Name : Mohamed Ghassam Saleh Ramadan
Group : C

Problem Statement

A significant portion of consumer-generated waste is not recycled, contributing to environmental harm. In the U.S., 76% of materials are discarded after a single use, resulting in higher greenhouse gas emissions from landfills and adverse effects on ecosystems. While recycling rates have the potential to improve, only about 20% of waste in New York City is recycled, despite 70% being recyclable.

Objective

This research aims to identify the factors that influence individual recycling behavior and to develop effective policy and marketing strategies to increase recycling rates, thereby supporting efforts to mitigate climate change.

Hypotheses

1. **H2:** Access to convenient recycling facilities is strongly correlated with higher recycling rates.
2. **H3:** Social norms and peer influence play a significant role in shaping individual recycling decisions.
3. **H4:** Financial incentives (e.g., deposit return schemes) significantly boost recycling rates.

Data Sources

To address the research problem, the following data sources will be utilized:

- **Surveys and Questionnaires:** Collect data on consumer attitudes, awareness, and recycling behaviors.
- **Environmental Reports:** Analyze data from the Environmental Protection Agency (EPA) and local government reports, including those from the NYC Mayor's Office, to evaluate waste statistics and recycling rates.
- **Academic Literature:** Review studies on consumer behavior, recycling habits, and the effectiveness of intervention strategies.
- **Demographic Data:** Use census data to examine the demographic factors influencing recycling behavior.

Research Plan

1. **Literature Review:**
    - Conduct an in-depth review of existing research on consumer recycling behavior and its environmental impact.
2. **Survey Design:**

    - Create a survey to capture data on recycling attitudes, barriers, and facilitators across various demographic groups.
3. **Data Collection:**
    - Distribute the survey online and through community outreach programs to ensure diverse participation.
    - Gather secondary data from local government sources on waste generation and recycling rates.
4. **Data Analysis:**
    - Use statistical methods to analyze survey data and test the proposed hypotheses.
    - Correlate recycling rates with demographic and behavioral factors.
5. **Policy Recommendations:**
    - Develop targeted policies and marketing strategies, such as awareness campaigns and improved access to recycling facilities, based on the research findings.
6. **Implementation and Evaluation:**
    - Collaborate with local governments and organizations to implement the proposed interventions.
    - Monitor and evaluate their effectiveness in improving recycling rates and reducing overall waste.