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## UNIT 4 ISSUES AND OVERVIEW

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### Objectives

After reading this unit, you would be able to:

- discuss about economics & purchasing;
- define objectives of industrial purchasing;
- describe reasons, stages and important aspects for source selection;
- analyse the sources of supply;
- discuss methods for evaluation of supplier's performance; and
- discuss socio-economic factor in source selection.

### Structure

- 4.1 Introduction
- 4.2 Economics and Purchasing
- 4.3 Objectives of Industrial Purchasing
- 4.4 Authority and Responsibility of Purchasing
- 4.5 Why Source Selection
- 4.6 Stages in Source Selection
- 4.7 Important Aspects in Source Selection
- 4.8 Analysis of Sources of Supply
- 4.9 Types of Evaluation Techniques
- 4.10 The Approved List of Suppliers
- 4.11 A Comprehensive System for Vendor Performance Evaluation
- 4.12 Developing Sources of Supply
- 4.13 Socio-economic Factors in Source Selection
- 4.14 Summary
- 4.15 Self Assessment Questions
- 4.16 References and Suggested Further Readings

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### 4.1 INTRODUCTION

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Business enterprises are established and operated by people to accomplish a specific yet common purpose—to make money. Business is a set of commercial activities, required to produce a finished product or service desirable to the ultimate consumer. Industrial enterprises have the distinguishing characteristic that the finished product or service is not for its own consumption, rather for sale to others. The object of all these activities is to market a product or service at a price greater than its cost. To continue in operation and be successful in a competitive environment, the commercial enterprise must show a profit. The purchasing function of an organization plays a vital role in this profit-earning endeavour. Among several activities, tasks, and assignments the purchasing function takes up, selection and development of supply sources of components, parts, and materials is a critical activity.

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### 4.2 ECONOMICS AND PURCHASING

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In a market economy, there are several factors at work: the production activity governed by numerous consumer demands, the producers' decisions as to the quantity they will produce, and the activities that are interrelated through the process of buying and selling.

Economics deals with the description and analysis of production, distribution, and consumption of goods and services that people require to satisfy their basic physiological needs, that is, food, clothing, and shelter. To satisfy these needs—the factors of production have to be manipulated to gain the specific end results. These factors are as follows:

- i) **Natural Resources:** These include all goods found in or produced by nature. These include ores and minerals that are mined and used in the production of end products. Oils and natural gas are used as fuel or may enter the finished product. Water falls are used in the generation of electricity. Agricultural commodities are used for foods.
- ii) **Labour Resources:** These are the activities of people used for the production of goods and services.
- iii) **Capital Goods:** These include buildings, machinery, equipment, and tools, used to house and produce goods and services.

Knowledge in the basic concepts of economics helps a purchasing agent in planning his or her activities, in selection of the sources of suppliers, and in negotiating the best price. Thus, purchasing is an economic activity that contributes to the profitability of the company.

The purchasing agent must be concerned with the overall economic conditions, to analyze and explain why specific supplier prices are set as they are at specific times. The buyer should be able to predict the effect of various market trends on supplier output and buyer demand. Typically, business cycles with the phenomena of unemployment, overcapacity, depression, the start of recovery, and their effects on the world's demand for goods and services may be noticed and analyzed. During the uncertain times, the purchasing agent can show his value to his firm by operating with understanding and conviction.

Most prices are determined by the law of supply and demand, whereby prices go up when the demand exceeds the supply and go down when the supply exceeds the demand. This is especially true with raw materials, agricultural products, petroleum products, and minerals. If the buyer feels that the current price is low, relative to the future, he will probably overbuy and build up the inventory level. The cost of carrying the resulting excess inventory must be taken into consideration. If the buyer feels that the price may drop down in near future, he may not buy at this time, but wait for further drop in price, or he may buy small quantities as a safety factor to ensure continuity of supply.

Purchasing is a very important function in the control of the flow of materials into the manufacturing process to maintain continuous operation of all departments. The flow of materials also controls the level of inventory stock maintained by the company. Good purchasing practices contribute to the success and profit of modern corporations.

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### 4.3 OBJECTIVES OF INDUSTRIAL PURCHASING

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The main objective of industrial purchasing is to contribute to the profitability of the industrial operation. In specific terms, the objectives are as follows:

- i) to obtain the quality of the material best suited for the function intended,
- ii) to obtain the quantity necessary to keep going the production continuously, and to keep the inventory levels at its minimum level, consistent with economic ordering and market conditions,
- iii) to obtain the materials or services at the best price, keeping in mind the quality and delivery requested.

- iv) to communicate freely internally with all departments to assist in the formulation of specifications, new techniques, and new products, and externally with outside sources to gain information that the internal departments can use, such as solving some engineering or technical problem.

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#### **4.4 AUTHORITY AND RESPONSIBILITY OF PURCHASING**

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To achieve the objectives as mentioned, the purchasing department must have the authority to carry out a few basic responsibilities in order to satisfy the needs of the various departments within the organisation.

The head of purchasing function is referred to as the custodian of a firm's purse, and the first and foremost obligation on his or her part is integrity in spending the firm's money. He or she acts as the legally authorized agent and represents all others in the firm in the acquisition of goods and services needed by the firm. A typical job description for this position includes duties and responsibilities:

- i) authority to commit the funds of the firm for the acquisition of goods and services,
- ii) responsibility to satisfy needs of the departments when justified,
- iii) responsibility for review of specifications, and authority to challenge the specifications, if found incomplete or incorrect,
- iv) responsibility to interview all vendor representatives, and to arrange for the bidding or negotiation for goods or services,
- v) authority and responsibility for selection of the source for supplies and no body else has this authority to select a source for any item,
- vi) responsibility to obtain the correct quality, the needed quantity, at the best price delivery at the needed time for continuous operation, and the equal responsibility that the goods, equipment, etc., are safe for the employees to handle.

The purchasing department is a decision-making department whose actions can have a major impact upon the firm's operation and its profits. For example, if the purchasing department decides to buy some material at the lowest price, and subsequently non-conforming material or late delivery occurs that disrupts smooth production resulting in higher priced emergency buying of correct material, significant loss of sales because of rejected finished products or low turnout of the finished product may result.

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#### **4.5 WHY SOURCE SELECTION**

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Reputed suppliers are intangible assets to any organisation. For they are not only suppliers of materials but are also extremely important sources of information with regard to market conditions, price trends, and the general industrial climate. It is, therefore, natural that many organisations have accepted source selection as a corporate policy. This helps in bringing about a fair competition among the suppliers with supply failures at a minimum level. Source development is also important for import substitution, cost reduction, and quality improvement. Source development needs are dependent on a number of factors, such as make or buy decisions, amount of sub-contracting, break-even points at manufacturing and plant capacity. It should, however, be remembered that source selection and development are regular activities, and as such, must be a way of life in any progressive purchasing department of an organisation.

## 4.6 STAGES IN SOURCE SELECTION

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Regardless of the buyer's ability to provide the technical services, interpret quality requirements, determine price trends, and provide expertise in all procurement functions, the fact remains that his or her prime responsibility is to find reliable sources and to secure and maintain their cooperation in all matters. This purchasing decision directly influences both the economic success of the buyer's company and the financial stability of the supplier, thus contributing to the economic welfare of many employees and their families.

The selection of responsible suppliers is the essence of the purchasing cycle, and it is imperative that the final authority rests invariably with the purchasing department. In some companies, as a result of shared selection authority, improper supplier selection leads to receipt of inferior goods and services. This gives rise to friction and company morale suffers serious harm. Therefore, it is of utmost importance that the purchasing department is solely given the authority and responsibility for the selection of sources for supplies.

In general, the source selection process consists of four main stages:

- i) **Searching:** At realisation for the need for a material or product is the starting point. The search process begins with the finalisation of specifications in consultation with technical departments. Identifying the sources of supply as exhaustively as possible is the next activity. Normally, comprehensive information may be obtained from different sources, such as the Indian Trade Journal, newspaper advertisements, telephone directories and yellow pages, trade directories, the publications of the Directorate General of Technical Development, Directorate General of Supply and Disposal, the Bureau of Indian Standards, RBI Bulletin, and Stock Exchange Directories etc. The routine sales-call by suppliers' representatives is another important source of information. Salesmen should be encouraged to present the products in which the organisation is presently interested, and their company's entire product line. This enables the buyer to identify potential sources for products which under normal circumstances might be overlooked. Trade-shows, technical exhibitions, and samples are other important sources that assist the search process.

The buyer does not have to possess complete knowledge of the item needed. However, knowing the end use of the item can be extremely helpful in determining what information must be assembled for knowledgeable procurement. The material requirements identify the characteristics sought in a potential supplier and enable the buyer to narrow his or her selection to those capable of meeting the item requirements. These characteristics include capability, capacity, availability, and delivery services. The buyer's goal is to determine which supplier can deliver an acceptable product most economically.

The buyer may have information on the past performances of the set of suppliers already in contact. The purchasing department should keep a supplier file with updated performance history. This file should also contain the names of promising potential suppliers. When any item is requested, the buyer usually looks to his or her present or past suppliers as the most likely candidates to supply the needed item. But he should also look at new prospective suppliers.

*Salespersons* are extremely valuable sources of information about suppliers. In most cases their information relates to their own company, but many professional salespersons will suggest other sources of supply. Because salespersons are valuable sources of information, the buyer should make every effort to see them and establish good rapport with them.

A valuable source of supplier information is catalogues supplied by the suppliers, which describe the various items they handle. For standard production items, such catalogues are the most effective and efficient sources for potential suppliers.

- ii) **Selection:** The process of search thus provides a list of all possible sources. At the selection stage, specific information on the supplier's financial strength, quality, facilities, efficiency, industrial relations, technical excellence and position in industry is sought. Actually, the possible sources need to be identified and selected on the basis of their ability to meet the delivery and quality requirements in the long run at competitive price levels. The selection of suppliers starts with the floating of enquiries by the buyer to the possible sources that are made available through the search process. Certain progressive suppliers often contact buyers with a request to be included in the buyers' list of 'approved suppliers'. Both the buyers' enquiry and the vendors' request to be considered as a regular supplier, normally lead to visits by the vendors' sales representative. The buyer gets an opportunity to present his or her needs in greater details and also to assess vendors' personnel and capabilities in meeting his or her needs. The buyer follows this by meeting the technical personnel of the vendor, and inspecting the vendor's plant to assess the technical capabilities, efficiency, equipment, financial viability, quality control, raw material practices, and general management aspects.

Sometimes, the buyer may write in confidence to some of the organisations which may be using the materials supplied by the vendor in order to assess vendor's rating with his or her clients. This information may form the basis for a preliminary selection of suppliers with whom trial orders can be placed after negotiations.

It is an established norm and convention that the buyer reduces the list of suppliers to a selected number of acceptable or approved suppliers with whom to negotiate or solicit quotations by way of elimination. However, the list finally prepared should be a comprehensive one. The final list of suppliers must be prepared on the assumption that all suppliers included in the list have the ability to withstand the following three types of competition:

- i) Technological competition, resulting from pinpointing those suppliers who excel in good ideas, engineering planning design, material and production techniques, and are willing to work with the personnel of the buyer company.
  - ii) Price competition, resulting from pinpointing the lowest-cost producers or distributors.
  - iii) Service competition, resulting from pinpointing those suppliers who are anxious to get the contract from the buyer company and will add the "plus" values over and above the functional value and price.
- iii) **Negotiations and Trial Orders:** Once the preliminary screening and selection is over, the process of negotiation starts with the vendors prior to placement of trial orders. Correct and cordial relations with the vendors are essential for mutual cooperation. Various aspects, including terms of delivery, price, and quality are finalised during negotiations, and then the purchase orders are released for the initial trial. Normally, the trial orders do not exceed more than 20 to 30 days' requirements as the buyer has to be convinced, in the first place, about the vendor's capability in meeting his or her needs.

The whole process of negotiation is influenced by a number of factors, such as:

- i) the need for quantity and technical requirements of the order must be explicitly and concisely explained,
- ii) personal contact between the buyer and the vendor helps in maintaining a smooth relationship and understanding of each other's problem areas, and
- iii) the buyer may organise a conference of his or her suppliers on a regular basis with a view to giving them an opportunity to find out where their materials are utilised, to compare and clarify the quality and other technical requirements of the materials they supply.
- iv) **Experience:** After the trial orders are executed, it becomes necessary for the buyer to quantify his or her experience in the form of rating the vendors. This activity enables him or her to determine how the total requirements can be apportioned among the vendors. Thus, the basic responsibility of the purchase manager is not only to locate the sources but also to preserve them through continuous rating. A vendor's performance in meeting the quality, delivery, and price standards set by the buyer has to be assessed in a systematic manner. Several rating systems are available. Some aspects can be objectively rated whereas some cannot, but they are nevertheless to be considered while evaluating the vendors. Computed on a periodic basis, vendor rating provides the basis for comparing one vendor against the other for the purpose of eliminating the vendors who repeatedly fail to meet the standards. The vendor's representative, in some cases, can be called for a frank discussion to point out the areas of improvement, so that he or she may continue his or her association with the buyer's organisation. Such a constructive approach, based on a rating system, definitely helps in improving the performance of the supplier in the long run.

### Activity 1

What is the most critical stage in source selection as per your opinion? Give reasons for your answers.

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## 4.7 IMPORTANT ASPECTS IN SOURCE SELECTION

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In the proceeding sections you have learnt about the reasons behind source selection and its stages. Let us now see some important aspects in source selection.

- i) **Local Sources:** Generally local sources are preferred, provided they meet the requirements of the buyer in terms of quality, delivery, and price. A personal follow-up or a local "phone call" is enough for effecting quicker deliveries. In fact, some organisations prefer local suppliers even though they may not compare favourably with outside suppliers. This local goodwill is sure to pay in the long run. It is not uncommon to find big organisations in India encouraging ancillary suppliers in and around their plants through technical and financial assistance.

- ii) **Subcontracting:** Selection of sources for subcontracting is another special issue. The manufacturer may decide to 'off-load' some products to suppliers so as to facilitate scheduling of production in the plant. It also enables better utilisation of human resources. This happens because subcontracting is just an extension of the plant's activities and since subcontractors are generally small, they may be in need of technical assistance.

Essentially, subcontracting is purchasing, and the subcontractor is a supplier. In common industrial usage, the term "subcontracting" has reference to such parts or products as could be produced with the buyer's own facilities and would normally be manufactured within his or her own organisation. Successful subcontracting regards the operations of the supplier as part of a continuous process, leading up to and including the operations in the buyer's own plant. In this concept, the supplier's material control, production efficiency, scheduling, and service are definitely the concern of the buyer company, and as such, must be handled with a high level of cooperation and mutual assistance. So far as the contracts are concerned, the supplier's operations are a part of his or her customer's operation, even though they are carried out at a different shop floor and under a different management.

Subcontracting, in most cases, is the fastest method of increasing output. This procedure often enables the main supplier to use the subcontractor's human resources, plant, and equipment instead of his own. This saves the main supplier from incurring capital expenditure in specialised equipment and tools he may not use for his normal production requirements.

Subcontracting has come to be of particular importance when associated with primary contractual arrangements between industry and government agencies, especially with construction or defence contracts. The government usually gives extra consideration to contractors who subcontract certain portions of their business to small or minority businesses.

- iii) **Choice between Small and Large Suppliers:** Often in selecting suppliers, the materials manager is faced with this question. If the requirements are small, the small supplier is the obvious choice. A personalised contact can be established and because he is small, he is likely to have fewer customers, be more loyal and meet even unusual requests. Big suppliers are equipped to meet larger requirements. They usually have reserve facilities and may thus be able to meet additional requirements. They may have R & D facilities which will enable the buyer to obtain technically superior products.
- iv) **Sole Source Versus Multiple Sources:** The buyer must decide whether to place all orders with one supplier, or to give them to two or more suppliers. Using more than one supplier has several advantages, providing there is enough business to keep all genuinely interested. Multiple sources provide a broader technical base. Competition is kept alive as suppliers seek to increase their share of the business. The buyer company is protected against failure at one supplier's plant. However, if the policy of the buyer company to have sole sourcing for its products and supplies wherever feasible, and this policy is implemented successfully, there is guarantee of long-term and lasting buyer-seller relationship.
- v) **Inside Source:** There are occasions when the buyer company may have to decide if the needed part or component can be manufactured within its own plant, or procure it from outside. This is known as the make-or-buy decision. The advantages and disadvantages must be evaluated in each case in terms of the individual company's situation.

Normally, industrial requirements are satisfied by purchase of the needed product or material from some outside source. However, there is usually the alternative possibility of producing a needed part or product within the buyer's own organisation, sometimes with potential advantages in cost, convenience, or control. This is not always feasible, but it should be considered. In a broad sense, the question "Make or buy?" must be answered in advance of every purchase, in the form of company policy it not by special analysis. This question may refer to a particular fabricated part for regular product use, or, on a broader scale, it may involve the decision of whether the company shall operate its own foundry department instead of purchasing castings or shall have its own printing department.

- vi) **Special Source Conditions:** In cases of certain custom-made items, it is beneficial to both the buyer and the several suppliers to have the requirements spread among them. No individual supplier has the ability, capability, and intent to take up the entire business. Under such condition, an agreement may be reached wherein all suppliers are contacted in rotation for the manufacture, delivery, and service of the product needed by the buyer company. Should a supplier be unable to accept the order at that time, the next supplier would be called, and the rotation would be forward rotation only. This sort of special arrangement may be successful in most cases as suppliers receive a good portion of extra business.
- vii) **Buyer-Seller Relations:** Developing, establishing, and maintaining good buyer-seller relationships must be the goal of any progressive purchasing function. It is essential that the seller's representative is treated fairly and honestly in all transactions. When the seller has confidence in the buyer, the buyer's task can be accomplished more effectively. When goodwill exists, negotiations are shorter, terms and conditions are simpler to agree upon, and disputes are kept at a minimum because of good communications. As an added bonus, the buyer's company has a better image, not merely as a customer, but as a good company to do business with.

The aim of source selection is to find the one most satisfactory source, or a group of alternative sources with adequate and reasonably comparable qualifications. Thus succeeding orders for the same item can be placed with these same suppliers with confidence in the original selection. In other words, the decision as to a source of supply contemplates a continuing and long-lasting mutually productive relationship.

- viii) **Loyalty to Suppliers:** A continuing buyer-seller relationship, based on mutual confidence and satisfaction, implies a policy and, a responsibility of loyalty to suppliers. This is the antithesis of opportunism and constant "shopping around" in purchasing. It is true that some cost savings can be made by such methods, but it is usually at the sacrifice of uniformity and continuity of supply. Especially, it sacrifices the assurance of supply that is the first responsibility in purchasing. Without established and loyal sources of supply, every recurring requirement presents a procurement problem of the first order, and the work of the purchasing department is magnified beyond all reason and proportion.

Experienced purchasing managers are in practical agreement that the long-range considerations of reasonable cost and of satisfaction and value in respect to purchases are best attained through a consistent policy toward supply sources. And a sound purchasing program, like any sound business program, is based on long-range considerations. The buyer who relies on opportunism to gain an immediate advantage makes himself or herself and the company the vulnerable prey of opportunism in selling.

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## 4.8 ANALYSIS OF SOURCES OF SUPPLY

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The type of evaluation used for the sources of supply varies with the nature, the complexity, and the monetary value of the purchase to be made. It also varies with the buyer's knowledge of the suppliers being considered. For simple and low-volume /value purchases, the information already in the purchasing department's file is usually sufficient. For complex as well as high-value/volume purchases, additional evaluation steps may be necessary, which may include a detailed analysis of the supplier's managerial and service capabilities. For an extremely complex purchase, a conference with potential suppliers may be held at the buyer's plant. From the discussion it is usually easy to identify those suppliers who understand the complexity of the purchase, thus further reducing the list.

Financial strength and stability of the supplier company may be essential to assure continuity of supply and reliability of product quality. A competent buyer should be able to read and interpret financial reports and make intelligent conclusions from the data. For example, when a firm's financial condition begins to deteriorate, the buyer should begin looking for another supplier, while continuing to deal with the distressed company with caution.

Plant visits should be made after the choice of suppliers has been narrowed to a few. Such visits are made to determine if the suppliers are both capable and motivated to meet contractual obligations. Usually, during the plant visit, the following aspects are evaluated:

- i) **Adequacy of Equipment:** Is the equipment modern or out-of-date? Are the production rates adequate? Look for bottlenecks and the number of backorders.
- ii) **Competence of Technical and Managerial Staffs:** A contract requiring complex coordination of development and production coupled with state-of-the-art design requires managerial skills to have successful performance.
- iii) **Labour-Management Relations:** It is beneficial for the buyer to understand the labor-management relations in the supplier plant as poor relations may result in erratic delivery performance and inconsistent quality standards. On the other hand, good relations may provide the buyer's company lower-priced items plus good quality and delivery performance.

Past performance provides an excellent insight into probable future success. The key to successful analysis is to identify the important characteristics of the particular purchase. Usually, three important factors are evaluated.

**Quality Evaluation** is simply reviewing the supplier's record in respect to meeting the required specifications, which is measured as a percentage of acceptable shipments or delivery. It should be the policy for the quality-control section to inform the purchasing department of the facts concerning each shipment/delivery.

**Price Evaluation** in its simplest form is the net price quoted in each instance for conforming goods compared to the prices quoted by competitors. Consistency of success and integrity in price behavior would provide a measure criterion.

**Service Evaluation** includes prompt submission of data, response to inquiries, delivery performance, special services rendered, and other intangibles. Most of the elements in this factor are subjective in nature.

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## 4.9 TYPES OF EVALUATION TECHNIQUES

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Over the years, a number of evaluation techniques have been recommended. Some of these techniques are discussed below.

- i) The ***categorical plan*** is a procedure requiring little definite or specific training, minimum amounts of data collection, and simple analytical techniques; but it depends heavily on the competence and experience of the buyer. The buyer keeps a list of suppliers and their products and lists the good and bad factors concerning quality, performance, and technical service reports. The ratings use a three-point system: plus, minus, and neutral.

Monthly evaluation meetings indicate trends for individual suppliers and thus permit analysis of a supplier's long-run performance. The categorical plan's simple recording, reporting, and analytical techniques allow collection and evaluation of data with relative ease and minimum cost. The buyer's experience and judgment are essential to any evaluation plan, but strong reliance on them may result in data collection and evaluation lacking in precision and fair appraisal.

- ii) The ***cost-ratio plan*** is based on cost and time data that enable the purchasing department to arrive at the net cost of the goods ordered. All activities pertaining to the supplier's performance are valued in monetary terms. This includes all telephone calls, letters, and other activities required to obtain the order.
- iii) The ***weighted-point plan*** provides a means for the evaluation of the supplier's performance by weighing the factors of measurement designated for the evaluation. The factors have actual "weights" assigned to each, which represent the measure of importance of that factor in regard to this purchase order. The suppliers are usually rated for the quality they provide, the delivered price, and the service they render.

Arbitrary values are assigned to each factor based on the importance of that factor. For example, 40 points may be assigned to the quality factor, 35 points to the price factor, and 25 points to the service factor, which totals 100 points. The supplier achieving a composite rating closest to 100 is the supplier likeliest to receive the order. This sort of factual data can permit other suppliers to take corrective action for future transactions.

The technique as mentioned above involves only three factors: quality, price, and service. The number of factors to be considered depends on the product or services requested. One can assign a value to technical assistance, or cost-reduction suggestions, or other such factors, if they are considered important to be considered. The advantage of the weighed-point plan is having any number of evaluation factors included, and their ratings (value to the company) can be assigned according to the needs of the company.

### Activity 2

If the quality cost of a supplier are given as below. Find the quality cost ratio and comment on the rating of the supplier.

1) Visit to supplier's plant	500/-
2) Approval of sample	200/-
3) Inspection cost of incoming shipments	100/-
4) Cost associated with defective products	175/-
5) Other costs	225/-

Given, the total the total value of purchase is Rs, 1,20,000/-

## 4.10 THE APPROVED LIST OF SUPPLIERS

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Purchasing policy in most companies traditionally call for at least two supply sources for any item purchased in volume. The objectives of such a policy are two fold: (1) to protect the company's supply lines against supplier shutdowns caused by strikes or acts of God, and (2) to encourage competition among suppliers by implying that one supplier always has a chance to increase its share of a company's orders by outperforming another supplier.

However, there may be exceptions to the multisource policy. One of the country's largest food processors, may have a single supplier for all its packaging requirements for more than 25 years. Other types of companies, notably the automakers are now sole-sourcing critical parts and plan to continue the practice.

Such relationships, however, require the highest degree of cooperation and coordination between buyer's and seller's technical staffs, comprehensive and airtight contracts, and greater incentives for suppliers-mainly long-term contracts that assure them of continued business and reasonable profits.

It is unlikely, however, that multiple sourcing will be abandoned as basic purchasing policy. The larger companies that use sole-sourcing restrict it to very specific items, and often for only a specific period (i.e., for critical parts for a given model of automobile). What can be expected is a continuation and wider use of the policy of narrowing the supplier base. More companies will concentrate their purchases with fewer companies which have proved that they can and will meet high standards of quality, service, and delivery-at a competitive price.

It is most likely that the buyer prefers to purchase the bulk of his or her requirement from one source previously known, provided that there is a real preference for the product and that the supplier's quality, price, and service are satisfactory. But the buyer may also make some purchases from the others from the approved list of suppliers or give them a chance to quote regularly to maintain their interest. An alternative source that is merely another name on a list represents no advantage either to the buyer or the seller. The approved list of supply sources must be used to be useful.

There are two specific criticisms against 'approved list' approach: (i) it is discriminatory in nature and serves to blacklist any supplier that is not included, whereas every qualified seller should be allowed to quote, and (ii) it limits buyers and restricts the scope of their choices.

Flexibility and periodic review may overcome both objections. As to the first, it is assumed that all qualified sources have been investigated thoroughly before the list was being built. Further, it assumes that if conditions have changed or if new sources enter the field, the opportunity will be given. The purchasing manager should always be ready to maintain the list at the highest possible standard.

As to the second criticism, the limitation on buyers, if any, is a self-imposed one. In principle, the limitation is set by either of two causes. One is the absence of additional technically or commercially competent suppliers. The other is that there are practical limits to the size of a working list beyond the basic assurance of supply and reasonable competition.

## 4.11 A COMPREHENSIVE SYSTEM FOR VENDOR PERFORMANCE EVALUATION

A more comprehensive mathematical vendor-rating formula has been developed in the purchasing department of a large manufacturing company. It is known as the “incoming material rating” rather than as a vendor rating because the calculation is based upon experience with a single item or product. It is designed to provide a comparative evaluation of vendor performance in any case in which an item is procured from two or more sources.

This formula is based upon the principles that: (i) the evaluation of a vendor’s performance must embrace all three major purchasing factors, viz., quality, price, and service, and (ii) the relative importance of these factors varies in respect to various items. The first step, therefore, is to assign appropriate weights to each, adding up to a total weighting factor of 100 points. For example, in a given case, quality performance might be rated at 40 points, price at 35, and service at 25, and these percentages are subsequently used as multipliers for individual ratings on each of the three purchasing factors. The assignment of these weights is a matter of judgment.

The details of the vendor performance evaluation system are shown in Table 4.1.

Vendon rating report					J.M. Muser Corporation				
Company	Date				Total Rating				
Company	Excell-ent (4)	Good (3)	Fair (2)	Poor (1)	Production	Excell-ent (4)	Good (3)	Fair (2)	Poor (1)
Size and/or Capacity	4				Quality	4			
Flamcial Strength		3			Price		3		
Operational Profit		3			Packaging	4			
Manufacturing Range	4				Uniformity		3		
Research Facilities			2		Waranty	4			
Technical Service		3			Total 18	12	6		
Geographical Locations	4				1.25 × Total = 22.50				
Managment		3			<b>Sales Personnel</b>				
Labor Relations		3			1. Knowledge				
Trade Relations		3			His Company		3		
Total 32	12	18	2		His Products	4			
0.63 × Toal = 20,16					Our Industry		3		
<b>Service</b>					Our Company		3		
D. Time	4				2. Sales Cells				
Condition on Arrival		3			Properly Sp	4			
Follow Instructions		3			By Appoinmnet		3		
Number of Rajections	4				Planned and Pro.		3		
Mondling of Complairts		3			Mutually Productive	4			
Technical Assistance			2		3. Sales-Service				
Emergency Aid		3			Obtain Information		3		
Supply UP to Date Cotalogues, Esc.				1	Furnish Q. Properly	4			
Supply Price Change Promptly	4				Fallew Orders		3		
					Expedite Delivery		3		
Total 27	12	12	2	1	H. C.		3		
0.69 × Total = 18.63					Total 42	16	27		
					0.48 × Total = 20.64				

In rating price, the lowest net price (gross price minus discounts plus unit transportation cost) obtained from any vendor is taken as 100 points, and net prices from other vendors are rated in inverse ratio to this figure.

The service rating is a direct percentage of the lots received as promised, in relation to total lots received.

These three ratings are multiplied by their respective weighting factors and the results are added to give a numerical “incoming material rating” for each vendor, for a given item.

### **A Few Examples**

Vendor A has delivered 58 lots during the past year, of which two were rejected. The percentage of good lots is 96.5. Multiplied by the weight factor of 40, this gives vendor A a quality rating of 38.6.

The lowest net price from any vendor is Rs.0.93 per unit. A’s price is Rs.1.07. By inverse ratio, A’s price performance is 86.9 percent. Multiplied by the weight factor of 35, this gives vendor A a price rating of 30.4. Of the 58 lots delivered, 55 were received as promised. This is 94.8 per cent performance. Multiplied by the weight factor of 25, it gives vendor A a service rating of 23.7.

The sum of these figures gives vendor A a total performance rating of 92.7.

Vendor B, who furnished 34 lots during the same period, was the lowest-price supplier at Rs.0.93 per unit, so has a price rating of the full 35 points. However, four of the lots were defective, giving B a quality rating of 35.3. Also vendor B was late with five deliveries, so B’s service rating is 21.3, for a total performance rating of 91.6.

In this instance, therefore, vendor A is judged to be a better source, and the buyer is warranted in placing the bulk of the business with A in spite of A’s substantially higher price. If vendor B could be induced to cut delinquencies in either quality or service by one half, or if the price factor were deemed relatively more important in respect to this item, B would have the better rating.

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## **4.12 DEVELOPING SOURCES OF SUPPLY**

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In the majority of cases, and under normal business conditions, adequate sources may exist, and the purchasing manager has to select one of them. However, it may happen also that the buyer’s survey and search for the most satisfactory source may result in the discovery that no satisfactory or willing source can be found; yet the requirement exists, and it is the buyer’s responsibility to meet it.

Products or parts that have not previously been made, intricacies of special design, unusual requirements in the specification or difficult conditions of application and use, and the utilization of new or unfamiliar materials for which there is little precedent in treatment and fabrication are some of the factors that may lead to a situation for which no established supply source stands ready at hand. Or, from the standpoint of practical procurement, the only available sources may be too distant, prices may be exorbitant or out of line with budgeted costs for the product, production capacity may already be fully occupied so that no new customers may be accommodated, or the potential suppliers may simply be unwilling or uninterested in additional business.

In place of a process of elimination or narrowing of the field, the buyer must concentrate on the most likely sources, persuading them to undertake the desired production and, if necessary, helping to implement their plant and personnel for such expansion or conversion of facilities as may be needed. In such cases, procurement is

partly a matter of selling ability, seeking to establish the buyer's company as a desirable customer in the same way that the salesperson normally seeks to establish his or her company as a desirable supplier. Among the incentives offered are the steady flow of guaranteed orders over a period of time at a satisfactory price level, technical assistance in setting up the process on an efficient basis that will result in a satisfactory product, assistance in the procurement of raw materials even to the point of furnishing such materials for fabrication only by the supplier, so that risks of waste and spoilage in the initial stages are for the account of the buyer, and, sometimes, subsidizing the costs of new equipment and tooling until they may be absorbed by the volume of business that develops.

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### 4.13 SOCIO-ECONOMIC FACTORS IN SOURCE SELECTION

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The use of purchasing power as a tool in the achievement of certain social objectives came into prominence in the late 1960s and early 1970s. The social unrest of those decades, the growth of consumerism, the awareness of industry leaders that social health was linked to economic health, and the growing intervention of the government in the private sector—all contributed to complicating purchasing decisions that had been based primarily on economic considerations.

Most management policies and government regulations that deal with socio economic matters do not require the payment of premium prices, but they do encourage competitive procedures. This is particularly so in the encouragement and assistance given to socially and economically disadvantaged suppliers. The objective is to help them be competitive, so that they may remain in the mainstream of the country's economic life.

Among the socioeconomic factors with which purchasing management has had to deal are (i) the use of small businesses as suppliers to government prime contractors, (ii) placement of subcontracts in areas of labor surplus, (iii) use of non-polluting materials, and (iv) placement of business with minority suppliers, and companies owned by women.

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### 4.14 SUMMARY

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Source selection is an essential responsibility of any purchasing function. It has assumed importance in view of growing need of the buyer company to survive in a fiercely competitive market. Through proper selection of source, it is possible for a buyer company to have best quantity, required quantity, and improved delivery performance from the supplier company. If time-tested and scientific policies, based on practical considerations and awareness about establishment of good and healthy relations with the suppliers, are pursued, vigorously and continuously, a strong supplier base can be developed in the long run. Several techniques have already been proposed for vendor rating, and given an opportunity, the buyer company should develop and use a comprehensive vendor performance evaluation system. Socioeconomic factors also need to be considered in source selection.

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### 4.15 SELF ASSESSMENT QUESTIONS

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- 1) List and discuss the important criteria that you may use to determine: (i) possible sources of supply, and (ii) acceptable sources of supply.
- 2) Identify the elements that determine a stronger and longer buyer-seller relationship. Does multiple sourcing lead to a bad relations with suppliers? Why or Why not?

- 3) Discuss some of the socioeconomic developments of recent years that have had an impact on purchasing in India.
- 4) Discuss, in detail, the components and structure of a comprehensive vendor rating system. Is it necessary in all situations? Justify.
- 5) Differentiate between purchasing and subcontracting.
- 6) Why is “approved list of vendors” approach not suitable in certain cases?

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#### **4.16 REFERENCES AND SUGGESTED FURTHER READINGS**

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