




Chapter 12

E–Waste Recycling Intention Among Generation Z: An Integration of the Theory of Planned Behaviour

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ABSTRACT

The practice of recycling reduces the amount of waste produced, reduces the use of natural resources, and provides opportunities to produce new products using recycled materials. This study identified the determinants of e-waste recycling intention among Gen Z using the theory of planned behavior (TPB). This preliminary study used a quantitative method involving a total of 251 respondents. The analysis consists of descriptive and correlation analysis and multiple regression analysis. The result shows that Gen Z's intention to recycle e-waste is high. Next, significant relationships exist between attitude, social norms, moral norms, information, incentives, and e-waste recycling intention. Finally, the regression results indicate that

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information strongly influences e-waste recycling intention. This study is essential to expand the understanding of e-waste recycling among the younger generation.

INTRODUCTION

The Sustainable Development Goals (SDGs) are an action plan to achieve competent and sustainable expectations for all. All 17 goals are interlinked, and to ensure no one is left behind, we must achieve them all by 2030. These goals are clearly explained to us, and as a shared responsibility to the environment, this journey requires effort and cooperation from all. E-waste management is a key and important concern in reaching the global SDGs. The SDGs will not be realized if the country's e-waste management is not made a national priority. Responsible consumption and production (SDG 12) target the environmental management of all waste, incorporating e-waste, by 2030. This goal aligns with Thrust 7, Malaysian National Security Policy 2021-2025.

In achieving SDG 12, Malaysia faces several challenges in managing e-waste. These comprise a shortage of knowledge among the public, insufficient infrastructure, and the non-existence of an inclusive e-waste management system. Malaysia is a rapidly developing country in terms of electrical and electronic industries. The electrical and electronics manufacturing industry is growing increasingly rapidly and faster than other industries (Rautela et al., 2021). The rapid development in the electrical and electronic industry causes the price of this equipment to be sold at a cheap price (Forti et al., 2020). As a result, the demand for electrical and electronic goods is high. Because the demand is too high, e-waste has been created. There are several reasons for the increase in the amount of e-waste. Device enhancements are among the leading causes of the increase in e-waste (Ismail & Hanafiah, 2020). Technological innovation creates new electrical and electronic equipment, such as smartphones and smartwatches. Second, there is a surge in the number of users in most countries with an expansion in population. Next is the faster usage life of equipment due to the development of technology (Ismail & Hanafiah, 2020). Almost every day, manufacturers produce new devices.

E-waste is the fastest-growing waste compared to other solid waste (Forti et al., 2020). The United Nations Environment Program (2020) defines e-waste as the waste material of electronic devices, equipment, and electrical components that do not work, such as computers, laptops, smartphones, televisions, washing machines, printers, and others (as cited in Liu et al., 2023). E-waste can be categorized into several types such as 1) electrical equipment, 2) IT equipment (computers, printers, scanners, and others), 3) entertainment equipment (microphones, speakers, and others), 4) telecommunication equipment (telephone, cellular phone, battery,

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