

## A Study on Factors Toward Household Willingness on E-Waste Recycling in Seremban

Nur Ariefah Rahman Jessica Lentik Dennis Chunggat Nurul Huda Mohammad Hafizuddin Siti Aishah Mohd Shafie

Faculty of Computer & Mathematical Sciences, Universiti Teknologi MARA Negeri Sembilan Seremban Branch

ariefahmaira98@gmail.com

JM064 – Innovation – Local – Category C: Students - Higher Institution (Diploma/Bachelor)

Abstract—E-waste recycling is a method of recycling electrical and electronic equipment as e-waste may harm the environment and human health if it is not discarded properly. The amount of e-waste generated in Malaysia has increased over the years due to rapid increases in technology and economic development. Many households have irresponsible attitude and are not committed to e-waste recycling even though they have knowledge and awareness of e-waste. This study focuses on psychological models, econometric models and demographic variables to measure e-waste recycling behaviour based on the Theory of Planned Behaviour (TPB) theoretical framework of previous studies to explore factors related to household willingness on e-waste recycling through an online questionnaire survey distributed to Seremban households. Based on the empirical analysis of 226 valid online survey responses from Seremban households, the results show there is a significant positive correlation of attitude, subject norms and perceived behavioural control over the willingness of Seremban households to participate on e-waste recycling. Next, researchers further analyse the moderating effect of income on economic motivation and also moderating effect of education level on subject norms. The findings of this study show that only attitudes have an impact on households' willingness to recycle e-waste and, in contrast, the moderating effect of income on economic motivation and education levels on subject norms is not significant, indicating that they have no impact on households' willingness to participate in e-waste recycling. Finally, it is recommended to promote and enhance e-waste recycling in order to support households in the recycling of e-waste.

Keywords—E-waste recycling, moderating effect, household willingness, regression analysis