

UBC Social Ecological Economic Development Studies (SEEDS) Sustainability Program

Student Research Report

Analysis and Recommendations for UBC's Zero Waste Coffee Culture Transition

Benjamin Heo, Janet Li, Sheng Ting Yang, Nanqi Xu

University of British Columbia

LFS 450

Themes: Waste, Community, Food

Date: April 16, 2020

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Group 1: Zero Waste
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EXECUTIVE SUMMARY

The University of British Columbia has set the ambitious goal of transitioning away from single-use food ware items and towards a reusable culture to promote a circular economy in which the values materials and products are maintained in a regenerative process (National Zero Waste Council, n.d.). This involves a Zero Waste Food Ware Strategy that focuses on items such as single-use coffee cups. Single-use cups are a major source of waste at UBC, and due to inefficient waste management strategies, much of this waste can end up in landfills. In 2017, 1.7 million single-use coffee cups were distributed on campus (The University of British Columbia, n.d.). Additionally, cafes on campus do not have a strong “for here” culture, contributing to the immense dependency on single-use cups. To facilitate UBC’s transition to a zero waste campus, our Zero Waste team from LFS 450 has been assigned to uncover the barriers and opportunities to the use of reusable “to go” and “for here” cups. We also set out to uncover the reasons for the profound “to go” culture in North America.

Our objective was to understand consumers’ and producers’ perspectives in using and providing reusable cups, as well as perceptions about “for here” culture. To address our objectives, we conducted primary and secondary research, surveying 150 campus cafe consumers, and interviewing the managers of four cafes on campus. We also conducted a thorough review of literature. We found that while most cafe customers valued the environmental impacts of their actions, inconvenience was the key barrier preventing consumers from using reusable “to go” options. We propose that there is a lack of consumer awareness about the environmental impacts of single-use coffee cups. Furthermore, we determined that most barriers preventing customers from choosing “for here” were related to infrastructure, for example a lack of space or access to outlets. From our interviews we learned that the shareable reusable mug program, Mugshare, was highly recommended by cafe managers, however the program was also suffering from issues related to losses.

Moving forward, we recommend that UBC Sustainability increase environmental awareness for both customers and cafe employees to promote behavioural changes. Making reusable “to go” options more convenient for consumers will also be a key factor in increasing reusable cup use. The Mugshare program may be a good alternative to personal reusable “to go” mugs, however, changes should be made to the program to prevent losses and increase the accountability of its users. Finally, the social and wellness aspect of “for here” can be used to promote “for here” culture. More research should be done to explore how “for here” culture can be implemented in cafes. By increasing environmental awareness, improving and promoting the Mugshare program, and further exploring “for here” culture, UBC Sustainability and campus coffee customers will be equipped with the knowledge and tools they need to effectively change their behaviours and reduce waste production, protecting ecosystems and waterways from pollution and harm.

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1. INTRODUCTION

1.1 RESEARCH TOPIC

An estimated 1.7 million single-use coffee cups were used at UBC in 2017 (The University of British Columbia, n.d.). UBC coffee culture is fast-paced and very dependent on disposable cups. The university is transitioning to a zero waste campus, and the extensive use of single-use coffee cups must be addressed in this transition. Our project is focused on reducing the use of disposable coffee cups by promoting reusable “to go” cups and increasing the “for here” coffee culture.

1.2 RESEARCH RELEVANCE

Coffee is one of Canada’s most loved beverages, second only to water (Morales et al., 2019). Paper coffee cups are single-use products that create a huge volume of overall waste. In order for single-use coffee cups to be properly recycled, they must be treated to remove their thermoplastic lining (Ziada, 2009). It is estimated that less than 1 in 400 coffee cups is properly recycled, with the overwhelming majority ending up in landfills or as litter (Poortinga & Whitaker, 2018).

UBC’s Zero Waste Action Plan aims to achieve 80% waste diversion by 2020. One of largest bottlenecks to waste diversion on campus is from cafes, as customer habits and the lack of “for here”

culture has led to a large amount of single-use cup waste. The UBC community is large; the university’s Vancouver campus has 54,863 students and 15,705 staff (The University of British Columbia, 2020), therefore any small change on the individual scale can lead to large consequences in culture and overall waste production. By uncovering the barriers and opportunities to the use of reusable “to go” cups and a “for here” cafe culture, we hope to provide valuable information to the UBC Zero Waste team to assist them in incorporating strategies that have the highest chance of reducing waste.

1.3 PROJECT CONTEXT

Our project was conducted at the UBC Vancouver campus. UBC has been a global and local leader in developing sustainable practices and policies, especially in terms of food systems. A sustainable food system involves environmental, social and economic outcomes, and ultimately determines the “impacts of food production, transformation, and consumption on environmental, personal, and community health” (UBC Sustainability, 2014). Several zero waste projects and studies have been launched at UBC to reduce waste production and create a sustainable, integrated food system. For example, the Mugshare

program, started in 2019, provides consumers with reusable mugs for rent from 9 cafes around campus (Mugshare, n.d.). Furthermore, UBC Campus + Community Planning has done a comprehensive Single-Use Item Consultation Report, involving over 20 food service providers around the campus, and found that approximately 80% of these stakeholders agreed to take action on reducing single-use food ware items by implementing fees, training staff on reduction, and even eliminating these items altogether (UBC Campus + Community Planning, 2018). The information obtained from stakeholders in this consultation was used to develop the ambitious UBC Zero Waste Food Ware Strategy, a 3-pronged approach to transiting UBC to a zero waste food system that was adopted in June 2019 (The University of British Columbia, n.d.). There is a large volume of single-use coffee cup waste produced at UBC, making this a key target in the strategy. Similar to Mugshare and the Single-Use Item Consultation Report, this project focuses on promoting reusable food ware (coffee cups). Additionally, this project focuses on the cultural component of food, which has not been previously done, through exploring “for here” coffee culture. There seems to be a lack of research around cultural change as a zero waste

strategy. This project aimed to add to the Zero Waste Food Ware Strategy by identifying methods to promote reusable coffee cups both “to go” and “for here” by facilitating a cultural shift.

1.4 PROJECT PURPOSE, GOALS AND OBJECTIVES

Main purpose: To transition UBC’s food system towards zero waste by fostering the shift away from a “to go” (single-use) to a “for here” (reusable) culture, with a focus on coffee cup culture.

Project Goals:

- Reduce the use of single-use items with the exception of accessibility requests to contribute to UBC’s goal to reduce single-use cups by 50% by the end of 2021
- Advocate for reusable items and promote infrastructure that supports the use of reusable food ware.

Objectives:

- Identify the barriers and constraints for businesses and consumers to transition to reusables.
- Assess and identify opportunities to increase the transition to reusables. Given UBC’s current strategies, what can UBC do to further facilitate this transition, especially in terms of the “for here” model?

- Develop a “for here!” strategy to foster the zero waste campus culture transition.
- Propose changes to reduce the use of single use foodware at UBC.

2. METHODOLOGY AND METHODS

2.1 RESEARCH METHODOLOGY

Our research incorporated the principles and ethics of Community-Based Action Research. This collaborative approach involved the participation of all stakeholders throughout the research process, as our findings will affect and be affected by them.

Those who distribute and purchase hot beverages at UBC are the stakeholders in our project. The

consumer stakeholders, who are customers at UBC cafes, were recruited as survey participants to identify their motivations and barriers when purchasing products in reusable or single-use cups.

The distributor stakeholders, managers of UBC cafes, were integrated into our research through

interviews to identify their opportunities and barriers for providing products in reusable or single-use cups. Finding trends in the feedback from both businesses and consumers allowed us to establish a greater understanding of “to go” culture, and opportunities that satisfied stakeholder motivations were identified as incentives in the transition away

from disposables. The findings obtained from stakeholders were applied in our recommendations for moving towards a zero waste campus. Through the involvement of the community on our research, the needs of our stakeholders were identified and addressed directly rather than through assumptions. Our recruitment and involvement processes followed the key BREB and TCPS procedures for ethical research. Participants were asked for consent and given freedom to withdraw consent or their responses during the entire research process.

2.2 RESEARCH METHODS

2.2.1 SECONDARY DATA COLLECTION RESEARCH METHODS

Secondary data was collected from several online platforms. The types of secondary data used and the channels used for searching varied depending on the topic/subject and availability of resources, as certain topics had more existing literature than others. For the most part, academic sources were searched for on UBC Summon (The University of British Columbia, n.d.), the online search tool for the university’s library collection. Google was used to search for non-academic sources. The key words used for our secondary literature review are listed in Table 1.

Table 1. Topics and corresponding key words used for secondary data collection.

Topic	Key words
"For here" culture	"For here coffee culture" "Dine in coffee cup culture" "Takeaway coffee" "To go coffee" "To go coffee culture" "In house coffee culture" "Barriers for coffee for here" "Coffee for here" "Coffee for here culture" "Promoting for here coffee"
Background information	"Single use coffee cup waste" "Coffee cup waste" "Zero waste" "Zero waste coffee"
Barriers	"Barriers for reusable coffee cups/mugs" "Reusable coffee cups/mugs" "Reusable coffee cup/mug habit"
Opportunities/strategies for reducing single-use coffee cup waste	"Coffee cup waste" "Single use coffee cup waste reduction post-secondary" "Promoting reusable coffee cups" "University coffee cup waste" "Reusable coffee cup strategy"

Non-academic sources were chosen based on the following criteria: published by official organizations and institutions, contained citations and evidence from reputable academic or organizational/institutional sources, and published or updated within the past 5 years to ensure that

information is relevant. Academic sources were chosen based on the following criteria: published in a peer-reviewed journal, and published within the past 10 years to ensure relevance and applicability. Some exceptions were made for publishing dates when there were no newer sources available.

Background information about the Zero Waste movement, disposable coffee cups and UBC-specific statistics was obtained mostly from non-academic sources. Information pertaining to UBC was obtained from reports and studies published by the university, its students and its various departments. Some of this information was provided by our client, and others were available from UBC websites and library archives. Information about single-cup usage in Vancouver was found in web pages and reports published by the City of Vancouver and Metro Vancouver. Information about the Zero Waste movement and disposable coffee cups was gathered from various Zero Waste organizations, recycling organizations, news reports and some academic sources.

Information about barriers and motivations were predominantly obtained from academic research studies, but some organizational records were used as well. Most of this data came from

marketing research and campaign strategies, and the majority of these sources focused on post-secondary institutions. While strategies promoting reusable “to go” cup options were abundant, we found that there was a huge knowledge gap pertaining to “for here” coffee culture, especially in academia. The only information related to “for here” coffee culture was found on non-academic sources such as blogs or opinion articles, and were not used due to their lack of adequate citations.

2.2.2 PRIMARY DATA COLLECTION RESEARCH METHODS

Our primary research method involved a combination of qualitative and quantitative research to address our objectives and answer our research questions. We collected two types of primary research data, interviews and surveys. Interviews were conducted with cafe managers to obtain qualitative information about campus coffee culture, cafe operations and customer interactions. Surveys were conducted with UBC cafe customers to obtain quantitative data about behaviours and perceptions surrounding reusable and disposable coffee cups. The businesses that our interviews and surveys were conducted at were chosen based on the following criteria: coffee focused, provide paper cups as an option for consumers, and represent one of the

major food service providers at UBC (UBC Food Services, AMS, Wesbrook Properties, etc.).

Interviews

In-person interviews were conducted with the managers of 4 cafes around campus (n=4); The Boulevard Coffee Roasting Co. (Boulevard), JJ Bean Coffee Roasters (JJ Bean), Hero Coffee + Market (Hero), and Blue Chip Cafe (Blue Chip). 6 cafes were contacted for interview requests in total, resulting in a response rate of 75%. The interviews were conducted in a semi-structured fashion, in which a set of predetermined questions were used as a guideline for the discussion. These questions were open-ended and allowed for the discussion to follow a more conversational tone (see Appendix A). The semi-structured interview structure was chosen because of its advantage in exploring opinions and perceptions and allowing interviewers to ask for clarification and additional information when necessary (Barriball & While, 1994). Furthermore, the semi-structured interview structure was well suited for our sample, in which some managers had more experience in their positions than others, and different cafes had different operating procedures (e.g. Blue Chip had just implemented “for here” ceramic ware a month prior to the interview, while

JJ Bean and Boulevard had been offering ceramic mugs since they each opened). Each interview was conducted by a single researcher and was audio-recorded with permission. Responses were transcribed after the interviews were complete using an unfocused process, in which the basic meanings of statements were recorded while colloquialisms were left out (Gibson & Brown, 2009). The interview responses were sorted by empirical coding, in which data points were grouped during the analysis process as a means of exploring the data obtained. Responses were organized into a question-answer matrix on Google Sheets, then key words and phrases were identified and divided into six codes by colour. Four of these codes were further combined into 2 categories (see Table 2 for coding and categorising scheme).

Table 2. Empirical coding scheme for interview responses.

Code	Category
Challenges for businesses	Affects businesses
Opportunities for businesses	
Challenges for consumers	Affects consumers
Opportunities for consumers	

New strategy (possible recommendations)	N/A
Miscellaneous key words	N/A

Surveys

Electronic survey responses were collected from cafe customers as part of our primary data, as well. The survey questions were both qualitative and quantitative, and responses were multiple-choice and fully-structured to prevent ambiguity (see Appendix B for survey questions). We started our data collection by selecting participants in-person at four cafes around campus, however, due to social distancing measures and class cancellations in response to the COVID-19 pandemic, we shifted to a fully electronic survey process (see section 2.3 for recruitment methods). Our total sample size, proportions of online and in-person surveys, and response rates are outlined in Table 3.

Table 3. Total number of individuals asked, survey responses received and response rate based on survey recruitment location.

	Total asked	Responses received (n)	Response rate (%)
In-person	64	54	84.4
Online	38,175	96	0.25
Total	38,239	150	0.39

Our in-person survey sample was randomly selected and representative of the wide range of UBC cafe customers, including students, faculty/staff, visitors and other campus patrons. Our online survey sample was predominantly students. We aimed to obtain a sample that was as representative of overall cafe customer demographics as possible, because we were interested in the complete range of opinions, behaviours and motivations regarding reusable coffee cup options. Furthermore, using a representative sample would ensure that our strategies and recommendations would be widely successful and sensitive to all consumers.

Most survey responses were entered into Microsoft Excel and graphed by percentage directly in Excel, as well. The relative use of reusable vs. disposable coffee cup options from the matrix question (Question 4) was performed in Excel by giving each frequency a weight (Never = 0, Rarely = 0.25, Sometimes = 0.5, Often = 0.75, Always = 1.00) and multiplying these weights by the percentage of respondents that chose a particular cup option. For example, if 50% of individuals rarely chose to use Mugshare, this was weighted as $0.5 \times 0.25 = 0.125$.

2.3 METHODS OF ADMINISTRATION FOR PRIMARY DATA COLLECTION

2.3.1 INTERVIEWS

We chose to conduct our semi-structured interviews in-person rather than electronically because it would be quicker and would allow for clarification of answers if needed. Hero Cafe, JJ Bean, Boulevard and Great Dane were contacted via email on March 2, 2020 to request interviews with their respective managers. Loafe was contacted through Instagram on March 4, 2020, then emailed on March 5, 2020. Blue Chip was also contacted via email on March 5, 2020. We received responses from Hero, Blue Chip and Loafe through our initial emails, and were able to schedule interviews with all cafes, however we did not receive follow up from Loafe after the onset of COVID-19 class cancellations, and were thus unable to conduct an interview with its manager. We did not receive responses from JJ Bean nor Boulevard following our initial emails, but were able to visit the cafes and set up interviews with the managers in-person on March 6, 2020. We did not receive any responses from Great Dane, even after visiting the cafe and leaving a note, so we were not able to conduct an interview with its manager. We interviewed the manager of Boulevard at the cafe on Monday, March 9, 2020, the manager of JJ Bean at the cafe on Tuesday, March 10, 2020, and the

manager of Open Kitchen and Hero Cafe at the cafe on Wednesday, March 11, 2020. We interviewed a manager of Blue Chip over the phone on Thursday, March 19, 2020 rather than in-person as the Nest, the building where Blue Chip is located, had closed due to COVID-19 social distancing measures. All interviews were approximately 15-20 minutes long, and were audio-recorded for later transcription to allow the interviewers to fully focus on the interviews.

2.3.2 SURVEYS

Our survey was hosted electronically on The UBC Survey Tool, which is provided by Qualtrics (UBC Information Technology, n.d.). We chose an anonymous electronic server to create consistency in administration (i.e. no differences due to different researchers asking the questions), promote honest responses by preventing fear of judgment, and prevent human error in recording responses. The dates and locations that we conducted our in-person surveys are outlined in Table 4.

Table 4. Locations, dates and times of in-person survey recruitment, and number of responses from each.

Location	Date	Time	Duration (hours)	Responses
Blue Chip	Wednesday March 4, 2020	10 a.m. - 2 p.m.	4	4

JJ Bean	Friday March 6, 2020	2:30 p.m. - 4 p.m.	1.5	13
Blue Chip	Monday March 9, 2020	10:30 a.m. - 12 p.m.	1.5	15
Tim Hortons	Monday March 9, 2020	12:15 p.m. - 1:45 p.m.	1.5	17
Great Dane	Wednesday March 11, 2020	10:30 a.m. - 12 p.m.	1.5	5
Online	Tuesday March 17 - Wednesday March 18, 2020	(Mar. 17) 10 a.m. - (Mar. 18) 4 p.m.	30	96

During our first attempt at surveying (at Blue Chip), we recruited every tenth customer that was waiting in line to purchase a drink, however we found that the queue was not long enough and moved too quickly to allow participants to complete the survey in time to order. In the latter 5 locations, we recruited participants by standing at the end of each cafe bar and asking every fifth customer waiting for their drinks to take part. iPads, either provided by SEEDS or personally owned by one of the researchers, were given to participants to fill out their responses onto. By Wednesday March 11, customers had become cautious and social distancing measures were increasing, and we were

unable to obtain many responses (see Table 4; Great Dane). As we had only obtained half of our target response number at this point, we chose to recruit more participants over three UBC Facebook pages (University of British Columbia (UBC) - Class of 2020, UBC Class of 2021/2022 (Official Group), and University of British Columbia (UBC) Class of 2023 (Official Group)). We posted a short introduction and link to our Qualtrics survey (see Appendix C for example of recruitment post), then closed the survey after 30 hours. Although we had two recruitment methods for survey participants, we did not find that participant responses changed based on the channel by which they were recruited, so we analyzed all survey data together.

It is important to note that only three of the four cafes that we recruited in-person survey participants at were involved with the Mugshare program. This may have skewed our results for the proportion of respondents who used Mugshare.

3. RESULTS

3.1 SURVEY

We collected 150 responses in total, of which 96 were recruited online and the remaining 54 were

from 4 cafes on campus (Fig. 1). 89.33% of participants identified as students, 6.67% were faculty/staff of the university, 2.67% were visitors, and 1.33% self-identified as alumni/contractors (Fig. 2).

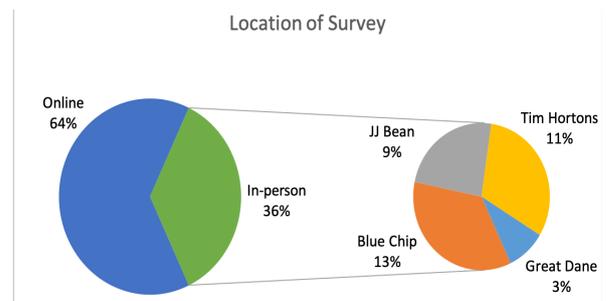


Figure 1. Percentage of responses from survey recruitment locations.

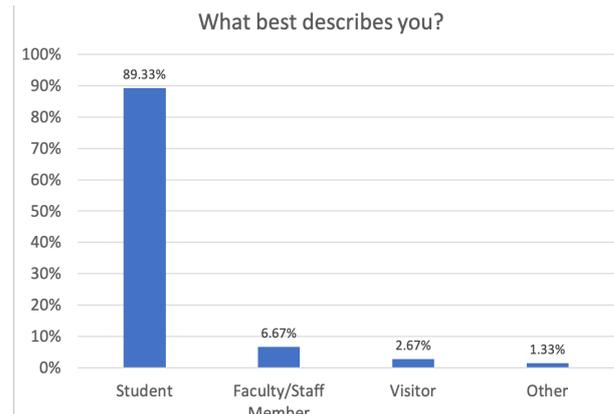


Figure 2. Identities of survey participants.

3.1.2 CUSTOMER CONSUMPTION HABITS

To understand customer consumption

habits, we first asked participants how frequently they purchased hot beverages each week (Fig. 3).

20.7% of the participants purchased coffee less than once each week, 33.33% purchased 2 to 3 cups weekly, 32.67% purchased 4 to 5 cups per week, 10.67% purchased 6 to 7 cups per week, and 2.67% purchased over 7 cups of coffee per week.



Figure 3. Distribution of hot beverage purchase frequency of survey participants per week.

3.1.2 CHOICE OF CONTAINER

We then asked the participants how frequently they used reusable or disposable containers when purchasing hot beverages, and how frequently they chose to get their drinks “for here” or “to go.” This question was asked as a matrix, and its framing and complete responses are displayed in Appendix D. Most notably, all options other than “Mugshare cup, to go” are fairly evenly spread across frequency of use. The responses to this question revealed that the Mugshare program does not have high participation, with the majority of respondents (83.33%), having never used it.

We compared the relative frequency of use of reusable and disposable cup options (see Figure 4). “Reusable” included reusable cups provided by the venue, for here, reusable cups from home, to go, and Mugshare, to go. “Disposable” included disposable cups provided by the venue, to go, and

disposable cups provided by the venue, for here.

This analysis revealed that disposable options were used more than reusable options, and that consumers were purchasing drinks “to go” more frequently than “for here” on average. Again, the Mugshare option is used infrequently in comparison to the other reusable options.

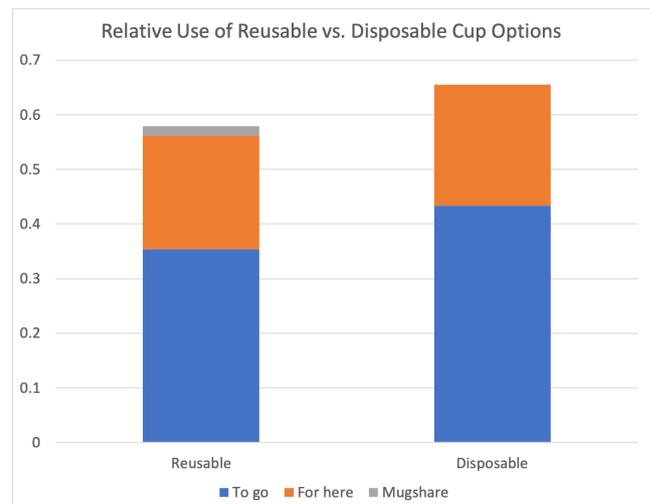


Figure 4. Relative use of reusable and disposable cup options.

3.1.3 REASON FOR “FOR HERE”

We asked participants that at least chose “for here” options rarely why they did so (Fig. 5). The most frequent responses were “studying” and “meeting someone at the cafe,” at 23.20% and 20.26% respectively. 14.05% stated that it was because they wanted to stay and enjoy the drink, and another 4.58% participants chose the option because drinks taste better out of a real cup. 10.46% and 9.8% chose “for here” because of environmental

reasons or enjoying the cafe atmosphere, respectively. Additionally, 6.86% chose “for here” because they wanted access to plugs, and 5.88% said it was because they forgot their “to go” cups. Lastly, 4.58% of participants chose “for here” to save 25 cents by avoiding using a to go cup. A single participant chose “other,” specifying that they would choose “for here” if they were already sitting down to eat.

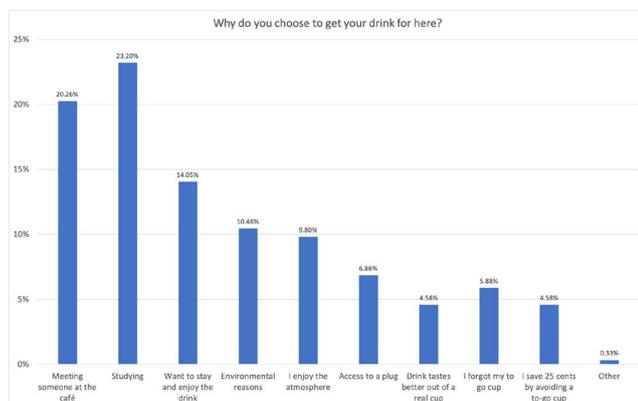


Figure 5. Reasons that participants choose to get their drinks “for here.”

3.1.4 BARRIERS

3.1.4.1 BARRIERS PREVENTING “FOR HERE”

We asked participants who never had their coffee “for here” in reusable cups what their reasons were for not doing so (Fig. 6). The most frequent response was not having enough time to sit down and drink their coffee, with 33.09% of respondents choosing this option. 23.02% stated that it was due to a lack of seats in the café, 15.11% believed there

was no reason for them to stay, and 9.35% cited the

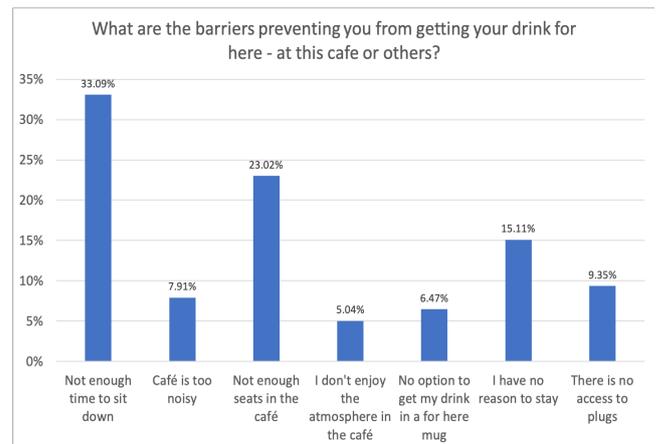


Figure 6. Barriers that prevent participants from having beverages “for here.”

lack of access to plugs. On the other hand, 7.91% and 5.04% reported that they thought the café was too noisy or did not enjoy the atmosphere, and 6.47% reported that there was no option for them to get their drinks in a “for here” mug.

3.1.4.2 BARRIERS PREVENTING REUSABLE “TO GO” CUPS

We asked participants who did not carry reusable cups why they did not do so (Fig. 7). Inconvenience was the most frequently cited reason for not carrying reusable cups, with agreement from 51.11% of participants. 31.11% reported that they did not buy enough hot beverages to carry reusable cups, and 6.67% said that they were not interested in the related environmental issues. All of the respondents of this question were aware of the economic incentives, and 11.11% cited other factors

in their decision, such as forgetting to carry reusable cups, not being able to find a cup large enough, and not being sure which cafes accept them.

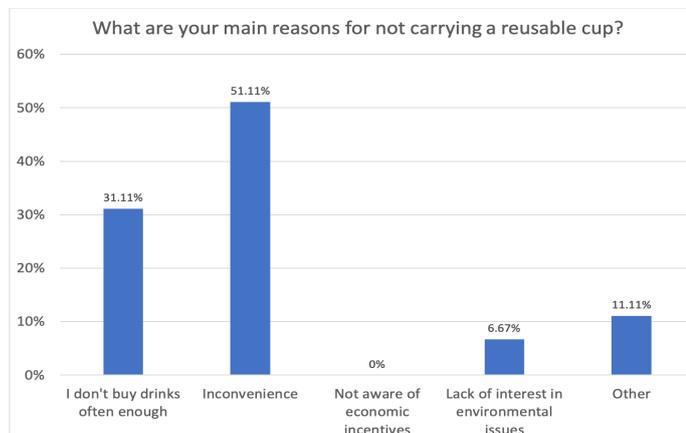


Figure 7. Main reason that participants have for not carrying reusable cups.

We then asked participants what they thought was the most inconvenient aspect of carrying reusable cups around (Fig. 8). 30% claimed that it was due to the volume and weight of the cups, 46% stated that it was due to the difficulty of maintenance (cleaning the cup, etc.), and 69% cited the difficulty of remembering to bring their cups with them. 28% of respondents stated that all three of these factors were equally inconvenient, and the 4% who selected “other” specified leaking and the insulation preventing them from drinking the coffee as inconveniences.

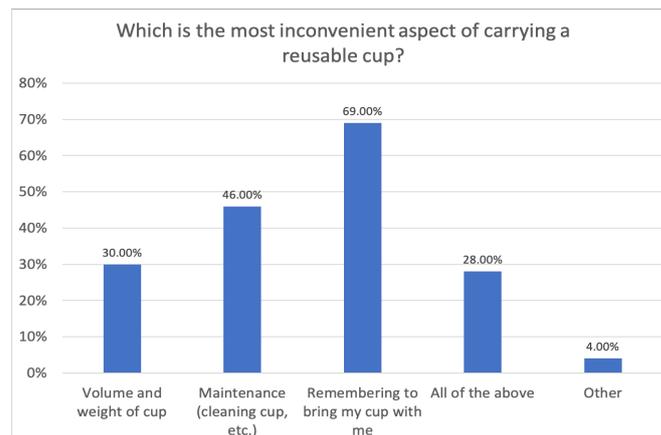


Figure 8. Inconvenient aspect of carrying a reusable cup

3.1.5 VALUE

3.1.5.1 NON-USERS’ MOTIVATIONS FOR REUSABLE “TO GO” CUPS

We asked those that do not use reusable “to go” cups what the main reasons would be for them to start. The majority of respondents (58%) claimed that it would be for environmental reasons, 26% cited economic incentives, 14% for safety or cleanliness, and 2% for trendiness (Fig. 9).

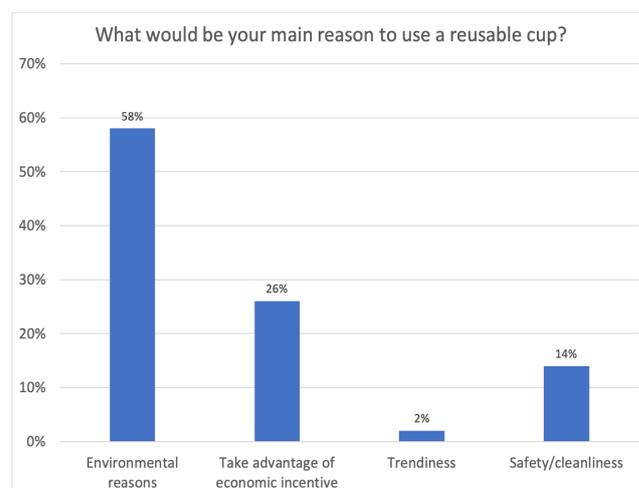


Figure 9. Customer motivations for using reusable cups.

3.1.5.2 USERS' MOTIVATIONS FOR REUSABLE TO GO CUPS

We asked participants that use reusable to go cups about the importance of three factors in their behaviours: convenience, environmental impact, and cost. For convenience (Fig. 10), 44.14% participants ranked this factor as “very important”, 40.54% as “somewhat important”, 8.11% as “neither important nor unimportant”, and 5.41% as “somewhat unimportant”, and 1.80% as “not at all important”. 1.8% of respondents reported that convenience was “not at all important.”

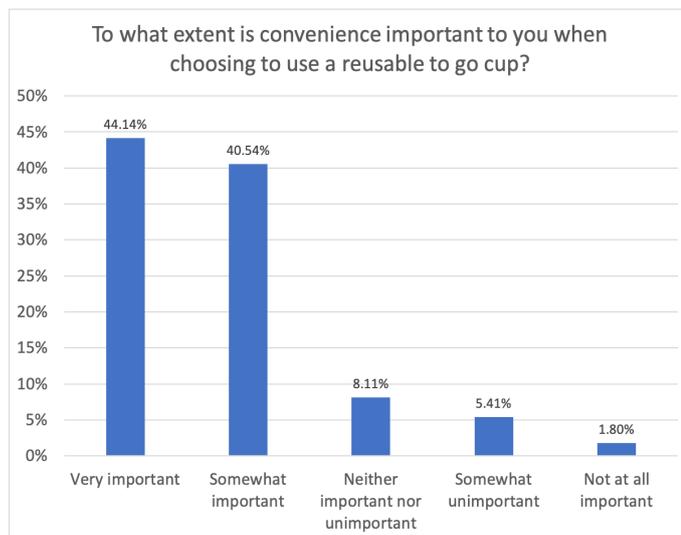


Figure 10. Importance of convenience for customers that use reusable to go cups.

When asked about environmental impacts (Fig. 11), 53.36% claimed this was “very important,” 38.18% thought it was “somewhat important,” and the remaining 5.46% thought this was “neither

important nor unimportant,” “somewhat unimportant” or “not at all important.”

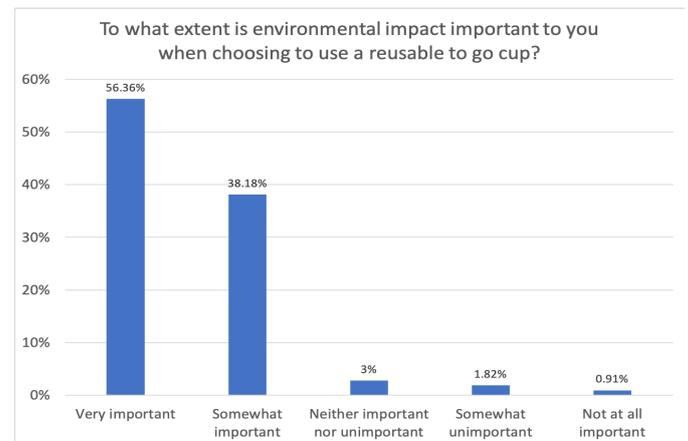


Figure 11. Importance of environmental impact for customers that use reusable to go cups.

Lastly, 18.02% participants felt that cost was “very important,” 35.14% thought it was “somewhat important,” and 18.92% stated it was “neither important nor unimportant.” 20.72% felt cost was “somewhat unimportant,” and 7.21% thought it was “not at all important” (Fig. 12).

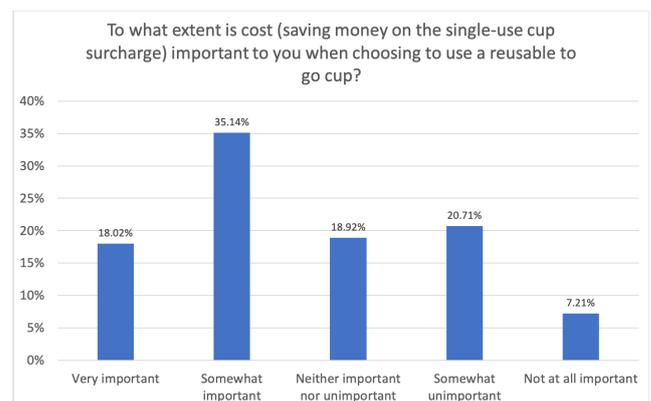


Figure 12. Importance of cost for customers that use reusable to go cups.

3.2 INTERVIEWS WITH CAMPUS CAFÉ MANAGERS

3.2.1 CHALLENGES FOR BUSINESSES

The interviews revealed that the cafes experience difficulty in sustainably providing and promoting reusable options to their customers. The 25 cent surcharge on disposable cups was put in place to discourage their use while at the same time promoting a circular economy through the use of reusable mugs. However, cafes noticed that customers would get their drinks “for here” to acquire the discount and then would ask for a disposable cup to transfer their drink into before leaving. This completely defeats the purpose of this system and the principles of a circular economy. All cafes experienced slight increases in operational costs due to their customers breaking their ceramic mugs or not returning them. All cafes reported a net loss of Mugshare cups, as well, due to customers keeping them or returning them damaged or incompletely. One interviewee suggested that the \$2 deposit was causing customers to want to keep the mugs. Without a tracking system in place for ceramicware and Mugshare, it is impossible to keep track of the cups and recover them if they are lost or stolen. Additionally, due to the COVID-19 pandemic, the serving of drinks reusable containers had to be halted at all UBC cafes. This highlights the vulnerability of solely using reusable cups during

local or global issues relating to food safety and human health. Disposable cups provide a secure method of packaging that is food safe and reliable.

3.2.2 OPPORTUNITIES FOR BUSINESSES

One interviewee stated that their cafe was able to save money and time by buying fewer disposable cups. All four cafes interviewed emphasized that implementing the 25 cent surcharge and Mugshare were easy to do. Both Mugshare and the surcharge were easy to explain to customers and integrate as part of normal operations. This ease in implementation could be attributed to the interconnectedness of cafes on campus. The surcharge was implemented in all cafes across campus, and while Mugshare is not provided at all cafes (only 9 at the time of publication), the cups can be used at any cafe that serves drinks in personal mugs. The manager of Blue Chip noted that the Mugshare cups were easy to store, clean and count. The manager of Boulevard stated that the implementation simply involved adding a new button, and that cleaning “was as easy as any other dish.” These Mugshare cups are more durable than the other alternative reusable foodware, ceramic mugs, preventing losses due to breakage. The

manager of Blue Chip stated that the Mugshare program fits well into the North American “on-the-go” coffee culture while being sustainable. Overall, both the Mugshare program and surcharge were easy for cafes to implement, and the Mugshare program can reduce financial losses due to broken ceramicware.

3.2.3 CHALLENGES FOR CONSUMERS

The biggest challenge for using reusable cups, noted by all four interviewees, was the habits of their customers. All cafes noticed that customers did not plan or schedule time in their routines to purchase coffee. Instead, they try to fit their coffee habits into an already busy schedule. People tend to be rushed when purchasing coffee and this has created a collectively busy culture at campus cafes. The manager of Hero Cafe attributed this shift to big companies, such as Starbucks and Tim Hortons creating a “grab-and-go” coffee culture. A general lack of awareness of the environmental impacts of disposable cups and improper disposal was also reported by two interviewees. The manager at Blue Chip stated that there is a disconnect between waste, packaging and people, which encourages people to use single-use disposable cups.

3.2.4 OPPORTUNITIES FOR CONSUMERS

There was some anecdotal evidence from interviewees that customer behaviours have changed in terms of environmental awareness. The manager at JJ Bean suggested that this awareness aided in promoting the discount for “for here” mugs provided by the cafe and also, in promoting people to bring their own containers. Customers taking advantage of the economic incentive due to greater awareness of the surcharge was expressed by the Hero Cafe manager, as well. Many customers dine-in at Hero, and the manager noted that drinking coffee should be a social event. The manager also suggested having signage highlighting the environmental impacts of single-use cups to discourage their use. They also suggested incorporating the reusable mugs into welcome packages for first year students and creating some sort of system to manage these cups. In terms of Mugshare, the program is fairly accessible for users; the cups are able to be picked up or dropped off at any participating cafe, and can be used at any cafe offering drinks in personal cups. The surcharge seems to be well accepted by the customers as cafe managers did not receive many negative responses regarding it. JJ Bean provides an additional discount

for reusable “to go” mugs, and the manager noted that this additional surcharge was effective in promoting their use.

3.3 SECONDARY LITERATURE REIVEW

By conducting a secondary literature review, we were able to further explore the challenges related to reducing waste production by promoting the use of reusable cups. Upon identifying these issues, recommendations can be made to eliminate or alleviate them. Our secondary literature review revealed there is a lack of public knowledge about waste issues and misconception around disposable paper cups. It also highlighted the importance of knowledge in promoting changes in behaviour.

Igniting behavioural change and sustainable consumption requires a system that provides consumers with education on the issues around waste. While some communities are well-informed of the impact of waste on ecosystems and global climate change, there is an overall lack of knowledge in many consumer groups about how and what behavioural changes can affect the environment (Zaman & Lehnmann, 2011; Timlett & Williams, 2011; Corvellec, 2016; Priefer et al., 2016; Silva et al., 2017; Hutner et al., 2017). Educating consumers

about the importance of sustainable consumption through behavioural change can provide essential knowledge (Zaman & Lehnmann, 2011; Uyara & Gee, 2013; Halloran et al., 2014; Permana et al., 2015; Beitzen-Heineke et al., 2017; Hutner et al., 2017).

This essential knowledge provides values and skills required to contribute to waste reduction and sustainable waste management.

Unfortunately, many people are not willing to change their behaviour of high-level consumption despite being responsible for creating a massive pressure on Earth’s ecosystems and waterways (Zaman & Lehnmann, 2011). A similar survey to our own was conducted at Iowa State University. The researcher surveyed faculty, staff and students to determine the barriers preventing consumers from using their own coffee containers. The most commonly cited reasons were inconvenience in regards to carrying around the mug, and maintenance such as cleaning (Lee, 2015). This result matches our own finding that inconvenience is the biggest barrier for consumers. However, this study found that those who did bring their own reusable cups took great pride in their actions (Lee, 2015). Forming a habit allowed individuals to overcome the barrier of inconvenience. Once the

habit of carrying a reusable mug around and regularly washing it was formed, it no longer became a hassle to the reusable container users (Lee, 2015), and instead became a source of pride.

Knowledge can shed light on misconceptions in the public. It is estimated that less than 1 out of 400 disposable coffee cups that are sorted for recycling in the United Kingdom are properly recycled; the rest end up in landfills or as litter (Poortinga & Whitaker, 2018). This is mostly due to the polyethylene lining of cups, which must be separated from the paper in special facilities that are not widely available (Poortinga & Whitaker, 2018). To make the matter worse, coffee cups are “high volume low value” materials, which makes them economically inefficient for transport and recycling (Poortinga & Whitaker, 2018). People who are recycling the cups are unaware that their efforts to recycle are in reality not reducing their waste production. It is quite misleading because most people associate paper products with being recyclable. In several regions in Ontario, single-use coffee cups are sorted as “contaminants” in the recycling process and are removed from mixed paper recycling to be sent to the landfill (Ziada, 2009).

Not only does education incite individual change, but it can also provide the necessary skills to train others and create momentum for systematic change in waste management. This knowledge and demand can pressure policy-makers to implement strategies to reduce waste production and create opportunities for research. Education, training and research are needed to create policies for sustainable waste management (Zaman & Lehmann, 2011). Research can identify opportunities and barriers in our waste management systems. By considering these opportunities and barriers, a new and improved waste management strategy can be created. Continuous research allows for a cycle of improvement in current waste management strategies and the implementation of new strategies. Both improvement and implementation requires public education.

Many scholarly articles identified the political challenges in implementing the Zero Waste idea. One major challenge is in creating a mandatory waste management guidelines and policies for intergovernmental agreement (Lehmann, 2011; Matsueda & Nagase, 2012; Warshawsky, 2015; Fudala-Ksiazek et al., 2016; Ilic & Nikolic, 2016; Priefer et al., 2016; Islam, 2017). The other challenge

is the lack of commitment and support for sustainability issues from the policy makers (Uyarra & Gee, 2013; Cole et al., 2014; Zaman, 2014; Farmer et al., 2015; Permana et al., 2015; Silva et al., 2017; Xanthos & Walker, 2017).

4. DISCUSSION

Overall, it is clear that most UBC cafe customers care about the environmental impacts of their actions, however this is not translated directly to their actions. The primary and secondary data collected suggests that there is a strong correlation between choosing disposable “to go” cups and a lack of awareness regarding their environmental impacts. The survey and interview responses provide several explanations to this strong correlation. Firstly, people do not understand the environmental consequences of using single-use cups. One of the biggest misconceptions, that even cafe employees may believe, is that disposable coffee cups are always recyclable. However, when these cups are often contaminated, or cannot be processed due to their plastic lining (Poortinga & Whitaker, 2018). Most consumers are not aware of this fact, and while environmental concerns are important to both those who do and do not use reusable “to go” cups,

more customers still choose disposable options more often than reusable options (see Figure 4). Recent waste reduction campaigns run by UBC Sustainability, such as “Let’s Choose to Reuse!” which started at the beginning of 2020, do not focus on the environmental impacts of single-use cups (see Appendix E for an example poster used in this campaign), and signs above recycling bins can mislead consumers as well.

Additionally, the biggest factor preventing consumers from choosing reusable “to go” cups is inconvenience. Conversely, over 80% of survey respondents that did use reusable “to go” cups ranked convenience as “very important” or “somewhat important” in their behaviour. This suggests that inconvenience is simply a perceived barrier for those that do not use reusable “to go” cups, and that forming a habit around this behaviour can decrease the magnitude of the barrier. Data from the survey conducted by Lee (2015) corroborates this point, as he found that consumers who have developed the habit of using reusable options often found pride in their behaviours. Barriers preventing customers from choosing “for here” can also be attributed to habits, namely not having enough time to sit down, or not having a

reason to. Interviewees stated several times that the rushed coffee culture on campus can be to blame for customers' behaviours. Many customers do not schedule in the time to purchase coffee into their day, causing them to be rushed and preventing them from staying and enjoying their drinks. Habit formation will be crucial in UBC's transition to a reusable coffee culture, both in terms of for here and "to go".

The Mugshare program was spoken positively about by all four cafe managers interviewed. Unfortunately, not many customers participate in this program. Several factors may play a role in this lack of use. First, the Mugshare program is currently on hiatus and not actively promoted in cafes, so many customers may be unaware of the option. Second, safety and health concerns may strike concerns that the use of Mugshare cups may be unsanitary. This issue is further escalated by the recent COVID-19 pandemic and may result in future considerations after the pandemic. Finally, one of the biggest issues related to Mugshare is loss. Many customers opted to keep their Mugshare mugs and lose their \$2 deposit, which is not a huge price to pay for a new cup. All interviewees mentioned a sense of uncertainty

about if and when mugs would come back, and most cafes had to order more after a few months of operating.

Lastly, "to go" culture seems to be stronger than "for here" culture at UBC, and transitioning to "for here" will likely be a long-term process. The biggest barriers to promoting a stronger "for here" culture are also the most difficult ones to address. Issues of space, design and lack of access to outlets are not frivolous issues, and it is difficult to make changes to existing infrastructure. Many customers we surveyed indicated that the atmosphere is not suitable for them to enjoy their coffee or that there are not enough seats available or simply that they do not have the time. This is one of the biggest challenges we face as the only solution to this issue is a complete rearrangement of the cafes' layouts, which is costly and unlikely to be achieved by the cooperation of the cafes. It seems that customers choose "for here" for social reasons often, and this was something that we heard from the manager of Hero cafe, as well. This might be an interesting avenue to explore. Overall, we found that there is a gap in knowledge related to "for here" culture in academic literature.

5. RECOMMENDATIONS

5.1 RECOMMENDATIONS FOR ACTION AND IMPLEMENTATION

5.1.1 PROMOTING REUSABLE TO GO CUPS

As environmental messaging about single-use cups is not currently being used to promote reusable coffee cup options at UBC, it should be implemented. Environmental messaging alone was found to reduce disposable cup usage by 2.3% across 12 UK university or business cafes (Poortinga & Whitaker, 2018). Environmental concerns are the main motivating factor for UBC customers when choosing reusable “to go” options, with the majority of reusable “to go” cup users stating that environmental impact was “very important” or “somewhat important” in their decisions. Additionally, customers who did not use reusable cups most often cited environmental reasons as being their main motivation if they were to begin using them. Capitalizing on this concern by increasing the environmental impacts of single-use coffee cups would effectively promote the use of reusable “to go” cups. Environmental messaging can appeal to consumer values and morality, which Vlek (2000) argues is an effective method of promoting behavioural change in respect to the environment. It

is easy for customers to lose sight of the impact of one paper cup, therefore using powerful images and statistics could capture customer attention and urge them to change their habits and behaviours. This should be implemented in the form of signage and customer-cafe actions to increase awareness and promote behavioural changes.

Many consumers believe that coffee cups are always recyclable (Ziada, 2009), and this creates the illusion that they have a smaller environmental impact than they actually do. Since customers care about environmental impacts, reminding them that their coffee cups are not always recyclable will make them think twice about their habits and behaviours. Environmental messaging should incorporate the dynamic norms approach, which is a form of nudging that presents sustainability as a growing movement (Loschelder, Siepelmeyer, Fischer & Rubel, 2019). An example of a dynamic norm statement is “a growing number of people are changing their behaviour” (Loschelder et al., 2019). This can give customers a sense of responsibility in a growing movement, and was found to be more effective than providing facts in the form of static norms (e.g. “30% of customers use reusable mugs) (Loschelder et al., 2019).

Another form of indirect messaging is verbal prompts from cafe employees. Verbal prompts are cues or questions asked to customers (Ziada, 2009), and examples can be taken from plastic bag fees and reduction policies put into place across Canada over 10 years ago. The bag fee cue, “do you need a plastic bag today?” has been shown by behavioural economics to be the most significant behavioural change tool in the transition away from plastic bags (Ziada, 2009). This cue serves as a consistent reminder to bring a reusable bag, and makes the environmental impact of the item no longer invisible. Furthermore, this cue makes reusable bags seem like the status-quo or that most people are using them (Ziada, 2009). Cafes at UBC should implement a similar cue, such as “do you need a single-use cup today?” to indirectly remind customers of their environmental impacts. This strategy must be implemented consistently in order to be effective (Ziada, 2009), therefore cafes should train employees to use this cue during every interaction. Since almost 80% of consumers surveyed purchase hot beverages at least 1-2 times a week (see Figure 3), they will be exposed to prompts regularly, hopefully causing them to change their habits quickly. Cafe employees should be trained to

provide these prompts and utilize dynamic norms, and a handbook could be provided to all campus cafe managers to achieve this.

5.1.2 MUGSHARE

While educational messaging is an effective motivator for action, knowledge alone usually does not promote behaviour change (Poortinga & Whitaker, 2018). Providing alternatives, such as the Mugshare program, gives customers practical and actionable information to change their habits (Poortinga & Whitaker, 2018). Mugshare is the best alternative for customers who want to take their drinks “to go” as UBC transitions to zero waste. Inconvenience is the most prominent barrier preventing customers from using personal mugs, and there is no way to remove this barrier as carrying and cleaning these mugs is part of the process. Mugshare addresses many of these barriers, providing an alternative solution for those who wish to take their drinks “to go”. Mugshare is available at several UBC cafes, so customers do not need to remember to bring their mug with them. If they return their Mugshare mugs quickly, they do not need to deal with maintenance, as cafes can wash and clean them. Since Mugshare is available at

several campus and Vancouver cafes, customers can return their mugs to the most convenient location for themselves, and there is no long-term cost to participate, as customers get their \$2 deposits back when they return the mugs.

While the Mugshare program addresses many customer barriers, it has not been widely used by UBC cafe customers (see Figure 4) and is currently on hiatus. Additionally, there are many issues that cafes have experienced with the program in regards to losses. To ensure that the program is successful upon its return, some changes should be made to how Mugshare is run. Mugshare should be promoted as an alternative to single-use cups through signage in order for participation to increase. These signs should provide some information about how the program works so customers understand the simplicity of the process. They should also state that Mugshare addresses the inconvenience of using one's own reusable mugs. Additionally, employees should offer Mugshare as an option during transactions after the verbal prompt discussed in Section 5.1.1. For example, after asking if a customer needs to use a single-use cup, the employee could say "would you like to use Mugshare instead?" to directly give them an

alternative. By increasing awareness of Mugshare and its convenience, more customers will start participating in the program.

Mugshare must implement stronger incentives to reduce the number of mugs that are lost to customers. Currently, customers pay a \$2 deposit for a Mugshare mug. This is a small amount of money that many customers do not mind losing if they choose to keep the mug or forget to return it. The deposit should be raised to \$5 to increase collateral and prevent customers from keeping mugs. There is a similar program to Mugshare in Quebec called La Tasse that has a \$5 deposit fee, and this program has seen great success. La Tasse is now available at over 300 locations across the province (La Tasse, n.d.). Another way to increase accountability is to introduce a tracking system for Mugshare users. This could be done by linking Mugshare to student or faculty/staff ID cards, and providing a card or app for users without IDs. This system should track which users are borrowing mugs, if and when mugs are returned, and flag users that have a history of not returning mugs (for example, those that have 3 outstanding mug returns). By increasing incentives and creating accountability by tracking Mugshare users, more

mugs will be returned to cafes, preventing losses and allowing the program to reach a wide user base.

5.1.3 PROMOTING “FOR HERE” CULTURE

Promoting “for here” coffee culture to reduce single-use coffee cup waste is currently being explored by SEEDS and UBC Sustainability. This is a new perspective and strategy, and there is a lack of knowledge and literature relating to “for here” vs. “to go” culture. There are no documented campaigns focusing on “for here” culture, however our surveys have revealed some patterns that could be useful in future campaign strategies.

Many of the barriers preventing customers from getting their drinks “for here” are related to infrastructure, such as a lack of space or outlets (see Figure 6). “For here” can be made possible in existing large spaces such as the Nest by implementing a centralized mug sharing system that allows customers to take ceramic/reusable mugs away from cafes and return them to designated spots for cleaning and redistribution. Similar systems have been adopted by food courts in shopping malls around Canada and have decreased waste production dramatically (Chung, Birak & Glanz, 2018). This system would increase the amount of

space available to customers wishing to get their drinks “for here,” but the issues regarding losses in the Mugshare program would likely become problematic with this strategy as well, unless additional measures are taken to increase accountability.

Another method of promoting “for here” culture is by emphasizing its relationship to wellness and connection. Many customers choose to get their drinks “for here” for social or wellness related reasons, such as meeting someone at the cafe, staying for the atmosphere, or enjoying the drink (see Figure 5). North American coffee culture is much more rushed and less focused on enjoyment than in Europe, where “to go” culture is not very prevalent (Peters, n.d.). Customers may benefit from including mindfulness and social connection in their coffee habits, as these are effective ways to reduce stress and improve mental health (Galante et al., 2018; Thoits, 2011). UBC’s students stand to benefit the most from this strategy, as they experience high levels of stress during the academic year. UBC Sustainability could promote the environmental and psychological benefits of getting drinks “for here” at cafes through marketing or a week-long campaign, partnering with the Wellness Centre or individual

cafes to gain a broader reach. Strengthening the “for here” culture at UBC has the potential to greatly benefit customer wellbeing as well as change habits.

5.2 RECOMMENDATIONS FOR FUTURE RESEARCH

There is a gap in knowledge in regards to reducing waste through a “for here” coffee culture. There are several areas of research that should be explored to better understand “for here” coffee culture and how to transition UBC to one. Firstly, research should be done about what specific factors make North American coffee culture so different from European coffee culture. Culture involves several psychological, sociological and anthropological factors, so several different subjects should be explored in this research. Furthermore, since some customers choose not to stay at cafes because they do not enjoy the environment (see Figure 6), SEEDS and UBC Sustainability should determine what types of environments are conducive to a “for here” culture. By leading research in the area of “for here” coffee culture, SEEDS and UBC Sustainability can increase the set of terminology in the field and hopefully draw focus to the topic.

6. CONCLUSION

Our research revealed interesting patterns in the barriers and opportunities for UBC cafes and their customers. Most UBC cafe customers care about the environmental impacts of their actions, but there is a lack of awareness of impacts of single-use coffee cups. UBC must address this knowledge gap through education, both to customers and to cafe employees. Signage promoting awareness of the impacts of single use cups can catch consumers’ attention. Cafe employees should be able to guide consumers during interactions so they may properly understand the benefits of reusable mugs. Customers also value convenience, and this is a major barrier preventing them from using reusable “to go” mugs. Mugshare has been recommended by all cafe clients we interviewed as an effective way of promoting an increase in using reusables while addressing the problems of reusable convenience, however there are some major issues. If the Mugshare program can be improved upon to reduce losses, it can become a convenient alternative for customers buying their drinks “to go.” Finally, most barriers preventing “for here” culture are related to infrastructure and are difficult to address, but there may be a connection between “for here” culture and

wellbeing. Undoubtedly, promoting a “for here” culture is essential to increase the use of reusable cups on the UBC campus. However, based on the lack of literature, there is still a lot of research to be done in order to achieve a better understanding of “for here” culture. Ideally, all cafes on campus, including larger franchises like Starbuck and Tim Hortons, should offer reusable cups or Mugshare and be capable of educating the public about the impacts of single-use cups. Our recommendations should be implemented in order for UBC to effectively transition away from a disposable (“to go”) coffee culture and towards a reusable (“to go”) culture.

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APPENDICES

APPENDIX A: INTERVIEW QUESTIONS

1. Do you keep track of how many people use their own mugs, get drinks “for here” or get “to go” cups?
 - a. If yes: could this data be shared with UBC?
 - b. If no: do you have a sense of how many people use their own mugs/get their drinks in a “for here” mug vs. people who ask for “to go” coffee cups?
2. Do you provide for here mugs, partner with mugshare and/or allow customers to use their own mugs? If so, what have been the most challenging aspects of the shift towards reusables? Has it gotten easier over time?

3. What are the main barriers/obstacles preventing your business from Providing "for here" mugs?
 - a. Encouraging customers to dine in?
 - b. Partnering with Mugshare?
 - c. Encouraging customers to bring their own mugs?
 - d. Are there any actions being taken to overcome these, and if so, what are they?
 4. What are the benefits that reusable cups bring to the business, if any?
 5. Are you familiar with UBC's policies around coffee cups, namely the 25c fee policy? What kind of feedback have you gotten about UBC's coffee cup policies from customers?
 6. For larger scale franchise cafes, what are the barriers in implementing zero waste strategies at UBC under your company's corporate policies? Examples of zero waste strategies are like cup free "for here" options, bring your own mug, Mugshare, etc. For smaller cafes, what are the barriers of implementing zero waste strategies when UBC has its own policies? Are you allowed to give customers incentives for "for here" mugs, for example?
 7. For places that don't have any strategies, would you consider implementing more zero waste strategies? Why or why not? And if so, which ones? What about those that already have these strategies you may know of, what do you think about the strategies those cafes implemented?
 8. Do you think the coffee cup culture on campus poses a barrier to encouraging a zero waste framework?
 9. What is your opinion about the UBC Mugshare program in terms of encouraging customers to bring their own mugs? Does it help spread the awareness of using reusable cups effectively?
2. On average, how many times do you purchase hot beverages each week?
 - Less than once per week
 - 1-2
 - 3-4
 - 5-6
 - 7 or more
3. How often do you choose to get your drink using the following (never, rarely, sometimes, often, always)?
 - Reusable cup provided by venue, for here
 - Disposable cup provided by venue, for here
 - Reusable cup that you bring from home
 - Mugshare cup, to go
 - Disposable cup provided by venue, to go
4. (If the response to question 3a) or b) is not "never"): Why do you choose to get your drink for here? Check all that apply. Meeting someone at the café
 - Studying
 - Want to stay and enjoy the drink
 - Environmental reasons
 - I enjoy the atmosphere
 - Access to a plug
 - Drink tastes better out of a real cup
 - I forgot my to-go cup
 - I save 25 cents by avoiding a to-go cup
 - Other (please specify [fill in the blank])
5. (If the response to question 3a) or b) is "never"): What are the barriers preventing you from getting your drink for here at this care or others? Check all that apply.
 - I don't have enough time to sit down
 - I find the cafe is too noisy
 - There aren't enough seats in the café
 - I don't enjoy the atmosphere in the café
 - There is no option to get my drink in a for-here mug
 - I have no reason to stay
 - There is no access to plugs
 - Other (please specify)

Appendix B: Survey Questions

1. Which best describes you? Select all that apply.
 - Student
 - Faculty/staff member
 - Visitor
 - Other (please specify [fill in the blank])

6. (If the response to 3 c) is not “never”): To what extent is convenience important to you when choosing to use a reusable to go cup?
 - Very important
 - Somewhat important
 - Neither important nor unimportant
 - Somewhat unimportant
 - Not at all important
7. (If the response to 3 c) is not “never”): To what extent is environmental impact important to you when choosing to use a reusable to-go cup?
 - Very important
 - Somewhat important
 - Neither important nor unimportant
 - Somewhat unimportant
 - Not at all important
8. (If the response to 3 c) is not “never”): To what extent is cost (saving money on the single-use cup surcharge) important to you when choosing to use a reusable to go cup?
 - Very important
 - Somewhat important
 - Neither important nor unimportant
 - Somewhat unimportant
 - Not at all important
9. (If the response to 3c) is “never”): What is the most inconvenient aspect of using a reusable cup?
 - Volume and weight
 - Maintenance (cleaning cup, etc.)
 - Bringing cup with you
 - All of the above
 - Other (please specify [fill in the blank])
10. (If the response to 3c) is “never”): Are you aware of the economic incentives offered to customers who use a reusable cup?
 - Yes
 - No
11. (If the response to 3c) is “never”): What are your main reasons for not carrying a reusable cup? Select all that apply.
 - I don’t buy hot beverages enough to use my own cup
 - Inconvenience
 - Not aware of economic incentives
 - Lack of interest in environmental issues
 - Other (please specify)
12. (If the response to 3c) is “never”): Which is the most inconvenient aspect of carrying a reusable cup?
 - Volume and weight of cup
 - Maintenance (cleaning cup, etc.)
 - Remembering to bring my cup with me
 - All of the above
 - Other (please specify [fill in the blank])
13. (If the response to 3c) is “never”): What would be your main reason to use a reusable cup?
 - Environmental reasons
 - To take advantage of the economic incentive
 - Trendiness
 - Safety/cleanliness
 - All of the above
 - Other (please specify [fill in the blank])

APPENDIX C: RECRUITMENT SCRIPT FOR ONLINE SURVEYS

Are you a coffee or tea drinker?

I am a student in Land and Food Systems. For my LFS 450 project, my team is looking for strategies to convert UBC campus into a Zero Waste Campus. We are focusing on reducing single-use coffee cups to reduce waste and promote the Zero Waste Foodware Strategy as part of UBC’s Zero Waste Action Plan.

Do you have 3 minutes for a quick survey? There is a \$25 gift card incentive! Thanks so much!

https://ubc.ca1.qualtrics.com/jfe/form/SV_9BqN6tXWJkMB5SB

APPENDIX D: MATRIX QUESTION AND ANSWERS

Which of the following options do you pick most often in regards to purchasing hot beverages? (One response per line)

Response	Never % (n)	Rarely % (n)	Sometimes % (n)	Often % (n)	Always % (n)
Reusable cup provided by venue, for here	37.05 (53)	19.58 (28)	18.88 (27)	18.18 (26)	6.29 (9)
Disposable cup provided by venue, for here	34.51 (49)	18.31 (26)	21.23 (30)	17.61 (25)	8.45 (12)
Reusable cup that you bring from home	23.97 (35)	14.38 (21)	17.81 (26)	34.93 (51)	8.90 (13)
Mugshare cup, to go	83.33 (115)	10.14 (14)	4.35 (6)	2.17 (3)	0 (0)
Disposable cup provided by venue, to go	10.64 (15)	17.02 (24)	21.28 (30)	32.62 (46)	18.44 (26)

APPENDIX E: SAMPLE “LET’S CHOOSE TO REUSE!” POSTER



APPENDIX F. SUMMARY INFOGRAPHIC PREPARED FOR CLIENT

REDUCING COFFEE CUP WASTE AT UBC

SEEDS & UBC Sustainability



CUSTOMERS WANT CONVENIENCE

- 51% of customers don't use reusable to-go cups due to inconvenience
- This includes remembering to bring their mugs, carrying and cleaning them.



Increase promotion of Mugshare.
Increase deposit to \$5 and introduce a tracking system.

CAFES LOVE MUGSHARE, BUT...

- Businesses struggle with losses when customers don't return them.
- 83% of customers have never used the program.

CUSTOMERS CARE ABOUT THE ENVIRONMENT

When customers were asked about the importance of environmental factors in their behaviours...



58% of disposable cup users

93% of reusable cup users

Responded that environmental factors were important in their decisions.

But there's not enough awareness about the impacts of disposable cups.

Environmental awareness should be increased with signage and verbal prompts

"FOR HERE" CAN DECREASE CARBON FOOTPRINT

Materials like plastic lids and plastic lining within coffee cups are hard to be decomposed.

By reducing the usage of disposable cups we can reduce the environmental impact.



"FOR HERE" SHOULD MEAN WELLNESS & SOCIAL CONNECTION



Most customers choose "for here" when they want to savour their drink, enjoy the atmosphere, or are meeting a friend. Slowing down and choosing "for here" can reduce stress and promote wellness