

THE INTENTION OF YOUNG GENERATION TO REDUCE PLASTIC PACKAGING WASTE THROUGH ONLINE SHOPPING: THE APPROACH OF PLANNED BEHAVIOUR THEORY

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ABSTRACT

This study investigates the influence of Attitude Towards Plastic Waste, Subjective Norms Towards Plastic Waste, and Perceived Behavioral Control Towards Plastic Waste on Generation Z's intention to reduce online shopping activities using the Theory of Planned Behavior (TPB). A quantitative approach with cross-sectional survey design involved 250 Generation Z respondents in Indonesia selected through purposive sampling. Data were analyzed using PLS-SEM with SmartPLS 4. Findings indicate that Attitude ($\beta = 0.653$; $P = 0.000$) and Subjective Norms ($\beta = 0.206$; $P = 0.000$) positively and significantly influence intention, while Perceived Behavioral Control ($\beta = 0.057$; $P = 0.205$) does not. The model explains 66.5% of the variance in intention ($R^2 = 0.665$).

Keywords: Theory of Planned Behavior; Plastic Packaging Waste; Online Shopping; Generation Z; Behavioral Intention

ABSTRAK

Penelitian ini menyelidiki pengaruh sikap, norma subjektif, dan persepsi kontrol perilaku terhadap niat Generasi Z untuk mengurangi belanja online menggunakan Theory of Planned Behavior (TPB). Pendekatan kuantitatif dengan survei cross-sectional melibatkan 250 responden Gen Z di Indonesia melalui purposive sampling. Data dianalisis dengan PLS-SEM menggunakan SmartPLS 4. Hasil menunjukkan sikap ($\beta = 0,653$; $P = 0,000$) dan norma subjektif ($\beta = 0,206$; $P = 0,000$) berpengaruh positif dan signifikan, sementara persepsi kontrol perilaku ($\beta = 0,057$; $P = 0,205$) tidak signifikan. Model menjelaskan 66,5% variasi niat ($R^2 = 0,665$).

Kata Kunci: Theory of Planned Behavior; Sampah Kemasan Plastik; Belanja Online; Generasi Z; Niat Perilaku

INTRODUCTION

The rapid growth of e-commerce in Indonesia has brought a significant increase in plastic packaging waste. A study by Nadi & Wasesa (2024) found that 96% of e-commerce parcels in Indonesia are wrapped in multiple layers of plastic. Indonesia generates an estimated 6.8–7.8 million tonnes of plastic waste annually, with 19.55% of national waste in 2024 consisting of plastic (Ministry of Environment and Forestry, 2024).

Generation Z comprises approximately 27.94% of Indonesia's population (around 74.93 million people) and is the dominant force in the digital marketplace (Widodo et al., 2024). About 85% of all e-commerce transactions come from users aged 18–35 (Suprpto et al., 2025). Despite their environmental awareness, a significant attitude-behaviour gap exists among Gen Z consumers when it comes to reducing plastic waste from online shopping (Herabadi et al., 2023).

This study employs the Theory of Planned Behavior (TPB) to investigate the key determinants—attitude, subjective norms, and perceived behavioral control—that influence Generation Z's intention to reduce online shopping as a means of minimizing plastic packaging waste.

RESEARCH OBJECTIVES

This study aims to: (1) explain the influence of attitude towards plastic waste on intention to reduce online shopping, (2) explain the influence of subjective norms towards plastic waste on

intention to reduce online shopping, and (3) explain the influence of perceived behavioral control on intention to reduce online shopping among Generation Z in Indonesia.

THEORETICAL FRAMEWORK

Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (Ajzen, 1991) proposes that behavioral intention is determined by three constructs: attitude, subjective norms, and perceived behavioral control. TPB has been widely applied in environmental behavior research (Lee, 2022; Widayat et al., 2023) and provides a robust framework for examining pro-environmental intentions in digital consumption contexts.

Attitude Towards Reducing Plastic Packaging

Attitude refers to an individual's positive or negative evaluation of performing a specific behavior (Ajzen, 2005). In this study, attitude is conceptualized as a multidimensional construct with three dimensions based on Herabadi et al. (2023):

- (1) **Cognitive indicators** — belief and knowledge about how plastic waste from online shopping affects the environment, including environmental impact awareness and recognition of the problem.
- (2) **Affective indicators** — feelings and emotions including environmental concern, sense of personal responsibility, and emotional connection to nature.

(3) **Evaluative indicators** — intentions and tendencies, including preferences for eco-friendly packaging and willingness to reduce online shopping to minimize plastic waste.

RESEARCH METHOD

This study employed a quantitative approach with a cross-sectional survey design. A total of 250 Generation Z respondents in Indonesia with prior online shopping experience were selected through purposive sampling. Data were collected via an online questionnaire and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4 software.

RESULTS AND DISCUSSION

Attitude Towards Plastic Waste had a positive and significant influence on Intention to Reduce Online Shopping ($\beta = 0.653$; $P = 0.000$). Gen Z respondents with stronger environmental attitudes were significantly more inclined to reduce online shopping frequency. This result is consistent with Lee (2022) and Lianita et al. (2024), who found attitude to be a strong predictor of pro-environmental behavioral intention.

Subjective Norms Towards Plastic Waste also showed a positive and significant effect ($\beta = 0.206$; $P = 0.000$), indicating that social pressure from family and peers plays a meaningful role.

Perceived Behavioral Control did not show a significant influence ($\beta = 0.057$; $P = 0.205$), suggesting that Gen Z's intention is less driven by perceived ease or difficulty of the behavior. The

overall model explained 66.5% of the variance in behavioral intention ($R^2 = 0.665$).

CONCLUSION

This study found that attitude towards plastic waste is the strongest predictor of Generation Z's intention to reduce online shopping ($\beta = 0.653$), followed by subjective norms ($\beta = 0.206$). Perceived behavioral control was not a significant predictor. Environmental education campaigns and social norm reinforcement through family, peers, and communities are the most effective strategies to promote sustainable online consumption behavior among Generation Z.

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