THRIVE BARS

Building a Company based on Sustainability and Values

Dow Sustainability Fellowship – Masters

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Executive Summary

This paper describes the actions taken and lessons learned by the Thrive Bar Dow Sustainability Fellowship Team. As a group, we were interested in food, entrepreneurship, and sustainability. This fellowship provided us with a unique opportunity to focus on these interests and truly learn what it means to be a “sustainable company” through firsthand experience. We leveraged this opportunity to strive for an overarching goal that was simple in design - start a food company that had sustainability at its core.

In order to achieve this goal, we took several key actions. First, we conducted a large amount of market research to narrow our opportunities to a viable area. This research took place through both primary and secondary methods that culminated in our team conducting over 40 qualitative interviews with individuals inside our target segment. Ultimately, these interviews revealed a consumer that is highly informed on their food choices, is looking for an option that meets their demand for a healthier and environmentally friendly lifestyle, and is willing to pay a premium for products that fit their values and needs. Combining these insights with the trends identified in the secondary market research, we concluded that we could best meet the needs and trends of the market through a “vegetable-based snack bar”, both a white space in the market and a resounding consumer demand from our interviews.

After identifying our point of entry, we spent a great deal of time developing the product. The team dispersed over 50 samples of the bar, each time conducting in-depth feedback-based interviews with the consumer. This series of insights and refinements left us with a product that received very positive reviews amongst testers and will serve as our inaugural product. Moreover, it allowed us to verify that there was a place in the market for a healthy, environment friendly food product.

While iterating through the product recipe, our team also made a great effort to ensure that our values and sustainability vision were present throughout company. In order to ensure that this was possible, we reviewed over 40 academic papers to understand the literature around sustainable business practices. Next, we gathered insights from large players in the food space, benchmarking our ideas with their best practices. This research allowed our company to develop a set of values to use as a guidepost in our process. These values emphasized how we wanted to serve our shareholders, our customers, and society at large. Moreover, as our beginning goal was to make this company sustainable from its founding, we developed a checklist that encompassed key business areas and how Thrive Bars will embrace sustainability within them. This checklist serves as a launching point for our larger business strategy, ensuring that sustainability decisions are married with mainstream business decisions.

After conducting this significant amount of primary and secondary research, our team came away with the following key lessons learned:

1. **We confirmed the business case.** Through both our primary and secondary research we confirmed that there is a growing market segment of food consumers who not only
value sustainability, but actively seek it out in product choices. This conclusion shows that there is a legitimate business case to be made for food companies that are willing to focus on sustainability.

2. **Incorporating sustainability into the main firm strategy is vital.** Sustainability is no longer a luxury in business – especially in the food industry. As such, companies across the world are actively attempting to integrate and update dusty corporate social responsibility and environmental plans with the main drivers of the firm. That said, there are still relatively few companies that are founded with sustainability at the core.

3. **You cannot do it alone.** Research has widely concluded that active cooperation across stakeholders is the most effective way to drive impact. It is no longer enough to focus solely on guidelines and certifications. Instead, a company who wishes to drive lasting impact should engage their stakeholders and share knowledge and best practices.

4. **Conflicts will arise, be prepared.** In building the checklist, it became apparent that many of our priorities could be at odds with each other at certain times. As such, it is important to be prepared for these conflicts. It is helpful to have an overriding mission and values to guide decisions, but it is also important to have an understanding of potential interaction between priorities and a prepared priority of effort.

Our project shows that there is a place in the market for businesses that are willing to build around their values – specifically, sustainability. That said, it is not an easy or straightforward path. It takes a great deal of thought, effort, engagement, and dedication to see it through. Often conflicts between key areas will come to the surface, and in those times, the company must be ready to act in the manner that is most consistent with the founding principles, mission, and values.
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Background

Overview of Thrive Bars

Thrive Bars is a sustainable food company that was created in 2016 by the members of this Dow Sustainability Project Team. Backed by a shared passion for sustainability, food, and entrepreneurship, the members of this Dow team utilized this fellowship as an opportunity to unite behind the concept of building a company based on values and sustainable business practices. Although still in the launching phase of the business process, Thrive Bars has received funding from various sources in Ann Arbor and was accepted into an incubator program beginning in January of 2017. Moreover, due to the opportunities provided by the Dow Sustainability Fellowship, Thrive Bars has conducted extensive product development and research, honing their place in the market. These efforts allowed the company to land on the following business proposition:

For the business traveler seeking a way to eat more vegetables on the go, Thrive Bars will provide a first of its kind vegetable bar that offers sustainable energy with sustainable ingredients. Unlike Cliff, Luna, and other competitors, Thrive will be the first snack bar made fresh, with no added sugar, and with a vegetable as the first ingredient. On the supply side, we reduce food waste by sourcing “imperfect produce” from local food hubs, and hire local producers to spur job creation. Our first target market will be consultants and business to business sales.

Our long-term vision is that Thrive Bars will upturn the traditional Consumer Packages Goods (CPG) model. A large part of achieving this goal is through creating “local distributed production” hubs where food companies make and distribute fresh food locally – delivering better taste at lower environmental cost. When we discussed this concept with Jerry of Ben & Jerry’s during the fall of 2016, he responded, “I think that’s the way [the industry] will go, I like your idea.”

Problem Statement / Project Context

As the founders of this company, this Dow Project was not designed for a client or for an outside group’s expectations. Instead, as we began our project in 2015 we had a simple and straightforward goal – start a food company that has sustainability at its core. With that broad challenge, we progressed using three main issues to drive our efforts. These issues included understanding the market we wanted to enter, developing a high quality product that meets an unfulfilled need, and conducting research to enable us to design a company that embraced sustainability in every phase of its operations.

The food industry is a daunting starting point when one considers the depth and breadth of the opportunities available, and the size and power of the existing players in the space. As such, the first issue that the team addressed was gaining a better understanding of the trends in the market. This needed to be accomplished both in terms of the consumers’ desires as well as the
companies/products that already existed. Gathering this information allowed us to better understand the areas of growth that we should test as well as how potential competitors are attempting to meet this need. Through gaining these insights the team was able to match their capabilities with a more specific sub-sector of the food industry and gain a more complete conceptualization of the future state of the business environment.

Moving past industry-wide research, the next issue addressed was understanding the customer and their specific needs and desires. This needed to be accomplished in terms of their lifestyle trends, their flavor and health wishes, as well as their quality and values expectations. Grasping each of these inputs and how they intersect with each other is vital to developing a product that people will buy.

Beyond the market, consumer, and product research discussed above, the team also had to address the values and 360-degree sustainable structure that was the foundation of this venture. This problem was all encompassing as it was truly the starting point for our company and a factor that would distinguish us from other food and snack manufacturers. Even as sustainability becomes increasingly important to food producers and suppliers, founding a company on these principles and injecting them into the core strategy of the firm is still fairly uncommon. As such, understanding how to make this happen as well as the best practices in each of these areas was a major issue for our team throughout the project.

We addressed these problems throughout the course of our project, with several iterations of research continuing over the last nine months. As we made decisions or created concepts, we kept returning to these three problem areas to ensure that we understood the market, the consumer, and the sustainability implications.

**Methodology**

As a team, we began our project attempting to define an appropriate scope and understanding of what could be achieved by the end of this fellowship, and what needed to be conducted after December 2016. As we did not have a client to guide us in this regard, we not only brainstormed amongst ourselves, but also added expertise made available to us from the Graham Institute as well as other food entrepreneurs with whom we were able to connect through our personal networks. Lastly, we relied on our project advisor to act as a “sanity” check on our ambitions. In the end, we decided on a project scope that included creating one viable product with a target customer and a 360 degree sustainable approach. Additionally, we included the deliverable of a sustainability checklist that would encompass our sustainability priorities as a company.

In order to meet these research needs, the team approached the project using four distinct methods – a review of academic literature, in person qualitative interviews, market research / benchmarking, and in-person product testing. Utilizing this variety of techniques allowed us to fully understand our challenges and to build holistic solutions.
Our initial method of research was market research and competitor benchmarking. This allowed us to fully understand trends in the food market as well as how standard bearers in the food industry were thinking about sustainability and health issues. This research allowed us to focus our product search to the realm of “healthy snacks”. Additionally, it served as the foundation of our interview questionnaire.

After this baseline research provided us with a firm foundation, we designed an interview guide that would act as the first stage of our consumer research. These interviews were conducted with 42 individuals from across the country. These individuals were taken primarily from our target market demographic – millennials with busy careers interested in healthy eating. Many were interested in healthy, sustainable food products and were willing to pay a premium to acquire foods that matched their values. These interviews served a key purpose in our process – they helped us identify and confirm gaps in the products that are offered in the market and what desires were currently unmet. Ultimately, it was these learnings that led to our initial product.

Once the product concept was established, the team went through several internal iterations to refine the recipe of the snack bar. From there, we launched into the third research method – product reviews. In this process, we offered test samples (over 80 to date) of our bar to target consumers across Ann Arbor, and gathered both positive and negative feedback on the product. This led to further refinement of the product and new insights on what potential customers wanted from a new snack.

While the product and market specific research was being conducted, we were simultaneously conducting a detailed literature review of sustainable business practices. This focused initially on broad academic articles concerning this topic to strengthen our knowledge, but eventually was honed to cover specific areas that were present on our Sustainability Checklist. This literature was supplemented with key learnings from other food companies who have already made strides in the area food business sustainability. This research was an important part of our process for several reasons. First, it ensured that we did not re-invent the wheel. If there is a proven method being employed in this space, it makes sense to utilize it. Second, it ensured that we were building our checklist using more than our internal knowledge and beliefs. Instead, we could leverage the vast knowledge that is present in the academic and industry literature. Lastly, this research allowed the team to think through the second, third, and sometimes fourth order impacts of decisions that are made in the name of sustainability. No matter what the intent of the original choice, it is important to think through how it impacts the entire process and value chain. This research allowed us to have a better understanding of how our checklist would interact across topics, individuals, and organizations.

**Building our Company**

**Mutual Passions and Shared Values**
Upon forming our Dow Sustainability Fellowship Team and agreeing to a long-term vision for our project, we quickly realized that we needed to learn more about what drove each member of the team in the areas of food, health, and sustainability. This led to many open session brainstorming discussions as well as two ideation sessions lead by experts in the realm of Design Thinking – including University of Michigan Management & Organizations Professor Jeff DeGraff. Additionally, each member of the team took time to research and reflect on companies they were inspired by, helping the team to gain insight into how successful companies use their values and standards to impact our lives. These sessions not only firmed up our cohesion as a team, but they formalized our mutual passions, shared values, and our mission and vision for Thrive. This vision, which was also partially inspired by information presented by Wal-Mart’s Chief Sustainability Officer (see Appendix 2), is included below:

<table>
<thead>
<tr>
<th>Our Mission</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>We Serve Shareholders by</strong></td>
</tr>
<tr>
<td>• Selling premium products with high profit margins for the snack industry</td>
</tr>
<tr>
<td>• Maximizing future value of stock price by seeking rapid distribution gains to drive revenue growth.</td>
</tr>
<tr>
<td><strong>We Serve Customers by</strong></td>
</tr>
<tr>
<td>• Using healthy ingredients and intentionally limiting use of addictive ingredients like sugar and salt.</td>
</tr>
<tr>
<td>• Using no artificial ingredients</td>
</tr>
<tr>
<td>• Being transparent about when and how our food is made</td>
</tr>
<tr>
<td><strong>We Serve Society by</strong></td>
</tr>
<tr>
<td>• Providing opportunities for small producers</td>
</tr>
<tr>
<td>• Using “seconds” vegetables that would otherwise be thrown away due to aesthetic grading</td>
</tr>
<tr>
<td>• Creating circular economy products with compostable wrappers and packaging</td>
</tr>
<tr>
<td>• Limiting emissions due to shorter transportation distances required for local food</td>
</tr>
<tr>
<td>• Incorporating sustainability throughout our structure and value chain</td>
</tr>
</tbody>
</table>

Establishing our mission and vision for our company was a crucial moment for our project as it aligned our team toward a common goal. It focused our decision making process and drove our research toward the goal of building a company that reflected the components of our mission.
Finding our Niche in the Market

After we established the mission and vision for our company, our next major undertaking was conducting primary and secondary research to understand our target market – health conscious millennial business professionals seeking balance in their busy lives. To begin, we conducted secondary research to understand the overarching trends in the food industry and snacking in particular. The research revealed several positive trends that our team was able to build off of moving forward. Namely, adults in today’s market are snacking more than ever with 94% snacking at least once per day and 50% snacking two or three times daily (Topper, 2015). Additionally, 33% of these adults are consuming healthier snacks than last year, another positive indicator for Thrive’s success. Furthermore, 60% of consumers wishes that a healthier snack were available (Bloom, 2015). Diving deeper into the market research, trends show that there are two main areas of growth in this market – snack bars and smoothies. By 2019 the snack bar market is expected to reach $6.8 billion with 69% of consumers regularly eating these products (Bloom, 2015). The popularity of these items is multifaceted, but an interest in health and function appear to be at the forefront of these reasons. Although the smoothie is not planned into our product portfolio at this time, it is important to understand why growth is occurring in this area. To begin, 44% of consumers stated that they purchase smoothies either as an energy boost or because they feel full after consuming them (Gallo-Torres, 2015). Of additional importance is the fact that a smoothie is an easy way to get vegetables, and there are few preservatives or processing requirements (Bloom, 2015). Additionally, as we considered trends in the market, it became apparent that more consumers want to see certain values represented in their food. This is manifesting itself in the types of food that are being purchased – sustainable, organic, natural – as well as what people are thinking about when considering food options. A survey conducted in 2015 showed that a vast majority of consumers think about the way their food is produced, what ingredients compose the food, and the health impacts of these choices (see below chart). This shift in dynamics shows the continued importance of food companies embracing sustainable business models. Gaining knowledge of the wider trends in the market allowed us to better construct our vision for our company and allowed us to move on to primary research better prepared to ask insightful and probing questions.
After the completion of our secondary research, the team moved on to conducting interviews in May and June 2016 in order to gain first-hand information from individuals who would potentially use our product. This primary research was vital to understanding the market, our customer, and the unmet needs they face in their daily routines. Put another way, these interviews would allow us to understand the problems that our consumers currently face and how we can solve them. In order to achieve standardized results and to ensure key questions were asked by all team members, we decided to construct an interview guide (see Appendix 3), making the interviews semi-structured in nature (Rubin & Rubin, 2012). Additionally, to ensure we gained the best insights possible, we included all six question types as laid out by Patton (2002). By asking experience and behavior questions, as well as knowledge questions, we acquired information from a firsthand source about what things they enjoy or dislike about food, what factors are important to their purchasing decisions, and how much they know about the food they purchase. Opinion and value questions allowed the team to learn about the individual’s perspective on food, the food industry, and how food is made. Behavioral questions were also included as they helped us frame the scenarios in which these potential customers consume certain products. The last question type, demographic, allowed us to understand how the interviewees see themselves in the world. Additionally, it provides a frame of reference for comparison with other interviewees and the market at large. Lastly, the tone, demeanor, and general conduct of the interview were guided by insights taken from several leading scholars on interview methods (Miles et al., 2014, Patton, 2002, Rubin & Rubin, 2012, Weiss, 1994).

After the interview guide was constructed, each team member conducted a minimum of ten interviews, ultimately culminating in a total of 42 Customer Discovery Interviews. The results of these interactions provided information concerning food preferences, level of knowledge, willingness to pay, and unmet needs. In order to make this information actionable, each team member synthesized the key findings from their interviews into a customer empathy map.
Upon completion of the individual efforts, the team came together to share findings and develop a finalized vision of our customer and the needs that were unmet by the market (see below). The first finding from our interviews is that our customers are highly interested in healthy “new” and “exciting” food options. Next, it was apparent that these individuals believed that fresh, local food was not only best for them, but also the best tasting and most environmentally friendly food choice available. Moreover, they took time to attempt to understand what ingredients are in the food that they buy — even in snack choices. Another key finding was that these consumers felt they lacked options for consuming vegetables conveniently when not at home. They described ad hoc solutions like bringing carrot or celery sticks and a hummus dip or a jar or bag of nuts and dried fruit when they could remember to pack in advance. Some of the consumers (those on the more environmentalist end of the spectrum) also have a strong response to the type of packaging their food comes in — namely if it is recyclable or compostable. Additionally, our interviews revealed that this is a customer segment that is knowledgeable about their food and are willing to cook and eat at home. That said, they are busy people who are often “on the go”. They are therefore frustrated by the lack of healthy snack options during travel, in their workday, or if they are “stranded” without another option. Also, in terms of snacks, our customers are highly concerned with the sugar content, the number of ingredients, the degree of processing, the “real ingredient” factor, and the type of packaging. Ultimately, our interviews revealed a consumer that is highly informed on their food choices, is looking for an option that meets their demand for a healthier and environmentally friendly lifestyle, and is willing to pay a premium for products that fit their values and needs.

The customer empathy map

- Fresh, local food is best for me, the environment, and tastes best
- I have a hard time finding healthy foods on the go
- Feels a bit like the odd man out in society, pride in decisions
- Fear of hidden ingredients in packaged foods

WHAT DOES HE/SHE THINK & BELIEVE?

- Waste packaging at the store
- When traveling or stressed and not at home, not seeing many healthy snack options. In eco-friendly (recyclable or compostable) packages or with no packaging

WHAT DOES HE/SHE SAY & DO?

- Makes smoothies, often to start the day
- Cooks at home a lot
- Eats nuts and chocolate more for snacks
- Buys food in bulk to cut down on non-recyclable packaging

WHAT DOES HE/SHE HEAR?

- Advice from food blogs, nutrition blogs, and running blogs he/she is reading
- Foodie friends talking about “healthy” new foods and ingredients

- I wish food to look very local & like Grandma made it.
- I wish there were more healthy veggies/snacks on the go
- Seeking foods that help me be mindful and thankful for the food
These insights became the jumping off point for our product development and the path upon which the Thrive team began to travel. We sought to fill the need of a healthy, environmentally friendly, filling, and tasty snack for the individual traveling for work, in an office without easy access to healthy foods, or spending the day in nature. After understanding both the secondary and primary research, we concluded that we could best meet the needs and trends of the market through a “vegetable-based snack bar”, both a white space in the market and a resounding consumer demand from our interviews.

Creating and Refining Thrive Bars

With our key learnings from our Customer Discovery Research as a guide, the team set out to develop a vegetable-based snack bar. Our first recipe was a carrot-based bar that would be composed of locally sourced ingredients, with an ingredient list of fewer than ten items. Additionally, we would not add any preservative to lengthen the shelf life of the product. Instead, we would completely focus on our product as a freshly prepared snack bar.

The development of this product was based on conducting several rounds of testing with “taste-testers”. The team dispersed over 50 samples of the bar, each time conducting in-depth feedback-based interviews with the consumer. These sessions led to modification in baking techniques, inclusion or replacement of ingredients, and ultimately seven different iterations of the bar recipe. In the end, our key finding from the product development phase was to own and embrace our role as a vegetable-based bar, which is a novel idea in the market. This meant creating a snack bar that was completely savory, leaving the sweet flavors to other products. Moreover, it meant ensuring that our product had a visual appeal that included visible chunks of the ingredients (see photos below). Lastly, it meant being more bold with our flavors – including spices such as cardamom to bring a unique global flavor, but to also stand out as a vegetable bar. This series of insights and refinements left us with a product that received very positive reviews amongst testers and will serve as our inaugural product.
Guiding our Actions: Creating the Checklist

The foundation of this project, team, and company is our desire to have a positive impact on the world through our business. For the founders of Thrive Bars, this means putting sustainability at the core of business strategy. Through building our company around the pillars of sustainability – environmental, social, and financial – we are ensuring that we put our efforts toward a product that will represent our values. This aspect of our business is what makes us unique compared to other food companies. As such an important piece to our story, it was vital that we spent a great deal of time considering what this would mean for our business and how we would ensure that we held true to our values. With this challenge in mind, we conducted a literature review and competitor benchmark analysis. By taking aspects of the academic literature into account as well as incorporating methods that are already being proven and embraced by food companies, we developed a checklist to guide our firm. This checklist is meant to encompass every aspect of our company. It is a living document that is exceptionally detailed and will continue to be adjusted, modified, and improved as our team learns more, expands, and is faced with more difficult decisions moving forward (see Appendix 4 for the complete checklist).
Thrive Bar’s checklist is a guide to how each segment of the firm will add value in each aspect of the triple bottom line. It is broken down by major business function, with key impacts, questions and considerations for the environmental, social, and financial aspects (see below for a visual example).

<table>
<thead>
<tr>
<th>Business Function</th>
<th>Environmental</th>
<th>Social</th>
<th>Financial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurement</td>
<td>* Examine impacts on environmental indicators when evaluating product inputs and sourcing partners</td>
<td>* Partner with suppliers who use fair labor practices</td>
<td>* Negotiate prices that benefit partners and our margins - make it a fair exchange</td>
</tr>
<tr>
<td></td>
<td>* Identify partners that maintain organic standards in a local context</td>
<td>* Prioritize local, stand alone farmers to build connections in communities</td>
<td>* Reduce costs through improving efficiency, limiting waste, and accurately forecasting needs</td>
</tr>
<tr>
<td></td>
<td>* Use local products to minimize food and product miles</td>
<td>* Work to enhance the standard of living and self sufficiency of farmers</td>
<td>* Save on costs through focusing on procurement of “ugly” ingredients</td>
</tr>
<tr>
<td></td>
<td>* Source using low impact / high efficiency transportation</td>
<td>* Farming practices that do not harm communities or our customers</td>
<td>* Utilize local hubs to reduce travel costs</td>
</tr>
<tr>
<td></td>
<td>* Attempt to purchase inputs that would otherwise be wasted - “ugly”</td>
<td>* Provide training and capability enhancement to suppliers</td>
<td>* Pre-emption of regulation (health, labeling) save adoption costs</td>
</tr>
<tr>
<td></td>
<td>* Work with partners to share best practices and collaborate on improvements</td>
<td>* Partner with third parties to monitor, train, and improve our process</td>
<td>* Build strong reputation and brand equity due to positive impacts and commitment to environmental and social aspects</td>
</tr>
<tr>
<td></td>
<td>* Follow the inputs to the source - be confident in our ingredients</td>
<td>* Work closely with stakeholders to incorporate needs and desires</td>
<td>* Driving sales through meeting consumer demand for “green” products</td>
</tr>
<tr>
<td></td>
<td>* Promulgate responsible farming methods</td>
<td>* Commit to healthy ingredients and product inputs</td>
<td>* Employ pride in organization's mission and efforts leads to better engagement and less turnover</td>
</tr>
<tr>
<td></td>
<td>* Attempt to close the loop - including recovering resources for re-use</td>
<td>* Use product to promote healthy snacking and natural energy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>* Utilize packaging that is compostable at a residential level or recyclable</td>
<td></td>
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</table>

An overview of each business function is included below and the complete checklist, with specific thoughts and actions for our company is attached in Appendix 4.

**Procurement**

As a food company, procurement of ingredients and packaging are core to our success. This is true specifically to our financial viability, but also to our ability to be successful as a company built around sustainability. There are three major areas that define our vision for driving sustainability in our company’s procurement functions. These areas are stakeholder collaboration, creating norms, and validating our work.

Numerous studies have shown that the best way to promote sustainability in a firm’s value chain is through collaborating with stakeholders (Carter & Rogers, 2008; Spence & Bourlakis, 2009; Gimenez et al., 2012). For procurement, this means actively working with suppliers to understand their options and helping to create solutions and concepts that solve environmental, social, or financial issues. This hands-on approach goes beyond simply “assessing” the supply chain and choosing the best option. It is a way to drive changes in sustainability while increasing the company’s presence through positive action (Gimenez et al., 2012; Fabian & Hill, 2005). This technique is not only displayed in the academic literature, but is utilized by many of the most sustainable food companies. An example of this is seen in
Whole Foods, who in 2009 contacted all of their suppliers using Styrofoam, giving them a deadline to phase out the material in their product packaging. Then, they worked with individual companies as needed to help them reach their goals (Whole Foods, 2016). A further example, one that is closer to our business model, is Clif Bar. They have a goal of shifting their packaging to 100% sustainable. In their plan, the first step is gathering all relevant stakeholders in an attempt to design an effective process (Clif Bar, 2016). See Appendix 5 for a complete overview of this process.

Beyond engaging stakeholders in the procurement process, Thrive Bars must also work to create a system of norms to standardize our efforts in this space. This will include a common industry practice of creating a “code of conduct” with suppliers that outlines the minimum expectations of companies that we will accept into our supply chain. Today, this is seen across the food industry with companies such as Nestlé and Cargill employing this practice to drive higher standards from suppliers (Nestlé, 2016; Cargill, 2016). Ultimately, this type of agreement will allow us to level-set expectations across our procurement channels while pulling standards to a minimum level.

Collaboration and standardization are nothing without checks and balances. That is why it is imperative that we validate our procurement channels. This will include incorporating independent, third party organizations with expertise in specific areas to ensure that we are meeting our goals and standards. Again, this method is not only popular in the food industry, but it will serve to expand our stakeholders and bring new ideas into our firm. These third party organizations can give us insights and innovation to improve on our current practices.

**Distribution:**

There is a great deal of opportunity for sustainability within the Distribution function, and it often comes along with financial benefits as many of the benefits are derived through increased efficiency. That said, it is imperative for Distribution to be flexible and fully aware of each possible scenario so as to understand the full range of benefits that are offered by each option – including environmental, social, and financial benefits. Full visibility and the ability to make the optimal decision in a dynamic playing field will come through several activities. These include conducting regular audits of Distribution activities with an external entity, continually mapping alternatives and their associated impacts, and creating a vetted decision making matrix that will assure the complex decision process is navigated quickly and effectively. Distribution will also work alongside marketing and product innovation to minimize the use of primary and secondary packaging, and with procurement and operations to maximize efficiency from cradle to market.

**Operations**

The operations function is a natural area for sustainability action for any company, this is no different for Thrive Bars. We have broken this down in three distinct ways – work conditions, material choice, and understanding the complete life cycle.
In terms of working conditions, there is obvious overlap between many company functions and operations. Much like procurement and human resources, operations must work to ensure that the working conditions for our employees are not only safe, legal, and fair, but they should strive to exceed these minimums. Moreover, we should promote innovation and new technologies that will continue to drive improvements in these areas.

When considering material choice, operations has several important aspects to consider. Not only must we reflect on what inputs are directly going into our product, but also every input associated with running our company. Moreover, while focusing on choosing the most sustainable material possible, we must also focus on efficiency to eliminate waste and material use in general. Additionally, we have a responsibility to build a system that promotes sustainability – meaning making “green” choices in building design, machine purchases, and infrastructure needs. An example of this priority that we have undertaken at this point is the decision to utilize biomass-based packaging that is derived from sustainable sources and that is home compostable (see Appendix 6 for packaging overview). When considering the inputs and material that we will use, operations is a major area of concern for our checklist, and packaging is only one piece to this puzzle.

All of these thoughts culminate in spending time understanding the complete life cycle of the decisions that we are making in operations. We must gather information and make decisions that are not based on face value, but instead are analyzed rigorously with an understanding of each stage of the life cycle. Only with this level of detail can we ensure that we are truly making sustainable decisions. Obviously, this type of analysis has many factors to consider, and may put different aspects of sustainability at conflict with each other (social vs. environmental vs. financial). This complexity calls for a decision making framework to help Thrive Bars make educated decisions that best align with our values. As such, we are in the process of creating a Sustainability Decision Tree that will help us navigate these complexities. This tool will begin in the operations function as it is a central hub for the firm, but it will likely be modified and transformed throughout the organization.

**Finance**

Sustainable finance for Thrive Bars means putting our money where our mouth is, and it can be broken down into three major areas: investments, controls, and capital employment.

In terms of investments there are three main areas of concern. The first is where we invest our internal funds. It is our position that as a company based on sustainability, we should ensure that our money is not invested in funds that do not live up to that standard. For example, our money should not be invested in oil companies. Instead, we will take action to ensure that our investments go into “green funds”, pushing our sustainability pursuits even further. Next, we want to invest in the community where we work – not just through our actions, but with our money. This could mean many things – the development of our own foundation to funnel money into the community or working closely with local non-profits to support organizations
who share our values. As we continue to develop and expand our community, this concept will become more fully developed, but it is an important part of our financial vision. Lastly, we want to invest in our employees – setting up educational opportunities, scholarship funds, and professional development opportunities. We also want to invest in teaching and disseminating positive organizational practices to build a culture where employees can thrive.

Beyond how we will invest our money, it is also exceptionally important for us to consider the system that we will use to hold ourselves accountable. This will include establishing a rigorous control system to prevent fraud and ensure that we are acting in a manner that is in line with our values. This also involves ensuring that a completely independent auditor is used to check our progress. This audit will also end with a direct report to the board of directors of our company, building a system that has check on the control of the highest leaders. Lastly, we will create a transparent system that shares financial information and investment decisions with the entire company. These control features are important not because we anticipate issues or do not trust the people that will compose our company, instead they represent our stance as a “values first” company. It shows that we will willing to hold ourselves to a high standard and want to ensure we are reaching it.

The manner in which we control and employ our finances are an important feature to becoming a sustainable company. We want to turn this function from a behind the scenes process to a tool that can be used to push our goals further. This means that we must integrate sustainability into basic business decisions such as how capital will be employed and how these programs will be represented in operational budgets (Schaltegger et al., 2016; Hall et al., 2010). Moreover, if we are truly representing our values we must consider how money - economic cost and benefits – are spread out across the value chain (Schaltegger et al., 2016).

Incorporating sustainability into our core business strategy means building our financial structure, methods, and uses in a deliberate manner.

**Education / Outreach**

Education and public outreach are not typical business concerns, but they are items that the Thrive Bars team deem important. To us, this education moves in three directions: across our value chain, to our employees, and within the communities that we work and sell products. Collaboration and education within our value chain is discussed extensively in other areas of this paper, so it will not be directly addressed here.

Thrive Bars is a company that is meant to represent our values, and as such, we think that it is important to actively educated consumers on health and sustainability. This will take place in concert with our product, with resources on our website, and through partnering with third party groups to take part in educational events/activities. The intent is not to cherry-pick and promote research that supports our product, but to invest in education and outreach that helps people live healthy lives in accordance with the most up to date recommendations in scientific literature.
Although it is uncertain in the literature, we believe that this will have a positive impact on our place in the market as it will serve as a distinct item to differentiate us from competitors while associating our brand with positive impacts. Additionally, despite not knowing if these efforts will directly impact our ability to sell the product at this time, research does show that social programs and community outreach provide firms with respect from other companies and their own employees (Eccles et al., 2012; Kramer, 2014; Lamberti & Lettieri, 2009). As such, this program will have some return on investment.

This effort is also important to our employees. We are a values-based company and we want our team members to understand those values clearly and continue to build their own knowledge and passion for these areas. With this in mind, internal education of our work force, including transparency of our process, is an important part of building our work ecosystem that is discussed more fully in the Human Resources section.

**Marketing:**

Marketing provides an integral opportunity to cultivate a conversation with customers that will empower them to make informed consumption decisions. Consumers now make increasingly complex decisions that integrate aspects of their value system while making a purchase, especially in the food space (Ginsberg & Bloom, 2004; Park & Ha, 2012; Verain et al., 2012). Clear and accessible communication about the health value of our products will enable consumers to make informed decisions, will increase our brand value through trust and transparency, and will challenge other companies in our industry to do the same. In addition, marketing will work alongside Education and Outreach to educate customers on the environmental and social issues that our products are designed to address. This will increase consumer demand for products with minimal environmental and social impacts.

**Legal:**

Maintaining legal compliance increases the stability of a company, lending to financial sustainability. By taking this a step further and creating strategies that look beyond compliance to upcoming trends in legislation and policy as well as influencing those changes, our company will increase customer trust. This will have a positive impact on brand value and increase the financial sustainability of the company. Legal will also work alongside the Human Rights department to operate in a manner that is not only fair to employees but beneficial to their overall wellbeing. This will increase retention of employees.

**External Affairs:**

This facet of the business will uphold the commitment to transparency and communication with stakeholders in regard to progress towards meeting company objectives. This dialogue will also serve as a channel for consumers to voice their preferences and ideas that will help to shape the future trajectory of the company. In addition, External Affairs will work closely with Legal to understand the status of the legal landscape, the direction in which it is going, and any
changes that need to take place for the benefit of society, the environment, and the business. A key component of this responsibility is to understand the shifts in government policy. By understanding these trends, our company will be able to innovate rather than react to policy changes, and this will create brand value as well as overall company longevity. Lastly, it is crucial that External Affairs works with organizations that manage impact reports to identify the most effective method. After identifying the reporting partner, we will reach out to competitors and partners in the industry to encourage a standard method of reporting.

**Product Innovation:**

Product innovation is a key area to assuring that consumer needs are met while also innovating on ways to reduce environmental harm and increase social returns. As we are seeking to continually improve existing products while leading the industry in the introduction of beneficial products, Product Innovation is at the center of sustainability efforts. That said, the success of these efforts is contingent on the successful collaboration with other functions within the organization that can advise on the impacts of a product. For instance, Product Innovation will need to work closely with Procurement to understand the implications of sourcing a new material, and Distribution would advise on the impacts of shipping to a new market. Through such conversations, we will gain a full understanding of the life cycle impacts of each product. In addition, while there are many benefits to bringing new, positive products to market, we will have checks in place to avoid unnecessary proliferation of products and production.

**Human Resources**

Sustainable human resource practices is a fairly new phenomenon – one that has not been consolidated in the academic literature to date. Yet, there are still many studies on this topic that show some proven best practices and positive impacts that they have on organizations. Additionally, as one considers the “social” side of sustainability, there are many aspects for consideration in this area. The overarching areas that encompass our thoughts on sustainable human resources include influencing our stakeholders, building the right internal eco-system, and incorporating sustainability everywhere.

It is important to our company that every worker that is associated with our product is treated with dignity and in accordance with all relevant laws. As such, will include aspects of this in our selection and interactions with suppliers. Items such as safety, work conditions, living wages, and benefits are not items that we think should be limited to the people directly working for our company, but instead to all workers. Propelling these social aspects of sustainable resources across our value chain is vital to becoming a 360 degree sustainable company.

Looking internally, the most important feature of human resources is creating a culture of sustainability that is present everywhere – building a sustainability “ecosystem”. Certainly this means ensuring that our internal company functions are environmentally and socially responsible, but that alone is not enough. Instead we will strive to develop a sustainable
workforce with appropriate worldviews and outlooks. As laid out by Benn et. al, this is developed using a focused recruitment strategy, improving working conditions, providing paid maternity/paternity leave, strengthening health and safety practices, undertaking sustainability training and improving communications (2011). This is reinforced by the below statement taken from Dunphy et al. (2007).

A sustainable organization is one ‘which fully incorporates the tenets of human and ecological sustainability into its own operations’ and also works to support the application of sustainability more widely. Such an organization has strong corporate values and senior executive support. It has a flexible structure and HRM practices which build the capabilities of the workforce, provide for participative decision-making, diversity management, high levels of workplace health and safety and performance indicators that reflect ethical concerns.

This is what we mean by sustainable Human Resources – building an inclusive culture that not only discusses sustainability and values with its employees, but actively promotes and supports actions to embrace and improve them. For example, we won’t just talk about recycling and composting, we will provide options and incentives for both at work, and we will provide opportunities for employees to visit our farms and local recycling facilities to understand the cycle of resource flow we participate in.

One last consideration in ensuring that we successfully build this ecosystem is ensuring that sustainability goals and metrics are present throughout our strategy and the manner in which we evaluate our team members. It is well known that some of the most powerful motivations for employees are incentive programs. As such, it is important that we represent our values in evaluations and performance goals. This action will solidify our commitment to these values. It will show that we, as leaders, are willing to support these methods, and we expect our team members to do the same.

Sustainable human resources is an exceptionally important part to building this company. It is not enough for the founders to believe that a sustainable food company is possible. Instead, it must be present throughout the team. Moreover, research shows that companies that embrace environmental and social programs and outreach have better outcomes in terms of job satisfaction and engagement in employees as well as stronger financial outcomes (Ehnert 2009; Clarke 2011; Browning and Delahaye 2011; Wells 2011).

Historically, few companies are born with a broad based commitment to sustainability (Eccles et al., 2012). It is considered an addition to the traditional business model. As such, it is treated as an entity outside of the core function of the business, competing on the periphery for management attention and resources. Incorporating sustainability into the firm in this manner makes mainstreaming these efforts difficult. The current trend amongst consumers is that sustainability and environmental considerations are important. As this continues to expand moving forward, the market will reward companies that have embraced sustainability.
Building our core strategy around these actions not only serve to project our beliefs into our company, but we firmly believe they will be a competitive advantage as well.

**Key Learnings and Conclusions**

Over the course of our time as Dow Fellows, our team has learned a great deal about business, sustainability, and our own personal values. Compounding our learning is the fact that we also gained firsthand experience in the difficulties associated with merging all of these focus areas into a new company. Our major conclusions and findings are as follows:

1. **We confirmed the business case.** Through both our primary and secondary research we confirmed that there is a growing market segment of food consumers who not only value sustainability, but actively seek it out in product choices. This conclusion shows that there is a legitimate business case to be made for food companies that are willing to focus on sustainability.

2. **Incorporating sustainability into the main firm strategy is vital.** Sustainability is no longer a luxury in business – especially in the food industry. As such, companies across the world are actively attempting to integrate and update dusty corporate social responsibility and environmental plans with the main drivers of the firm. That said, there are still relatively few companies that are founded with sustainability at the core.

3. **You cannot do it alone.** Research has widely concluded that active cooperation across stakeholders is the most effective way to drive impact. It is no longer enough to focus solely on guidelines and certifications. Instead, a company who wishes to drive lasting impact should engage their stakeholders and share knowledge and best practices.

4. **Conflicts will arise, be prepared.** In building the checklist, it became apparent that many of our priorities could be at odds with each other at certain times. As such, it is important to be prepared for these conflicts. It is helpful to have an overriding mission and values to guide decisions, but it is also important to have an understanding of potential interaction between priorities and a prepared priority of effort.

Team Thrive Bars is ending this fellowship with more experience as business people, sustainability advocates, and cross-functional operators. With that in mind, this venture was a complete success.
Works Cited


Appendix 1

Team Overview and Acknowledgements

Bridget Henley: is a graduate student at the School of Public Health (MPH).

Taylor Makward: is a graduate student at the Ross School of Business and School of Natural Resources and Environment (MBA / MS).

Denise Miller: is a graduate student at the Ross School of Business and School of Natural Resources and Environment (MBA / MS).

Ally Stewart: is a graduate student at the Ross School of Business (MBA).

We would like to thank and acknowledge the individuals and entities that have supported us throughout this process, including the entire Dow Team, the Graham Institute, our advisor Ryan Gourley and Tech Arb, the Zell Lurie Center for Entrepreneurship, and Zingerman’s Baked!
## Appendix 2

**Mission Statement Inspiration – Wal Mart**

### Opportunity
- Increase economic opportunity
- Priorities:
  - Economic mobility
  - Business development
- Business Impact:
  - Associate engagement
  - Productivity
- Societal Impact:
  - Frontline workforce mobility
  - Economic growth

### Sustainability
- Enhance sustainability of global supply chains
- Priorities:
  - Energy and emissions
  - Zero waste
  - Natural resources
  - Sustainable food system
  - Transparency and quality
  - Worker dignity
- Business Impact:
  - Cost of goods sold and operating expenses
  - Supply security
- Societal Impact:
  - GHG, natural capital
  - Food security
  - Worker safety, livelihoods

### Community
- Strengthen local communities
- Priorities:
  - Disaster response and preparedness
  - Community development
- Business Impact:
  - Sales, license to operate
  - Associate engagement
- Societal Impact:
  - Stronger communities
  - Disaster mitigation
Appendix 3

Interview Guide

Dow Sustainable Food Startup Team

Consumer Interview Guide

April 1 - April 25, 2016

1) Introduction (5 minutes)

Thanks for coming, and thanks for sharing your time with us. My name is {Name} and I’m a first year MBA/MPH student working on a school project for the Dow Fellowship.

Since we only have {time you have, plan 30-45 min} there is a lot we won’t get to, so feel free to contact me afterwards if you have additional thoughts that you don’t get a chance to share with me here [put email on the board in advance].

Your answers will be anonymous – we are doing these interviews to help inform our project, but you will not be identified by name in any transcript or report. You may also pass on any question you do not want to answer.

In a sentence or two, I’d like each of you to share your name, and your favorite food. I’ll start.
I’m {Name}, my favorite food is {favorite food.}

2) What You Eat Throughout the Day (15 minutes)

I’d like to go around the room and hear about your day yesterday. What did you eat, where did you eat it, and who (if anyone) did you eat with?

Probe: Practical issues (why did you make that choice?, etc.)

Now, what are your favorite snacks and beverages and why?

Probe: What

Where

When

With people?

3) Desired food types/attributes/label (10 minutes)

Now, let’s talk about what you look for in foods or beverages you seek out at the store or on the go. Are there certain things you look for on the packaging or label? Where do you shop for them (grocery store, online, 7-11, etc.)?
Probe: What about “natural,” “organic,” “raw” or “superfood” - do you seek any of these and if so why?

Probe: Do you buy any food online? If so, what? What do you wish you could buy online?

4) Cafe Needs

Tell me about the last time you bought a food or drink at a café (e.g., Starbucks.)

Probe: What led you to buy food or drink there, what did you buy, and what could have made the product or experience better?

5) Energy Boost Needs

Describe to me the last time you felt like your energy was low. What was happening in your day? What type of foods or drinks did you seek out?

Probe: Do you seek out energy drinks or smoothies? When and why? What are your favorite flavors?

6) Emotions (10 minutes)

Think about the last time you felt really healthy. What comes to mind? ... Do you remember what you did / ate?

Now think about the last time you felt really unhealthy. Do you remember what you did / ate?

What do you or your friends eat when you’re feeling stressed?

7) Aspirations (15 minutes)

In an ideal day, what would you eat, how would it be packaged, and where would you get it? I’ll give you a minute to jot that down on paper. What is stopping you from that?

How do you think what your friends actually eat differs from what they want to eat? Why?

Probe

- What would you like to be eating more of?
- What would be your perfect snack?
- What do you feel you should be eating more of?

8) Review and Summary (5 minutes)

We’re trying to start a food business focused on natural foods and sustainable packaging. Is there anything you would like to add that has not yet been discussed?

9) Thanks!

Interview Tips

- Use “why”, “how”, and “tell me more about that” a lot!
• Listen!
• Don’t ask about a typical day, people can’t recall typical days accurately, ask about a specific day (“yesterday”)
• Try not to lead too much with your questions.
# Appendix 4
## Sustainability Checklist

<table>
<thead>
<tr>
<th>Company Function</th>
<th>Sustainability at a high level</th>
<th>Sustainability Action by Function</th>
</tr>
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</table>
| **Procurement**  | *Collaborate across the Value Chain including engagement, follow-up, and improvements*  
*Establish Code of Conduct with Suppliers*  
*Challenge industry norms*  
*Work with third parties to verify conditions and claims*  
*Strive to "close the loop"*  
*Create an ethics policy for both environmental and social standards for suppliers and communicate this policy clearly to suppliers*  | *Partner with suppliers who use fair labor practices*  
*Prioritize local, stand alone farmers to build connections in communities*  
*Work to enhance the standard of living and self sufficiency of farmers*  
*Farming practices that do not harm communities or our customers*  
*Provide training and capability enhancement to suppliers*  
*Partner with third parties to monitor, train, and improve our process*  
*Work closely with stakeholders to incorporate needs and desires*  
*Commit to healthy ingredients and product inputs*  
*Use product to promote healthy snacking and natural energy*  | *Negotiate prices that benefit partners and our margins - make it a fair exchange*  
*Reduce costs through improving efficiency, limiting waste, and accurately forecasting needs*  
*Save on costs through focusing on procurement of "ugly" ingredients*  
*Utilize local hubs to reduce travel costs*  
*Pre-emption of regulation (health, labeling) save adoption costs*  
*Build strong reputation and brand equity due to positive impacts and commitment to environmental and social aspects*  
*Driving sales through meeting consumer demand for "greener" products*  
*Employee pride in organization’s mission and efforts leads to better engagement and less turnover*  |
| **Human Resources** | *Uphold laws pertaining to human rights*  
*Advocate fair hiring practices*  
*Emphasize Social and Environmental efforts - ethical firm*  
*Build social systems and values to reach our goals*  
*Evaluations and strategic plans incorporate Sustainability features*  | *Pay a living wage and strive to lower the gap between the highest and lowest paid employees*  
*Go beyond the law in treatment of employees - wages, benefits, safety*  
*Commit to recruiting and hiring underrepresented populations*  
*Strong family programs - leave, child care, benefits*  
*Commit to quality communication from leaders throughout the workforce*  
*Achieve excellent job satisfaction for employees through these program, ultimately driving improved quality of life*  | *Competitive advantage achieved through motivated, dedicated workforce*  
*Talent acquisition outpaces other industry players*  
*Investment in employees drives higher engagement and satisfaction, directly tied to productivity and problem solving*  
*Culture promotes organization learning and innovation - leading to continuous improvements and advancement*  |

*Examine impacts on environmental indicators when evaluating product inputs and sourcing partners*  
*Identify partners that maintain organic standards in a local context*  
*Use local products to minimize food and product miles*  
*Source using low impact / high efficiency transportation*  
*Attempt to purchase inputs that would otherwise be wasted - "ugly"*  
*Work with partners to share best practices and collaborate on improvements*  
*Follow the inputs to the source - be confident in our ingredients*  
*Promulgate responsible farming methods*  
*Attempt to close the loop - including recovering resources for re-use*  
*Utilize packaging that is compostable at a residential level or recyclable*  

*Emphasize internal stewardship of resources - water, energy, paper, etc.*  
*Educate employees on actions they can take at work / at home to have an impact*  
*Promote "Green" transportation*  
*Develop strong internal recycling and composting programs*  
*Track and minimize GHG, energy use, water use, etc. from non-operations actions*  
*Leaders across the firm develop EV goals and are measured against them*  
*Promote free flow of ideas, flexibility, and grass-roots improvements*  

*Pay a living wage and strive to lower the gap between the highest and lowest paid employees*  
*Go beyond the law in treatment of employees - wages, benefits, safety*  
*Commit to recruiting and hiring underrepresented populations*  
*Strong family programs - leave, child care, benefits*  
*Commit to quality communication from leaders throughout the workforce*  
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*Competitive advantage achieved through motivated, dedicated workforce*  
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*Culture promotes organization learning and innovation - leading to continuous improvements and advancement*
Operations
* Collaborate across functions to ensure that the work force is employed legally and safely and that no actions adversely impact stakeholders
* Advocate for safe working conditions, fair hours and living wages along with other workers’ rights
* Focus on sustainable material choice
* Assess production and shipping methods and reduce impacts
  * Complete life cycle visibility from sourcing to end of life (entire value chain)
  * Packaging choices: residential compostable, industrial compostable, and recyclable
  * Materials: use as little as possible, bio-based when possible, recyclable materials, drive for creative improvements
  * Minimize transportation - buy and distribute as local as possible
  * Choose green energy
  * Design system to reduce impacts through locations, structure, and methods
  * Embrace efficiency improvements
  * Closely monitor energy use for speakers

* Align operations with company policy to maximize safe and inclusive culture
* Emphasize living wages and fair hours throughout the operations
* Embrace technology and innovation to improve work environment
* Leverage innovative farming and production systems
* Integrate an evaluation of potential impacts on local communities into operations’ strategies
* Work actively in our communities to enhance their capabilities, provide our expertise, and to be great corporate citizens

Understand environmental impacts to our operation to reduce impacts on future generations, and ensure long term viability of products and company
* Building our communities will assist in their growth and continued prosperity - opening further opportunities for investment
* Improving efficiency and embracing technology will help to reduce costs and provide competitive advantage
* Purchasing and operating in a local context provides more insight into target markets, increasing sales capabilities
* Utilizing alternate energy sources to power our operations can provide tax incentives and long term cost savings
* Increased employee morale improves worker efficiencies and reduces mistakes

Education / Outreach
* Work closely across our value chain to educate on the importance of sustainability
* Actively educate our consumers on the health, social, and environmental benefits of our products
* Engage our employees in continued education on the values and process that define our company
* Work with third party groups to drive this process and create transparency
  * Educating our partners on best practices, improved methods, and business case for EV sustainability will drive our impact further
  * Continued stakeholder development will allow us to improve and understand innovations
  * Outreach with the value chain will ensure standardization and allow opportunities to phase out poor environmental practices
  * Employee education will drive innovation and creative problem solving
  * Consumer education can promote / reinforce environmentally friendly behavior

* Involved in our communities - not just with actions, but with funds
  * Investing money in “Green” or “Sustainable” funds will ensure that we are not supporting companies that go against our values
  * Investing in funds the promote sustainable or innovative technologies can push forward the possibilities on the environmental impact

* Investing financially into the communities that we operate to drive our impact
* Program provides opportunities for all stakeholders to advance their abilities in the area of sustainability

Although return on these investments in unclear, there are positive impact for our brand
* Engaged employees perform better
* Programs such as these put our beliefs and values at the forefront, driving talent into the firm giving us a competitive advantage
* Being engaged in our communities will provide a reputation as a great partner, opening further opportunities

Finance
* Put our money where our mouth is - make “sustainable” investments with our funds
  * Invest in our communities - not just with actions, but with funds
  * Invest in our employees
  * Investing money in “Green” or “Sustainable” funds will ensure that we are not supporting companies that go against our values
  * Investing in funds the promote sustainable or innovative technologies can push forward the possibilities on the environmental impact

* Investing financially into the communities that we operate to drive our impact
* Involved in our communities - not just with actions, but with funds
  * Investing money in “Green” or “Sustainable” funds will ensure that we are not supporting companies that go against our values
  * Investing in funds the promote sustainable or innovative technologies can push forward the possibilities on the environmental impact

Marketing
* Design the strategy for communicating the sustainability vision and objectives of the company and how each product is an extension of those structures
  * Shape the company brand as a leader in sustainability fully committed to transparency and improvements pertaining to impacts across the value chain

* Create clear and concise messaging on the environmental impacts of each product
  * Innovate ways to reduce confusion on eco labeling
  * Collaborate with organizations to increase awareness on environmental challenges that the company has identified as relevant is attempting to confront

* Educate users on the impacts of products through clear messaging so that they can make informed decisions pertaining to purchases
  * Innovate ways to reduce confusion on healthy labeling
  * Collaborate with organizations to increase awareness on the social and health challenges that the company has identified and is attempting to confront

* Consumers expect on-package messaging to better understand the food they purchase - clear messaging will create a competitive advantage
* Consumers are motivated to purchase food based on universal values
* Higher levels of transparency provide a rationale for consumers to pay a higher price point

* Consumers are looking for products that match their values - nutritionally, socially, and environmentally - this product does that.
* Engaged and educated employees are a competitive advantage in terms of innovation and productivity
* Active outreach and education build consumer loyalty, giving our brand and products staying power
* Actions ensure that we are well ahead of any potential bad press that could damage reputation and brand

* Active outreach and education build consumer loyalty, giving our brand and products staying power
  * Consumers are motivated to purchase food based on universal values
  * Higher levels of transparency provide a rationale for consumers to pay a higher price point
<table>
<thead>
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<th>Legal</th>
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<tbody>
<tr>
<td>* Understand the legal frameworks that shape pertinent environmental and social issues</td>
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<tr>
<td>* Provide support and documentation to show baseline compliance as well as efforts to go beyond regulatory requirements</td>
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<tr>
<td>* Understand environmental compliance areas of operation and assist in company policy to meet those standards</td>
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<tr>
<td>* Advise on ways to go beyond compliance as well as prospective changes in the legal landscape</td>
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<tr>
<td>* Understand the legal frameworks that guide the firm’s interactions with internal and external stakeholders, including workers and community members</td>
</tr>
<tr>
<td>* Advise the business on gold standard practices that will encourage the fair treatment of workers and stakeholders across the value chain</td>
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<tr>
<td>* Legal compliance will allow for stability within the company</td>
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<td>* Moving from compliance to challenging legal norms can result in a competitive advantage as consumer preferences shift towards products that reflect their values</td>
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<th>Distribution</th>
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<tbody>
<tr>
<td>* Identify activities to mitigate impacts caused by product transport</td>
</tr>
<tr>
<td>* Set objectives to decrease those impacts and report to stakeholders on progress against those objectives</td>
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<tr>
<td>* Benchmark impacts against competitors and other leaders in sustainability</td>
</tr>
<tr>
<td>* Conduct an independent audit of uses of transportation to understand the impacts and increase efficiency</td>
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<tr>
<td>* Minimize use of air and truck shipping and leverage rail and ocean transport</td>
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<tr>
<td>* Benchmark and set objectives for reduction in secondary packaging used in shipping</td>
</tr>
<tr>
<td>* Collaborate with procurement, sales, and operations to create distribution strategies that maximize efficiency and value to the customer</td>
</tr>
<tr>
<td>* Implement distribution strategies that do not negatively impact the nutritional quality of the product (e.g., use of products to increase shelf life)</td>
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<tr>
<td>* Leverage local systems and businesses for product delivery strategies</td>
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<tr>
<td>* Implement distribution strategies that do not negatively impact the nutritional quality of the product (e.g., use of products to increase shelf life)</td>
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<tr>
<th>Gov’t / External Affairs</th>
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<tbody>
<tr>
<td>* Uphold transparency with stakeholders on the impacts of business operations and progress towards objectives to mitigate impacts</td>
</tr>
<tr>
<td>* Understand the policy landscape that shapes environmental, social, and financial sustainability and advise ways to shape policy to be better for the environment, society, and business</td>
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<tr>
<td>* Understand industry norms (voluntary agreements, third party certifications, etc.) and report to those that are most effective, challenging others in the industry to report as well</td>
</tr>
<tr>
<td>* Understand, track, and shape environmental policies that impact the entire value chain (areas of high control and low control)</td>
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<tr>
<td>* Work with partners and stakeholders throughout the value chain as well as competitors to shape environmental policies to challenge the industry and improve environmental indicators</td>
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<tr>
<td>* Understand upcoming potential shifts in policy and work across the value chain to adapt as necessary</td>
</tr>
<tr>
<td>* Identify areas where government leadership is lacking and work across industry to fill this gap</td>
</tr>
<tr>
<td>* Engage with stakeholders, communities, and other knowledge resources to understand the needs of customers and communities and the gaps to meeting those needs</td>
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<tr>
<td>* Elevate awareness around the public health benefits of sustainable foods with high nutrition content</td>
</tr>
<tr>
<td>* Implement distribution strategies that do not negatively impact the nutritional quality of the product (e.g., use of products to increase shelf life)</td>
</tr>
<tr>
<td>* Leverage local systems and businesses for product delivery strategies</td>
</tr>
<tr>
<td>* Create value by spotting and interpreting external trends originating in industry, society, and government</td>
</tr>
<tr>
<td>* Realize a competitive advantage and long-term financial sustainability through recognizing regulatory trends and allowing the business to adapt to them ahead of competitors, driving down costs and creating advantage</td>
</tr>
<tr>
<td>* Encouraging policy shifts for the betterment of the environment and society will increase intangible assets, such as brand and reputation</td>
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<tr>
<td>* Create strategic alliances amongst collaborators and competitors through working to influence policy and standards in the industry</td>
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<th>Product Innovation</th>
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<tbody>
<tr>
<td>* Innovate to create new products that will better serve customers and communities while reducing environmental impacts</td>
</tr>
<tr>
<td>* Continually revisit and revise existing products to assure that they are reaching maximum benefits for all stakeholders along the value chain and consumers</td>
</tr>
<tr>
<td>* Create products utilizing the environmental impact decision tree</td>
</tr>
<tr>
<td>* Innovate ways in which to reduce waste including in packaging options</td>
</tr>
<tr>
<td>* Sponsor an LCA for products that make up 80% of sales and make changes based on impacts</td>
</tr>
<tr>
<td>* Create products that mitigate environmental impacts wherever possible</td>
</tr>
<tr>
<td>* Create products that have identifiable benefit to the users, including healthy lifestyles</td>
</tr>
<tr>
<td>* Create products that explore new ways to benefit society</td>
</tr>
<tr>
<td>* Avoid unnecessary proliferation</td>
</tr>
<tr>
<td>* Customers are seeking healthier, greener products and are willing to pay premiums for these products</td>
</tr>
<tr>
<td>* Continual stewardship over existing products demonstrates continued commitment to customers, communities, and the environment, resulting in brand loyalty</td>
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<tr>
<th>Board of Directors / C-Suite</th>
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<tr>
<td>* Comprised of at least one outside member</td>
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<tr>
<td>* Appoint a committee of employees to advise on and track progress against social, environmental, and financial objectives, reporting directly to the Board</td>
</tr>
<tr>
<td>* Oversee charitable body if applicable</td>
</tr>
<tr>
<td>* Set objectives for the company on environmental performance and review progress towards those goals on a monthly basis</td>
</tr>
<tr>
<td>* Hold the internal stakeholders accountable for achieving environmental performance objectives</td>
</tr>
<tr>
<td>* Set objectives for the company on social performance and review progress towards those goals on a monthly basis</td>
</tr>
<tr>
<td>* Hold the internal stakeholders accountable for achieving social performance objectives</td>
</tr>
<tr>
<td>* Oversees executive compensation and link to the achievement of triple bottom line objectives</td>
</tr>
<tr>
<td>* Ensure that the company is taking longterm perspectives rather than short term gains to assure that comprehensive sustainability is prioritized</td>
</tr>
<tr>
<td>* Enable mechanisms for risk tolerance to assure that innovative ideas and strategies are granted full consideration</td>
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Appendix 5

Clif Bar Sustainable Packaging Concept

Checklist for Sustainable Packaging Design: 12 WAYS TO THINK GREEN

As part of our commitment to becoming a zero waste company, we’ve developed an internal checklist to guide us in the design of more sustainable packaging systems.

GETTING STARTED

1. Use the Triple E approach (Everyone, Everything, Early).
   - EVERYONE: Bring all stakeholders to the table in the design process (think R&D, Brand, Operations, Sales, Sustainability).
   - EVERYTHING: Consider each step of the product’s life cycle (see #2 for more details).
   - EARLY: Research shows that early stakeholder involvement results in greener products at lower costs.

2. Close the loop. Think cradle-to-cradle, not cradle to grave.
   Where can we reduce waste and close loops in each stage of our product’s life cycle?

3. Design to reduce our shipping footprint.
   Consider the whole system – wrapper, caddy, master case, point-of-purchase displays – and design for pallet optimization.

MATERIAL CHOICE

4. Use lessstuff.
   Make packaging fit the product. Minimize package-to-product ratio.

5. Use materials that nature can recycle.
   Choose bio-based or plant-based materials instead of plastic.

6. Use only synthetic materials that people can recycle.
   - Avoid petroleum-based materials whenever possible and only use if a recycling program actually exists.
   - Avoid plastics #3, 6, and 7.

7. Use recycled materials with as high a post-consumer recycled content as possible.

8. Think outside the box.
   Caddies and master cases make up the bulk of our packaging system. Are they always necessary?

9. Think about ink.
   Use green printing practices, and eliminate ink and coatings wherever possible.

ASSESSING AND REDUCING IMPACTS

10. Minimize shipping for packaging components.
    Buy packaging that’s made close by.

11. Choose green energy for packaging manufacture.
    Support supply chain partners with a smaller carbon footprint.

12. Do the numbers.
    How many resources – trees, water, energy – does this package consume? Can we build it better?
Appendix 6

Biomass Packaging

NATUREFLEX™

NatureFlex™ is a range of speciality packaging films developed by Futamura to offer packaging material options that give strong environmental support towards increasing consumer demand for more environmentally responsible packaging. These bio-films are based strongly on renewable resources (wood-pulp from managed plantations) and are certified to the European (EN13432) and American (ASTM D6400) norms for Industrially compostable packaging. In addition, the majority of grades have been certified by Vinçotte to the OK Compost Home standard for home composting and certain grades have been proven to biodegrade in a wastewater environment. Further testing has proven that most NatureFlex™ grades are also suitable for anaerobic digestion.

To further support the positioning of NatureFlex™, a peer reviewed LCA has been carried out by Thinkstep, based on their GaBi software, allowing transparent communication of the environmental impacts of using these films.

NatureFlex™ films use novel heat seal-resins on each side. They are static free and offer a super wide heat seal range for outstanding machine performance. The films offer good gas barrier properties and the coatings can be tailored to provide varying degrees of moisture barrier, depending on the needs of the wrapped product.

Four aspects for the development of these films have been vital to ensure that each product performs technically and environmentally:
Appendix 7

Dow Poster

ABSTRACT
Our team sought to address the need for fresh, local, and convenient food options through a 360-degree sustainable business model. We have developed a carrot-based snack bar that will provide customers a fresh, vegetable-based, low-sugar snacking option while on the go.

Consumers are increasingly concerned with the origin of their food, and prefer options that are locally and sustainably sourced. Our solution takes a unique approach by offering fresh snack bars that provide sustainable energy with sustainable ingredients.

Our long-term vision is to upturn the traditional CPG model. As the CPG company of the next generation, we will create “local distributed production” hubs where big food companies make and distribute fresh food locally – delivering better taste at lower environmental cost.

METHODS & KEY FINDINGS

Customer Discovery Research
- Interviewed 40+ target consumers about food preferences
- Identified key consumer insights about unmet needs to guide product development
- Key Finding: There is a gap in the market for a fresh, local, vegetable-based snack

Product Testing
- Iterated through 5+ recipes and sought consumer feedback
- 4+ samples distributed and feedback interviews conducted
- Key Finding: Product should be distinctly savory with bold flavors and chewy texture

Secondary Research on Sustainability
- Reviewed existing sustainability checklists from leading companies
- Key Finding: Sustainability efforts have positive impacts on the triple bottom line and are driven by government actions, customer demand, and the desire to improve brand name

CONCLUSION
- Through embedding sustainability across the value chain and incorporating it into the structure of the company, it is possible to gain a competitive advantage and make a positive impact. As such, we believe that our company can make a high-quality product that fits the needs of our customers while using our values on sustainable business as the driving force to our strategy.

- Consumers want their values represented in their food purchases.
- Sustainability is a “must have” in the food industry, yet few firms leverage it in their core strategy.
- Collaboration and outreach across the value chain is essential to achieving impacts and deepening consumer engagement.
- As a sustainable snack company, we aim to make a high-quality product that is founded in the values of sustainability.

ACKNOWLEDGEMENTS
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