

Getting the Most From Your Indirect Purchasing Dollar

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Abstract. Every organization has some form of indirect purchasing. Even pure service businesses need office supplies, janitorial services and occasionally, consultants. This paper will discuss the characteristics that make Indirect Purchasing somewhat different from purchases of direct materials. Goals, objectives and strategies for indirect purchasing will be developed. Tools for indirect purchasing and inventory management will be described, followed by performance measures and other related topics. In some organizations, indirect purchasing is perceived as somewhat less important than the purchase of direct materials. While it is obviously vital that an organization maintain a smooth flow of materials for production, it should be equally obvious that without the necessary energy, lubrication and maintenance, production will just as quickly halt. It is the purpose of this paper to explain that, while some of the characteristics of indirect purchasing are different from direct purchases, it is of equal importance.

Indirect Supply Characteristics. In one organization, at the same time they purchased 8,900 production parts, they bought, on a continuous basis, more than 40,000 different indirect materials. In one survey, the average value of an indirect purchase order was \$125. In another survey, the average value was \$167. Two characteristics are immediately apparent; many indirect purchases are of low value, perhaps less than the administrative cost of generating the order, and there is amazing variety of indirect purchases – from pencils to capital equipment and capital projects and a wide variety of services. Increasingly, indirect supply managers are responsible for energy purchases and negotiating rates with a wide variety of service providers. The scope of activity is one of the differentiating characteristics of the indirect purchasing function.

Indirect Supply Problems. As noted, indirect purchases are typically required for every location of an organization. Further, all mobile service personnel are likely to have on-location requirements that must be met. For example, line crews for an electric utility may need parts anywhere within the utility's service area that may cover several states. This raises several problematic issues for indirect supply managers. How might an organization make sure

goods are available when and where they are needed, with necessary controls, while still enabling the organization to maximize its aggregate purchasing leverage? If multi-location contracts have been negotiated to achieve broad availability while attaining advantageous pricing, how will the organization effect compliance and avoid 'maverick spending' (purchases made outside of the contract)? The succeeding discussion will address these and other key components of an integrated indirect purchasing program.

Objectives of Indirect Supply Management. The first objective of Indirect Supply Management is the development of strategy and focus for the entire scope of indirect materials and services supply. That carries forward to commodity or category strategies and finally to strategies for each significant supplier. Underlying these strategies are fundamental goals of assuring continuity of supply, minimizing administrative costs and reducing cycle times. These strategies provide focus and direction to all who work in the indirect supply area.

Development of Indirect Supply Strategy. Any functional strategy must be consistent with overall organizational strategy. The strategic planning process begins with the definition of an organization's mission. This is a concise statement defining the underlying purposes for the existence of the organization. The second step is to establish a vision statement. What does management intend for the organization to become in X years. Thereafter follow the strategies that detail the means by which the organization will progress from its present position to where the vision statement directs. Finally, performance measures are established to encourage employees to do the things that are necessary to proceed from the present position to that defined by the vision statement.

Strategies typically have three fundamental characteristics. First, they are long-term action plans; what must be done now so that the vision can be achieved. Second, a strategy involves the commitment of organizational resources to a specific course of action: what investments must be made to achieve the vision. Finally, the underlying objective of any strategy is the creation of competitive advantage.

Strategies for indirect materials management will conform to the above model. Categories of commodities, products or service groups are defined. Examples include electrical supplies, safety supplies and bearings. For each one, a strategic plan is developed. For example, an organization may analyze its office products purchasing and inventory processes. If it were determined that it has six office products suppliers and three office product storerooms, the strategy for the commodity might be to develop and use a formal supplier performance measurement system to reduce the number of suppliers to two. Additionally, the organization may choose as a commodity strategy the use of a systems contract. A key feature of this type of contract is rapid turn-around of orders. If orders are filled and delivered within twenty-four hours, very little, if any inventory is necessary. Having evaluated the characteristics of the remaining suppliers, individual strategies can be developed to improve the costs and performance of each.

The type of product being acquired will significantly influence development of strategy. Commodities or industry standard products will require substantially different strategies than custom products or those that are patented or incorporate proprietary technologies. Commodities or industry standards are likely to be substantially market-driven transactions.

Other strategies may focus on the acquisition of technology or on the development of long-term supplier relationships.

Tools for Indirect Purchasing Management.

Forecasting. While many will argue that it is impossible to predict machine breakdowns, and therefore to forecast maintenance purchases, the authors will argue that this is but one small part of the forecasting task of indirect supply managers. With appropriate tools, at least general forecasts can even be made for maintenance purchases.

The motto of traditional maintenance was, "If it ain't broke, don't fix it." Of course the problems with this philosophy are that the machine only breaks when it is most needed, and when it breaks under load, not only must the failed parts be replaced, the failure often causes damage to non-wear parts that otherwise never need replacement. In addition, the failure usually leads to rush deliveries and overtime repair.

The concepts of Preventive Maintenance suggest that with data about reliability of wear components of a machine, it is possible to determine life expectancy, and schedule repair work to be done *before* something breaks. By definition, such systems are forecastable and indeed *require* forecasting. This also highlights how important it is for indirect purchasers to work closely with maintenance personnel to determine the preventive maintenance schedules and to assure that parts, especially those with long lead times, are available according to the schedule.

The primary purposes of forecasting are to minimize uncertainty and to anticipate change. If an activity continues with relatively little change, automation is a likely tool for its management. For activities that change frequently, such as MRO and other indirect purchasing activities, forecasting becomes a critical tool in their management. To sustain operations without forecasting usually demands substantial excess inventories. This is especially true when applied to MRO inventories.

Most capital equipment manufacturers maintain 'recommended spares' lists that indicate what parts may need to be replaced on a regular basis. Most equipment suppliers also have a general notion of the frequency of such repairs. From internal and other sources such as machinery and maintenance handbooks it is possible to determine the average life cycles of common components. In conjunction with maintenance personnel, using the above information it is then possible to construct a maintenance schedule (forecast) incorporating all expected repairs.

The forecasting tasks for indirect purchases are every bit as important as those for direct materials. Forecasts of requirements for copy paper, electrical supplies, pipe, valves and fittings, bearings, safety supplies, and any other indirect material necessary to support ongoing operations are necessary to assure availability and as the foundation for contract negotiations with suppliers. While most organizations spend large sums to develop forecasts of customer demand, they often overlook the second half of the forecasting equation: forecasts of supply availability and price. Forecasts of requirements must be played against supplier capabilities and supplier capacities to assure availability. If machines are out of

service because indirect purchasers failed to forecast that the supplier would be on strike when parts were needed, such deficiencies are likely to be career limiting.

Lead Time Management. If an organization has two suppliers, one that quotes six weeks lead time (say an offshore supplier) and *always* delivers on time, and a second supplier (perhaps a domestic one) who quotes two weeks lead time, but often takes three, which is the best supplier? Conventional performance measures would clearly favor the first. On time delivery is, according to many surveys, the most highly prized of supplier attributes. But is the first supplier really best in today's highly volatile business environment? The ability to react quickly to changes in requirements may be more important. Lead time management may be one of the most important tasks of indirect purchasers.

Collaborative Planning, Forecasting and Replenishment (CPFR). The concepts of Collaborative Planning, Forecasting and Replenishment are no less applicable nor important to indirect purchases than to those for production. Any time an organization has continuing high volume requirements, it is to the benefit of both the buying organization and the supplier to collaborate to meet those requirements. It is incumbent on the buying organization to develop realistic forecasts and to share them with important suppliers. Since a fundamental strategy of supply management is to minimize supply chain costs, sharing of forecasts allows suppliers to prepare and deliver necessary materials without having to rely on large and costly inventories.

The industrial distribution industry has been undergoing consolidation for several years. This is a special caution for indirect supply managers, as supplier performance frequently changes following a change of ownership. At times, new owners reduce inventories or otherwise change their operating characteristics. Discounts and terms may change, and on-time delivery performance and lead times may be altered, as well. In other instances, marginal suppliers are helped by an infusion of cash and managerial talent from new owners and become superior suppliers. At the least, a change in ownership is cause for close observation of the supplier's performance for a considerable time after the change.

Services

Statements of Work. Indirect purchasing management has increasingly become involved with service contracts as organizations outsource functions previously accomplished by employees. Such activities as janitorial services, grounds maintenance, building maintenance, copier and other office machine service agreements are common. Communications contracts, energy contracts (electricity and gas supply contracts, for example) and contracts for construction and remodeling all require detailed and exact descriptions of supplier activities. Additionally, contracts for such activities as electric motor rewinding, machine maintenance and overhaul pose further difficulty since exact work to be performed may not be known until the machine is disassembled. In such cases, it is common to negotiate agreements with suppliers defining the hourly rates for various activities. Further, many firms form contracts defining ranges of activity with a negotiated amount tied to each level. Minor repairs, intermediate repairs and major overhauls may each have specific rates. The caution here is to clearly define the characteristics of each category and the points of division between them.

Statements of Work are to services what specifications are to products or materials, except that they often are much more difficult. Services don't come with part numbers. Development of thorough, complete statements of work are critical to successful service contracts. For example, organizations frequently outsource janitorial services. Ordinarily, such services include emptying wastebaskets and cleaning restrooms. But what does 'empty waste baskets' mean? Not only should the basket be emptied, but perhaps the buyer also wants a plastic bag in the basket. What kind of plastic bag? What size? What mil thickness? Will the contractor be allowed to reuse the bag if it is not soiled?

When the contractor is asked to clean a restroom and mop the floor, what does 'mop the floor' mean? With just water? With a disinfectant? What kind? Rinse afterward? There are several points here. First, it is incumbent upon the buyer to fully and completely describe the service the contractor is to provide. This is a complex and time-consuming task, but it must be done for several reasons. If it is done well, the rest of the transaction typically proceeds smoothly. If it is done haphazardly, there will be conflicts and dissatisfaction on both sides. Each of the elements of the statement of work represents a cost element to the contractor and also represents a component of performance evaluation. If the statement of work is developed thoroughly, both sides know exactly what is expected, what is to be provided and how performance will be measured. This is obviously a more protracted process than ordering by part number, and can be equated to the development of specifications for a custom product. In almost every sense, a service agreement is a custom application and requires the same sort of analysis, planning, and design as a custom engineered component.

A final thought on the topic of outsourcing. There is a definitional distinction between make/buy and outsourcing. The former is a fluid decision, revisited periodically. Under some conditions, an organization may perform the activity, itself. Other conditions will lead to buying the service (or material); even so, the organization retains its internal capability. Outsourcing typically results in the decision to eliminate the internal capability and to depend on suppliers thereafter. Outsourcing, however, does not relieve the buying organization of the responsibility to continue to manage the function. All too often organizations outsource a maintenance service and then forget to actively manage the activity, perhaps even more intensely than when the activity was performed internally. The importance of this intense management of outsourced activities cannot be overstressed.

One of the more difficult service agreements to administer is one for a consultant. Nevertheless, a statement of work should be carefully constructed to include the specific tasks expected of the consultant, a thoughtful and thorough definition of the problem(s) to be examined and, most importantly, the particular deliverables and timetable for completion of the project. The same cautions apply here as to materials purchases. At times consultants, like manufacturers, have capacity constraints. Consultants should be prohibited from outsourcing or subcontracting the work without written permission from the buyer. The consulting contract should also include agreements about the specific level of personnel (or even names of specific persons) to be assigned to the project, and the hourly rates for their services. Finally, the consultant should provide an estimate of the number of hours required to complete the project. Many organizations have seen consulting projects, especially for IT services or software development, balloon beyond any expectation because the buying organization did not spend the necessary time to clearly define the needs of the project and

because the consultant was not asked to provide a realistic cost estimate. Situations like this may suggest the use of contracts with 'not to exceed' values.

Impacts of Global Supply Chains. Nuts and bolts come from China, grinding wheels from Great Britain, bearings from South Korea or Brazil, gloves come from Indonesia, In short, indirect materials come from all over the world. While this often leads to lower prices, transaction complexity increases sharply. Lead times stretch out, leading to increased pipeline inventories, while security processes further increase lead times. Quality concerns often lead to the use of independent inspection agencies to assure quality before the material is loaded into a container. Indeed, many letters of credit require a satisfactory inspection certificate prior to payment. Many MRO materials are suitable candidates for global sourcing, especially industry standard products, since their specifications are known and there are many available suppliers.

In comparing domestic and offshore suppliers it is essential to develop a total landed cost for each. What does it cost, in total, for the products to be delivered to the receiving area? Domestically, transportation costs, and payment terms would be included, in addition to price. Alternatively, inland transportation, wharfage and handling, port charges, stevedoring charges, ocean freight, customs costs, paperwork costs, and inland transportation are considered, in addition to price. While foreign suppliers may offer attractive suppliers, only by examining total landed costs can the indirect supply manager determine if the deal is beneficial.

Current Critical Issues in Indirect Supply. Some say that transportation and logistics in this country may be approaching a perfect storm. Fuel prices have skyrocketed, and while gasoline prices for consumers have declined somewhat, prices for diesel fuel have remained stubbornly high. This has exerted nearly unbearable pressure on trucking firms, many of which are small and are unable to fully pass cost increases to customers and are incapable of sustaining the increases, themselves. As a consequence, and because long haul drivers are increasingly reluctant to be gone from home for weeks at a time, there is a chronic shortage of drivers in the trucking industry. For various different reasons, there is a chronic shortage of train crews that compounds the difficulties the railroad industry encountered with the recent mergers. Eastbound Pacific container capacity and congestion at west coast ports continue to plague ocean transportation users. All of these difficulties interact and compound as trucking firms attempt to mitigate driver shortages by tendering trailers to the railroads, accentuating the railroads' service and capacity difficulties. Similarly, the escalating container traffic generated by outsourcing and increased consumer consumption impacts both railroad and trucking services. When acquiring transportation services, indirect supply managers are increasingly aware that, like any industry segment operating at capacity, transportation service acquisition is increasingly a function of the long-term relationships they have with their carriers. This situation is likely to continue into the foreseeable future, and will pose ongoing challenges to indirect supply managers.

Conclusions. This paper has identified characteristics that differentiate indirect supply management from other supply activity. Great variety, typically small individual orders, requirements from virtually every firm location, inventories that serve many different functions with different performance characteristics, and the implementation of integrating technologies make this a challenging activity. Underlying all of the activities of indirect supply management

are the functional, commodity and supplier strategies developed to improve overall performance. These are the tools that enable indirect supply managers to provide necessary materials and services at minimum total cost across the entire spectrum of organizational locations and needs.