

Net Zero Checkout



Final Report

COEC 497 002

New Enterprise Development

Yuxuan Deng (40173189)

Catherine Xu (88616008)

Lucas Grant (26581207)

Ravi Rinarco (57822561)

Viktor Tesarczyk (18358762)



Table of Contents

1.	Executive Summary	Page 3
2.	The Opportunity	Page 4
3.	Concept Definition	Page 4
4.	Primary Research	
	a. Survey Data	Pages 4-5
	b. Interview Data	Pages 5-6
5.	Secondary Research	
	a. Analysis of the Industry	Pages 6-7
	i. <i>Single-use Plastic Bags</i>	
	ii. <i>Paper Bags</i>	
	iii. <i>Reusable Fabric Bags</i>	
	iv. <i>Competitors</i>	
6.	Customer Relationships	Pages 7-8
7.	Distribution and Sales Channels	Page 8
8.	Major Partners and Relationships	Page 8
9.	Finances	
	a. Revenue Model	Page 9
	b. Costs and Expenses.....	Pages 9-10
	c. Sources and Uses of Funds	Page 10
	d. Break-Even	Page 10
	e. Valuation	Page 10
10.	Major Milestones	Page 10
11.	Major Risks and Mitigation Strategies.....	Page 11
12.	Exit Strategy	Page 11
13.	Founding Team	Page 11
14.	Appendices	
	a. Founder Bios	Pages 12-13
	b. Tables, Charts, and Graphs	Pages 13-16
	c. Business Model Canvas	Page 16
15.	References	Pages 17-18

1. Executive Summary

Paper bags cannot be used when raining and are bad for the environment, while textile bags are unsanitary and inconvenient. As more cities, provinces, and nations ban the use of plastic bags to adopt progressive climate policies, customers need an alternative bag that is weatherproof, eco-friendly, sanitary, and convenient. Net Zero Checkout introduces the 10-use straw bag. It's cheap, weatherproof, made from waste, biodegradable, sanitary, and convenient. Survey results have shown that the Vancouver plastic bag ban has affected 63% of grocery shoppers and 93% want a ten-use straw bag. The majority of customers are willing to pay approximately \$1.00 for our 10-use straw bag, while our manufacturing cost is only \$0.05 per bag. Another benefit of our business is the low barrier to entry given the low tech. Accordingly, we will protect our product with design and utility patents.

We plan to reach our customers in two ways: 1. Partnering with large grocery chains such as Walmart and Save-On-Foods, offering our 10-use straw bags at their checkouts. This will be our source of revenue 2. Selling/auctioning personalizable and celebrity/influencer signed bags on our website, and all the proceeds will be donated to charity. This will be our main source of marketing. As celebrities/influencers share our stories, we will expand our user base. We will be manufacturing our straw bags, so our main business partners are delivery companies and grocery chains. We hope to maintain these relationships with quality products and ethical visions. With an initial fund of \$1 million, we will break even by year two, be self-sufficient, and make \$5 million in Q2 of year 2. Our major use of funds will be in plant property and equipment. A major milestone in our business is the year two expansion into Saskatchewan, as it would triple the size of our business and lay the foundations for Ontario expansion in year 3.

One major risk we see is the low technical barrier. We hope to mitigate this by patenting our designs. Cash flow may be an issue in the first year, so we won't be paying ourselves a salary for the first year in order to reduce costs. Another potential risk is hostile takeovers. In an unavoidable takeover, we plan on exiting the industry by selling our business. Otherwise, we plan on going IPO by the end of year 3. We will have enough resources and size to support an IPO by then.

2. The Opportunity

Effective Jan 1, 2022, Vancouver City Hall put a “ban on plastic shopping bags and required fees on paper and reusable shopping bags” (Vancouver, 2021). This includes biodegradable plastics, compostable plastics, recycled plastics, PLA, polypropylene, etc. As a result of this ban, many grocery shoppers are forced to use single-use paper bags or reusable textile bags, creating massive headaches. As more municipalities, provinces, and nations adopt increasingly progressive climate change and pollution policies, these consumer pains will deepen.

Paper bags cannot carry heavy loads, cannot be reused, and are unusable when wet. Due to growing demand, deforestation is a major concern, and the production process emits heavy volumes of sulfur dioxide. Single-use paper bags are not a sustainable solution and cost more than plastic bags. On the other hand, reusable textile bags can be easily left behind when shopping, are produced unsustainably, and lack versatility. Even more alarmingly, reusable grocery bags often harbor bacteria like E.Coli and could be contaminated with fecal matter (Williams et al. 2011) since they are seldom washed by their owner. There is a desperate need to find an alternative that is durable, convenient, eco-friendly, readily available, cheap, sanitary, and can be disposed of without damaging the environment.

3. Concept definition

From sandals to baskets to hats, straw has been used for thousands of years in agrarian societies as a versatile, renewable, cheap material. However, in recent years, it's been replaced by industrial materials. Net Zero Checkout plans to reintroduce straw as an alternative bag material offering the ten-use straw bag to grocery stores and chains. It is durable when woven together, weatherproof, eco-friendly, sanitary, cheap, convenient, and can be used multiple times. Its production process is sustainable. With over 122 million tons of straw being burned as agricultural waste each year in the EU alone (Gillman, 2017), we would be giving new life to waste material and reducing CO₂ emissions from burning. Another great benefit to the straw bag is biofuel applications at the end of life. Once a bag is broken, it can become animal feed.

Furthermore, we will also offer high-end personalizable straw bags on our website that tell our story, the history of the straw, and how each purchase positively impacts the environment. Additionally, we hope celebrities and influencers can endorse us by signing our bags and spreading our message. We will auction off celebrity signed bags on our website as well. All proceeds from our website will go towards helping combat climate change. Since there is a very low technical barrier to entry, we plan to patent unique straw weave designs and straw bag folding mechanisms that enhance the user experience to protect our business. Both utility patents and design patents could potentially suit our needs.

4. Primary Research

A. Survey Data

We identified our ideal customers as individuals who shop, are concerned with the environment, and have experienced some hardship with the recent plastic bag ban. We surveyed 135 people (asking a total of 18 questions) to gauge interest. The average age of surveyees was

30 years old. 76% (103 people) live with bans on single-use plastic bags of those surveyed who reside in cities. 98 live in Vancouver, 4 live in Richmond, and 1 in Victoria. Finally, of those who listed their yearly income, 71 surveyed stated that they made an annual income of less than \$50k dollars; 43 stated an annual income of \$50k-\$150k; 11 stated an annual income of \$150k-\$210k, and 1 stated their annual income was greater than \$210k. Our survey data deduce a general customer profile that is young (30 years old), resides in Vancouver, and earns an average annual income of less than \$50,000.

Estimating consumer ‘pain,’ surveyees ranked their hardship on a scale from 0-5 (5 being the worst). The average answer was 2.75 when asked about the impact on their grocery shopping experience. 63% of surveyees stated an impact that was 3 or greater, with 41% of the total surveyed saying they have experienced an impact of 4. This informs us of a sizable consumer pain.

The current solution that many of our survey respondents switched over to was reusable bags, with 70 out of 135 surveys noting such a switch. However, many are still left unhappy using paper at the point of checkout. 76 surveyees preferred reusable for shopping, 49 said they preferred plastic, while only 10 said they preferred paper. In addition, the majority of our sample survey responses showed that they were either extremely concerned with the environmental impact single-use plastic bags have (34% of surveyees responded 5/5), or very concerned (30% of surveyees responded 4/5).

The percentage of surveyees buying shopping bags at grocery checkout was 47% of people, and those who purchase their shopping bags at retail stores account for 41%. 10% of people said they buy their shopping bags online, and the remaining 2% said they buy their bags elsewhere.

The overall consensus of peoples’ opinion on our 10-times use straw bags was very positive, with 92% of those surveyed saying they would prefer this over current alternatives. Even though only 36% of people said that they had previously used straw bags, 78% of these people said they would use them again. The WTP we found for 10 times-use straw bags was \$0.90 per bag. The WTP for a straw bag with use greater than 50 times averaged out to \$3.84.

Usability was a major focal point that people suggested we enhance, as they are interested in having a variety of sizes, and the ability to fold up our bags when commuting to stores. People also stated they would be more willing to buy the straw bag if they knew more about the environmental impacts and how they can be recycled.

B. Interview Data

We conducted 11 interviews (asking 12 questions) to capture more qualitative feedback. Our interviewee’s average age was 30, being slightly older but close to the age of our average surveyee. The distribution of gender favored males over females, with 38% being female and the remaining 62% being male. Of the 11 interviewees, 10 reside in Vancouver, with one living in Toronto.

Some respondents had already used or switched to using reusable bags post ban, with the negative impact they face mainly being the use of “inconvenient” paper bags when they forget

their reusable bags. In addition, 10 of the 11 interviewees said they are very concerned with environmental policy and outcomes. 8 of the 11 believe that more options for point-of-checkout bags that are eco-friendly, durable, and price-related reasons should be available.

We gathered that the WTP for reusable (10 times) straw bags was also \$0.90 per bag from our interviews. Justifications for this price were that it would be more convenient than paper eco-friendly than current alternatives. The WTP for reusable (50 times) straw bags averaged out to \$7.45 (at this price point 6 of 11 would purchase based on their WTP). A potential explanation for the discrepancy in WTP between our survey and interview answers for the 50-time use of straw bags is that the idea of customizability was better portrayed in our explanations than it was in the survey questionnaire.

5. Secondary Research

The shopping bag industry in Vancouver consists of three main players: single-use plastic, paper, and reusable fabric. As Net Zero Checkout, we will be attempting to permeate the Canadian shopping bag industry in 2023. The three bag types pose different prospective threats and opportunities to our straw bags.

Single-use Plastic Bags:

Single-use plastic bags remain our most globally dominant competitor at this point in time. The single-use plastic bag is currently a \$300 billion industry by revenue and growing. In fact, the industry is poised to grow globally by \$0.66 billion from 2020 to 2024, with companies in the United States, India, and Italy contributing greatly to this surge (Globe Newswire, 2020). The single-use plastic bag market is currently experiencing an upward trend in growth and is expected to continue in this fashion, albeit at a declining rate due to the COVID-19 pandemic. Despite this, around 5 trillion plastic bags are used globally per year. Single-use plastic bags are people's main choice for shopping due to their durability and lightweight. These bags are thus our most dominant competitor in terms of pure market share.

Although the market for single-use plastic bags continues to expand globally, its significance in some nations is declining, largely due to rising environmental and sustainability concerns. One example is the policy change that inspired Net Zero Checkout. Vancouver, and its surrounding cities, have recently imposed a ban on plastic shopping bags, preventing businesses from using them and offering them to their customers. This new policy reflects a grander Canadian goal for zero plastic waste by 2030. This new rule will greatly impact the industry in Canada, and will most likely result in a great loss of market share for plastic bag businesses, which, in turn, creates a market gap for our straw bags.

Paper Bags:

Presently, the paper bag industry accounts for roughly 2% of the market size of plastic bags, making up roughly \$5.2 billion of the global shopping bag market in 2022 (Future Market Insights, 2022). Furthermore, the market for paper bags, like that for plastic bags, is expecting continued growth with a forecasted \$7.3 billion in 2030. However, the market for paper bags faces several hurdles in Greater Vancouver. As a part of the plastic bag ban, the city of Vancouver has also attached a minimum fee to the use of paper bags. The law states that there

must be a “minimum fee of \$0.15 charged per paper shopping bag in 2022”, which increases to a \$0.25 minimum charge in 2023 (Future Market Insights, 2022). Thus, customers will have to pay more money to use a paper bag on top of their purchases. This could be detrimental to the sales of paper bags. This presents an opportunity for us to usurp the paper bag industry.

Reusable Fabric Bags:

Reusable fabric bags would be our closest competitors when we enter the industry. In 2018, the reusable bag industry was worth \$6.02 billion globally and is expected to reach \$10.1 billion by 2025 (MarketWatch, 2021). Further growth is expected due to trend shifts in the coming years, as more countries and businesses seek more environmentally-friendly and sustainable options. Reusable fabric bags are our closest competitors due to their expected expansion in the Greater Vancouver area. The ban has left customers with two options: purchase a paper bag for a fee when shopping or purchase a fabric bag that could be reused. As an extension of the plastic bag ban, the city of Vancouver has also stated that a minimum fee of \$1 must be charged per new reusable shopping bag in 2022 and that this fee will rise to \$2 in 2023. This creates a “buy now” system for people due to its higher expected price in the future. Therefore, reusable fabric bags arguably benefit the most from the plastic bag ban in Vancouver and the shifting trends and attitudes worldwide.

Competitors:

As for our competitors, several firms presently dominate the industry. In British Columbia, West Pack Inc., Aurora Plastics & Packaging, and Great Pacific Packaging Inc. are a few of the biggest plastic bags manufacturers in British Columbia. These companies serve single-use shopping bags to retailers and businesses in bulk. Applied Industrial Technologies (AIT) would also be one of our main competitors concerning plastic bags. They provide an array of products but are, most importantly, an ISO 9001:2008 certified distributor of plastic bags. Moreover, Bulldog Bag Ltd. and Mayers Packaging also manufacture and supply paper bags in Vancouver. These companies sell recyclable paper shopping bags and poly woven bags in bulk and personalizable reusable bags from Mayers Packaging. These companies are currently the biggest players in the shopping bag industry in Vancouver.

6. Customer Relationships

We plan to establish relationships with our customers in three ways. We will promote our business on various social media platforms such as TikTok, Instagram, Facebook, YouTube, and Twitter. In the survey, 85.1% of participants said they are concerned about the environmental effects of single-use plastic bags, and they mentioned straw bags would be more appealing if they knew more about the benefits of straw (see Appendix A). Thus, we will publish regular posts and videos regarding how we make good environmental impacts to raise brand awareness and image. Also, we will provide research and background on plastic, paper, and reusable bags and highlight what makes our straw bag beneficial to enhance consumers' environmental awareness and ensure customers are proud to use our products. To engage with our consumers, we will give our followers ten reusable straw bags each month. Moreover, customers who participate in our online and offline marketing activities can receive a 5% discount on their next

purchase. Also, we will use traditional email marketing and send out periodical surveys to get customer feedback to improve the design of our straw bags.

In addition to social media promotion, we plan to create a reward and loyalty system to promote our brand and increase customer retention. According to the survey, 78 percent of individuals who had previously used straw bags said they would use them again. Customers can earn points from their purchases to boost consumer loyalty. They can get free 10-use straw bags after accumulating a particular number of points.

Furthermore, we will ask influencers and celebrities to autograph limited edition bags to help us spread the message. This will help to promote our company while increasing community engagement. Profits from the sale of these limited edition bags will also be donated to environmental organizations and charities, which is beneficial for our vision and advertisement.

7. Distribution and Sales Channels

We plan to distribute and sell reusable straw bags in two different ways. According to the survey results, 84.7 percent of respondents prefer to purchase our straw bags at stores, including grocery checkout and retail stores, while 11.9 percent prefer to purchase them online (see Appendix B). We will offer straw bags at Canadian grocery stores for the first three years, assuming that we will be the sole supplier of straw bags to such retailers. The top two places where respondents buy their preferred bags for grocery, retail, and takeout are Save on Foods and Walmart from the survey sample. Thus, we will only offer our straw bags at Save on Foods and Walmart for the first three years. In year 1, our straw bags will be used by the Vancouver Walmart (1 storefront). In year 2, we will penetrate all Save-on-Foods in Vancouver (6 storefronts) and Alberta (52 storefronts), plus all Walmarts across Alberta and Saskatchewan (72 storefronts). In year 3, Save-on-Foods' storefronts across British Columbia, Saskatchewan, and Manitoba will sell our bags (130 storefronts) and Walmart storefronts across Manitoba, Ontario, and Quebec will also sell our bags (231 additional storefronts). By Year 3, 492 Canadian Walmart and Save on Food stores will sell our straw bags.

Second, after establishing a strong customer base and brand reputation, we will broaden our sales channel and collaborate with celebrities and influencers to sell limited edition signed bags, personalized reusable, and regular 10-time reusable straw bags through our website beginning in the fourth year. The proceeds from the signature bags of celebrities and influencers will be donated to aid urgent environmental issues.

8. Major Partners and Relationships

As we aim to offer our straw bags at Canadian grocery stores for the first three years, our main partners will be Walmarts and Save-on-Foods around Canada. We aim to develop and establish a business relationship between Net Zero Checkout and the two aforementioned grocery stores based on a mutually symbiotic association hoping that all parties involved benefit from the partnership. We plan to take several steps to ensure that this is a venture of success and parity.

The relationship we establish with Walmart and Save-on-Foods will be centered around the need to be forward-thinking, environmentally friendly, and mutual benefit. As mentioned

before, Vancouver has imposed a plastic bag ban starting in 2022, and this is expected to be a trend that is followed by the rest of the country. In light of this, grocery stores have looked for alternatives to be sold and provided at their locations. This is where we propose our product and our business as a partner concurrently. Firstly, our product solves the “pain” that grocery stores have concerning this new policy. With the ban on single-use plastic bags, Walmart and Save-on-Foods are left with paper bags and fabric bags as alternatives. As explained before, our straw bags are not only more environmentally-friendly than these options but also more cost-effective. Our straw bags would thus alleviate some of these stores’ financial burden and potentially create a larger profit margin, reducing their costs and expenses.

Additionally, establishing a partnership would boost Walmart’s and Save-on-Foods’ respective images and public perception. As the need for sustainability and eco-friendliness rises, businesses like these must be able to cater to the trends and public perceptions to continue to succeed and grow. Partnering with Net Zero Checkout would be an excellent move by Walmart and Save-on-Foods, as this shows that they are concerned with the threat of climate change and environmental degradation, thus providing a “greener” image for these stores and boosting their reputation amongst their customers.

To add to this, we will be partnering with local farms in BC to source wheat by-products to create our straw bags. All in all, we aim to establish these relationships by proving to these organizations the value that we add to their business and continuing to maintain exceptional service to and communication with them, in the hopes that trust is built between our respective companies, credibility is established, and mutual success is achieved.

9. Finances

A. Revenue Model

We will rely on our business-to-business (B2B) revenue stream. As our revenue model is pay-per-use, acquiring contracts will be essential for our company’s growth. This entails supplying standardized 10-use straw bags to partnering supermarkets. We will sell our bag for \$0.50 to stores. We assume that by year 1, we can partner with a Walmart in Vancouver (the sole Walmart in this area). With this acquisition and from our primary research, we estimate to be able to sell 1.683 million units, as most consumers were concerned with the environment and annoyance of paper bags. This figure comes from Walmart’s own estimation of the number of plastic bags they reduced per Canadian store when they stopped selling them (Walmart Canada to Eliminate Single-Use Plastic Bags, 2021). We assume we’ll have acquired contracts to supply our straw bags to 492 Canadian Walmart and Save on Food stores by year three. Our projected sales over the three years based on these assumptions are \$556,330.73 (2023), \$58,772,295 (2024), \$240,375,096 (2025). Refer to the appendix for a detailed breakdown (see Appendix C).

B. Costs and Expenses

For the first 3 years, the main costs and expenses consist of equipment, direct labor, rent/lease, and delivery expenses. The dollar amounts across the three years sum to \$1.42 Million, \$6.4 Million, and \$15.98 million. The dramatic elevation in costs and expenses in 2024 and 2025 are largely associated with delivery expenses due to our assumptions around contract

acquisition. We assume that in year 1, we will have one factory, one warehouse, and 1 office in Vancouver, which we will finance over 10 years. And by year 2, we anticipate having 1 factory and 1 warehouse in Saskatchewan, which we will also finance over ten years. Refer to our appendix for a more detailed breakdown (see Appendices D, E, F, G).

C. Sources and Uses of Funds

Given that we will only begin to have a positive cash flow by the 2nd quarter of 2024, we will need enough funding to cover our expenses and thus alleviate the negative cash flow. Our expenses increase greatly after our 1st year (2023) due to the concurrent expansion of our operations. Cognizant of this, our expenses will include buildings/real estate fees, capital equipment costs, advertising costs, direct labor costs, fees associated with product development and patents, and legal fees. To fund these expenses, we expect our sources of funds to mainly consist of the owners' and other investments, and loans from other sources, such as credit unions or financing companies, like venture capitalists (see Appendix I).

D. Break-Even

We will only start to have positive cash flow and profits by the 2nd quarter of 2024. We expect to break even around this time, which equates to around 18 months of operations (see Appendix H).

E. Valuation

Using a venture capitalist method for valuation, we calculated our company's value to equal \$ 1,197,217,038. We assumed that we would be exiting after five years in making this calculation. Moreover, we estimated a P/E ratio equivalent to the estimated industrial average of 21.73 (Group Screener - Valuation Sector Pe, n.d.). Refer to the appendix for a more detailed breakdown of our calculation (see Appendix J).

10. Major Milestones

We aim to achieve several milestones within our first three years of operation. In our first year, we aim to establish our first partnership with Walmart in their Vancouver locations while also leasing one factory building, one warehouse, and one office in Vancouver, hiring five factory workers.

Our 2nd year is where we expect to achieve most of our milestones. To kick off the year, we will begin our partnership with Save-on-Foods in Vancouver while expanding our distribution to Alberta's Walmart and Save-on-Foods locations and Walmart in Saskatchewan. Financially, we expect to break after the 1st quarter of year 2, expecting total revenues to exceed \$3,000,000. We will also be building 1 factory and 1 warehouse in Saskatchewan, hiring 15 factory workers, three managers, two accountants, two marketing specialists, five straw bag designers, five customer representatives, and two website developers.

Lastly, in our 3rd year, we will be partnering with Save-on-Foods in Saskatchewan while also expanding our distribution to Walmarts and Save-on-Foods in Manitoba, Quebec, and Ontario.

11. Major Risks and Mitigation Strategies

One major risk with Net Zero Checkout would be the emergence of similar businesses adopting our business model, or “copycats.” Seeing as we would be penetrating the shopping bag market as the first movers of this sort of product and that the single-use plastic bag market is expected to suffer a decline, it can be assumed that both existing and future businesses will look to find alternatives to not only compensate for their declining sales and market share but also to exploit this market gap. This threatens our business and could drive us out of the market. We will be protecting our product with design and utility patents to prevent this. We hope to be able to protect the intellectual rights of our straw bags to prevent other businesses or individuals from stealing or imitating our business model and practices.

Furthermore, another risk we may face is the possibility of hostile takeovers and acquisitions. As a newcomer and a relatively smaller business, our entrance to the market could be met with some hostility from the existing players in the industry. Competition could thus opt to acquire our business. To this end, we hope to implement a defensive strategy to mitigate this potential issue. One example of a strategy that we could implement is an employee stock ownership program. This strategy involves creating a tax-qualified plan that grants our employees greater interest in the company. Through this, we hope that our employees are more likely to support our management than a hostile takeover. This is just one of many strategies we could adopt to mitigate potential hostile takeovers.

12. Exit Strategy

We plan to conduct an initial public offering (IPO) on the Toronto Stock Exchange (TSX) at the end of year 3 as our exit strategy for the following reasons. To begin, we intend to go public in Canada because people in Canada will be more familiar with our products and our potential for growth due to advertising than people in other countries. In addition, Net zero checkout aims to facilitate governments to achieve net-zero emissions. We want to be a part of our company's future growth potential as it extends into new markets. In this situation, an IPO allows us to retain some ownership in the company while timing the eventual sale of our shares to fit our own financial needs. Furthermore, the cost of conducting an IPO is high, including legal fees, underwriting fees, audit and accounting fees, and the IPO filing process itself. However, our projected income statement shows that our net income in 2025 will be \$143,469,335.20, which is more than enough to cover the IPO expenditures.

13. The Founding Team

The founding team consists of Yuxuan Deng (CEO/Finance), Catherine Xu (CMO), Lucas Grant (COO), Ravi Rinarco (CCO), and Viktor Tesarczyk (CHRO) (See Appendix 1). In addition to this, we will be adding several people to assist with our production and business processes. In our 1st year, we will be hiring five factory workers to help with manufacturing. In year 2, we will greatly expand our team, hiring fifteen factory workers, three managers, two accountants, two marketing specialists, five straw bag designers, five customer representatives, and two website developers.

Appendix 1: Founder Bios

Yuxuan Deng (CEO/Finance)

Yuxuan Deng has had many previous leadership experiences, from leading backcountry expeditions to organizing volunteering trips in Tibet to organizing business ventures. Currently, a third-year BIE student who has taken courses in finance, economics, data analysis, and database management. In Net Zero Checkout, Yuxuan is in charge of company direction, general strategy, organizing meetings, setting goals, conducting reviews, and delegating with team members.

Catherine Xu (CMO)

Catherine is currently in her third year of the BIE program at UBC. She has a lot of marketing and event planning experience. Specifically, she was the event planner in the North American Developing Leaders Entrepreneurship Association. She was responsible for planning, coordinating, and promoting the 2020 Canada China online Forum. Catherine is also skilled at photo and video editing, blog writing and posting, and promoting events and products for businesses on various social media platforms such as tiktok, Instagram, Facebook, Youtube, Twitter, and Wechat. Catherine will be the chief marketing officer for Net Zero Checkout (CMO). She is in charge of planning, implementing, and monitoring the overall business marketing strategy. Her responsibilities include market research, pricing, brand management, public relations, product marketing, and advertising.

Lucas Grant (COO)

Lucas Grant has previously worked as a store manager for Hansen House and Home, a decor store. He gained lots of operational experience in all walks of the business, including sales. He is currently in his 3rd year of the BIE program. Lucas will be the Chief Operating Officer (COO). He will manage the sales and production facilities to help operations run smoothly and efficiently. He will also work with the sales team to help acquire contracts to further expand our business.

Ravi Rinarco (CCO)

Currently, in his 3rd year in the BIE program, Ravi has been involved in many different organizations, ranging from being the founder of Helping Hand Sumatra, a non-profit dedicated to providing accessible education in Sumatra, Indonesia, to assisting with sales and operations in Seafood City, a seafood retail store on Granville Island in Vancouver. Through these experiences, he has had the privilege of meeting and talking to a diverse variety of people, thus developing and honing his communication and relationship management skills. As Chief Communications Officer (CCO), he will be responsible for establishing new business partnerships, managing client relations, and directing business reputation.

Viktor Tesarczyk (CHRO)

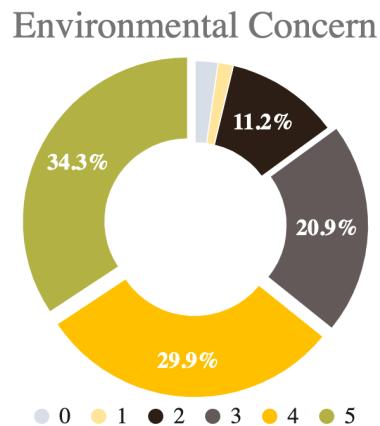
Viktor is currently in his final year of the BIE program at the University of British Columbia. In his time at UBC, he gained a significant amount of experience in leadership, event management and social media marketing through various positions in the Greek system alongside the Alma Mater Society (AMS) of UBC. Having a keen appreciation for entrepreneurship, Viktor has been working as a Growth Lead for Bounce, an events management and payments startup which also offers an array of services including corporate sponsorships, venue acquisition, and access to content creators. There, he is in charge of organizing events with premier artists, establishing new business partnerships, managing client relations, and hiring/managing campus representatives. As Chief Human Resources Officer for Net Zero Checkout, Viktor is responsible for overseeing HR compliance, hiring, and talent.

Appendix 2: Tables, charts and graphs

Appendix A



Appendix B



Appendix C

Sales Projections (Units)																	
Fiscal Year 2023																	
Companies	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total				
Walmart	141	4,462	25,091	59,500	91,626	113,702	126,661	133,685	137,341	139,206	140,149	141,097	1,112,661				
Revenue Projections																	
Fiscal Year 2023																	
Companies	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total				
Walmart	\$70.55	\$2,230.94	\$12,545.52	\$29,750.13	\$45,813.01	\$56,851.09	\$63,330.63	\$66,842.29	\$68,670.48	\$69,603.24	\$70,074.36	\$70,548.50	\$556,330.73				
Sales Projections (Units)																	
Fiscal Year 2024																	
Companies	Q1	Q2	Q3	Q4	Total	Companies	Q1	Q2	Q3	Q4	Total	Companies	Q1	Q2	Q3	Q4	Total
Save on Foods	1,735,524	19,669,272	19,669,272	19,669,272	60,743,340	Save on Foods	\$867,762.00	\$9,834,636.00	\$9,834,636.00	\$9,834,636.00	\$30,371,670.00	Save on Foods	\$27,768,384.00	\$28,636,146.00	\$29,503,908.00	\$29,503,908.00	\$115,412,346.00
Walmart	420,750	420,750	25,245,000	30,714,750	56,801,250	Walmart	\$210,375.00	\$210,375.00	\$12,622,500.00	\$15,357,375.00	\$28,400,625.00	Walmart	\$15,357,375.00	\$17,671,500.00	\$30,294,000.00	\$61,639,875.00	\$124,962,750.00
Combined Total	2,156,274	20,090,022	44,914,272	50,384,022	117,544,590	Combined Total	\$1,078,137.00	\$10,045,011.00	\$22,457,136.00	\$25,192,011.00	\$58,772,295.00	Combined Total	\$43,125,759.00	\$46,307,646.00	\$59,797,908.00	\$91,143,783.00	\$240,375,096.00
Fiscal Year 2025																	
Companies	Q1	Q2	Q3	Q4	Total	Companies	Q1	Q2	Q3	Q4	Total	Companies	Q1	Q2	Q3	Q4	Total
Save on Foods	55,536,768	57,272,292	59,007,816	59,007,816	230,824,692	Save on Foods	\$27,768,384.00	\$28,636,146.00	\$29,503,908.00	\$29,503,908.00	\$115,412,346.00	Save on Foods	\$27,768,384.00	\$28,636,146.00	\$29,503,908.00	\$29,503,908.00	\$115,412,346.00
Walmart	30,714,750	35,343,000	60,588,000	123,279,750	249,925,500	Walmart	\$15,357,375.00	\$17,671,500.00	\$30,294,000.00	\$61,639,875.00	\$124,962,750.00	Walmart	\$15,357,375.00	\$17,671,500.00	\$30,294,000.00	\$61,639,875.00	\$124,962,750.00
Combined Total	86,251,518	92,615,292	119,595,816	182,287,566	480,750,192	Combined Total	\$43,125,759.00	\$46,307,646.00	\$59,797,908.00	\$91,143,783.00	\$240,375,096.00	Combined Total	\$43,125,759.00	\$46,307,646.00	\$59,797,908.00	\$91,143,783.00	\$240,375,096.00

Appendix D

Net Zero Checkout Income Statement For The Year Ended Dec 31, 2023 (In Dollars)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Net Sales	\$ 70,55	\$ 2,230.94	\$ 12,545.52	\$ 29,750.13	\$ 45,813.01	\$ 56,851.09	\$ 63,330.63	\$ 66,842.29	\$ 68,670.48	\$ 69,603.24	\$ 70,074.36	\$ 70,548.50	
Cost of Goods Sold (COGS)													
Direct Materials	\$ 3.53	\$ 111.55	\$ 627.28	\$ 1,487.51	\$ 2,290.65	\$ 2,842.55	\$ 3,166.53	\$ 3,342.11	\$ 3,433.52	\$ 3,480.16	\$ 3,503.72	\$ 3,527.43	
Direct Labor	\$ 16,667.00	\$ 16,667.00	\$ 16,667.00	\$ 16,667.00	\$ 16,667.00	\$ 16,667.00	\$ 16,667.00	\$ 16,667.00	\$ 16,667.00	\$ 16,667.00	\$ 16,667.00	\$ 16,667.00	
Manufacturing Overhead	\$ 675.00	\$ 675.00	\$ 675.00	\$ 675.00	\$ 675.00	\$ 675.00	\$ 675.00	\$ 675.00	\$ 675.00	\$ 675.00	\$ 675.00	\$ 675.00	
Total COGS	\$ 17,345.53	\$ 17,453.55	\$ 17,969.28	\$ 18,829.51	\$ 19,632.65	\$ 20,184.55	\$ 20,508.53	\$ 20,684.11	\$ 20,775.52	\$ 20,822.16	\$ 20,845.72	\$ 20,869.43	
Gross Profit	\$ (17,274.98)	\$ (15,222.61)	\$ (5,423.76)	\$ 10,920.62	\$ 26,180.36	\$ 36,666.54	\$ 42,822.10	\$ 46,158.18	\$ 47,894.96	\$ 48,781.08	\$ 49,228.64	\$ 49,679.08	
Operating Expenses													
Wage	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Research&development	\$ 180.50	\$ 180.50	\$ 180.50	\$ 180.50	\$ 180.50	\$ 180.50	\$ 180.50	\$ 180.50	\$ 180.50	\$ 180.50	\$ 180.50	\$ 180.50	
Marketing&Advertising	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	
Benefits	\$ 2,100.00	\$ 2,100.00	\$ 2,100.00	\$ 2,100.00	\$ 2,100.00	\$ 2,100.00	\$ 2,100.00	\$ 2,100.00	\$ 2,100.00	\$ 2,100.00	\$ 2,100.00	\$ 2,100.00	
Rent/Lease	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00	
Office Supplies	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00	
Internet	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	
Utilities/Telephone Expenses	\$ 200.00	\$ 200.00	\$ 200.00	\$ 200.00	\$ 200.00	\$ 200.00	\$ 200.00	\$ 200.00	\$ 200.00	\$ 200.00	\$ 200.00	\$ 200.00	
Insurance	\$ 225.00	\$ 225.00	\$ 225.00	\$ 225.00	\$ 225.00	\$ 225.00	\$ 225.00	\$ 225.00	\$ 225.00	\$ 225.00	\$ 225.00	\$ 225.00	
Delivery/Freight Expenses	\$ 14.11	\$ 446.19	\$ 2,509.10	\$ 1,487.51	\$ 2,290.65	\$ 2,842.55	\$ 3,166.53	\$ 3,342.11	\$ 3,433.52	\$ 3,480.16	\$ 3,503.72	\$ 3,527.43	
Equipment	\$ 24,000.00	\$ 24,000.00	\$ 24,000.00	\$ 24,000.00	\$ 24,000.00	\$ 24,000.00	\$ 24,000.00	\$ 24,000.00	\$ 24,000.00	\$ 24,000.00	\$ 24,000.00	\$ 24,000.00	
Total Operating Expenses	\$ 106,969.66	\$ 107,401.69	\$ 109,464.60	\$ 108,443.01	\$ 109,246.15	\$ 109,798.05	\$ 110,122.03	\$ 110,297.61	\$ 110,389.02	\$ 110,435.66	\$ 110,459.22	\$ 110,482.93	
Total taxable income EBIT	\$ (124,244.59)	\$ (122,624.30)	\$ (114,888.36)	\$ (97,522.38)	\$ (83,065.79)	\$ (73,131.52)	\$ (67,299.93)	\$ (64,139.44)	\$ (62,494.07)	\$ (61,654.58)	\$ (61,230.58)	\$ (60,803.85)	
Tax Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Net Income	\$ (124,244.59)	\$ (122,624.30)	\$ (114,888.36)	\$ (97,522.38)	\$ (83,065.79)	\$ (73,131.52)	\$ (67,299.93)	\$ (64,139.44)	\$ (62,494.07)	\$ (61,654.58)	\$ (61,230.58)	\$ (60,803.85)	

Appendix E

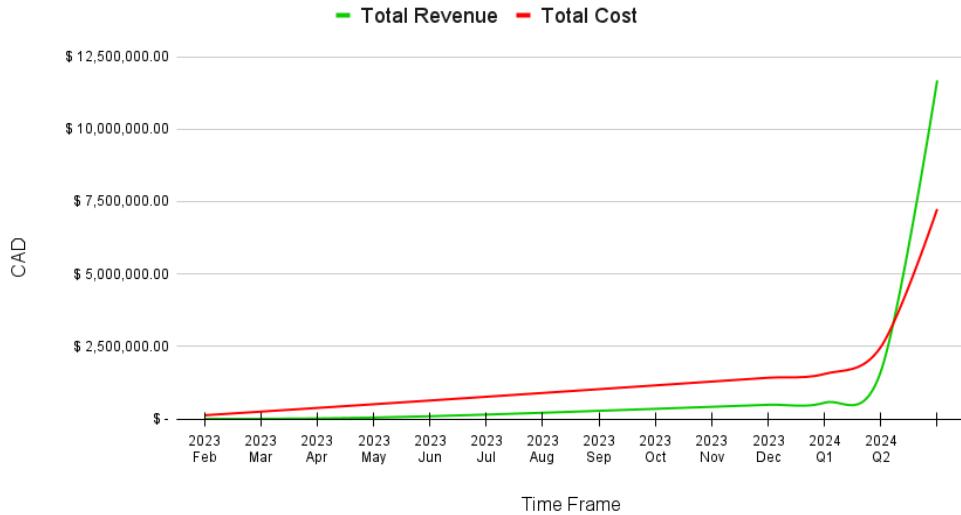
Net Zero Checkout Income Statement For The Year Ended Dec 31, 2024 (In Dollars)													
	Q1	Q2	Q3	Q4									
Net Sales	\$ 1,078,137.00	\$ 10,045,011.00	\$ 22,457,136.00	\$ 25,192,011.00									
Cost of Goods Sold (COGS)													
Direct Materials	\$ 10,781.37	\$ 100,450.11	\$ 224,571.36	\$ 251,920.11									
Direct Labor	\$ 195,000.00	\$ 395,000.00	\$ 395,000.00	\$ 395,000.00									
Manufacturing Overhead	\$ 1,475.00	\$ 2,150.00	\$ 2,150.00	\$ 2,150.00									
Total COGS	\$ 207,256.37	\$ 497,600.11	\$ 621,721.36	\$ 649,070.11									
Gross Profit	\$ 870,880.63	\$ 9,547,410.89	\$ 21,835,414.64	\$ 24,542,940.89									
Operating Expenses													
Wage	\$ 234,386.00	\$ 234,386.00	\$ 234,386.00	\$ 234,386.00									
Research&development	\$ 541.50	\$ 541.50	\$ 541.50	\$ 541.50									
Marketing&Advertising	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00									
Benefits	\$ 49,140.00	\$ 74,340.00	\$ 74,340.00	\$ 74,340.00									
Rent/lease	\$ 225,000.00	\$ 450,000.00	\$ 450,000.00	\$ 450,000.00									
Office supplies	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00									
Internet	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00									
Utilities/Telephone Expenses	\$ 200.00	\$ 200.00	\$ 200.00	\$ 200.00									
Insurance	\$ 225.00	\$ 225.00	\$ 225.00	\$ 225.00									
Delivery/Freight Expenses	\$ 53,906.85	\$ 502,250.55	\$ 1,122,856.80	\$ 1,259,600.55									
Equipment	\$ 72,000.00	\$ 144,000.00	\$ 144,000.00	\$ 144,000.00									
Total Operating Expenses	\$ 645,649.35	\$ 1,416,193.05	\$ 2,036,799.30	\$ 2,173,543.05									
Total taxable income EBIT	\$ 225,231.28	\$ 8,131,217.84	\$ 19,798,615.34	\$ 22,369,397.84									
Tax Expense	\$ 78,830.95	\$ 2,845,926.24	\$ 6,929,515.37	\$ 7,829,289.24									
Net Income	\$ 146,400.33	\$ 5,285,291.60	\$ 12,869,099.97	\$ 14,540,108.60									

Assumptions of Income Statement

Year 1 (2023)	Year 2 (2024)
Marketing costs: \$60 000/year	Marketing: \$40 000/year
R&D: \$180.5/month	Q1: direct material cost: 0.01*net sales
Delivery/Freight Expenses : 20% of Sales Revenue in the first 3 months, then 5% after March	Q2: Expand distribution to Walmarts and Save-On-Foods (SOF) in Alberta
Direct materials costs: \$0.05*net sales	Build in Saskatchewan: 1 factory, 1 warehouse, and 1 set of equipments
Manufacturing overhead: \$675/month	Utilities, internet, supplies scaled accordingly
Lease: 1 factory \$ 1warehouse (\$75000/month), 1 set of equipments(\$24000/month)	Hire:
Employee benefits: \$420/month per employee	15 factory workers (\$333.40 per month per worker)
Assume no wage for the founding team in the first year due to potential cash flow issues	3 managers (\$5000 per month per manager)
Hire: 5 factory workers and paid a wage of \$333.40/month per worker	2 accountants (\$4678 per month per accountant)
Office supplies costs: \$150/month per office/factory/warehouse	2 marketing specialist (\$4713 per month per specialist)
Internet: \$100/month per office/factory/warehouse	5 straw bag designers (\$4063 per month per designer)
Utility & telephone expenses: \$200/month per office/factory/warehouse	5 customer representatives (\$2681 per month per representative)
Insurance: \$225/month per office/factory/warehouse	2 website developers (\$4480 per month per developer)
Tax rate: 35% of taxable income	Q4: Expand distribution to Walmarts and SOFs in Saskatchewan
Distribution channel: Walmart in Vancouver	Note: In year 2, all other costs scaled accordingly based on the assumptions made in year 1.
Year 3 (2025)	
Marketing: \$20 000/year	
Expand distribution to Walmarts and SOFs in Manitoba, Quebec, and Ontario	
Note: In year 3, all other costs scaled accordingly based on the assumptions made in year 1.	

Appendix H

Break Even Point



Appendix I

Note: We break even in year 2 so no external financing will be needed beyond year 1.

Sources of Capital Year 1		
Credit Unions, Financing companies (e.g. venture capitalists)	\$	775,000.00
Owners, Family and Friends	\$	225,000.00
Total Sources of Funds	\$	1,000,000.00
Startup Expenses Year 1		
Direct Materials	\$	27,816.54
Direct Labor	\$	200,004.00
Manufacturing Overhead	\$	8,100.00
Wage	\$	-
Research & Development	\$	2,166.00
Marketing & Advertising	\$	60,000.00
Benefits	\$	25,200.00
Rent/Lease	\$	900,000.00
Office Supplies	\$	1,800.00
Internet	\$	1,200.00
Utilities/Telephone Expenses	\$	2,400.00
Insurance	\$	2,700.00
Delivery/Freight Expenses	\$	30,043.59
Equipment	\$	288,000.00
Total Expenses	\$	1,549,430.13
Total Revenue	\$	556,330.74
External Financing Needed	\$	(993,099.39)

Appendix J

VC Valuation Calculation

1. Exit at 5 years

2. Net Earnings

a) Revenue = \$ 961,500,384 (Assume it doubles each year after year 3)

b) Costs = \$410,549, 147

c) Net Earnings = \$550,951,237

3. P/E Ratio = 21.73

4. Terminal Value (TV) = (Net Earnings) • (PE Ratio) = (21.73) • (\$550,951,237)

TV = \$11, 972, 170, 380

5. ROI = 10 times

6. Value = (TV) • (ROI) = \$11, 972, 170, 380)/(10)

Value = \$ 1,197,217, 038 (Company Value Today)

Appendix 3: Business Model Canvas

The Business Model Canvas <div style="float: right; margin-top: -20px;"> <small>Designed for: COEC 497 STARTUP</small> <small>Designed by: Group 9: Net Zero Checkout</small> <small>On: 23/03/22</small> <small>Iteration #</small> </div>					
Key Partners	Key Activities		Value Propositions	Customer Relationships	Customer Segments
	<ul style="list-style-type: none"> - Straw bag production. - Cost control. - Quality control. - Straw bag design. - Customer relations. - Inventory management. - Advertisement. - Partner relationship management. 				
	Key Resources <ul style="list-style-type: none"> - Manufacturing plant, property, equipment - Bag Design team - Sales team - Website team - Startup funds - PR team/customer relations. 		<ul style="list-style-type: none"> - Our straw bags are cheaper for businesses and consumers - More convenient compared to paper, - More environmentally friendly than all the existing solutions. - More ergonomic than current paper bag options. - Utilizes wheat farming by-products; reduces waste more effectively. - Could be recycled or used for animal feed or biofuel; very sustainable. 	Social Media Promotion Special Endorsement Provide active customer support	I: B2B (main): Supply bags to businesses and can fit their specifications while complying with regulations and reducing costs. 2: B2C: Sell customizable straw bags on our e-commerce store direct to consumers. Consumers will be in a niche market that look for a sustainable vision. Limited edition celebrity/influencer bags will be sold and profits will be donated to aid climate change. At the end of the product's life, the consumer can turn in their bag to see how much pollution they've reduced.
Cost Structure The most important costs in our Business Model are those associated with the manufacturing of the bags—most notably warehouse leasing, as well as input costs. Others include operating expenses for offices. Key activity costs include marketing/advertising costs as well as research & development.			Revenue Streams Our revenue stream will mainly be centered around the sales to be sold to businesses we partner with. In terms of our B2C segment through our e-commerce store, every dollar made will be donated to sustainable initiatives. Customers currently pay \$0.15 on average for paper bags. Surveys and interviews suggest that the WTP for an alternative reusable (50 times) straw bag is \$7.45 due to it being more eco-friendly and reliable.		
www.businessmodelgeneration.com					

References:

- Applied industrial technologies inc comparisons to its competitors and market share—Csimarket. (2021). Retrieved 1 March 2022, from https://csimarket.com/stocks/compet_glance.php?code=AIT
- Gillman, S., & García, D. M. (2017, October 10). *Wheat straw waste could be the basis for Greener Chemicals*. Horizon Magazine. Retrieved from <https://ec.europa.eu/research-and-innovation/en/horizon-magazine/wheat-straw-waste-could-be-basis-greener-chemicals>
- Group Screener—Valuation sector pe. (2022). Retrieved 10 April 2022, from <https://finviz.com/groups.ashx?g=sector&v=120&o=pe>
- Paper bags market. (n.d.). Retrieved 1 March 2022, from <https://www.futuremarketinsights.com/reports/paper-bags-market>
- ReportLinker. (2020, May 18). *The Global Single-Use Plastic Bags Market is expected to grow by \$ 0.66 bn during 2020-2024 progressing at a CAGR of 1% during the forecast period*. GlobeNewswire News Room. <https://www.globenewswire.com/news-release/2020/05/18/2034954/0/en/The-Global-Single-Use-Plastic-Bags-Market-is-expected-to-grow-by-0-66-bn-during-2020-2024-progressing-at-a-CAGR-of-1-during-the-forecast-period.html>
- Reusable shopping bag market size 2022 recent developments, global trends, top manufacturers, industry share and forecast to 2025. (n.d.). MarketWatch. Retrieved 1 March 2022, from <https://www.marketwatch.com/press-release/reusable-shopping-bag-market-size-2022-recent-developments-global-trends-top-manufacturers-industry-share-and-forecast-to-2025-2021-12-23>
- Vancouver, C. (2021, November 9). Plastic Ban. Retrieved April 9, 2022, from <https://vancouver.ca/green-vancouver/bags.aspx#:~:text=Effective%20Jan%20201%2C%202022%2C%20there,not%20remitted%20to%20the%20City>
- Walmart Canada to eliminate single-use plastic bags. (2021). Corporate - Canada. Retrieved 10 April 2022, from <https://www.walmartcanada.ca/newsroom/2021/12/07/walmart-canada-to-eliminate-single-use-plastic-bags>
- Williams, D. L., Gerba, C. P., Maxwell, S., & Sinclair, R. G. (2011, August). Assessment of the Potential for Cross-contamination of Food Products by Reusable Shopping Bags. Retrieved April 9, 2022, from <https://lluh.org/sites/lluh.org/files/docs/LIVE-IT-Sinclair-Article-Cross-Contamination-R>

eusables-Shopping-Bags.pdf?rsource=medical-center.lomalindahealth.org/sites/medical-center.lomalindahealth.org/files/docs/LIVE-IT-Sinclair-Article-Cross-Contamination-Reusable-Shopping-Bags.pdf