The Future of Maintenance, Repair and Operating Supplies (MRO) Taking MRO From Transactional Activities to Strategic Processes

Althea Pemsel, C.P.M., A.P.P., Contract Administrator
City of Orlando, 400 S. Orange Avenue, Orlando, FL 32802
Telephone: 407-246-2897
Abpem10@aol.com

Debbie Long, C.P.M., A.P.P., Assistant Director
University of Central Florida, Research Park, Orlando, FL 32825
Telephone: 407-835-3514
Dlong@mail.ucf.edu

Abstract. MRO continues to be a primary area of supply chain management that is constantly re-structuring its processes in order to reduce costs and efficiently handle large volumes of parts, materials, and goods necessary to produce products that will eventually be consumed globally. MRO is receiving even greater attention than before from the manufacturing and service industry due to the costs are associated with meeting the goals of business divisions whether they are financial or market driven. Globalism requires a flexible and efficient way in which all process partners and end users meet their individual department objectives, without creating counterintuitive policies and inventory management procedures. An increase in productivity, cost-savings, service levels, and proactive management of MRO is possible without sacrificing quality along with internal and external controls. MRO must delineate from the familiarity of transaction-based activities to strategically based initiatives.

Background. MRO innovations to increase productivity operationally using Internet based e-commerce, software applications and systems, electronic data interchanges (EDI), blanket purchase orders (BPO), and other mediums are functional. However, they are unable to meet the demands in an ever-changing environment because they simply lack the scalability required to respond quickly to unexpected scenarios. Although these mediums have had tremendous success, a more proactive approach that will reduce the transaction based measures above to strategic initiatives that consists of supplier alliances, seamless process from receipt of raw material to finished product, identifying and including process partners or those who are able to affect the production process.

Objective. The new MRO direction creates dynamic alternatives and opportunities for firms interested in re-engineering processes and instituting cost saving measures. Creating supply chain alliances will be a profitable and challenging way to obtain cost reductions in both manufacturing and non-manufacturing environments.

The traditional transaction-based model consisted of obtaining price quotes, expedited delivery costs, quantity based pricing, while operations style and other pertinent process issues were completely unknown to the supplier. This double-dyadic relationship results in a power driven form of supply chain management that constantly shifts making the relationship dysfunctional. A strategic based model shifts the dyadic relationship from just receiving and managing needed parts to bundling of services and value added services that includes 3PL sourcing, consulting and customizing services that directly benefit ordering departments, end users, finance and accounting and the firm's profitability. Also, the power and value matrix associated with this type of cooperation is balanced.

Benefits. To compete globally require higher service levels that are achieved with a flexible production environment that significantly reduces inventory cost and increases output. The delays and missed production deadlines sometimes occur due to lead time miscalculation, conflicting policies or incorrect parts or materials. All of these service and cost delays results from a lack of forecasting, communication, and teaming of departments with correlating processes and goals. The strategic based model utilizes these same factors to dramatically reduce errors and create an efficient MRO environment. Although much effort has been expended in analyzing manufacturing and non-manufacturing practices, little, if any, attention is given to MRO and its ability to directly affect the bottom line and create a "team effort."

Strategic Planning. Business process improvements (BPI) requires cooperation from all levels yet, strategic planning must begin with either an executive directive or commitment. The core competencies in developing strategic business competencies are management, change agents, and savvy purchasing and supply personnel and processes. This creates an environment that brings all process partners together and centers around a common objective that permeates throughout the entire firm. Generally, the policy makers of the firm set the mission statement and overall objectives. Afterwards each department's procedures and goals are determined and match the desired outcomes of the firm.

Implementation. The focus of MRO has always been "have what you need when you need it." This philosophy has not changed much but, the markets and industries that are being serviced in addition to the competitors and cost factors associated with this philosophy has changed. Teaming of departments is only one of several crucial steps that reduces costs and ensure the overall successful utilization and good stewardship of resources allocated to a product or project. Each department has "silos" yet, can cooperatively share the vision and financial objectives of the firm's stakeholders whether it is stockholders or consumers.

Conclusion.   Leverage is the key to managing the power and value matrix. An interdependence and balance of powers eliminates the "us" versus "them" mentality and adds a "win-win" dynamic that has something for everyone. It is virtually impossible to please everyone in the supply chain but the cost of each department is significantly reduced when the process of purchasing, handling vendors, inventory, production, accounting and marketing is synchronized.   If marketing notices a shift in product trends, production must have the flexibility to quickly change the product offering, purchasing must have a contractor alliance whose inventory management process allows for quick turnaround, accounting must ensure prompt payment discounts negotiated by purchasing to get the inventory faster are not missed, production lines must have the capacity to continue to produce the current product while immediately making parts for the new product. In order that the transaction-based model becomes an on going strategic based model, key elements for the successful implementation of a strategic MRO process are executive level commitment, strategic planning, department teaming, and supplier alliances.

REFERENCES

Book References:

Cavinato, Joseph L. and Ralph G. Kauffman. *The Purchasing Handbook*, McGraw Hill Companies, Inc., New York, New York, 2000

Hearn, Emmett E. *Federal Acquisition and Contract Management*, Hearn Associates, Los Altos, California, 1996

Journal or Magazine Article References:

Cox, Andrew, "The Power Perspective in Procurement and Supply Management," *The Journal of Supply Chain Management*, Spring 2001, pp. 29-30

Emerson, R.E. "Power Dependent Relations," *American Sociological Review*, (27) 1962, pp. 33-41

Pemsel, Althea, "Strategic Thinking Equals Superior Performance" *First Monday, (5) 2002, pp. 33-34*

Web Site References:

Paul V. Arnold, MRO Today, http://www.mrotoday.com/mro/archives/MRO%20Coach/Lynch/FixingJJ02.htm, November 12, 2002

R.T. "Chris" Christensen, MRO Today, http://www.mrotoday.com/mro/archives/MRO%20Coach/Christensen/chrisON2002.htm, November 12, 2002