The Knowledge, Attitude and Behaviour of the Public towards Recycling in Hong Kong: Evaluation of "Green@Community" Programme in the Eastern and Kwai Tsing District

CHIU Yau
Supervised by Prof. XU Yuan

RESEARCH BACKGROUND

- **High production of waste in Hong Kong**
  - 5.49 million tonnes of Municipal Solid Waste in 2020
- **Low recycling rate in Hong Kong**
  - 28% in 2020 (the lowest since 1997)
- **High reliance on landfilling in Hong Kong**
  - the 3 exisiting landfills could only meet the demand for waste management in Hong Kong until the 2030s
 - highly associates with environmental problems

RESEARCH OBJECTIVES

1. To investigate the **knowledge, attitude and behaviour** of the public towards recycling, particularly the "Green@Community" Programme
2. To distinguish the **push and pull factors**, and thus the **most influential factor** in contributing to the public's recycling knowledge, attitude and behaviour in Hong Kong
3. To **evaluate and provide suggestions** for the **"Green@Community" Programme** based on the public's knowledge, attitude and behaviour towards recycling

CONCEPTUAL FRAMEWORK
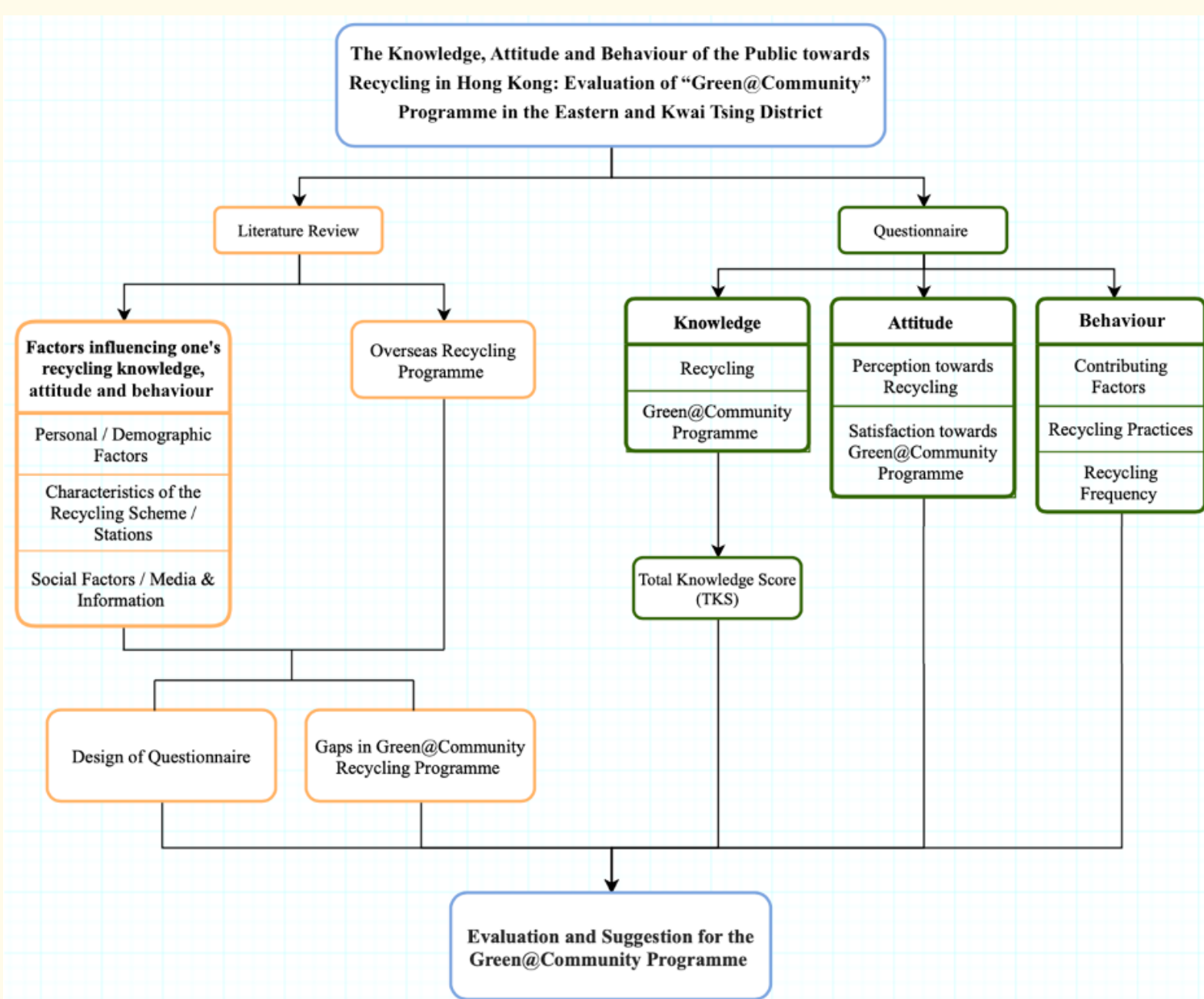
MAJOR FINDINGS

- **Knowledge**
  - Average score: **3** out of 8
  - **Low to moderate** understanding towards factual questions related to recycling and waste issues in Hong Kong
  - **Source** of knowledge: 1) recycling station near home 2) family and friends 3) social media
  - **High exposure** to the Green@Community Programme
  - Knowledge level: **Eastern** > Kwai Tsing

- **Attitude**
  - A **high sense of responsibility** to protect the environment
  - **Good impression** towards recycling
  - **Highly dissatisfied** with **government's work** in promoting recycling under the Green@Community Programme

- **Behaviour**
  - Recycle with **correct procedures**
  - Current recycling frequency: **sometimes**
  - Committed to **more recycling** in the future

|	Factors	Knowledge	Attitude	Behaviour
Eastern	Demographic	Age Group (-)	Education Level (-)	Age Group (+)
	Characteristics of the recycling scheme/station	/	/	Economic Incentive: Money Incentive (-)
	Social	/	Promotion (Social Media): Interesting Posts (+)	Social Influence: Peer Influence (+)
Kwai Tsing	Demographic	Education Level (+)	/	Age Group (+)
	Characteristics of the recycling scheme/station	/	/	/
	Social	Social Influence: Family Influence (+)	Social Influence: Peer Influence (+)	Social Influence: Peer Influence (+)

Summary of results of **Regression Analysis:**
the most influential factor that affect respondents' knowledge, attitude, and behaviour in each category in the Eastern and Kwai Tsing District respectively

RESEARCH SIGNIFICANCE

- **Environmental problems associated with waste are unsolved and critical issues in Hong Kong**
  - Waste is the 3rd largest contributor of GHG emissions in HK in 2019
- **Build a foundation of waste reduction and recycling in Hong Kong**
  - To achieve Zero Landfill and cut carbon emission by half of that in 2005 before 2035
  - To reach carbon neutrality by 2050
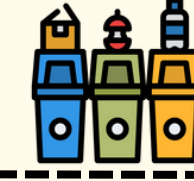
SCOPE AND STUDY AREA

Green@Community Programme
- a comprehensive recycling network that covers all 18 districts in HK
- to promote recycling and waste reduction at district level
- to encourage the public to live a greener life

Compare the Green@Eastern & Green@Kwai Tsing Recycling Station

METHODOLOGY

Data Collection
- **Primary Data**
  - Site Visits (at Green@Eastern and Green@Kwai Tsing Recycling Station
  - Questionnaire: 102 responses
  - Interviews: 4 from Kwai Tsing District, 3 from Eastern District
- **Secondary Data**
  - literature and scholars
  - government reports, press releases and news

Method of Analysis
- **Scoring**
  - Research Question 1
  - Total Knowledge Score (TKS)
- **Correlation Analysis**
  - Research Question 2
  - To identify significant factors and the relationship between variables
- **Regression Analysis**
  - Research Question 2
  - To identify the most influential factors for people's recycling knowledge, attitude and behaviour

ANTICIPATED RESULTS

H1: People in general have a **low level of understanding, attitude, and behaviour** towards recycling, particularly the Green@Community Programme, resulting in the **low recycling rate in Hong Kong.**
H2: **Income level, level of convenience and celebrity endorsement** are the top factors in each category that contribute the most to one's knowledge, attitude, and behaviour in recycling.
H3: The Green@Community Programme shows **limited impact** on waste reduction and recycling in HK, but it **could be improved** by taking consideration of different mentioned factors.

Correlation Analysis

Eastern District
- Demographic Factors
  - Age: Knowledge (-) & Behaviour (+)
  - Gender: Knowledge (+)
  - Household Living Space: Attitude (-)
- Characteristics of the Recycling Scheme / Station
  - Level of Convenience / Availability: Attitude (+) & Behaviour (+)
  - Design of the Station: Knowledge (-), Attitude (+) & Behaviour (+)
  - Economic Incentive: Behaviour (-)
- Social Factors
  - Promotion on Social Media: Attitude (+)
  - Celebrity Endorsement: Knowledge (-)
  - Social Influence: Knowledge (-), Attitude (+) & Behaviour (+)

Kwai Tsing District
- Demographic Factors
  - Age: Knowledge (-), Attitude (+) & Behaviour (+)
- Characteristics of the Recycling Scheme / Station
  - Level of Convenience / Availability: Behaviour (+)
  - Design of the Station: /
  - Economic Incentive: Behaviour (+)
- Social Factors
  - Promotion on Social Media: Knowledge (-) & Behaviour (+)
  - Celebrity Endorsement: Knowledge (-)
  - Social Influence: Knowledge (+) & Behaviour (+)

SUGGESTIONS

- Provide more **Public Education on Recycling**
  - in early childhood at school
  - at the Green@Community recycling station (exhibitions, workshops and guided tour

- Provide **more Green@Community Recycling Bins**
  - to reduce the time cost
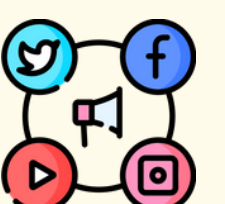 - it is more trustable and reliable than traditional ones

- Offer more **Money Incentives**: Reverse Vending Machine Pilot Scheme
  - especially in districts with a lower financial status
  - clear the storage of the machines more frequently

- Enhance **Promotion on Social Media**
  - use both Facebook and Instagram that target different age group
  - adopt a two-way communication and interaction