

## Role of Purchasing and Supply Management Performance in Apparel Manufacturing

The apparel manufacturing industry generates billions of dollars in revenue annually [Figure 1] and employs millions of people. The sector is responsible for producing, designing, and selling apparel and related products. Labor-intensive manufacturing processes characterize this industry, as do a wide range of product designs and input materials, variable production volumes, intense levels of competition, and frequently required product quality standards [1], [2]. In addition to garments, the apparel industry encompasses the production of domestic linen, upholstery, footwear, sail making, bookbinding, and various sporting products [1], [2]. Behind the scenes of this vibrant industry is a crucial component that often goes unnoticed but plays a pivotal role in its success – purchasing and supply management.

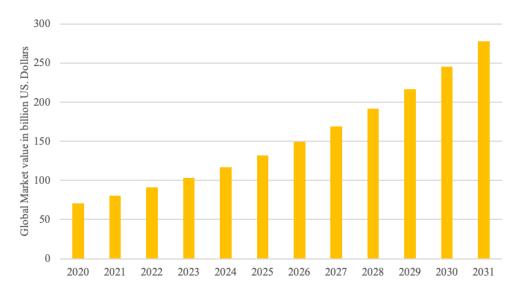


Figure 1: Global Market value in billion US. Dollars (Sabanoglu, 2022)

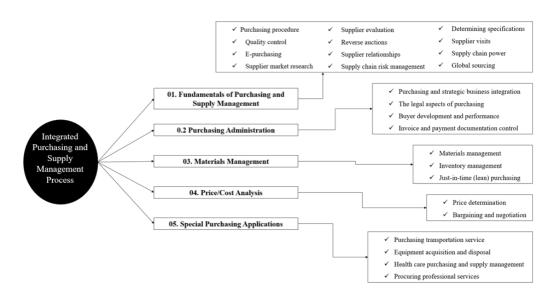


Figure 2: Integrated PSM process (Laith, Ali, & Mahmoud, 2016)

Purchasing and supply management refers to the systematic approach to acquiring goods and services, which involves identifying and evaluating potential suppliers, engaging in price and contractual negotiations, and monitoring the delivery and payment processes [3]. Purchasing and supply management involves formulating a strategic plan prioritizing strategic issues over operational ones. Figure 2 depicts the various domains encompassed within the integrated purchasing and supply management process. The method of integrated PSM is a comprehensive approach that combines several elements and practices to ensure the safe operation of industrial processes. This process entails managing several options, including supply chain management, integration systems and procedures, technology selection, e-commerce applications, team utilization, negotiation, auctions, competitive bids, blanket orders, and open order systems. Other procurement and supply management aspects include system contracting, group buying, long-term contracts, ethical considerations, aggressive or passive buying, purchasing research, value analysis, quality assurance programs, and supply base reduction [3].

The purchasing and supply management of the apparel industry is confronted with the issue of managing highly uncertain demand for its products during the developmental stage, which involves aspects such as quantity, quality, and variety. The

interpretation of demand in the apparel industry poses significant risks because companies must commit substantial portions of their inventory well in advance. The procurement of apparel by retailers in the United States and the European Union from nearby suppliers has experienced a decline because of the swift expansion of sourcing from low-cost Asian nations [4]. The increased complexity and management concerns associated with apparel supply chains are a direct result of their global nature, and the reason for that is increased pressures associated with strategic sourcing.

The increasing value of the strategic function of purchasing in the management of supply chains, coupled with the rapid expansion of strategic buyer-supplier associations across the apparel manufacturing industry has sparked significant scholarly interest in the question of how the role of purchasing and supply management generates lasting strategic benefits to the apparel manufacturing industry. Purchasing organizations must establish advantageous partnerships with suppliers to effectively manage environmental uncertainties and incorporate them into the supply chain. This can lead to collaborative benefits for suppliers and client firms in a dynamic marketplace. In addition to its potential to directly impact a firm's financial performance, purchasing also plays a crucial role as a strategic partner in developing and enhancing

supply management capabilities, which can lead to sustainable strategic advantages [5].

The significance of purchasing and supply management in the apparel industry cannot be overstated, as it plays a critical role in ensuring that the appropriate quantity of high-quality outputs is delivered to the relevant customers at a reasonable cost. The optimization of transaction cycle time, transaction cost, inventory cost, defect lot, and development cost, alongside the enhancement of output quality and user satisfaction, can be attained [6]. The integration of Procurement 4.0 pillars, namely competitiveness, collaboration, digitalization, and agility, can be leveraged to establish strategic relationships with suppliers in the procurement process [6]. This can improve overall performance and organizational efficiency for the apparel industry.

With regard of purchasing and supply management in the context of apparel manufacturing, a study conducted by the Centre of Supply Chain, Operations, and Logistics Optimization at the University of Moratuwa sought to identify the various factors that impact the performance of purchasing and supply management in the apparel manufacturing industry. This study meticulously categorized these factors into four distinct domains: process efficiency, supply chain resilience, supplier management, and resource management. This categorization facilitated a comprehensive analysis of the various elements that contribute to the role of purchasing and supply management performance in the apparel manufacturing industry, enabling industry stakeholders to gain invaluable insights into areas that warrant strategic attention for the optimization of their operations.

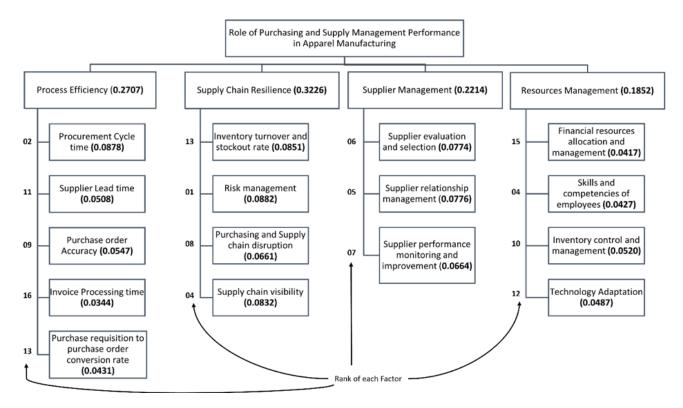


Figure 3: Ranks of the Factors Affecting to the Purchasing and Supply Management Performance in Apparel Manufacturing

As per Figure 3 the research endeavor resulted in the identification of 16 factors that have a significant impact on the performance of purchasing and supply management in the apparel manufacturing industry. The determination of these factors was carried out through a series of interviews conducted with esteemed industry experts. In addition, the utilization of the Analytic Hierarchy Process (AHP), a widely recognized technique in the field of operations research, was carefully employed to extract and assign priority to the components that were found. Each of these factors was meticulously evaluated to determine its relative significance in the context of the industry. This research initiative has consequently provided the apparel

industry with a well-structured framework for effectively prioritizing and allocating resources. By determining the relative significance of these factors, industry participants can strategically concentrate their efforts and resources on areas with the greatest potential for enhancing the role of purchasing and supply management, thereby streamlining their operations and promoting optimization. This study provides a valuable road map for industry stakeholders to improve their performance in this crucial domain and optimize their operational endeavors.

## References:

- [1] A. J. Scott, "The Changing Global Geography of Low-Technology, Labor-Intensive Industry: Clothing, Footwear, and Furniture," World Dev., vol. 34, no. 9, pp. 1517–1536, 2006, doi: 10.1016/j.worlddev.2006.01.003.
- [2] M. Hassler, "The global clothing production system: commodity chains and business networks," Glob. Networks, vol. 3, no. 4, pp. 513–531, 2003, doi: 10.1111/1471-0374.00075.
- [3] P. F. Johnson, M. R. Leenders, and A. E. Flynn, Supply Management. 2011.
- [4] R. Nayak and R. Padhye, Introduction: The apparel industry. The apparel industry. Elsevier Ltd, 2015.
- [5] I. J. Chen, A. Paulraj, and A. A. Lado, "Strategic purchasing, supply management, and firm performance," J. Oper. Manag., vol. 22, no. 5, pp. 505–523, 2004, doi: 10.1016/j.jom.2004.06.002.
- [6] P. M. D. Rasanjani, W. W. N. Sachini, G. A. S. Sandamali, and W. M. S. K. Weerabahu, "A strategic relationship building through procurement 4.0: An analysis from the apparel industry," Proc. Int. Conf. Ind. Eng. Oper. Manag., vol. 2019, no. MAR, pp. 1843–1855, 2019.

## Article by

- <sup>12</sup> Nimantha Thalagalage, <sup>12</sup> Niles Perera
- <sup>1</sup>Centre of Supply Chain, Operations and Logistic Optimization, University of Moratuwa, Sri Lanka
- <sup>2</sup>Department of Transport Management and Logistic Engineering, Faculty of Engineering, University of Moratuwa, Sri Lanka