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### Chapter

# Introductory Chapter: Purchasing and Supply Management

Syed Abdul Rehman Khan and Zhang Yu

There is no doubt that each and every firm have their purchasing department/professionals. Purchasing is the process of acquiring materials, components, and services from another firm. Professional purchasing have addresses following main rights: purchase of the right material, component or service, in the right quantity and quality, at the right place and time [1]. Purchasing gives the foundation of supply management, which tends to have a wider scope of activities [2]. The focus shifts from price to the total cost of ownership.

Supply management is a five-phase process that starts with the identification of the materials or components required to fulfill the requirement of the enterprise. During this phase, the need is to convert into a statement describing the materials or components required to fulfill the need. It is projected that around 85% of the cost of material is determined during this phase [3, 4]. In sophisticated and multinational firms, supply management professionals and pre-qualified vendors are involved in this phase. The second phase of supply management contains identifying the supplier who will best fulfill the need. The third phase comprises the process of establishing a reasonable and fair price for the material to be purchased. The fourth phase results in an enforceable contract for the purchase that fulfills the requirement of both firms (supplier and buyer). The last phase needs managing the relationship to guarantee quality and delivery time of the material. During this last stage, the supply management firm may work with the supplier in an effort to enhance the efficiency of the supplier with the objective of reducing cost and/or improving quality [2, 5].

# 1. Definition of supply management

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There is a long list of definitions on supply management and procurement management (**Figure 1**). But the most common definition of supply management is as follows:

"The process of obtaining and managing of materials, components or services needed to operate a business or other type of firm. The elements of supply management contain the actual materials/components, budgets, information, and employees. The key purpose of this procedure is to keep costs stable and use resources effectively to increase the efficiency of the business and profits" [6].

Following are the basic responsibilities of an effective purchasing and supply management team.

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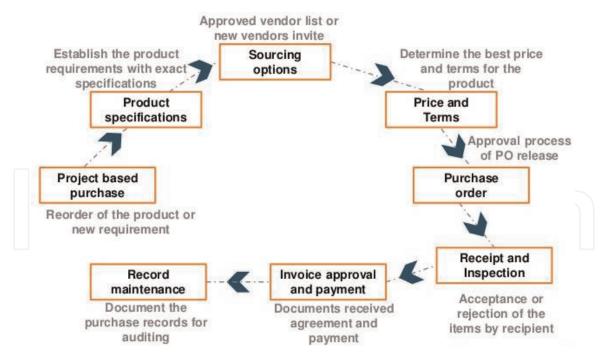


Figure 1.
The complex procurement process.

### 2. Reducing cost

Purchasing has a direct impact on firms' profitability and expenditure. The procurement professional task is to reduce the cost of product, material or service through supplier relationship development and negotiations [7]. In addition, procurement professionals have a responsibility to create value for the firm in terms of cost reduction and improving the quality of the item. Generally, the material cost is two and a half times the payroll costs [1, 8]. It is the key reason firms see great value in procurement professionals who are able to increase the quality of products and savings.

# 3. Negotiation

Negotiation plays a vital role in the reduction of cost and enhancing the quality of the item. Procurement professionals are tasked with negotiating terms with suppliers that benefit to the firm in terms of delivery time, quality of materials, and reduction in price/cost of material [1, 9, 10]. Undeniably, this not only affects the sales and revenue of firms but also create a competitive advantage. The successful supply management professionals' team is relying on the ability to foresee long-term business relationship and strong negotiation skills.

# 4. Developing supplier relationships

Usually firms require suppliers on an ongoing basis due to one-off purchases is very costly and as a result, it is crucial to building a long-term relationship with suppliers. A supplier–buyer good relationship can create flexibility in the supply chain [6, 11]. In addition, by working with the supplier on a long-term basis, firms may increase competitive edge, higher cost savings, and fine-tune schedules.

Further, buyer–supplier relationships benefit both and build trust and collaboration, which allowing both parties to succeed [12].

#### 5. Mitigating risk

Purchasing and management have a responsibility to understand the potential risks and develop innovative strategies to manage them. An effective risk mitigation strategy may protect firms from a big loss [1, 13]. Potential risks contain transparency and fraud, counterfeit materials and intellectual property. Further, supply management professionals need to have a plan B in place if supplies are delayed from the suppliers' side or due to changes in schedule.

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#### References

- [1] Khan SAR, Dong Q. Impact of green supply chain management practices on firms' performance: An empirical study from the perspective of Pakistan. Environmental Science and Pollution Research. 2017;24:16829-16844. DOI: 10.1007/s11356-017-9172-5
- [2] Khan SAR, Qianli D, SongBo W, Zaman K, Zhang Y. Environmental logistics performance indicators affecting per capita income and sectoral growth: Evidence from a panel of selected global ranked logistics countries. Environmental Science and Pollution Research. 2017;24(2): 1518-1531. DOI: 10.1007/s11356-016-7916-2
- [3] Khan SAR. Introductory chapter: Introduction of green supply chain management [online first]. IntechOpen. 2018. DOI: 10.5772/intechopen.81088. Available from: https://www.intechopen.com/online-first/introductory-chapter-introduction-of-green-supply-chain-management
- [4] Sarkis J, Zhu Q, Lai K. An organizational theoretic review of green supply chain management literature. International Journal of Production Economics. 2011;**130**(1):1-15
- [5] Andic E, Yurt O, Baltacioglu T. Green supply chains: Efforts and potential applications for the Turkish market. Resources, Conservation and Recycling. 2012;58:50-68
- [6] Khan SAR, Dong QL, Yu Z. Research on the measuring performance of green supply chain management: In the perspective of China. International Journal of Engineering Research in Africa. 2016;27:167-178. DOI: 10.4028/www.scientific.net/JERA.27.167
- [7] Luthra S, Garg D, Haleem A. The impacts of critical success factors for

- implementing green supply chain management towards sustainability: An empirical investigation of Indian automobile industry. Journal of Cleaner Production. 2016;**121**:142-158
- [8] Gunasekaran A, Spalanzani A. Sustainability of manufacturing and services: Investigations for research and applications. International Journal of Production Economics. 2012;**140**(1): 35-47
- [9] Mangla S, Madaan J, Chan FT. Analysis of flexible decision strategies for sustainability-focused green product recovery system. International Journal of Production Research. 2013;**51**(11): 3428-3442
- [10] Omkareshwar M. Green marketing initiatives by corporate world: A study. Advances in Management. 2013;**6**(3): 20-26
- [11] Zhu Q, Sarkis J, Lai KH. Green supply chain management: Pressures, practices, and performance within the Chinese automobile industry. Journal of Cleaner Production. 2007;**15**(11): 1041-1052
- [12] Awasthi A, Kannan G. Green supplier development program selection using NGT and VIKOPR under fuzzy environment. Computers and Industrial Engineering. 2016;**91**:100-108
- [13] Hu AH, Hsu CW. Critical factors for implementing green supply chain management practice: An empirical study of electrical and electronics industries in Taiwan. Management Research Review. 2010;33(6):586-608