

**AN INVESTIGATION OF PLASTIC CONSUMPTION
AND WASTE MANAGEMENT OF APPAREL
MANUFACTURING PROCESS IN SRI LANKA**

Dowundage Prashan Chaminda

178303K

Master of Science in Textile and Clothing Management

Department of Textile and Clothing Technology, Faculty of Engineering

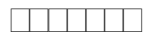
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A thesis submitted in partial fulfillment of the requirements for the
Masters in Textile and Clothing Management

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DECLARATION

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ABSTRACT

Plastic plays a major role in our day-to-day life starting from plastic production which releases greenhouse gases into the environment and continues to harm the environment in multiple ways. The main objective of this research is to find the total consumption of common plastic in the apparel manufacturing process and its impacts on the environment resulting from plastic waste disposal methods. Following a quantitative approach, data were collected from selected garment factories in Sri Lanka via a questionnaire which focused three types of plastic: poly bags, thread cones, and hangers, which are widely used in the apparel industry. The focus areas were the total plastic consumption, plastic waste and disposal methods employed by the facilities vis-à-vis the above three categories.

The findings of this research evidence that several factors contribute to high plastic consumption and its adverse environmental impact within the industry. Accordingly, it was identified that there is a substantial and prevalent use of plastic materials in the apparel manufacturing process which included items such as poly bags, hangers, and thread cones. Among these, poly bags were identified as the main source of plastic waste, and the high usage of these bags contributes directly to the generation of plastic waste. Further, the absence of effective quality control and monitoring systems within both the supply chain and manufacturing facilities plays a pivotal role in the generation of plastic waste. Inadequate quality control measures can lead to defects, substandard materials, and waste. Damage incurred during the handling of materials was also identified as a significant factor leading to plastic waste. Therefore, ensuring proper handling and storage procedures is essential to mitigate this issue.

These findings underscore the pressing need for the apparel manufacturing industry to address these core issues in a proactive and sustainable manner. The study concludes that implementing comprehensive quality control systems, reducing plastic consumption, and adopting damage prevention strategies can collectively contribute to the reduction of plastic waste and its detrimental impact on the environment.

Keywords: Common plastic consumption, plastic waste management, apparel industry, Sri Lanka

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