



Sustainable Sourcing and Expansion for Frita Batidos

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Executive Summary

Frita Batidos (Frita) is a small Cuban fusion restaurant in Ann Arbor that has strong values woven within its core business. The owner, Eve Aronoff, focuses heavily on the community, developing strong relationships with her employees, customers, and purveyors. She also focuses on implementing Slow Food movement tenets by creating food from scratch using seasonal ingredients, and sourcing from farms with humane practices focused on animal treatment. Given Eve's sustainability focus, the difficulty of implementing these practices at scale, and her ideas around entering new markets, she turned to the School of Natural Resources and Environment (SNRE) Master's Project team for assistance. The main goals of the project included: (1) create a priority list and resource base for sourcing, especially animal products; (2) assess the feasibility of composting in Ann Arbor and develop a methodology for implementation in new locations; and (3) assess the viability of operating Frita Batidos restaurants in new markets and create a methodology for assessing future locations under consideration. These goals guided the 18-month Master's Project and led to corresponding recommendations. The priority list and resource base for sourcing are included in Appendix B, with taste and relationships with suppliers having the highest importance, then humanely raised, local, and organic following. Composting was deemed infeasible in the Ann Arbor location, but requirements for the layout of new locations and composting providers were determined, as described in the compost recommendation section. Lastly, within the next few years, the neighborhoods of Midtown and Downtown in Detroit were considered to be most appropriate for a second Frita location. Resources for analyzing priority neighborhoods into which Frita can expand and a methodology for assessing new cities and neighborhoods can be found in Appendix L.

Introduction

Restaurants are inherently intertwined with food and social systems. Over the past 18 months, the Master's Project team analyzed the interaction between restaurants and the community in order to understand how restaurants can positively influence these systems. The team worked with Frita to explore its impact on food and social systems and address ways to make the fast-casual restaurant industry more sustainable. The team started the project with the broad goal of understanding sustainability at Frita, including current practices, potential areas of improvement, and strategies for maintaining positive practices as the restaurant expands. Throughout the team's journey, the owner and chef, Eve Aronoff, helped the team understand her approach to hospitality and the value she places on creating a community. She also connected the team to a vast network involved in the Michigan culinary scene and the wider sustainability community. In addition to Eve's guidance, the team also regularly met with Paterno Johnson (PJ), the general manager of Frita, to gain logistical insight into everyday operations.

Frita Batidos

Eve opened Frita Batidos in December 2010 in the heart of downtown Ann Arbor. Frita Batidos is a local Cuban fusion establishment with a focus on great food, a convivial environment, and a sustainable community. Frita Batidos believes in satisfying and augmenting the lives of its guests through sharing both the culinary experience and its core values.

At Frita, Eve strives to implement the tenets of the Slow Food movement. The restaurant maintains a number of core values including supporting a warm community based around cooking and eating in the restaurant, working with local purveyors and farmers to strengthen the community, creating food from scratch using seasonal ingredients, and working with farmers who exhibit humane practices focused on good treatment of animals. Finally, Frita is focused on embedding sustainability throughout the restaurant's business practices.

Eve's Values

Eve created Frita on the foundation of the Slow Food movement's core beliefs, namely that food should be good, clean, fair, and for all (Slow Food USA, 2015):

- *Good*: "Our food should be tasty, seasonal, local, fresh, and wholesome."
- *Clean*: "Our food should nourish a healthful lifestyle and be produced in ways that preserve biodiversity, sustain the environment and ensure animal welfare- without harming human health."
- *Fair*: "Our food should be affordable by all, while respecting the dignity of labor from field to fork."
- *For All*: "Good, clean and fair food should be accessible to all and celebrate the diverse cultures, traditions and nations that reside in the USA."

These beliefs are incorporated into the restaurant's everyday operations from the time it takes to prepare the food to purveyors that source the ingredients. The Slow Food movement was established in 1989 in Rome, Italy as a counter movement to the quickly growing industrial food industry and today has more than 100 chapters and 100,000 members (Slow Food USA). By incorporating these beliefs, Frita is committed to not only providing tasty, fresh, and affordable food, but also food that is sustainable, local, and seasonal.

In recent years the conscious shift away from industrialized food has been popularized and recognized in many institutions including universities, restaurants, and national grocery store chains. This shift has allowed for supply chains and local sourcing to be created and optimized in order to provide benefits to producers, distributors, and consumers. This grassroots movement has done little to change legislation to regulate the power of agribusiness; however it has created a network of key actors in the movement, and spearheaded an international conversation about how food is grown, where it comes from, and who is growing it. "The most promising food activism is taking place at the grassroots: local policy initiatives are popping up in municipalities across the country alongside urban agriculture ventures in underserved areas and farm-to-school programs" (Pollan, 2011). This is not to say that there have been no milestones in legislation. Every five years the farm bill is reauthorized. Most recently in 2014, food movement activists

and environmentalists successfully lobbied for increased nutritional benefits, conservation, and the funding of renewable energies to be incorporated into the Farm Bill (Feinberg, 2014).

The movement and its values have contributed to Frita's success in Ann Arbor, and Eve continues to expand a collaborative community of local, sustainable purveyors to source not only her restaurant, but also other businesses in Ann Arbor. This theme of conviviality is central to Eve's values and is something that the team strived to capture throughout the project.

Project Scope

Frita places a strong emphasis on values as an integral part of its business, making it an ideal partner for the Master's Project team from the University of Michigan's School of Natural Resources and Environment. In line with the company's core values, Frita worked with the team to understand what practices are successful within its restaurant, how these successful traits can be emulated in new locations, and where they can improve. The team believes that by clearly identifying areas for sustainability gains with positive returns, the team can help Frita utilize this focus on sustainability to create new opportunities and a basis for sustainable expansion across the United States.

After developing an understanding of the business, the community, and the potential areas of focus, the team developed a multifaceted approach to explore sustainability at Frita and the implications for Ann Arbor and the wider culinary community. The team utilized this project to develop a benchmarking system and checklist to help Frita identify new potential locations. The team also analyzed certain components of the sourcing and waste stream processes including logistical features and product sourcing. This project aimed to provide a better understanding of what sustainability practices work within the business as well as a plan for improving on sustainability components and values that matter to Frita. Finally, the project was designed to develop a model for sustainable restaurant practices that can be applied and scaled as Frita expands.

Sourcing and Waste Streams

The team developed ideas to improve sustainability in product sourcing and waste streams including composting. The team identified and interviewed purveyors, analyzed current business practices, and conducted an LCA analysis where the potential for change existed. Lastly, the team analyzed potential new markets where it could maintain the aforementioned business model incorporating ethical, local and sustainable sourcing and practices.

Market Expansion

The team worked with Eve to understand Frita's Ann Arbor market and assist with research in new markets. The team logged the key success factors in this market and explored, in particular, key market characteristics, the current customer base, Eve's values, sustainability and sourcing factors in potential new markets. This led to an evaluation of balanced business opportunities alongside sustainability requirements in new locations.

Frita's strong focus on its values closely aligns these interests, and the team designed their deliverables to serve as a guide to inform the ongoing conversation regarding market expansion. In order to understand the broader culinary landscape, the team conducted market research by exploring neighborhoods in Detroit, analyzing competitors, and understanding which key success factors exist in the respective markets.

Methodology

The team employed different research methods to evaluate more sustainable sourcing methods and purveyors for the existing Frita location in Ann Arbor and for evaluating neighborhoods for potential expansion opportunities for the restaurant. Within Ann Arbor, the team gathered information through customer surveys and secondary research on sourcing.

Ann Arbor: Customer Research

In order to more clearly understand the current Frita customer, the team developed and conducted a customer survey. The survey asked for demographic information as well as customer perceptions of Frita's sustainability practices. Additionally, it was designed to help identify which factors are most important to current Frita customers - value, taste, atmosphere, use of local and seasonal ingredients, service, use of humanely raised meat, partnership with local farmers, use of organic ingredients - and how they rank Frita on each of these factors. In order to create the customer survey, the team worked with Professor Anocha Aribarg from the Ross School of Business Marketing Department as well as Piotr Dworak, a senior survey specialist from Michigan's Survey Research Operations unit. Eve also provided feedback on the survey, adding in questions relevant to new initiatives, such as desired delivery times and frequency. In addition to gathering demographic data, the survey included questions on the importance of various factors when choosing a restaurant as well as the survey respondent's rating of Frita on the same factors.

It was important for Eve to understand what her customers were willing to trade off for sustainable restaurant practices. As such, a question (Q7, Appendix A) was designed for respondents to rank in order of importance the factors of taste, use of organic ingredients, reusable dining ware, cost, use of local and seasonal ingredients, ingredient quality, composting, ambience, use of humanely raised meat, partnership with local farmers and service. Of these factors, sustainable restaurant practices as measured by the survey are: local and seasonal ingredients, use of organic ingredients, use of humanely raised meat, partnership with local farmers, composting, and use of reusable dining ware.

Other questions were specifically tailored to help Eve improve the Frita experience, such as "The one thing I would change about Frita Batidos is ____" (Q5) and "My all-time favorite menu item (currently on or off the menu) is ____" (Q6). A question about how often respondents would order Frita for delivery was designed to help Eve gauge customer interest in new service ideas (Q10). The final question (Q17) provided an open forum for customers to leave feedback, comments and suggestions. See Appendix A for the full list of survey questions.

The survey was printed and set out in the restaurant for customers to take between September 4 and September 10, 2015. It was important to Eve to maintain the Frita ambience during the survey process, so she opted to offer a treat as an incentive for those who completed the survey, rather than handing them out to every guest in the restaurant in an impersonal manner. A stack of surveys was set out by the cash register with a sign reading “Complete the Survey.” In return for turning in a completed survey, guests could grab a treat from the adjacent candy jar of homemade sweets. Given the elective nature of the survey, this methodology likely biased results in favor of guests willing to take the time to complete the survey, and guests who particularly value sweets.

Results more concretely defined who the current Frita customer is and how Frita is perceived in the marketplace. The team found the survey information to be critical when evaluating the viability of neighborhoods in new markets. Additionally, in the future, the survey results can also be leveraged to determine how best to position Frita in new locations once expansion locations have been determined.

Ann Arbor: Sourcing Research

Sourcing at Frita is based on relationships and trust. Eve prides herself on the relationships she has built with the purveyors that provide products for Frita. When deciding on new purveyors, Eve prioritizes the established relationships she has developed throughout the years over price or logistics, within reasonable bounds. Because of these relationships Frita is able to be transparent about its needs when it comes to taste and volumes. These relationships also provide a firsthand look at the conditions at each farm, further increasing transparency. The relationship for both parties is beneficial: “Farmers benefit from a reliable market and the ability to negotiate practical ‘rules and regulations’ for the partnership. The food businesses benefit from a reliable supply of high-quality raw materials, often close to the processing facilities, and from insights into the farming system, farmers’ concerns and specific social or environmental risks” (Smith, 2007). In addition to purveyor relationships, Eve prioritizes the treatment of the animals. The notion of humanely raised animals and products produced by animals is incredibly important to Eve and plays a role in her decision making when choosing a purveyor.

Through conversations with Eve, the team identified two areas of potential sourcing improvements. First, Eve requested the team identify new, local, traceable beef purveyors that employ humane practices. Second, the team developed a list of secondary purveyors in cases where primary purveyors are unable to meet volume requirements. In order to better understand Eve’s priorities when choosing purveyors, the team developed a flowchart representing these priorities (see Appendix B). Utilizing these priorities the team researched and identified potential purveyor partnerships. Coupled with providing quality products, the team’s goal was to identify purveyors that could provide multiple products; thus eliminating inefficiencies found throughout Frita’s supply chain strategy.

Once sourcing priorities were set, the team developed a survey that was used to guide conversations with farmers (Appendix C). The team identified potential purveyors utilizing Frita’s social network on Facebook in addition to contacting Frita’s current farmers. From the

recommendations gathered, the team contacted each lead to determine their ability to supply Frita with the necessary volume requirements. The team identified several potential purveyors outlined in the purveyor recommendation section.

Ann Arbor: Composting Feasibility Analysis

In order to incorporate composting into Frita, the team investigated two key components required for successful rollout of the program. First, the team assessed space logistics inside and outside of the restaurant. Second, the team researched and identified potential haulers within the Ann Arbor area to transport the diverted waste to composting facilities. With the information gathered, a best practices checklist for implementing composting in Ann Arbor and in new locations was developed and is discussed further in the Recommendations section.

Ann Arbor: Impact Analysis

In addition to sourcing locally, the team researched ways to implement sustainability into all stages of the life cycle within the restaurant system. The life cycle of food and waste requires an analysis of indicators, including economic, social and environmental (Heller, 2000). “Life cycle assessment (LCA) is an analytical method used to evaluate the resource consumption and environmental burdens associated with a product, process or activity” (Heller, 2000). The team’s LCA provides an initial assessment of key components contributing to waste at Frita that could allow the restaurant to strategically adopt recommendations within the constraints of new venues. These actions run parallel to the key tenets of the Slow Food movement and strongly align within Frita’s mission. This analysis was especially relevant as Frita recently switched from reusable to compostable silverware in an effort to reduce labor and costs associated with washing and replacing lost silverware.

A life-cycle analysis of types of various cups conducted by the team reveals their respective impacts on the environment. For this analysis, a variety of materials, usage patterns, and disposal methods for compostable (PLA), recyclable (PET) and reusable (glass) cups are used. Through a full cradle-to-grave LCA, the analysis determined the cups with the optimal performance in terms of emissions, energy, and physical footprint. Furthermore, this analysis helped to inform a larger discussion of the monetary and logistical costs and benefits of utilizing various options. A comprehensive methodology and analysis is covered in the LCA research below.

First, the team conducted LCA analyses of compostable (PLA), recyclable (PET) and reusable (glass) cups. The unit of analysis for this LCA was a 16 oz. cup. The team assumed that 64 oz., the amount typically consumed by four customers, were consumed daily in order to normalize the comparison, which is the average recommendation for active adults (Zelman, 2010). The team assumed a timeframe of one year. For the plastic and compostable cups, cups were assumed to be used once and discarded. The glass cup was assumed to be washed after each use and reused. The team assumed that all cups were used on-site at Frita. It is important to note that the lifespan of each cup varies substantially; as such, usage patterns were based on typical customer interactions with cups. Glass cups are durable, and will frequently get reused until they break or the establishment in question no longer requires them. Their useful life generally far exceeds that of a plastic or compostable cup.

Expansion: Neighborhood Research

Given the success of Frita in Ann Arbor, Eve expressed interest in expanding the restaurant to another location. In deciding upon a potential city for expansion, Eve expressed interest in exploring a diverse urban area described by many as a “serious food city.” Given the strong presence of the University of Michigan in Ann Arbor, she also expressed a natural inclination for expanding to another community influenced by a university. Additionally, given her focus on building and maintaining strong relationships with local farmers, presence of surrounding agriculture was also important. Before evaluating any neighborhoods within target cities, the team developed a checklist of key criteria to consider and data to gather before beginning an analysis of each neighborhood.

Given these considerations, she was initially interested in exploring Miami, New York, Chicago and Los Angeles. Given the fluidity of opportunities in these locations and the timeframe of the project, the team moved forward with developing a list of criteria and preliminary neighborhood research for a potential location in Detroit. Detroit was selected as a test market for the team to conduct primary and secondary research given its proximity to the University of Michigan campus and the ambiguity surrounding expansion timing in the other cities. The team employed a variety of research methods, most notably interviews with local experts in the Detroit development community, and market research. To ensure any potential location would be aligned with Eve’s values, the team carefully considered the Frita Batidos ‘Brand DNA Statement’ (see Appendix D). The document served as a reference, outlining design characteristics, target customers, menu characteristics, values and the brand essence critical to Frita’s strategic vision.

In order to narrow down potential neighborhoods, the team conducted secondary research on Detroit demographic trends. Given the recent changes to revitalize various portions of the greater Detroit area, the most recent publicly available census data from 2010 proved to be outdated, necessitating the inclusion of additional demographic data sources. As a result, the team relied heavily on the data in *7.2 SQ MI: A Report on Greater Downtown Detroit* (7.2 Sq Mi, 2015), a report containing demographic, education, housing, employment, and real estate development data about neighborhoods in the central business district of Detroit. First released in 2013, the report, compiled in partnership with the Hudson-Webber Foundation, the Detroit Economic Growth Corporation, the Downtown Detroit Partnership, Midtown Detroit, Inc., Invest Detroit and Data Driven Detroit, attempts to provide a one-stop shop of key metrics in Detroit. The report provided comparable demographic data for the neighborhoods of Downtown, Midtown, Corktown and Eastern Market.

After collecting secondary research and formulating a short list of neighborhoods to consider, the team leveraged interviews with local experts to collect additional qualitative data about priority areas within Detroit. The interviews directed the team toward additional up-and-coming neighborhoods that should be considered and shed light on resources and expansion considerations. Throughout the course of the project, the team conducted interviews with the following experts: Mike DiBernardo, Economic Development Specialist at Eastern Market Corporation; Susan Mosey, Executive Director of Midtown Detroit, Inc.; Spencer Olinek, Business Development Manager at Detroit Economic Growth Corporation; and Nicole Stallings,

Senior Policy Advisor at the Detroit Mayor's Office. Summaries of each interview are contained in Appendix S.

To gather qualitative data about competition and walkability of priority neighborhoods, the team conducted a series of market research trips to Detroit. The team conducted visits to the neighborhoods of Midtown, Downtown, West Village, Corktown, and Eastern Market at a variety of times during the day as well as during the week in order to understand traffic patterns at restaurants in these neighborhoods.

Analysis

Customers

In order to assess the existing customer base at the Ann Arbor location, the team conducted a customer survey using the methodology discussed above. In total, 123 people took the survey, with a fairly even gender split amongst survey respondents (52% female, 48% male). While 50% of the survey respondents were students, 35% were full-time professionals. More than three quarters of survey respondents dine out multiple times per week, with 60% of respondents dining out 2-4 times per week and 20% dining out 5-7 times per week. The majority of the survey respondents were not Frita regulars; 50% frequent Frita a couple times per year, while 26% visit the restaurant about 2.5 times per month. Interestingly, 17% of respondents were visiting Frita for the first time. More than 80% of respondents visit Frita for the food or for fun with friends and family.

When asked to rate on a scale of 1-5 the importance of various factors when choosing a restaurant, taste, service and value emerged as the three most important factors. Factors of lesser importance to respondents when selecting a restaurant included atmosphere, use of local and seasonal ingredients, partnership with local farmers, humanely raised meat and use of organic ingredients. With 1 denoting a rating of poor and a 5 denoting a rating of excellent, Frita received high marks from respondents in taste (4.8), and service (4.24), the two most important factors to respondents when selecting a restaurant. See Appendix E for the full list of results.

When asked to rate Frita's sourcing and ingredient decisions, 35% left the question blank, indicating a lack of knowledge of Frita's sustainability practices. While factors related to sustainability were less important to respondents when selecting a restaurant than factors such as taste and service, the information gap suggests a clear opportunity for Frita to better educate customers about their sourcing practices, strong relationships with local farmers, and use of local ingredients. The 65% of respondents who did rate Frita's sustainability practices scored Frita highly (partnership with local farmers: 4.17, use of humanely raised meat: 4.1, use of local and seasonal ingredients: 4.07, use of organic ingredients: 4.07).

When asked to rank the importance of a number of factors with 1 being most important, taste and ingredient quality emerged as the most important (1.82 and 3.65, respectively). Cost and service quality were also rated as more important than factors relative to sustainable restaurant practices, indicating that the majority of Frita customers would be unlikely to trade off taste, cost,

ingredients, or service quality for the inclusion of sustainable restaurant practices. Of the sustainable restaurant practices measured in the survey, use of local and seasonal ingredients and use of organic ingredients emerged as the most important (5.11 and 5.82, respectively), while composting and use of reusable dining ware were the least important (7.15 and 7.27, respectively). See Appendix E for the list of summarized results.

While the survey generated important insights, it will likely be difficult to extrapolate the customer characteristics to other locations given the large student population present in Ann Arbor. The survey did illuminate the opportunity for Eve to thoughtfully educate customers on the sustainability practices of Frita to ensure that the restaurant gets credit for its values and sustainable practices.

Sourcing

Sourcing Principles

Frita's sourcing model is unique in that Eve uses a number of purveyors to meet customer demand rather than utilizing a single distributor. By using multiple purveyors Eve not only is able to develop relationships with each, but also customize orders and request particular products. Aside from building relationships with purveyors, Eve prioritizes taste of the product, the humane treatment of the animal (meat or dairy), the origin of the product, and whether or not the product is organic. Eve's priorities are presented in Appendix B, ordered from highest to lowest priority. In order to identify which purveyor would be the best fit for Frita, the team developed characteristics for each priority.

There is no universal definition for "humanely raised," however there are principles that the food industry and the animal rights community have agreed upon. According to the humaneitarian.org, most people agree that, at a minimum, humanely raised means that (Humaneitarian, n.d.):

- Animals were not raised in cages
- Animals were not raised in tightly crowded barns
- Animals lived with "enrichments" (i.e. objects like perches or hay nests that allow the animal to engage in natural behaviors)
- Animals were not given feed that could routinely make them sick

In order to verify that a particular purveyor meets these principles, several certification programs can be used including certifiedhumane.org. Additionally, Whole Foods Market recently rolled out their animal welfare rating standards, which utilizes the above principles to rank the level of humanely raised practices used to raise animals (Appendix F).

One of Eve's purveyor priorities is local food. Local food networks are complex and comprised of producers, distributors, retailers, and consumers. Due in part to the complicated nature of local food networks, there is no universal definition of local food. Academia, policy makers, and industry leaders all define "local" differently. Scholarly literature defines local food as maintaining, "relationships that extend beyond the spatial parameters of what they define as

‘local’, while creating and strengthening new relationships within their community” (Dunne, 2010). As such, policy makers recommend using *food miles* as a definition of local. Food miles are the miles traveled by food, typically measured from the farm to the table. In addition to scholarly literature and policy makers, the grocery store industry defines local using metrics such as proximity and scale, “...local foods in supermarkets are often defined solely by scale and proximity...definitions of local vary widely between retailers and...many of the definitions used are neither strict nor tightly regulated but based on a general idea of where local food is coming from” (Dunne, 2010). To develop a cohesive definition, the team considered these definitions and incorporated input from Eve to create a working definition to be used in the purveyor decision-making process. *In order to be identified as local, products purchased to be prepared and served to customers must come from within the geographical location defined as the Midwest.¹ Priority will be given to producers within Michigan where Frita Batidos can buy directly from the producer.*

While sourcing local ingredients is of critical importance to Eve, there are a number of studies that detail the potential inefficiencies in growing and buying local. In order to answer the question of whether or not small-scale local farming represents the best use of resources, it is important to understand what types of farms are most efficient. Large farms in the United States have high crop yields and low costs due to efficiency advantages. As such, some studies argue for the specialization and trade within the agriculture industry. Because natural resources are the backbone of agriculture, the economic concept of comparative advantage is more apparent in agriculture than in other industries (Sexton, 2011). For example, Southern California has mild winters and fertile soils that are optimal for many crops, and Idaho’s warm days, cool nights, and volcanic soil make it ideal for growing potatoes. This has resulted in higher yields of potatoes in Idaho when compared to other regions (Sexton, 2011). The presence of these comparative advantages helps reduce the environmental impact on-site even though the products must be transported over larger distances (Sexton, 2011).

Similar to “local” and “humanely raised,” the team identified definitions of “organic” to be used in the purveyor decision-making process. In the United States, organic food is regulated by the U.S. Department of Agriculture (USDA), an organization that aims to provide standardization in the food industry. As defined by the USDA, “Organic agriculture is an ecological production management system that promotes and enhances biodiversity, biological cycles and soil biological activity. It is based on minimal use of off-farm inputs and on management practices that restore, maintain and enhance ecological harmony” (USDA, 2015). In addition to this definition, the USDA published organic standards to protect and improve the environment and the product from the farm to the table.

- Preserve natural resources and biodiversity
- Support animal health and welfare
- Provide access to the outdoors so that animals can exercise their natural behaviors
- Only use approved materials
- Do not use genetically modified ingredients
- Receive annual onsite inspections

¹ According to the U.S. Census Bureau, the Midwest region of the United States consists of twelve states including: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

- Separate organic food from non-organic food

Despite the clear definition and standards published by the USDA, it is increasingly difficult and expensive for producers to become certified in organic farming, also known as Good Agriculture Practices (GAP) certification. GAP certification helps ensure that food is safely produced, packed, handled, and stored as safely as possible (Good Agriculture Practices, n.d.). In instances where farmers are unable to receive certification, relationships between producers and consumers become increasingly important. Using the relationships between producers and consumers, federal organic certification is not required to ensure organic practices are being employed. The team leveraged the guidelines for “humanely raised,” “local,” and “organic” to compile a checklist for Eve to use when having conversations with new potential purveyors.

Current Sourcing Practices

In addition to a commitment to excellent food quality and excellent service (including never running out of items on the menu), personal relationships guide Frita’s supply chain. Additionally, throughout the year, it is critical to Eve to maintain a consistent menu, plus one or more seasonal specials, despite seasonality and resulting changes in local availability of produce. Moreover, typical business considerations such as cost, lead time, and flexibility in ordering are important when selecting purveyors, but Eve places a stronger emphasis on the relationships, quality, and taste of the ingredients she chooses to purchase.

PJ, Frita’s general manager, makes decisions regarding all inventories, including order quantities and frequency of deliveries. To make ordering decisions, he relies on current stock levels given the time of year and current restaurant volumes. Maintaining a strict control over inventory levels of meats is particularly critical, as Eve does not believe in freezing meats due to the negative impact on taste. In the past, the Frita team used an order form to guide order quantities, with par values for each item (see example below); however, they found that relying on a rigid ordering system did not allow for adequate flexibility given fluctuations in customer volumes.

Sample Inventory Form Used by Frita Batidos for Inventory Management

Washtenaw Dairy													
734 662 3244	Sunday				Tuesday				Thursday				
	OH	P	OR	UNIT	OH	P	OR	UNIT	OH	P	OR	UNIT	Order Spec.
Whole Milk		5		Gallon		6		Gallon		7		Gallon	Gallon
Skim Milk		0		Quart		0		Quart		0		Quart	Quart
Half & Half		0		Quart		0		Quart		0		Quart	Quart
Heavy Cream		12		Quart		12		Quart		20		Quart	Quart
Salted Butter		45		Pound		55		Pound		72		Pound	Case= 36#
Eggs		45		Dozen		45		Dozen		75		Dozen	Case= 15 dz.
Butter Milk		0		1/2 Gal.		0		1/2 Gal.		0		1/2 Gal.	1/2 Gal.
Goats Milk		0		Quart		0		Quart		0		Quart	12 Quart Case
Sour Cream		1		Tub		1		Tub		1		Tub	5# Tub

From an inventory management perspective, the space constraints present in the current Frita location have created major pain points, particularly with regard to the capacity to hold appropriate levels of inventory. The kitchen and storage areas are of limited square footage, and

at the same time, it is important to Eve not to run out of any menu items during service hours. This leads to the opposing problems of efficiently managing inventory levels and maintaining a safe level of inventory to avoid stock-outs; high fill rates naturally lead to high inventory levels. Currently, the stocking strategy and inventory levels include ample safety stock during times of high customer volumes. This strategy is employed particularly for items with longer lead times, such as passion fruit syrup, which can take four weeks to deliver. As a result, nearly all storage spaces are at capacity, with overflow at a nearby storage space recently acquired out of necessity. Storage is particularly necessary for items like Siracha hot sauce, which have a minimum order quantity of 20 bottles.

At the existing Ann Arbor location, the Frita team recognizes the space constraints and has explored avenues to expand into an adjacent space. A significant amount capital went into the design of the existing location, as was recognized with the 2012 American Institute of Architects Honor Award for outstanding design. As such, the Frita team has no desire to move to a new location within Ann Arbor. Since there is no availability for Frita to expand at their current location, it is critical that the Frita team learn what size restaurant and kitchen are needed to support expected customer volumes and hold appropriate levels of inventory as they work through the logistics of expanding to other markets.

In terms of interacting with purveyors to procure the correct inventory levels, it is important to Eve to maintain close relationships, a feat more easily achieved with local companies. Therefore, Eve purchases locally both to maintain these relationships and to support the local community. The majority of Frita's eleven purveyors are considered local, which has resulted in strong personal relationships and a more efficient means of communication. All purveyors deliver to the restaurant. The Ann Arbor Farmers Market is a primary source of produce, particularly during the summer. An employee will visit the Farmers Market on Wednesday and Saturday to procure as much produce as possible for the given menu that meets quality standards. Because availability at the Farmers Market is seasonal, other produce purveyors are used during the majority of the year as well as for produce that is not procured at the Farmers Market during the growing season.

Particular purveyors are generally used for specific items, but this can vary based on availability. The Frita base menu remains the same despite the season, which can create additional challenges, as inventory sources must adjust to account for availability of produce. Additionally, Eve does, on occasion, feature seasonal menu items. Seasonal menu items typically utilize seasonal ingredients, which increase the restaurant's purchases from the Farmers Market. Sourcing products from a number of different purveyors creates supply chain inefficiencies. Not only do purveyors deliver on different days and require minimum purchase orders, there are also instances where purveyors are unable to supply the volume necessary to meet the needs of Frita. For example, Eve maintains a strong relationship with the meat purveyor Black Oak Farms, given both the taste and traceability of the farm's meats. However, because Black Oak lacks the capacity to supply all of Frita's pork needs, the restaurant purchases what is available from Black Oak, then fulfills the remainder of the order from bigger purveyors, such as Sparrow Meats. A list of purveyors and the typical products ordered from each are included in Appendix G.

In an attempt to help minimize these inefficiencies, the team contacted Frita purveyors in an attempt to better understand their challenges in supplying the restaurant. Chuck Cornillie, owner and farmer at Black Oak Farms, informed the team about the complexities of the local food system, such as trying to balance the cuts of meat required by certain restaurants and the available supply. For example, if Frita requires 350 pounds of ground beef per week, the purveyor is responsible for identifying other customers to sell the remaining portions of the cow, such as steak cuts. If purveyors are unable to find additional buyers, the other cuts of meat may go to waste and prove to be unprofitable for the purveyor. Due to the volume required by Frita, local farmers have a hard time connecting with other high-volume customers in need of cuts of beef other than ground beef. Through these conversations, the team identified an opportunity to provide a more consolidated and streamlined supply chain for Frita while relieving these challenges for purveyors. Conversations with existing purveyors were instrumental in connecting the team with a new potential set of purveyors, including distributors, capable of supporting Frita's volume requirements.

In the team's initial meetings with Eve, beef was identified as a product in which she was most dissatisfied with the current purveyors. Frita's current supply of beef does not provide traceability nor is it delivered on a reliable schedule. When speaking with purveyors, the team focused on identifying potential beef purveyors that met humanely raised and local standards as defined above while also providing traceability. In addition to targeting cattle farmers, the team prioritized purveyors who could provide multiple products such as chicken or produce with the ultimate goal of consolidating deliveries.

Eve's pricing philosophy makes efficient sourcing decisions even more critical. In accordance with the tenets of the Slow Food Movement, Eve believes in making each and every menu item accessible to all of the restaurant's customers. As such, every frita sandwich (chorizo, black bean, chicken, fish, and beef) is sold for the same price, \$8 for a single and \$11 for a double. While this pricing model is aligned with Eve's goal of making every menu item accessible to every customer, it can put pressure on profit margins and has the potential to impact environmental sustainability. The most expensive item to procure is the local Great Lakes fish for the fish frita and the most expensive item to produce is the black bean frita given the labor intensity required to make the sandwich from scratch. As such, given Frita's pricing model, the items with the lowest profit margins are the fish and black bean fritas.

From a supply chain sustainability standpoint, the pricing mechanism also creates disincentives. For example, the beef frita is the only sandwich that has a discounted price during happy hour, featuring a special price of \$5 from 4-6pm on Sunday through Thursday. This ultimately increases the demand for beef, a relatively more resource-intensive product from a greenhouse gas emissions perspective, when compared to the other fritas (see Appendix H). Due to the amount of feed and land required to raise cows, and the corresponding release of methane, the sourcing of beef results in higher amounts of greenhouse gas emissions relative to chicken, fish, or beans. Appendix H provides further details on the comparative impacts. Moreover, many fish populations are in danger, so it is important to ensure that purveyors source fish responsibly, allowing fish populations recover. A number of fish species used in commercial fishing in the Great Lakes region have become extinct, such as the cisco and blue pike, while the once prevalent lake sturgeon has been recognized as an at risk species (Teach.GLIN.net, 2016).

The Frita pricing model, which does not reflect the higher procurement prices for fish and discounts for beef, results in increased demand for some of the most expensive and resource-intensive items on the menu. Pricing fish and beef the same as the other less resource-intensive frita sandwiches does not account for the ingredient prices and negative environmental externalities. With higher prices to reflect the true sourcing costs inclusive of environmental impacts, it is possible that customers would opt for a cheaper, less resource-intensive meal. However, while these pricing decisions have both financial and environmental implications, it is important to keep in mind the priorities of Eve, who places tremendous value on offering a menu that is accessible to all customers.

Compost

As identified by Eve, implementing composting at Frita is a priority for its current Ann Arbor location and for future locations in order to reduce waste sent to the landfill. Given the small space present in the current location, customers are not responsible for clearing their own waste at the restaurant. After a customer finishes their meal, the Frita staff collects a customer's waste after their meal and disposes of the waste in the back-of-house, the kitchen and preparation area invisible to customers. Frita currently uses compostable dining ware such as utensils, plates, and napkins. The increased use of disposables inevitably increases the amount of waste generated. In addition to dining ware waste, food waste accounts for a large portion of Frita's generated waste.

While Frita does have some food waste, which is natural in a restaurant, employees rarely have to throw away ingredients. The two minor exceptions are plantains that ripen too fast in the summer when the kitchen is extremely hot, and very occasionally beef due to oxidation. As of March 2015, Frita was using compostable cups, and reusable utensils, ramekins and trays. Frita does not compost and many of the metal utensils and ramekins were mistakenly put in the trash during the rush of busy meal times. In March 2015, Frita switched to compostable utensils and ramekins given the expense of replacing reusable metal dining ware. While Frita purchases compostable utensils, ramekins, and cups, which are relatively expensive compared to non-compostable options, the restaurant does not have a composting outlet. As such, any post-consumer food waste is also not composted. Any waste that can be recycled is recycled, and everything else either goes down the disposal or is thrown in the trash. Frita currently has dumpsters for trash and bins for waste cooking oil, cardboard, and other recycling in a nearby alley located just to the east of the restaurant that is shared with surrounding restaurants. These dumpsters and bins line the entire alley and frequently over-fill in the summer and when customer volumes are higher.

Food waste is a unique challenge facing restaurants and can be defined as, "Any solid or liquid substance, raw or cooked, which is discarded, or intended or required to be discarded. Food waste is the organic residue generated by the processing, handling, storage, sale, preparation, cooking, and serving of foods" (Best Practices & Emerging Solutions: Guide, 2015). Food waste is inevitable in the service industry, but recently the development of municipal compost hauling routes and industrial composting facilities have been utilized to divert this waste from landfills.

In 2012, the United States generated 251 million tons of waste; more than 36 million tons (14.5%) of the total waste generated was food waste (Municipal Solid Waste Generation, Recycling and Disposal, 2012). Increasingly, municipalities, states and the federal government are implementing regulations and goals to increase waste diversion from landfills. The City of Ann Arbor has no such regulation, but is one of the first municipalities in the country to start a municipal recycling program, and in recent years has begun collecting household compost.

Frita's current location on Washington Street has limited front-of-house and back-of-house space. The space constraints within the restaurant are further complicated by a lack of direct access from the Frita back-of-house to the shared alleyway that contains the trash and recycling bins. When analyzing the feasibility of installing compost bins at Frita, the team discussed the replacement of current back-of-house waste bins with compost bins, rather than adding incremental bins that would crowd an already cramped kitchen. However, the feasibility of adding compost bins in the current location proved challenging because of the limited space inside the restaurant available to sort the compost, particularly during periods with high customer volumes. Moreover, there is a distinct lack of space outside in the shared alleyway. When analyzing the feasibility of replacing one or two landfill waste bins with compost bins, the team discovered that many of the receptacles (dumpsters, recycling bins, and grease pits) were shared among the neighboring businesses.

These challenges proved difficult, and ultimately the team was not able to implement composting at the current Ann Arbor location. However, the team developed a checklist and recommendations to successfully implement composting in future Frita locations, found in the compost recommendation section.

When assessing the feasibility of implementing compost service in Ann Arbor, the team identified two potential haulers, the City of Ann Arbor and My Green Michigan, a private company. The City of Ann Arbor's compost pilot program services a small number of businesses in the downtown district. Despite the program's success, there are a number of complications that make the City's pilot program currently infeasible for Frita. First, the City has the capacity to pick up compost waste only once per week. Due to limited space in the alleyway and potential off gassing of the waste, Frita prefers at least twice per week pickup. Secondly, the city's compost facility does not accept Ingeo™ compostable plastic, made of corn, which Frita uses for many of their disposable dishware. These limitations ultimately dissuaded Frita Batidos from pursuing a potential partnership with the City of Ann Arbor.

My Green Michigan, a private company, provides hauling services to downtown Ann Arbor businesses. Unlike the City of Ann Arbor, My Green Michigan provides hauling services multiple times per week. The processing facility in which My Green Michigan partners with, Tuthill Farms, located in South Lyon, accepts Ingeo™ compostable plastics. Despite My Green Michigan's ability to provide multiple hauling times and accommodate Ingeo™ compostable plastics, purchasing requirements of My Green Michigan provided compostable dining ware halted Frita's decision to move forward with an agreement.

While the team was unable to implement composting at the current Frita location during the project timeline, the process illuminated several considerations and requirements necessary to

proceed with composting at another location. As such, the team developed a checklist to be used in the future at expansion locations. The process with which the team researched potential compost hauling options can help inform future sustainability decisions. Moreover, the City of Ann Arbor is developing the infrastructure to be better able to support composting on a more commercial scale. Increased frequency of pickup would eliminate a key barrier to implementing composting at the current Frita location, and could make it a more viable option for the restaurant.

Impact Analysis

In addition to sourcing locally, the team expanded the concept of sustainability into other components of Frita's business. As a first step, the team identified areas in which there was a potential for trade-off or improvement, and identified lifecycle analyses (LCA) as an effective first step in helping in building a cost-benefit analysis. In particular, the team saw the potential for tangible waste reduction and a large cost differential in dinnerware and flatware, specifically in the cups and utensils used by Frita's customers. Through a full cradle-to-grave LCA, the team determined which cups in particular showed optimal performance in terms of emissions, energy, and physical footprint. Paired with cost data, this analysis will inform Frita's future materials usage strategy in order to create efficiency within the business, reduce waste, and encourage better business practices in the surrounding areas.

The impact analysis focuses on Frita use patterns, with some additional assumptions to emphasize key differences highlighted by an LCA. The model assumes use patterns in line with Frita consumption including approximately 500 customers served per day (average based on lower winter and higher summer figures) plus a certain proportion of drink sales resulting in additional cup usage. Based on the beverage consumption patterns including water consumed by nearly every customer and 5 to 10% drinks served in an extra similar-sized cup for certain types of beverages, we estimate that Frita utilizes approximately 200,000 cups per year. Furthermore, during the 12 to 13 hour daily service period, Frita washes re-usable cups 4 times per day. Lastly, due to high usage, breakage, and losses, Frita replaces the entire daily inventory of cups on a quarterly basis, resulting in 375 new re-usable cup purchases per year.

Compostables

Compostable cups are defined those which biodegrade within the environment, releasing nutrients in the process (Green Office, 2008). These products generally degrade within two to four months at an industrial composting facility, and are typically not suitable for home composting systems (Scientific American, 2008). It is difficult to get an exact understanding of the material percentage inputs for compostable cups, likely because many manufacturers are not looking to release explicit product details. However, the primary ingredient in compostable products is generally polylactic acid (PLA).

PLA is a resin derived from plants which is durable during the use phase but compostable due to the plant-based nature of the products. While conventional plastic products utilize large amounts of oil, PLA is made from a renewable resource, and therefore has the potential to reduce fossil fuel consumption in the production phase (Royte, 2006). One of the major advantages of PLA is that it looks, acts, and performs like petroleum-based products.

A major drawback of PLA is the lack of industrial composting facilities required to effectively compost the material. There are an estimated 113 facilities throughout the United States, but only about 30 of them collect residential food scraps. Within composting facilities, PLA also creates problems by degrading into lactic acid and acidifying the compost pile (Royte, 2006). A compost rate of 100 percent was assumed because Ann Arbor does have an industrial composting facility. Lastly, PLA raises ethical questions due to significant corn fossil fuel, pesticide and fertilizer inputs.

Plastic

Polyethylene Terephthalate (PET) was identified as the main ingredient in product formation for plastic materials. PET is the most common thermoplastic polymer resin of the polyester family, and is regularly used in containers for liquids and foods. In the United States, most single-serve plastic bottles are made with this polymer. PET is globally recognized as a safe, non-toxic, and easily recyclable material for the storage of food and beverages (ILSI, 2011). The raw materials in PET are derived from crude oil. After refining and separating 'crude' into a variety of petroleum products, the two PET intermediates (or "monomers") are eventually obtained, purified, and mixed together. Next, the mixture is halted once the appropriate viscosity is reached. Then, the material is extruded from the reactor, cooled quickly and chopped into small granules or pellets. Lastly, it is heated and shaped according to the requirements of the specified product (Plastics Europe, 2015). At the end of life stage, plastic makes up about 12% of all municipal solid waste generated in the United States according to Facts on PET. The LCA assumes a 28% recycling rate for PET cups, with the remaining 72 landfilled, based on the team's research and observations. The life cycle costs are based on the cost of purchasing cups and end of life costs.

Glass

Glass calculations are based on assumptions that each 16 oz. glass cup will last for three months, with washes after each use, four times a day. The life cycle costs are based on the cost of purchasing (\$3.20), end of life costs, and the cost of the electricity and water used to wash the product. For the utility costs, we assumed an energy per wash of 0.16 MJ based on Hocking's prior energy-based evaluation of various cup types (Hocking, 2014) and \$0.14/kWh based on BLS statistics for Ann Arbor and United States averages (BLS, 2015).

The emissions and energy from production of the glass and packaging were developed using SimaPro. The cup weight was calculated to be 0.1361 kg and the packaging weight to be 0.0453 kg per cup. White packaging glass was used for the cup and corrugated board box for the packaging (SimaPro). The use phase included transportation and washing of the cup. Transportation distances came from a previous study and included transport to distribution center by train (2011.7 km) and then transport to an individual household by truck (120.7 km). The emissions and energy usage from this process were developed in SimaPro. The electricity consumption for heating the water was 0.1592 MJ of primary energy/cup. The emissions from that electricity usage were calculated multiplying the energy for heating and the average U.S. electricity emissions factor, 1232.35 lb./Mwh. The energy and emissions from the water usage were calculated in SimaPro based on the assumption that 0.237 kg of water were used per wash.

The end of life emissions and energy were calculated in SimaPro, assuming the glass and the packaging were processed as part of municipal solid waste.

Comparison

The results of this LCA show that reusable glass cups, in comparison to compostable and plastic alternatives, are the most cost effective and use the least amount of energy (Appendix I). The compostable cup produced the fewest emissions throughout its life cycle but a sensitivity analysis shows that by altering the washing machine assumptions, which is feasible at the industrial (restaurant) level, glass quickly becomes the best option of the three (Appendices J and K). Overall the most efficient and environmentally friendly option is to use a reusable glass cup with minimal washing, followed by the use of a compostable cup, as long as the cup is properly composted. The issue of composting is covered in more depth earlier in this paper, including the pain points currently preventing composting in the current Frita location.

Expansion

Criteria

The team considered both qualitative requirements from Eve as well as quantitative metrics when developing a checklist of criteria to consider when analyzing expansion opportunities. Key metrics considered include overall population, daytime population (employment), number of housing units, occupancy rate, real estate investment spending, foot traffic, lease rates, and availability of net rentable commercial space. Additional considerations include support of the community for late night restaurants, parking availability, number of competitors, and average price points at competitor restaurants.

Eve also identified personal reasons for considering certain cities, which illustrated the importance of considering client needs and finding the appropriate balance between qualitative and quantitative data when conducting an analysis. It is critical for Eve to ensure that any new Frita location preserves the great taste the restaurant is famous for in Ann Arbor; as such, availability of local purveyors emerged as a key consideration. In order to make the expansion venture profitable, it is also critical to understand the estimated costs of sourcing locally in other markets, given Eve's emphasis on partnering with and maintaining strong relationships with local farmers. Other market-level trends critical to consider before considering a new market include the overall regulatory environment (e.g. regarding liquor licenses, sanitation), market growth trends, presence of incentives as well as unique ongoing operating costs that may be higher than expected. See Appendix L for the expansion criteria checklist.

To gather the demographic information denoted on the checklist, the team recommends leveraging census data, as well as Nielsen segmentation data, which allows users to search geodemographic and psychographic data by zip code (Nielsen, 2016). Competitor information can be gathered by searching local food blogs and websites highlighting new restaurant openings and trends, such as Eater. City planning websites may contain the number of development permits issued, providing an indication of development trends in various neighborhoods. Interviews with local experts and real estate partners are also critical to gathering necessary market information and may provide insights into additional data sources.

Location Considerations

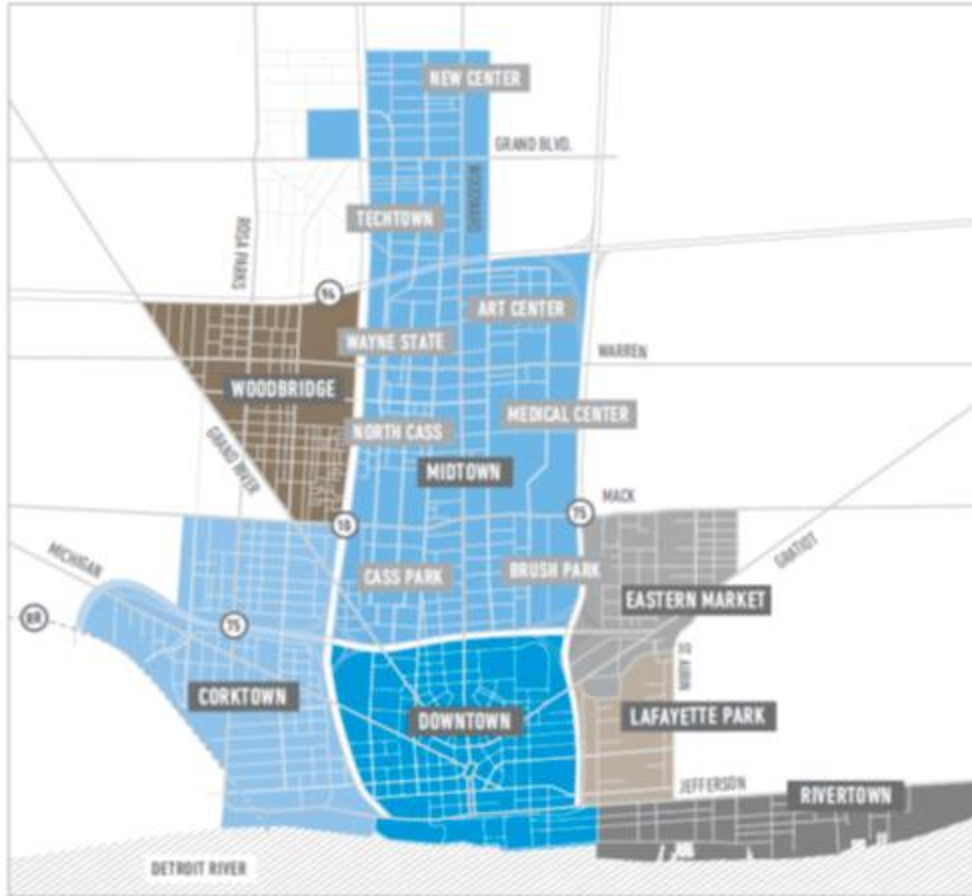
While Eve initially wanted the team to consider expansion locations outside of Michigan, Detroit emerged as a key consideration given its proximity to Ann Arbor and the increasing pace of development occurring in the city. In fact, two-thirds of current Ann Arbor customers who recommended that Frita expand to another location on the feedback section of the customer survey suggested opening a Detroit location. While most customers who chose to leave feedback (n=48) commented on specific menu items or increasing the size of the existing restaurant, those who provided feedback to Eve that she expand to another location (n=6) were definitively in favor of the Detroit market.

Detroit represents an ideal second location in which to expand because while there is some level of awareness of the Frita brand in the Detroit market given its proximity to Ann Arbor, the cities are far enough apart that there is little to no overlap in the market areas of the two locations. More than 80% of customers who responded to the survey indicated that they travel a couple of miles or less to get to Frita. As such, cannibalization of existing sales would be minimal. In addition, with another location in Detroit, Frita could leverage the existing network of purveyors, potentially increasing the restaurant's buying power with larger volume orders.

Introduction to Detroit

The Greater Downtown Detroit area is 7.2 square miles with a population of just over 35,000 (7.2 Sq Mi, 2015). While the lack of public transportation and the expansive nature of the city have hindered mobility and reduced walkability in the greater Detroit area, the introduction of the M-1 RAIL line has the potential to transform the neighborhoods it serves. The 3.3 mile-long light rail line will connect the neighborhoods of Downtown, Midtown and New Center, running along Woodward Avenue from Congress Street to the Amtrak station on West Grand Boulevard (Aguilar, 2015). Supporters of the project contend that the project will fuel 10,000 additional housing units along the line and spur \$3 billion in development, while critics call it a costly mistake (Aguilar, 2015). A number of delays have impacted the scheduled public opening of the rail line, which is now slated to begin passenger service in spring 2017 (Shea, 2015). Regardless of how the actual benefits compare to what was expected, the rail line will dramatically improve connectivity between the neighborhoods. Moreover, the project has sparked considerable investment in new housing, retail and commercial space along Woodward Avenue. According to the M-1 Rail website, \$1 billion in development has been invested along the corridor, with plans for additional spending of \$60 million (M-1 Rail, 2016).

Given development trends in Detroit, demographic data, and Eve's priorities, the team decided upon the priority neighborhood areas of Downtown, Midtown, Eastern Market, and Corktown. An interview with Nicole Stallings, Senior Policy Advisor for the Detroit Mayor's Office, increased visibility to the more long-term growth potential of West Village (Stallings, 2015). See below for a map of Detroit neighborhoods.



Source: 7.2 Square Mile, 2nd Edition, 2015

Detroit Neighborhood Analysis

The table below compares key metrics by neighborhood.

	Population (2012)	Population Density (per acre)	Restaurants	Pedestrian Count ¹	Bicycle Count ¹	New Housing Units (2010-'14)	Renovated Units (2010-'14)	Employee Count
Downtown	5,269	4.3	188	2,106	56	310	779	66,489
Midtown	18,388	8.7	109	258	30	836	68	59,557
New Center	n/a	n/a	n/a	623	30	n/a	n/a	n/a
Corktown	2,834	4.0	32	598	36	62	n/a	2,329
Eastern Market	n/a	n/a	18	526	20	50	n/a	3,407

Source: 7.2 Square Mile, 2nd Edition, 2015

¹ Source: Pedestrian and Bike Survey, D-hive, October 2013. Pedestrians and bikes were tallied for 15-minute intervals during a two-hour period on days in which no special events took place. Tallies were collected at hours and neighborhood intersections selected for their high traffic.

From a population perspective, Midtown has the highest overall population and density. While the average population density in Midtown is 8.7 people per acre, there are districts in the center of Midtown, most notably North Cass, with densities of more than 16 people per acre (7.2 Sq Mi, 2015). Densities in Midtown are comparable to the city centers of Minneapolis and Pittsburgh,

with 13.3 and 12 people per acre, respectively, but well below that of Philadelphia, with 29.2 people per acre (7.2 Sq Mi, 2015). See Appendix M for a map of population density within the greater Detroit area.

From a socioeconomic and walkability perspective, Downtown and Midtown appear to be the most attractive neighborhoods. Downtown has the greatest percentage of households with incomes greater than \$50,000 (7.2 Sq Mi, 2015). See Appendix N for a complete breakdown of household income by neighborhood. However, there are districts within Midtown that have the highest percentage of residents ages 25 to 34 with a bachelor's degree or higher (see Appendix O). Moreover, levels of foot traffic and bicycle counts vary significantly across the neighborhoods of Detroit, with the greatest number of pedestrians and bicycles present in the Downtown neighborhood, as is displayed in the table above.

Development growth in Detroit in recent years has been paralleled by a rapid growth in the number of restaurants. As of 2014, there were 378 restaurants in the greater Detroit area, which represents an increase of 77 restaurants since 2013 (7.2 Sq Mi, 2015). Given the population levels in Downtown and Midtown, it is not surprising that these neighborhoods contain the greatest number of restaurants relative to others in the greater Detroit area. See Appendices P and Q for a map of restaurant and destination locations, such as theaters and museums. There are more than 20 theater and performance venues in the greater Detroit area, particularly in Midtown (7.2 Sq Mi, 2015).

Since 2006 in the greater downtown Detroit area, more than \$9 billion has been invested in real estate development projects (7.2 Sq Mi, 2015). More than 96% of construction projects in the pipeline, projects considered "highly feasible" as of December 2014 by the consortium of organizations compiling the 7.2 Square Mile report, are located in the neighborhoods of Downtown and Midtown (7.2 Sq Mi, 2015). This indicates considerable commercial interest and strong future growth potential within these two neighborhoods. Appendix R provides a comparison of investment spending by neighborhood.

Further qualitative analysis and discussion on each priority neighborhood is included below.

Downtown (Central Business District)

The largest employment center in the greater downtown area, there are about 85,000 people who work in downtown Detroit (7.2 Sq Mi, 2015). The neighborhood also represents the city's entertainment center, is home to three casinos, features more than 13,000 theater seats and hosts over four million annual visitors cheering on Detroit's sports franchises (7.2 Sq Mi, 2015). Additionally, more than 200 bars and restaurants serve the visitors, residents and employees of Downtown Detroit (7.2 Sq Mi, 2015). While daytime population is high given the influx of people working downtown, the total population is only about 5,300 (7.2 Sq Mi, 2015). The neighborhood has just over 4,000 housing units, with an occupancy rate of 98% (7.2 Sq Mi, 2015).

Midtown

Midtown is consistently cited as one of the fastest growing areas in the city, given its burgeoning base of residents and available real estate for both new construction and renovation (7.2 Sq Mi,

2015). With an area of 3.3 square miles, a population of just over 18,000, the neighborhood is considered one of Detroit's most walkable communities (7.2 Sq Mi, 2015). Additionally, Midtown is home to a number of major anchor institutions, including Wayne State University, College for Creative Studies, the Detroit Institute of Arts (DIA), Detroit Symphony Orchestra, Detroit Medical Center, and Henry Ford Health Center.

A key benefit of Midtown is the wide variety of people that either reside in the neighborhood or visit annually for events. Midtown Detroit, Inc., an organization comprised of more than 150 members representing the neighborhood's businesses, community organizations, cultural, academic, medical, and service institutions, estimates that 2.5 to 3 million non-Midtown residents visit the neighborhood annually to frequent the area's many institutions (Mosey, 2015). Moreover, the residential population has increased considerably over the last two years. As a result, housing in Midtown is in high demand; 97% of the almost 14,000 housing units are occupied (7.2 Sq Mi, 2015). According to Susan Mosey, Executive Director of Midtown Detroit, Inc., 800 housing units are currently under construction with a sizable waiting list for additional units (Mosey, 2015).

In addition to the established institutions in Midtown, significant development is planned in New Center, located on north end of Midtown. The neighborhood currently contains one of the largest daytime office populations in the area (7.2 Sq Mi, 2015). While the neighborhood is currently relatively commercial, a number of residential housing projects are planned (Stallings, 2015). Moreover, the impending completion of the M-1 light rail line is likely to cement New Center as a transportation hub, serving as the connector of the M-1 light rail line and the Amtrak station that serves Ann Arbor and Chicago (Stallings, 2015).

Another key benefit of Midtown is the existing infrastructure for financing assistance products. Midtown Detroit Inc. partners with developers and small businesses on not only the initial stages of business planning and investment but also execution. The organization provides to aspiring small business owners a list of resources that are most commonly used in their projects, such as Detroit Development Fund and Invest Detroit (Midtown Detroit, 2016).

Corktown

Detroit's oldest neighborhood, Corktown contains a blend of historic homes, industrial properties, and independent restaurants and retail. While there are a significant number of new restaurants opening and interest in new development, Corktown is not very walkable except at the micro level (Stallings, 2015). The 0.9 square mile neighborhood has a population of around 2,800, significantly smaller than that of Downtown and Midtown (7.2 Sq Mi, 2015). While there is currently not a significant presence of employers in Corktown, Quicken Loan's opened its 66,000 square foot Technology Center on Rosa Parks Boulevard in the summer of 2015 (Quicken Loans, 2015).

Eastern Market

The 0.3 square mile neighborhood of Eastern Market is the largest historic public market district in the country (7.2 Sq Mi, 2015). The district is home to more than 500 vendors and merchants and it is estimated that as many as 45,000 customers visit the Saturday market on any given week (7.2 Sq Mi, 2015). Despite the neighborhood's status as a popular destination, it experiences

limited foot traffic throughout the week, with the highest volumes of people solely on weekends (DiBernardo, 2015). However, once visitors get to Eastern Market, the district is highly walkable given its small size (7.2 Sq Mi, 2015). The neighborhood's walkability has contributed to its popularity, resulting in limited housing inventory. From a housing availability perspective, Eastern Market is currently experiencing occupancy rates of 95% (7.2 Sq Mi, 2015). Additional residential and mixed-use development is in the pipeline, however, which should help the existing small residential population grow (Stallings, 2015).

West Village

The neighborhood of West Village lies between the Riverwalk in Downtown and Belle Isle. With an area of only 0.1 square miles and a 2013 population of just over 1,000 people, West Village is one of the most densely populated areas of Detroit (Statistical Atlas, 2013). The district has a long-standing community feel, is residential, and highly walkable (Stallings, 2015). While there is a growing retail presence on key streets within West Village - Agnes, Parker, and Jefferson - there are currently a limited number of existing fast casual restaurant concepts (Stallings, 2015).

Recommendations and Next Steps

Customer Recommendations

Given the lack of knowledge of current customers about the sustainability initiatives currently in place at Frita, the team recommends improving education around sustainability efforts at the restaurant. While Eve has thus far favored a subtle approach to customer education, the Frita team is not currently getting credit for its focus on local partnerships with farmers and espousal of the Slow Food movement. Because these initiatives currently exist, the amount of incremental investment and time required to implement an education campaign would be lower than that required to implement a brand new sustainability practice, such as eliminating beef from the menu to reduce Frita's overall greenhouse gas emissions.

While sustainability practices are not the key reasons a customer chooses a restaurant, nor will they likely ever prove to be more important than factors such as taste when choosing a restaurant, the notions of sustainability and community are consistent with the Frita strategy. One of the key reasons Frita has been successful in Ann Arbor is the rapport that Eve has built within the local community of customers and purveyors. As a result, emphasizing the efforts to source locally and maintain strong relationships would help to strengthen the Frita brand even further within Ann Arbor. The notion of aligning customer messaging, both in the restaurant and online, with the Frita strategy is especially important to consider when building the brand in new locations outside of Ann Arbor.

There are numerous methods of educating consumers about sustainability initiatives underway at the restaurant that align with the Frita values, particularly those related to grassroots education efforts. As an example, by making slight design modifications to the website to visually display the types of produce Eve receives from each farmer, the Frita team could demonstrate strong personal relationships in an easily digestible and visually appealing manner to customers.

Currently, Eve's favorite local farmer partners are listed in a paragraph on the 'Philosophy' tab of the Frita website as well as on the wall at the Ann Arbor restaurant. These simple, visual representations could be modified at the restaurant to further the education campaign, recognizing that many customers may interact more with Frita in-person than on the website. Additionally, Frita likes to engage with customers on Facebook so a grassroots education campaign could involve posts that celebrate partnerships with favorite farmers or highlight how many plantain chips the Frita team made from scratch that day. The underlying goal of the campaign would be to build customer awareness of Frita's local sourcing and sustainability efforts.

Moreover, the team recommends that the Frita team expand its consideration set to include customer reactions when making decisions that may not directly impact customers. In particular, the team recommends that the Frita team consider on the front end how these decisions will impact back-end logistical flow especially visible to consumers. For example, because there is no back door, all trash and recycling must be emptied out the front door utilized by customers. Large volumes of trash and recycling are thus very visible to customers and may give the impression that Frita is not taking efforts to minimize its waste. This may be construed as counterproductive to Frita's efforts to minimize waste given their use of compostable dining ware.

Sourcing Recommendations

Purveyors

Based on the information gathered through informal conversations with Eve and purveyors across Michigan, the team identified three potential purveyors capable of meeting Frita's volume requirements of 350 pounds of ground beef per week, while also raising animals in a humane way as outlined in the principles.

The team was first recommended Eat Local, Eat Natural, a well-known distributor based in Ann Arbor, Michigan, that partners specifically with farmers within a 150-mile radius of their Ann Arbor warehouse (Eat Local, Eat Natural, 2007). By working exclusively with small family purveyors, Eat Local, Eat Natural is able to provide customers with traceability in products and ensure humane practices are used. The purveyor notes, "We understand the methods that [our purveyors] use and the humane way that they treat their animals. Our animals are free range, pasture-raised and are never given antibiotics, hormones or fed animal by-products. Whenever we can, we source certified organic or farms that use organic practices" (Eat Local, Eat Natural, 2007). Eat Local, Eat Natural aggregates products from a number of local farms and distributes them to businesses in Southeast Michigan. The company distributes produce, proteins, dairy, and eggs. Eat Local, Eat Natural is a top candidate for Frita given their proximity to the existing Ann Arbor location and the fact that they are able to provide a variety of products.

The team identified a second distributor, Cherry Capital Foods (CCF) that is based in Traverse City, Michigan. Recently CCF expanded their business and has begun delivering products to Southeast Michigan. Similar to Eat Local, Eat Natural's business model, CCF partners with local farmers to aggregate their products and distributes them to businesses throughout Michigan. CCF

centers their partnerships specifically with Michigan farmers. The purveyor explains, “by focusing on local and Michigan sources, we encourage the growing focus on regional foodsheds as well as support the Michigan economy and environment” (Cherry Capital Foods, n.d.). CCF sources their beef from three different farms where cattle are humanely raised and grass fed.

In addition to beef, CCF delivers other key ingredients used by Frita. CCF’s other products include fresh produce, other proteins such as chicken and pork, dairy products, and eggs. The team recommends reaching out to CCF and developing a partnership to provide beef to Frita. In addition to exploring CCF as a key beef purveyor, the team recommends that Frita consider purchasing other products from CCF in order to reduce supply chain inefficiencies. Sourcing from a purveyor such as CCF with a variety of products would allow Frita to eliminate the total number of deliveries and help to increase Frita’s negotiating power given the restaurant’s potential for larger order sizes. Moreover, working with fewer purveyors would help minimize time spent by the back-of-house team managing inventory levels and replenishing supplies efficiently.

The team’s third purveyor recommendation is a farm, rather than a distributor. Heffron Farms, located in Grand Rapids, Michigan, is a family farm and marketplace. Since 1924 Heffron Farms has raised cattle humanely, and in 1983 the family opened a marketplace to provide local meats to the Grand Rapids community (Heffron Farms, 2016). With access to pasture and bedding the cattle are raised humanely. Because Heffron Farms also owns a marketplace, the option to purchase other proteins such as chicken and pork is available to Frita, again reducing deliveries made to the restaurant.

These recommendations are the result of extensive conversations with Eve to understand her priorities when choosing purveyors. With these priorities in mind, the team identified potential farmers and distributors who could meet the volume demands of Frita while also demonstrating transparent farming practices. Second only to the relationships Eve has cultivated, humanely raised products are a very important factor to consider when partnering with new purveyors. By identifying these potential new purveyors, the team hopes Eve’s team will cultivate new partnerships, strengthening the local food network in and around Ann Arbor.

Sourcing Considerations for Expansion

For both the Ann Arbor and expansion locations, Frita should leverage a more in-depth framework for sourcing, not only for beef but also other ingredients and products. Beyond the list of priorities explained verbally by Eve to the team (Appendix B), a more quantitative analysis should be employed when making sourcing decisions. While an in-depth sourcing framework represents a significant departure from Eve’s current processes and may not be essential with only one location, a strategic approach to sourcing will help guide Frita when new purveyors need to be evaluated, especially at multiple locations.

Eve’s reliance on maintaining strong relationships with local purveyors may prove to be unsustainable with expansion to a significant number of locations. This may be particularly true if all purveyors are local to each Frita location. As such, significant expansion efforts may cause Eve to consider trade-offs between maintaining strong relationships with local purveyors, procuring the best tasting ingredients and having a consistent supply of raw materials. In order to

ensure Eve maintains her values with expansion efforts, the team recommends consolidating the supply of dining ware and other non-perishable food items to take advantage of ordering at a larger scale. Furthermore, this would allow Eve and her team to devote more time to building relationships with purveyors of produce and meats, which have a more direct impact on taste and ingredient quality.

A more standardized ordering process will be critical with the introduction of additional restaurant locations. In order to formalize the ordering process as Frita expands, the team recommends that Frita collect weekly sales data over the course of the year, and the ingredients necessary to fill all orders. From there, the team recommends that the general manager compare how the orders vary based on sales level and time of year to help forecast inventory needs. Necessary inventory levels at various months of the year should be documented, keeping particular holidays and weeks, like commencement, in mind as potentially different than standard times during the season. Products with longer lead times and higher minimum order quantities can be stored in the storage space (which should also be included in new locations). The remaining items should be carefully tracked to prevent stock outs and to further deepen the restaurant's understanding of how inventory levels vary by season.

A final key consideration is updating menu pricing to be more reflective of the sourcing costs and environmental impacts required to procure ingredients. In particular, with the opening of additional locations, the team recommends that Eve consider varying the prices of the frita sandwiches depending on the protein filling. Lowering the price of the black bean frita relative to the other sandwiches will help promote lower levels of meat consumption, which has a higher environmental impact. A slight reduction in price of the black bean frita may nudge consumers to change their behavior, incentivizing them to choose the least carbon-intensive protein over the most. Given the labor intensity required to prepare the black bean frita, another, potentially more profitable option is to offer more vegetarian menu items. Additionally, Eve could replace the beef frita on happy hour with more environmentally conscious choices, such as chicken or another vegetarian menu item (see Appendix H).

Waste Management Recommendations

Composting

Due to space and hauling company limitations, the team concluded that implementing composting in the current Ann Arbor location is infeasible. The City of Ann Arbor is working towards creating a commercial composting route; this would eliminate one of the barriers outlined above: frequency of compost pick-ups. If the city provides more frequent pick-ups Frita could also partner with neighboring businesses to implement composting in their own business, reducing the need for a larger dumpster, thus creating space in the alleyway necessary for compost receptacles. Despite not being able to implement compost hauling in the current location, the team developed criteria to take into account then considering new locations in new markets:

- When considering a new property, Frita should ensure that there is adequate space in the alleyway for compost receptacles. In order to reduce compost

contamination from neighboring businesses, Frita needs to determine methods of securing or locking receptacles.

- The kitchen in the new location should have space to accommodate compost receptacles.
- In order to limit contamination, there should be developed training materials to train staff in acceptable compostable materials.
- When identifying new markets, ensure that the city or town has local private or public hauling companies. Frita needs to determine potential limitations of the haulers such as volume capacity, types of compostables accepted, and frequency of pickups.
- It is important to consider price of compostables versus traditional disposable ware or reusable ware before moving forward with all compostable products.
- Frita should compare the price of contracting with compost haulers versus traditional landfill haulers. This requires reaching out to city offices to determine if compost is offered through public service.

Waste Impact

The LCA resulted in a clear preference for glass in terms of cost and environmental benefits. However, reality differed significantly from LCA results. Due to special, logistical and disposal constraints, Frita had not used reusable cups in the past, but the team assumed purchasing patterns consistent with silverware. While the theoretical result of the LCA suggests sticking to reusable material, the actual use and disposal trends at Frita led to a different outcome which the team outlines below. The cost comparison is summarized here as a short-term reference with more comprehensive LCA figures in Appendices J and K.



Shortly before beginning this project, Frita switched from reusable materials to compostable cups. The company wished to remain environmentally friendly but faced high costs associated with specific reusable items such as silverware, which staff had trouble sorting prior to disposal. Due to this inefficiency, material was frequently thrown out by the staff during peak hours. The short lifespan of the reusable material paired with increased labor costs required to sort and wash altered the costs relative to initial LCA results. Frita opted to use compostable cups, which cost more than recyclable plastic, but expressed the same concerns over sorting and threw everything away together. This resulted in increased landfill despite the use of compostable cups because the compostable material wasn't being composted. Sorting waste in the back-of-house would

require increased labor, but would ultimately result in decreased material costs and decreased environmental impact. The resulting LCA figures incorporate Frita use patterns, but assume that compostable and recyclable material is properly disposed in order to highlight the differences in relative impacts.

While the LCA incorporated Frita use patterns, disposal is an integral part of the LCA. The LCA breaks down relative impact by lifecycle phase, but assumes proper disposal in each scenario. Frita does not compost because dumpster space is limited and there is no reliable year-round composting service. Since no compost is available, the use of compostable cups is not the most cost-effective approach from both an environmental and a monetary perspective. Simply using recyclable material will save money and allow Frita to actually recycle the material. Unfortunately, any approach besides disposal of all material will require staff to take the time to sort the waste upon disposal, resulting in increased labor hours. These disposal procedures are frequently incorporated into employee trainings, and Zingerman's provides a strong example of both employee and patron training across locations. The company trains employees as they are hired, provides signage above waste units, and ongoing guidance to both employees and clients regarding proper disposal methods. Nonetheless, Zingerman's has noted the challenges associated with proper disposal, especially for composting.

In the interest of scalability, the team recommends that Frita continue the discussion about composting in Ann Arbor and ensure that new locations enable compost. In major cities such as New York and Los Angeles, year-round composting services are easily accessible. In the short-term, the team recommended that Frita switch to recyclable material and implement a training program focused on correct disposal of goods. Frita has incorporated the first phase of this recommendation by switching to recyclable cups. The training recommendations have been presented to the client as next steps. This training material can be adapted and utilized as the company expands and requires more standardized training across different markets.

Expansion Recommendations

Given the level of development currently in the greater Detroit area, the Midtown neighborhood is a top priority. The primary reasons include population density, availability of incentives, presence of financing assistance products, availability of public transportation and walkability. Additionally, within the next three to five years, the team believes that the neighborhoods of West Village and Eastern Market will see continued growth and should be watched as other potential location opportunities. While these recommendations were formed on the basis of current research and resources, it is important to note the speed at which things are currently changing in the city of Detroit.

Key tradeoffs exist for waiting even a few years to enter the Detroit market. These include increased costs and lower levels of availability. As demand for housing and real estate in Midtown increases, the area has seen increases in rent levels. Moreover, according to Executive Director Sue Mosey, locating real estate in Midtown has become more time sensitive, as the availability of older, historic buildings is starting to dwindle (Mosey, 2015). As such, future development will likely skew toward new construction, an important consideration for potential Frita expansion efforts. Additionally, a sense of community has long been an important facet of

growth in Detroit. As such, first-movers, especially local entrepreneurs who have stayed and invested in Detroit, have a distinct advantage because they build rapport within the community.

Regardless of the Detroit neighborhood in which Frita locates, the team recommends tailoring the restaurant and space to Detroit given the considerable sense of community exhibited by local residents. This includes incorporating local materials into the construction or renovation of the new Frita space, selling and sourcing materials from Detroit as well as hiring local Detroiters. Given the critical importance of building the income tax base in Detroit in order to support the rebuilding of the city's infrastructure, finding ways to increase employment rates in the city is a key political and economic focus. As such, incentives such as The Work Opportunity Tax Credit (WOTC) exist to encourage the employment of local residents. The WOTC is a federal tax credit for private sector employers who hire from specific groups of people identified as difficult-to-employ, such as residents of Detroit's Empowerment Zone, food stamp recipients and recipients of Temporary Assistance to Needy Families (TANF), among others (Unemployment Insurance Agency, 2015). A number of recent entrants to Detroit, such as Detroit Manufacturing Systems, Whole Foods and Shinola, have all made concerted efforts to employ local Detroiters (Graham, 2014).

As such, the team recommends pursuing a location in the Midtown neighborhood of Detroit if the timeline allows for expansion in the next one to two years. In particular, the team recommends working with Sue Mosey of Midtown Detroit, Inc. to scout specific locations within the Midtown neighborhood that align with the vibe and space requirements outlined by Eve. Sue Mosey is well versed in the development timeline, availability of real estate and portfolio of incentives accessible to incoming small business owners looking to locate in Midtown. However, the team recognizes that given competing strategic initiatives at Frita, the timeline for expansion is ambiguous. As such, if Frita is unable to expand in Detroit in the next few years, the team recommends reevaluating neighborhoods using the Expansion Criteria Checklist (Appendix L).

Appendices

Appendix A: Frita Batidos Customer Survey

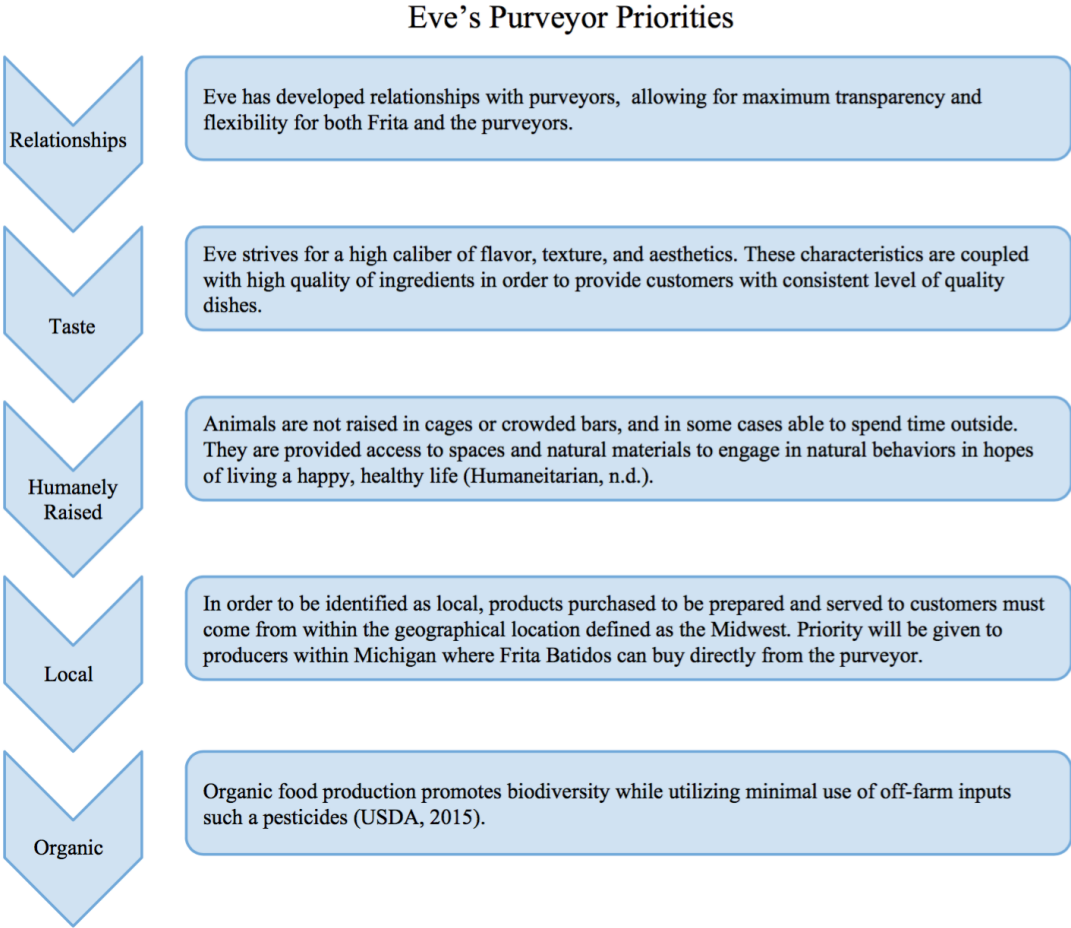


In the interest of serving you more sustainably & efficiently, we are working with a group of exceptional business/sustainability students - if you could kindly answer the following questions, it would be greatly appreciated!

1. I would describe Frita Batidos as -
"A burger place" / "An ethnic place" / "Chef driven" / "Hipster hangout" / Other _____
2. What other restaurant do you think is most comparable to Frita Batidos (either in Ann Arbor or elsewhere)?
_____ There is nothing like it!
3. On a scale of 1-5, how important are the following when deciding on a restaurant? 1 = Not important and 5 = Very important
 - Taste _____
 - Atmosphere _____
 - Value (price for the portion size) _____
 - Use of local & seasonal ingredients _____
 - Service _____
 - Use of humanely raised meat _____
 - Partnership with local farmers _____
 - Use of organic ingredients _____
4. On a scale of 1-5, how would you rate Frita Batidos? 1 = Poor and 5 = Excellent
 - Taste _____
 - Atmosphere _____
 - Value (price for the portion size) _____
 - Use of local & seasonal ingredients _____
 - Service _____
 - Use of humanely raised meat _____
 - Partnership with local farmers _____
 - Use of organic ingredients _____
5. The one thing I would change about Frita Batidos is _____
6. My all time favorite menu item (currently on or off the menu) is _____
7. Rank the following 8 factors in order of importance to you: 1 = Most important and 8 = Least important
 - Use of organic ingredients _____
 - Taste _____
 - Use of local & seasonal ingredients _____
 - Composting _____
 - Quality of service _____
 - Quality of ingredients _____
 - Use of humanely raised meat _____
 - Ambience / design _____
 - Use of reusable dining ware _____
 - Partnership with local farmers _____
 - Cost _____

8. Which of the following best describes the reason you came to Frita? (select all that apply)
fun with friends or family / a celebration! / business meal / just for the food / happened upon it / convenience
9. How often do you come to Frita? it's my first time! / once a year / couple times a year / ___ times a month
10. How often would you order Frita if we offered delivery? _____
For which meals would you order delivery? (select all that apply) lunch / dinner / late night
11. How far did you travel to Frita today? 4 blocks or less / about a mile / a couple miles / ___ miles
12. Last week, how often did you dine out? 0-1 time / 2-4 times / 5-7 times / 8+ times / ___ times
13. My age group is - under 21 / 21-25 / 26-30 / 31-35 / 36-45 / 46-55 / 55 +
14. My gender is - female / male / gender neutral / decline to say
15. My occupation is - student / university employee / full-time professional / part-time professional / other
16. How did you hear about Frita Batidos? _____
17. We welcome and greatly appreciate any other thoughts, ideas or feedback! _____

Appendix B: Eve's Purveyor Priorities



Appendix C: Purveyor Survey

Questions for Farmers and Distributors

1. Where are your products grown or raised?
2. What are the values of your farm?
3. What products do you grow/raise?
 - a. Do you plan to grow/raise/produce others in the future?
 - b. Are you open to growing for the needs of Frita Batidos?
4. What types of processes do you use? Do you have an all natural or sustainable vision?
How does this play into growing or manufacturing? Organic? All natural?
 - a. Are you GAP certified? Why or why not?
 - b. Do you use pesticides?
 - c. What is your typical growing season? Do you have hoop houses?
5. What are your policies for your animals? Do you use antibiotics? How are the animals kept?
 - a. Free range or pasture raised?
 - b. Do you consider them humanely raised?
 - c. If free range, how much time do animals on average spend outside?
6. How much of your sales does Frita Batidos comprise?
 - a. Could you handle an increase in demand?
 - b. Do you currently supply other restaurants in the area?
 - c. What is the maximum volume you could supply?
7. How are your products distributed, how wide is your range?
 - a. Do you deliver to Ann Arbor?
 - b. How often do you deliver? Do you work through a distributor?
8. Do you use any metrics to track sustainability?
9. Do you work with any other farms in the area?

Other Questions

1. Where are your products manufactured?
2. Where are the primary resources from?
3. Where are you based?
4. Do you have specific values in your practices? Ex. all natural, organic, fair treatment of employees
5. How do your products compare to those of national purveyors?
 - a. What differentiates your products?
6. How wide is your product offering?
7. What area do you serve? (local, nationwide, etc.)

Appendix D: Frita Batidos Brand DNA Statement



FRITA BATIDOS

Brand DNA Statement

CONSUMER INSIGHT

Choosing interesting food is an expression of personal identity, which, to have mainstream appeal, requires a balance of the exotic and the approachable.

DESIGN CHARACTERISTICS

Clean, contemporary and stylish execution of a white-washed communal food stand. Modern, soft white backdrop with utilitarian/industrial touches balanced with the consideration of offering every amenity through the design to match the gracious and knowledgeable service. Open, airy background is accented by bold flavors, people, urban street art and music completing the composition. The texture and contrast of the food is mirrored in the design of the space.

CONSUMER TARGET

Urban-minded foodies, aged 20-49, who are happy to pay a small premium for an exciting, high quality taste experience in a hip environment.

BRAND ESSENCE

Hip Cuban-inspired street food, meticulously executed.

VALUES, PERSONALITY

The utmost care and passion put into creating the food - following the seasons - working with local farmers and purveyors.

Distinctive - intriguing - cool - flavorful - convivial - stylish - memorable - delicious - fun!

MENU CHARACTERISTICS

Cuban inspired street food fantasy built around the foundation of Fritas (Cuban style Burgers) and Batidos Tropical Milkshakes). Intensely flavorful with high quality, locally sourced ingredients and expert preparation.

EMOTIONAL BENEFITS

Lets me express my adventurous side on a regular basis. Every bite transports me to a fun, exotic (yet approachable) street market where food is prepared with passion. Being markedly chef-driven I can identify with the "foodie"/culinary culture.

Appendix E: Key Results from the Frita Batidos Customer Survey

Q7. Rank the following factors in order of importance to you (1=most important, 8=least important)

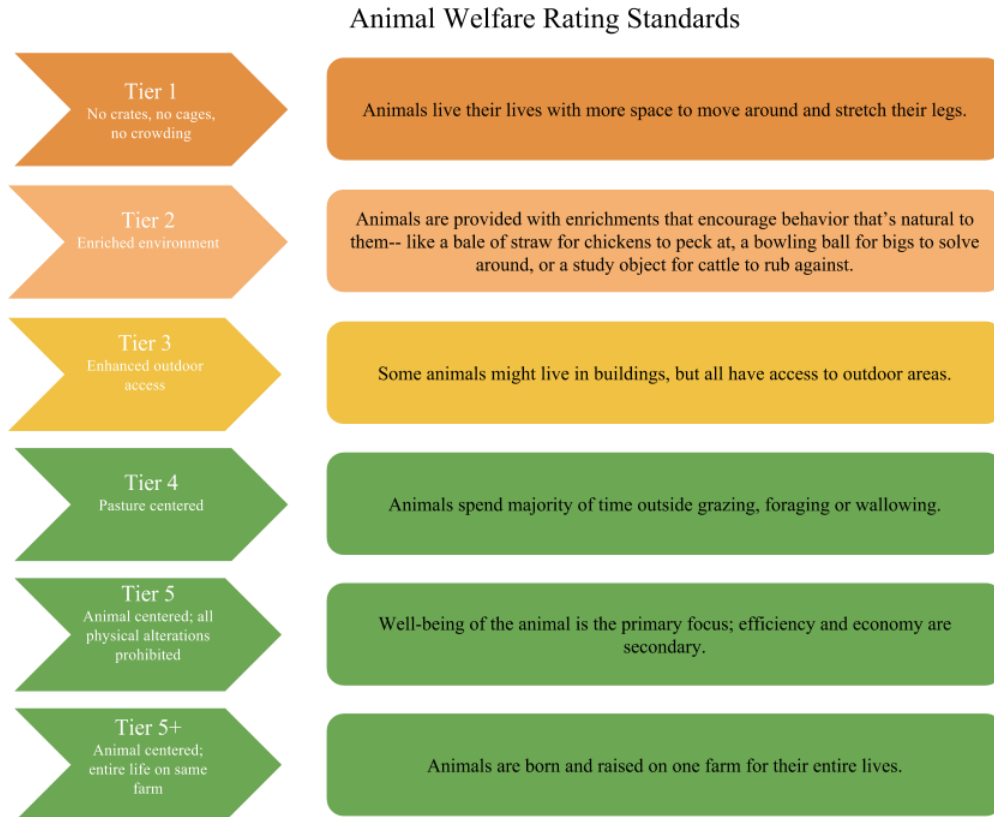
Factor	Level of Importance
Taste	1.82
Ingredient Quality	3.65
Cost	3.83
Service Quality	4.22
Local and Seasonal Ingredients	5.11
Ambience	5.30
Use of organic ingredients	5.82
Use of humanely raised meat	5.91
Partnership with local farmers	6.24
Composting	7.15
Use of reusable dining ware	7.27

Q3. On a scale of 1-5, how important are the following when choosing a restaurant? 1= not important and 5 = very important

Q4. On a scale of 1-5, how would you rate Frita Batidos? 1= poor and 5 = excellent

	<u>Average Rating</u>			<u>Number of Respondents</u>	
	Importance	Frita Batidos	Difference	Importance	Frita Batidos
Taste	4.81	4.80	-0.01	120	114
Service	4.08	4.24	0.17	120	115
Value	3.95	3.47	-0.48	119	115
Atmosphere	3.74	3.91	0.17	119	117
Use of Local & Seasonal Ingredients	3.34	4.07	0.73	119	88
Partnership with Local Farmers	3.22	4.17	0.95	116	75
Humanely Raised Meat	3.21	4.10	0.90	117	73
Use of Organic Ingredients	3.07	4.07	1.00	117	74

Appendix F: Animal Welfare Rating Standards



Source: Whole Foods & Global Animal Partnership

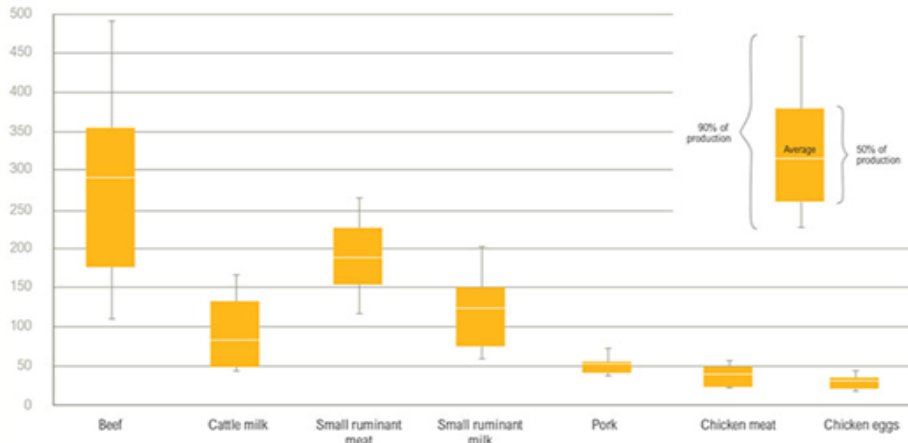
Appendix G: List of Items Ordered from Frita Batidos Purveyors

Purveyor	General items	Order Days
Green Safe	Compostable utensils, cups, containers, lids, trays, and boxes, and recycled paper towels.	Mon, Thurs
R.J. Hirt	Non-perishables including spices, vinegars, rice, and condiments, and also various types of cheeses	Sun, Tues, Thurs
Washtenaw Dairy	Various milks, creams butter and eggs	Sun, Tues, Thurs
Sparrow Meats	Beef (daily), chicken, pork (back up)	Tues, Thurs, Sat
Black Oak	Pork (initial orders)	Sat
Fortune Fish Company	Shrimp, conch, whitefish	Tues, Sat
Noble Ingredients	ham, habanero jack and sharp cheddar	Mon
Carmella Foods	Tasso ham, habanero jack, and sharp cheddar	Mon
Guernsey Dairy	Vanilla ice cream	Mon, Thurs
Royal Foods	Specialty items (ex. Siracha, sweet chili, coconut milk, hoisin sauce, BBQ sauce, passion fruit concentrate, and fish sauce, particularly long lead times: BBQ sauce, passion fruit concentrate)	Mon
Savory Spice Shop	Specialty spices	Mon
Bombay Grocery	Various juices and peppers	Mon
GFS	Plastic wrap, cleaning materials, sugar (no specialty products). Most accessible for local marketplace selection (serve as a backup for many items).	

Appendix H: Comparison of the Greenhouse Gas Emissions of Various Animal Products

Source: Ranganathan, 2013

GHG Emissions Intensity of Animal Products (Kilograms of CO₂e per kilogram of protein)

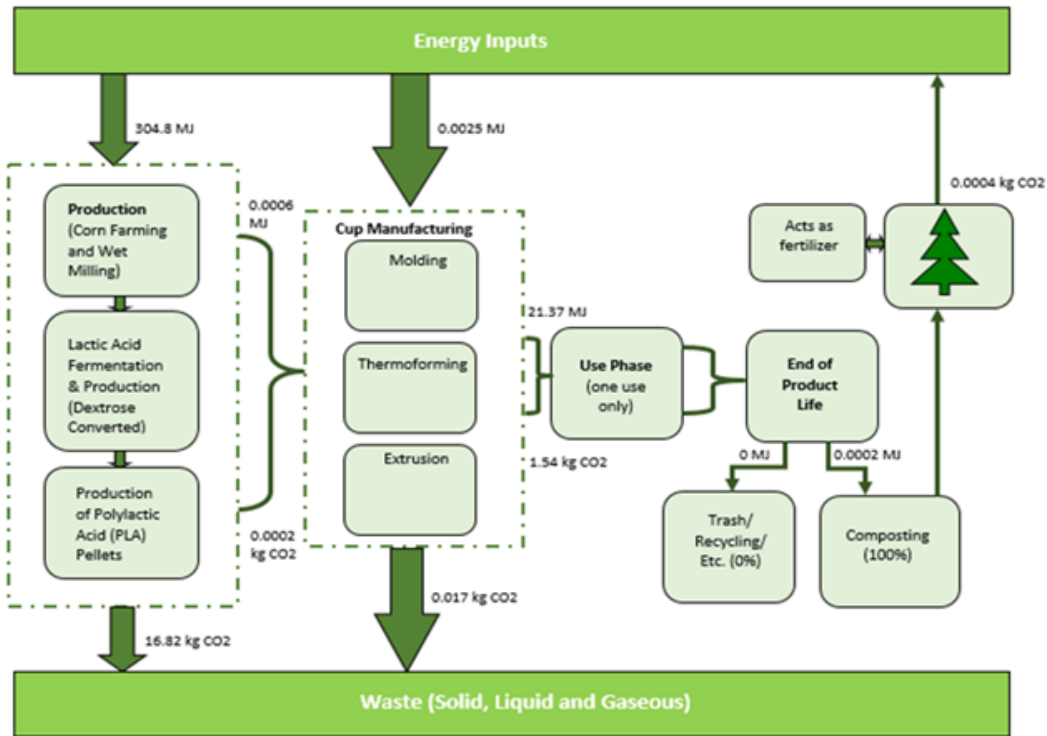


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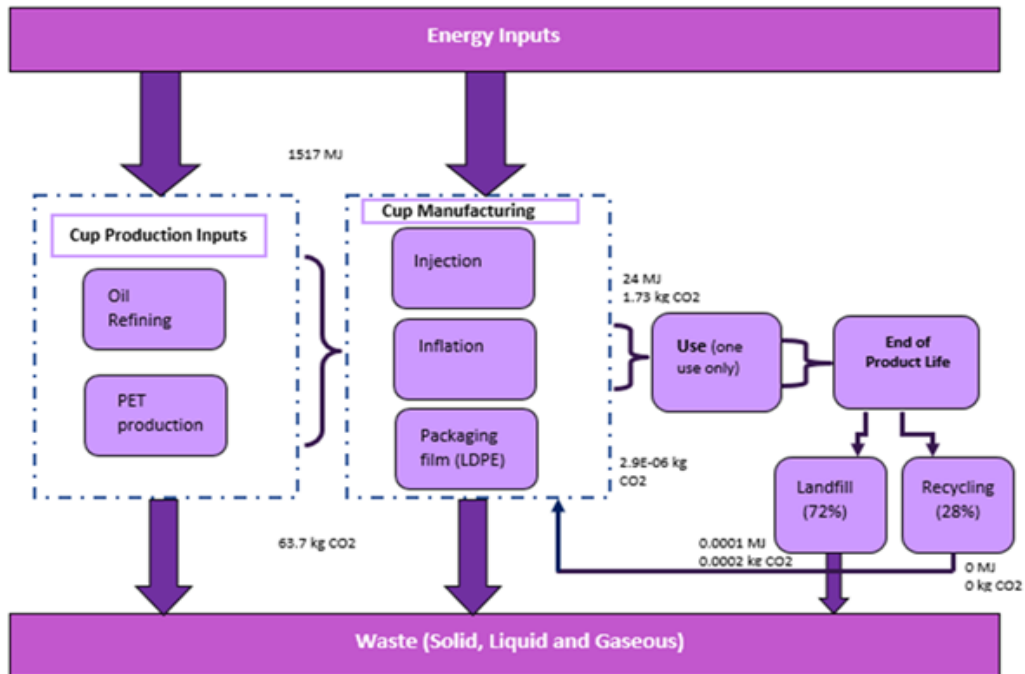
Sources: <http://ow.ly/rpfMN>

Appendix I: Lifecycle Process Flows

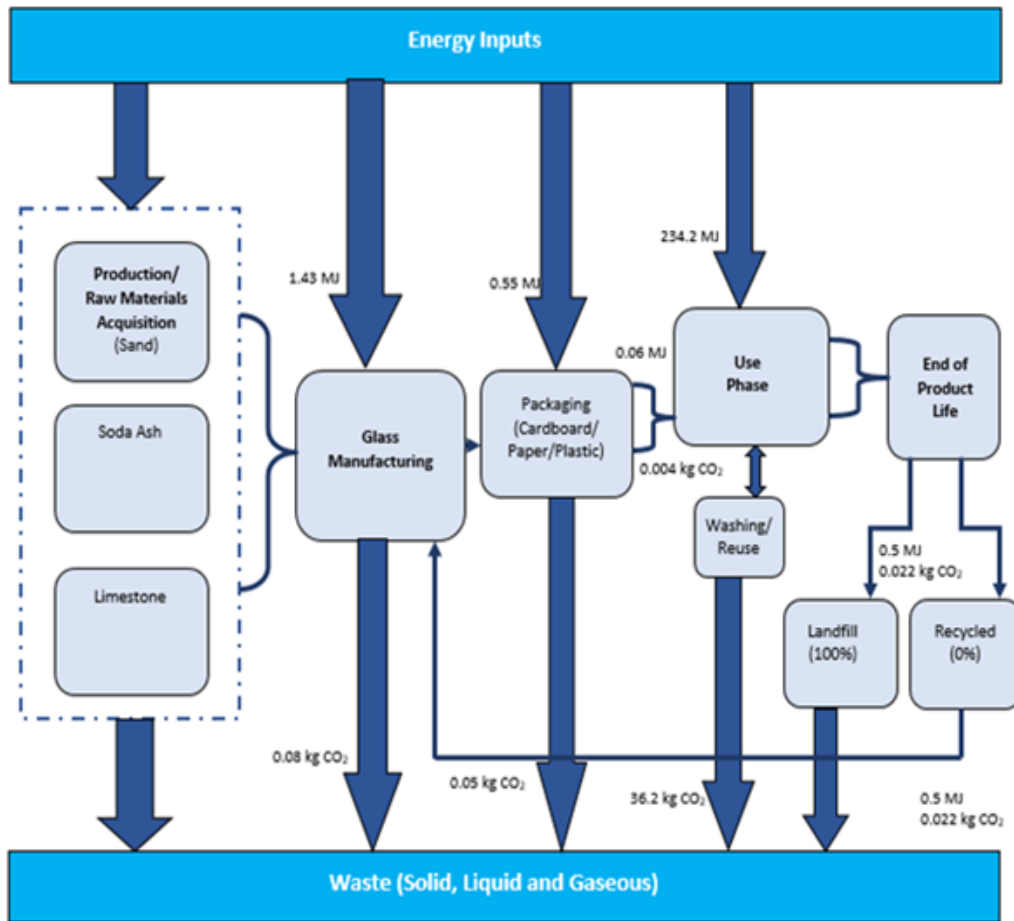
Process Flow Diagram: Compostable Cup (Disposed of after 1 use)



Process Flow Diagram: Plastic Cup (Disposed of after 1 use)



Process Flow Diagram: Glass Cup (Used 1460 number of times)



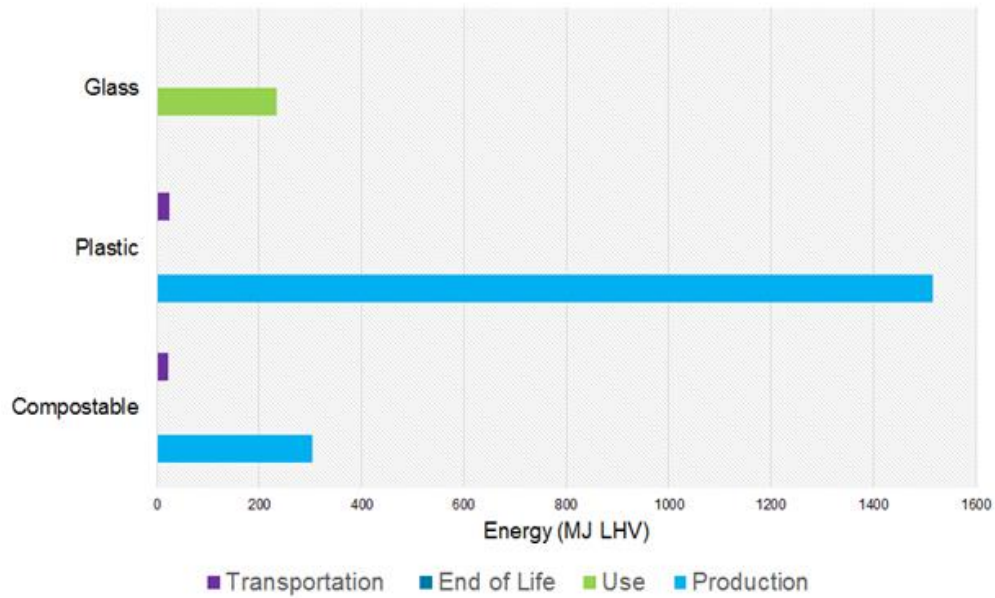
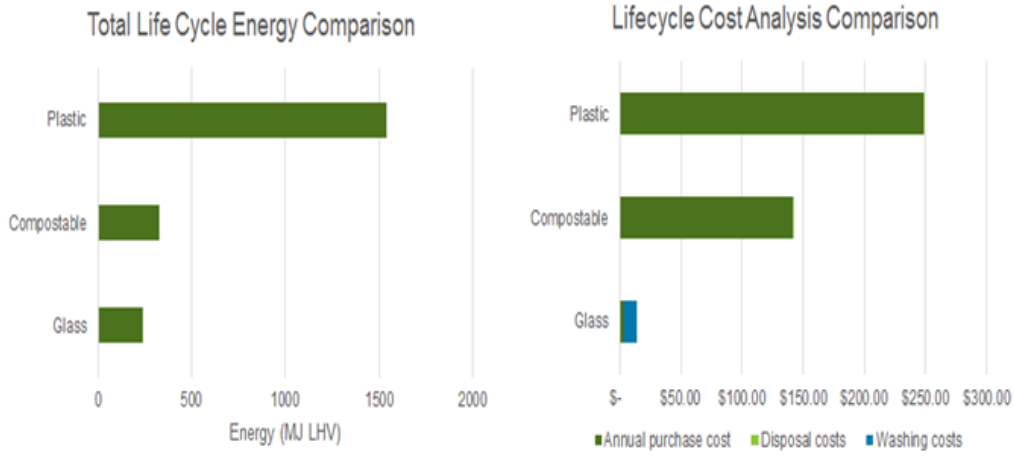
Appendix J: Lifecycle Energy and Cost Comparisons (Simpapro)

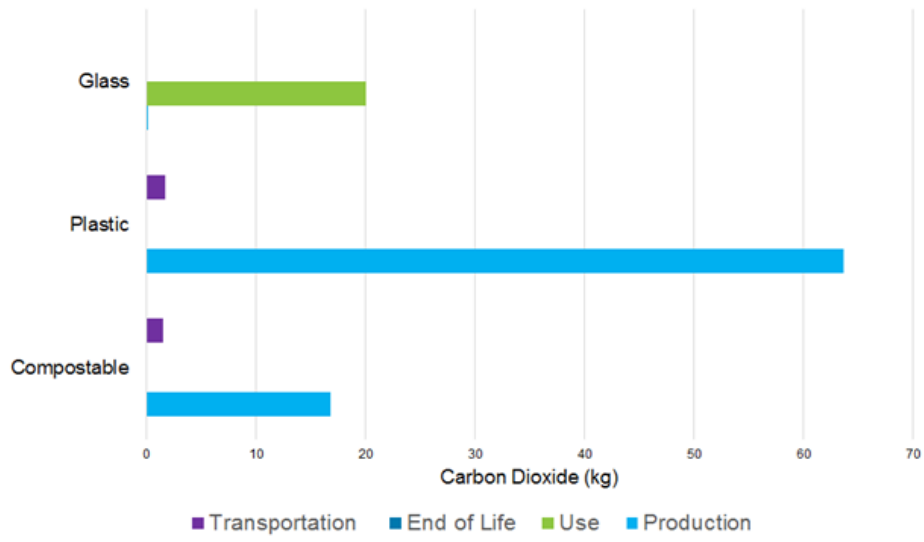
*Annual costs per cup type

Compostable			
Cups Purchased	200,000	Purchase Cost	\$16,000
	CO2 (kg)	Energy (MJ LHV)	Cost
Production	2,304.20	41,764.18	0.00
Use	0.00	0.00	19,401.94
End of Life	0.05	0.03	67.13
Transportation	210.98	2,931.80	N/A
Total	2,515.18	44,695.98	19,469.07
Plastic			
Cups Purchased	200,000	Purchase Cost	\$10,000
	CO2	Energy	Cost
Production	8,720.87	207,900.79	0.00
Use	0.00	0.00	34,003.40
End of Life	0.04	0.02	149.33
Transportation (net)	237.01	3,288.00	N/A
Total	8,957.88	211,188.79	34,152.73
Glass			
Cups Purchased	575	Purchase Cost	\$1,840
	CO2	Energy	Cost
Production	17.61	286.63	0.00
Use	2,510.63	29,270.00	34,525.00
End of Life	2.85	62.61	1.25
Transportation (net)	0.54	7.41	N/A
Total	2,531.61	29,626.65	34,526.25

Appendix K: Lifecycle Graphic Energy and Cost Comparisons (Simpapro)

*Relative annual impact by cup type (assuming 4 uses/washes per day)





Appendix L: Expansion Criteria Checklist



Expansion Checklist

When analyzing neighborhoods in a new market, gather the following data:

To understand if operating in a particular neighborhood will be profitable, collect financial information

- Availability
- Average rent per square foot
- Monthly gas, power, water, sewage, and waste management fees
- Real estate taxes

To learn if a neighborhood can afford Frita's price points and how many and how often people will visit the restaurant, understand demographics

- Population density
- Number of households per restaurant (within Frita price range)
- Walk scores
- Average household incomes
- Education levels
- Number of new housing starts

To learn whether the Frita concept will resonate, gather competitor data and understand the market

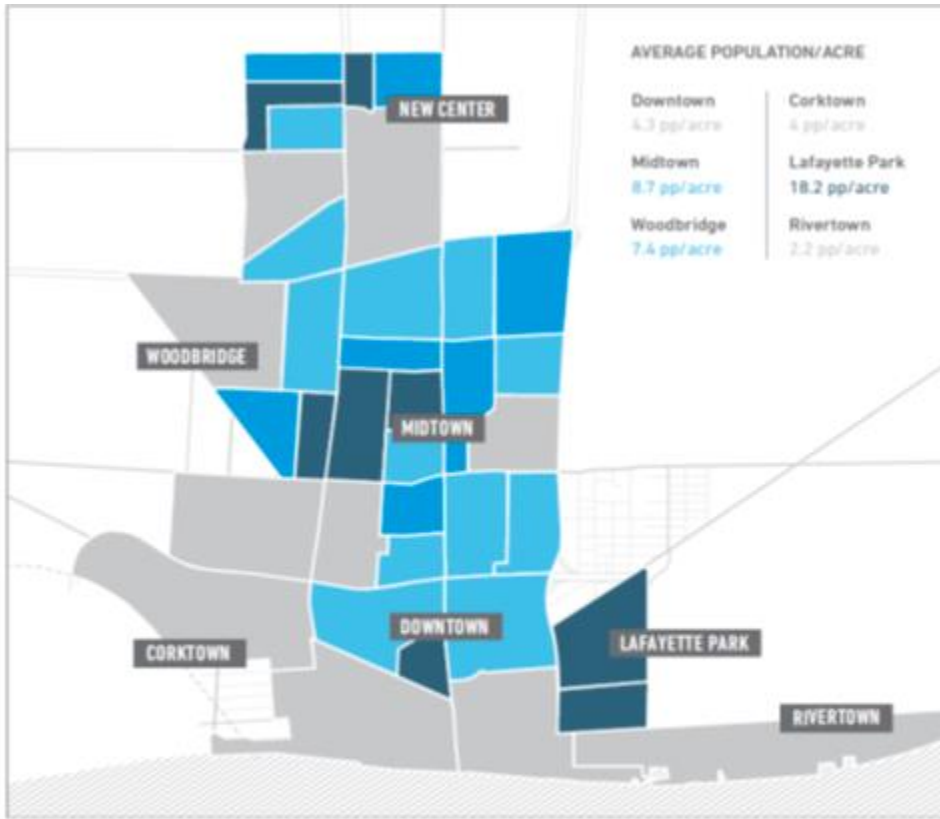
- Number of restaurants with a similar concept within xx mile radius (size of the radius depends on population density of neighborhood being analyzed)
- Average price points
- Competitor performance benchmarks
 - Annual revenue
 - Average number of customers during peak and non-peak times
- Number of new commercial & residential development permits

To understand the mix of potential business (breakfast, lunch dinner or catering), gather employment data

- Number of businesses within xx mile radius
 - Walking
 - Driving
- Number of employees
- Percentage of employees that walk or take public transit to work
- Percentage of employees that walk to work
- Planned development of new centers of employment

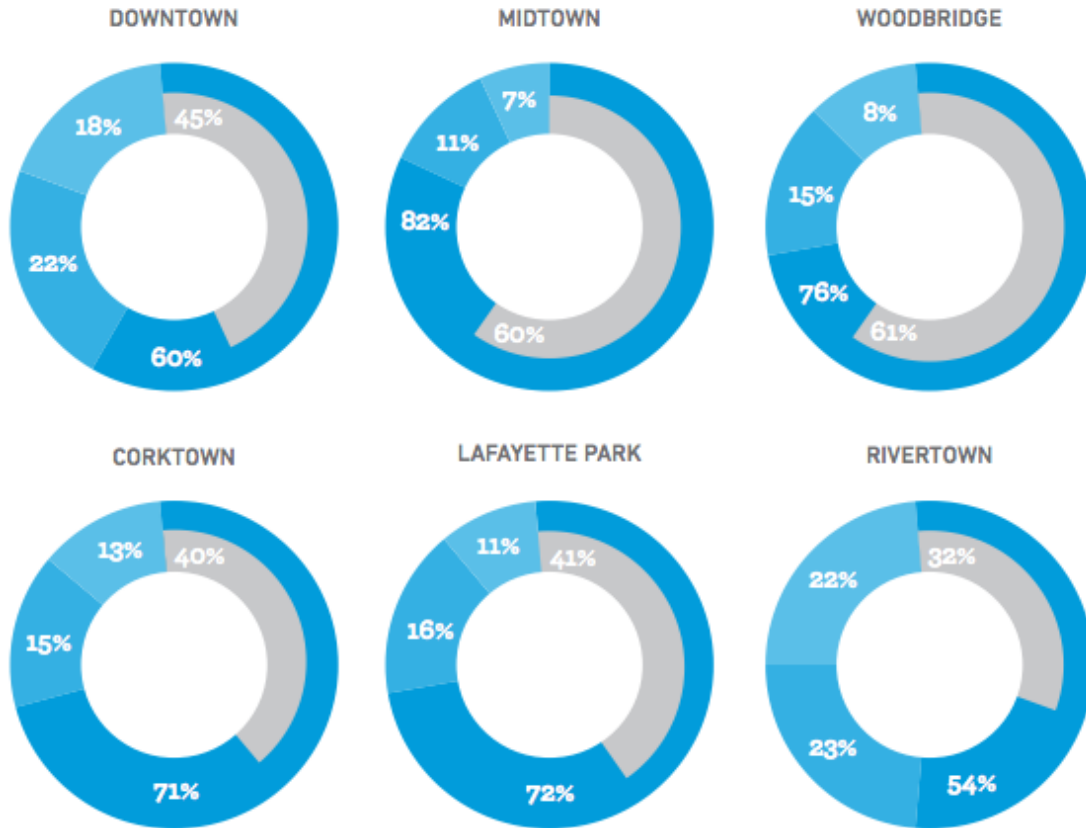
Appendix M: Greater Downtown Population Density

Source: 7.2 Square Mile, 2015 (2012 Estimate)



Appendix N: Income Distribution, Percentage and Number of Households

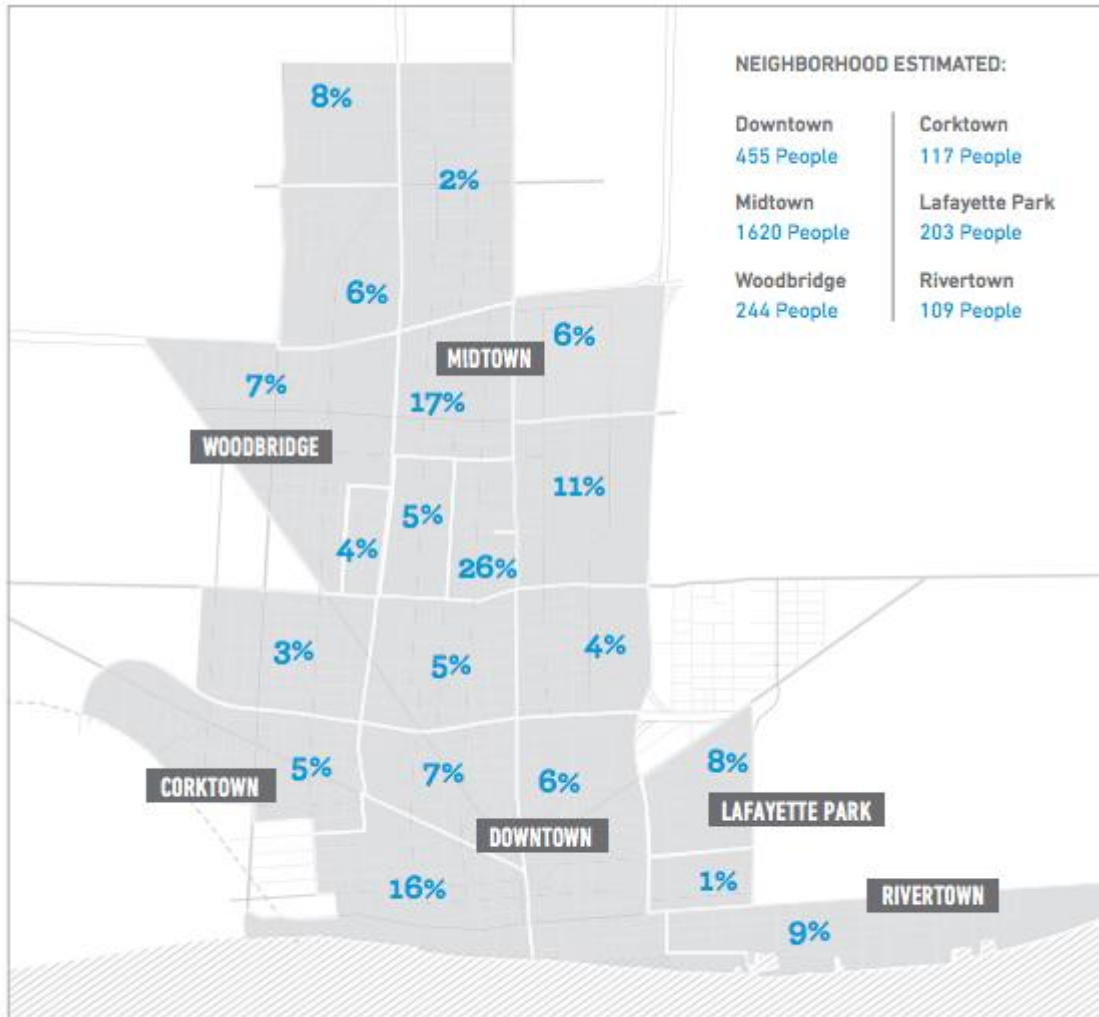
Source: 7.2 Square Mile, 2015 (2012 Estimate)



Income Bracket	Neighborhood	< \$25K	< \$50K	\$50K-\$100K	\$100K+
< \$25 K	Downtown	1,505 HH	2,056 HH	695 HH	560 HH
< \$50K	Midtown	6,136 HH	8,162 HH	1,207 HH	748 HH
\$50K-\$100K	Woodbridge	1,139 HH	2,056 HH	695 HH	560 HH
\$100K +	Corktown	533 HH	946 HH	200 HH	183 HH
	Lafayette Park	1,115 HH	1,966 HH	431 HH	297 HH
	Rivertown	300 HH	516 HH	220 HH	211 HH

Appendix O: Percentage of Residents Ages 25-34 with a Bachelor's Degree

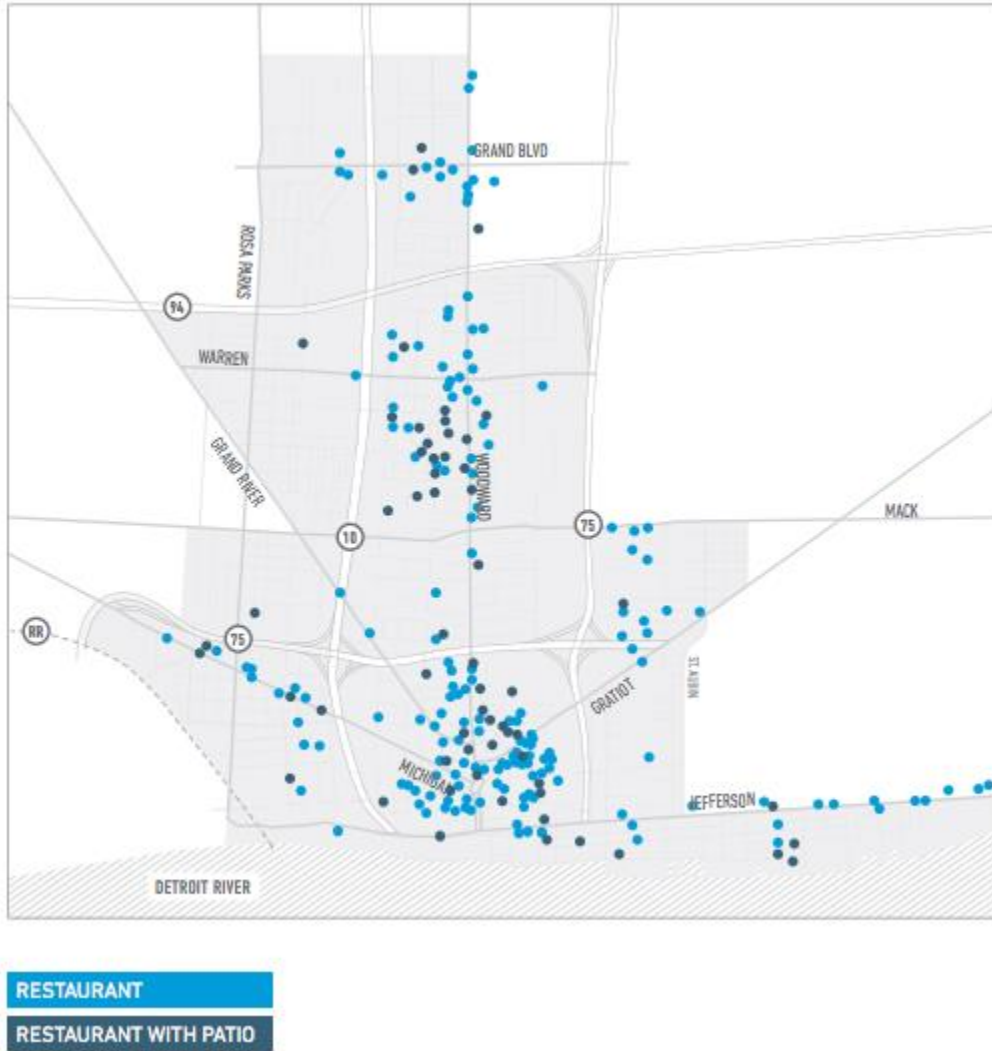
Source: 7.2 Square Mile, 2015 (2012 Estimate)



* Percentages indicate the proportion of population in area of Greater Downtown with a Bachelor's Degree or higher.

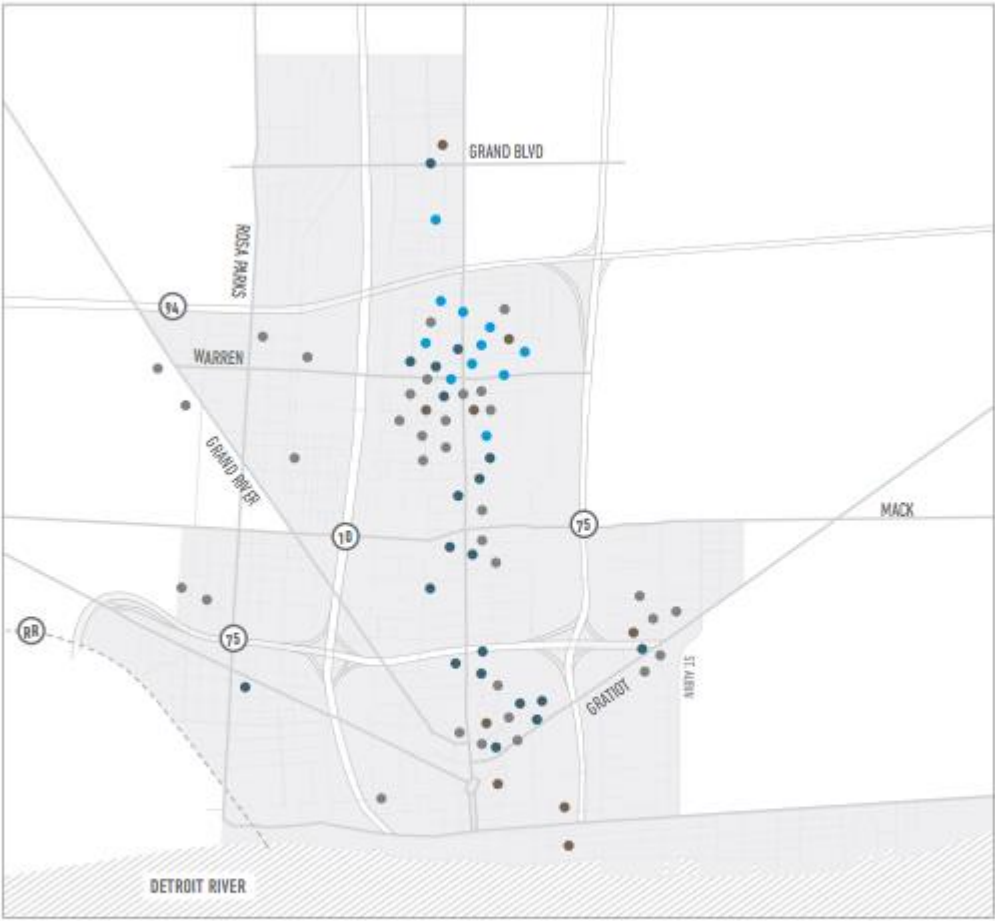
Appendix P: Restaurant Locations in Greater Detroit Area

Source: 7.2 Square Mile, 2015 (2014 Estimate)



Appendix Q: Locations of Detroit Area Cultural Institutions

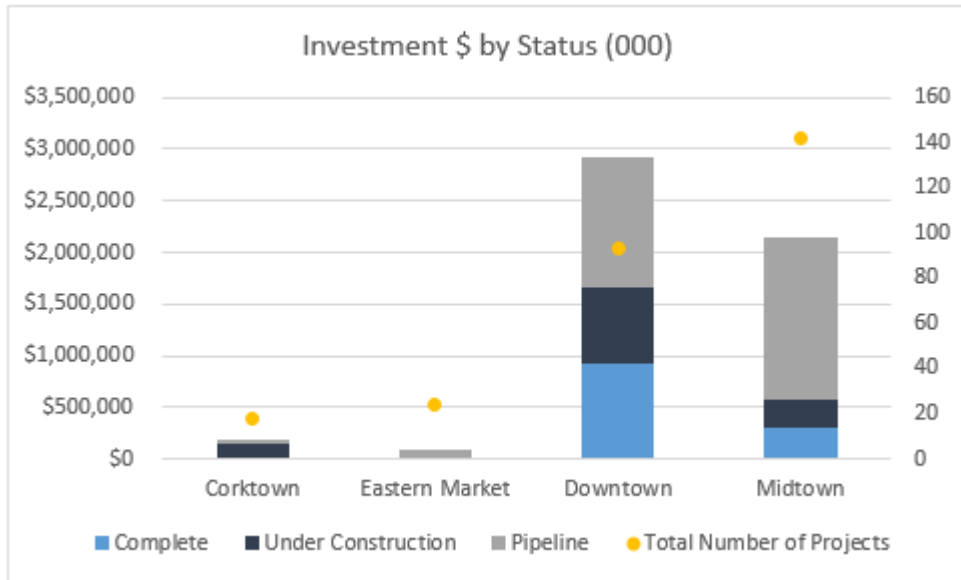
Source: 7.2 Square Mile, 2015 (2014 Estimate)



LIBRARY/MUSEUM	ARTS/CULTURE ORGANIZATION
GALLERY	THEATRE/PERFORMANCE SPACE

Appendix R: Investment Spending by Project Status

Source: 7.2 Square Mile, 2015



Appendix S: External Interviews

Interviewee #1: Mark Retzloff

Title: Practitioner in Residence at the School of Natural Resources and Environment

Date of Interview: February 13, 2015

Mark Retzloff discussed a few main areas with the team including references for research, forming core beliefs and mission, and comparable restaurants with Frita Batidos. For references, Mark passed along the Aurora Corporate Citizen Report as an example of how a business communicates to clients and constituents, and a contact, Tim Redmond who started Redmond Foods. A company's beliefs directly dictate how the business operates and are defining statements for the mission. These beliefs should be posted throughout the business and every employee should have a copy of these beliefs. The mission is what the business does to fulfill its purpose, where beliefs provide context for carrying out the mission. Comparable restaurants discussed included Zingerman's (Ann Arbor), Fox Restaurants, Mellman Group (Chicago), Fonterra Group (Chicago), and Big Red.

Interviewee #2: Gavin Crynes

Title: Restaurant Consultant at Fare Resources

Date of Interview: March 16, 2015

Fare Resources aims to build strong food communities through consulting, education, resource development, and sharing in the Bay Area. Many of their areas are relevant to this project including operations assessment, scaling-up, ingredient lifecycle, and environmental impact and triple-bottom line planning. Fare Resources uses mainly qualitative analyses, which was discussed on this phone call, in particular the types of questions asked of the businesses and discussion topics at the beginning of their work, highlighting values, what drives success, and where there is room to change. In terms of sourcing, Fare Resources finds that farmer's markets are not necessarily efficient, so they focus on trustworthy vendors where the qualities align with their values. They interview employees about work flow and the knowledge and skillsets that they have or are needed to work effectively in the restaurant. They also do in-depth analyses of the business financials, marketing plan. Gavin provided a survey that Fare Resources uses to best understand relevant information about their client restaurants.

Interviewee #3: Professor Anocha Aribarg

Title: Assistant Professor, University of Michigan, Ross School of Business

Date of Interview: March 30, 2015

Professor Aribarg discussed expansion strategy with the team, and specifically the best ways to distribute a survey at the Ann Arbor location. Based on these conversations, content of the survey was revised.

Interviewee #4: Rodger Bowser

Title: Managing Partner, Zingerman's

Date of Interview: April 10, 2015

Rodger and the team discussed Zingerman's values and sourcing strategies. At Zingerman's, sourcing is completed somewhat independently by the individual businesses, but some items overlap, like napkins for example. Rodger chairs Planet Zingerman's, their sustainability committee, which also has a representative from each business. Each business comes up with its own zero waste initiatives, and employees drive much of the sustainability discussion. Partnerships are still needed for solar goals and waste initiatives, however. Some of Planet Zingerman's 2015 goals include: (1) becoming lean stewards in each business with a sustainability leader in each, (2) education, and (3) report successes and track data on sustainability goals including Scope 1 (energy), Scope 2 (waste streams and water usage), and Scope 3 (most difficult to measure, i.e. emissions to ship mail order to different regions). Some of the barriers Zingerman's has found in sourcing include education of farmers and the lack of small and medium sized farmers. Zingerman's does pursue co-education with their growers in the forms of email communication, quantity, packaging, and environmental practices.

Interviewee #5: Shannon Brines

Title: Lab Manager ESA and Farm Owner, GIS Consultant for SNRE

Date of Interview: August 5, 2015

Shannon mainly discussed compost and suppliers with the team. This included specific composting and recycling companies, such as We Care Organics who partners with the City of Ann Arbor, Recycle Ann Arbor, and Star Valley. Specific recommendations for local beef included Black Oak, Michigan State University's meat map of Michigan, Chris Hearth at Old Pine Farm, Steinhauser Beef, HollandFarer from FAIM Focus Group, Corman Farms, and Argus's coop and Grazing fields coops for eggs, and Cedar Dairy for dairy needs. Additional resources include Argus Farm Stop's waiting list of farmers, Eat Local, Eat Natural has a list of local farmers and delivers product, Food52.com, localorbig.com, and Zingerman's Roadhouse.

Interviewee #6: Chuck Cornillie

Title: Owner, Black Oak Farms

Date of Interview: August 24, 2015

The team discussed options for meat sourcing with Chuck. One difficulty with chicken is that there are few USDA facilities to grind chicken, which is very expensive. One difficulty mentioned with beef is the leftover parts that Frita does not need, the steaks. Frita only needs the ground meat so distributors have to find restaurants or customers to buy the same volume of steak as ground beef. Additionally, cows do not birth year-round. The closest USDA processor is 100 miles away, so it costs about \$300 to get hogs or cattle there. The beef carcass can produce about 50 pounds of ground beef, with 550 pounds of retail cut. Eve uses about 300 pounds for ground meet, but need to account for the other 250 pounds. Two suggested retailers include Eat Local, Eat Natural, and Cherry Capital Foods in Traverse City.

Interviewee #7: Nicole Stallings

Title: Senior Policy Advisor, Jobs and Economy Team, Detroit Mayor's Office

Date of Interview: December 4, 2015

Nicole was extremely informative about potential neighborhoods in Detroit, delving into some specifics of relevant changes occurring in each neighborhood. She indicated that it made sense to primarily focus on Downtown and Midtown since they are clearly growing, and more and more businesses are popping up in those areas. Four other neighborhoods discussed included West Village, New Center, Corktown, and Eastern Market. West Village currently has CraftWorks (a restaurant) and Sister Pie (a bakery), both of which are very popular, but no fast casual concepts. The area is very residential now but the city is working on a large riverfront redevelopment mixed-use strategy to bring in more retail and to connect Downtown to West Village. New Center is North of Midtown, and is more commercial now, but residential units are planned. There are also maker-spaces and innovation development happening. This area is expected to grow rapidly at the end of 2016 or beginning of 2017 when the rail is done, as it is likely to have passenger facilities for train stations, and connect M-1 and trail lines to Chicago and Ann Arbor. Corktown has a lot of new restaurants opening. There are not a lot of workspaces, Nicole just thought of Quicken Loans and a Post Office off the top of her head, but there are some offices west of the restaurants. Eastern Market is working on a huge planning effort from Brush Park to east of Eastern Market, but this is long-term development. Right now it does not get much foot traffic as it is more of a weekend or evening destination. Additional residential and mixed-use development will eventually be planned. Nicole knows all the buildings in Midtown, and the City owns vacant land across the city, so she will be able to help once Frita has narrowed down to a specific area and type of space. Nicole also connected us to contacts at Midtown Inc., Eastern Market, Midtown & New Center (Sue Mosey), West Village, and Corktown.

Interviewee #8: Spencer Olinek

Title: Business Development Manager, Detroit Economic Growth Corporation (DEGC)

Date of Interview: December 10, 2015

Spencer Olinek works at DEGC on legislative and policy, and downtown strategy efforts, and on projects such as 7.2 SQ MI, which reports on neighborhoods and progress in Greater Downtown Detroit. Specifically, Olinek helps businesses both that are currently in Detroit and businesses that are growing to work with brokers and show specific new locations. While DEGC used to own property, they now work more on the sourcing side, especially working with obsolete property. They also have a D2D program which is a local procurement initiative to help large companies spend more discretionary budget on local businesses. Olinek works across the city. He points out that rent is becoming prohibitive for many businesses in Corktown, Midtown, and Downtown, but also that Detroit residents have a high willingness to drive, even for lunch. This is shown by crowds at restaurants that are not walkable from other attractions, such as Roses' Fine Dining and Green Dot Stables.

In terms of assessing areas for Frita, Olinek discusses the difficulties of using metrics. Whole Foods was much busier when it opened than anyone expected despite having demographic information. DEGC offers a few services for businesses. The first is Motor City Match that

shows locations available. Olinek recommends pursuing spaces of interest, and if they are limited, to talk to DEGC about what Frita is looking for as tax abatements and loan products could be available based on the nature of construction and physical space. DEGC can show Frita around particular neighborhoods, such as Indian Village and West Village, where DEGC has close relationships with CDCs that have more intimate knowledge of the space and projects. DEGC can also facilitate introducing Frita to people who recently opened in various neighborhoods.

Interviewee #9: Mike DiBernardo

Title: Economic Development Specialist, Eastern Market Corporation

Date of Interview: December 14, 2015

Mike spent 15 years in the Michigan Department of Agriculture working in food processing and Agrobusiness, and moved to Eastern Market Corporation in June. He helped with Eastern Market expansion plans and just finished the ten year strategic plan. There are some opportunities in Eastern Market but they are at a 95% to 98% occupancy rate.

Interviewee #10: Susan Mosey

Title: Executive Director, Midtown Detroit, Inc.

Date of Interview: December 15, 2015

Susan (Sue) Mosey commonly goes by the nickname “Mayor of Detroit,” and has been key to the revitalization of Midtown, as the Executive Director of Midtown Detroit, Inc. The organization specifically, they buy and improve real estate, help the art scene, and help business find locations in Midtown. The population of Midtown has increased significantly, with 1,600 new residents from 2013 to 2015, and 21,000 residents now in the area. Additionally, 60,000 people work in Midtown and 2.5 to 3 million visitors come through per year to visit museums, the Henry Ford Hospital, and the area as a whole. They have been working towards providing real estate to bring in more tenants, with the city providing read-to-go spaces, a 30,000 square foot office building going up, and 800 housing units under construction with high occupancy rates and waiting lists.

With these changes there have been an increased presence of food options including fast casual, ethnic foods, and street foods. Mosey has seen an emphasis on local, but also an increase of national chains. Every development deal is custom. For example, the City brought in Seldon Standards, and now they have brought up the entire block. Some new restaurants and restaurant concepts to note include: Grey Ghost (coming from Chicago to Midtown), Atomic Chicken, 2941 Street Food in Rochester Hills, Vietnamese and other ethnic foods in Midtown, and general street food concepts, such as some Israeli and Mediterranean examples.

In comparing Midtown to other neighborhoods, Downtown has a larger daytime population, fewer residents, and a large event population. Closer to campus, there is more daytime traffic, but also more limited availability of space. Mosey notes that as long as the food, service, concept, execution, and vibe are great, people will come to a restaurant. This comes with bringing a more “Detroit feel” to a location opening in Detroit including incorporating local

materials (i.e. reclaimed materials from a firehouse), selling and sourcing materials from Detroit, and adding production to employ local workers. There are even wage credits for hiring local employees.

If Frita were to continue to pursue Midtown, Sue would look for the following information: (1) the vibe Frita would look for, (2) whether they want a new or old building, (4) space size in square feet, and (5) timetable. The old, cool buildings that signify the city are becoming rarer, so renting an old building would be more time sensitive, especially as more breweries move to Detroit.

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