Reusable/Recyclable Cup Research

Background

In order to gain a better understanding of the challenges involved in designing a successful reusable/recyclable cup system, we carried out extensive online research, using search terms like ‘reusable cup schemes’, and ‘innovative reusable cup’.

We found a huge amount of articles relating to companies making reusable cups, cafes trialling various reusable systems, and even results other design competitions addressing the same area.

A reoccuring theme we noticed (apart from the focus on coffee cups as opposed to cold cups), is that there are plenty of articles written about various cafes and companies ‘hoping’ to create change, but we encountered a lot of difficulty when trying to see if they were successful, which we took as a bad sign.

Here is a collection (in no particular order) of our key findings, including cups themselves, various reusable system designs, recycling systems, and even people’s thoughts on the issue. While we didn’t find a model that we could directly implement, or even adapt for cinemas, the research did provide us with valuable insights ahead of our own idea generation.

Vessel

Failed on Kickstarter. Received $6,000 of $85,000 goal.

How it works for customers:
- visit participating locations
- place your order
- tab your fob with the reader
- receive your drink in the mug
- take it with you
- drop it off elsewhere in town

How it works for businesses:
- provides a library-style system of stainless steel to-go mugs
- they market, deliver and collect the Vessel mugs
- no risk to cafes; only pay 10c per Vessel mug used
- little disruption for in-house integration of Vessel system
- we train your staff
- we provide cup distribution and collection bins made to complement ambiance of cafe
- shift away from single-use and embrace NYC’s Zero Waste 2030 plan
Reusable cup system

- Pay $1.50 for the cup, drink your coffee, drop it off at another participating shop and get your money back, or a refill.
- Difficult to see if it is effective or not
- They use a plant-based recyclable cup, suitable for up to 75 uses (inc. washes).

Starbucks

- There are several articles written about Starbucks’ efforts to encourage the use of reusable cups. While stats on their success vary, most cite a success rate of about 2%.
- The reusable cups only cost $1 and last about a month. More expensive ceramic ones can be bought also. They all look the same as the disposable cups, so that people can keep up the iconic ‘busy, fashionable image’.
- Starbucks offer a 35c discount for users that bring their own mugs.

Square Mile Challenge

- The city of London have introduced dedicated coffee cup recycling facilities in shops, offices and streets.
- The first 30 businesses with more than 500 employees to sign up to the challenge received a year’s free membership to collection services provided by Simply Cups, while all other businesses involved can access discounted rates for collections.
- The large street bins could only stick around for the launch month (April 2017), but the ‘recycle your coffee cups here’ stickers remain in participating stores.
- Collected cups are taken to specialist recycling facilities
Simply Cups

“The whole recycling landscape changed in 2013 when two new specialist plants were established in the UK. For the first time, these reprocessing facilities could now accept bulk quantites of cups and separate the plastic film from the paper, thereby allowing material recovery and recycling into new products.”

- Simply Cups runs cost-effective logistics for companies to avail of this.

VocaLink (case study from Simply Cups)

- A global payments partner to banks, businesses and governments. Wanted to cut back on the amount of coffee cup waste they generated.

- They contracted Simply Cups. A meeting was held to review current procedures and estimate the no. of cups used so that Simply Cups could advise on best practice.

- Starting with one office, Simply Cups devised a recovery and collection process that would result in virtually all of the cups used on site being recovered and recycled, and without having to change the supply, or specification of VocaLink’s paper cups.

- 6 months later, a total of eight 110 litre cup recycling bins were strategically placed across all 4 floors of the building, including the cafe. In each bin a (recycled) liner is placed, which makes collecting the cups easy and mess-free.

- A launch event was held, with Simply Cups’ mascot, ‘Cupbert’ introducing the new recycling process to employees.

“Collection is simple, when the cup bins are full, VocaLink’s facilities team contacts Simply Waste Solutions, the logistics arm of Simply Cups, who then arrange to come and empty the container.”

“Based on VocaLink’s total annual paper cup usage, it is estimated that savings of 47% could be achieved using Simply Cups, against the cost of disposal via general waste.”
UK Research

Carried out by Cardiff University, on behalf of coffee roaster Bewley’s

“The research found that, while a 25p charge on disposable cups increased the use of reusable coffee cups, a discount on reusable cups had no impact at all on their usage.”

- a 25p charge increased reusable cup use by 3.4%
- environmental messaging in cafes increased it by 2.3%
- the availability of resuable cups led to a 2.5% increase
- free reusable cups led to a further 4.3% increase
- In one cafe, customers’ usage of reusable cups soared from 5.1% to 17.4%, when all the measures were in place.

Just Swap It

- Can buy reusable cups with your own branding
- Go into cafe, pay deposit for the cup, hand it in to another cafe and get your money back

GoBox (Palo Alto)

- Similar to Just Swap, but they also do take-away boxes for food (food delivery is a fast-growing market).
Pokito

Collapsible reusable coffee cup in the UK. Needed $12,000 on Kickstarter, got $100,000. No visible activity in the past 6 months.

KeepCup

Make stylish, reusable cups

Ms Forsyth, founder, is worried about how they have sold 5 million cups, but don’t see an equal amount in use

She compares it to getting gym membership and then quitting after New Years

“You have to use the cup at least 15 times to make a difference to the landfill problem.”

GoBox (Palo Alto)

More than 1000 coffee-goers opt for reusable cups over paper cups at BaysWater’s Cool Breeze cafe each week.

Part of the ‘Resposible cafes’ campaignm where they offer a 50c discount for customers who bring their own cups.

The cafe is taking part in a trial called Go2Cup, where reusable coffee cups are supplied, washed and redistributed to the cafe every day.

Ms Johnson said 80% of customers used the Go2Cup option
Go2Cup

Operates a service similar to Simply Cups, except they use reusable cups, and take care of all the extra work (washing, etc.).

Make their money by selling to coffee shops, similar to normal cups. They are free for users to take and return.

Bodleain (KeepCup)

KeepCup variant implemented into a reusable coffee cup system in Oxford library

Smart Cups (and Cafe Pay)

Smart coffee cup system in Melbourne

- Buy cup and download app
- Scan lid with app, enter payment details
- Use lid to pay for your coffee
- Collect rewards (like free coffee), and send them to your friends

Funding cancelled on Kickstarter but the product appears to be on the market.

Kickstarter-funded coffee cup with seeds inside the compostable paper. Composts within 6 months and a flower/tree can grow from it. People can plant them themselves, or leave in special bins and ‘Reduce. Reuse. Grow.’ or other 3rd parties can bulk plant them.

Still active and have 20 or more cafes under ‘customers’.

Beta Cup Winner

Crowd-sourced competition similar to this OpenIDEO challenge, backed by Starbucks, run on Jovoto, 2010.

Overall winner: Karma Cup. A chalkboard sitting by the register. Every guest who uses a reusable mug marks the chalkboard. Every 10th guest receives a free item.

“What people really need is an incentive to change the behaviour - a free cup of coffee and a bit of peer pressure.”

Giving reusable mugs doesn’t have to be costly to implement or complex to manage.

By making the incentive a group thing, it makes it more community-minded.

Judge: “I think that the Karma Cup approach was holistic in that in acknowledged the ability for positive social pressure and social signaling for extrinsic motivations.

The cost and ability to slipstream the Karma Cup into various processes made it appealing as an ecosystem for other marketing and messaging concepts around it. Badging, loyalty, affinity, etc. can all be built around the Karma Cup concept.”
Beta Cup Runner-Up

Champion Cup asserts the importance of measurement. Feedback is important to change, and users should be able to see how much of an impact they are having. QR code on reusable mug, registered online, scan to pay (and pay less each time), generating personal statistics for each user. Can be viewed online/shared on social media.

“Imagine knowing that your humble sippy cup saved a tree, and that all you had to do to save another was to keep bringing it with you.

Beta Cup Runner-Up

Band of Honor: Instead of requiring that users get a new cup, this entry proposes that a small, RFID-embedded plastic band could be attached to an existing mug. This way the band is like a badge, helping customers to be recognized for their efforts while still allowing them to bring a favourite mug to drink from.

“It smartly encourages the repetitive action that turns good motivations and intentions into good habits.”

KeepCup (review from a user centred design and psychology perspective)

Millions sold, but they do not seem to be used by many.

Found that, in a 2 hour observation, 1 of the 2 men that used a reusable cup was noticeably more stylish than his friends (leather jacket, matching bag and scarf). His KeepCup matched his style.

The other man used his metal reusable cup because it represented his love for good design and engineering.

Key finding from observations and interviews: people’s usage (or non-usage) of reusable cups was dependent on how it helped them express themselves, rather than environmental impact.
Costa

New initiative to reduce coffee cup waste.

Once deposited in a Costa store, the cups will be collected by Costa team members and stored in cup racks, back of house. Costa will then work alongside its waste partner, Veolia, to transport them to specialist waste processing plants so that they can be recycled.

Costa also now offers 25p off a drink when using a reusable cup.

Why Starbucks should theoretically make money from reusable cups

Sell cups: They cost $1

Save on supplies/trash handling: Semi-permanent cup means they distribute fewer disposable ones, and have less waste to collect

Free advertising: In the office, at home, etc.

Drive repeat business: In yor car, you have a Starbucks cup and potential incentive staring you in the face as you think about where you will get your coffee