

Questionnaire Questions

We are a group of students from the University of Technology currently doing our major project research. As part of our project, you're invited to participate in a study on solid waste collection in Jamaica. The survey explores IoT use in garbage collection to improve efficiency and the operations of the NSWMA. Your insights are valuable and confidential. The survey takes about three minutes to complete, and you can skip any uncomfortable questions. Thank you for your participation!

1. How long have you been employed at the National Solid Waste Management Authority (NSWMA)?
 - ☐ Less than a year
 - ☐ 1 - 5 years
 - ☐ 6 - 10 years
 - ☐ 11+ years
2. How does NSWMA determine the locations for garbage collection?
 - ☐ Assigned Pickup Zones
 - ☐ High Density Areas
 - ☐ Route Optimization
 - ☐ Citizen Request
3. Does the NSWMA currently utilize any software system to aid in garbage collection?
 - ☐ Yes
 - ☐ No
 - ☐ I'm not sure

4. Are you familiar with the concept of Internet of Things (IoT) technologies?
- ☐ Yes
 - ☐ No
5. Have you received any training or education regarding the application of Internet of Things (IoT) technology in waste collection and monitoring?
- ☐ Yes, I've received training in applying IoT technology to waste collection and monitoring.
 - ☐ No specific training on IoT in waste collection and monitoring has been received.
 - ☐ I'm somewhat familiar with IoT in waste collection and monitoring but haven't had formal training.
6. Would you be interested in participating in further training or educational programs focused on IoT technology and its applications in waste management?
- ☐ Yes
 - ☐ No
 - ☐ Maybe
7. Do you believe that the integration of IoT technologies would improve the efficiency of waste collection and monitoring at NSWMA?
- ☐ Yes
 - ☐ No

8. Do you think the implementation of IoT technologies could lead to more effective resource allocation and utilization within NSWMA?
- ☐ Yes, significantly
 - ☐ No, not significantly
 - ☐ Unsure
9. Do you think the automation of the current NSWMA system could aid in reducing the negative environmental impacts of waste collection?
- ☐ Yes
 - ☐ No
10. Which specific areas of waste management do you believe could benefit the most from the application of IoT technology?
- ☐ Collection optimization
 - ☐ Route planning and scheduling
 - ☐ Bin level monitoring
 - ☐ Environmental monitoring
11. In what ways can the automation of the NSWMA system improve the monitoring of waste collection to prevent delays?
- ☐ Make more informed resource allocation decisions
 - ☐ Real-time monitoring of waste collection
 - ☐ Effective waste collection

12. Are there any potential challenges or concerns you have regarding the implementation of IoT to automate NSWMA operations?

- ☐ Privacy and data security
- ☐ High initial implementation costs
- ☐ Lack of technical expertise or knowledge in IoT technologies
- ☐ Resistance to change from employees or stakeholders
- ☐ Potential disruption to existing operations

13. How do you think the implementation of IoT technologies could improve communication and coordination among different departments or teams within NSWMA?

- ☐ Real-time data sharing
- ☐ Streamlined task assignment
- ☐ Collaborative workflow integration

14. How do you think the implementation of IoT technologies could impact the timeliness of waste collection services provided by NSWMA?

- ☐ Significantly improve timeliness
- ☐ Somewhat improve timeliness
- ☐ No significant impact on timeliness
- ☐ Uncertain