**African Institute for Project Management Studies**

**(AIPMS)**

Course: Diploma in Logistic and Procurement

Management

Final Exam

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**PROCUREMENT AND SUPPLY CHAIN MANAGEMENT**

**FINAL EXAM QUESTION**

**Answer all questions**

1. **Outline the phases and processes of operation research study What are its limitation**

Operations research (OR) is an analytical method of problem-solving and decision-making that is useful in the management of organizations. In operations research, problems are broken down into basic components and then solved in defined steps by mathematical analysis. implementing the solution to the actual problem.

The phase and process of operation study include the following;

* Formulating the Problem: is a research into the operation of a man, machine, organization and must consider the economics of the operation in formulating a problem for OR study analysis must be made of the following major components: The environment, The objectives, The decision maker, The alternative courses of action and constraints
* Constructing a Model to Represent the System under Study: Once the project is approved by the management, the next step is to construct a model for the system under study The operation researcher can now construct the model to show the relations and interrelations between a cause and effect or between an action and a reaction
* Deriving Solution from the Model: A solution may be extracted form a model either by conducting experiments on it i.e. by simulation or by mathematical analysis No model will work appropriately if the data is not appropriate Such information may be available from the results of experiments or from hunches based on experience
* Testing the Model and the Solution Derived from it: As has been pointed out earlier a model is never a perfect representation of reality but if properly formulated and correctly manipulated, it may be useful in providing/predicting the effect of changes in control variables on overall system effectiveness
* Establishing Controls over the Solution: The next phase for the operation researcher is to explain his findings to the management It may be pointed out that he should specify that condition under which the solution can be utilized
* Implementation of the Solution: The last phase of the operation research methodology is implementation of solutions obtained in the previous steps. in operation research though decision making is scientific but its implementation involves so many behavioral issues Therefore, the implementing authority has to resolve the behavioral issues He has to sell the idea of utility of OR not only to the workers but also to superiors

The limitation of operations study is listed as follows;

* They do not take into account qualitative and emotional factors
* They are applicable to only specific categories of decision-making problems
* They are required to be interpreted correctly
* Due to conventional thinking, changes face lot of resistance from workers and some­times even from employer
* Models are only idealized representation of reality and not be regarded as absolute

1. **Explain ways in which purchasing and supply performance measurement may enhance productivity of an organization**

* Provide top service: Good logistics management helps businesses deliver better service to their customers Correct management of your company’s logistics should make you strive to improve delivery times and offer better customer service to all those who buy your products Dealing directly with your customers gives you an advantage over competitors, but only if you give your customers what they want Customers ask for better service, and it is your job to deliver it To meet customer demands you need to make sure you get your supplies or products on time and that you ship out products to your customers as quickly as possible
* Increase supply chain transparency: Greater visibility throughout your supply chain is one of the benefits of logistics management An organization need to know what is happening at every stage of its supply chain, take a closer look at the logistics to help you understand how everything operates You can look at historical data and analyses real-time events too, gaining insight into how things could be improved and how to prevent problems You could make some significant savings by monitoring your supply chain, as well as delivering better service to your customers and any business partners
* Improve efficiency and reduce costs: Whether an organization is dealing with logistics in the locally or international freight logistics, you can improve efficiency and reduce costs with good management Better supply chain transparency makes it easier to spot where you might be going wrong, as well as the aspects that your company is doing right You can identify cost saving measures and keep your expenses lower by keeping a close eye on how everything is managed Gain more control over both domestic and international freight, whether it’s ingoing or outgoing, for greater efficiency and bigger savings
* Greater revenue: Boost the organization revenue by improving the organization’s logistics management If your company provides a better service to your customers, you can attract more business Improve your brand’s reputation by delivering on your promises, never having to turn a customer away or let them down With greater productivity, you can do more with your time, allowing your business to handle more orders than ever before People want a quick and accurate service from a company that does what it says it will do
* One point of contact: Simplicity in your supply chain is one of the largest benefits to bundling services When you need a project done, need to fill specific orders quickly or make changes to existing products or services, one customer service rep will be able to help you throughout the entire project from warehousing, to distribution to transportation Having this simplicity helps to finish projects quickly, accurately and efficiently! Many of Murphy’s customer service reps have been working with the same customers for years and know how the accounts operate on a daily basis
* Consistent service levels: Having a single partner for supply chain and logistics work means no surprises when it comes to service levels Whether you are working with a large ongoing project or a short-term increase in product levels, you know how the job will be done If projects are bounced from third-party logistics to third-party logistics or handled in-house, service levels can vary and the work is not done consistently for you or your customers
* Improved pricing: When more than one service is provided by a third-party logistics, pricing can become more efficient and economical throughout the entire supply chain Full service providers can effectively price projects because they know exactly when inbounds will be received, items will be picked and trucks will be at their doors, making for a much more efficient process
* Flexibility: Working with a single third-party logistics provider brings flexibility to the supply chain in a couple of different ways The ability to increase or decrease square footage and the amount of handling required, while only paying for what you use, is one of the main benefits of using a third-party logistics Having a full service third-party logistics provider handling the entire supply chain also gives you flexibility to use specific services when you need them Say a large retailer picks up your product and boxes need to be re-labeled, or your product’s online sales take off and you need e-commerce fulfillment services with a full service third party logistics, these jobs can easily be done without the hassle of re-warehousing or switching providers
* Partnership mentality: For us here at Murphy, we strive to embody the partnership mentality with our clients from high quality customer service to process improvements and innovation, we want each of our clients to have the most effective supply chain possible! Working with a full service third-party logistics provider brings improvements to every aspect of the product life cycle from pre-production raw materials to finished goods ready to move on to their final destination If you would like to hear about how we can help your supply chain contact us, we would love to share more with you! With efficient storage methods, reliable trucking and brokerage transportation and rail services such as unloading and loading boxcars, coordinating drayage and utilizing our state of the art indoor rail tracks, Murphy's full service logistics solutions can help you simplify your supply chain!
* Reduces burden of back-office management: On the surface, the logistic function appears to be simple: sending physical packages from point A to point B However, before each consignment is sent out on transit, there is paperwork, auditing and verification to be conducted and documented3PL outsourcing service providers will have the necessary backend personnel and systems in place to take care of these procedures From assigning, a dispatch note and carrying out physical verification, to ensuring that all shipping papers are in order, logistics outsourcing can take care of the routine activities, sparing time for the business to focus on other priorities
* Economies of scale: third-party logistics players usually have a globally distributed network of carriers and fleets, which allow them to reach any destination with ease Since the function is outsourced, it is easy to scale up or scale down the logistic reach of the business without having to set up owned infrastructure and personnel
* Real-time visibility of inventory: Professional logistic outsourcing service providers use ERP systems or cloud-based Warehouse Management Systems to help track inventory on a real-time basis This data can also be received from the service provider on a regular basis for supply chain management planning
* Expert documentation handling: Logistics, especially cross-border logistics, requires adherence to sophisticated paperwork for a business that has logistics only as a small function or department, this can be a tedious job to do on a routine basis Logistics outsourcing service providers have the domain expertise and knowledge to take care of all kinds of paperwork involved like inter-connected carrier contracts, insurance certificates, bill of lading, certificate of origin, etc

1. **Purchasing and supply management differ from each other in their focus and scope Explain pointing out the difference between the two**

Procurement definition: “is the process of getting the goods and/or services your company needs to fulfill its business model. Some of the tasks involved in the procurement process include developing standards of quality, financing purchases, creating purchase orders, negotiating price, buying goods, inventory control, inventory management, and disposal of waste products like the packaging. In the overall supply chain process, procurement stops once your company has possession of the goods. To make a profit, the cost of procuring your goods must be less than the amount you can sell the goods for, minus whatever costs are associated with processing and selling them

Supply chain definition: “consists of everybody involved in getting your product in the hands of a customer. It includes raw material gatherers, manufacturers, transportation companies, wholesale warehouses, in-house staff, stock rooms and the teenager at the register. It also includes the tasks and functions that contribute to moving that product, such as quality control, market research, procurement, and strategic sourcing. Using the above analogy, the supply chain can be considered the entire chair, while procurement and sourcing are parts of the chair.”

Supply chain management is a huge space that involves several aspects at different chains in the process of supplying per demand. Supply management is on the customer supply side and involves the manufacturing and readiness of product/service with respect to the customer’s demand. It’s all about managing the customers’ expectations and meeting customers demand.

Procurement management is on the manufacturer’s side or the party that is involved in the product readiness in general. From the goods perspective it involves buying enough raw materials that are required to manufacture ‘x’ units of the finished product. From the service perspective it involves logistics and buying of the right services from the best service providers to transport the raw materials or any other product. In the IT world also procurement plays a huge role in ranking and selecting the right service provider for IT equipment eg., phones, telecommunication services, computers for employees, infrastructure platform etc. Services include - carriers, co-packers, material suppliers etc.

1. **Discuss the four principles that might guide a supply chain manager**

* Know the customer. Without a clear understanding and definition of customer requirements, a supply chain cannot be effectively constructed. One must construct an information infrastructure to capture customer transaction data, store the data, and analyze it from an operational perspective. The objective is to obtain a clear statement of the customer’s requirements. A supply chain’s requirements vary by customer, product, and location. These requirements must be thoroughly understood and form the foundation for constructing an efficient and effective supply chain.
* Adopt lean philosophies. For the past 25 years operationally excellent companies have focused on creating lean organizations. These companies have shortened internal lead times and made them more predictable and repeatable. They reduced work-in-process inventories from months of supply to days. Firms implemented just-in-time delivery strategies for their most costly component materials, and have worked to dramatically reduce setup times. These actions have substantially reduced indirect costs and improved use of physical space. More importantly, they have created cross-trained, empowered and more highly motivated workers. For maximum supply chain efficiency, all partners must engineer, align, and execute their processes so that the entire chain has the above attributes. Lean supply chains must also be designed as tightly-coupled systems that quickly and profitably respond to market demand fluctuations. No combination of software systems can compensate for a poor physical operating environment. Therefore, lean philosophies must be extended beyond a company’s internal operations to its trading partners across the entire supply chain.
* Create a supply chain information infrastructure. An effective information infrastructure, both intra- and inter-organizationally, is necessary for a supply chain to achieve competitive advantage. Today, internet enabled B2B collaboration makes it much easier for supply chain partners to share timely demand information, inventory status, daily capacity usage requirements, evolving marketing plans, product and process design changes, and logistics requirements to mention just a few. However, true collaboration requires joint planning of inventory and production strategies and the reliable joint execution of operational plans on a continuing basis. How capacity is used daily must be considered from an overall system perspective, not just a local viewpoint. Simply passing data (even customer demand data) among partners does not realize the true economic potential of collaboration.
* A traditional collaborative planning and forecasting initiative is merely a starting point; it barely scratches the surface of the financial rewards and competitive advantages that are possible through a true collaborative supply chain. Our recommendation is much more substantive and comprehensive.
* Integrate business processes. Business processes must be established both intra- and inter-organizationally to support the supply chain’s strategic objectives. These processes, coupled with the information infrastructure, support the efficient flow of material through the supply chain. While much attention has been placed on understanding business processes within organizations, it is essential to build processes inter-organizationally to leverage and enhance partners’ capabilities. These inter-organizational processes must be designed to take advantage of the increased information that drives daily supply chain decisions.
* Unify decision support systems. Academics and software providers have designed and built Decision Support System (DSS) environments for individual companies and supply chains. These environments are based on different philosophical models. Also, they differ in how they forecast demand, and how they drive production and allocation decisions. Their goal is to generate plans that simultaneously consider all elements of the supply chain. No matter which approach is taken, these systems and their embedded rules drive many daily supply chain activities. Therefore, they have a substantial impact on the operating behavior, and consequently, on overall supply chain performance. How much they enhance this performance depends on both the accuracy of their input data and the modeling approaches employed. These decision support systems need to address uncertainty in an explicit manner and most do not.

1. **Explain the circumstances under which the supplier bargaining power may be higher than the buyer’s**

The presence of powerful suppliers reduces the profit potential in an industry. Suppliers increase competition within an industry by threatening to raise prices or reduce the quality of goods and services. As a result, they reduce profitability in an industry where companies cannot recover cost increases in their own prices.

Porter’s five forces. The bargaining power of suppliers comprises one of the five forces that determine the intensity of competition in an industry. The others are barriers to entry, industry rivalry, the threat of substitutes and the bargaining power of buyers.

The following conditions indicate that a supplier group is powerful:

* It is dominated by a small number of companies and is more concentrated than the industry to which it sells
* It is not required to contend with substitute products for sale in the industry
* The industry is not one of the supplier’s important customers
* Its products are an important part of the buyer’s business
* Its products are differentiated or there are built-up switching costs
* It poses a definite threat of forward integration
* If they are in concentrated numbers compared to buyers.
* If there are high switching costs associated with a move to another supplier.
* If they are able to integrate forward or begin producing the product themselves.
* If they have specific expertise or technology needed to manufacture goods.
* If their product is highly differentiated.
* If there are many buyers and none make up significant portions of sales.
* If there are no substitutes available.
* If there are strong end users who can exert power over the organization in favor of a supplier (This can be the case in labor situations).

1. **Highlight five strategic issues in purchasing and supply that may be put in place to ensure value of money without sacrificing the environment**

* Challenge specifications or designs. Specifications are the detailed statement of needs by the user. In many instances this is not thoroughly nor systematically analyzed. Experience shows that users tend to draw up specifications with a supplier in mind, hence they give little consideration to alternatives.

There are two approaches to specifications: Conformance specifications lay down clear and unambiguous requirements. They detail the product required and not the application, restrict innovation, are technical in nature and are not negotiable. Performance specifications provide a clear indication of the function, application, and performance expected. Such specifications are outcomes oriented and the supplier must offer an appropriate product. Performance specifications allow for increased competition by enabling suppliers to suggest new or improved ways of meeting the expected performance.

* Challenge existing contracts for price competitiveness. Contracts that have existed for a long time offer another cost-reduction avenue. Reviewing contracts from five years ago should offer some savings opportunities. The economic situation at the time the contract was drawn up could be different: consumption patterns would likely have changed; volatile market conditions could have stabilized or currencies could have become unstable. During a review of existing contracts, it is important to benchmark the market through thorough research. When challenging existing contracts for competitiveness, there is a need to establish cost drivers and tailor-make or target your negotiations to high-impact cost drivers.
* Adopt standardization. Reducing variety helps to reduce the amount of inventory. If an organization supplies a single brand of vehicles, then it can keep a minimum of stock items as opposed to an organization with 5 brands of vehicles. Spares compatibility will mean that the firm with a single brand will only stock spares used by many vehicles, keeping stock-holding costs at low levels. Furthermore, economies of scale can be easily achieved during the sourcing process and supplier relationship management can be improved.
* Challenge supply chain costs. Carrying out supply chain mapping is very important in determining costs at every stage of the supply chain. Organizations sourcing from abroad must scrutinize the implication of Incoterms as the improper acceptance and use of wrong Incoterms will only add costs to the supply chain. Instead of paying insurance for every shipment through CIF, why not have a blanket insurance for all the annual shipments? Also, consider carrying out a value analysis on the packaging costs. Furthermore, procurement planning helps reduce costs by ensuring the use of effective and efficient modes of transport. Poor procurement planning leads to emergency procurements requiring fast and expensive modes of transport and increasing costs.
* Eradication of uncompetitive suppliers. Sustainable cost-reduction initiatives come from your suppliers as they have the best knowledge of the cost drivers. In some cases, competitive tendering helps to find new and competitive suppliers, while single sourcing can provide the benefits of economies of scale. Cost cutting and containment opportunities should be communicated to suppliers. Those suppliers who do not take steps to reduce costs should be removed from your database. A review of the existing sourcing policy helps identify opportunities. Challenging the current sourcing strategy and carrying out cost benefit analysis is a good practice.
* Consider outsourcing. Outsourcing is a management strategy through which non-core activities or functions are transferred to specialist, efficient, external providers. The three steps of outsourcing are to (1) select non-core activities, (2) conduct a market test and (3) set sights high. When making outsourcing decisions, the total cost of ownership takes center stage. The most popular outsourced services in manufacturing sector are security, canteen services and some transportation and distribution services. The major non-core functions in the manufacturing sector by value are transportation and distribution.
* Make better use of working capital. Procurement professionals play a role in managing an organization’s working capital. Properly negotiated payment terms will go a long way in ensuring a firm’s viability. At a bare minimum, advance payment systems should be avoided (unless it is part of a supplier development practice). Managing working capital through reducing inventory helps to contain costs. In manufacturing organizations, adopting build-to-order systems as opposed to make-to-stock has a great effect on costs.
* Centralize procurement. A centralized procurement function facilitates proper expenditure analysis. In a devolved procurement structure, duplication of purchases is high, opportunity areas become hidden and economies of scale are difficult to make use of. The rationalized supplier base under a centralized procurement strategy leads to increased competition among suppliers and reduced supply costs. It also helps in strategic supplier relationship management. In a centralized environment staffing requirements are reduced, category management expertise is created and procurement segmentation can facilitate proper formulation of a clear category sourcing strategy

1. **What is the difference between a purchase order and purchase requisition? Prepare a standard purchase requisition form with all the entries filled**

The main difference between purchase orders and purchase requisitions is in their nature.

* A purchase requisition is a document with which one department asks for permission from another for something (to buy certain goods) and the while purchase order is a document they use to actually buy these goods from the vendor.
* purchase orders and purchase requisitions are relatively similar, yet there are some distinctions. A purchase requisition usually contains the following information: Location or department of the buyer, Vendor name and information, Description and quantity of the supplies, Price

while purchase order or PO is sent to the vendor. This is a legally-binding (for both sides) document that includes the following information:PO number, Buyer information, Vendor information, Delivery address, Description and quantity of goods, Price, Invoice information and Other terms of payment

**KURSIMON & SONS.CO. LTD**

**PURCHASE REQUEST FORM**

PO#:\_\_\_\_\_*1250*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_*8/Oct/2019*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Budget #: \_\_\_*office expense\_*\_ Budget Title*: \_\_\_\_\_Stationaries* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Delivery Address: \_*kursimon & sons con.ltd Abyei south Sudan*\_\_\_\_\_\_\_\_\_ BOX #:\_\_\_*0021*\_\_\_\_\_

Budget. Contact: \_*Simon Kur Bol* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Phone: \_\_\_\_*0920074211*\_\_\_\_\_\_\_\_\_\_\_\_

Tech Contact: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Phone: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Deliver no later than \_\_*10\_\_\_/\_\_oct\_\_\_/\_\_\_2019\_\_*

**Confirming** \_\_\_\_\_ Vendor Sole Source \_? \_\_\_\_\_\_- (provide justification on reverse side of form) **Attachments**\_\_\_\_\_\_ (for purchases over 3,000)

Vendor name: \_\_*KCG stationary suppliers limited* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Contact: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*Abyei South Sudan* \_\_\_\_\_\_\_\_\_\_ Phone*\_\_\_+211925585671*\_\_\_\_\_\_\_\_\_\_\_\_

Address: \_\_\_\_\_\_\_\_\_\_ *Abyei South Sudan* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Is equipment being ordered? **yes / no** If yes, is this equipment named in the grant? **yes / no**

Is similar equipment available for use? **yes / no**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***S/NO*** | ***DESCRIPTION*** | ***QTY*** | ***UNIT*** | ***UNIT PRICE*** | ***TOTAL*** | ***MODEL*** |
| *01* | *Ledger books* | *10* | *pcs* | *10* | *100* |  |
| *02* | *Big pens* | *8* | *pcs* | *2* | *16* |  |
| *03* | *Calculator* | *2* | *pcs* | *25* | *50* |  |
| *04* | *Printing papers* | *3* | *Reams* | *30* | *90* |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | **Total** |  |  |  | **256** |  |

**I hereby certify under penalty of perjury that the items listed herein are proper charges for materials, or services to the KURSIMON & SONS.CO. LTD and are related specifically to this project.**

REQUESTOR’S NAME & SIGNATURE: \_\_*Bol Kur\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* DATE: \_\_\_\_*8/oct/2019\_\_\_\_\_*

APPROVERS NAME & SINGNATURE: \_\_\_\_\_*simon kur bol* \_\_\_\_\_\_\_\_\_\_\_\_ DATE: \_\_\_\_*8/oct/2019*\_\_\_\_\_\_

**SOLE SOURCE JUSTIFICATION**: (for information please look up reference below)

**INSTRUCTIONS FOR REQUISITION REQUEST SUBMISSION**

1. **Placing Confirming Orders (cost of order must be $3,000 or less; sales tax and freight/handling not included, and not for purchases of items on state contract)**
2. *Fill out the Requisition Request form completely (except the PO number) indicating the date you will need the item(s). Make sure that you mark the request as* ***Confirming****. BE SURE THAT THE REQUISITION REQUEST FORM IS FILLED OUT COMPLETELY, IN INK. THIS INCLUDES THE APPROVAL SIGNATURE. Make a copy for your records. Attach all pertinent information such as invoice, reprint order form, etc.. Turn in the request to the budget office and we will notify you with a purchase order number via e-mail or phone call.* ***NOTE: Please let me know if the vendor requires a hard copy of the purchase order. I can generate a copy of the PO while entering order on-line.***
3. *Call order in to the vendor. Make sure to verify the item price and shipping charges (if applicable). Give the vendor the PO number and correct billing address. Our billing address is:* ***KURSIMON & SONS. CO. LTD, ACCOUNTS PAYABLE, Box 351130, 3917 ABYEI SOUTH SUDAN. CONATCT +211920074211,*** *This will insure the invoices are sent directly to Accounts Payable and paid promptly.*
4. **Orders to be Placed by Purchasing**
5. *Fill out the Requisition Request form completely (except the PO number) indicating the date you will need the item(s). ORDERS WILL NOT BE SUBMITTED TO PURCHASING WITHOUT AN APPROVAL SIGNATURE.*
6. *Attach any pertinent information such as sole source justification, vendor quote, item specifications, order form, renewal form, etc.*
7. *Forward the original copy to the budget office.*
8. **Receiving Procedures**
9. *Upon receipt of goods, verify items on packing slip to items received. Sign and date packing slip to indicate order is correct and okay to pay. FORWARD THE PACKING SLIP TO THE BUDGET OFFICE.*
10. *Notify your budget coordinator immediately if there is a discrepancy or if items are damaged.*
11. *Questions regarding these procedures can be addressed to the budget office.*
12. **Identify and briefly explain some important documents that Purchasing departments should have a record of**

Basically procurement documents comprise of all documents that serve as invitations to tender, solicit tender offers and establish the terms and conditions of a contract.

* Request for Proposal (RFP). RFP is a formal document which is used by the buyer to clearly specify their purchasing needs and the supporting requirements which will enable prospective sellers to understand the needs of the buyer. For example, if the buyer wishes to get an ERP system implemented in their organization, they will look for capable technical partners who can fully implement the ERP for them. In such case, the buyer will prepare a document which will detail out their requirements of the ERP system. This document is referred as an RFP. Based on the RFP, the prospective technical implementation agencies will provide a detailed proposal explaining their solution, implementation timeline, pricing etc.
* Request for Quotation (RFQ). RFP is a formal document which is used to specify clearly the requirements of certain purchases and requesting for a price quotation. RFQ is used for standard purchases such as hardware, off-the-shelve software product, laptops or any other equipment. RFQ is relatively very small document vis-à-vis a RFP, only providing the specification of the items to be purchased and requesting for a quotation. The seller will submit a price quotation and other terms in response to a RFQ.
* Request for Information (RFI). RFI is used to seek information on various aspects from the prospective bidders. RFI can seek information about bidders such as their financial statements for last ten years, details of their processes in the organization, certifications they hold, list of their clients, client references, and detail of their past accomplishments, case studies and many more. RFI is primarily used to filter out from a huge list of bidders and select a list of potential suppliers with whom finally a RFP or RFQ with actual requirements can be shared.
* Invitation for Bid (IFB). Invitation for bid a formal document which is used for inviting potential bidders to come and participate in the bidding process.
* Request for Bid (RFB). RFB is used to solicit financial bids for specified purchases from a selected pool of suppliers.
* Purchase Order (PO). A purchase order can be raised favoring a supplier for regular purchases. Generally, an organization will have a list of selected and preferred suppliers with a master agreement. For example, an organization has 2 selected suppliers for laptops and other electronic hardware with negotiated rates for the year. In such cases, there is no need for fresh bidding. The buyer can simply raise a purchase order favoring the supplier for the quantity of items to be purchased. PO is referred as a unilateral contract which is raised by buyer. It becomes binding to the seller once the seller accepts it.
* Contract or Agreement. Contract or agreement is a mutual agreement between the buyer and the seller. A legal binding contract will have an offer, an acceptance and sufficient consideration for the both the buyer and seller. The contract once finalized will include the detailed statement of work (SOW) and other terms and conditions.
* Seller Proposal. Seller proposal is a detailed offer from the seller in response to the buyer’s request for proposal or buyer’s request for quotation. The proposal will include various sections such as understanding of the buyer’s needs, proposed technical solutions, proposed implementation plan, pricing, warranty etc.
* Solicitations. These are invitations of bids, requests for quotations and proposals. These may serve as a binding contract.
* Offers. This type of procurement documents are bids, proposals and quotes made by potential suppliers to prospective clients.
* Amendments/Modifications. This refers to any changes in solicitations, offers and contracts. Amendments/Modifications have to be in the form of a written document.

1. **Identify and explain some of the attributes to look for when choosing a supplier**
   * Accountability for quality issues. Admitting to a mistake can be difficult. But when your goods are on the line, working with a quality supplier that takes responsibility for their half of a deal can make a world of difference. That’s why accountability for quality issues tops the list of characteristics of a good supplier. Looking for suppliers. A supplier with accountability will take responsibility for the quality problem and work forward to address it quickly. They might offer to remove the untrimmed threads and implement stricter quality controls or revise work instructions to prevent the same defect from appearing in future production runs.
   * Production capabilities. Most importers understand the importance of looking for suppliers who can actually manufacture the product they want. In fact, many importers focus so much on production capabilities of a prospective supplier that they overlook other vital considerations. But verifying a supplier’s production capabilities is harder than simply talking to supplier representative you found off Alibaba. A quality supplier should be able to consistently manufacture a product that meets your requirements. Looking for suppliers
   * Expertise in your product type and target market. A supplier is more likely to be familiar with common quality issues related to your product if they have experience manufacturing a similar product. Looking for suppliers They’re more likely to be able to identify and fix problems proactively before those problems affect a large portion of the order. If the factory is experienced in exporting to your target market, they’ll also be relatively familiar with your quality and legal requirements. You might be able to verify where some suppliers export by checking their Alibaba profile. Most factories only specialize in manufacturing a single product type or category. A supplier that claims to manufacture a wide variety of different products is mostly likely a trading company or vendor, not a factory.
   * Culture fit: the best suppliers are willing to work with you. The “ideal” supplier is rarely the same for every importer. A manufacturing giant like Apple will have different standards for their suppliers than a first-time buyer that sells on Amazon. Some suppliers might be more inclined toward developing new products. Others might prioritize reducing their environmental footprint. The key is to find a supplier whose goals align with yours. You can evaluate culture fit with potential suppliers by asking: What kind of companies do they typically work with? What is their minimum order quantity (MOQ)? What do they know about your business? How detailed is their quote? Have they taken time to tailor their quote to your specific requirements? Suppliers with a customer profile similar to your business will be better equipped to meet your requirements. A willing to work with you and prioritize your requirements is a vital characteristic of a good supplier.
   * Ease of communication. Language and cultural barriers can present real challenges for importers looking for suppliers overseas. You’ll benefit greatly from working with a supplier that’s easy to communicate with. Effective communication can prevent a variety of problems ranging from production delays to product nonconformities. The best suppliers are open and direct. They know you may have made promises to your own customers. And they know it doesn’t help to keep you in the dark about a bad situation.
   * Cooperation with third-party QC. Third-party inspection has become a standard requirement for most importers manufacturing in Asia. A quality supplier will comply with an importer’s request to have an outside inspector verify the goods before shipment. A supplier’s resistance to third-party quality control is usually cause for concern. Some suppliers will try to ship the goods quickly before you have a chance to raise concerns. Such a supplier may be trying to hide an issue from the you. The best suppliers typically book inspections on time and assist inspectors on site. If problems are found during inspection, they provide objective feedback and advise how to resolve issues. The same suppliers are also open with their internal documentation and processes during audits
   * Ethical compliance. Ethical sourcing has made its way into the spotlight. As larger brands have made headlines in recent years for social compliance violations in their supply chain, countries have taken steps to outlaw goods made with forced labor. Many importers don’t want to work with a factory that treats their workers unfairly or maintains unsafe working conditions. By choosing to work only with the best suppliers that meet popular social compliance standards, you can verify that: Ethics may not be the first thing that comes to mind when you’re looking for suppliers. But it’s not difficult to audit a supplier or prospective factory for social compliance. And disregarding ethics entirely could lead to problems down the road for your business.
   * Regulatory compliance. Aside from ethical compliance, importers need to ensure their supplier complies with laws in both their manufacturing country and their target market. Failing to ensure regulatory compliance can otherwise lead to legal consequences for you and your business. Looking for supplier’s factory audit and credit check can help you verify a factory’s legitimacy when looking for suppliers. Checking whether the supplier has a valid business license and export license can help you avoid working with a factory that’s operating illegally. But you may be subject to other laws if you import certain products. Clear evidence of regulatory compliance through accreditations can be one of the most important characteristics of a good supplier.
   * Clear and comprehensive recordkeeping. Do you think your quality standards and requirements will remain static throughout your entire relationship with a supplier? Probably not. Importers often adjust AQLs and quality requirements based on known quality issues, customer requirements and history with the supplier. The best suppliers proactively update their records and information to seamlessly implement changes. Important information for your supplier to keep organized and continually updated includes: Keeping information updated isn’t only your supplier’s responsibility. It’s also your responsibility to clearly outline new requirements to your supplier. But the best suppliers are well organized and proactively update and document new requirements internally.
   * A proactive attitude towards continuous improvement. This last quality is probably the hardest to find among overseas suppliers. But it’s also one of the most valuable if you’re serious about maintaining a long-term, high-volume relationship with a supplier. Looking for suppliers at the very least, a quality-conscious supplier should have an established quality management system (QMS) that complies with ISO 9001. You can verify this through a factory audit when verifying production capabilities. But suppliers oriented towards continuous improvement will go above and beyond ISO 9001 certification to reduce waste and improve efficiency in their operations. They implement a number of lean manufacturing, mistake proofing and process control techniques.
   * Conclusion

Finding a supplier can be one of the toughest, most stressful parts of sourcing a product. It’s important to find a supplier that is easy to work with and will give you the best possible product. But what are the best qualities to look for? Communication, willingness to work with you, profile statistics, price and quality of the supplier are all important boxes that need to be checked before you pick a supplier. Just because a supplier shows you a few amazing product samples doesn’t mean they can live up to those promises for mass production. Considering these ten characteristics of a good supplier will help you determine whether a particular supplier is best for your supply chain, your customers and your business.

1. **What is inventory management What is the importance of keeping an inventory in an organization Identify the different types of inventory**

* Inventory management is a discipline primarily about specifying the shape and placement of stocked goods. It is required at different locations within a facility or within many locations of a supply network to precede the regular and planned course of production and stock of materials.

Importance of keeping an inventory in an organization

* Improved Customer Service. Good inventory records mean that when customers call or write with inventory-related questions, you can find the answer quickly. A fast response time usually means the customer gets a better impression of the company. When you know exactly what inventory you have and where it is stored, you can retrieve it promptly and fill customer orders efficiently.

The ability to deal with inquiries and fill orders quickly means the company is able to serve more customers and move more inventory through the company, resulting in higher profit. If customers have to wait for responses or products, they may cancel orders and go to other companies

* Expense Control and Savings. Failure to maintain accurate inventory records sometimes means that a company cannot send out an item until it is close to a deadline. Companies that have to send items out at the last minute might have to pay extra to expedite shipping. Doing this for one or two customers might not be a huge deal, but it translates into significant losses for companies that work with dozens or even hundreds of customers every day.

Furthermore, sometimes companies end up ordering new inventory to meet client demands, only to find the original stock later and realize the new order wasn't necessary. Replacing goods in this way is costly, especially if the company cannot sell the initial inventory and ends up with "extra." Inventory tracking thus is a strategy for expense control.

* Rewards and Praise. Proper inventory tracking provides an opportunity to measure success. For instance, you can define successful tracking as losing only one item per month. If your inventory staff meets this goal because they keep excellent data, you can give them positive reinforcement and offer rewards. This helps keep morale high, which often translates into better productivity and fewer conflicts. Without good records, you cannot tell whether your inventory staff deserves something extra or whether disciplinary action is appropriate.
* Time, Skills and Talents. Accurate inventory records mean that your inventory staff has more time available to do other things. For example, they can investigate new vendors or come up with ways to reorganize the inventory for optimum efficiency and access. This not only improves production and gives your company additional options but also let’s inventory workers explore other skill and talent areas they have. You may discover, for example, that a lower-level inventory worker is particularly good at data analysis.
* Control. Controlling your inventory is essential to the efficiency and profitability of your retail business. An inventory database provides you with an accurate, up-to-date picture of stock levels for each product so that you have sufficient stock to meet customer demand without overstocking. Overstocking incurs unnecessary costs and reduces profits, while inadequate stocks could result in lost sales, again reducing profitability.
* Forecasting. The information in an inventory database provides reports that help you to identify trends and forecast future demand efficiently and accurately. Reports that cover stock usage over a period of time identify weekly or monthly demand and also highlight any changes in normal usage resulting from promotions or seasonal factors. If you are planning an advertising or sales promotion campaign, you can use that historical analysis to ensure that you have adequate stock to meet the additional demand. Analyzing stock changes in the inventory database helps you identify the products that are selling quickly and the slow movers. That level of insight enables you to rationalize the variety of products you stock to concentrate on those that contribute to profit.
* Automation. An inventory database helps you improve productivity in the store. Instead of tying up staff time checking quantities on the shelves or in the stockroom, you can run reports on stock levels or set the database to flag up alerts when stocks reach a certain level. Integrating your inventory database with your checkout systems can update stock levels automatically. Improved levels of stock control ensure that you always have products in stock when customers call. That helps to improve customer satisfaction. Freeing staff from stock-checking duties frees them to help serve customers, again contributing to increased customer satisfaction.
* Ordering and Delivery. Accurate, up-to-date information on stock levels enables you to improve the efficiency of ordering and delivery. You can use the inventory database to identify opportunities to reduce delivery costs by grouping orders, while maintaining adequate stock levels to meet demand. The supplier information in the database also makes it quicker and easier to place orders or to find alternative suppliers if one company cannot meet your delivery requirements.
* The adequate response to the changing market needs by stocking things that are in vogue and disposing of those that aren’t in demand.
* Measuring the requirements of working capital by calculating inventory turnover ratios combined with debtors and creditors’ turnover ratios and credit periods, deploying funds exactly when needed for the smooth flow of business.
* A firm grasp on the number of units of inventory and a better control over entire supply chain organizing surprise checks and sample inventory counting and reconciling the results with those generated by the accounting systems.
* Intimations about depleting stock levels and an appropriate time for placing an order with the supplier while still maintaining the minimum quantity of that item.

The different types of inventory

* Raw materials. raw materials are inventory items that are used in the manufacturer's conversion process to produce components, subassemblies, or finished products. these inventory items may be commodities or extracted materials that the firm or its subsidiary has produced or extracted. they also may be objects or elements that the firm has purchased from outside the organization. even if the item is partially assembled or is considered a finished good to the supplier, the purchaser may classify it as a raw material if his or her firm had no input into its production. typically, raw materials are commodities such as ore, grain, minerals, petroleum, chemicals, paper, wood, paint, steel, and food items. however, items such as nuts and bolts, ball bearings, key stock, casters, seats, wheels, and even engines may be regarded as raw materials if they are purchased from outside the firm.
* Work-in-process. work-in-process (wip) is made up of all the materials, parts (components), assemblies, and subassemblies that are being processed or are waiting to be processed within the system. this generally includes all material from raw material that has been released for initial processing up to material that has been completely processed and is awaiting final inspection and acceptance before inclusion in finished goods.
* Finished goods. A finished good is a completed part that is ready for a customer order. therefore, finished goods inventory is the stock of completed products. these goods have been inspected and have passed final inspection requirements so that they can be transferred out of work-in-process and into finished goods inventory. from this point, finished goods can be sold directly to their final user, sold to retailers, sold to wholesalers, sent to distribution centers, or held in anticipation of a customer order. any item that does not have a parent can be classified as a finished good. by looking at the rolling cart product structure tree example one can determine that the finished good in this case is a cart.
* Transit inventory. transit inventories result from the need to transport items or material from one location to another, and from the fact that there is some transportation time involved in getting from one location to another. sometimes this is referred to as pipeline inventory. merchandise shipped by truck or rail can sometimes take days or even weeks to go from a regional warehouse to a retail facility. some large firms, such as automobile manufacturers, employ freight consolidators to pool their transit inventories coming from various locations into one shipping source in order to take advantage of economies of scale. of course, this can greatly increase the transit time for these inventories, hence an increase in the size of the inventory in transit.
* Buffer inventory.as previously stated, inventory is sometimes used to protect against the uncertainties of supply and demand, as well as unpredictable events such as poor delivery reliability or poor quality of a supplier's products. these inventory cushions are often referred to as safety stock. safety stock or buffer inventory is any amount held on hand that is over and above that currently needed to meet demand. generally, the higher the level of buffer inventory, the better the firm's customer service. this occurs because the firm suffers fewer "stock-outs" (when a customer's order cannot be immediately filled from existing inventory) and has less need to backorder the item, make the customer wait until the next order cycle, or even worse, cause the customer to leave empty-handed to find another supplier. obviously, the better the customer service the greater the likelihood of customer satisfaction.
* Anticipation inventory. oftentimes, firms will purchase and hold inventory that is in excess of their current need in anticipation of a possible future event. such events may include a price increase, a seasonal increase in demand, or even an impending labor strike. this tactic is commonly used by retailers, who routinely build up inventory months before the demand for their products will be unusually high (i.e., at Halloween, Christmas, or the back-to-school season). for manufacturers, anticipation inventory allows them to build up inventory when demand is low (also keeping workers busy during slack times) so that when demand picks up the increased inventory will be slowly depleted and the firm does not have to react by increasing production time (along with the subsequent increase in hiring, training, and other associated labor costs). therefore, the firm has avoided both excessive overtime due to increased demand and hiring costs due to increased demand. it also has avoided layoff costs associated with production cut-backs, or worse, the idling or shutting down of facilities. this process is sometimes called "smoothing" because it smoothest the peaks and valleys in demand, allowing the firm to maintain a constant level of output and a stable workforce.
* Decoupling inventory. very rarely, if ever, will one see a production facility where every machine in the process produces at exactly the same rate. in fact, one machine may process parts several times faster than the machines in front of or behind it. yet, if one walks through the plant it may seem that all machines are running smoothly at the same time. it also could be possible that while passing through the plant, one notices several machines are under repair or are undergoing some form of preventive maintenance. even so, this does not seem to interrupt the flow of work-in-process through the system. the reason for this is the existence of an inventory of parts between machines, a decoupling inventory that serves as a shock absorber, cushioning the system against production irregularities. as such it "decouples" or disengages the plant's dependence upon the sequential requirements of the system (i.e., one machine feeds parts to the next machine).
* Cycle inventory. those who are familiar with the concept of economic order quantity (eoq) know that the eoq is an attempt to balance inventory holding or carrying costs with the costs incurred from ordering or setting up machinery. when large quantities are ordered or produced, inventory holding costs are increased, but ordering/setup costs decrease. conversely, when lot sizes decrease, inventory holding/carrying costs decrease, but the cost of ordering/setup increases since more orders/setups are required to meet demand. when the two costs are equal (holding/carrying costs and ordering/setup costs) the total cost (the sum of the two costs) is minimized. cycle inventories, sometimes called lot-size inventories, result from this process. usually, excess material is ordered and, consequently, held in inventory in an effort to reach this minimization point. hence, cycle inventory results from ordering in batches or lot sizes rather than ordering material strictly as needed.
* MRO goods inventory. maintenance, repair, and operating supplies, or mro goods, are items that are used to support and maintain the production process and its infrastructure. these goods are usually consumed as a result of the production process but are not directly a part of the finished product. examples of mro goods include oils, lubricants, coolants, janitorial supplies, uniforms, gloves, packing material, tools, nuts, bolts, screws, shim stock, and key stock. even office supplies such as staples, pens and pencils, copier paper, and toner are considered part of mro goods inventory.
* Theoretical inventory. in their book managing business process flows: principles of operations management, anupindi, chopra, deshmukh, van mieghem, and zemel discuss a final type of inventory known as theoretical inventory. they describe theoretical inventory as the average inventory for a given throughput assuming that no wip item had to wait in a buffer. this would obviously be an ideal situation where inflow, processing, and outflow rates were all equal at any point in time. unless one has a single process system, there always will be some inventory within the system. theoretical inventory is a measure of this inventory (i.e., it represents the minimum inventory needed for goods to flow through the system without waiting). the authors formally define it as the minimum amount of inventory necessary to maintain a process throughput of r, expressed as: