

CASE STUDY

Rewarding Reuse in Ho Chi Minh City: Nopa Move's Smart-Bottle Network



Summary

Ho Chi Minh City's commuter coffee culture produces substantial single use waste. [Nopa Move](#) (Nopa), a design group keen about sustainability and intentional marketing, created the Nopa Move movement. The campaign centers around a reusable bottle, **reframing reuse** as convenient, stylish, and rewarding. The modular, customizable, NFC-enabled bottles link to a city-wide reward network (NFC stands for near-field communication; think of NFC technology like a credit card one can tap against a terminal to make a payment). Since May 2025 over 938 bottles have circulated, resulting in over 1,900 NFC scans. Each recorded refill is estimated to **avoid about 10 grams of plastic**, from the cup, lid, straw, and handle. The approach complements Việt Nam's 2025 urban **single-use plastic (SUP)** restrictions and litter-reduction targets by shifting everyday choices upstream of waste.



Framing the Challenge

Environmental challenge: Việt Nam (Vietnam) generates about 3.1 million tons of plastic annually, with an estimated 9-24% leaking into the ocean. At monitored river and coastal sites, 94% of items were plastic and 44% were takeaway food and drink packaging, much of it SUPs.

Core actors:

- [Nopa Move](#), a partner network of 110 (e.g., [Okkio](#) and [Wego Coffee](#))
- Corporate partners (e.g., [GS25](#), [Zara](#), and [Indochina Research](#))
- Creative designers (e.g., [Sagioneer](#) and [Psyche](#))

Target behaviors:

1. Commuters **carry and reuse** a personal bottle for cold drinks;
2. Commuters **scan an NFC tag** to discover nearby partner cafés and perks;
3. Commuters **redeem partner-funded discounts/upsizes** at purchase;
4. Coffee shop staff **properly scan NFC chips** and **provide customer perks**.



Empathize: Research & Methods

The project used a combination of qualitative and quantitative methods to understand behavior:

- **Literature review** on various topics, from game design theory to service design and branding. The team examined food and beverage consumer reports for post-pandemic takeaway consumption trends. Finally, the team observed reuse models in Việt Nam (e.g., [Aya Cup](#)) and abroad (e.g., Germany's [ReCup and ReBowl](#) initiative and [Econox Laos'](#) movement) and found that initiatives more likely to succeed were those who took a culture-specific approach to creating a bottle reuse and/or return system.
- Shadowing, also known as **non-participatory observation**, to watch real-time consumer behaviors and monitor consumer-consumer and consumer-vendor interactions.
- **Unstructured qualitative interviews** (in 2022) to collect information about the existing SUP and better understand how to frame the problem of SUP use and disposal. They realized that both supply (from food and beverage shops) and demand (from consumers) impact barriers, motivations, and behaviors.
- **Receiving feedback** from preliminary data and early models of the bottle product. This resulted in cycles of reiteration and reframing to better align with current trends, consumer motivations, and consumer barriers.

This mixed-methods approach revealed both behavioral and structural barriers, informing iterative intervention design. Some of the key insights included:

- **Wide intention-action gap:** while over 55% of surveyed Vietnamese consumers understand that plastic pollution is a problem, this doesn't necessarily translate into plastic reduction actions.
- Disposables dominate due to **convenience bias** and **perceived hygiene**. For example:
 - Convenience bias: in a fast-paced environment where the default already is a disposable coffee or drink cup, people stick with what is easiest, or what produces the least amount of friction points (friction points include cleaning bottles between drinks, carrying them around, and remembering them before a person leaves their home or office).
 - Perceptions of hygiene: people who purchase disposable cups can signal that they value the perceived increased hygiene of single-use cups that do not need to be cleaned between uses.
- **Identity is key:** whatever the behavior change is, it must align with convenience and social perception.
- **Routine anchors:** coffee runs are predictable (morning rush hour, lunch break, etc.). These "habit windows" are reliable places to start campaigns for reusable bottles.



Mapping Key Insights

- **Default vs. identity.** Transparent logo cups function as status symbols. Therefore, reuse must offer equal or greater identity value from design and customization to limited editions versions.
- **Rewards change routes.** Users pick cafés based on perks. NFC aids discovery along "habit windows."
- **Discoverability does not mean verification.** NFC is a great tool for engagement — but its existence does not automatically predict enforcement.
- **Training may be a challenge.** In a field with high turnover, training may not be highly prioritized and/or a heavy investment with little return. For example, staff need to identify the NFC bottle, scan it, and reward users; in a network of 110 coffee shops with at least two rotating teams of 2-3 people and a turnover rate of 60-85% annually, that means training 440-660 staff members.
- **Measure fewer, better indicators.** Not all metrics are created equally. Preliminary data indicate that a combination of scans, check-ins, partner coverage, and bottle distribution can indicate the success of the pilot.



Building a Solution Prototype

The intervention combined multiple behavioral levers to increase the efficacy of the campaign based on the various target actors and behaviors:

Material Incentives

Partner cafés **fund immediate discounts**, upsizes, and exclusive perks for bottle carriers.

Information

Targeted onboarding for partners and practical point-of-service prompts focus on savings and lifestyle fit, not guilt.

Choice Architecture

Downloading and using an app is an extra friction point. An NFC that does not require any apps is key: any smartphone scan reveals nearby cafés and reward details and offers a simple way to use the bottle.

Emotional Appeals

A modular, translucent, customizable bottle and limited-edition collaborations create an “exclusive club” feel and make the behavior salient, tapping into emotions such as pride and values such as identity.

Social Influence

Initially, Nopa sold the bottles to groups of people (e.g., coworkers in a specific company); the customized reusable bottle indicated that the company and its members cared about reducing plastic consumption as a team. Not only were coworkers keen to follow the new team norm of using the reusable bottles, but these bottles signaled to others in their social and professional circles that they were part of something both trendy *and* important. As Nopa expanded to individual sales, they developed a webapp to function as a digital community. The intention was that this webapp, which shows which friends are using the NFC bottles and where they’re using them, could function in the same way as other social media platforms (e.g., [Strava](#)) in cementing behavior change. People are more likely to follow the behavior of others if others’ behavior is salient and if their own behavior can be monitored. This reputational pressure can be especially potent in the age of social media.



Testing the Solution

Two early models underperformed:

1. A rent-a-cup with deposits system had too much friction and overly complicated logistics
2. A standalone rewards app ended up as another app in a saturated app ecosystem.

The team pivoted to **owned bottles, partner-funded rewards, and NFC discovery**.



Launching the Pilot

1. Phasing & growth (2023–2025)

In 2023, early product trials were completed, and fewer than 20 partners existed in initially targeted districts.

2. NFC launch

“Nopa Move PLUS” (May 2025) validated scans for discovery.

3. Community activations

These included seeding 60 bottles at [Loco Art Market](#), providing [GS25](#) onboarding gifts, launching a [University of Economics Ho Chi Minh City](#) (UEH) x [BOTOL](#) student challenge, and providing limited edition drops reinforced identity and belonging. Moreover, the webapp gamifies scanning by featuring reuse challenges, which allow individuals to check their reuse “streak” (akin to a streak on Snapchat) and explore other coffee shops in the area that their friends have used.



Photo Credit: Nopa Move.



Assessing Impact (Key Indicators, May–Aug 2025)

1. Distribution & reach

As of August 2025, there were **938 NFC bottles** in circulation. Additionally, there were **~99 outlets and 54 brands** reached by mid-2025 in multiple districts with over **100 locations** reached later in the year.

2. Engagement vs. verification

Nopa recorded **~1,900 NFC scans** and completed **~200 café-side check-ins** across ~2 months.

3. Operational quality

Training metrics indicated **88%** of staff at outlets trained (plus an additional 5.6% partially trained). Of those trained, confidence hovered around **52.3%**, indicating those trained were “fairly okay but sometimes confused.”

4. User experience signal

Users report choosing cafés for rewards and feeling recognized “like an exclusive club,” strengthening habit and word-of-mouth.



Photo Credit: Nopa Move.

Lessons Learned

- Iterations were key to improving the process from the pilot to the prototype launch.
- **Incentives + identity move people.** Immediate, visible rewards plus expressive design normalize BYO better than distant environmental appeals.
- **Defaults & ease win.** No-app NFC lowers friction; verification must be as effortless as payment to stick.
- **Frontline execution is pivotal.** Turnover makes rewards fragile; repeat prompts, signage, and micro-incentives help.
- **Density beats distance.** A thick partner map creates habit hooks along commute windows; sparse areas weaken reliability and equity.
- **Measure what matters.** Prioritize scans, check-ins, partner coverage, bottle distribution; avoid sprawling KPI sets early.

Diversity, Equity, and Inclusion Considerations

- **Access through simplicity.** No-app NFC lets small, family-run shops and carts join; any smartphone can participate.
- **Segmented value propositions.** Students respond to discounts and campus activations; professionals to identity/brand fit and partner quality.
- **Affordability pathways.** The **~495,000 VND** price positions the bottle as a durable good; sponsorships (e.g., UEH challenge) and network coverage broaden access.

Acknowledgments

This project was implemented through collaboration between [Nopa Move](#), partner cafés, corporate partners, creative designers, [University of Economics Ho Chi Minh City](#), and [BOTOL](#). The project also received support from [Rare](#), the [Institute for Global Environmental Studies \(IGES\)](#) and the [Economic Research Institute for ASEAN and East Asia \(ERIA\)](#) under the [Regional Knowledge Centre for Marine Plastic Debris](#).

