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## **MANUFACTURERS' PERCEPTION ON ESTABLISHING REFILLING STATIONS AS A SUSTAINABLE SOLUTION FOR SINGLE-USE PLASTICS: A STUDY BASED ON CLEANING LIQUID MANUFACTURING INDUSTRY**

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**Abstract:** The usage of liquid cleaning products in Sri Lanka has increased phenomenally due to the increased population and urbanization while generating a large number of single-use plastic waste to the environment. It is estimated, that each year, over 640,000 metric tons of plastic leak into the Indian Ocean from Sri Lanka (Clean Cities, Blue Ocean, June 2020). The current study aims to understand the perception and readiness of Cleaning Liquid manufacturers in Sri Lanka to establish refilling stations as a sustainable solution for single-use plastic waste. In Sri Lanka, the refilling system is already in practice within the coconut oil industry, where many vendors and consumers are both familiar with and appreciative of the refilling machine service. The research used a mixed methods approach combining both qualitative and quantitative data collection, using questionnaire surveys and unstructured interviews with the managers of leading cleaning products manufacturing companies in the western province. A survey questionnaire was administered among 25 managers including technical executives from selected 5 cleaning liquid manufacturers in the Western province. The findings revealed that most cleaning product manufacturing companies have recognized the potential benefits of refill stations, including reduced packaging costs and an improved circularity of the environment. Findings further established that refilling represents a circular approach to closing the loop of consumption of single-use plastics and the ecosystem needs to be established. The challenges and constraints associated with refilling as per findings includes initial investment costs, the logistical complexities of setting up and maintaining refilling stations, inconvenience, lack of accessibility, hygiene concerns, and customer adaptation and participation.

**Keywords:** Cleaning products industry Refilling, Plastic pollution, Circular economy