UNIVERSITI TEKNOLOGI MARA

ASSESSING PUBLIC AWARENESS AND ENGAGEMENT IN WASTE COOKING OIL RECYCLING CAMPAIGN IN SELANGOR

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ABSTRACT

Focusing on society awareness, behavioural reaction, and design principles, announcements (PSA) on waste cooking oil (WCO) recycling in Selangor, it aims to learn the fact that WCO disposal done incorrectly runs the danger of contaminating water supplies, damaging drainage systems, and causing financial loss. The approach of using a triangulation method to combine qualitative interviews, quantitative surveys, and archival data analysis was taken. This study looks at how graphic design ideas that include colour, typeface, and imagery would likely have an impact towards public participation in WCO recycling projects. Further research on WCO recycling activities and their flow of sending out messages were examined using the Systematic Literature Review (SLR) approach. This paper also explores on how PSA designs would fit the ADDA model (Attention, Interest, Desire, and Action) and the influence the public awareness and behavioral reactions towards WCO recycling. Results imply that PSAs with interesting and well-organized graphics can help to raise audience awareness and interest. Furthermore, depending on survey answers, this study points up possible areas for development including incentive-based policies, mobile technology integration, and interactive campaign techniques, so increasing public involvement and participation, technology integration, and interactive campaign approaches, which may enhance public engagement and participation. However, these insights are exploratory and provide a foundation for understanding societal needs rather than concluding their direct effectiveness. The study's findings contribute to a better understanding of how public engagement can be strengthened in future PSA campaigns to support more sustainable waste management practices.

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INTRODUCTION

1.1 Research Background

The improper disposal of waste cooking oil, including its discharge down drains or into landfills, poses significant environmental hazards. The implementation of these practices results in substantial repercussions, including the pollution of waterways and the deterioration of soil quality, ultimately jeopardizing both ecological systems and public health. In response to these concerns, numerous governments across the globe have instituted policies and regulations designed to foster sustainable management of WCO. For example, the European Union has established regulatory frameworks such as the Waste Oil Directive 75/439/EEC and the Waste Framework Directive 2008/98/EC, which require the separate collection and treatment of WCO to safeguard human health and the environment (De Feo et al., 2020). These directives highlight the importance of principles associated with a circular economy, emphasizing waste reduction and the recovery of valuable resources.

Countries around the world have implemented various strategies to manage WCO with efficacy. In China, the government offers incentives to recyclers to encourage appropriate collection of WCO and to mitigate the unlawful recycling of such oil into the food supply chain (De Feo et al., 2020). The collaboration between the community and government in Japan has significantly enhanced the efficacy of WCO collection. In contrast, the United States has adopted a cooperative strategy that engages biodiesel companies, restaurants, and governmental entities (De Feo et al., 2020). These initiatives highlight the worldwide acknowledgement of WCO as a valuable asset that can enhance sustainability through effective management.

With the global rise in the consumption of both plant- and animal-based oils, there is a corresponding increase in the generation of waste cooking oil. WCO has surfaced as a promising raw material for the production of biofuels, presenting a sustainable alternative to fossil fuels. The transformation of WCO into biofuels not only resolves the challenge of disposal but also diminishes dependence on food-derived oils for fuel production, thereby alleviating competition with food resources (Goh et al., 2020). Progress in biodiesel conversion technologies, catalytic processes, and