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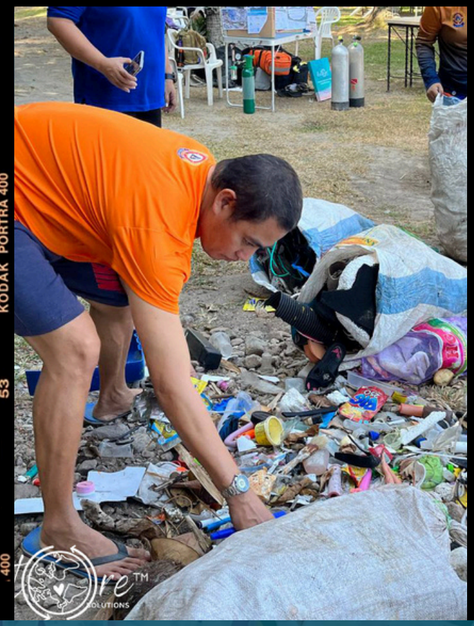
DIGITAL EVOLUTION OF PLASTIC RECOVERY

one sachet at a time

by estore.
Reinventing Sustainability

restore.

Restore Solutions PH, by Safewater Technologies, Inc., is a **flexible plastic waste upcycler** based in Bulacan. The company transforms flexible plastic waste into plastic **Restore boards and furniture**.



Restore aims to take sustainability beyond waste management; striving to offer innovative solutions that promote environmental stewardship and drive positive change.

Our Mission

At Restore, our mission is to **revolutionize** the way we view and utilize plastic waste by **transforming** it into pragmatic applications, **creating** eco-friendly products, and **promoting a circular economy.**

Through **innovation,** **education,** and **mindful creativity,** we pledge to work towards reducing environmental impact, inspire sustainable practices, and contribute to a healthier planet for future generations.

Our Vision

To be a **global leader in the circular economy, pioneering sustainable solutions for plastic waste.**

By inspiring change, influencing behavior, and instilling a sense of responsibility towards our environment, we strive to build a world

where every piece of plastic is given a new life,

where waste becomes a resource, and

where sustainability is not just a concept but a way of life.

Sachet use in the Philippines

households with lower incomes (15% of the population)

“tingi” culture (smaller amount = cheaper prices)

sold in sari-sari stores (80% of the retailstores)

163M pieces of sachets are used daily in the Philippines

~500 kg (per day)

~180 kT (per year)

weight of sachets used by Filipinos

World Bank. (2021). Market study for the Philippines: Plastics circularity opportunities and barriers.
(GAIA). (2019). Plastics exposed: How waste assessments and brand audits are helping Philippine cities fight plastic pollution (2nd ed.).
Alladin, A. J. E., Limon, J. A. H., Oblea, S. N. R., & Cabauatan, R. R. (2022). Economic and non-economic variables affecting consumer preferences of Quezon City households on sachet products. International Journal of Social and Management Studies, 3(2), 46–70. https://doi.org/10.5555/ijosmas.v3i2.116

The Restore Journey

1. **Rethink:** community-based collection
2. **Recycle:** waste to boards
3. **Reimagine:** boards to wonder!

Community-based
collection in TWO ways

Community Collection in 2 ways

Analog

Traditional

- Direct collection of segregated plastics
  - waste segregation bins
  - collection and clean-up drives
- High volume of collection
- Easily collects different kinds of waste
- Avoids open dumping of wastes in piles, and decreases health risk
- Tendency to throw waste as is
  - not clean, not dry
  - sometimes, unsegregated

OUR DIGITAL SOLUTION

Smart Eco-llection Bins (SEB)

Smart Eco-llection Bin

Sensor-based collection mechanism designed for plastic sachets

Real-time data monitoring and reporting

Can be integrated with a **digital incentive program** (e.g., e-wallet credits, reward points)

Digital interface with QR ID

estore.

SEB Core Features

incentives

gamification

data monitoring

Incentivizing Sachet Deposits

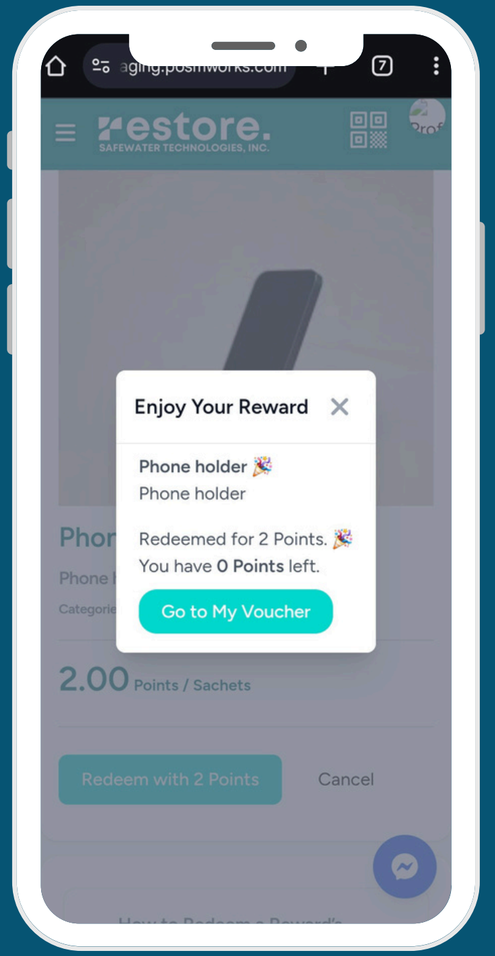
Sachets = Restore Points

can be exchanged with

Peso value

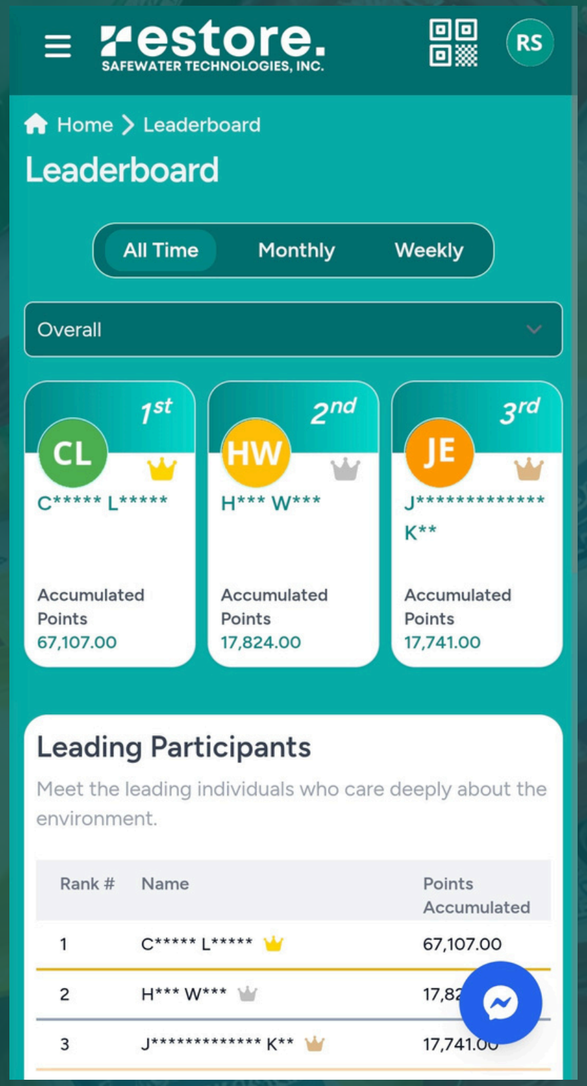
Brand items

Retailer services (e.g., parking)



Gamification

- USER ENGAGEMENT
- ACTIVE PARTICIPATION



Personalized experience elevating user motivation and sense of achievement

- updated performance statuses
- credited points
- tiered badges

REFERRALS

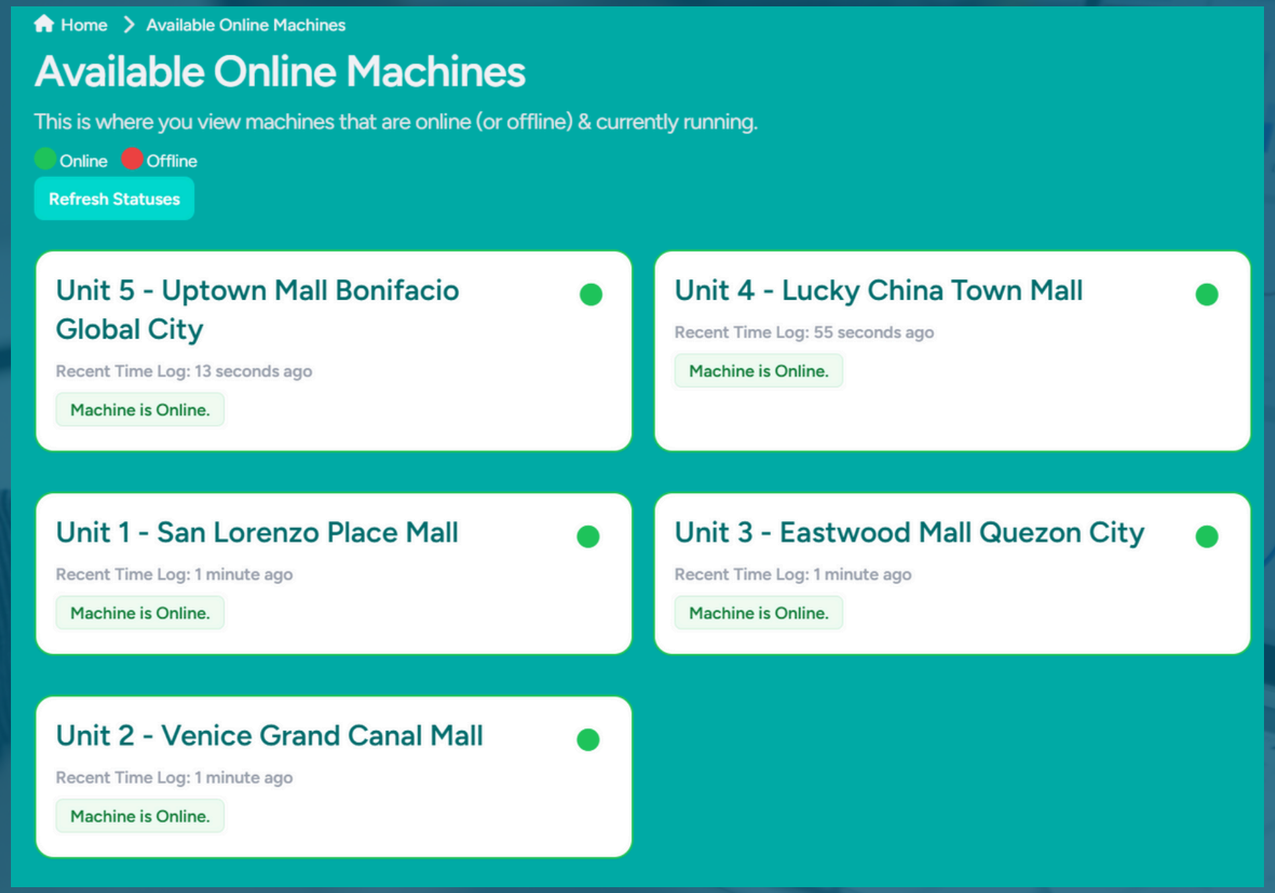
RESTORE POINTS

LOGINS/ VISITS

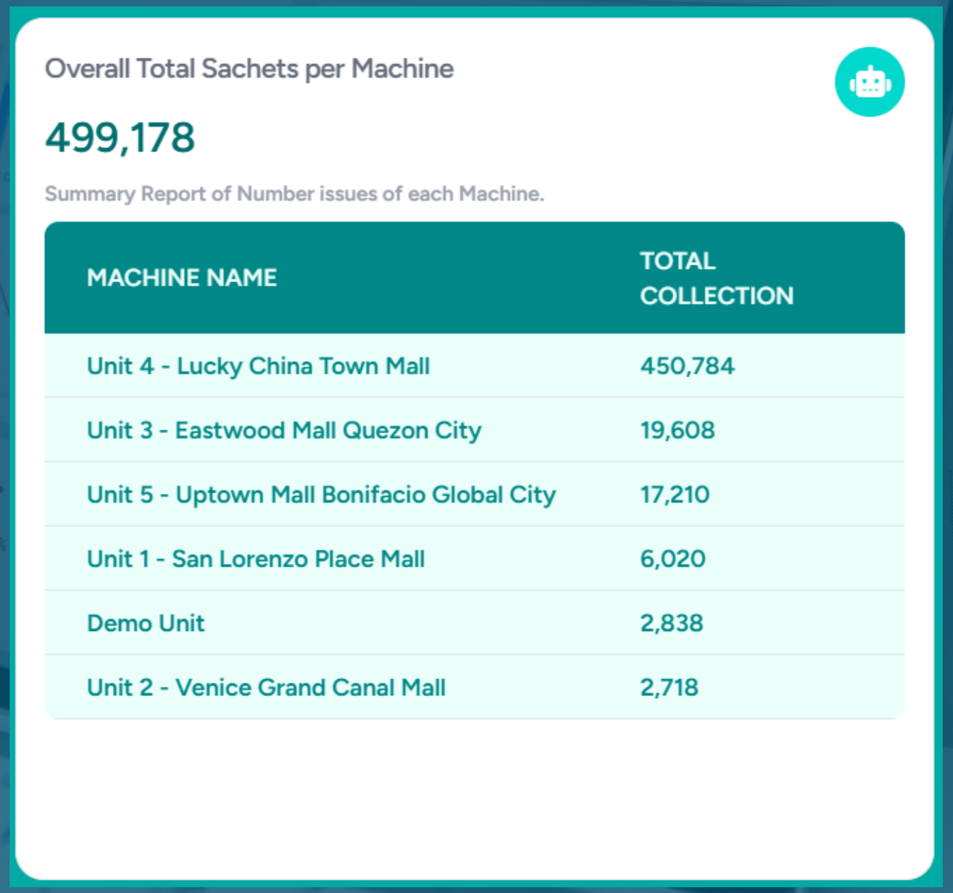
REWARDS

REPORTS

Data Monitoring

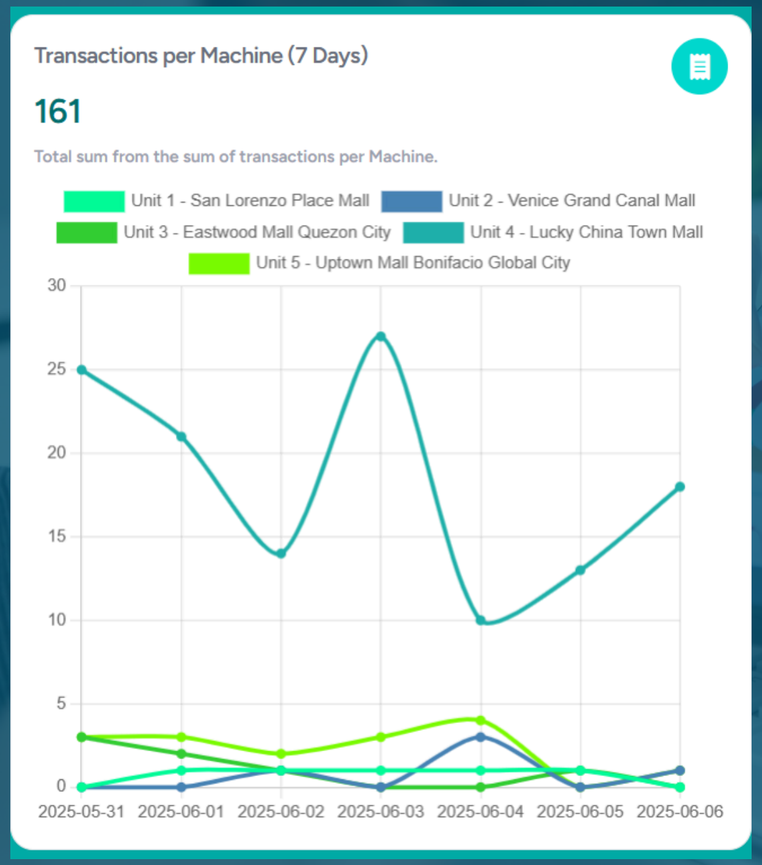


Machine Status

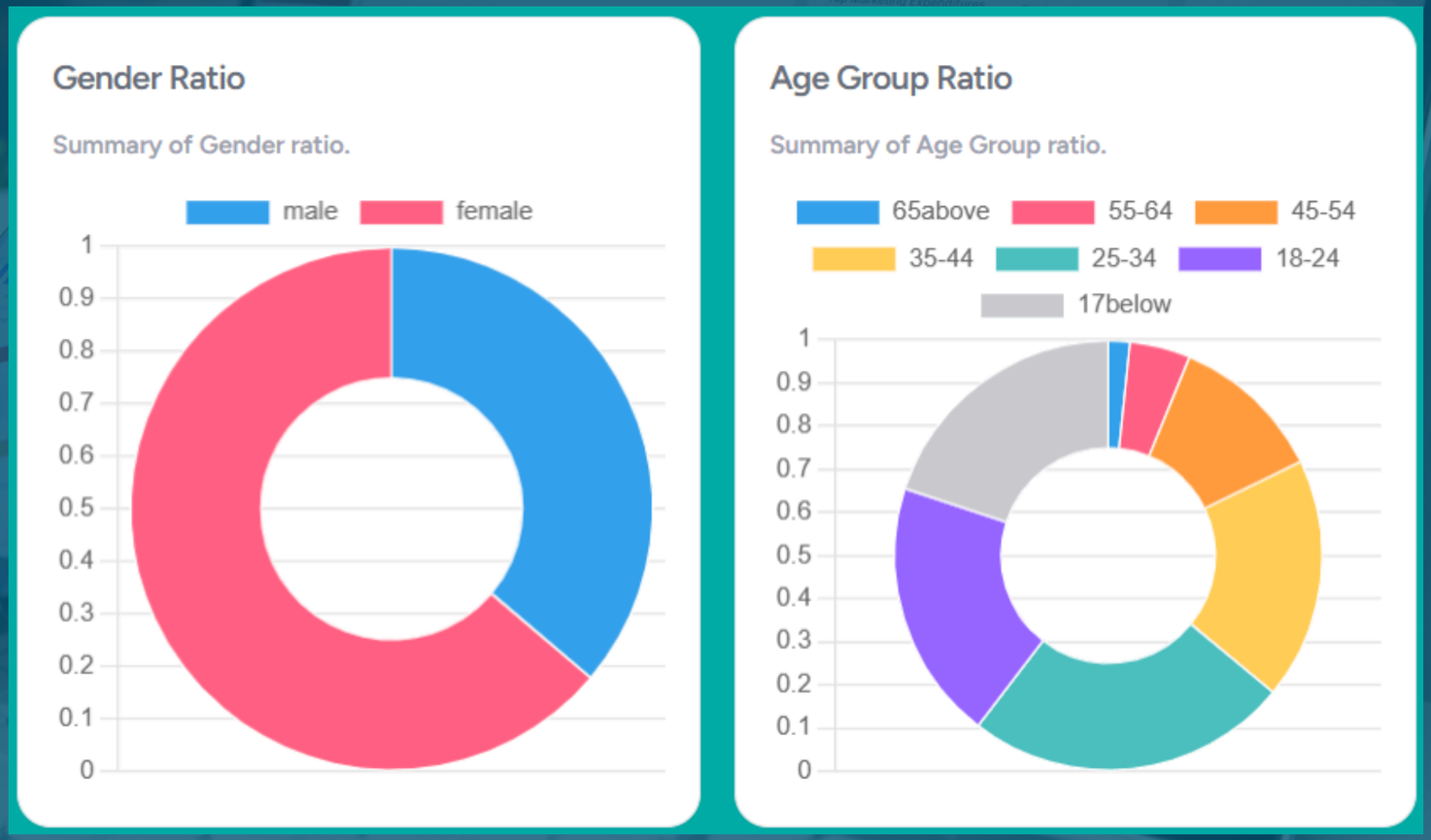


Sachet Count

Data Monitoring



Historical Performance

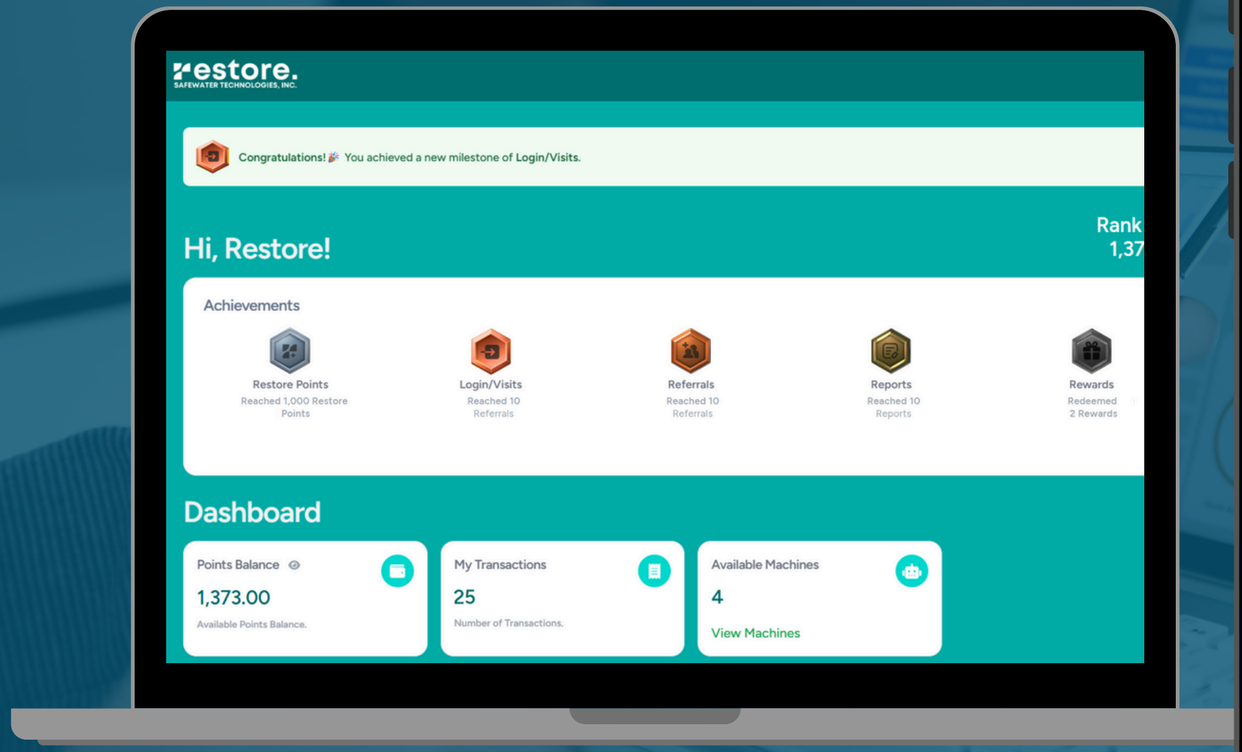


User Demographics

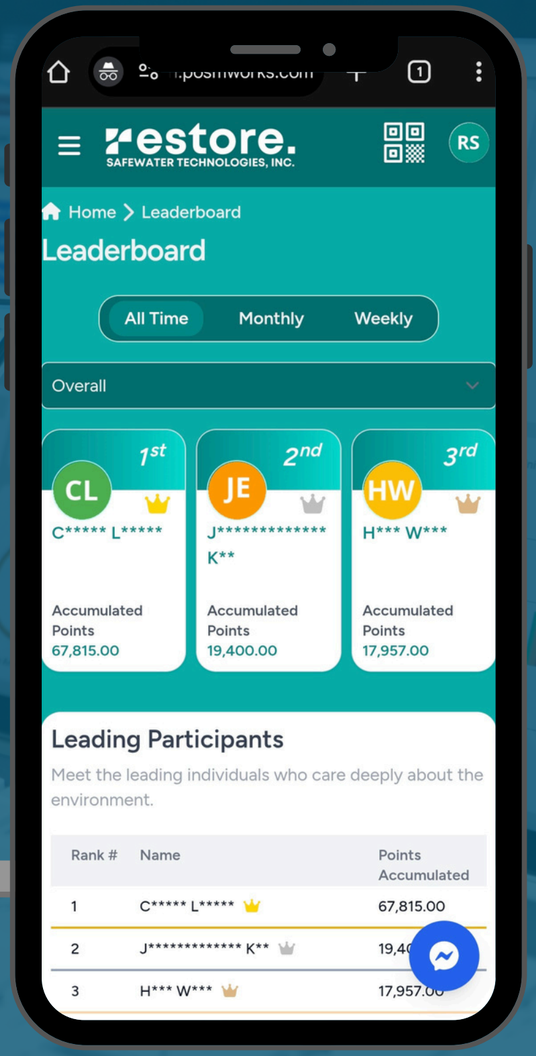
Smart Eco-llection Bin

redefining impact tracking for Eco-Heroes

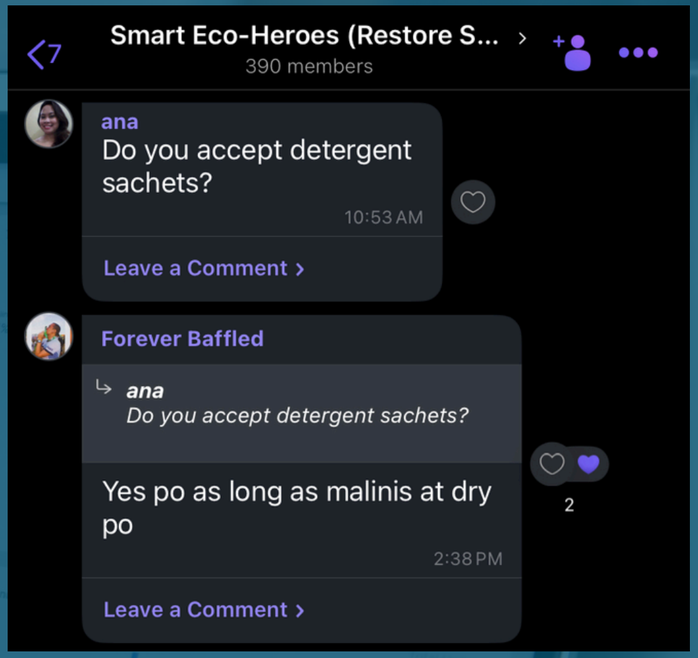
Impact - Individual



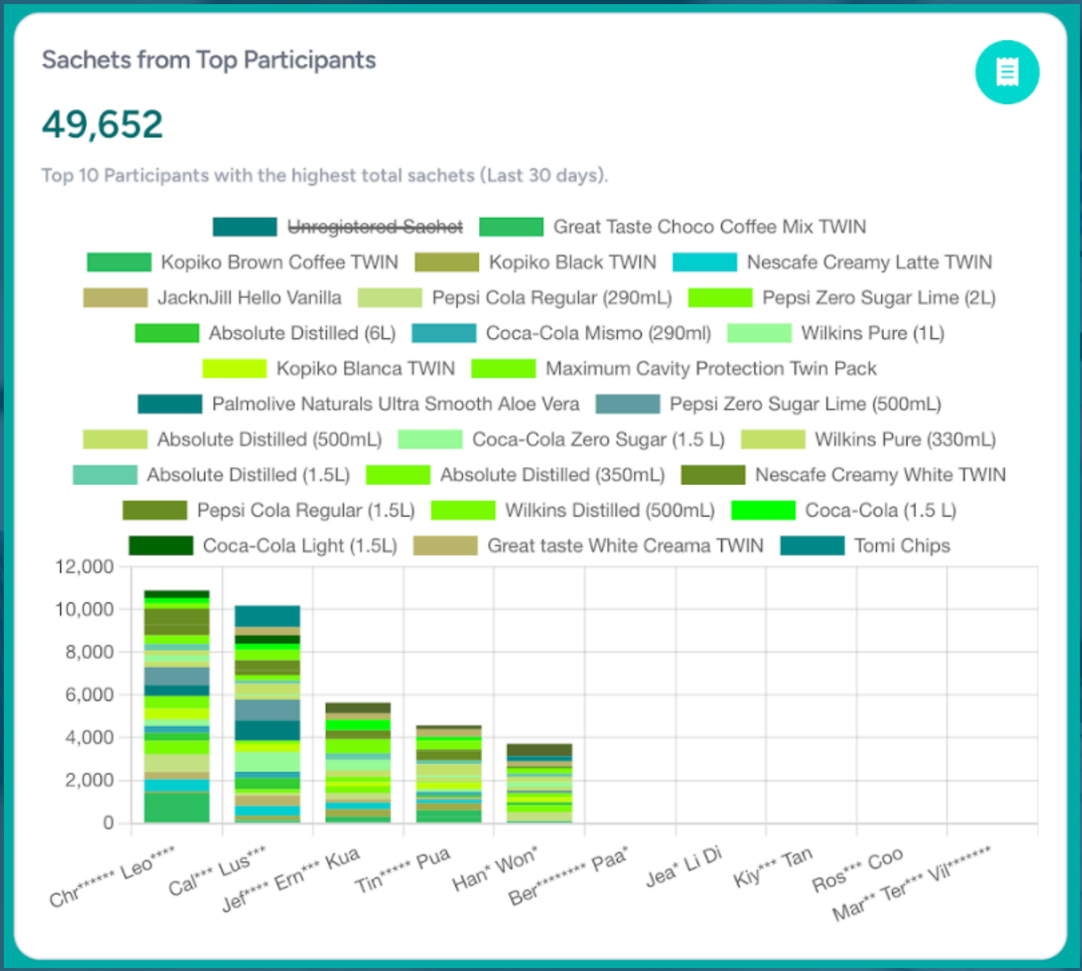
Personal Dashboard



Leaderboard



Impact - Brand Partners (EPR)



SEB SKU Count ⟷ Sales Data

↓

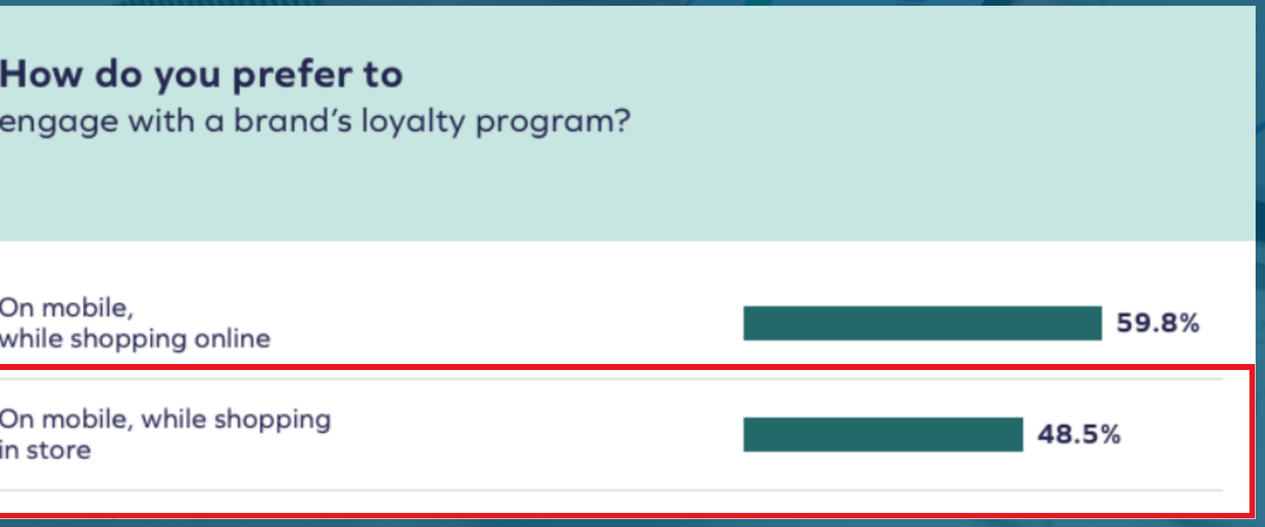
Plastic Footprint

↓

Plastic Recovery

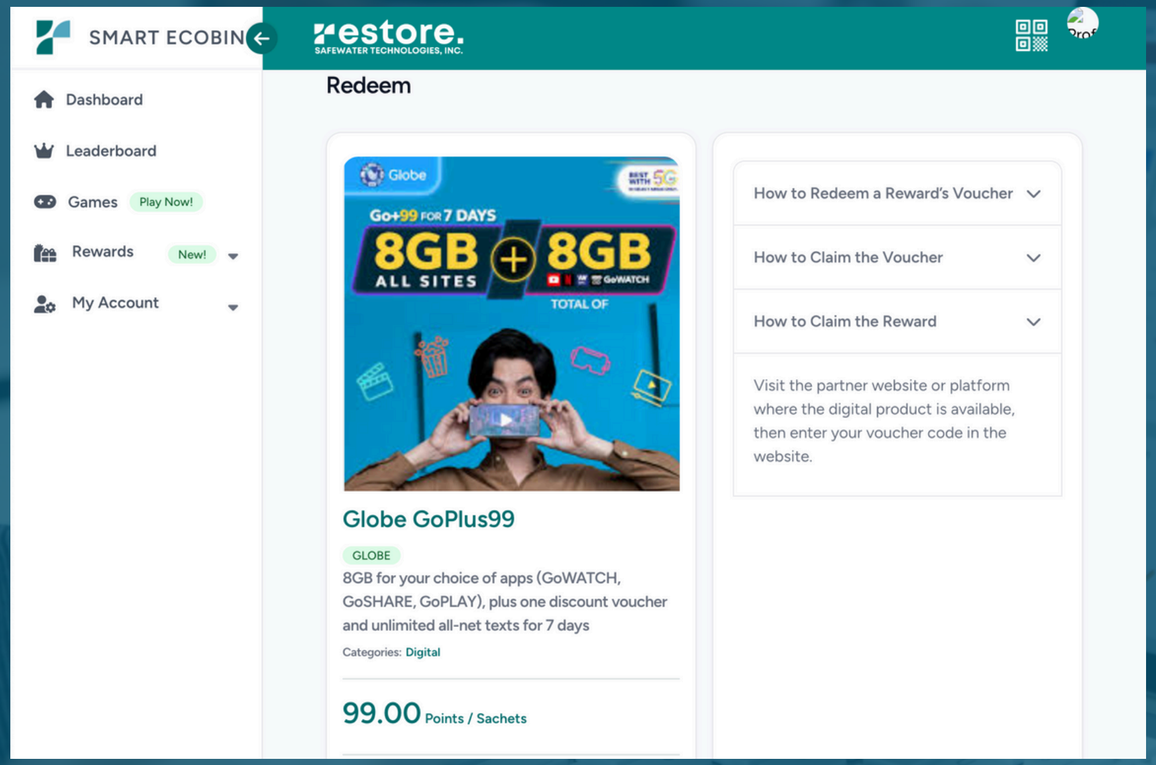
Impact - Brand and Retail Partners

75% of Filipinos prefer environmentally-friendly brands (Kantar Worldpanel, 2020)



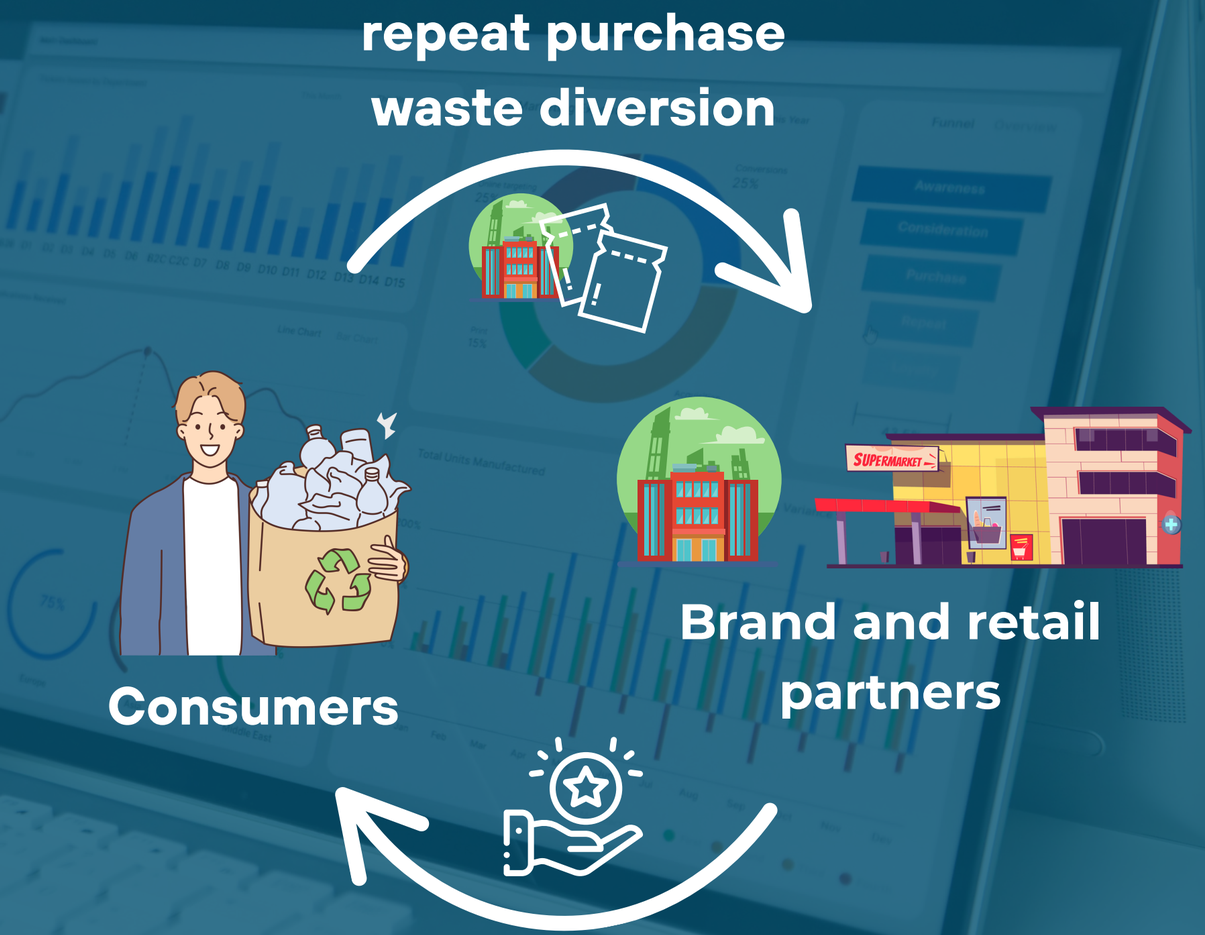
Yotpo. (2022, March 9). The State of Brand Loyalty 2022: Loyal Shoppers Go the Extra Mile | YOTPO. https://www.yotpo.com/the-state-of-brand-loyalty-2022/loyal-shoppers-go-the-extra-mile

Impact - Brand and Retail Partners



Brand loyalty program

through incentives such as
brand products, retailer services (e.g., parking)



Smart Eco-llection Bin

current progress

Initial Deployment Phase

- Eastwood Mall (GF, near ATMs)
- Lucky Chinatown Mall (GF, near Metro Supermarket)
- San Lorenzo Place Mall (GF, near Robinsons)
- Uptown Mall (B1, near Bruno's Barbers)
- Venice Grand Canal Mall (GF, near entrance)

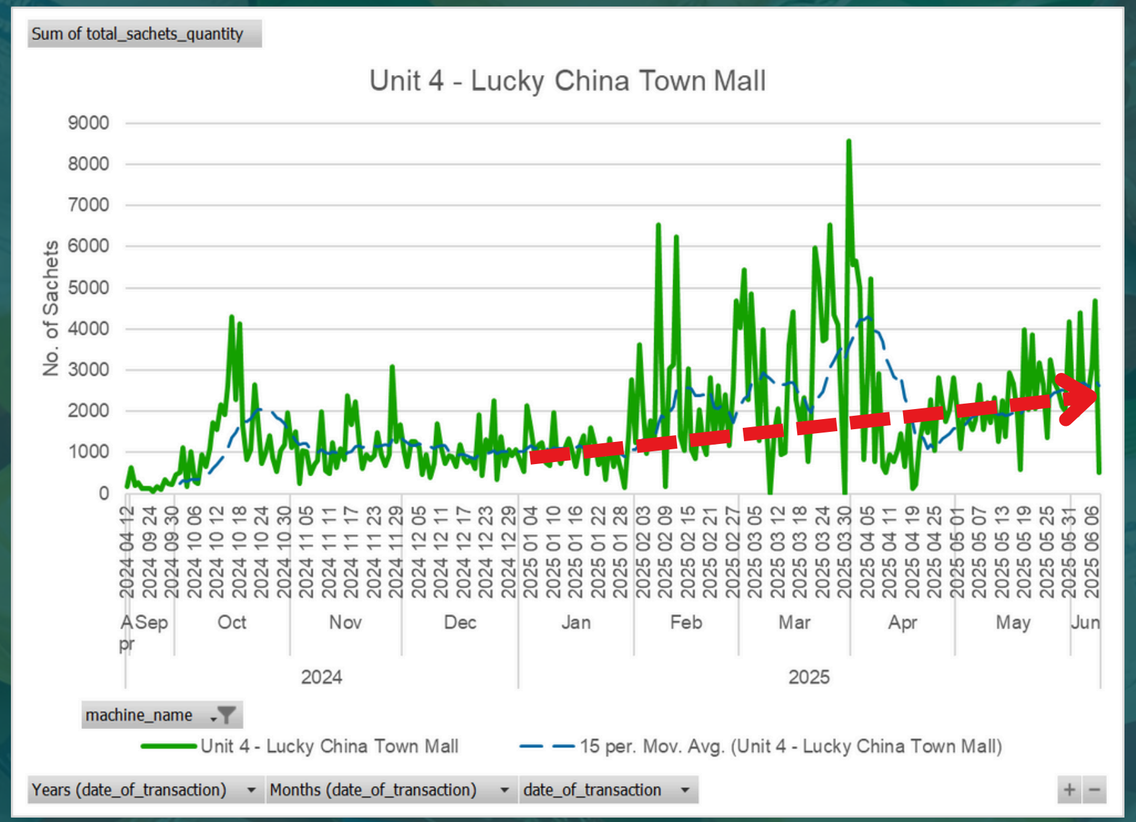
By the numbers...

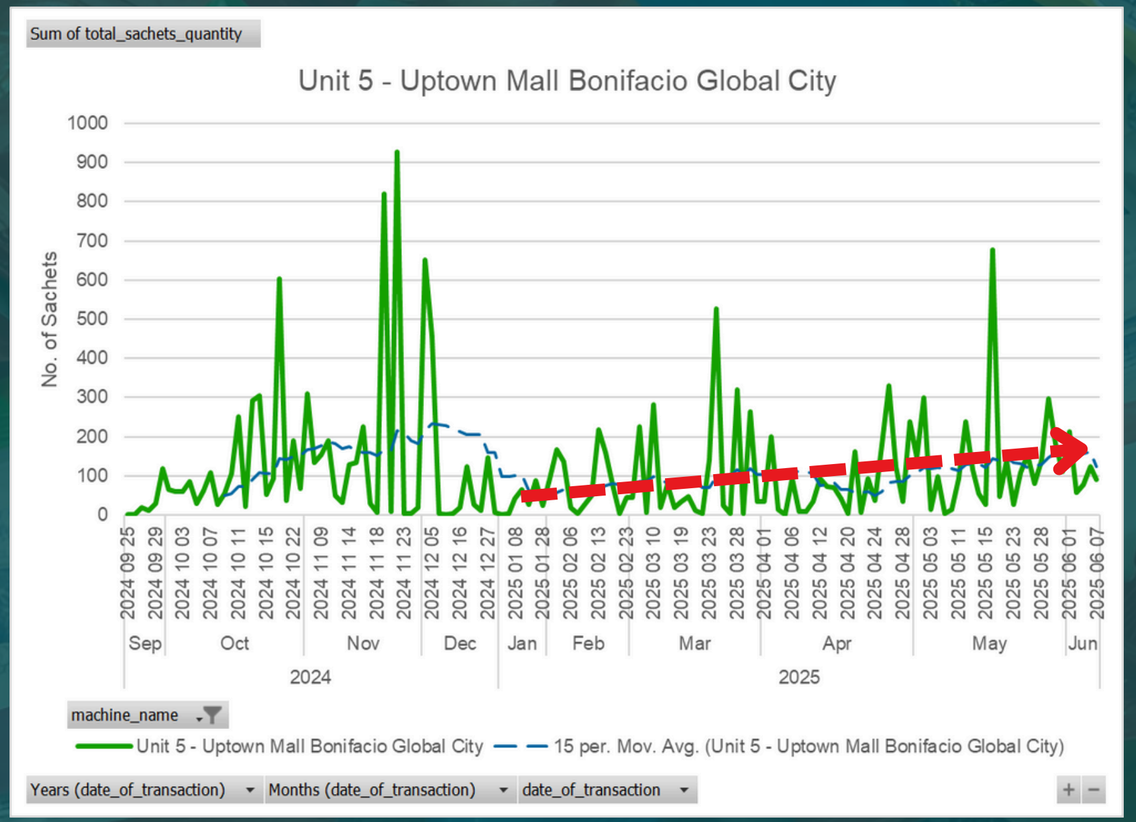
1,773 registered users

>500k pieces of cleaned and dried sachets deposited

~1,500 MT of sachets collected

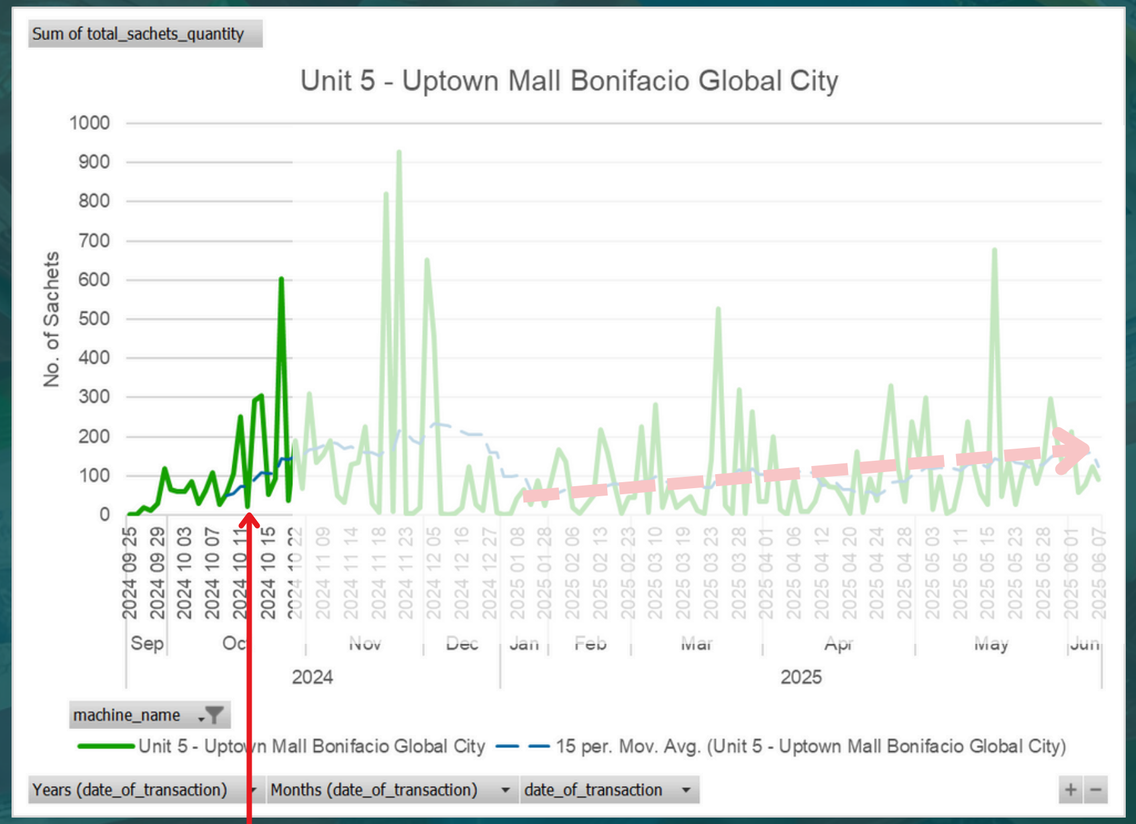
By the numbers...





By the numbers...

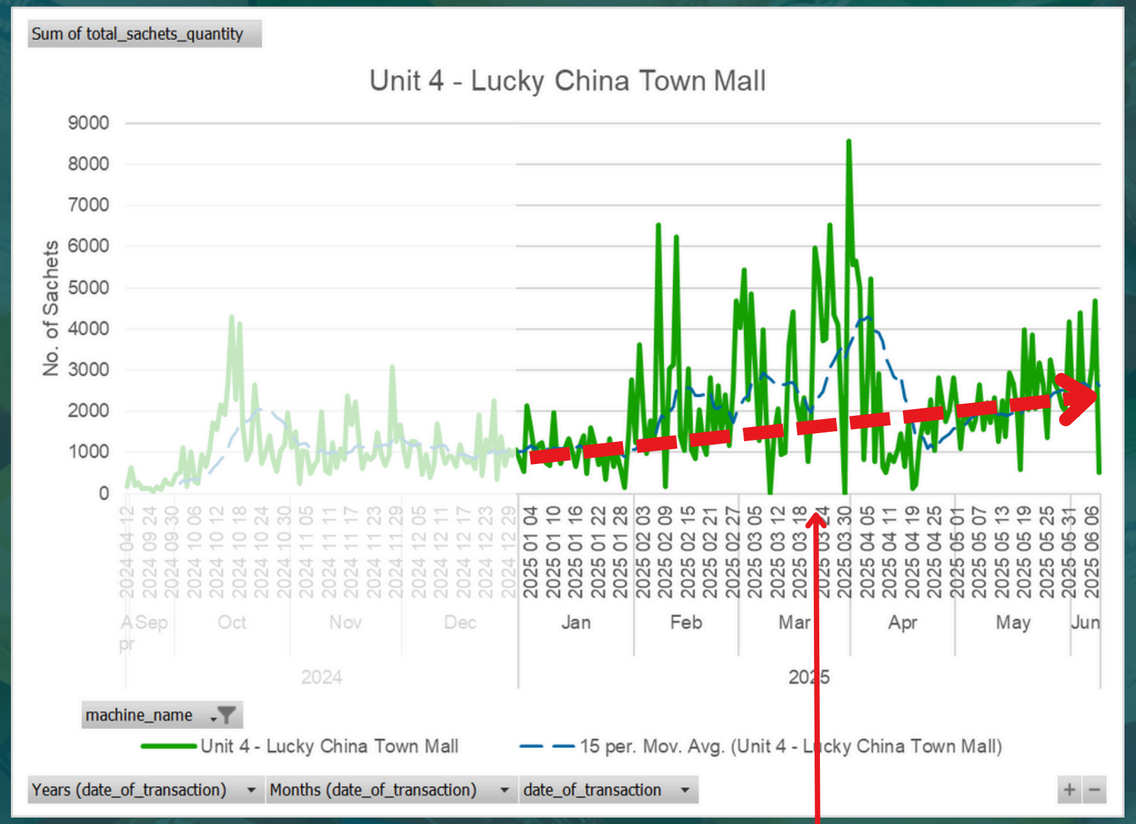
initial activation

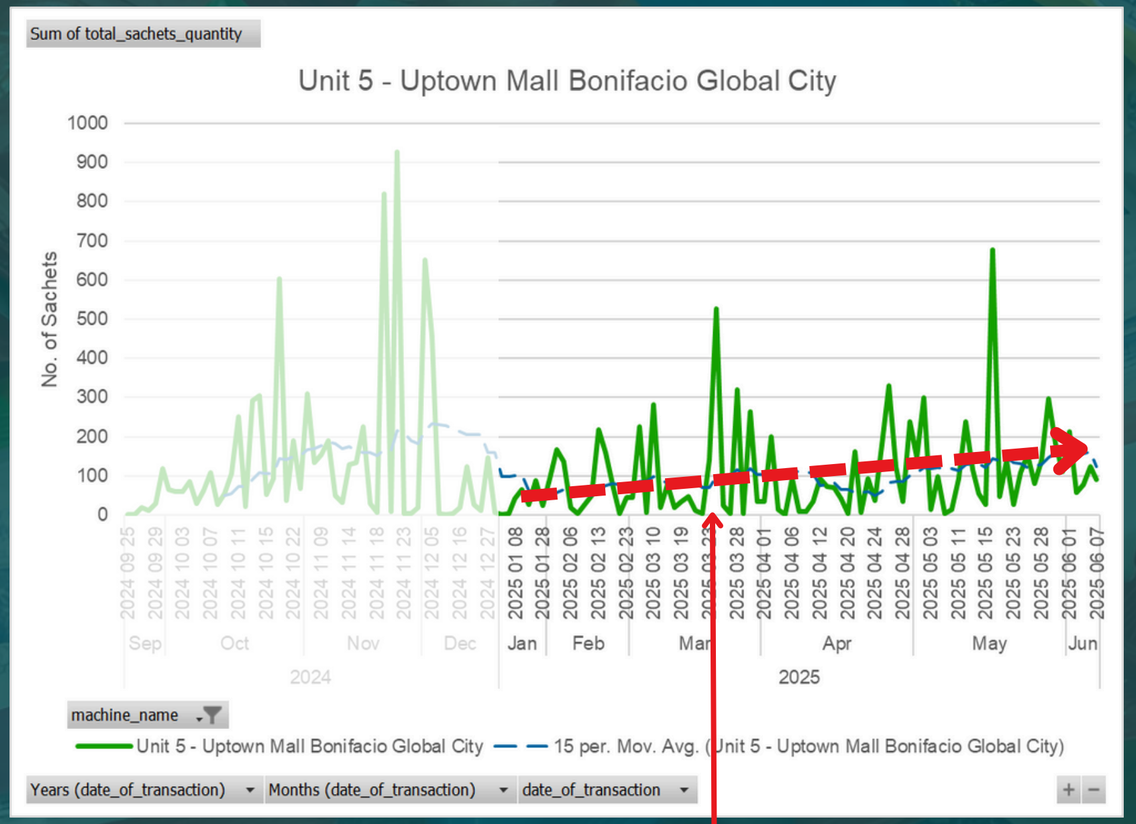


initial activation

- help introduce the SEB (what is it for, how it is used)
- teach users to insert cleaned and dried sachets

By the numbers...



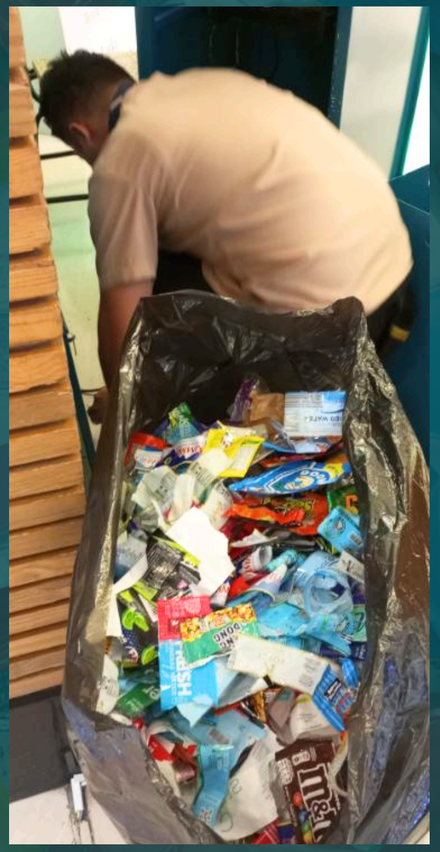


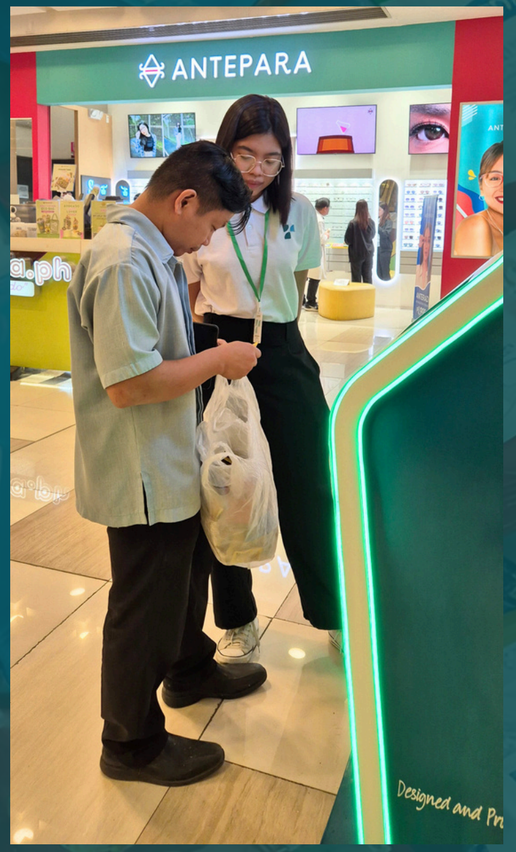
re-intro

re-intro

Beyond the numbers - Collections

only multilayer plastics are collected





Users do their own collection, segregation, cleaning, and drying

Beyond the numbers - Challenges

Operations

- full capacity and/or clogging
- fluctuating internet service
  - delays in data posting
  - missing transactions

Improvements

- larger bin design
- strengthened communications with SEB users
- back-up mobile data
- hardware sanity checks

Beyond the numbers - Challenges

User Adoption

- mistaken for other service
- interested but not depositing

Improvements

- strengthened communications with SEB users
- promotions, new features and releases

Beyond the numbers

Stories

> At first, I began collecting sachets from my own household. But as time went on, I expanded my efforts — picking up dry sachets I found along the streets during my daily walks. It became a routine: walking, decluttering, and recycling, all rolled into one.
>
> H. W. – SEB User

Analog Partnerships from SEB

MEGAWORLD Lifestyle Malls

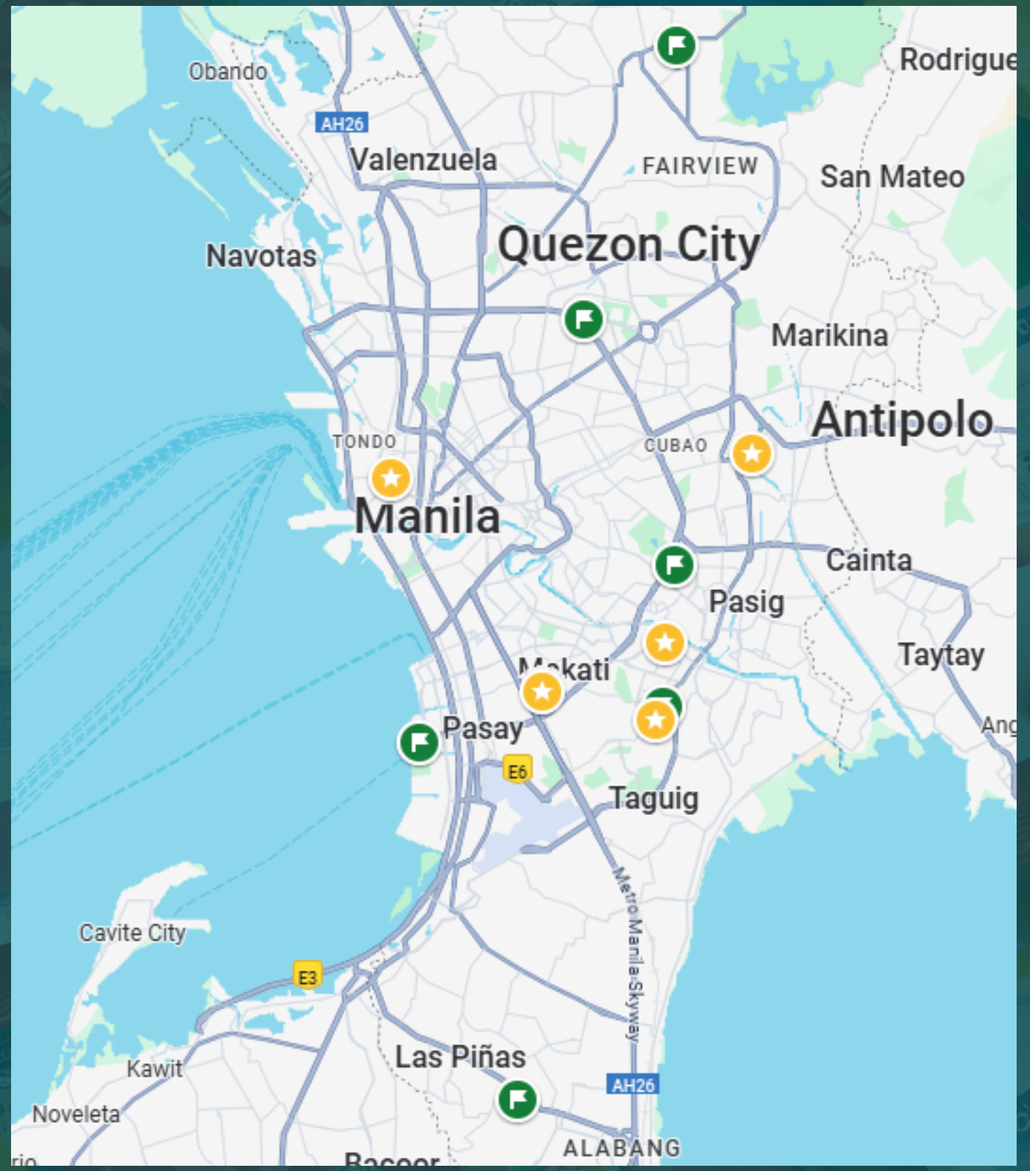
NU FAIRVIEW

BARANGAY LIBIS QUEZON CITY DISTRICT III

more partners in the pipeline!

Current Scale

Within NCR Only



Target Scale

Nationwide - more than 2000 SEBs in 10 years

as prevalent as ATMs nationwide

waste diversion

user rewards

revenue

brand participation

SEB

investment

reinvestment

Impact on waste diversion

Number of SEBs	5	75	200	500	1,000
Sachets collected (pcs/mo)	60,000	900,000	2,400,000	6,000,000	12,000,00
Diverted plastics	**180 kg/mo 2.1 MT/yr**	**2,700 kg/mo 32.4 MT/yr**	**7,200 kg/mo 86.4 MT/yr**	**18,000 kg/mo 216 MT/yr**	**36,000 kg/mo 432 MT/yr**

Digitalization and technology are catalysts for an accelerated consciousness shift among Filipinos, propelling us towards the better management of plastic waste.

DIGITAL EVOLUTION OF PLASTIC RECOVERY

one sachet at a time

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