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MODELLING THE COMMUNITY LEADERSHIP IN IMPROVING COMMUNITY ENGAGEMENT TOWARDS SUCCESSFUL WASTE SEGREGATION PROGRAM

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ABSTRACT

The community engagement in waste segregation activity is still not encouraging. Even though the government has established Act 673 which requires citizen to separate waste in 2015, there is a need to encourage more participation of community members in waste segregation activities. The objectives of this research are to determine the current challenges and its effects with the attributes of community leadership for successful waste segregation program. Secondly, it is to examine the attributes of community leadership and its effects with local authority performance for successful waste segregation program. . Thirdly, to analyze the local authority performance and its effect with current challenges in household waste segregation and finally to evaluate the mediating effect of local authority performance on the relationship between the current challenges in household waste segregation with the attributes of community leadership. The study was conducted in 4 areas authorized under SWCorp Malacca where 800 respondents were involved in answering the structured questionnaires from the total population of 932,700 in 2020. In addition, 32 semi-structured interviews were conducted with the community leaders and 17 with the authorities, operator and waste experts. The quantitative data were evaluated through SPSS 26.0 and Structural Equation Modelling (SEM) using IBM-SPSS-AMOS 24.0 whereas the qualitative data were evaluated through Atlas-Ti. The results confirm the hypotheses to determine the direct and significant effect among the constructs. It is found that the current challenges in household waste segregation have significant effect on the attributes of community leadership for successful waste segregation program. However, the current challenges in household waste segregation have no significant effect on the local authority performance. Next, the local authority performance has significant effect on the attributes of community leadership for successful waste segregation program. Finally, the local authority performance does not mediate the relationship between the current challenges in household waste segregation with the attributes of community leadership. Through the findings from preliminary study, questionnaires and interviews session, a Structural Equation Model was the developed to determine the relationship between the constructs. Hence, community leadership is the main focus for improving the waste segregation activities in the community and the model can be replicated by community leaders of other states in Malaysia.

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CHAPTER ONE

INTRODUCTION

1.1   Research Background

Waste management is linked to and contributes to the achievement of several Sustainable Development Goals (SDGs) of the United Nations such as Goal 3: Good Health and Wellbeing, Goal 11: Sustainable Cities and Communities, and Goal 12: Responsible Consumption and Production. To achieve Goal 11: Sustainable Cities and Communities "proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities" is one of the key indicators. Under Goal 12 of the SDG, it was targeted that by 2030 the environmentally sound management of chemicals and all wastes throughout their life cycle is achieved. This is in accordance with the agreed international frameworks, and will significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment. The reduction of waste generation is necessary through prevention, reduction, recycling and reuse (3R) (United Nations, 2015).

Solid waste management is a global concern in the governance of urban centers of most developing countries. This is because the increase in waste generation does not tally with collection. It is estimated that about 468, 289 and 231 million metric tons of waste are generated annually from East Asia and the pacific, Latin America and the Caribbean and Sub-Saharan Africa respectively (Tiseo, I., 2023). Projections indicate that by 2050, waste generation will double globally (World Bank, 2018) particularly in Africa and Asia (Wilson & Velis, 2015; CSE, 2017). While waste generation is high and is projected to continue increasing, approximately 50% of urban waste from developing countries remains uncollected (World Bank, 2018). The percentage of uncollected waste is noted as one of the indicators of urban planning challenges especially in developing countries (Loukil & Rouached, 2020).

The public's lack of understanding on waste management is very worrying. It has long been considered that the authorities, not the people, are responsible for waste management and expected to provide effective and efficient waste management system. On rare occasions, the authority's capacity to handle the responsibility's obligations has been exceeded (Sujauddin et al. 2008). The key obstacles facing the local government