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Mobile phone technology for enhancing consumer package waste management in Kenya

Statement of the Problem: Challenges in waste management in urban set-ups are worsened by the ever increasingly high population, (Tilahun, Abdhahah & Blessing, 2016; Haider, Amber, Ammara, Mukrukh & Aisha, 2015; NEMA (2015); Longhi, Marzioni, Alidori, Gianluca, Prist, Grisostomi & Pirro, 2012; Gupta & Rohini, 2011). Mirjan, (2017) projects that by the end of 2025 the waste volumes will to almost 2.3 billion tons. This fact, coupled with ineffective waste management that negatively impacts on the general environmental, climatic, human health and the economy (EU, 2010) proves there is need to continue sourcing for workable waste management strategies. The EU, (2010) reports that waste management has improved tremendously in the past decades, although about one-third of municipal waste lies in landfills yet less half is recycled or composted. Other countries have registered commendable progress although others are still struggling with it. The European Union legislated four proposals introducing new waste-management targets regarding reuse, recycling and landfilling (EU Legislation in Progress, 2016). Smart ways of handling solid waste have been devised. Slater, Thompson, and Bruemmer (2016) argue that software development and utilization of waste management is critical but complex. Mustafa and Ku Azir (2017) came up with smart bins that use ultrasound sensors to measure the level of garbage and ARM micro-controller to control systems operation that allows monitoring of waste management ever, each country seems to experience their challenges differently. There has been development and evolution of IoT-driven waste management system that would successfully enhance the handling of voluminous different types of waste to help solve human health and the economy and environment waste related problems (EU, 2010). Similarly, Longhi et al., (2012) suggest the development of Wireless Smart implementations that are expected to enhance waste management thus reducing environmental impact. The aim of this study is to focus on enhancing mobile phone-integrated plastic-related waste management techniques. An all stakeholder-inclusive model is developed to ensure commitment to efficient and effective waste management for the general good of the whole environment.

Biography

Brigitte Wabuyabo-Okonga has expertise in a market research whose aim to provide solutions to problems facing society. Her proposed model will not only help the urban centers enhance waste management through concerted stakeholder effort but also change consumer attitude towards waste management. The model is based on the existing automated text operations currently used worldwide. It is expected that this operation will be used to generate and enhance the flow of information among the different stakeholders.

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