

SD-5

Market Research

Gathering Information about Commercial Products and Services



DEFENSE STANDARDIZATION PROGRAM OFFICE

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STDZ



Contents

| | | | | | |
|-------------------------------|-----------|----------------------------------|-----------|--|-----------|
| Foreword | 1 | Tailor the Investigation | 11 | Identify Sources of Information | 20 |
| Background | 2 | Repeat as Necessary | 11 | Collect Product or Service | |
| What Is Market Research? | 2 | Communicate | 11 | Information from Sources | 21 |
| Why Do Market Research? | 2 | Involve Users | 11 | Collect Information from | |
| When Is Market Research Done? | 5 | | | Product or Service Users | 24 |
| Who Should Be Involved in | | The Market Research | | Evaluate the Data | 24 |
| Market Research? | 7 | Process | 12 | Document the Results | 28 |
| Program Manager, Technical | | Strategic Market Research | | | |
| Specialist, Project Officer | 8 | (Market Surveillance) | 13 | Other Considerations | 30 |
| User | 8 | Identify the Market or Market | | Amount of Information | |
| Logistics Specialist | 9 | Segment of Interest | 13 | to Gather | 30 |
| Testing Specialist | 9 | Identify Sources of Market | | Procurement Integrity Act | 30 |
| Cost Analyst | 9 | Information | 14 | Paperwork Reduction Act | 31 |
| Legal Counsel | 9 | Collect Relevant Market | | Cost of Market Research | 32 |
| Contracting Officer | 9 | Information | 16 | | |
| Guiding Principles | 10 | Document the Results | 17 | Appendix A. | |
| Start Early | 10 | Tactical Market Research | | Types of Information | |
| Define and Document | | (Market Investigation) | 18 | Available on the Internet | 33 |
| Requirements | 10 | Summarize Strategic | | | |
| Refine as You Proceed | 10 | Market Research | 18 | Appendix B. | |
| | | Formulate Requirements | 18 | Examples of Tactical | |
| | | | | Information | 36 |



Foreword

The Department of Defense (DoD) relies extensively on the commercial market for the products and services it needs, whether those products and services are purely commercial, modified for DoD use from commercial products and services, or designed specifically for DoD. DoD acquisition professionals must develop the knowledge and understanding of the industries and sectors that make up the global market for the products or services they support. Market research is conducted to determine the availability of commercial products and services, to identify market practices, and to become aware of the latest developments in products and services.

This document, an update of the SD-5 published in July 1997, contains practical information on market research leading to the acquisition of commercial products and commercial services. Since SD-5 was last published, the internet continued to grow as the primary means for conducting market research.

Although this document emphasizes commercial products and services, the same market research techniques can be used when acquiring noncommercial products and services. In those cases, market research can help define requirements, identify alternatives, and monitor the industry for any new developments that may affect DoD.

The document is approved for public release. Electronic copies are available from the Acquisition Streamlining and Standardization Information System (ASSIST) at <https://assist.dla.mil> or from the Defense Standardization Program Office website at <http://www.dsp.dla.mil>.

Gregory E. Saunders

Director

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Background

The purpose of this document is to provide DoD and other federal personnel involved in the acquisition process with practical guidance on using market research to ensure the acquisition of products and services that will best serve the government's needs. Specifically, this document is designed for personnel involved with establishing requirements for products or services, such as engineers, technical specialists, project officers, and customers; personnel involved with purchasing products or services, such as contracting officers, contract specialists, and cost analysts; and personnel who support the acquisition process, such as logisticians, testing and quality assurance specialists, and legal counsel.

WHAT IS MARKET RESEARCH?

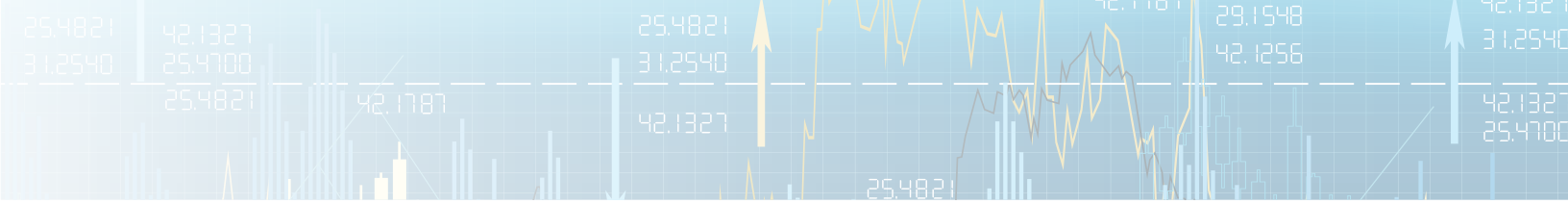
Market research, as defined in Federal Acquisition Regulation (FAR) Part 2, "Definitions," is the process of collecting and analyzing information about capabilities within the market to satisfy agency needs. To elaborate, market research is a continuous process of gathering data on business and industry trends, characteristics of products and services, suppliers' capabilities, and related business practices. The data resulting from market research are analyzed and used to make informed decisions about whether DoD's needs can be met by commercial products or services. When making such decisions, many factors are considered, such as the following examples:

- Degree to which commercial practices allow the products or services to be customized or tailored to meet DoD needs
- Terms and conditions, such as warranties, discounts, and customer support, under which commercial sales are made
- Ability of potential suppliers' distribution and logistics support systems to meet DoD's needs.

Market research information can be used to shape the acquisition strategy, to determine the type and content of the product description or statement of work, and to develop the support strategy, the terms and conditions included in the contract, and the evaluation factors used for source selection.

WHY DO MARKET RESEARCH?

Federal procurement law and regulations require market research under certain circumstances. Federal statutes found in the United States Code (U.S.C.)—41 U.S.C. 253a(a)(1), 41 U.S.C. 264b, 10 U.S.C. 2377, and 15 U.S.C. 644(e)(2)(A)—and implemented by FAR Part 10, "Market Research,"



require agencies to conduct market research under the following circumstances:

- Before developing new requirements documents for an acquisition
- Before soliciting offers for acquisitions with an estimated value in excess of the simplified acquisition threshold
- Before soliciting offers for acquisitions with an estimated value less than the simplified acquisition threshold when adequate information is not available and the circumstances justify its cost
- Before soliciting offers for acquisitions that could lead to a bundled contract
- Before awarding a task or delivery order under an indefinite-delivery/indefinite quantity contract for a noncommercial item in excess of the simplified acquisition threshold
- On an ongoing basis, and to take advantage to the maximum extent practicable of commercially available market research methods, to identify the capabilities, including the capabilities of small businesses and new entrants into federal contracting, that are available in the marketplace for meeting agency requirements in furtherance of a contingency operation or defense against or recovery from a nuclear, biological, chemical, or radiological attack or for disaster relief.

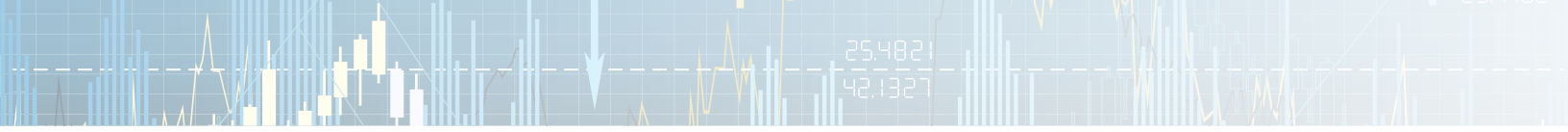
In addition, FAR Part 12, "Acquisition of Commercial Items," requires that market research be conducted to determine the availability of commercial items or nondevelopmental items that could meet the requirements. This regulatory guidance implements the federal government's preference for the acquisition of commercial items contained in Title VIII of the Federal Acquisition Streamlining Act of 1994 (Public Law 103-355).

The above requirements apply to all federal agencies. For DoD, the Defense Federal Acquisition Regulation Supplement (DFARS) 210.001, adds two additional circumstances under which market research is required:

- Before soliciting offers for acquisitions that could lead to a consolidation of contract requirements as defined in DFARS 207.170-2
- Before issuing a solicitation with tiered evaluation of offers (Section 816 of Public Law 109-163).

Even if market research was not required by law and regulation, it would be a smart business practice to follow. Market research is a commercial business practice used by firms to identify trends, customer needs and wants, competitor practices, and sources for their purchasing needs.

Market research plays a key role in the requirements determination and definition process. For example, when planning the acquisition of a new information technology (IT) system, DoD acquisition personnel receive the user's requirements for the system's performance, and sometimes the requirements are incompatible with each other or conflict with other systems. Through trade studies, market research can help users sort out what requirements can be



fulfilled, what requirements can be fulfilled within cost objectives, and what requirements can be fulfilled given schedule constraints. By addressing all of these issues, market research enables the user to make informed decisions about the tradeoffs among all of the alternatives. Users who fail to consider these issues when defining the requirements risk investing in a system that may encounter technical difficulties during manufacturing or operation, have long production lead-times, and be excessively costly to produce, operate, and support.

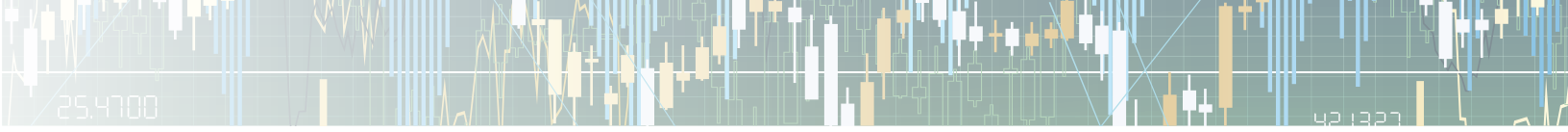
DoD personnel involved in the acquisition process also need to use market research to optimize the potential use of commercial items, commercial services, and nondevelopmental items to meet agency needs. DoD no longer relies extensively on government-unique products and services to meet its needs. Commercial products and services are increasingly the preferred choice when DoD (and the federal government in general) makes purchase decisions. This reliance on commercial products and services is due not only to the acquisition regulations, which encourage the use of commercial products and services, but also to business reengineering and outsourcing. DoD is focused on its core mission, national defense, with many supporting functions being handled by commercial firms.

In the service arena, many tasks that were once performed by DoD civilian or military personnel, such as maintenance and repair, logistics, and management support, are now performed by commercial contractors. In fact, the federal government, including DoD, awards more contract dollars each year for services than it does for products. Market research is essential for defining service requirements and learning about the capabilities of commercial firms to provide these services.

For many products, DoD research and development (R&D) no longer leads the commercial market. With the rapid technical advances occurring in the commercial marketplace, it is vital for DoD to understand those markets, identify the sources, and insert those technologies into weapons systems. In a global marketplace where all nations have access to the same technology, the military advantage will belong to those who can identify and capture state-of-the-art technology, get it into weapons systems, and successfully field those systems first. Using commercial products in weapons systems will also lower acquisition costs and shorten development time. Market research plays a critical role in identifying commercial products and sources.

In today's dynamic acquisition environment, in which use of commercial products and services is increasingly important and necessary, market research is a process used for doing the following:

- Understanding commercial markets, competitive forces, and potential sources
- Finding solutions that satisfy agency requirements
- Identifying opportunities for using commercial items or services to meet agency needs
- Determining whether commercial products or services can be modified or adapted to meet the special needs of an agency
- Determining the availability of other nondevelopmental items to meet agency



requirements (see SD-2, *DoD Acquisitions Buying Commercial and Nondevelopmental Items*)

- Understanding product cycles and the way new technology is introduced into commercial products
- Developing product descriptions, statements of work, and statements of objectives that allow companies to offer their commercial products and services in consonance with commercial practices
- Shaping acquisition strategies, requirements, and tradeoffs
- Understanding the costs of various alternatives
- Developing support and test plans that accommodate commercial practices
- Determining the extent to which commercial markets can support other federal government objectives, such as providing opportunities for small and disadvantaged businesses, meeting environmental goals, and using domestic sources
- Crafting solicitation and contract terms, conditions, and evaluation factors that recognize commercial business practices and encourage competition.

WHEN IS MARKET RESEARCH DONE?

The answer to this question depends on the type of market research, as well as the type and complexity of the acquisition. Market research can be broken down into two interrelated, but distinct, types: strategic market research (market surveillance) and tactical market research (market investigation). Strategic market research involves a broad study of the market and sources, whereas tactical market research is focused on answering specific questions about products, services, or capabilities in the market. Both types of market research are discussed in more detail later in this document.

Strategic market research is conducted continuously throughout the acquisition process. It may take place even before an acquisition program exists and continue after it ends. Strategic market research enables acquisition, engineering, project management, and other personnel to stay informed about overall market developments, trends, and capabilities. During strategic market research, any identified users' requirements need to be kept in mind.

Tactical market research is conducted at specific points during the acquisition process, which will vary with the scope and complexity of the acquisition. Tactical market research is designed to provide in-depth information to answer specific questions about the capabilities, products, or services available in the market. These questions are derived from the requirements definition. Users' requirements need to be continually considered when doing tactical market research.

In large, complex weapons systems, market research is done throughout the acquisition process, beginning with the initial capabilities document developed during the concept development phase. In early phases, both strategic and tactical market research can be used to shape the acquisition process. The information gleaned from market research will affect

the acquisition strategy, requirements definition, support and test plans, product description, statement of work, evaluation factors, and contract terms and conditions. Early market research is particularly significant because it could have a major effect on how the program unfolds.

Done early in the acquisition process, before the capabilities development document is validated, market research, as indicated in FAR 10.001, makes it possible to compare the users' requirements to the capabilities of the commercial market and to determine the following:

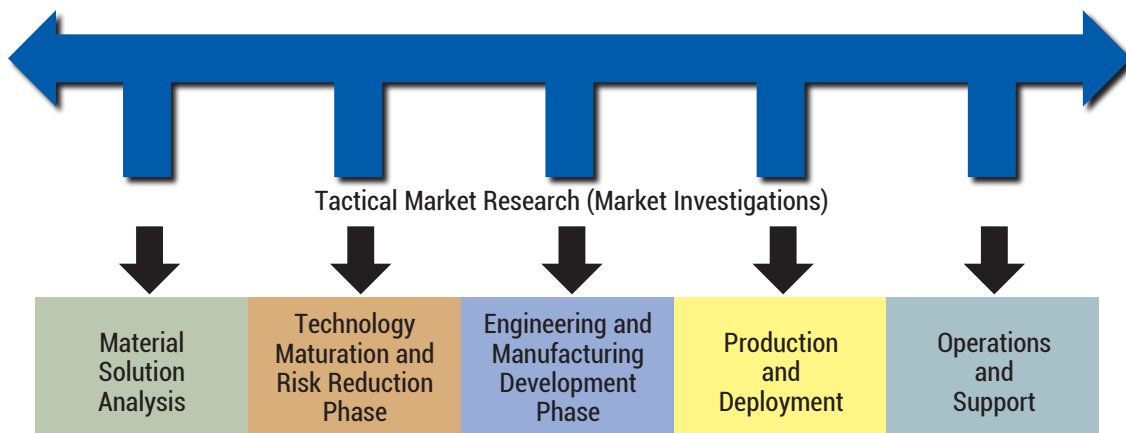
- Availability of products to meet the requirements as is
- Ability of suppliers to modify their products to meet the users' requirements
- Flexibility of the users to modify their requirements to allow the purchase of commercial items, commercial services, or nondevelopmental items
- Feasibility of undertaking a developmental program within cost and schedule constraints.

Such market research can be effective only with the understanding that comes from good up-front requirements definition.

The Defense Acquisition Policy Center provides more detailed information on the Defense Acquisition System. Tactical market research must be conducted again later in the acquisition process to identify the correct set of performance characteristics for the product or service description (system specification, commercial item description, statement of work, or statement of objectives), the appropriate solicitation and contract terms and conditions, and the commercial practices affecting the support strategy and the acquisition strategy in general.

Figure 1 illustrates the use of strategic and tactical market research during a major weapons system acquisition. Strategic market research is a market monitoring process occurring continuously throughout the acquisition process. Tactical market research occurs periodically as needed to find specific solutions. (The figure shows tactical research as one distinct market research investigation occurring in each acquisition phase, but, in reality, multiple targeted investigations may be needed within a single acquisition phase.)

Figure 1. Market Research and the Acquisition Process



For system acquisitions, market research is iterative. If the initial market research leads to the conclusion that no existing system can meet the need, market research will be needed to identify commercial and nondevelopmental items that can be integrated as subsystems, components, and support equipment even though the overall system is military unique. Both FAR Part 12 and DoD Instruction 5000.2, "Operations of the Defense Acquisition System," instruct program managers and contracting officers to require contractors to incorporate commercial items or nondevelopmental items as components of systems developed for DoD.

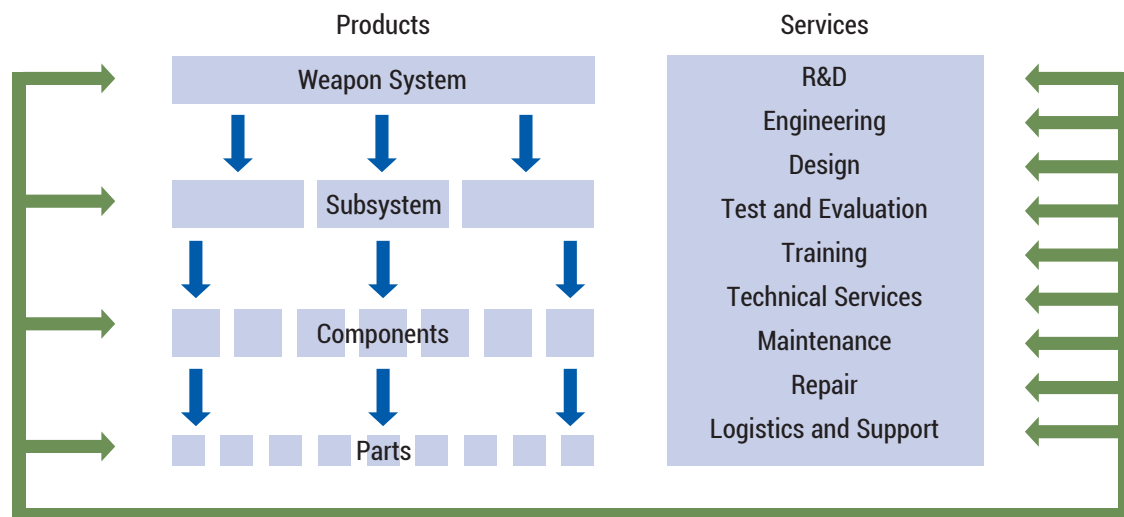
During a major system acquisition, there will be many opportunities for market research to influence outcomes. As the system progresses from the concept refinement phase through the operations and support phase, many questions will need to be answered through market research. Also, acquisition of support services—R&D, engineering, test and evaluation (T&E), logistics and support, and training, to name a few—will require market research. Figure 2 illustrates this concept.

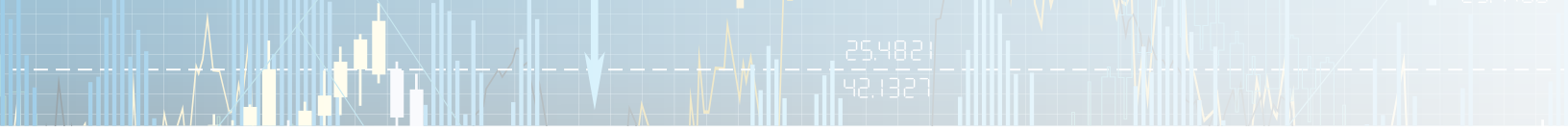
At the other end of the spectrum from major system acquisitions are the multitude of lower-dollar-value, standalone contracts for products and services. These might be for new products or services or for procurement of products or services furnished previously. For these acquisitions, strategic and tactical market research may be combined into a single effort that takes place before a solicitation is issued. The scope and effort of this market research will vary depending on the size and complexity of the acquisition, but in any event, the goal of market research remains the same: understand the commercial market and use commercial products, services, and practices to the maximum extent possible in order to gain the best value for the government.

WHO SHOULD BE INVOLVED IN MARKET RESEARCH?

The military services and defense agencies do not have a specific group of people called "market researchers;" instead, a wide range of people are called upon to perform market

Figure 2. Market Research Opportunities





research related to their area of expertise. Your participation may vary, depending on your organization and the types of products or services for which you are responsible. On large and complex acquisitions, a team effort is usually the best approach, because many functional areas may need information gathered during market research. Conversely, on small, low-dollar acquisitions, only one person may be involved in market research.

Consider the factors that will affect the success of the entire acquisition when you identify who must have input to the market investigation. What information is needed to make the decision to buy or not buy from the commercial market? To prepare the product or service description, you need to know the performance characteristics upon which products and services are valued and distinguished from one another. If a product needs follow-on support, such as spare parts and repair, you will need to know the characteristics of the follow-on support system. Is third-party testing used? What business practices are standard? What practices are standard for the insertion of new technology? The market research process lends itself to a team effort because of the many aspects that may be involved. The team may be composed of the following specialists as appropriate.

Program Manager, Technical Specialist, Project Officer

Depending on the stage of the acquisition and the type of acquisition, this person may be the program manager, the technical specialist, or the project officer.

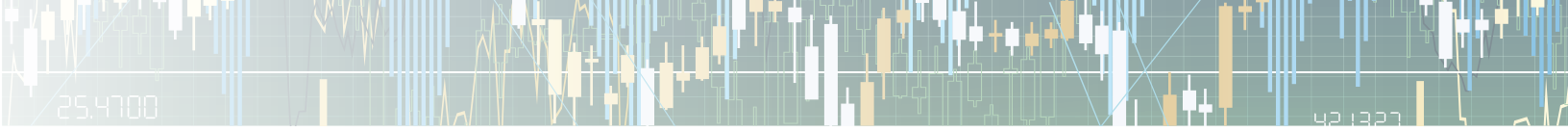
The program manager defines and executes the acquisition strategy. He or she may join a market research team in the early stages of the acquisition, as the materiel developer representative, to better understand the analysis of alternatives and other market factors affecting the acquisition.

The technical specialist or project officer has overall responsibility for market research after concept development. That individual may translate the requirement into a product description (commercial item description, statement of work, or specification). The technical specialist's base of knowledge of the product and industry ensures that the product or service meets the identified need. Because he or she identifies the potential tradeoffs and product modifications that the users and the potential suppliers will consider, the technical specialist must be extremely conscious of the cost-quality tradeoff.

User

The user—the customer—must be satisfied with the product's performance or the service provided. The user has four roles:

- Make the requirements as clear and precise as possible during requirements definition
- Evaluate whether the potential product can operate in the environment in which it must function (or whether the proposed service will satisfy the needs)
- Refine the requirement and consider tradeoffs to allow for the purchase of commercial items, commercial services, or nondevelopmental items
- Be actively involved throughout the market research process.



Market research is also important to the user during the preparation of initial capabilities and capabilities development documents. Market research enables the user community, in conjunction with the technical community, to identify acceptable risk or leading-edge technologies for systems to provide “leap-ahead” capabilities.

Logistics Specialist

The team may need a member who is experienced in support issues such as spare parts, maintenance, and warranties for the potential commercial product or service. Initiatives, such as contractor logistics support and performance-based logistics, are transferring many logistics functions to contractors. Market research may be required to address various aspects of procurements related to such initiatives. The logistics specialist can identify the information that needs to come from the market investigation on the existing support system and the support-related aspects of the product or service.

Testing Specialist

In a commercial item acquisition, the emphasis is on T&E and past performance, rather than on R&D. The testing specialist can use market research to obtain insight into the validity and relevance of outside testing results and to help specify the information that will be needed to address the criteria defined for operational testing. The testing specialist can also use market research to identify commercial entities that are capable of performing T&E services, as well as organizations that can accredit other quality assurance organizations. In addition, the specialist can evaluate whether a potential product can operate in the required environment.

Cost Analyst

The cost analyst can use market research to review and compare the affordability aspects of various alternative solutions to meet a DoD requirement. The cost analyst may perform market research on cost or price factors in order to assist the contracting officer with evaluating offers.

Legal Counsel

Legal counsel can perform market research to determine whether commercial business practices (such as the Uniform Commercial Code) conflict with federal government contract laws and regulations. Counsel may also investigate trade-related issues, export practices, patents and intellectual property rights, corporate ownership and merger issues, labor practices, and other legal developments in the market that may affect the acquisition.

Contracting Officer

The contracting officer can use market research to identify information on market conditions, general business practices, company information, pricing, and the contract terms and conditions needed to successfully carry out the acquisition.



Guiding Principles

From the preceding discussion, it should be apparent that market research applies to a wide variety of products and services across the federal government and to both highly complex systems acquisitions and routine purchases. There is no “one-size-fits-all” approach; market research must be adapted to fit the circumstances. Here, we present some guiding principles to keep in mind when designing a market research effort. These principles apply to most market research efforts regardless of size, scope, or complexity.

START EARLY

Begin market research early, while the requirement is still flexible. In a major systems acquisition, begin market research prior to Milestone A, while the functional needs are being defined and in support of the initial capabilities document. Additional research will be performed later to identify subsystems or components during the design of development programs and to get more specific details about technical characteristics and market practices. On smaller, routine acquisitions, begin market research during the presolicitation phase when requirements are being developed and refined. Starting early helps to ensure that the user defines and documents the requirements appropriately.

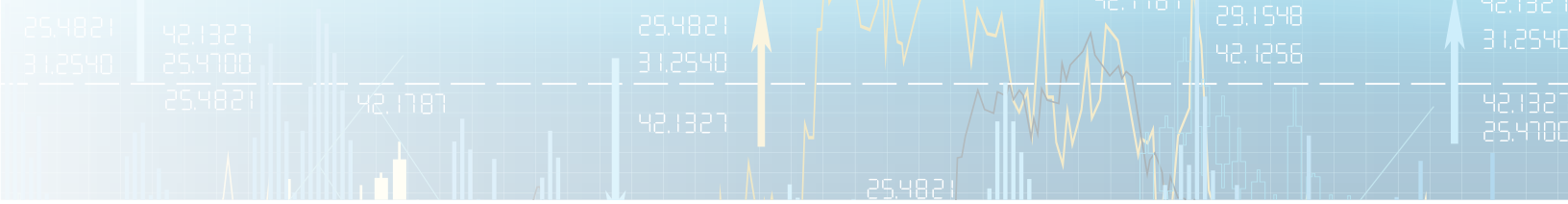
If you are a technical specialist, a project officer, or another individual responsible for a product or service area, you will need to keep current with the latest developments in the market. You should consider market research to be a continuous process, occurring whether or not an acquisition program exists.

DEFINE AND DOCUMENT REQUIREMENTS

Early market research results are invaluable when negotiating reasonable requirements with the user. Market research information can help the user understand technological limitations and commercial practices. Documenting the range of alternatives will help the user define a set of requirements that will both meet the need while being technically feasible to produce under the constraints of time and budget.

REFINE AS YOU PROCEED

The research should always proceed from the general to the specific. Start at the strategic level by examining the overall market, then move to the tactical level by using the information gained at the strategic level to focus your efforts. Acquire a little bit of information on many companies, and the products or services they offer, and a lot of information on the few products or services that seem likely to meet the requirement. The market research should be structured to acquire



only enough information to decide whether to proceed to a more detailed examination of commercial possibilities.

TAILOR THE INVESTIGATION

The amount of time and money spent on market research should be related to factors such as the value of the acquisition, the complexity of the product or service, the use of the product or service, and the commercial potential. If market surveillance information tells you there is little potential for commercial use, further market research should be minimal. If commercial potential is high, an extensive market investigation may be appropriate.

REPEAT AS NECESSARY

Think of market research as an iterative process. Successful market research often requires multiple efforts. Market research is first used to determine the availability of commercial capabilities, practices, products, and services to meet the general requirement. It must also be conducted later to identify commercial components available for incorporation into systems developed for DoD and to get more specific, detailed information to make various acquisition decisions. Markets are dynamic. What was impossible in the past may now be feasible.

COMMUNICATE

Good communication across functional areas and with industry and users is important to the success of a market investigation. For this reason, an extensive market investigation may work best as a team effort. Linking the team members' experience and areas of expertise with the information gathered will guarantee more balanced, best-value decisions. In communicating with industry, broaden your efforts to include forums that are typically used by the market, not just the ones traditionally used by the federal government.

INVOLVE USERS

Remember to involve users (the customers) in the market research process, not merely in defining the requirement. Users can be active participants in the market research for some products and services or testers for others. Try to involve users formally in working groups, but also maintain informal lines of communication between them and the market analysts. Users in the field may have access to new technology and new product information that needs to be conveyed to those who define requirements. Users also play a major role in identifying problems with the current equipment or service. Users establish what they need and want from a product or service. Market research can let users know whether their needs and wants are feasible or affordable. With this knowledge, users can make tradeoff decisions and refine their requirements.

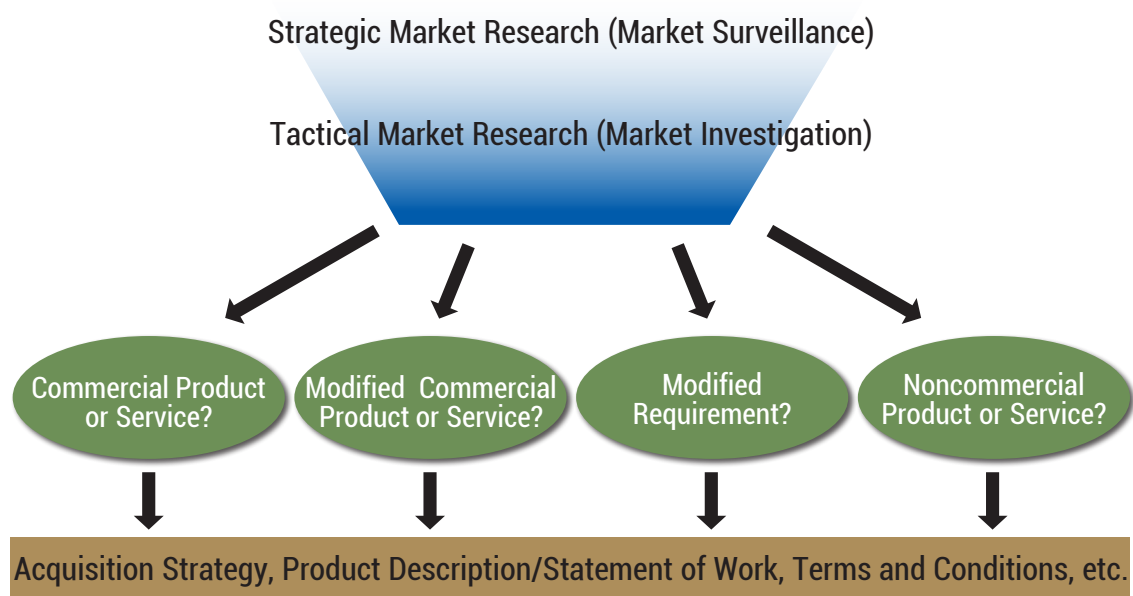
The Market Research Process

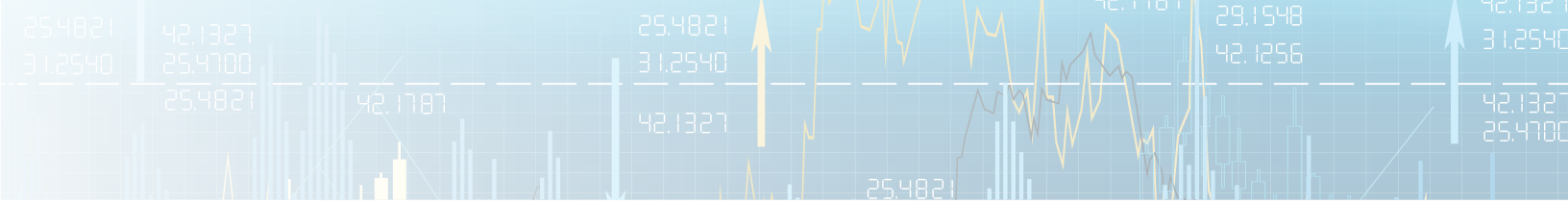
Market research can be viewed as consisting of two parts or phases: strategic market research, also called market surveillance, and tactical market research, also called market investigation. The delineation between where strategic market research ends and tactical market research begins is not clear-cut. Generally, however, strategic market research is an ongoing process that focuses on finding information about the broad market. It can be done independently of any specific acquisition requirement, as well as in conjunction with one. Keeping current with the latest developments in the market is one example of strategic market research.

The information gained from strategic market research can be used to focus the efforts of tactical market research. Tactical market research is conducted in response to a particular need or acquisition and is designed to answer specific questions. It is more focused and in-depth than strategic market research. The scope will vary based on factors such as the market, the size and complexity of the acquisition, and the type of information sought. Figure 3 illustrates this concept.

For most market researchers, the internet is the preeminent source of information. Through the internet, you can research a vast topic relatively quickly. Internet searches provide leads to explore. And the sources uncovered are, for the most part, current. Moreover, much of the

Figure 3. Market Research Overview





information on the internet is free. However, some resources require subscriptions, per-use charges, or other fees; costs vary with the type of information provided, the number of services (resources) used, and the number of users in your group or office. Appendix A lists some of the types of information available on the internet; some types are useful for strategic market research, some for tactical market research, and some for both.

Ultimately, the goal of both strategic and tactical market research is to provide acquisition personnel with enough knowledge about the market to make good decisions. Market research will have a significant impact on the acquisition strategy, the requirements, and the business processes needed to successfully contract for the desired product or service. Below, we address the specific steps required for both types of research.

STRATEGIC MARKET RESEARCH (MARKET SURVEILLANCE)

Strategic market research involves activities that result in a broad understanding of markets, technologies, business developments, and the products or services of interest. Strategic market research is an ongoing process and is usually not focused on a single acquisition. The goal of strategic market research is to develop a base of knowledge about the market area of interest and its products or services. This base of knowledge can then be applied to one or more acquisitions to help focus the more detailed tactical market research.

Strategic market research helps you to stay abreast of the latest developments in the market area of interest, including the latest technologies, business trends, products, services, and business practices. By conducting strategic market research regularly, you will be better positioned to assess the capabilities of the market to provide the desired products or services. This knowledge is invaluable when developing the initial acquisition strategy, well before actual requirements are in place. Decisions made early in the acquisition process will shape all that follows, so conducting strategic market research is critical to the success of an acquisition program.

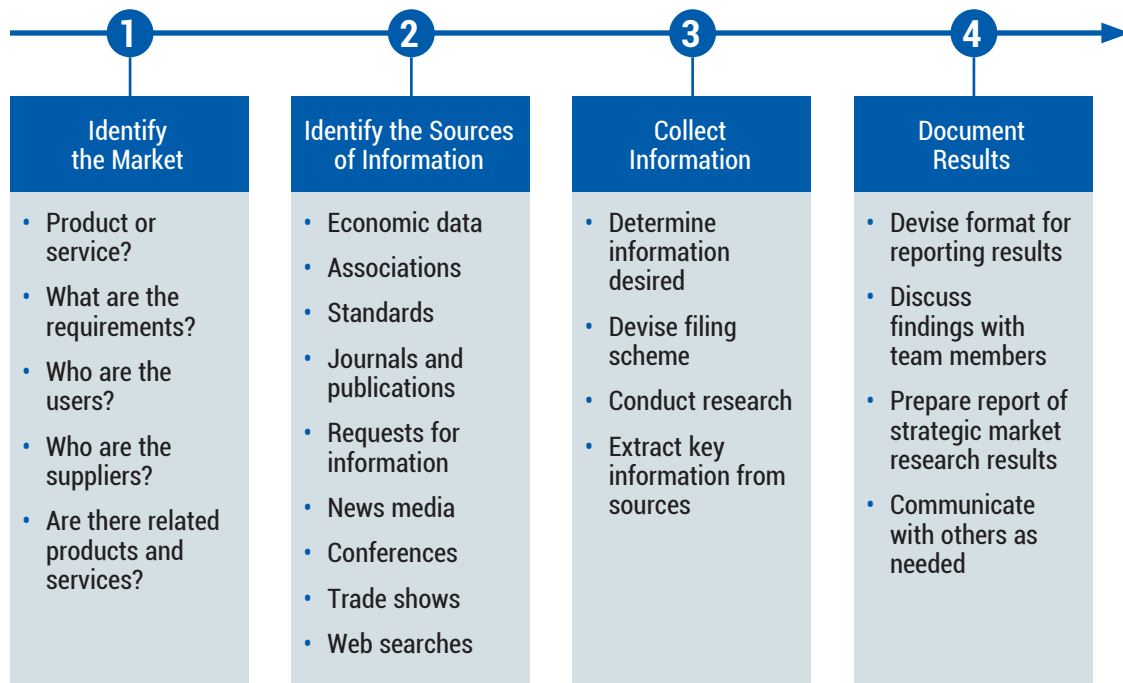
Strategic market research has four major steps, summarized in Figure 4. Each of the steps is discussed in the following sections.

Identify the Market or Market Segment of Interest

The first step in conducting strategic market research is to identify the market or market segment of interest and to scope out the task. Answering the following questions will help get you started.

Are you interested in a product or a service? At the strategic level, the research that you do will be similar regardless of whether a product or a service is involved. However, you will need to tailor the research somewhat. For example, when looking at product markets, you will want to investigate factors such as technologies, manufacturing and production processes, and logistics. For services, you will need to investigate the performance requirements that affect quality, labor factors such as availability and required skills, and the approach to delivering the service.

Figure 4. The Four Steps of Strategic Market Research

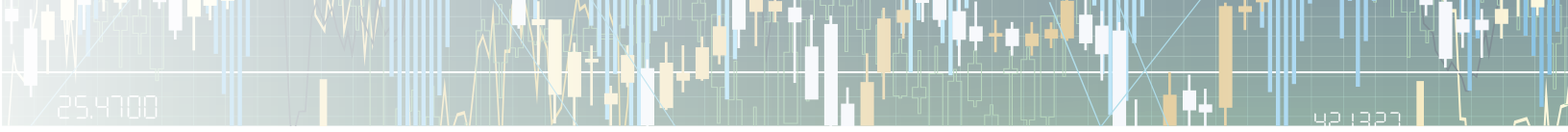


What are the requirements? At the early stages in an acquisition program, the requirements may not yet be defined. In that case, you will need to take a much broader look at the market in order to identify alternatives. On the other hand, if you know the requirement will involve only reciprocating pumps, then you can limit your efforts to that market segment.

Who are the participants in the market? Who are the sellers? Who are the buyers? Is the federal government currently a buyer? Are there dealers or distributors? Do industry or trade associations play a role? Do other markets affect or have a relationship with the market of interest, such as suppliers and transportation? Are there any consortia? Do nonprofit or educational organizations play a role? Are subcontractors used? Has outsourcing of the product or service taken place? Do any international organizations, including foreign governments, participate in the market? Are there lobby organizations? Are standards organizations involved in the market? Are other parts of the federal government involved in the market, for example, labor, health, environment, safety, or R&D labs? By answering these questions, you will identify the stakeholders in the market and help define the scope of your strategic market research effort.

Identify Sources of Market Information

Once you have some idea of the market you wish to research, you will need to identify sources of information to help answer the questions above. Much of strategic market research can be accomplished by using the resources available on the internet. If you're not sure where to begin, searching on the product or service of interest using one of the many web search engines can lead to many useful links.



If you are very familiar with the product or service to be acquired, you are probably well prepared to do the market research using the various types of internet resources. However, if your time is limited or you are not very familiar with the product or service, then you might want to consider employing a professional research service. These services generally have access to more information than you can get through an individual search of the internet; however, a search service can be expensive.

In addition to information available on the internet, you also should consider the following sources:

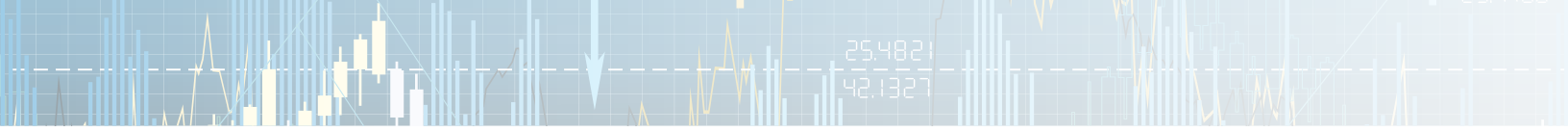
- **Other government customers.**

Do other agencies purchase the product or service of interest? These users may be very well informed and an excellent source of information. A general web search may uncover links to other government users, but you should also look at contracting resources such as the Federal Business Opportunities (FedBizOpps)

website and the Federal Procurement Data System—Next Generation (FPDS-NG). You can search FedBizOpps for current and past requests for proposals (RFPs) and contract award announcements in all the product and service areas, and thereby identify any government customer. FPDS-NG, FedSpending.org, or a commercial subscription service that uses data from FPDS-NG can provide contract award information, including the awarding office, for all products and services that the federal government purchases. If you are looking at research programs, also consider searching the announcements at Grants.gov; although most announcements on Grants.gov will result in a grant as opposed to a contract, you may find agencies that are involved in similar research or programs. By using these resources, you will be able to identify other government stakeholders in the market, and find others, such as government laboratories, who can share their knowledge of the market with you.

Examples of Strategic Information

- Number of suppliers in the market and market share
- Name, size, and annual sales of potential suppliers
- Availability of commercial items
- Willingness of suppliers to modify commercial items to meet requirements
- Past government work by potential suppliers
- Other government agencies that are buying the same product or service
- Existence of market research done by those other government agencies
- Commercial business practices, terms, and conditions
- Business, legal, trade, political, and other developments affecting the market
- Existence of any new developments in the field of interest
- Related areas that may affect the field of interest

- 
- **Economic data.** A strategic market research study should include a review of basic economic data about the market. The data may include industry sales and trends, number and sizes of the participating firms, and any other industry information that is relevant. Sources to consider are data from the U.S. Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics; industry and trade associations reports and publications; purchasing publications; and news and business publications.
 - **General market information.** Other sources of information about the market include trade shows and conferences, training programs focused on the market, industry and trade associations and publications, organizations that establish standards for the market, and the news media. Personal contacts are another valuable source of information. Site visits to suppliers of products and discussions with other users can help you get a better feel for the realities of the industry than you can get by relying solely on media such as advertising brochures. You can also publish a request for information (RFI) in FedBizOpps to seek general information from firms in the market, although an RFI may be more appropriate once you've learned more about the market and have begun your tactical market research.

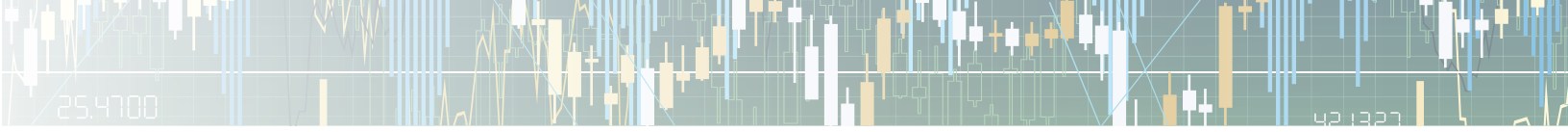
Collect Relevant Market Information

After you have identified potential sources of information to support your strategic market research, you must then decide what information is important enough to collect from those sources. This is a matter of judgment. Your decision will depend on the market you're researching, the nature of the product or service, and your role in your organization.

A key aspect of collecting strategic market research data is to first develop an organized structure for storing or capturing the information so that you can find it quickly. You could use web bookmarks or favorites, folders and files on a computer or network, hard-copy file folders or binders, or some combination. Web bookmarks and folders are convenient when the research is conducted via the web, although web bookmarks can become inactive over time as the underlying websites are deleted or revised. You could transfer, cut and paste, or enter data onto forms, documents, or databases that you store on your computer or network; the disadvantage with this approach is the labor and time to extract and replicate information from the sources. Hard-copy files are useful for organizing material from brochures, magazines, printouts, or other physical media.

You will probably use one or more approaches for storing the market research data unless you want to invest in the effort to convert the various types of information into a common storage environment. For example, if the market you are researching is jet engines, you might want to create a structure like the following:

- Jet Engines
- Technology Development
- Economic Data
- Business News.



Information on the latest engine technology, materials, manufacturing processes, quality, and so on could go under the Technology Development folder. Under the Economic Data folder, you might capture information on industry sales, trends, pricing, and labor. Under the Business News folder, you could capture information on the companies that constitute the market, mergers, spinoffs, outsourcing, trade issues, and legal developments. You could create additional subfolders to target specific areas. And because strategic market research should be ongoing, you could further subdivide the folders to capture the information yearly. The main objective is to create an organized system for collecting and storing the results of your strategic market research so that the data can be easily pulled together and used as a starting point for in-depth tactical market research.

Document the Results

Having an organized structure for collecting and storing strategic market research data is only half the battle. Once the information is collected, you should then analyze and document the results, and you should communicate your results with others as necessary. Because strategic market research is ongoing, even when no specific acquisition program is in place, it is easy to overlook the importance of documenting your findings—and often difficult to find the time to do so. However, documenting your strategic market research findings offers several important benefits:

- Good documentation helps team members develop an overall picture of the market.
- If you leave your position, good documentation allows your successor to quickly get up to speed on the market.
- When important developments occur in the market, good documentation allows the findings to be communicated with other stakeholders.
- When a new acquisition is contemplated, good documentation of strategic market research saves time and resources and helps focus the efforts of tactical market research.

There are no mandatory formats or requirements for documenting the results of strategic market research. Strategic market research being conducted as part of an acquisition should be documented in accordance with the agency or program requirements. For ongoing strategic market research, documenting the findings at least annually is recommended. The following headings represent a suggested starting point for documenting your findings:

- Time period covered
- Market research team members or individual who prepared the report
- Companies contacted, questions asked, summary of information provided, test results, and evaluation of products or services
- Market developments, broken out into specific areas if desired (for example, each team member could have a section related to his or her specific area of research)
- Impact of the findings on the federal government

- 
- Recommended actions based on research findings, for example,
 - investigate a new manufacturing technology to determine its applicability to government acquisitions,
 - identify production issues that might affect future government needs,
 - train government personnel in a new commercial quality assurance process, or
 - alert other stakeholders to issues or new developments
 - Actions completed in response to the market research findings.

Commercial markets are often fast paced and evolve rapidly. Using a structured approach to collect and document strategic market research results will enable DoD to gain the most benefit from commercial markets.

TACTICAL MARKET RESEARCH (MARKET INVESTIGATION)

Tactical market research involves activities that result in an in-depth understanding of a market. Tactical market research is conducted during an acquisition process to answer specific questions about the market, suppliers, products, services, and so on in order to shape the acquisition strategy. Tactical market research builds on the results of ongoing strategic market research, using those findings to help identify targets for more in-depth research.

The tactical market research process has seven steps, as shown in Figure 5. Each step is discussed below.

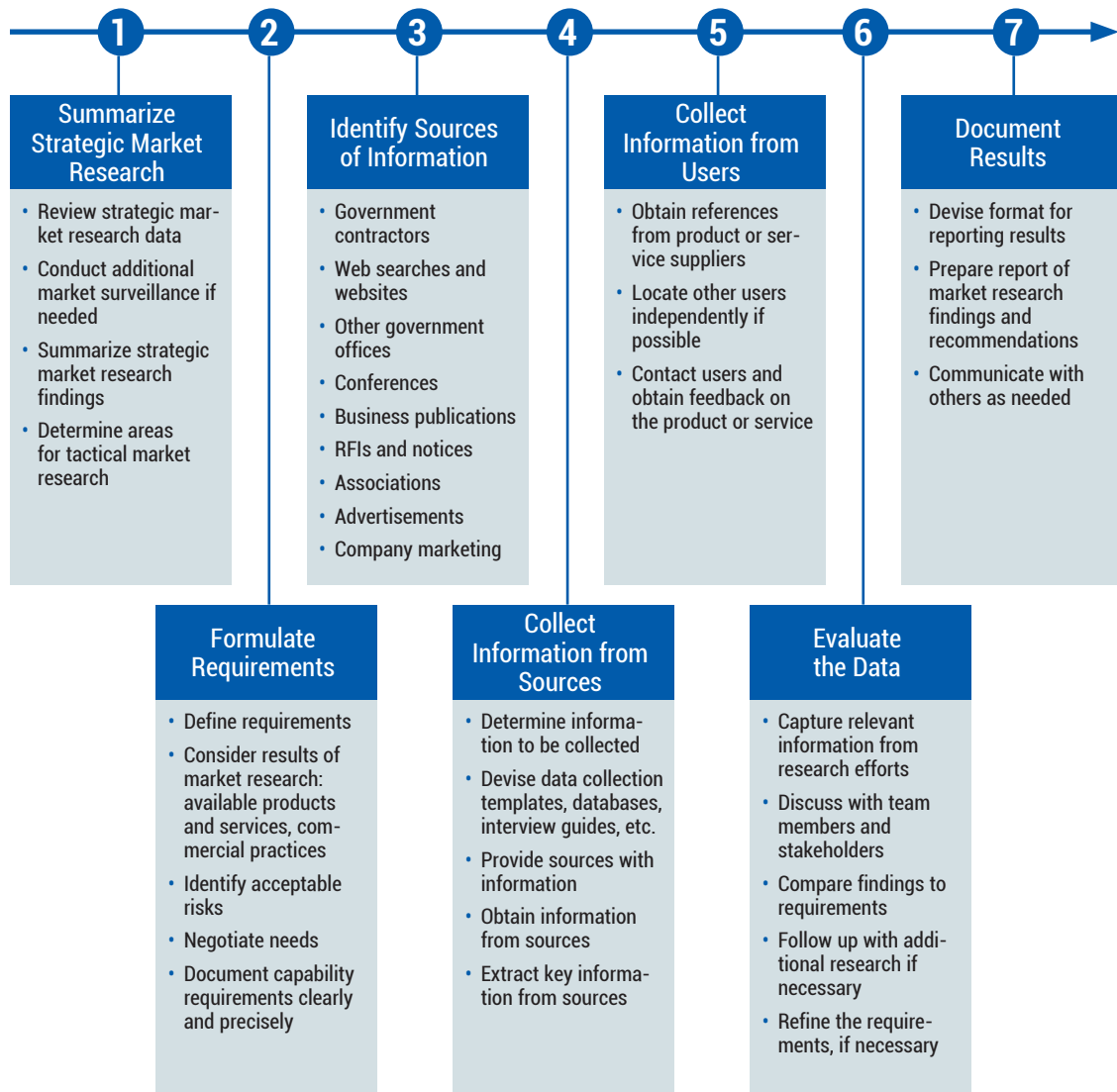
Summarize Strategic Market Research

Part of the value of strategic market research is that you are better prepared to do an efficient tactical market investigation in the limited time you have when faced with an acquisition. The first part of a market investigation is to review and summarize what you already know from your strategic market research. In this part of market investigation, good documentation of your strategic market research pays dividends in time and cost savings. Considering your previous findings, you can now target the tactical market research to answer specific questions and to fill in gaps in information. Also, communicating requirements to industry is integral to conducting successful tactical market research. Information must reach industry early to give vendors an opportunity to identify potential commercial products or services. It is important to communicate requirements in a manner that industry can easily and fully understand. It is also vital to describe the operational environment because it may differ from the commercial environment.

Formulate Requirements

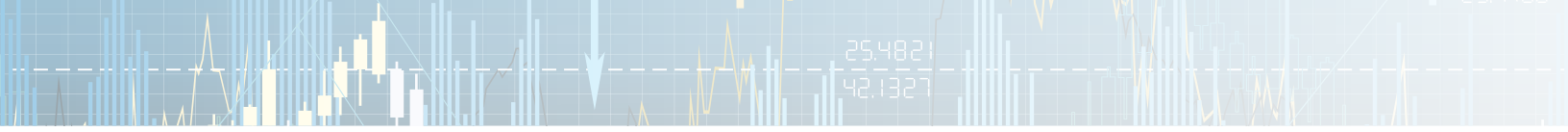
Before beginning the detailed look into sources to meet the requirements, you should formulate and define those requirements in greater detail. The results from early market research should be sufficient for acquisition personnel to determine whether the user's initial concept and requirements are feasible. Early market research should also point to possible alternatives, either material or nonmaterial, to meet the user's need.

Figure 5. The Seven Steps of Tactical Market Research



Documenting the results from early market research will enable the user and acquisition personnel to discuss the various alternatives, assess risk, make tradeoffs, and negotiate and clearly define the requirements upon which the acquisition will be based. Clearly formulating the requirements through discussions and negotiations between the user and acquisition personnel will pay dividends in time and money saved as the acquisition moves from concept refinement through production and deployment, as well as in the operations and support phase.

Clear and thorough requirements documents, which describe the user's needs, are essential to a successful tactical market investigation. Only by understanding the requirement can you focus the tactical market research appropriately. Requirements documents may vary in format depending on the size and complexity of the requirement, but must clearly list or describe the user's requirements in a structured or formal manner. Once you have reviewed the requirements



documents and have an understanding of the requirement, you can orient your tactical research to target specific types of information. Appendix B contains examples of the types of information you may need to collect.

Identify Sources of Information

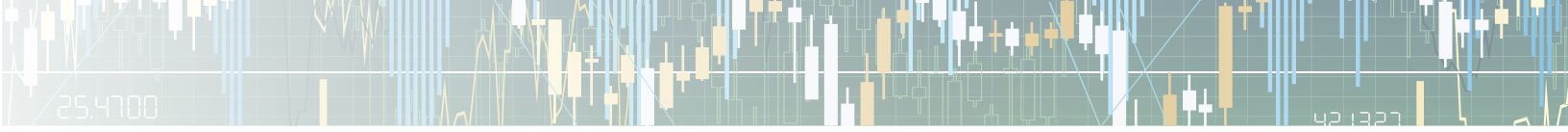
If you've been conducting strategic market research regularly, you probably know many of the sources for the product or service you're interested in. If not, you may have to conduct additional research to identify the firms that are potential suppliers. Some markets may have only a few or even just one source for the product or service. Other markets are highly competitive, so many sources may be available. The amount of time and effort you put into identifying sources is a judgment call. Consider the value of the acquisition and the potential benefits of locating a new source.

Adding new potential sources to a list of suppliers increases competition, which can lead to better products at lower costs for DoD. If this is the first attempt to meet the requirement with a commercial item, more effort may be required to identify as many potential sources as possible. You may need new techniques to reach sources that have not previously dealt with the federal government.

The list of sources starts with information obtained during market surveillance. Known suppliers and those who have bid on contracts in the past constitute a basic list. You can identify such suppliers by searching the contract award data in the Federal Procurement Data System—Next Generation or by using a commercial subscription service that packages FPDS-NG data into easily searchable databases. For some products and services, the General Services Administration schedules will identify sources. Announcements of "Sources Sought" or "Request for Information" in FedBizOpps often produce a good response; however, the announcement might be seen only by firms that have done business with the government in the past. To reach suppliers that have not previously bid on government contracts, try advertising on internet forums, through trade associations, or in trade publications, which are used by commercial firms seeking new business. Almost every industry has some established structure for helping buyers and sellers find one another. Advertise where the commercial buyers do.

Commercial databases can also help generate a list of potential suppliers. Databases covering commercial products and suppliers may specialize in one industry or may include products from many industries. Dun and Bradstreet offers subscriptions to a web-based resource called Global Reference Solution, a database of millions of businesses throughout the world. ThomasNet is an online resource offering a directory of global industrial suppliers and product information. Several database products are based on the information contained in the Federal Catalog System. Those databases relate part numbers and national stock numbers to sources. Similar catalog databases covering commercial products are also available.

Performing basic web searches for the product or service desired is another way to uncover commercial sources. You may find a great deal of marketing information, catalogs, and basic information about the product or service available from the company's website.



Finally, consider conferences and trade shows where suppliers have booths to advertise their products or services. Firms may offer the opportunity to see and demonstrate the product or service, offering valuable insight into their capabilities.

Collect Product or Service Information from Sources

Once you've identified potential sources for the types of information you need based on requirements, you can begin collecting data about the product or service of interest. The following are some methods you can use to obtain information:

- **Search the supplier's website and extract relevant data.** The website may include catalogs, product or service descriptions, references, application data, warranty information, business terms and conditions, and other information that you need.
- **Contact a supplier representative by telephone, email, or letter.** It is not uncommon to get incomplete or erroneous data from a supplier, so direct dialog with a company representative may help clarify issues. This method has the advantage of a two-way communication in which you can ask specific questions and get information that might not be available otherwise.
- **Prepare a formal survey or questionnaire and send it to multiple suppliers.** Suppliers also can be surveyed by telephone or through a web interface. A formal survey should have an introductory letter explaining the purpose of the survey. Because of the Paperwork Reduction Act (44 U.S.C. 3501), limitations have been placed on the amount of data that can be collected; therefore, you should request only the minimum information needed to answer your questions, and you may have to follow up with suppliers who did not respond or responded with incomplete or ambiguous information.
- **Review printed company literature such as sales brochures and catalogs.**
- **Hold presolicitation conferences to discuss planned requirements with industry members.**
- **Circulate draft product descriptions, statements of work, and requests for proposals for comment by potential sources.**
- **Issue a "Request for Information" or a "Sources Sought" notice in FedBizOpps.**
- **Conduct government/industry offsite meetings.**

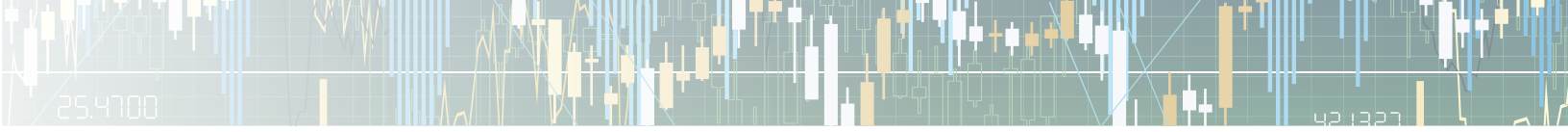
To get the most useful information from potential sources, you should first provide them with information about the requirement. Table 1 is an example of the type of information you might want to provide about a requirement for an IT system. Again, you should provide only the minimum information necessary to obtain the answers you need.

The techniques used for tactical market research are similar regardless of whether the requirement is for a product or a service. However, some differences affect the areas of focus during the data collection process. Products lend themselves to objective descriptions of their physical characteristics, performance data, estimated service life, and other factors. This tendency simplifies the collection of data about products and can make it easier to compare products from different manufacturers.

Table 1. Example of the Type of Information to Provide to Sources about a Requirement for an IT system

| Category | Type of Information |
|--|---|
| General information | <ul style="list-style-type: none"> • Operating characteristics for hardware or software • Environmental conditions for use • Anticipated use (fixed, airborne, tactically deployable) |
| Services information | <ul style="list-style-type: none"> • Description of services desired • Period of performance • Expected deliverables • Expected labor categories |
| System interface or integration requirements | <ul style="list-style-type: none"> • Radio transmission frequency requirements and allocation status • Rules for government use of frequency spectrum • Human factor considerations |
| Maintainability | <ul style="list-style-type: none"> • Self-test requirements • Limitations, if any, on organizational-level support equipment |
| Communications/computer system interfaces | <ul style="list-style-type: none"> • Software portability to other communications/computer systems • Operating duty cycle (full time, intermittent) • Input power quality (drops, surges, spikes, noise) • Essential safety characteristics • Reliability, maintainability, and survivability • Nuclear hardening requirements • Chemical, biological, and radiological survivability • Electromagnetic compatibility |
| Logistics support | <ul style="list-style-type: none"> • Planned maintenance echelons • Maintainer proficiency levels • Software maintenance plans • Limitations on evacuation of reparable items (battlefield, underground, rough handling) • Maintenance environment (high winds, mud) • Supply support, support equipment needs, and limitations • Training needs • Technical data needs • Transportability |
| Cybersecurity and system security concerns | <ul style="list-style-type: none"> • Cyber-threat protection measures • Cybersecurity standards related to the analysis of program risks • FAR and DFARS clauses related to information security |

Services, on the other hand, require the effort of a contractor to perform a task as opposed to furnishing a product. Services can vary greatly and may be customized for the task required. Consider a simple example of a task to paint the interior of an office. Does the service include repair of any existing damage to the walls and trim? Will it require priming and sanding? Will



one or two coats of paint be required? Should cleanup be addressed in the contract? Are the paint and other supplies included? Is there a standard for how long the job will take? The details of what is included in the service can make it difficult to compare the services from different companies. You need to be familiar with the government requirements for the task in order to describe the needed service to prospective sources and to evaluate the service offerings of different firms.

In addition to a description of the product or service, you need to consider its quality. For products, quality can usually be described in objective terms based on product test results, tolerances, materials, and product history. For services, quality is more subjective and can be difficult to ascertain. Past performance is paramount. Service providers may have multiple levels of the same service, such as basic, standard, and premium. You will need to understand what distinguishes the various levels of service. Many service sectors are governed by regulatory standards or have their own standards to which they voluntarily adhere. These standards describe the minimum performance you can expect. So if the standard meets your requirement, you can be reasonably confident that a number of companies can provide the needed services. The standard will also provide acceptable quality levels, if they exist. An acceptable quality level establishes the maximum allowable error rate or variation from the standard. For example, a standard for maintenance services may require that a particular maintenance action be completed in 4 hours, with an acceptable quality level of 5 percent. That is, the service may take more than 4 hours only 5 percent of the time. This information is important because, unlike products, services can rarely be delivered 100 percent to standard.

To verify the claims of the potential sources, you should request the names of current customers of the product or service. If the source had previous government contracts for the same or similar product or service, you should ask for the following information:

- Contract number
- Title and objective of contract
- Contracting agency and point of contact information
- Period of performance
- Value of contract
- Type of contract (fixed price, cost reimbursement)
- Accomplishments of effort (products furnished or services provided).

As you start collecting information from potential sources, you should also be thinking about how you are going to capture and organize the information. If you are collecting information from multiple firms, consider setting up a database or spreadsheet with fields to record the key elements. A database or spreadsheet allows you to sort and filter the data in various ways, which aids analysis. If the information you are collecting is mainly qualitative or narrative, a table in a document may be sufficient. If you plan on gathering data via phone conversations, an interview guide or template will help ensure that you cover all the areas you intended and will help you to capture the data. Whatever data collection methods you use, a good system for capturing and organizing the data will help you to analyze and document the results of your research.



Collect Information from Product or Service Users

Following up with the references provided by the product or service sources is the next key step. Feedback from the actual users of the product or service allows you to assess how well the product or service performed in the past and to identify any issues. One approach to collecting information from product or service users is to interview them either in person or by phone. In some cases, email correspondence may be sufficient.

Private-sector users are often willing to discuss good and bad features of products or services. DoD experts can question their private-sector counterparts to get additional technical knowledge and to make an informed judgment on whether it meets DoD's need. For example, the logistics representative on the team could interview maintenance personnel who have experience with the product to determine what their maintenance philosophy is, how much maintenance is needed, whether parts are easy to replace, and so on.

Because a source is unlikely to knowingly provide you the names of users that are dissatisfied with the product or service, you should also attempt to independently identify users. Information collected from them may be far more useful for verifying the sources' claims.

You can also review customer satisfaction data from reliable sources like government databases, consumer protection organizations, and user groups. Keep in mind that at this point, the goal is not to select or eliminate any potential sources. That will be done during the acquisition process when offers are evaluated.

Another way to verify a source's claims about a product is to test samples. When it is feasible to do so, personnel should test the product in the field to determine whether it meets performance claims and operates satisfactorily. The military service or component may wish to rotate the product through several units to get feedback from a number of people. To verify a source's claims about a service, you may be able to visit a user's facility to see the results of the service.

Evaluate the Data

After you've completed the data collection process, you need to evaluate the data to determine whether the information received is sufficient to determine whether the product or service meets the needs of the requirement. It is not uncommon to get incomplete or erroneous data from suppliers. In some cases, you may need to contact an applications, field service, or design engineer for clarification of issues. You may also need to appraise the data using market surveillance information, analyzing market trends to fill in missing data. For example, you can estimate the length of a product cycle for a product for which you have no data by analyzing comparable products for which data exist.

As a result of your data collection efforts, you may determine that

- a commercial product or service is not feasible,
- commercial products or services meet the need as stated,
- commercial products or services can meet the need if certain requirements are relaxed, or
- commercial products or services could be modified to meet the requirement.

Table 2. Examples of Market Research Focus Areas for Products and Services

| Products | Services |
|--|--|
| Product data. Product performance and interface characteristics; applicable regulatory, commercial, and de facto standards; open system definitions; product-differentiating factors; cost-driving factors; test results; samples; product literature such as product data sheets, independent test reports, and product instructions. | Service data. Tasks included in the service; service levels; acceptable quality levels; use of government, industry, or company standards; related or ancillary services; costs; labor. |
| Supplier capability. Number of suppliers in the market, production capacity, producer's capability to meet surge and mobilization demands. | Service delivery. Geographic coverage (local, regional, national, or international), actual service provider (company employees, subcontractors, or independent consultants), availability of service (for example, round-the-clock or business days only). |
| Market acceptance data. Annual sales, market share, product maturity, returns on warranty, other data related to whether the product meets government needs. | Market acceptance data. Annual sales and growth trends, market share, number of customers using the service. |
| Support data. Product support records, experience, and support system; warranties; repair histories; policies and procedures on repair and replacement; support of or upgrades to discontinued models; length of time that particular products will be produced or supported; approach to providing upgrades. | Customer support. Inclusion of onsite customer service representatives, dedicated customer representatives, help lines, availability to meet sudden changes in customer needs. |
| Test data. Test results (from the supplier's or an independent laboratory), regulatory or third-party testing or certification (for example, Federal Aviation Administration or Underwriters Laboratories, Inc.). (Test data can be used to validate suppliers' claims regarding product performance. In some instances, test data can eliminate or reduce the need for further testing.) | Training and certification. Company, industry, state, and national training or certification requirements for the personnel performing the service; use of the latest business processes or technologies to improve the service and provide value to the customer. |
| Business practices. Standard commercial contract terms, conditions, and pricing arrangements for commercial acquisitions using procedures in FAR Part 12; factors affecting how products are sold or distributed in the market (such as commercial supply chains). | Business practices. Standard commercial contract terms, conditions, and pricing arrangements for commercial acquisitions using procedures in FAR Part 12; structure of service contracts such as use of performance-based statements of work, performance metrics, performance incentives, and quality assurance plans. |
| References. Entities using the product. (The references are used to verify the information submitted by the supplier and to get other users' views on how the product performs.) | References. Entities using the service. (Service quality is crucial, so checking references of current service users is vital to understanding how the service provider is performing.) |

To easily evaluate the data you have gathered about a product or service, you should use a table, database, or spreadsheet. Here, we provide two simple examples. The first is for a product, a handheld receiver for a global positioning system (GPS); the second is for pest removal services.

Table 3 shows a sample comparison of the characteristics of four GPS handheld receivers; it also shows the characteristics required by the government. In this example, it's clear that the commercial market can meet all of the government's requirements except for battery life. Further research may be needed to determine whether it is technologically feasible to meet the requirement and what the cost implications are. Perhaps the government user would be willing to trade off this requirement, or perhaps the requirement can be met through other means, such as having the user carry an extra set of batteries. In situations such as these, it is very useful to have an individual who is responsible for the operational requirement on the market investigation team. You may avoid reducing the candidate field or eliminating a commercial solution by relaxing or deleting the problem requirement if, in the judgment of the user, that is a reasonable thing to do.

Table 3. Sample Comparison of GPS Handheld Receivers

| Item | Weight | Dimensions (inches) | Battery Life (hours) | Display | Memory | Warranty | Accuracy (meters) |
|------------------------|--------|-----------------------------------|----------------------|------------|---|-----------------------------|-------------------|
| Government requirement | ≤8 | 5.5 H max 3 W max 2.5 D max | 30 | Gray scale | 24 MB | — | ≤5 |
| Supplier A: Product 1 | 7.7 | 4.5 H 2.4 W 2.2 D | 16 | Color | 64 MB | 1 year parts and labor | ≤3 |
| Supplier A: Product 2 | 6 | 4.3 H 2.5 W 1.9 D | 25 | Gray scale | 32 MB | 1 year parts and labor | ≤5 |
| Supplier B | 8 | 4.8 H 2.7 W 2.5 D | 20 | Gray scale | 16 MB built-in, additional via SD memory card | 1 year parts; 90 days labor | ≤5 |
| Supplier C | 8.2 | 5.2 H 3.2 W 2.2 D | 18 | Color | 64 MB | 2 years parts and labor | ≤7 |

If the user is unwilling to relax or eliminate a particular requirement, then ask the candidates about the feasibility and cost of modifying their product to meet the requirement. Some suppliers routinely modify their products for their commercial customers. Another possibility is that the suppliers will see that the modification would be commercially marketable and be willing to make the modification in anticipation of a return from the commercial market.

These kinds of tradeoff analyses are important tools in establishing a pool of candidate sources that represent the overall best choices. In some cases, it may be economically feasible to develop techniques that mitigate the risk of using commercial items that do not fully meet the requirement. For example, a commercial alternative may not satisfy a particular reliability requirement (e.g., 300 hours mean time between failures). However, a tradeoff analysis might demonstrate that other equipment capabilities or performance would compensate for the reliability shortfall. Or, if cost savings per unit were sufficient, redundancy or a

dispose-and-replace policy might compensate for the shortfall. You can use similar analyses to evaluate processes, production methods, and production control procedures. It is usually better to accept or tailor these processes, methods, and procedures rather than to impose totally new procedures that will drive up risk and cost.

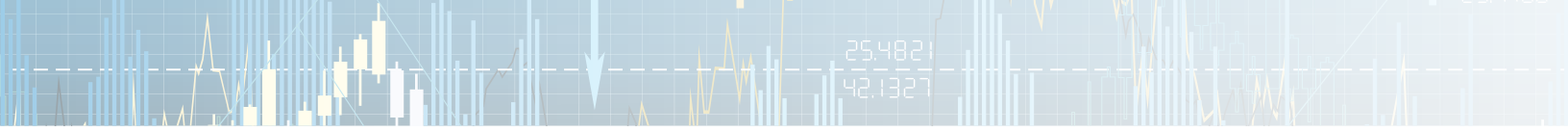
Modifying a product can increase program risk, because modification of a commercial item may result in a partial development effort. Many of the cost, risk, schedule, and supportability benefits of buying a commercial item may be jeopardized as a result of modification. The test and logistics support plans must account for the scope of the modification to ensure success. Evaluate the total effect of modifications, particularly in the area of logistics support. For example, a supplier may not recognize or support the resulting redesigned product, and DoD may have little or no organic support capability for it.

Table 4 shows a sample comparison of five pest removal services; it also shows the characteristics required by the government. In this example, the government did not specify any quality assurance requirements. The market research showed that firms in this industry adhere to various standards. Further research into this area will aid the government in establishing quality assurance requirements for the final requirements that appear in the actual solicitation.

Table 4. Sample Comparison of Pest Removal Services

| | Services | Geographic | Contract | Service | Certified | Quality |
|------------------------|-------------------------|------------|--|-------------------------------|-----------|--|
| Government requirement | Insects, mammals | Regional | Fixed price | Within 48 hours | Yes | — |
| Supplier A | Insects, birds, mammals | National | Fixed price; annual contract | Within 24 hours | Yes | ISO 9001 |
| Supplier B | Insects, birds, mammals | Local | Fixed price; annual contract | Business hours, 5 days a week | Yes | Industry association service standards |
| Supplier C | Insects, mammals | Regional | Time and materials | 24 hours | Yes | Company standards |
| Supplier D | Insects | Local | Fixed price | Within 12 hours | Yes | State govt. standards |
| Supplier E | Insects, birds, mammals | National | Various; fixed price; time and materials | Within 24 hours | Yes | Industry association service standards |

Services can be easier to tailor or adapt to the user's needs than products. Whereas adapting a commercial product might require costly engineering, design, and production changes, adapting a service might require only a change in a business process. In some cases, the commercial service may include related tasks that the government customer had not considered. In any event, a thorough understanding of both the government's needs and the supplier's capabilities are necessary in order to develop a good statement of work for the actual solicitation.



As demonstrated by these two examples, you may conclude from your evaluation that a commercial product or service is not feasible, that commercial products or services meet the need as stated, that commercial products or services can meet the need if certain requirements in the original statement are relaxed, or that commercial products or services could be modified to meet the requirement.

You may also determine that additional steps are needed to properly evaluate the products or services identified through market research. For example, environmental or conformance tests may be needed to determine whether the product meets particular aspects of the requirement, or site visits may be needed to determine whether the supplier can provide a consistent product or service.

Document the Results

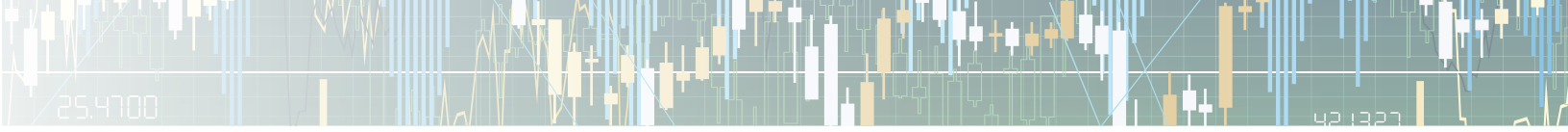
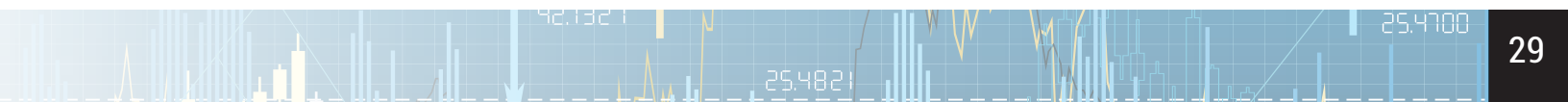
Documenting the results of the market investigation is a critical aspect of the process. FAR Part 10 states that agencies "should document the results of market research in a manner appropriate to the size and complexity of the acquisition." The results should also be documented in a manner appropriate to how they might be used in the future. That is, the type and amount of information you keep should be based, in part, on how you expect it will be used in the future.

Documentation serves several purposes. First, it provides a historical record of the market research effort and provides evidence that proper market research was conducted for the acquisition. Second, other market research teams investigating similar products may use it to get a feel for what might be available and to get ideas on where to start their investigation. Third, the contracting office working on the solicitation for your acquisition may use it to further determine appropriate contract terms and conditions.

Early market research must also be documented during development of the technical opportunities and user needs prior to Milestone A and further documented in the capabilities development document prior to Milestone B. DoD Instruction 5000.02, "Operation of the Defense Acquisition System," indicates that market research is a statutory information requirement for both Major Defense Acquisition Programs (MDAPs) and Major Automated Information System Acquisition Programs (MAIS). This instruction requires the evaluation of requirements based on the potential of the commercial market to meet the users' needs.

There is no standard format for documenting your market research results. The Office of Defense Procurement and Acquisition Policy provides a market research template and glossary of select resources in "Market Research—Report Guide for Improving the Tradecraft in Services Acquisition." You should follow your organization's or program's guidance for preparing your report. The following are topics that you should consider addressing in the report:

- Background for the market research effort
- Time frame in which the market research was conducted
- Team members and other stakeholders involved in the market research

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- Description of the requirements
 - Estimated time frame or schedule for the requirement
 - Summary of strategic market research findings, including trends, competition, recent developments, and issues
 - Summary of the scope of the market research effort, including the questions to which answers were sought, the information requested from potential sources, and methods used to obtain data
 - Discussion of potential suppliers, including recent government contracts for the same or similar product or service
 - Discussion of product or service characteristics obtained through data collection, including any shortfalls in meeting the government requirement
 - Discussion of commercial business practices, procedures, terms, and conditions
 - Discussion of cost or price factors uncovered during the investigation
 - Discussion of quality factors, including such issues as past performance, references, product testing or evaluation, customer satisfaction, warranties, and quality problems
 - Actions taken as a result of the market research
 - Recommendations.
- 



Other Considerations

During your market research, you should keep several things in mind.

AMOUNT OF INFORMATION TO GATHER

The scope, extent, and documentation of a market investigation depend on such factors as the anticipated dollar value of the product or service, its complexity, its criticality, and the number of items needed or extent of the service required. The generic market research process described in this document is sufficiently detailed to apply to complex, high-value products or services. However, not all parts are necessary for all acquisitions; the process should be tailored to the specific market information needs of your acquisition and the potential for commercial products or services to meet requirements.

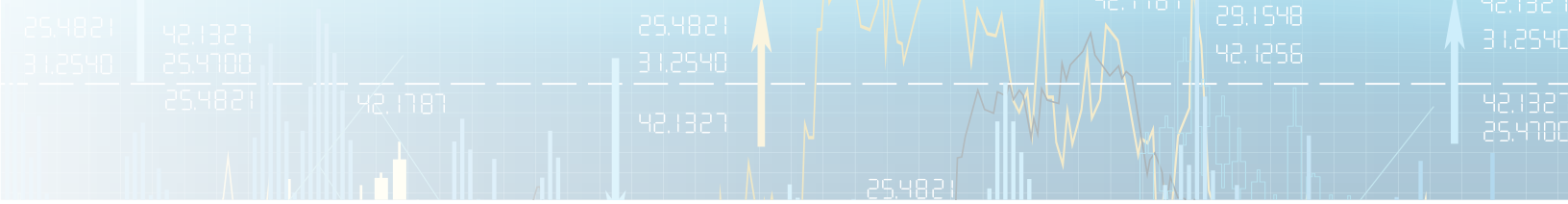
In general, you should stop collecting information when you have enough data to make informed decisions about the acquisition strategy. Commercial markets are dynamic, complex, and competitive. It is not reasonable to expect that you will learn everything about a market. Companies are interested in furthering their sales opportunities and will usually cooperate with your information request, but they may not reveal everything due to competitive reasons. Some individuals are comfortable making decisions based on limited information, which poses a risk of making the wrong decision based on insufficient research. Others put off making decisions while they await more data, which poses a risk of unnecessarily delaying the acquisition. At some point, you will reach diminishing returns during your market research. Sharing your results with team members can help keep the market research effort on track and reasonable.

PROCUREMENT INTEGRITY ACT

During your discussions with potential sources, you should be aware of certain restrictions on what you may discuss.

The Procurement Integrity Act (41 U.S.C. 423) prohibits personnel “participating personally and substantially” in a federal agency procurement from

- soliciting or accepting jobs or business opportunities from competing contractors,
- asking for or receiving things of value from competing contractors,
- disclosing bidder proposal information to competing contractors, and
- disclosing to competing contractors any source selection information that has not already been made public.



Source selection information includes bid prices in response to an invitation for bids; proposed costs or prices in response to an RFP; source selection plans; technical evaluation plans; proposal evaluations; competitive range determinations; rankings of bids, proposals, or competitors; and source selection panel reports.

Personnel who are “participating personally and substantially” in federal agency procurement

- prepare or review specifications,
- evaluate bids or proposals,
- select sources,
- conduct negotiations, and
- review and approve contract awards, modifications, or extensions.

Discussions between industry representatives and acquisition personnel that do not lead to the above prohibited activities are not just allowed, they are encouraged when the purpose is to gain a better understanding of the commercial market, including appropriate selection criteria. If you are a participant in a procurement action, remember to adhere to the procurement integrity requirements when conducting market research. Refer to FAR 3.104 for additional details on procurement integrity.

PAPERWORK REDUCTION ACT

The Paperwork Reduction Act (44 U.S.C. 3501) is designed to reduce information collection and paperwork burdens on the general public, including businesses. The act defines “collection of information” as obtaining, causing to be obtained, soliciting, or requiring the disclosure to third parties, or the public, of facts or opinions by or for an agency, regardless of form or format, calling for answers to identical questions posed to, or identical reporting or recordkeeping requirements imposed on, 10 or more people, other than agencies, instrumentalities, or employees of the United States.

If you plan to send a structured survey to, or conduct phone interviews using an identical set of questions with, 10 or more individuals (including businesses), you may be subject to the Paperwork Reduction Act. If so, you need to obtain a clearance with the Office of Management and Budget before proceeding with your survey.

The Paperwork Reduction Act requirements do not apply to unstructured sessions (such as at a conference) when questions are asked of the public or when requests are specifically tailored to an individual or business.

To avoid the Paperwork Reduction Act requirements, you should restrict structured surveys to nine or fewer respondents.



COST OF MARKET RESEARCH

The costs of conducting market research range from minimal (using web searches) to substantial (buying and testing product samples, visiting sites). Some costs may be absorbed through investments in continuing education (attending industry or trade conferences), attendance at professional organization meetings, trade publication subscriptions, and so on. Other costs, such as visiting commercial establishments or obtaining and testing product samples, may seem harder to justify, especially when budgets are tight. However, conducting sound market research is considerably less costly than building prototypes, running extensive tests during a full-scale development, or buying products or services that do not fully meet user needs.

Market research requires some up-front investment in time and cost, but it can pay substantial dividends as the acquisition process unfolds from requirements development through delivery and support. For services, too, the cost of a poor decision can be substantial. Inadequate service delivery may affect mission support, result in inefficient operations, or require the time and cost to replace the service provider. By investing in market research early in the acquisition process, the likelihood of these problems occurring is greatly reduced.

There are many resources available which provide insights on things to consider when doing market research:

- Defense Acquisition University Continuous Learning Module CLC004, "Market Research"
- Office of Defense Procurement and Acquisition Policy, "Market Research Report Guide for Improving the Tradecraft in Services Acquisition"
- Office of the Secretary of Defense for Acquisition, Technology and Logistics, "Commercial Item Handbook"
- Department of Defense, "Guidebook for Acquiring Commercial Items"
- Acquisition Gateway
- Data.gov, Data Catalog
- Defense Contract Management Agency Commercial Item Group
- Department of Defense Instruction 5000.74: Defense Acquisition of Services
- Defense Acquisition Guidebook, Chapter 10
- FedMall
- Federal Prison Industries
- Federal Procurement Data System-Next Generation
- GSA Advantage!
- Guidelines for Creating and Maintaining a Competitive Environment for Supplies and Services in the Department of Defense
- OASIS Discovery Market Research Tool
- Office of Defense Procurement and Acquisition Policy Services Acquisition.



Appendix A. Types of Information Available on the Internet

This appendix identifies some of the types of information available on the internet. Some types are useful for strategic market research, some for tactical market research, and some for both.

PRODUCT AND SERVICE INFORMATION

The following are examples of product and service information available on the internet:

- Available products and services, and the companies that provide them
- Part manufacturers
- Salient characteristics (shape, size, performance specifications)
- Part identification (such as the national stock number)
- Parts that meet government specifications
- Ordering information
- Procurement histories with unit prices.

Product or service catalogs—or databases—from commercial suppliers are a valuable source of information. Government parts databases, although limited to items that the government has already bought, are helpful in locating items that fall within the broad definition of nondevelopmental items—items that are available in the market and do not require additional development. Cross-referencing within product databases enables you to search for a specific part by using any known piece of information about that part. Some product databases provide the ability to cross-reference between commercial parts and similar government parts. You can also search for products or services that meet a particular set of characteristics.

SUPPLIER LISTS

Supplier lists can be general—surveying a wide field—or specific to a particular category. If a specific list does not give you the data you need, try e-mailing or calling the parent company to inquire about related lists.



INDUSTRY INFORMATION

Internet market research can help you identify market capabilities and customary practices of a particular industry, such as the following:

- Industry-standard terminology
- Product modifications and tailoring
- Distribution and support options
- Representative incentive provisions
- Warranties
- Product obsolescence
- Spares provisions
- Pricing practices
- Methods for ensuring reliability
- Other capabilities of the marketplace.

NEWS AND PUBLICATIONS

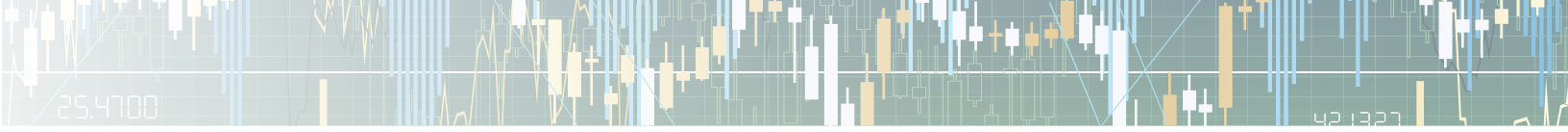
Almost any recent, publicly available information is likely to be accessible through the internet. The types of publications that are available through the internet include newspapers, trade journals, government publications, announcements of new products, press releases, and annual reports released by individual companies. Internet search engines—such as Google, Bing, Yahoo, Ask.com, AOL.com, Baidu, Wolframalpha, and DuckDuckGo (to name a just few)—enable you to locate articles by using keywords, product names, services, or the name of a particular company. Search Engine Guide offers lengthy lists of search engines, organized around subjects areas, such as business, news, the arts, and real estate.

Many electronic publications contain either the full text or an abstract of published material and include bibliographic references. Some electronic publications cover a broad range of business and economic information across all segments of the economy. These publications can be helpful in assessing the health of particular industries or even past performance of specific companies. Others specialize in one kind of information, such as announcements of new products or services.

GOVERNMENT CONTRACT DATA

For contract actions over \$3,000, the Federal Procurement Data System—Next Generation (FPDS-NG) has data on government-wide contract information databases. The FPDS-NG includes the following information:

- Contractor names, addresses, and DUNS codes
- Identification of the awarding agency and office

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- Federal supply codes and names for the products and services purchased
 - Locations of contract performance
 - Identification of small or minority-owned business awardees
 - Contract types, dollar values, and dates
 - Competition information.

The FPDS-NG allows searches on the basis of any data field or item of information. Although most of the FPDS-NG data come from the government, commercial suppliers of contract information databases usually add information or cross-references that expand the use of the FPDS-NG data.

Federal Business Opportunities (FedBizOpps) is the single government point of entry for federal government procurement opportunities over \$25,000. In addition to being the portal through which government agencies publicize their business opportunities, FedBizOpps is useful for historical information. A search of archived documents yields solicitation and award information, contracting agency points of contact, and supplier contact information.

Past performance information also is available on the internet. The merging of the Contractor Performance Assessment Reporting System (CPARS) and the Past Performance Information Retrieval System (PPIRS) (www.cpars.gov/ppirs/ppirmsmain.htm) has created a government-wide application that provides timely and pertinent information about the past performance of contractors. The federal acquisition community can use this information when making source selection decisions.



Appendix B. Examples of Tactical Information

This appendix contains examples of the types of tactical information you may need to collect.

General Information

- Requirements definition
- Product data sheets
- Availability of product samples
- Purchase descriptions used by other government agencies or in commercial transactions, including commercial specifications standards and statements of work
- Average time between model changes and practice of providing continued parts inventories, upgrades, or production for phased-out models
- Maturity of equipment design and criteria for measuring degree of maturity
- Plans for handling upgrades and obsolescence
- Length of time the product has been produced or service provided
- Product quality, reliability, and maintainability experience of similar users
- List of products and supplier services satisfying identical or similar service requirements
- Cost drivers in the manufacture and use of the product
- Applicable regulatory and de facto standards

Services

- How services are segmented or packaged commercially
- How services are provided (locally or offsite)
- Factors used to evaluate service providers
- Performance incentives
- Contract type, length, terms, and conditions
- Ownership and supply of needed equipment and other related supplies
- Qualifications of the people providing services
- Past performance and quality of services provided

Supplier Capability

- Product distribution channels
- Business practices in sales and distribution from manufacturer to wholesaler, distributor, or retailer, to user
- Production capacity to meet requirements as part of commercial sales and the appropriate time to buy
- For some items, capability to meet surge requirements and mobilization demands

- Packaging, handling, storage, and transportation practices

Market Acceptance Criteria

- Annual sales
- Anticipated future orders
- Description of supplier's quality controls, including extent of statistical process controls
- Warranty terms and practices, and annual returns under warranty
- Need for any preproduction or production qualification testing and special quality assurance requirements
- Product evaluation criteria (including life-cycle criteria, if applicable)

Supportability

- Ability to support the item for the duration of the expected military use
- Product quality, reliability, and maintainability experience of similar users
- Repair parts availability and lead-times, documentation, pricing, and distribution systems
- Customer service, installation, checkout, and user operation and maintenance instructions
- Requirements and provisions for manpower and personnel
- Competitive or sole-source repair and support base
- Willingness to allow the government to acquire licensing and subscription services to enable competition for maintenance

- For nondevelopmental items, perceived criticality of interfacing with other subsystems, software, etc., for overall system integrity
- Training and training support requirements
- Requirements for, and availability of, tools, test and diagnostic equipment, computer support resources, calibration procedures, and operations and maintenance manuals
- Commercial repair capabilities
- Supplier calibration, repair, and overhaul practices and capabilities documentation
- Supplier commitment to outyear support
- Degree of technical data package availability
- Stability of current configuration and technology
- Any needed special arrangements for maintenance according to the government's conditions

Test Data

- Hardware, software, and manpower interface issues, such as human factors and product safety as experienced by similar users
- Manufacturer test results
- Certification or test results from independent test organizations

References

- List of those currently using the product or service

- List of similar users currently using the product or service in the kinds of environments for which the researcher intends it to be used

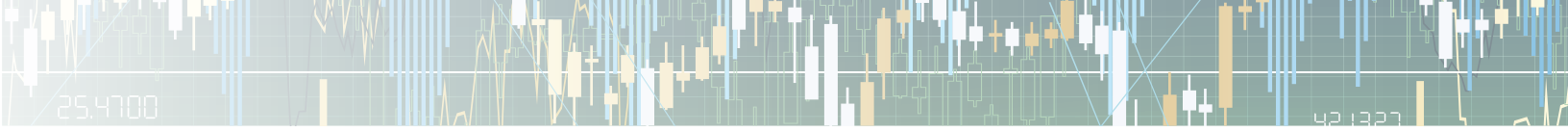
Business Data

- Distribution practices
- Minimum order quantities
- Typical contract terms and conditions
- Financing practices
- Warranty procedures
- Potential conflicts of interest (for services)
- Historical information
- Dates of past acquisitions for the supplies or services
- Prevailing market conditions at those times
- Quantities solicited and acquired for past acquisitions
- Number of sources solicited for past acquisitions
- Names of specific sources solicited
- Number and names of offerors for past acquisitions
- Any significant differences between government requirements documents for prior contracts and those for the current requirements
- Length of past delivery or performance period, in days, weeks, months, or years
- Months during which the supplies were delivered or the services performed
- Whether the contractor met the delivery targets
- Free-on-board point
- Need for premium transportation to ensure timely delivery

- Costs of ownership associated with past acquisitions
- Past acquisition methods employed
- General terms of past contracts
- Significant differences between terms of past contracts and those recommended for the current acquisition
- Problems encountered during past contract performance

Pricing Factors

- Prices paid for the supplies or service, and changes in the supply, service, or market since then
- Historical differences between prices paid by the government and those paid by other buyers, and reasons for such
- Whether additional suppliers are expected to enter the market
- Relationship of the quantity the government intends to buy and the quantity that other entities buy
- Whether the planned volume will justify a lower-than-market price as a result of the seller's increased economies of scale
- Whether the planned volume will be so large as to drive the sellers to or beyond full capacity, resulting in unanticipated inflation
- Whether the acquisition is for items that are at the leading edge of market demand (market demand is increasing) or at the back end (demand for the item is dropping)
- Whether demand will be higher or lower at the time of award
- Whether supply capacity is expected to keep pace with demand

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- Whether there is a cyclical pattern to supply and demand for the supply or service
 - Whether awarding 6 months in the future would result in lower prices than an immediate award (or if it would be better to stock up now at today's prices)
 - What forces (strikes, labor shortages, subcontractor bottlenecks, energy shortages, other raw material shortages) might drive up prices in the near future
 - What forces might lead the government to expect lower prices in the future
 - Pricing strategies of firms in the market
 - Implications for expected prices
 - Availability of discounts for quantity buys
 - Which firms in the market are most likely to submit offers to a government solicitation
 - What features distinguish one service or item of supply from another
 - Which commercial supplies or services match most closely the government requirements document (as it currently reads in the purchase request)
 - Apparent tradeoff between features and price



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