Module 2
Purchasing Process: Supply Management Integration for Competition. Shaping Smart Business Decisions (CON 100): Lesson 1: Acquisition Environment and Lesson 2: DoD Contracting Customer.

Session 2 Lecture - Supply Processes

Purchasing and Materials Management
UMUC   ASCM 626

Learning Objectives:	Session 2 Readings:
After completing this lecture module, you should be able to:	• The Week 2 Reading List is a separate file that is posted following the Week 2 Lectures.
• Understand the key objectives of any purchasing function	• Session 2 Lecture –Supply Processes
• Understand the responsibilities of the purchasing function	• Session 2 Lecture - The Role of Cross-functional Teams in Source Selection
• Understand the purchasing process and the role of e-procurement tools in the process	**Review:**
• Understand the different types of purchases made by organizations	• PowerPoint Presentation for Week 2 Topic 2: Shaping Smart Business Arrangements - Lecture 1: Acquisition Environment. (*Scroll down to locate PowerPoint Presentation in last section of this web page*).
• Understand how organizations are seeking to improve the purchasing process	• Video about Procurement Purchase Order Value Improvement Project. (*See last section of this web page*).
	• Week 2 Discussion Topics

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SUPPLY PROCESSES

Supply Management focus:
Streamlining key business processes to reduce cost
Grow revenue
Manage assets

A process is a set of activities that have a beginning and an end, occur in a specific sequence, and have inputs and outputs.

Process considerations:
Flow of information (critical)
Materials
Services
Capital throughout the entire process
All functions and department that touch the process

Business processes include:
Purchasing process
Marketing process
Accounts payable process
Research and development

Supply Processes includes:
Description of need
Identification of potential sources
Source selection
Determination of terms
Follow-up and expediting
Receipt
Payment
Monitoring

Processes must have discipline and structure. Once the supply chain process is understood, opportunities can be identified for technology applications to increase efficiency by streamlining the process without sacrificing effectiveness. The efficiencies can be used to drive out waste by eliminating unnecessary costs, long cycle times, and missed opportunities.

The Supply Management Process
The supply management process requires a set of procedures to address the daily task. Reasons to develop a robust supply process:
•Large dollar volume
•Auditing
•Performance measures
•Contribution to organization

Acquisition is closely tied to all other business processes and the external environment creating the need for a complete information system and cross function cooperation. Supply managers should stay current with technology developments and assess the fit of the new technology to the organization's goals and strategies. Skilled managers are needed to ensure the supply process remains effective.

Strategy and Goal Alignment:
The first step in optimizing the supply chain includes building a consensus with internal stakeholders regarding opportunities to add value to the organization (this is also known as buy-in). This requires vertical and horizontal alignment with the organizations goals and strategies.

•Vertical alignment – functional areas are aligned with the strategies of the organization
•Horizontal alignment – alignment between and among functional areas

Internal customers and Purchasing should interact as early in the process as possible, during the following stages:
•Cross functional sourcing teams
•New product or service design teams; and
•Commodity management teams

Internal customers (end users) typically specify the need for goods and service. End users are the primary source to define requirements; describe need; volume requirements; quality; delivery; and budget.

Purchasing / Supply contribute market intelligence (supply availability, price trends, new technology, etc.). Purchasing usually takes the lead in analyzing and selecting the supplier(s), determining price, payment, delivery, quality, and service terms.

Other organizational stakeholders include:
- Expediting
- Shipping and receiving
- Legal
- Marketing
- IS
- Engineering
- Accounts payable

These stakeholders should share common goals, objectives, and metrics help to encourage and motivate them to work together throughout the supply process.

Ensuring Process Compliance:

Maintaining internal compliance with the organization's supply process is a constant challenge. The desire to circumvent the supply process must be rooted out, mitigated or eliminated. Process compliance is affected by organizational structure (decentralized or centralized). Process noncompliance adds confusion, waste and cost to the supply process. Some of the biggest contributors of process noncompliance are inefficiencies in the process, lack of respect for the purchasing function, and failure to gain stakeholder buy-in.
- Compliance with supply processes can be increased through process improvements and consistently delivering results to internal business partners.
- The process is greatly affected by the organizational culture.

Steps in the Supply Process:
- Supply process is communication process. This can't be stressed enough. The failure to communicated necessary information and resources creates tension between the end users, supply, accounts payable, and legal, etc. This is primarily because each function considers their role in the process to be one of importance. The failure to communication accurate information creates animosity and mistrust in the process
- Communicating needs is essential to an efficient and effective supply management process (need, specifications, format, timeframes for delivery)

Recognizing Need
- Recognition of need of a definite need by someone or some system in the organization (what, how much, and when it's needed)
- Material Requisition may be sent
- Supply responsible for anticipating need of end user
- Requirements should standardized (if possible)
- Reduce the number of specialized or customized orders to help the supply manager plan
- Plan far enough in advance to eliminate rush orders
- Supply should inform end user of normal lead times, and major changes

• Early supplier involvement (may result in cost avoidance/reduction, faster time to market, and greater competitiveness)
• Need and description stages are the greatest opportunity to affect value
Describing Need
•Needs should be accurately described
• Unclear or ambiguous descriptions add unnecessary costs
•It's important for the buyer to remain open and flexible to the needs of the organization

Requisitions:
When the end user desires to initiate a purchase they typically do so by sending a requisition to the purchasing agent / purchasing department. The purchasing requisition authorizes the purchaser to make the purchase on behalf of the division. Whether this procedure is formal, automated, or manual depends primarily on the organizational culture.

Example:
The State of Texas purchasing agency doesn't require a formal requisition to initiate the purchase. The requesters need only contact Purchasing regarding the procurement and provide them the necessary details. A formal authorized requisition isn't requiring until the contract is ready for negotiation or award. Best practice dictates securing a valid approved requisition prior to awarding the contract because the requisition is the instrument the state uses to encumber the funds necessary to complete the purchase. That way the money is sure to be there when the contract is inked. These requisitions are approved at the division level and at the accounts payable level. Most of the solicitation has been posted and the vendor chosen, before the requisition is even approved

Types of Requisitions
Standard Requisition
Traveling Requisition

Bill of Materials – typically used in manufacturing

Early Supply and Supplier Involvement
In the early stages of the procurement process it is wise to get the supply people involved quickly. Since future market conditions play such a vital role, it makes sense to have a high degree of interaction between the purchasing and end users in the early stages of the procurement process. At best an inaccurate description may result in some loss of time; at worst it may have serious financial consequences and cause disruption of supply, hard feelings internally, lost opportunity for a product or service improvement, and loss of supplier respect and trust.

The terms used to describe the item being purchased should be standard. The most effective way to secure uniformity is to maintain a database of common purchase terms

(a general catalog). The catalogs must be properly planned, maintained, and actually used; they can be confusing and expensive beyond any benefits that could be derived from them. Tackling the preferences of internal users and convincing them that a standard item will suffice is an ongoing challenge for supply personnel.

Supply management professional who recognize the importance of being involved early in the process must acquire the necessary skills and knowledge to be seen and accepted as a contributor by the other functional areas. The potential for supply management contributions to new product development is substantial. These potential can be realized if the supply management staff: has the ability to successfully participate in cross functional teams; has the skills needed to identify, screen, and select suppliers; is competent to manage, control, and coordinate supplier involvement in a multi-functional team environment; can develop and maintain cooperative relationships with different function areas to protect the profitability of the firm; facilitate early supplier involvement in order to maximize the firm's profitability; understand the orientation and dedication of design engineers; think like an engineer; provide advice on the commercial implications of the design under consideration in a positive and constructive way; cooperate with engineering in providing value and service; and be seen by all functional areas as a partner who takes care of business problems. Identifying potential sources

Supply selection involves – assessing the qualified sources of supply and assessing the probability that the goods will be delivered on time. Private sector organizations have the luxury of soliciting for goods and services without conducting a formal solicitation to compete the product or service. Public sector organizations (state and federal government) must typically issue a formal solicitation to invite qualified vendors to compete for contracts over a predetermined dollar threshold (usually a statutory amount). The type of type of procurement method used (solicitation document) varies depending upon the dollar amount, availability, complexity, and need of the product or service.
1. Request for Quote (RFQ) – used to compare prices. Typically issued when the end user can clearly and unambiguously describe the need.
2. Request for Proposal (RFP) – used for complex customized procurement of goods and services. The buyer wants' to draw on the supplier's expertise in developing and proposing a solution. There may be a heavy amount of negotiation involved. RFPs typically include a more detail description of the end user's needs and provide potential suppliers the opportunity to propose solutions to meet those needs. This is what I typically refer to as a "solution" based solicitation.
3. Request or Invitation for Bid – it is commonly referred to as an Invitation For Bid (IFB). All of the solicitations tend to involve some degree of competition. The unique characteristic of the IFB is that it is typically not negotiated. The vendor is usually chosen based upon low cost.
4. In addition to the solicitation method mention above, my state agency has managed to come up with a few additional methods. Take a look at your organization or research another organization to see if you can identify some others.

a. Request for Qualifications (RFQ) – this is not to be confused with the Request for Quote mentioned above. Request for Qualifications are used for high dollar consulting contracts. Texas has very specific laws enacted to address the hiring of consulting and professional services (lawyers, doctors, architects, etc.). The request for Qualification is used primarily in these types of procurement to solicit information from all capable vendors.

b. Request for Offer (RFO) – Same as RFP, but used only for Information Technology (IT) procurement. Legislative changes to state procurement laws made it necessary to create this solicitation. RFO are used to procure IT commodity products that are "Solutions" based, customized, negotiable, and often require the vendor's expertise to implement.

c. Price request (PR) – Through legislation, the Texas Department of Information Resources (DIR) is the state agency responsible for procuring the IT products and services for the state of Texas agencies. The statute requires state agencies to tap into contract already set up by DIR to procurement goods and services with a certain commodity code. There are few exceptions to this law. State agencies are then allowed to "tap" into the contracts set up by DIR.

The idea is to leverage the state's buying power to achieve the best possible pricing, best quality, and best services for all state agencies 9big or small). If more than one vendor provides the necessarily commodity it's a recommended best practice for the agency to issue a "PR" to more than vendor to compete for the contract. The PR is a mini version of the RFO and it typically contains the agency's individual standard terms and conditions. State agencies are allowed to negotiate with the DIR vendors to secure "better" terms, if possible. Since the DIR contracts have already been competed, per state law, the purchasing agency need only submit a PO against the contract to procure the IT commodity, if it desires to do so. In this case a formal PR and negotiation is not necessary. Buying from the DIR contract is supposed to speed up the procurement process. It works well in theory. In practice, it doesn't work out well all the time. There are a lot of things wrong with the system and the current structure.

Nevertheless, since DIR is responsible for procuring all IT commodity items for the state, individual state agencies must seek an exemption to procure IT commodities NOT currently available under DIR contract. If the commodity is currently on DIR contract, and the agency does not have a valid justification, the exemption will be denied.

d. Direct Publications – direct publication, in theory, are to be used when all other solicitation methods have failed. Direct publications are never supposed to be the agency's first choice. Direct Publications are best when the vendor provides a proprietary product, the procurement is an emergency and necessary to ensure an agency critical function remains operational. Direct Publications involve contacting the vendor directly without a competitive solicitation to procure the goods and services.

e. In addition to the above we also have the Proprietary IFB, Proprietary RFO, proprietary RFP, and Proprietary PR. But these are way too cumbersome for this discussion.

Supply Selection and Determination of Terms
Evaluating the bids, quotes, proposal and responses to select the appropriate supplier is a matter of judgment. It is necessary to indicate that there are logical steps in the process. An example of an evaluation matrix used in some state government RFOs follows:

Evaluation of Offers under Best Value Standard (Section 2157.003, Texas Gov't Code; Links to this code are provided below in "More Web links with research and ideas".):

Criteria Weight
Costs 40%
Respondent's Past Performance, Qualifications & Experience 20%
Technical Solution to State needs 40%
Total: 100%

The factors listed in Sections 2155.074, 2155.144, 2156.007, and 2157.003, Texas Government Code (Links to this code are provided below in "More Web links with research and ideas".) shall also be considered in making an award when specified.

Preparation and Placement of the Purchase
Orders are usually placed by Purchase Orders (PO) unless the supplier's sales agreement or release against a blanket order is used instead. Failure to use the proper contract form may result in serious legal complications. Materials should never be bought without documentation, written or computer-generated. PO are not necessarily governed by the term and conditions stipulated on the document. More often than not, the negotiated agreement or sales agreement takes priority over the PO terms.

Follow-up and Expediting
Once the PO has been issued the buyer may wish to follow up and/or expedite the order. The delivery date is usually indicated in the order. There are times when the supplier fails to deliver the goods on time. Follow-up involves tracking the order to ensure the supplier is able to deliver on time as promised.
Expediting involves applying pressure to the supplier to meet the original delivery date, deliver ahead of schedule, or speed up delivery. This may involve threatening to cancel the order or refuse future business. Expediting should only be used in a limited number of circumstances. If the supplier is a quality supplier the buyer shouldn't need to resort to threats.

There is a cost associated with follow-up and expediting. It is necessary to accurately gauge the situation and match the appropriate degree of follow-up with the importance

of the purchase. If the follow-up activity does not add value, than it probably only adds unnecessary costs.

Receipt and Inspection of Goods (Acceptance of Goods)
Proper receipt of the goods is as important to the contract as the negotiations. Materials must be inspected to ensure they arrived on time, are accurate (correct amount), are in good condition, have the proper documentation, properly entered into the organizations inventory management system (if applicable), are forwarded to their next destination (if applicable), and communicated to purchasing and accounts payable.

When negotiating the state's IT procurements we typically write an acceptance provision into the contract to protect the state from loss. This language can be bolstered if necessary.

Software Acceptance Test Period
Prior to the State's authorization of payments under any PO resulting from this RFO, State shall evaluate all new Licensed Software provided. This thirty (30) consecutive day evaluation period will be required of any new software products acquired by State through licensing and State shall provide written acceptance to Successful Respondent upon completion of the Software Acceptance Test Period.

If the Licensed Software fails to meet any or all of the Software Acceptance Tests at the end of the this period, State shall notify Successful Respondent of such failure in writing and Successful Respondent will have ten (10) consecutive calendar days in which to correct or improve the new Licensed Software so it will meet the Software Acceptance Test. Thereafter, State shall have twenty (20) additional calendar days in which to re-conduct the Software Acceptance Test. This process will be repeated, at State's discretion, until State accepts the new Licensed Software. State shall have the right and the option to cancel the new Licensed Software and request removal of new Licensed Software that fails to meet the Software Acceptance Test criteria, in which event neither party will have any further liability for that new Licensed Software under any PO resulting from this RFO.

Acceptance Criteria
Prior to payment under any PO resulting from this RFO, State will evaluate the provided products and/or services under the following criteria and any additional acceptance criteria agreed to prior to award and included in the PO:

1. The products/services must meet all specifications and Standards of Performance of the Agreement, PO, RFO and Offer; and
2. The products/services must comply with all published specifications.
Purchasing prefers to do as little inspection as possible. The idea is to build quality into the design and ensure quality throughout the process inspection to reduced or eliminate cost. It's been my experience that this works well in the private sector but does little in the government sector where resources are scarce. Since cost is a key driver in a lot of

government solicitations it's very difficult to build systems that ensure quality in the design and process stage. Low cost often equals low quality.
Invoice Clearing and Payment

An invoice is a bill issued by a seller to the buyer. The invoice typically includes an itemized list of products, service, quantities, and prices. The invoice is an indication that buyer must pay the seller the requested amount. The payment terms are typically agreed upon in advance.

Government agencies have statute and laws that govern the payment of invoices. The Texas State agencies must typically pay "undisputed" invoices within 30 days of receipt, according to Texas Prompt Payment Act, Chapter 2251, Texas Government Code. If the invoice is disputed the time for payment is temporarily stopped until the payment is made. The invoice should be disputed promptly to avoid violating the Prompt Payment Act. If you work for a federal government agency you may have a similar federal law that governs the payment of invoices.

There is no hard and fast rule about which division/function should be responsible for checking and approving an invoice. For example, some state agencies receive the invoices into the accounts payable department to control and track the document. The invoice is then forwarded to the end user division for verification and approval. The end user should check the invoice to ensure that the correct goods were received, on time, in the correct quantity and at the correct amount. The approved invoice is then sent back to accounts payable for payment and processing.

Maintenance of Records and Relationships
Record keeping is a critical part of any process. This is especially true for government entities subject to "open record" and "public information" and "freedom of information" laws. The procuring agency establishes the minimum, basic records to be maintained, either manually or electronically. With respect to some government agencies the complete contract contains the following
1. The solicitation (RFx or IFB))
2. The supplier's offer (including the best and final offer)
3. The negotiated contract (if any, some purchases are made by PO only)
4. The negotiated price sheet (if not in the offer)
5. The PO
6. Any Master Contract agreement (Department Information resource)

Because the state also has laws regarding the auditing of appropriated funds, many of these files must be kept for a certain number of years in accordance with the state's record retention laws. For private business doing business with governments, these record keeping laws can be particular onerous if the organization is set up to keep their records in a different manner. There are also additional problems if the organization is prone to keeping all its records confidential. Contracts with government entities are only confidential under a limited number of circumstances. If the supplier does not

understand this there could be issues up the road with respect to retrieving documents Supply from the supplier to complete an Information request from the public.

Process Flowchart
The organization of the supply process may vary depending greatly upon the different categories of purchase. Strategic mission critical purchases typically require more resources, skill and time. These purchases often lead to customized solicitations and often require cross functional team participation to ensure a successful procurement. There may be a very small pool of suppliers readily available to meet the needs of the organization with respect to this procurement. Less strategic purchases (pens, paper, office supplies, chairs, bulk materials) may be standardized. There is often a list of prequalified selected to fulfill these needs.

It is important to note that the dollar amount is not necessarily a determinant of importance and risk associated. There are some relatively low cost purchases that may provide tremendous strategic value and tremendous risk. For instance, some software is relatively inexpensive, especially if it provides some strategic value and provides the organization a competitive advantage in the market place. It may also present significant risk to the organization if it changes the way business is needed or if considerable retooling and training is involved. The particular risk and importance associated with the purchase must be assessed on a case by case basis.

Rush and Small Value Orders

Proper Planning Prevents Poor Performance
Rush orders are a reality in any supply department. Some things cannot be avoided no matter how much planning is involved. This is understandable as everyone knows that an emergency may arise, and machines do break.

On another note, every procurement should not be marked as a rush or emergency. You can probably think of three situations in your organization that could have gone better had they been properly planned. Some rush orders are unjustifiable at any time.

These include:
•Faulty inventory
•Poor production planning or budgeting
•Lack of confidence in the ability of the supply department to get the material to the end user on time
•Habit of marking everything rush

There is a higher cost of doing business naturally associated with rush orders. There is a greater chance of error, rework and failure. These orders also burden the seller (leading to higher cost) and places pressure on the supply department to perform.

Next Steps:

Complete your readings for Week 2. Begin to participate in your conference discussions.

Curious?   Want to Know More?

Consider the UMUC online Library and use these search words:

- Purchasing Objectives

- Purchasing Responsibilities

- e-Procurement

- Types of Purchases

- Improvements in Purchasing Process

http://www.umuc.edu/library/index.cfm is the Library Link.

Week 2 Topic 2 PowerPoint Presentation and Video Presentation:

Week 2 Topic 2: Shaping Smart Business Arrangements (PowerPoint Presentation): Lecture 1: Acquisition Environment

http://www.youtube.com/watch?v=FDDUzXTumQs (Video): Procurement Purchase Order Project Conducted as Part of Value Improvement Programs

More Web links with research and ideas:

http://www.statutes.legis.state.tx.us/Docs/GV/htm/GV.2155.htm: Texas Government Code Chapter 2155. Purchasing: General Rules And Procedures

http://www.statutes.legis.state.tx.us/Docs/GV/htm/GV.2156.htm: Texas Government Code Chapter 2156. Purchasing Methods

http://www.statutes.legis.state.tx.us/Docs/GV/htm/GV.2157.htm: Texas Government Code Chapter 2157. Purchasing: Purchase Of Automated Information Systems.

http://www.statutes.legis.state.tx.us/Docs/GV/htm/GV.2251.htm: Texas Government Code Chapter 2251. Payment For Goods And Services.

https://www.boundless.com/business/textbooks/boundless-business-textbook/operations-management-10/controlling-the-supply-chain-72/purchasing-337-10275/: Purchasing process.