

Unveiling the Critical Drivers of Purchasing and Supply Management in Apparel Manufacturing Industry

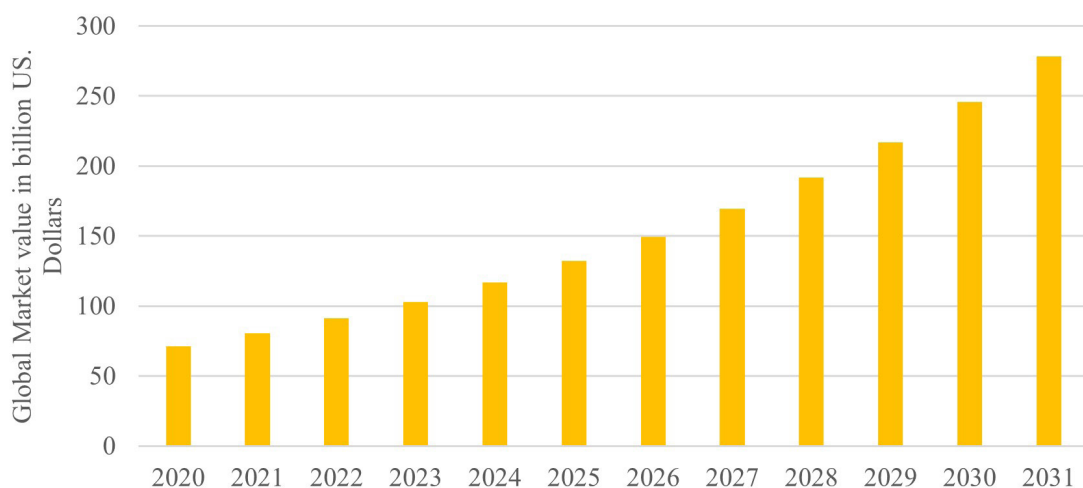


Figure 1: Global Market value in billion US. Dollars (Sabanoglu, 2022)

In a multibillion-dollar industry employing millions, the role of purchasing and supply management (PSM) is often underestimated despite its pivotal contribution. This study addresses the pressing need to understand and optimize PSM in the context of the apparel manufacturing industry. The objectives are to identify key factors influencing PSM and provide industry stakeholders with a strategic roadmap for improvement.

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.

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]. 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 and supply management involves formulating a strategic plan prioritizing strategic issues over operational ones. There are 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 man-

“

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.

”

aging 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 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.

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 in the apparel

manufacturing industry, enabling industry stakeholders to gain invaluable insights into areas that warrant strategic attention for the optimization of their operations.

The research design of this study follows a systematic and sequential approach to achieve its objectives. It commences by identifying the existing gaps in the literature and formulating clear research questions and objectives to guide the study. The methodology is then outlined, with a specific focus on the Analytic Hierarchy Process (AHP), which will be employed for data analysis. Factors influencing Purchasing and Supply Management (PSM) in the apparel manufacturing industry are identified, and a hierarchical structure is developed to establish relationships and priorities among these factors. The Delphi method was employed to gather data and identify the 16 important factors that affect the PSM in the apparel manufacturing industry from relevant stakeholders and experts. The collected data was subsequently processed and normalized, and AHP analysis was conducted to determine the relative weights of the identified factors.

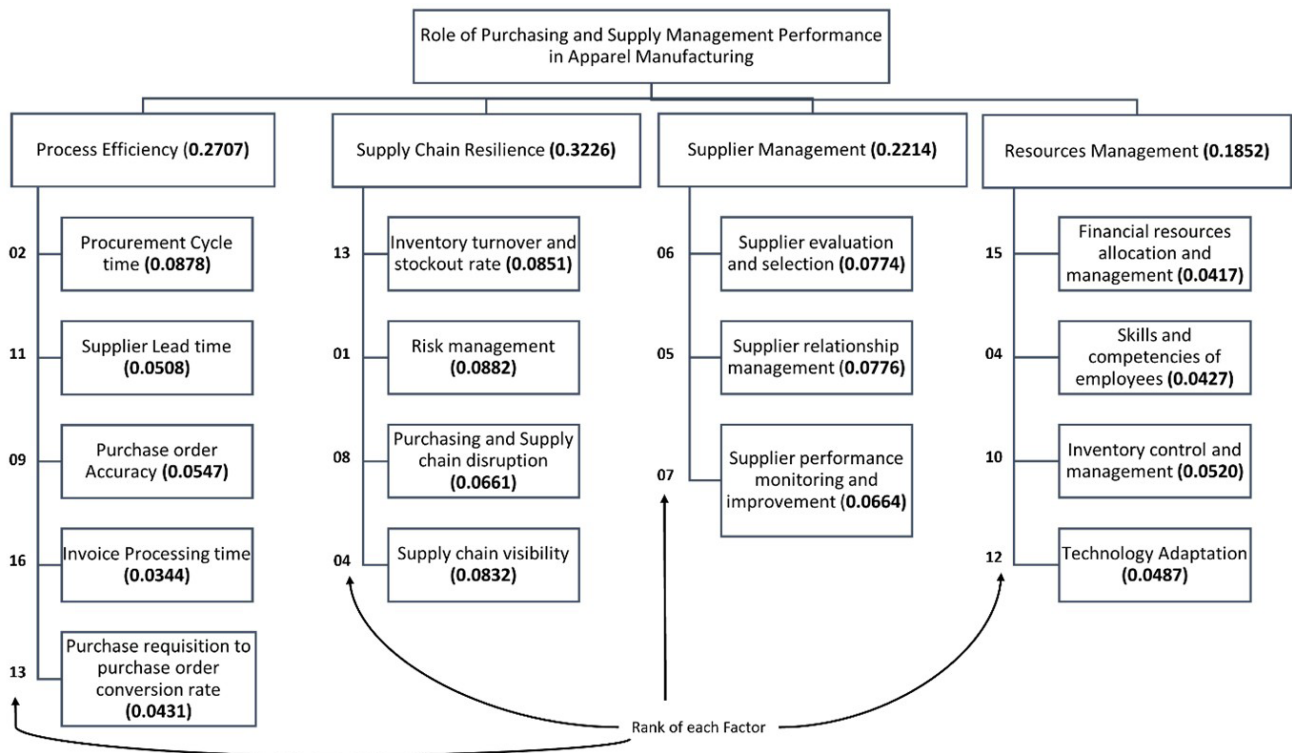


Figure 2: Ranks of the Factors Affecting to the Purchasing and Supply Management in Apparel Manufacturing

As per Figure 2 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. 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 re-

sources. 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. A framework to monitor and measure real-time purchasing and

supply management performance is recommended for future studies. This process captures and analyses real-time data, applying key performance indicators (KPIs), and advanced analytics will help identify inefficiencies and bottlenecks, allowing for timely interventions and improvements in purchasing and supply management.

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

Nimantha Thalagala^{1,2}, Niles Perera^{1,2}

¹Center of Supply Chain, Operations and Logistics Optimization, University of Moratuwa, Sri Lanka

²Department of Transport Management and Logistics Engineering, Faculty of Engineering, University of Moratuwa, Sri Lanka