

(41)

**Factors Influencing the Willingness to Pay for the Establishment of a Proper Collection Facility for PET Bottle Waste in the Western Province, Sri Lanka**

**Maduwantha, M.A.C.<sup>1\*</sup>, Jayasekara, K.D. De S.<sup>1</sup>, Gunawardene, U.A.D.P.<sup>1</sup>,  
Werahera, S.M.<sup>2</sup>**

<sup>1</sup>*Department of Forestry and Environmental Science, University of Sri Jayewardenepura,  
Nugegoda, Sri Lanka*

<sup>2</sup>*Ministry of Environment, Sri Lanka*

*\*chamath.maduwantha98@gmail.com*

**Abstract**

Polyethene Terephthalate (PET) is one of the common types of plastics that is utilized for packaging materials in Sri Lanka. Excessive production, consumption, and disposal of PET bottles have become an environmental burden due to a lack of collection facilities and proper end-of-life management. Therefore, recycling PET bottle waste is critical to sustainable waste management practices, especially in regions like the Western Province of Sri Lanka. Hence, the current study attempted to understand the major factors influencing consumers' intention to recycle PET bottle waste and identify the influence of intention to recycle PET bottle waste on the willingness to pay for the establishment and maintenance of a proper collection facility. The proposed model was based on the Theory of Planned Behavior and Value Belief Norm (VBN) theory. Face-to-face interviews were conducted in Colombo, Gampaha, and Kalutara districts, covering the Western province of Sri Lanka. The final sample consisted of 202 respondents. Partial Least Square Structural Equation Modelling (PLS-SEM) was employed for data analysis. The findings of the study revealed that environmental knowledge has a positive, significant effect on attitudes and recycling intention, while attitudes have a positive, significant influence on recycling intention. However, subjective norms and moral norms have a negative, significant effect on recycling intention. In addition, recycling intention has a positive, significant effect on the willingness to pay to establish the collection facility. In addition, attitudes mediated the relationship between environmental knowledge and the recycling intention towards PET bottle waste. Moreover, findings showed that 64% of the respondents still use open burning of PET plastic bottle waste as a disposal method despite the ban on plastic burning. Therefore, this study provides insights to help the government, policymakers, and other waste management authorities to understand the behavioral aspects related to recycling PET bottles and formulate strategies to enhance PET bottle recycling rates, contributing to a cleaner and healthier environment.

**Keywords:** *PET bottle waste management, Willingness to pay, Intention for recycling, PLS-SEM.*