

## ABSTRACT

The Sri Lankan economy is profoundly supported by the apparel industry. But it has faced tough competition in the international market after expiring of Multi Fiber Agreement in 2005 and removing Generalized System of Preferences Plus facility. This has led the industry to further improve its performance through adopting lean manufacturing as a productivity improvement strategy. Therefore, this study aimed to investigate the extent of lean adoption and its impact on operational performance of the Sri Lankan apparel industry. The research model was developed based on 16 lean practices and six operational performance measures determined through substantive literature and theoretical reviews. 300 manufacturers were selected as the sample from the western province which represented 71% of the whole apparel industry. Data were collected through a questionnaire and structured interviews. The response rate was 74% of them. The data were analyzed using SPSS 16.0. Descriptive analysis revealed that 23.95% were large scale apparel manufacturers and only 30.32% were lean adopted among them. Based on the ownership, 3.25%, 4.10% and 48% were respectively lean adopted from joint ventures, foreign owned and local owned companies. The study revealed three lean bundles through Factor analysis. Further, they were named as waste minimization, Total Productive Maintenance and agile manufacturing based on the empirical evidence. The correlation analysis showed their positive impact on operational performance and the level of that impact was determined through regression analysis. The frequency analysis was done using interviewed data and revealed six driving forces for lean implementation. Amongst, developing key performance indicators was the key factor. Moreover, this analysis identified insufficient competitive performance of the industry, ineffective resource utilization and lack of management commitment as major barriers in lean implementation. Further, the challenges faced by the apparel manufacturers in the conceptual implementation were incorporated with managerial, cultural, worker engagement and technical levels. Based on the above conclusions, this study recommended the ability of improving operational performance of the Sri Lankan apparel industry through lean manufacturing. Adopting other lean practices were recommended in advanced. Moreover, this study provided future implications to ensure these findings with more evidence in the Asian context, integrate lean concept with supply chain and suitable software applications.