul style="list-style-type: none"> <li>• Use case study protocol</li> <li>• Develop case study database</li> </ul>	Data collection Data collection

**Figure 4. Case Study Tactics for Design Tests**  
(After Yin, 2003 p. 34)

Internal validity was assured as the researchers compared and contrasted the patterns that exist in each commodity council. Government directives build a case for the existence of commodity councils to help achieve strategic sourcing goals. Each step within the commodity council process was examined to ensure a logical approach in

progressing toward the successful implementation and continuing improvement of each commodity council. To further guarantee internal validity, all results of the jointly collected data were analyzed individually.

After individual analysis, any incongruent interpretations were cross-checked against the transcripts and discussed between the researchers in order to reach a final consensus.

This confirmed the reliability of the research data. All data collection, to include transcripts and digital recordings, is maintained in a database by the researchers and is available upon request.

## **F. CHAPTER SUMMARY**

This chapter described the research objectives of this study. It described in detail the methodology used to create the interview questions, collect the data, ensure the reliability/validity of such data and analyze the results. The next chapter will provide the responses to the interview questions used in the research.



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## **IV. INTERVIEW RESPONSES**

### **A. CHAPTER OVERVIEW**

The purpose of this chapter is to present results of our questionnaire. A brief synopsis of each commodity council, as well as senior DoD and Air Force strategic sourcing organizations, is presented to provide a foundation for analysis and to clarify the scope of this project. Following a synopsis of the councils, interview questions and responses are broken out by topic.

### **B. COMMODITY COUNCILS**

This project researched three commodity councils across the Air Force. The intent was to observe commodity councils at varying stages of implementation to determine if process improvement was being realized from one council to the next. This approach enabled analysis of each individual council's structure, implementation, processes, and other attributes throughout the different stages. The three commodity councils selected were the Air Force Medical Commodity Council (AFMCC), Air Mobility Command Furnishings Portfolio Commodity Council (AMC FPCC), and the Force Protection Commodity Council (FPCC).

#### **AFMCC**

The AFMCC was initiated in August 2004. The council was initially developed as a means for acquiring clinical care services. The AFMCC is located at Wright-Patterson AFB, OH. At its inception, the AFMCC was designed to support all Air Force Medical Treatment Facilities (MTF). This council represents a fully developed model. The first award for Spiral I was issued in 2005, and Spiral II development began in 2006. Interviews were conducted with four current council members and one additional individual no longer assigned to the council; however, this individual was a member during Spiral I development.

## AMC FPCC

The AMC FPCC began as an enterprise-level initiative in 2006. AMC took the lead on this commodity council at a regional level, since no enterprise-level support was obtained. This AMC pilot effort, if successful on a regional level, will expand to become an Air Force-wide initiative. AMC FPCC is located at Scott AFB, IL. The AMC FPCC charter was approved in early 2007, and the council is currently in the market research phase. This council represents an emerging model. Interviews were conducted with four current council members.

## FPCC

The FPCC, located at Lackland AFB, TX, was originally organized in 2004. The only action completed by this council was an award for gate guards at numerous bases across several commands. This commodity council disbanded until 2006, and a second attempt was made to form a successful council. The new council never reached full development status. It is considered to be stagnant, and there are no members presently assigned to the council. This council represents an underdeveloped model. Interviews were conducted with one former member and representatives from Air Force Headquarters. Due to the lack of personnel available to interview, other information sources were utilized to formulate an analysis.

## **C. DOD AND AIR FORCE STRATEGIC SOURCING ORGANIZATIONS**

DoD established strategic sourcing positions under the Defense Procurement and Acquisition Policy office in 2007. The primary goal of this office is to develop policy and aid DoD agencies in implementing strategic sourcing initiatives.

The Air Force Strategic Sourcing Office is located in Virginia and is a division of Secretary of the Air Force, Acquisition Contracting (SAF/AQC). The primary responsibility of this office is to develop strategy for implementing Strategic Sourcing initiatives at all levels of the Air Force. These initiatives include enterprise-wide commodity councils, center-level commodity councils, and regionalized strategic purchasing.

These two organizations provided this project with insight into overall business goals and acquisition strategy for the DoD and the Air Force. The researchers conducted four interviews with personnel from these offices.

#### **D. INTERVIEW RESPONSES FOR HEADQUARTERS LEVEL**

As previously noted, responses from the headquarters questionnaire are presented generically and not attributable to specific individuals or positions. Responses are discussed below.

##### **OMB INITIATIVE**

Qualitative responses to Q1

***As a public organization, is the Air Force capable of implementing Strategic Sourcing the same way as industry? If not, how is the Air Force approach different?***

All respondents agree the Federal Government is capable of strategic sourcing; however, not in the same manner as industry. This is due to the regulations, laws, and constraints imposed on how Federal funds are allocated. All respondents noted industry has more flexibility, is more proactive, and has more freedom to decide where and when to invest its capital and resources. Education of the workforce, proper training, and a strategic knowledge base were noted as major challenges for the Air Force.

Qualitative responses to Q2 and Q3

***How did the Air Force come up with its initiatives to meet the OMB directive? Are the current initiatives different from the initial ones? If not, why?***

Three respondents noted the Air Force already had initiatives under development prior to the OMB directive. All three respondents felt the only step necessary to meet the directive was to develop reporting procedures for those initiatives implemented. Everyone agreed all initiatives implemented are still in effect, with new initiatives being implemented every year. One respondent noted the need to align and organize our workforce while ensuring its members are properly educated in strategic sourcing.

## PLAN

Qualitative responses to Q1, Q3, and Q4

***How was the Air Force Strategic Sourcing Plan (SSP) developed?***

***What method of implementation was used to deliver the SSP?***

***Were community best practices, both public and private, considered in developing the plan?***

Two respondents had no idea how the SSP was developed. Another respondent noted the senior contracting leadership developed a five-year strategic sourcing plan. The final respondent stated the strategic sourcing plan was a piece of the overarching acquisition strategic plan for the Air Force. Only two respondents were aware of how the SSP was implemented. Both stated it was publicized to the Major Commands (MAJCOMS) through electronic communication tools. One respondent thought best practices were indeed benchmarked from industry and other DoD agencies when the plan was developed.

Qualitative responses to Q2

***How is IG5307.104-93 (Commodity Council Implementation and Operations) used in the development of commodity councils?***

One respondent noted that during the initial phase of developing a commodity council, the members received two days of training for implementing a council. The training was not what was outlined in the IG, but did contain steps for implementing strategic sourcing. When asked where these training materials came from, the response was they were provided by a contractor. One respondent needed clarification on what the IG was. When this was clarified, this respondent stated it was more of procedural information, but felt it was being utilized. A final respondent thought it was utilized very well, and this tool was the baseline for developing the councils and the hierarchy structure. This respondent did believe it was a procedural step-by-step tool.

Qualitative responses to Q5

***What factors were used to determine which commodities were going to be considered for commodity councils? TCA? Available sources? SBA goals?***

All respondents highlighted spend as the sole factor in determining what commodities were considered for strategic sourcing. Analysis was based on the ten highest spend-level items. Opportunity assessments were conducted to determine feasibility of strategically sourcing these commodities. One respondent noted the spend analysis information currently used was outsourced. Neither TCA, the availability of sources, nor small business goals were identified by the respondents as factors to determine what commodities to strategically source.

#### TEAMS/LOCATIONS

Qualitative responses to Q1, Q2 and Q3

***What criteria are used to determine the qualifications of core team members?***

***How are the Center of Excellence (CoE) and commodity council locations determined?***

***Are formal training materials available? If yes, what are they and who developed them? If no, what will they be, who will develop them, and when will they be available?***

One respondent did not address these questions. Three respondents noted the core team members are taken from the location designated for the commodity council with no particular selection process. Two respondents stated the contracting qualifications are inherent in the position (i.e., a warranted contracting officer is a warranted contracting officer). The technical side of the house determines their members of that council. These respondents all noted the location of the councils and CoEs are determined by which MAJCOM is willing to champion the effort. In the first quarter of 2008, the first of several regional centers will be established throughout the Air Force. Each of these regions will include a commodity council and CoE. Two respondents stated there are no formal training materials currently available. These respondents noted they are working with contractors and the Defense Acquisition University (DAU) to develop these tools. One respondent believed there is formal training, at least for contracting, in the DAU's Commodity Council 101. No respondents were aware of when these training materials would be available or who specifically would develop them. All three respondents believe there is no training available for the technical side.

## OVERSIGHT

Qualitative responses to Q1

***How is the Air Force ensuring the OMB initiatives are properly implemented?***

Only three interviewees responded to this question. All stated these initiatives are being reported through annual reports to OMB. One respondent noted there is a quarterly report submitted by all commodity councils to headquarters, and this information is used for the annual report.

Qualitative responses to Q2

***How is the Air Force ensuring “buy-in” at all levels (from the WG/CC to CSAF)?***

Only two respondents answered this question. Both noted the council charters are signed at headquarters level, but sponsorship and use are determined at the commodity council level. One respondent also noted, with the exception of AFITCC, there is no requirement to use these councils.

Qualitative responses to Q3

***How is the effectiveness of each council tracked (i.e., matrices, reports)?***

One respondent noted there are a lot of different ways to report effectiveness. There is currently no established format for councils to follow. One respondent stated there are no hard metrics to report.

Qualitative responses to Q4

***What measures are in place to create/maintain cooperative relationships with contractors (i.e., opportunistic behavior, long-term relationships, bi-lateral monopoly, hostage taking)?***

Two respondents answered this question. One stated these issues are not being addressed. The other respondent believed these issues are being utilized on weapon systems, but relationships at the installation level are not understood or being addressed.

Qualitative responses to Q5

***Is the overall strategy of commodity councils still on track with initial expectations? Savings? Manpower?***

Only two respondents answered this question. Both believed the commodity councils are achieving expectations, but thought if the workforce understood strategic sourcing, progress would be faster and more expansive.

FUTURE

Qualitative responses to Q1

***Do you see these commodity councils permeating down to the lowest levels within the Air Force? If not, what level is the lowest appropriate?***

One respondent noted not all commodities require a council to achieve effective strategic sourcing. Some of these commodities can still be strategically sourced at the installation, or tactical, level. The other respondents all noted this effort would not, and should not, be permeated down to lower levels. These respondents all believed strategic sourcing opportunities are moving up from the tactical level to regional levels, then enterprise-wide, and finally to the joint level.

Qualitative responses to Q2 and Q3

***What makes those commodity councils that have been successful a success?***

***What characteristics are common among those councils that have failed?***

Two respondents believed a successful council has dedicated teams and buy-in from all communities. One respondent noted the key to success was making the commodity council a mandatory vehicle. Failure was seen by two respondents due to lack of dedicated manning. Respondents felt it imperative that there be no part-time or vacant positions on the team. One respondent noted several other issues associated with failure. One issue was if the spend level is not enough to garner support, the effort will not receive the attention or manning it requires. The other issues were lack of education about what commodity councils do, how they benefit the communities that utilize them, and how they help the Air Force optimize resource allocation.



## **E. INTERVIEW RESPONSES FOR COMMODITY COUNCIL LEVEL**

The results of the interviews revealed characteristics common to all three commodity councils. Common responses demonstrate little evidence of utilizing lessons learned from previous councils. Based on these responses, there appears to be a trend of non-uniformity and an established need for continued improvement among commodity councils. As previously noted, responses are presented generically and not attributable to specific individuals or positions. Responses are discussed below.

### **PLAN**

Qualitative responses to Q1

***Are you aware of the Air Force Strategic Sourcing Plan? If yes, are you aware of the organizational structure outlined in the plan?***

Seven respondents were aware of the Air Force Strategic Sourcing Plan. Of those who were aware of the plan, six knew the organizational structure outlined in the plan.

Qualitative responses to Q2, Q3, Q4, and Q5

***Did this commodity council have a documented plan outlining specific objectives?***

***Was the plan available to all members of the team? If yes, did all members agree with the plan?***

***Was the plan designed by the team members or instituted at a higher level?***

***Was the plan followed? If not, why?***

All respondents stated their specific commodity council had a documented plan made available to all members. One respondent noted there was a lot of discussion during the development of the plan, but consensus was eventually reached. Not all members were on the council during the initial phase when the plan was developed and could not provide insight. The responses indicate there is no consensus on how the plans are designed. Two respondents stated development of the plan was a combination of team members and contractors. One individual stated it was benchmarked from a previous commodity council and adjusted to fit his/her council's specific needs. Three respondents noted the plan was created by all team members, but required assistance

from higher levels for implementation. Six of the respondents felt the plan was being followed. One assumed it was being followed, but was reluctant to commit to an answer. One respondent stated it was being followed minimally, but there was a general lack of understanding among the members.

#### TEAM COMPOSITION

Qualitative responses to Q1, Q2, and Q3

***How many members were on the commodity council?***

***How were members of this commodity council selected?***

***Did the team encompass the proper areas of expertise required for this council?***

Answers to how many members were on the commodity council varied—not only across the three councils, but among individual members of each council. Members of one council gave responses that varied from seven to twelve members. Another council had responses ranging from five to seven. Several of those responses didn't know exactly who was considered a team member (i.e., contractors and headquarters support personnel). When determining how council members were selected, one council's members stated they were volunteered by their supervisor. The respondents from another council stated its members were pulled from existing organizations at that location and assigned to the council. The fully developed council's members unanimously felt they had the proper mix of expertise. They did note they would have benefited by involving the MTFs earlier in the process. On the underdeveloped council, both the lessons learned and the sole respondent clearly show the proper expertise was not made available to the council. All members of the remaining council felt the proper expertise was represented; however, all members quantified their responses. These responses indicated the need for more technical expertise, less contracting personnel, better small business involvement, and some dedicated legal support.

Qualitative responses to Q4 and Q5

***Were all members full-time dedicated members to the council? If not, did it hinder the process?***

***Did the composition of the team change during the process (i.e., did all full-time members that started with the team end with the team?)***

Responses from one council all stated its members were dedicated full-time to the council with the exception of judge advocate members. Respondents felt this did not hinder the team. There were no full-time members dedicated to the underdeveloped council. This hindered their progress and was a direct cause for the lack of success. Responses from the other council were inconsistent. One respondent believed all members were dedicated full-time to the council. The remaining responses indicated there were no full-time dedicated members on the council. One member felt part-time membership did hinder the team, while the remaining respondents felt it may have slowed them down, but did not hinder their progress. They did feel it may interfere with achieving council objectives. The emerging council has not yet dealt with composition changes. The underdeveloped council did face composition changes while active. The fully developed council had composition changes, but not in the allocation of positions. During source selections the team adds additional technical expertise.

Qualitative responses to Q6

***What were the dynamics of this team? Was each team member valuable and valued? What authority did each member possess?***

All respondents from one council felt team dynamics were exceptionally productive, and all members felt empowered and valuable. A respondent from a different council felt the team never left the storming phase and had a continual clash between the buying community and the customer. All respondents of the final council felt each member was indeed valuable and empowered to perform his/her function. The majority felt the team had normal group dynamics, but did form a cohesive team. One respondent noted there were standard conflicts between the legal and contracting functions. This individual also felt there was a power struggle between the warranted contracting officers, which were assigned from different organizations.

TRAINING

Qualitative responses to Q1

***Did members of the team receive/already possess solid understanding of the strategic sourcing initiatives and the Air Force vision to achieve these initiatives?***

All respondents felt the answer to this question was no. Two respondents stated they took on-line training and attended a two-day training course offered by a contractor.

Three respondents stated SAF/AQC provided information, and members received one-on-one training from a MAJCOM Acquisition Center of Excellence (ACE). One respondent stated no one understood anything and characterized the environment as chaotic.

Qualitative responses to Q2 and Q3

***Did individuals possess the correct skill sets for their role within the team? If not, was additional training required?***

***If additional training was required, how was it accomplished?***

One council's members unanimously agreed that they all possessed the correct skills; but then contradicted their response by stating all members were taking commodity council specific on-line DAU classes and would be contracting for further commodity council training in the future. One council stated the correct skills sets were not present, and necessary training was not provided. Respondents from the final council provided mixed responses. One felt the council members absolutely had the correct skill sets. One felt they had adequate skills and knew who to contact if they required additional guidance. Three respondents offered a negative assessment. Some respondents felt individuals needed further or refresher training. Several members were currently taking on-line DAU classes and attending in-resident DAU courses. In the past, several members visited a MAJCOM ACE for training, while others took a course offered by IBM.

## PROCESS

Qualitative responses to Q1 and Q2

***Was there an established process for each phase of the acquisition? (i.e., market research, available sources, evaluation criteria, selection process)***

***Was the process followed? If not, what was done differently?***

Responses varied across all three councils, and among individual members assigned to the same council. Respondents who stated there were established processes

nonetheless did not agree about what those processes entailed. One respondent noted the process was fully laid out in the *Commodity Acquisition Management Plan (CAMP)*. Another believed some of the processes were clearly established, and other processes were identified as the council progressed. A final respondent mistakenly thought the processes could be conducted concurrently as opposed to consecutively. Everyone who believed his/her council had an established process believed the process was followed.

Qualitative responses to Q3 and Q4

***Was relationship management an integral part of the decision-making process?***

***What impact did transactional costs have in the process?***

The question regarding relationship management appeared to confuse almost every respondent. Many respondents did not understand the question. After further explanation, they still could not provide an answer. Those who believed they involved relationship management in the decision-making process considered only the customer, not the supplier. Responses indicate transaction costs were not considered by any of the councils.

Qualitative responses to Q5

***Were best practices from industry or other commodity councils incorporated in the process?***

One council did not utilize any best practices in its process. Of the other two councils, both used industry and other commodity council best practices. One of the councils even considered best practices from the Army and Navy.

## RESULTS

Qualitative responses to Q1 and Q2

***Were the desired results of the commodity council achieved?***

***How were the results measured?***

Responses from the underdeveloped council noted that only one contract action was completed, but desired results were never achieved. No measurable results were identified. The emerging council is in the market research phase and has not yet been able to measure results. Responses indicate dollars saved will be the criterion for

determining if the council is a success. All respondents from this council believe they need full-time dedicated people to the effort and proper support from upper echelons within the Air Force to achieve desired results. The fully developed council had differing responses. Two respondents believed desired results had been achieved. Two other respondents believed they were on the right path to achieving desired results. One respondent did not believe his/her council had achieved desired results, but did think it was getting closer. All respondents gave different answers to how the results are measured. The first response noted it was based on how many contracts were in place and how many task orders had been placed against those contracts. The second respondent believed the council had no measurements and was using procurement acquisition lead time as the measurement. Another stated it was based on how responsive the contractor was to the needs of the customer. Yet another response indicated it was based on the contractor providing and maintaining qualified personnel, minimizing turnover, and overall customer satisfaction. The final respondent stated his/her council could not yet gauge cost savings, but could measure cost avoidance based on what was allocated in the Air Force budget for that effort.

#### ADDITIONAL QUESTION

At the end of each interview, respondents were asked a question not specifically on the questionnaire. Respondents were asked what they felt had made, or would make, the commodity councils successful. An overwhelming response among all three councils and all respondents was that senior-level support and buy-in to the council, full-time, dedicated team members, and the correct number and composition of expertise brought in at the proper time in the process would promote success. Other respondents also noted customer buy-in at all levels. Four respondents noted a visionary leader was critical to the success of the council.

#### **F. CHAPTER SUMMARY**

This chapter identified the commodity councils chosen for this research project. The information was presented by examining the responses to each of the questionnaires individually. This allowed the data not only to be broken out by topic, but responses to

be compared within a homogeneous framework. The next chapter presents the analysis of the interview responses. It also addresses the findings by the research team.

## **V. ANALYSIS AND FINDINGS**

### **A. CHAPTER OVERVIEW**

The purpose of this chapter is to present an analysis of the collected data and our research findings. Comparison of the perspectives in policy-making organizations and policy-implementing organizations are also undertaken.

### **B. ANALYSIS AND FINDINGS**

In the course of this project, numerous findings and patterns emerged from the data collected. We analyzed the data to help establish a roadmap for successful implementation of commodity councils. We focused on four key areas from a headquarters perspective and four key areas from a commodity council perspective. The analysis below is broken out by each level and discussed in detail.

#### **1. HEADQUARTERS**

##### ***a. Implementation***

Implementing any new plan or procedure requires extensive coordination to ensure the objectives of the plan are being achieved. The Air Force developed the SSP as an overarching sourcing strategy. The data confirms this plan was developed and subsequently distributed through the MAJCOMs. However, development and dissemination of a plan are not enough to ensure a comprehensive understanding, implementation strategy, and rationale for use by those tasked to actualize the plan. IG 5307.104-93 was developed in the AFFARS to provide a framework for implementing commodity councils. The data clearly shows those individuals who are supposed to know the intricate workings and development of commodity councils do not have a clear cut understanding of the purpose and intent of the IG. Even at this high level, there is disagreement as to the exact role the IG renders in standing up a commodity council. Is the IG guidance or is it really policy? Is it step-by-step procedure or a baseline tool? The data shows no consensus or agreement even at this high level. Our finding is the overall



understanding of strategic sourcing at the implementation levels is not possible without first having unambiguous agreement about how to disseminate, implement, and use the plan and guidance from the top levels.

***b. Buy-In***

As noted by numerous sources (Ellram & Carr, 1994; Oberoi & Khamba, 2005; Rajagopal & Bernard, 1993; Zsidisin & Ellram, 2001), obtaining support throughout all levels of an organization is imperative to the success of strategic sourcing. Even more crucial is getting support from the highest levels of all organizations affected by the process. These organizations include the buying activity, the user community, the supplier community, and all supporting activities. These communities must agree on the roles and responsibilities each community will assume, as well as how the vehicle will be used. The data highlights that it is imperative to receive support from the highest levels within these organizations to achieve success. The fact that no processes are mandated from the top levels directly contradicts the notion of buy-in from these levels. Commodity councils are left to find sponsorship and determine the extent the council will be utilized with no top-level support. Our finding is without this support at the beginning of the effort, these councils face an uphill battle. This makes them susceptible to inefficient use of resources, bureaucratic red tape, stagnation, and possibly, overall failure.

***c. Factors***

Academic literature and industry offer some of the criteria for strategic sourcing decisions include relationship management, transaction cost analysis, industry analysis, supply and demand forecasting, sustained competitive advantage, requirement analysis, supplier competence, supplier capability and capacity, and spend analysis (IOMA, 2003; IOMA, 2005; Murray et al., 1995; Narasimhan & Das, 1999; Newhart, 2006; Oberoi & Khamba, 2005; Smock, 2004). This project's data clearly shows the only factor being used to make strategic sourcing decisions in the Air Force is spend data. With the exception of weapon systems, none of the other criteria highlighted by industry are being utilized in the decision-making process for Air Force commodities. The

research finding suggests the Air Force has severely handicapped its strategic sourcing opportunities by examining spend as the only factor in decision-making. Looking only at spend data will limit the Air Force's ability to leverage its resources to the maximum extent.

*d. Qualifications and Training*

Analysis of the data denotes there are no pre-requisites or mandated competencies in place for personnel who serve on commodity councils. As there are no established qualifications, only limited training is available for acquisition personnel, and no training is available for technical personnel. Lack of requisite skills and knowledge to understand strategic sourcing and its implementation hinders the councils from performing optimally. Although strategic sourcing, by its very name, implies the ability to look beyond the tactical level, our findings indicate the Air Force is not achieving its objective at the tactical level, and definitely not at a strategic level. The general disregard for ensuring the most qualified personnel are identified and assigned to the council lessens effectiveness throughout the process. The lack of training for team members, once identified and in place, further inhibits the chances of the council being successful.

**2. COMMODITY COUNCILS**

*a. Implementation*

Analysis of the data indicates that although most respondents were aware of the SSP and the IG, few knew how these documents were incorporated into, or pertained to, their commodity council. The data shows there were no specific processes for developing the individual plans of the specific councils; all three councils developed their plans differently. With no template to follow, several councils sought assistance from other councils, contractors, and industry best practices. The data further reveals processes for each phase of the acquisition varied from phase to phase and council to council. Again, it was apparent to the researchers there is no template or specific procedure available for members to understand when they have completed one phase and are ready to proceed onto the next phase. Lack of templates and procedural guidance has

put the councils in a precarious dilemma. How are the implementers supposed to proceed successfully with no set standard, policy or guidance?

***b. Team Composition and Manning***

Data analysis revealed selection criteria for core team members was ambiguous even to the team members themselves. In addition, personnel had difficulty identifying the actual number of team members assigned. These discrepancies highlight an obvious disconnect between alignment and allotment of personnel. The analysis suggests an overall imbalance of specialties (i.e., contracting, legal, technical, and financial). Some councils appeared heavy in contracting, but light in technical expertise. Others began heavy on technical and light on contracting, but brought additional contracting support on much later in the process. The data further revealed the teams were assembled in an impromptu fashion. Rather than finding the right people for the council, people were “volunteered” or randomly picked from other organizations. This type of selection process led members to dedicate only part of their time to the council, while still maintaining other responsibilities. All councils had some core team members on a part-time status for at least some, if not all, of the process. We believe little thought is put into the team composition required for successful implementation of strategic sourcing within the Air Force. The lack of planning and forethought in this area has severely hampered business practices and paved the way for these councils to fail.

***c. Training***

All respondents felt those assigned to the commodity councils did not have requisite training and expertise to fulfill the task assigned. The analysis strongly indicated the members did not have a firm grasp of Air Force strategic sourcing initiatives or of their respective roles as members. Although all respondents felt they possessed some specialty skills required to perform their function; every member was taking some form of additional training, whether it was on-line, in-residence, or contractor-provided. It is our contention that in the area of strategic sourcing, the Air Force does not train like it fights. If senior leadership fails to provide the necessary tools for team members to feel confident, the council will not be successful.

*d. Measurement of Success*

The data collected indicates there are no set standards against which to measure the success or failure of a commodity council. No two respondents had the same response for how the success of the council was determined. Analysis indicates that in one council, both quantitative and qualitative methods were noted as means of measurement. It was also unclear to respondents what measurements, if any, were reported to headquarters. Our finding is that without clear guidance, it is impossible to reliably gauge a council's success.

Clear measurements allow team members to see and assess their progress, weaknesses and strengths in order to improve their processes and performance.

**C. PERSPECTIVE COMPARISON**

In order to analyze this data in a truly useful way, it is important to examine the policy-making and policy-implementing perspectives side-by-side. This is critical for a comprehensive understanding of the data presented. In many instances, both sides identified the same issues; however, there were times when they had different perspectives.

Both sides identified implementation as a deficiency. The lack of understanding of the plans and guidance at the strategic level hinders the actual implementation at the tactical level. If the senior leadership does not possess the needed expertise, it is unreasonable to expect that knowledge to be transmitted to lower levels.

Training was also identified by both sides as needing improvement. Strategic sourcing is changing the way the Air Force performs its procurement function. The headquarters clearly believe the acquisition work force requires educational training on these new business practices. Commodity council members obviously concur, as they have no clear understanding of how strategic sourcing affects their activities and the benefits of this approach. Headquarters' staffs are also trying to address the need to formally train members of commodity councils. Currently, there is minimal training available for acquisition personnel; moreover, this training is not mandatory or readily

available. In addition, there is no formal training for any other functional specialties assigned to commodity councils. The commodity council members all recognize the need for this training.

Success factors, as indicated by both sides, were top-level buy-in, correct composition of teams, and full-time, dedicated members. Headquarters also felt it was important to have the appropriate level of spend to support a council, education and training, and mandatory use of the contractual vehicle. The commodity council members also thought it was important to have visionary leadership and senior-level support to ensure success.

#### **D. CHAPTER SUMMARY**

This chapter presented the research team's analysis of the data and the subsequent findings. The analysis was broken out and examined at the policy-making level and at the policy-implementation level. The top findings were discussed within each level. The research team also addressed several comparisons between these two levels within Air Force strategic sourcing. The next chapter will address the research team's recommendations, as well as the limitations of this project. It will conclude by suggesting some areas for future research.

## **VI. RECOMMENDATIONS AND LIMITATIONS**

### **A. CHAPTER OVERVIEW**

The purpose of this chapter is to provide overall recommendations. It will address this project's limitations and identify areas to be considered for future research within commodity councils and strategic sourcing.

### **B. RECOMMENDATIONS**

The researchers offer the following recommendations based on the literature review, data collection and analysis, and our personal observations. The recommendations are meant to provide the Air Force with a roadmap to achieve greater success in strategic sourcing. The research team presents its recommendations in order of importance.

The most significant obstacle for the Air Force to overcome, in the arena of strategic sourcing, is proper implementation. The Air Force needs to determine if *IG5307.104-93, Commodity Council Implementation and Operations*, is indeed a guide, or if it is a policy. We conclude the ambiguity of the guide lends itself to misinterpretation of its actual intent. We also conclude that effectively implementing strategic sourcing through commodity councils entails more top-down direction—including useful templates. Some templates necessary are council organization, team structure, and a format for the charter and CAMP. Specific and uniform measurements of success, and their reporting, also need to be established. After the policy is clearly defined, implementation needs to include disseminating the information from the highest echelons to the lowest levels. The previous form of mass communication dissemination has clearly not reached implementation and user levels. Our recommendation is to develop a “road show” presentation. These teams of experts should travel from base to base and unit to unit. The purpose of their presentation would be to impart the intent of strategic sourcing, but also to provide a specific framework that includes implementation, available resources, training materials, and specialized points of contact.

Our next area of concern is determining what commodities to strategically source. Currently, the Air Force only considers spend in this determination. Best practices, and much of the literature on strategic sourcing, indicate there are many factors that can, and should, be used in making these decisions. We recommend these other factors be used in making this determination. Such factors include supplier relationship, transaction cost analysis, supplier and buyer compatibility, total life-cycle costs, and requirements analysis. An additional DoD-specific factor that must be considered is small business mandates.

The third issue that needs to be addressed is buy-in. Currently, headquarters expect individual commodity councils to garner the necessary support for success. Once pertinent factors have been considered, then buy-in from the highest levels of all functional areas must be obtained. In the course of this research, two cases were identified in which the user community drove the need for a commodity council—without including the acquisition community until after the council was established. This practice is in direct conflict with the IG. This document outlines the order of events. These events are: determination of a CoE, selection of a director and deputy, selection of the commodity strategy officials, concurrent selection and training of the team members, development of the charter, and an official beginning of council operations. It is also our recommendation these decisions be made at the appropriate levels within the Air Force and implemented downward, not the other way around.

Qualifications and team-member training are the final area of concern. The first area that needs to be addressed is team-member selection. Inclusion on the council should be based on proper qualifications and expertise, not on who happens to be available from the established council location. Selection could, and should, be accomplished at the buy-in stage. Choosing the commodities and their location at the senior-leadership level ensures proper allocation and qualifications of team members. A comprehensive training program is also needed for all commodity councils and their members. This training program should be an integrated approach with all areas of training necessary for every team member. This method of training will ensure there is cross-flow between functional areas. It would also establish a comprehensive

understanding into the roles and responsibilities of each individual team member. Completion of a comprehensive training program should result in professional certification and special coding with the individual's Air Force Specialty Code. Similar coding for space professionals made that designation highly desired in the space community.

### **C. RESEARCH LIMITATIONS**

Limitations are inherent in all research—especially time. This project was no exception. Time constrained our efforts in two ways. First, there was a specific deadline for completion. Second, the window of opportunity to access interviewees posed limitations, including availability and travel opportunities.

Accordingly, project scope was limited to one strategic sourcing method: commodity councils. Scope was further refined to include only Air Force commodity councils. The number of commodity councils available within the Air Force is finite. This resulted in limiting the scope to three commodity councils. This approach ensured the topic was adequately addressed within the time constraints, but it is possible results could vary with other councils.

Funding limitations were also an issue. This program was funded by the Acquisition Research Program (ARP). This program funded travel to commodity council and headquarters locations to conduct interviews. However, travel to all locations was not possible. We were forced to choose which locations to visit, and which locations could be contacted by other means—telephone and e-mail.

This research used a qualitative approach. We employed open-ended questions to collect data. This approach has inherent limitations. Since there is no set standard for answers, each individual can answer the question differently. Open-ended questions and responses make it impossible to create a baseline answer for comparison, as is common in quantitative analysis. The answers were analyzed and compared to strategic sourcing literature and theory. This brings us to the final limitation of this research.



There is an abundance of strategic sourcing literature available. This literature is primarily focused on how strategic sourcing is implemented, achieved, and measured in industry. As this research project focused on the public sector, the basis for comparison was limited.

#### **D. AREAS FOR FUTURE RESEARCH**

Commodity councils were recently introduced in the public sector. With OMB mandates requiring strategic sourcing initiatives from all agencies, the Air Force has decided to use commodity councils to satisfy these requirements. During this inquiry, several areas for additional research were identified. Currently, the Air Force only utilizes spend data in strategic sourcing determinations. Future research should examine other data and business best practices the Air Force needs to incorporate in the decision process. Another area for future research is strategic sourcing opportunities within the Air Force. As noted earlier, commodity councils are just one method of implementing strategic sourcing. Future research should address other strategic sourcing approaches to achieve these objectives. Regional centers may be a better method for strategic sourcing; however, only time and future research will provide the answers.

The focus of this research was strictly limited to the application of strategic sourcing within the Air Force. As previously discussed, the current Air Force vision is to raise the level of implementation to the enterprise level. This vision encourages the examination of joint strategic sourcing opportunities. There are joint programs already in place. Further study could identify new opportunities and determine the feasibility of this approach to leverage diminishing resources across all agencies.

Our final recommendation for future research is the use of commodity councils at the unit level. Are these contractual vehicles are being utilized to their fullest extent? If not, is success dependent on the location and size of the bases, location of the regional center, and potential supplier and employee pools?

## **APPENDIX A. INTERVIEW QUESTIONS FOR COMMODITY COUNCILS**

\*\*Any material gathered for the purposes of this study will be held in confidence and only used in an academic environment. Personnel names and identifiers will not be disclosed in research documents.

### **PLAN**

1. Are you aware of the Air Force Strategic Sourcing Plan? If yes, are you aware of the organizational structure outlined in the plan?
2. Did this commodity council have a documented plan outlining specific objectives?
3. Was the plan available to all members of the team? If yes, did all members agree with the plan?
4. Was the plan designed by the team members or instituted at a higher level?
5. Was the plan followed? If not, why?

### **TEAM COMPOSITION**

1. How many members were on the commodity council?
2. How were members of this commodity council selected?
3. Did the team encompass the proper areas of expertise required for this council?
4. Were all members full-time dedicated members to the council? If not, did it hinder the process?
5. Did the composition of the team change during the process (i.e., did all full-time members that started with the team end with the team?)
6. What were the dynamics of this team? Was each team member valuable and valued? What authority did each member possess?

### **TRAINING**

1. Did members of the team receive/already possess solid understanding of the strategic sourcing initiatives and the Air Force vision to achieve these initiatives?
2. Did individual possess the correct skill sets for their role within the team? If not, was additional training required?
3. If additional training was required, how was it accomplished?

### **PROCESS**

1. Was there an established process for each phase of the acquisition? (i.e., market research, available sources, evaluation criteria, selection process)
2. Was the process followed? If not, what was done differently?
3. Was relationship management an integral part of the decision-making process?
4. What impact did transactional costs have in the process?
5. Were best practices from industry or other commodity councils incorporated in the process?

### **RESULTS**

1. Were the desired results of the commodity council achieved?
2. How were the results measured?

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## **APPENDIX B. INTERVIEW QUESTIONS FOR SAF/AQC**

\*\*Any material gathered for the purposes of this study will be held in confidence and only used in an academic environment. Personnel names and identifiers will not be disclosed in research documents.

### **OMB INITIATIVE**

1. As a public organization, is the Air Force capable of implementing Strategic Sourcing the same way as industry? If not, how is the Air Force approach different?
2. How did the Air Force come up with its initiatives to meet OMB directive?
3. Are the current initiatives different from the initial ones? If not, why?

### **PLAN**

1. How was the Air Force Strategic Sourcing Plan (SSP) developed?
2. How is IG5307.104-93 (Commodity Council Implementation and Operations) used in the development of commodity councils?
3. What method of implementation was used to deliver the SSP?
4. Were community best practices, both public and private, considered in developing the plan?
5. What factors were used to determine which commodities were going to be considered for commodity councils? TCA? Available Sources? SBA goals?

### **TEAMS/LOCATION**

1. What criteria are used to determine the qualifications of core team members?
2. How are the Center of Excellence (CoE) and commodity council locations determined?
3. Are formal training materials available? If yes, what are they and who developed them? If no, what will they be, who will develop them, and when will they be available?

### **OVERSIGHT**

1. How is the Air Force ensuring the OMB initiatives are properly implemented?
2. How is the Air Force ensuring “buy-in” at all levels (from the WG/CC to CSAF)?
3. How is the effectiveness of each council tracked (i.e., matrices, reports)?
4. What measures are in place to create/maintain cooperative relationships with contractors (i.e., opportunistic behavior, long-term relationships, bi-lateral monopoly, hostage taking)?
5. Is the overall strategy of commodity councils still on track with initial expectations? Savings? Manpower?

### **FUTURE**

1. Do you see these commodity councils permeating down to the lowest levels within the Air Force? If not, what level is the lowest appropriate?
2. What makes those commodity councils that have been successful a success?
3. What characteristics are common among those councils that have failed?

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## **APPENDIX C. COMPETITIVE MARKET VS. KEIRETSU**

### **Competitive Market Model vs. Keiretsu Model**

Final Project –GB 4043  
John Schoonmaker (Segment 6)  
Rachelle Osborn (Segment 5)

## **Competitive Market Model**

In order for a market to be considered competitive the following characteristics must be present: (*Cautionary Note: these characteristics are assumptions of the competitive market model but are not necessarily indicative of real world events.*)

- There are many buyers and sellers within the market, therefore each individual buyer or seller has no significant impact on the market price. This means that both buyers and sellers are then “price takers”.
- Goods and services are relatively the same across the marketplace.
- All buyers and sellers have perfect information in regards to the prices set by each individual seller.
- All sellers have access to the same technology.
- All resources are considered perfectly mobile. (7, Wikipedia, Perfect Competition)

Within a competitive market the goal of each individual seller is to maximize profits. This is true in the short-run or the long-run. Each seller will choose to produce the amount that gives them the greatest amount of profit. Sellers have power to decide the production amount but not the market price as they are all price takers.

In both the short run and long run models, based on economic processes not delved into here, the Marginal Cost curve is considered to be upward sloping and the Average Total Cost Curve (ATC) is u-shaped and the curves cross at the minimum of the ATC. (1, Mankiw)

### **Short Run Competitive Market**

In the short run as long as Marginal Revenue (MR) exceeds Marginal Cost (MC) then the sellers increase the quantity produced in order to have increasing profits. (1, Mankiw) So in essence if  $MR > MC$  then the seller will increase production and if  $MR < MC$  then the seller will decrease production. In the short run it is possible for the individual sellers to realize profits as seen in Exhibit 1.

### **Long Run Competitive Market**

In the long run due to the fact that sellers can enter and exit the marketplace at their discretion, new sellers will enter the marketplace to account for the “available profits” until an equilibrium is reached and all sellers have reached zero profits. This zero profit definition is based on economic profits which include opportunity costs, and is not based on accounting profits, as accounting profits will be positive rather than zero. (1, Mankiw)

The price which is set by the market is equal to Marginal Revenue (MR) which is equal to Average Revenue (AR) as seen in Exhibit 2.

The long run market begins in equilibrium with the individual sellers at zero profit. The demand will increase which will raise the price, this will lead to short-run profits but with available profits come new firms to capitalize on those profits, so the price will fall and the equilibrium of zero profits will again be met. (1, Mankiw)

## **Keiretsu Model**

### **History**

Keiretsu, the Japanese form of corporate organization, began during the Meiji period (1868-1912). Four large “zaibatsu”, as they were referred, dominated during this era: Mitsubishi, Mitsui, Yasuda, and Sumitomo. (4, Staffs) These companies held controlling shares of subordinate companies and were based on family principles of hierarchy, loyalty and dependency. The enormous size of the zaibatsu made them financially strong. When the Japanese Government ran out of funds for major projects, it turned to the zaibatus. This government endorsed power allowed them to acquire competing businesses, or drive them out of business. This resulted in powerful monopolies within any market they entered.

After World War II, the Occupation Authorities imposed the Economic Deconcentration Law, making zaibatsu organizations illegal. In 1952 the Japanese Government relaxed these constraints. Many former zaibatsu companies reorganizing under pre-war practices as keiretsu or “linked group” (4, Staffs)

### **Horizontal and Vertical Keiretsu**

Current keiretsu are classified in two categories, horizontal and vertical. Horizontal keiretsu focuses on the relationships between companies and are headed by major banks. They are dominated by six large groups: Mitsui, Mitsubishi, Sumitomo, Fuyo, Sanwa, and DKB. These banks provide funding to member organizations, hold equity positions within these companies, and pressure these companies to produce at a higher than normal profit maximization rate. (2, Weinstein) They also loan money outside the keiretsu, but at much higher interest rates proving once again, “membership has its privileges”. One example is the Mitsui Group, with 26 members and 171 affiliates. Stock ownership by the group encompasses 10% or more of all affiliates. This model provides great power and control over the subordinate companies to the bank. The Mitsui depiction of the horizontal keiretsu is shown in Exhibit 3. Within this hierarchal model, large entities within the inner ring own portions of smaller entities in ring two and three. It is also possible, and quite likely, those residing in ring two own portions in ring three, but the reverse is not possible.

Vertical models, dominated by the electronic and automotive industries, are structured around industrial groups connecting manufacturers, part suppliers, wholesalers, and retailers. (6, Wikipedia, Keiretsu) Vertical models are comprised of one very large



“parent” company with hundreds, or even thousands, of smaller companies under it. This model takes on a typical management, or pyramid, structure. The Nissan example of a vertical keiretsu is shown in Exhibit 4. In this model the “parent” company owns a percentage of all the companies under it. This allows the top-tier organization to heavily influence the decisions of the lower-tiers.

### **Short Run and Long Run**

In the economic short run the keiretsu was a great model. Japanese recession in the 1990s, however, had disastrous long run effects on the model. During this period decreased Yen values and large amounts of “bad” debt forced large banks to merge or go out of business. One example of this is the merger of Sumitomo Bank and Mitsui bank, now known as Sumitomo Mitsui Banking Corporation. These mergers blurred the lines of control within the keiretsu and resulted in some companies outside the model, such as Sony, outperforming their counterparts.

Although the Japanese keiretsu model has not been used outside of Japan, several businesses utilize a similar structure. Alliances within the airline industry, such as Star Alliance, are examples. Looking at the vertical keiretsu of Nissan (exhibit 4) and partnerships in Star Alliance (exhibit 5) shows similarities in the models. Under this model there are large carriers (upper tier) and regional carriers (lower tier). Each leverages off this structure to benefit the alliance as a whole, rather than lose revenue to carriers outside the alliance.

### **Competitive Model vs. Keiretsu Model**

The competitive model is structured so that all buyers and sellers reside within the model; this is not true of the keiretsu. The keiretsu model only has competition among different keiretsu and this intense competition creates barriers to entry for individual firms outside the keiretsu. Individual firms cannot enter the marketplace at will and also don’t have entry and exit into a keiretsu at will, thereby inhibiting competition amongst all possible sellers within the marketplace.

In the competitive model both buyers and sellers are price takers. The keiretsu model differs from this in that the buyers are price takers but the keiretsu firms are price makers. This occurs due to the influence of the banks requiring the keiretsu firms to produce at a higher than normal profit maximization level. This higher level of production means higher costs are generated and these costs are borne by the buyers with the price being dictated by the keiretsu firms. In a competitive model the price and the quantity naturally reaches equilibrium where profits are zero and gives the best price for both the buyer and the seller. The keiretsu model will have a higher price than would naturally occur in a competitive market.

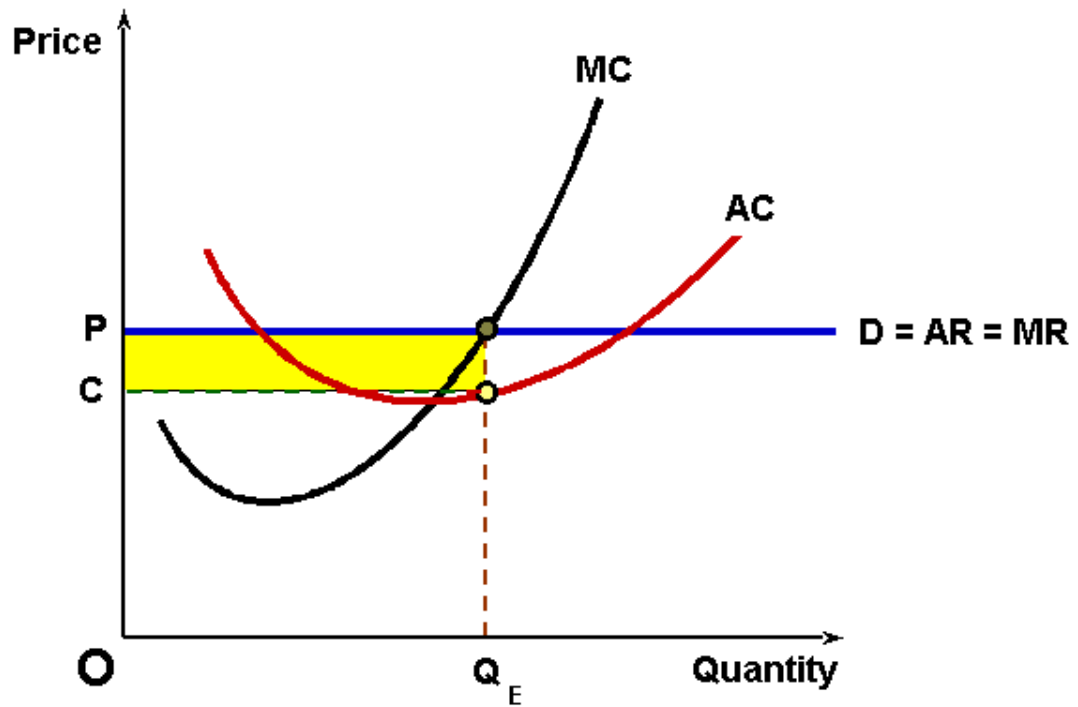
## **Summary**

The differences between the two models basically equates to a collective good versus an individualistic good. The keiretsu model is a symbiotic relationship within each individual keiretsu, in that the smaller companies reap the benefits of being a part of the keiretsu and the larger members reap the benefits that the smaller companies can provide to the overall process. Both are better off inside the model; however it doesn't necessarily make the buyer better off. The competitive model in contrast betters the market as a whole with the individual buyers and sellers working in a push-pull type of relationship. This type of relationship creates equilibrium that is beneficial to both buyers and sellers.

## Exhibit 1

Short Run Competitive Model(7, Wikipedia)

- Marginal Costs are greater than the Average Costs so there are realized profits.



## Exhibit 2

### **Long-run Competitive Model (“Perfect Competition,” 2007)**

- Marginal Costs is Equal to Average Costs which is equal to Marginal and Average Revenue so equilibrium of zero profits is realized.

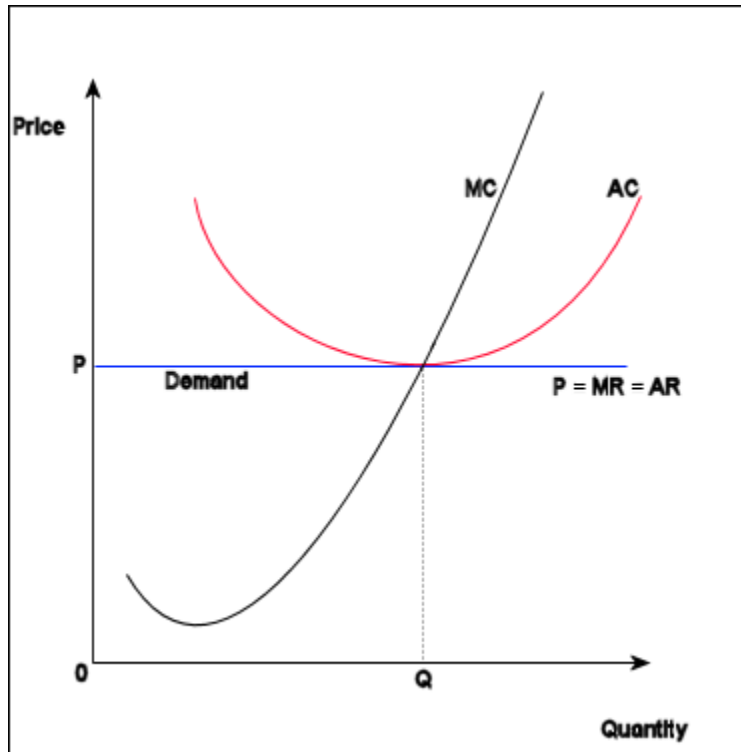
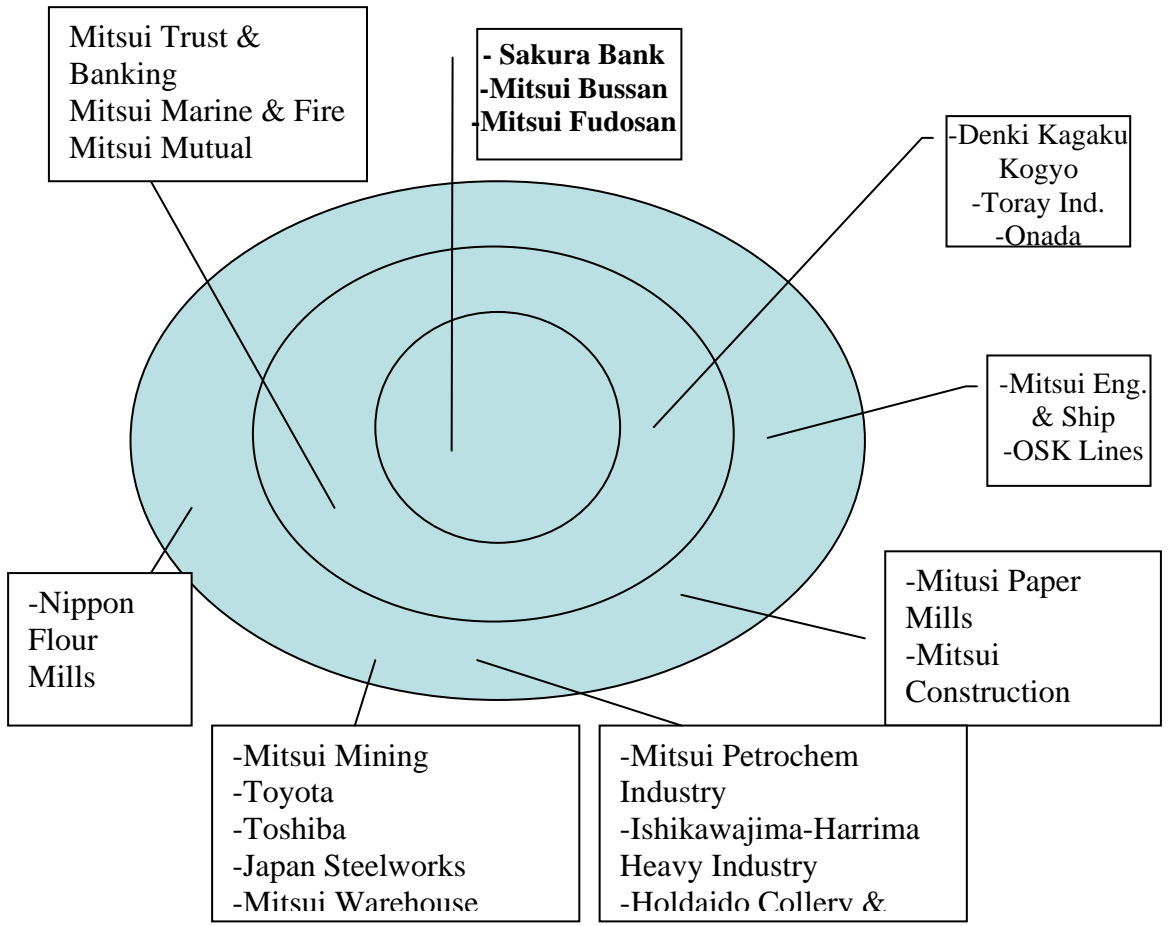
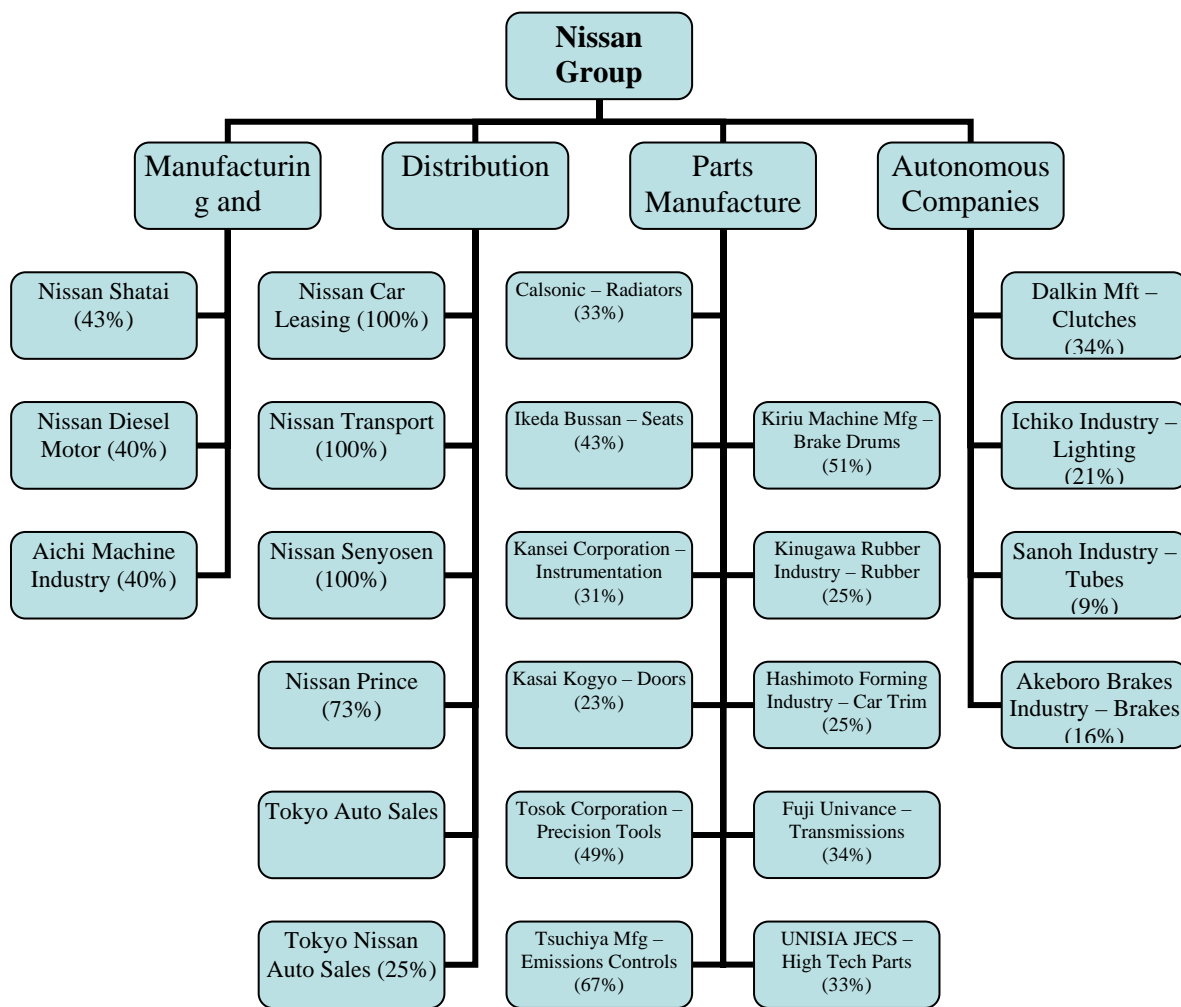


Exhibit 3

# Mitsui Keiretsu



## Exhibit 4



(Percentages indicate total ownership by Nissan Group)

## **Exhibit 5**

### **Alliance Members as of January 2007 (4, Star Alliance)**

Air Canada	Scandinavian Airlines
Air New Zealand	Singapore Airlines
ANA	South African Airways
Asiana Airlines	Spanair
Austrian	Swiss
BMI	TAP Portugal
LOT Polish Airlines	Thai
Lufthansa	United
	US Airways

### **Regional Members**

Blue 1	Cathay Pacific
Croatia Airlines	Finnair
Adria Airways	Iberia
Aer Lingus	LAN
American Airlines	Qantas
British Airways	

### **Associate Members**

Air Nostrum	QantasLink
AmericanConnection	Sun-Air
American Eagle	Aeroflot
BA Connect	Aeromexico
BMED	Air France - KLM
Comair	Alitalia
GB Airways	Continental
Jetconnect	CSA Czech Airlines
LAN Express	Delta Air Lines
LAN Peru	Korean Air Lines
Loganair	Northwest
QantasLink	

## References

Mankiw, N. Gregory, Essentials of Economics, Chapter 13

Weinstein, David E; Yafeh, Yishay; Journal of Industrial Economics, December 95,  
Volume 43, Issue 4, p.359-377

Watkins Thayer; *The Keiretsu of Japan*. Retrieved February 20, 2007, from  
<http://www.sjsu.edu/faculty/watkins/keiretsu.htm>

Driver, James L; Stokes, Bret R; Fowler, Rebecca; Wyatt, Thomas D; *With Reference to  
a Specific Example Explain the Nature of the Japanese Phenomenon Known as  
the Keiretsu*. Retrieved February 20, 2007, from  
<http://www.staffs.ac.uk/schools/business/bcourse/jbe/docs/keiretsu.doc>

*Star Alliance*. Retrieved February 20, 2007, from  
[http://www.staralliance.com/int/press/facts\\_figures/](http://www.staralliance.com/int/press/facts_figures/)

*Keiretsu Model*. Retrieved February 20, 2007 from <http://en.wikipedia.org/wiki/Keiretsu>

*Perfect Competition Model*. Retrieved February 20, 2007 from,  
[http://en.wikipedia.org/wiki/Perfect\\_Competition](http://en.wikipedia.org/wiki/Perfect_Competition)



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## LIST OF REFERENCES

- Air force contracting strategic plan fiscal years 2006-2007*. (2005). Strategic Plan. Retrieved April 26, 2007, from <https://www.safaq.hq.af.mil/contracting/public/about-us/af-strat-plan.pdf>
- Ausink, J. A., Baldwin, L. H., & Paul, C. (2004). *Air force procurement workforce transformation lessons from the commercial sector*. Santa Monica, CA: RAND Corporation.
- Avery, S. (1999). Brunswick saves big bucks by centralizing services buy. *Purchasing*, 126(4), 38-41.
- Bearden, B., & Morton, A. (2006). A road map for federal strategic sourcing. *Public Manager*, 35(1), 34-39.
- Burt, D. N. (1989). Managing product quality through strategic purchasing. *Sloan Management Review*, 30(3), 39-48.
- Callender, G., & Matthews, D. (2000). Government purchasing: An evolving profession? *Journal of Public Budgeting, Accounting & Financial Management*, 12(2), 272-290.
- Caporal, J. (2006). *Air Force strategic sourcing and small business*. Slideshow Briefing. Retrieved May 10, 2007, from <https://acc.dau.mil>
- Carr, A. S., & Pearson, J. N. (2002). The impact of purchasing and supplier involvement on strategic purchasing and its impact on firm's performance. *International Journal of Operations & Production Management*, 22(9/10), 1032-1053.
- Coase, R. H. (1937). The nature of the firm. *Economica*, 4(16), 386-405.
- Dennett, P. A. (2006). *Memorandum for heads of executive departments and agencies report to congress on FY 2006 competitive sourcing efforts* (Memorandum No. M-01-01). Retrieved April 26, 2007, from <http://www.whitehouse.gov/omb/memoranda/fy2007/m07-01.pdf>
- DoD-wide strategic sourcing program concept of operations*. (2005). Unpublished manuscript. Retrieved April 26, 2007, from <http://www.acq.osd.mil/dpap/strategicsourcing/>
- Dupray, C. P. (2005). The coming transformation: Contracting organizations as professional service firms. *Contract Management*, 45, 6-13.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), 532-550.

- Ellram, L. M. (1995). A managerial guideline for the development and implementation of purchasing partnerships. *International Journal of Purchasing and Materials Management*, 31(2), 9-16.
- Ellram, L. M., & Carr, A. (1994). Strategic purchasing: A history and review of the literature. *International Journal of Purchasing and Materials Management*, 30(2), 10-19.
- Else, S. E. (2002). Strategic sourcing and federal government transformation. *Information Knowledge Systems Management*, 3, 31-52.
- FarSite contracting laboratory Hill AFB. (2006). Retrieved July 28, 2006, from <http://farsite.hill.af.mil>
- Franck, R. (2004). Business case analysis and contractor vs. organic support: A first-principles view. (Research Paper). Monterey, CA: Naval Postgraduate School.
- Gillen, J. (2006). Purchasing and supply chain management: Commodity council concept. *Contract Management*, 46, 34-38.
- Handfield, R. B., Krause, D. R., Scannell, T. V., & Monczka, R. M. (2000). Avoid the pitfalls in supplier development. *MIT Sloan Management Review*, 41, 37-49.
- Hobbs, J. E. (1996). A transaction cost approach to supply chain management. *Supply Chain Management*, 1(2), 15-27.
- IOMA. (2003). 15 steps to transform purchasing into strategic sourcing. *Supplier Selection & Management Report*, 3, 6-7,11.
- IOMA. (2005). Create an effective strategic sourcing process in 8 steps. *Supplier Selection & Management Report*, 5, 1-15.
- Irvine, R. J. (2005). A qualitative study of industry and air force commodity council processes. (Thesis for Master of Science in Cost Analysis, Air Force Institute of Technology). Wright-Patterson AFB, OH: Air Force Institute of Technology.
- Jennings, D. (2002). Strategic sourcing: Benefits, problems and a contextual model. *Management Decision*, 40(1/2), 26-34.
- Johnson, C. (2005). *Memorandum implementing strategic sourcing*. Retrieved May 15, 2007, from <https://acc.dau.mil/CommunityBrowser.aspx?id=46200>
- Kaufman, A., Wood, C. H., & Theyel, G. (2000). Collaboration and technology linkages: A strategic supplier typology. *Strategic Management Journal*, 21, 649-663.

- Kocabasoglu, C., & Suresh, N. C. (2006). Strategic sourcing: An empirical investigation of the concept and its practices in U.S. manufacturing firms. *Journal of Supply Chain Management*, 42(2), 4-16.
- Lorenz, S. (n.d.). *US Air Force, FY05 budget*. Slideshow Briefing Retrieved May 10, 2007, from [http://www.globalsecurity.org/military/library/budget/fy2005/usaf/FY05\\_Budget\\_Rollout.ppt#1903](http://www.globalsecurity.org/military/library/budget/fy2005/usaf/FY05_Budget_Rollout.ppt#1903), 1, U.S.
- Matthews, D. (2005). Strategic procurement in the public sector: A mask for financial and administrative policy. *Journal of Public Procurement*, 5(3), 388-399.
- Monczka, R. M., Trent, R., & Handfield, R. (2005). In J.W. Calhoun, G. Werthman, C. McCormick & T. Wilkins (Eds.), *Purchasing and supply chain management* (3rd ed.). Belmont, CA: South-Western Publishing, Thomson Learning.
- Murray, J. Y. (2001). Strategic alliance-based global sourcing strategy for competitive advantage: A conceptual framework and research propositions. *Journal of International Marketing*, 9, 30-58.
- Murray, J. Y., Kotabe, M., & Wildt, A. R. (1995). Strategic and financial performance implications of globals. *Journal of International Business Studies*, 26(1), 181-204.
- Narasimhan, R., & Das, A. (1999). An empirical investigation of the contribution of strategic sourcing to manufacturing flexibilities and performance. *Decision Sciences*, 30, 683-718.
- Newhart, J. F. (2006). Strategic sourcing: What's all the buzz about? *Contract Management*, 46(1), 26-31.
- Oberoi, J. S., & Khamba, J. S. (2005). Strategically managed buyer-supplier relationships across supply chain: An exploratory study. *Human Systems Management*, 24, 275-283.
- Olorunniwo, F., & Hartfield, T. (2001). Strategic partnering when the supply base is limited: A case study. *Industrial Management + Data Systems*, 101(1), 47-52.
- Paulraj, A., & Chen, I. J. (2005). Strategic supply management and dyadic quality performance: A path analytical model. *Journal of Supply Chain Management*, 41(3), 4-18.
- Polonsky, M. J., & Waller, D. S. (2005). *Designing and managing a research project*. Thousand Oaks, California: Sage Publications, Inc.
- Rajagopal, S., & Bernard, K. N. (1993). Cost containment strategies: Challenges for strategic purchasing in the 1990s. *International Journal of Purchasing and Materials Management*, 29(1), 17-24.

- Reese, D. L., & Pohlman, D. W. (2005). Centralized purchasing power: Why air force leadership should care. *Air Force Journal of Logistics*, 29(1), 2-13.
- Reese, D. M., & Hansen, M. C. (2003). *Commodity council concept of operations*. Retrieved April 26, 2007, from <https://acc.dau.mil>
- Report to Office of Management and Budget implementation of strategic sourcing initiatives*. (2006). Retrieved April 26, 2007, from [http://www.defenselink.mil/dbt/products/strategic\\_sourcing\\_012706.pdf](http://www.defenselink.mil/dbt/products/strategic_sourcing_012706.pdf)
- Rindfleisch, A., & Heide, J. B. (1997). Transaction cost analysis: Past, present, and future applications. *Journal of Marketing*, 61(4), 30-54.
- Rogin, J. (2006). A few good partners: Air Force information technology commodity council aims to be a model of strategic sourcing. *Federal Computer Week*, 20(32), 19-24.
- Rossetti, C., & Choi, T. Y. (2005). On the dark side of strategic sourcing: Experiences from the aerospace industry. *Academy of Management Executive*, 19, 46-60.
- SAF/AQC. (2005). *"Strategic sourcing: Back to basics" briefing, [acquisition community connection]*. Retrieved May 15, 2007, from <https://acc.dau.mil/CommunityBrowser.aspx?id=46199>
- Schoonmaker, J., & Osborn, R. (2007). *Competitive market model vs. keiretsu model* (Research Paper). Monterey, CA: Naval Postgraduate School.
- Simpson, P. M., Siguaw, J. A., & White, S. C. (2002). Measuring the performance of suppliers: An analysis of evaluation processes. *Journal of Supply Chain Management: A Global Review of Purchasing & Supply*, 38, 29-41.
- Smock, D. (2004). Strategic sourcing: It's now deeply rooted in U.S. buying. *Purchasing*, 133(1), 15-16.
- Williamson, O. E. (1979). Transaction-cost economics: The governance of contractual relations. *Journal of Law and Economics*, 22(2), 233-261.
- Williamson, O. E. (1981). The economics of organization: The transaction cost approach. *The American Journal of Sociology*, 87(3), 548-577.
- Williamson, O. E. (1989). Transaction cost economics. In R. Schmalensee & R. Willig (Eds.), *Handbook of industrial organization* (Vol. 1) (pp. 135-182). New York: Elsevier Science Publishers B.V.
- Wolf, H. (2005). Making the transition to strategic purchasing. *MIT Sloan Management Review*, 46(4), 17-20.

- Wuyts, S., & Geyskens, I. (2005). The formation of buyer-supplier relationships: Detailed contract drafting and close partner selection. *Journal of Marketing*, 69, 103-117.
- Yin, R. K. (2003). *Case study research design and methods*. Thousand Oaks, CA: Sage Publications, Inc.
- Zsidisin, G. A., Eliram, L. M., & Ogden, J. A. (2003). The relationship between purchasing and supply management's perceived value and participation in strategic supplier cost management activities. *Journal of Business Logistics*, 24, 129-154.
- Zsidisin, G. A., & Ellram, L. M. (2001). Activities related to purchasing and supply management involvement in supplier alliances. *International Journal of Physical Distribution & Logistics Management*, 31(9/10), 617-634.

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