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Back to the Roots Ventures (BTTR)

Our mindset has never been just about scaling revenue, but how we do it. We think of ourselves as a 'for-purpose' company.

—NIKHIL ARORA, CO-FOUNDER BTTR

PART 1

“Our vision is to make food personal again and to run a business that can do good and do well at the same time,” said University of California at Berkeley graduates (’09) Nikhil Arora and Alex Velez, co-founders of Oakland, California-based Back to the Roots Ventures (BTTR).¹ The B Corporation² launched in 2009 as a supplier of used coffee grounds-based growing medium for mushroom farmers; however by 2014, BTTR had pivoted numerous times before establishing itself as a sustainable consumer packaged goods (CPG) company.

Arora and Velez, both undergraduate business majors at Berkeley-Haas, had a history of demonstrated interests in education and sustainability. Velez had recently founded the Sage Mentorship Project, Berkeley’s largest one-on-one mentorship organization for elementary school kids, and Arora had recently worked at the University of Ghana on campus sustainability.

Since its founding, BTTR had achieved much success. In the early years, the founders had received \$500,000 in grants, such as the 2011 MillersCoors Urban Entrepreneurship national business competition award (\$50,000 grant). They had been named “America’s Top 25 Most Promising Social Entrepreneurs” by *BusinessWeek*, “Top 3 Company” in the *Newsweek World Challenge*, and “30 Under 30” by *Inc.* Arora and Velez had spoken at various TedX events across the country. The company generated significant media buzz in the *New York Times*, *Wall Street Journal*, *Los Angeles*

¹ Pronounced “better.”

² A corporate form (benefit corporation) where organizations are for-profit entities that also focus on society and the environment.

Nishant Bagadia prepared this case study under the supervision of Lecturer and Social Impact Fellow at the Institute for Business and Social Impact (IBSI) Jorge Calderon and with the assistance of Case Writer Victoria Chang as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.

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Times, *MTV*, *Newsweek*, *BBC*, and on Martha Stewart's show. BTTR was even recognized at the White House in 2012 as a top-100 entrepreneur as part of its Impact Awards (**Exhibit 1**).

By 2014, the company had not taken any significant outside investment, choosing to instead use grants and bank credit lines of \$150,000 in 2011, \$250,000 in 2012, and \$375,000 in 2014 as its seed capital. "We've worked hard to bootstrap BTTR," said Velez.

Siddharth Sanghvi, an experienced social entrepreneur hire and vice president of marketing and operations added: "Nikhil and Alex have always dreamed big. They've wanted to build a company that is scalable and reaches a lot of people...to build a platform that influences millions of people to understand where their food comes from. Our products are almost secondary."

Serendipity

Arora and Velez first learned about the possibility of growing mushrooms on recycled coffee grounds in their last semester at Berkeley when Professor Gunter Pauli³ guest-lectured in a business ethics class taught by Professor Alan Ross. Pauli had mentioned that women in Colombia and parts of East Africa were growing mushrooms from coffee grounds to fight malnutrition. Coffee grounds worked as a soil for mushrooms because they were rich in cellulose, were already sterilized through the brewing process, and had the right moisture content needed to grow mushrooms.

Arora and Velez didn't know each other, but both contacted Ross about the process and the professor made the initial introduction. "We were both intrigued by the fact that you could turn waste into wages by growing local, fresh, and sustainable food," said Arora.⁴ Velez added: "We just thought it was a cool idea but we knew nothing about mushrooms, agriculture, or farming. In the beginning, we had no idea we'd eventually become mushroom farmers."

The two hit it off right away, becoming excited about exploring coffee beans and mushrooms together. They also had complementary skill sets of finance (Velez) and marketing (Arora), and common interests in education and sustainability. Arora said: "When we're working together, it doesn't seem like work. It just seems like fun. We both have the same mindset on our values, mission, vision, and the attitude we want to bring to work. I think it's so important—the idea of a partnership and having a partner when you're starting a business."

When they learned that .02 percent of a coffee bean is used in making a cup of coffee, with the rest discarded,⁵ their initial concept was born. They could build a collection route around coffee waste and "pack it up and sell it to mushroom farmers," recalled Velez. "We definitely wanted to find a market before spending a dime, which has been our philosophy all along, so we went to farmers' markets, asking mushroom growers how much they paid for their current growing mediums and if they would pay for our coffee growing medium. We told them ours was great, even though we had no idea if it was."

Through these initial conversations, they discovered that farmers were only willing to pay "pennies" for the growing medium and the margins would be "negative after transportation costs," said Velez. "We learned that they would not pay much for it and we would be in a very low margin business."

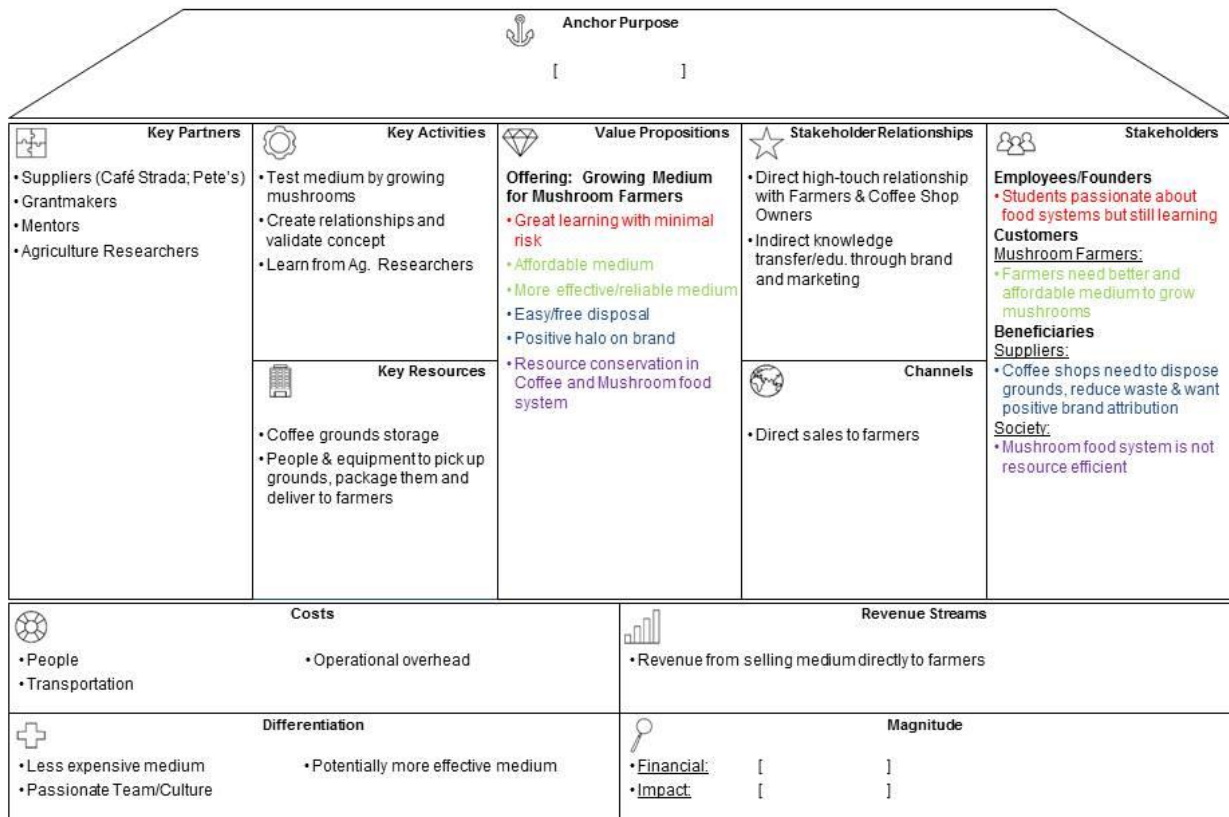
³ Author of *The Blue Economy: 10 Years—100 Innovations—100 Million Jobs* (a book that argues that society will shift from scarcity to abundance "with what we have").

⁴ <http://nikhilarora.com/>. TEDx Talk – Alejandro Velez / Nikhil Arora (TEDxYSE, Washington DC).

⁵ http://en.wikipedia.org/wiki/BTTR_Ventures.

Velez reflected on these early days of their journey: “We didn’t think about how we talk about it today—we just said, ‘Oh, let’s explore mushroom farming.’ It’s what I love about the young Alex and Nikhil—we would just jump head first into any idea we had and hit our heads so hard that we’d realize that probably won’t work.”

BTTR: Original Concept



At that point, they shifted their thinking: “Maybe we should collect coffee waste to actually *grow* mushrooms,” said Velez. They went to Café Strada and a few local coffee shops to pick up coffee grounds to launch their experiment. “At that point, our business model changed 180 degrees,” said Velez.

Full-Time Mushroom Farmers

Arora and Velez brainstormed about mushroom growing, watched YouTube videos, consulted with expert mycologists such as Paul Stamets, ordered spores, and used Velez’s fraternity house kitchen to run some tests. They filled 10 plastic buckets with soil and spores and left for spring break, a few months before graduation. Arora reflected on their lack of experience: “We just realized this was a good idea with a lot of potential. It was a total by-the-boot-strap, learn-as-you-go operation.”⁶

⁶ Sarah Henry, “Emeryville’s ‘Mushroom Guys’ Grow Their Business,” *The Bay Citizen*, November 12, 2010.

“We came back from spring break and opened the closet where these buckets were and nine of the buckets were contaminated but in this one bucket, there were these beautiful oyster mushrooms,” recalled Arora.⁷ Giddy with excitement, they brought their bucket to Chez Panisse, the famous Berkeley restaurant started by Alice Waters. Waters, whom they did not know at the time, happened to be there and asked the chef Cal Paternell to sauté them on the spot. “He said they were delicious and good mushrooms.” (Exhibit 2).

Arora and Velez took that same batch of mushrooms to Whole Foods in Berkeley and ran up to the first person they saw in the produce department to excitedly show him the bucket. The produce person sent them to someone else who sent them to someone else, and after a few weeks, the regional buyer for Northern California Whole Foods (Randy Ducummon) sent Arora and Velez an email to arrange a phone call. Arora said: “The regional buyer told us that if we could figure out a way to get him enough product, he could ‘blow this business up.’ We had no idea what we were doing, but he bought into the ‘why’ and we would figure out the ‘what’ later.”⁸ Arora explained: “We had mushrooms that tasted good, we had demand from Whole Foods, all we needed was supply.”

They subsequently built a relationship with Peet’s Coffee (Shirin Moayyad, prior Director of Coffee) to supply the coffee waste. On Peets, Arora said: “When we first approached them, we didn’t know how they would respond to us. But they were so happy for us to take the grounds off their hands that they started paying us to do it!” In the early days, Arora and Velez collected grounds at 30 cafés every morning at 5 a.m.

The budding entrepreneurs also received a \$5,000 grant from the U.C. Berkeley Chancellor for social innovation a few weeks before graduation. They decided to forgo their investment banking (Velez) and management consulting (Arora) job offers and become full-time urban mushroom farmers, launching Back to the Roots, with the name representing sustainability, innovation, and social responsibility—a “better” way of doing business. And Back to the Roots referred to the completely closed loop system of BTTR’s business. Velez said: “Our first estimate of the U.S. gourmet mushroom industry market was around \$500 million, a small market, but we also saw that this was trending upwards because people in the U.S. were learning about the health benefits of mushrooms and protein and vitamin D. Plus the Asian market was \$8 billion so we thought it could continue to grow in the U.S.”

The entrepreneurs invested in farm processing and equipment to build up operations for scaling a business of mushroom production from recycled coffee grounds. On October 9, 2009, BTTR had its first consistent crop and sold the 3.14 pounds of fresh gourmet oyster mushrooms that had grown out of basketball-sized plastic bags to Whole Foods in Berkeley. The buyer “basically lost quite a bit of money per ounce just to help us out because oyster mushrooms sold around \$10 to \$15 per pound, but they paid us a whopping \$10 per pound,” said Velez. A month-and-a-half later, BTTR had expanded to 500 pounds per week to all 30 local Whole Foods stores and 20 other natural food markets in the area.

As Arora and Velez continued to operate as urban mushroom farmers, however, they quickly realized the challenge of making money in mushrooms with a small agricultural operation (a labor intensive process with high overhead). They did, however, notice that they had generated a lot of excitement from consumers wanting to learn more about growing their own mushrooms.

⁷ <http://nikhilarora.com/>. TEDx Talk – Alejandro Velez / Nikhil Arora (TEDxYSE, Washington DC).

⁸ Sarah Henry, “Emeryville’s ‘Mushroom Guys’ Grow Their Business,” *The Bay Citizen*, November 12, 2010.

Introduction of the D.I.Y. Kit

Arora and Velez wanted to allow customers to replicate the mushroom growing process themselves (because customers had been asking and agricultural farming presented its own set of challenges). The two decided to develop a grow-your-own mushroom kit—the “BTTR Gourmet Mushroom Garden” in a green cardboard box (**Exhibit 3**) that launched in March 2010 as a small test at Whole Foods for \$19.99 (the cost of goods for the kit eventually settled at \$3.50 for the regular version).

These early kits included oyster mushroom spawn, mixed with nutrient rich coffee ground substrate that served as the growing soil. At their own warehouse, BTTR first pressed the coffee grounds to get the right moisture level, then during inoculation placed seeds/spawn into the coffee grounds. In an incubation room, the bags sat for three weeks where mycelium (vegetative part of fungus) started to grow. The bags were then packaged for sale. Consumers purchased the kits, sprayed them with water with provided small spray bottles, and watched them grow. The kits provided up to one pound of mushrooms from the front of the box in as little as 10 days. Later versions provided one pound of mushrooms or more over multiple crops (front and back of the box).

Arora and Velez had come up with the mushroom kit idea while discussing the mushroom growing process with their Whole Foods buyer/mentor. Velez recalled: “We realized the process of growing mushrooms using coffee grounds was pretty simple and that’s when we started asking how we could take this model and make it even more local where people could grow mushrooms at home. That’s when we showed our Whole Foods buyer our plastic bags with mushrooms growing out of them and said, ‘what if we throw a sticker on these bags and you can sell them in your store?’ He said, ‘those bags are hideous but I like the concept.’”

The pair started thinking about package design and came up with an attractive and innovative package that was thin and tall, resembling a wider wine bottle carton. This first green box also had a mushroom shaped cutout in the front from where the mushrooms would grow. On the design challenges of the food movement, Arora said: “The grow-at-home food movement is still kind of stuck in the Berkeley/hippie stereotype. Apple brought design, ease of use to gadgets—we thought, ‘how can we bring design and ease of use to this?’”⁹

“Our vision is to make food personal again,” said Arora. “We’re trying to show that anyone can grow their own.”¹⁰ He added: “We’re the first to admit that this kit is not going to solve world hunger. We’re trying to create tools. We look at this like the first time you ride a bike—it’s an experience a kid never forgets. They can grow this kit, and it might inspire them to think, ‘If I can grow this, where’s the other stuff I’m eating coming from?’”¹¹ Velez added that the shift to a DIY kit “allowed us to become a true product company. Before, just growing fresh mushrooms, it’s impossible to build a brand and differentiate.”

The test kits in the Berkeley Whole Foods market were a “hit with the kids, families, foodies, chefs, and people who were into environmentalism,” said Velez. “Within three-and-a-half weeks, we went from one store into every single Norcal Whole Foods store. We then got a call from Randy [Ducummon] who asked for two kits. He told us that he just dropped the product off with the global produce buyer at Whole Foods—‘let me know if you get a call back,’ he told us. Sure enough, two weeks later, Joe Sandro called us and said he gave the kit to his kid and he loved it and he wanted to take us national. We went from one store to 89 Whole Foods across 11 states within three months.

⁹ Jennifer Elks, “Back to the Roots Growing Food Education, Reducing Waste Thanks to Smart Design,” *Sustainable Brands Issue in Focus*, February 20, 2013.

¹⁰ Whitney Pastorek, “Back to the Roots: Two Fun Guys Help You Grow Your Own Mushrooms,” *Co.exist*, June 1, 2012.

¹¹ Ibid.

This is when we realized this is not just about coffee or mushrooms, but about a movement of growing your own and knowing where your food comes from.”¹²

Peet’s also provided a \$2 coupon for a bag of coffee that was inserted in every mushroom kit. Velez discussed this partnership: “This exemplifies the constant interchange of value between partnerships. Our customers were getting rewarded for making another business more sustainable and could get 20 percent off a product they already loved. And that brought up a natural discussion of us asking them to put the mushroom kit in Peets’ stores in 2011.”¹³ Arora added: “When you’re in school, you’re taught that you have to constantly innovate to maximize your own value. But what we’ve learned through BTTR is that to grow your own business you’ve got to constantly innovate to maximize your partner’s value. That to us is an economic sustainable business, that is business 3.0.”

Arora reflected on his and Velez’ early passion about the DIY mushroom kits: “First, this shows us that no matter what your expertise... anyone can grow local and sustainable food easily and we think that sense of empowerment is really important. Second, is turning this whole idea of waste upside down—nothing is really waste and hopefully we can get people to look at all the other waste streams they encounter in their lives and asking what else they can do with those. And finally, by far the thing that gets us most excited is the kids—the energy and excitement they bring to us every single day through photos and notes, showing us how important it is for children and the youth to start asking those questions of where their food comes from.”¹⁴

The mushroom kit was so successful in receiving significant media coverage that BTTR became profitable in its first few years of business, with \$240,000 in revenue and \$20,000 in profit with only a handful of employees (year one). They generated \$1.1 million and \$274,000 in profit in the second year. BTTR also expanded to other retailers such as Nordstrom, Safeway, HSN, Toys “R” Us, ThreeSixty, Loblaws, and eventually Costco and Sam’s Club.

Experimenting with Closed Loop Operations

As the business grew, the company started generating its own waste. One day, the BTTR team put some seeds within the waste and a tomato plant started growing. They tested their waste against regular potting soil and saw that their premium soil amendment was “so much better.” Arora explained: “Our waste product started growing in our facility and we knew we had to do something, so what do two naïve entrepreneurs do? We put it on Craigslist. Within two weeks, we had a two month backorder on our waste! We had a waste stream but we had this community of urban gardens and school gardens picking up our waste who knew a ton about it. This community helped us package and certify our own waste to sell to support our business.”

This process turned into a packaged BTTR soil amendment that was sold in every Whole Foods in Northern California by 2011. Arora said: “That story sums up our first year-and-a-half, which is, ‘courage to ask.’ We asked the question... what we can do with our own waste... and we learned that none of us have all the answers but we all have a ton of questions all in our heads. As long as we keep asking these questions together, we can make the world a better place.”¹⁵

BTTR also built retail display units for its mushroom kits out of wooden pallets thrown away by Home Depot. Velez said: “Home Depot then put our mushroom kits with their recycled pallets as display cases in their stores and the team members are pumped that we’re recycling their wooden

¹² <http://nikhilarora.com/>. TEDx Talk – Alejandro Velez / Nikhil Arora (TEDxYSE, Washington DC).

¹³ TedX Presidio, <https://www.youtube.com/watch?v=nboaE3O8zE8>, April 7, 2011.

¹⁴ <http://nikhilarora.com/>. TEDx Talk – Alejandro Velez / Nikhil Arora (TEDxYSE, Washington DC).

¹⁵ Ibid.

pallets so they give us even more prominent display and help us sell even more. We've seen 3.5 to 4 times more sell through in every store we've put our display cases in.”¹⁶

As BTTR grew, the company received a significant amount of media and consumer interest around its mushroom kits. In the meantime, urban mushroom farming was taking up a lot of their time but not making them that much money.

Velez said: “We had incredible mentors who are still mentors today that at the time, told us to raise \$3 to \$4 million dollars and build the largest mushroom farm out there. Noah of Noah's Bagels said that he would invest in our company only if we dropped our mushroom kits and focused on fresh mushrooms.”

Divesting

In 2011, BTTR shifted away from farming to kits. Arora reflected: “For a while we were doing both and had a warehouse split 50/50...we thought we could do both...at the end of it...about two or three weeks away from going out of business, we quickly realized that these were two very different business models. We had one where we were growing fresh wholesale produce, and the mushroom kits were a consumer branded item that took a lot of different type of work. We ended up having to make that decision to pick one of these and we thought we could build a national brand.”

The founders had to decide between expanding the use of kits in individual homes across the country, versus investing in locally grown farming and food production. After recognizing that the kits were really the path to building a national brand BTTR, Arora said: “We decided to stop the fresh mushroom production which was our baby. It was one of the toughest decisions we've had to make. The ‘a-ha’ moment for us was that in a startup, it's all about focus and you have to pick one thing and just do that one thing better than anyone else on the planet and put all your energy and soul into it.”¹⁷

At that time, BTTR had very little data on the mushroom kits and how they would sell and knew the challenges of a product that “no one was looking for,” according to Arora. However, according to Velez: “It felt right, we trusted our intuition, and it was what excited us. We loved watching how happy it made people to grow their mushrooms, we wanted to recreate this experience over and over again.”

On the advice received from Noah's Bagels, Velez said: “That was a lesson for us—it takes more than one data point to make strategic decision.”

Package Design

Although the design of the mushroom kits was attractive and innovative, BTTR ran into some messaging challenges with its initial green box, according to Arora: “Our company started as Back to the Roots and as BTTR Ventures. We thought it was brilliant—better mushrooms, better products, but within a week, our customers were asking us why we were selling ‘bitter’ mushrooms or ‘butter’ mushrooms. We slowly got better at design and the customer feedback processes.”¹⁸ By the end of 2010, the BTTR team had iterated their package design and emerged with a brown cardboard version with new messaging without the “BTTR” text (**Exhibit 4**). The team also changed the opening shape to a more rectangular one since the mushroom shape was not optimal for mushroom growth.

¹⁶ https://www.youtube.com/watch?v=K5I9_g1Jv3g.

¹⁷ <http://www.entrepreneuronfire.com/podcast/nikhil-arora-interview-of-back-to-the-roots-with-john-lee-dumas-of-entrepreneur-on-fire/>.

¹⁸ Bootstrap Live, Part 1: <https://www.youtube.com/watch?v=MOs7yK6Gu0E>.

Arora said on this iteration: “We learned about retail as we went along. This first box after the green one had an essay on every side that was in size five font. We had a quote on the box that said, ‘Ponce de Leon didn’t discover the fountain of youth, but we think we did with oyster mushrooms,’ and we sounded so cocky and ridiculous and now know that a picture speaks a thousand words.”

The kit would be redesigned several more times by 2014 (**Exhibit 4**) both in terms of messaging and design improvement. For example, Marinella Eraso, operations manager, said: “Some of our boxes were smashed because the handles were a problem and we had to replace the entire cases with some vendors even though the product was fine. So we came up with foldable handles and used stronger cardboard. There are just some things that you have to learn by doing. Even if we had brought in a packaging expert, they may not have figured it out.”

Arora and Velez reflected: “We neglected the presentation and packaging of our product. Our first mushroom kit was a big, bulky, basketball-size bag of fungus with a sticker slapped on.... Since then, we’ve invested considerable time and resources into the user experience, packaging, and design and distilled the Mushroom Farm into a fun and attractive box.... It’s great to be scrappy—work out of a garage, get Wi-Fi at cafés, etc., but when it comes to product, take a lesson from our mistake and invest in product development early!”¹⁹

The name of the mushroom kit changed too. The product started out as “BTTR Gourmet Garden,” switched to “Mushroom Garden,” then to “Mushroom Kit,” and finally to “Organic Mushroom Farm.” Eraso said on the most recent design iteration: “We felt like if people saw our box, they might not know what it was and consumers only have four seconds to understand what it is, so we took feedback from our customers and tried to convey the message of what it was. So in our latest version, we have a picture of the mushrooms growing out of the box.”

Inventory Challenges

In the summer of 2012, BTTR lost \$100,000 worth of inventory due to incorrectly forecasting sales and thus overproducing thousands of mushroom kits. “It’s not like producing steel or iron that can sit for a while. It’s a living plant and we lost thousands of kits and had other issues because of that. We stretched our cash flow to the limit because you’re spending real money to make that inventory... we learned a lot of lessons but you learn the most diving into it and making the mistakes,” said Arora.²⁰

The extra inventory was lost because the warehouse “wasn’t temperature controlled for part of the summer,” according to Jasmine Jackson, BTTR’s “Community Happyness Guru” (customer relations). She added: “We donated the products on Craigslist and all the local farmers came and took our kits to use for soil amendment.”

The lesson the BTTR team learned from the forecasting problem was “how lean and flexible you have to be in terms of product and production projections,” said Arora. He felt that the team did not evaluate previous quarterly goals quickly enough.²¹ “The truth is that we don’t have the luxury in a startup of having an annual fiscal plan... one big new account that hits or misses can totally change everything... so our biggest lesson learned is that now we have weekly sales and production meetings so we can check our projections and assumptions every single week just so we know we’re on top of it.”

¹⁹ <http://www.marthastewart.com/1067513/five-things-we-learned-starting-business>.

²⁰ <http://www.entrepreneuronfire.com/podcast/nikhil-arora-interview-of-back-to-the-roots-with-john-lee-dumas-of-entrepreneur-on-fire/>.

²¹ Ibid.

Quality Problems

Since launching its mushroom kits, BTTR faced significant quality issues (some simply didn't grow or grew so inconsistently that the company even had a "Name that Mushroom" contest in 2012 on their Facebook page to showcase the wildly different mushroom shapes). The team experimented with their growing medium, using rice hulls and activated charcoal, along with the coffee waste, as just a few examples. Jackson said: "Alex and Nikhil were getting advice from expert mushroom farmers and we were experimenting with those ideas to get our mushroom kits to grow. At one point, my apartment was filled with mushroom kits because we were trying hard to replicate the home-growing environment in order to improve quality." Despite their best efforts, the mushroom kits continued to have quality problems.

Outsourcing

In early 2013, BTTR partnered with a Bay Area (Sebastopol) grower called Gourmet Mushrooms, Inc. (GMI), expert mushroom growers with decades of experience, to grow the mushroom kits. Shifting to GMI also meant moving away from coffee grounds as a growing medium. GMI's growing medium included various agricultural byproducts/waste, such as sawdust, corn cobs, and corn husks. BTTR sold its own mushroom farm and all the equipment and moved the equipment up to Sebastopol. It was at that point, BTTR shifted from a 10,000 square foot urban farm to a 3,000 square foot office space.

Not having coffee grounds in the growth medium did not deter the customer engagement and satisfaction. Evan Santiago, BTTR's "Finance Guy" said: "Coffee was not a good growing source for the kits and having a quality product was more important to us." Jackson, who regularly spoke with or emailed 150 to 200 customers per day on various product questions, issues, and comments for all of BTTR's products, added: "We stopped using coffee grounds because we saw how well the mushrooms that GMI sent us grew and we knew that could really change our customer experience." Jackson also said the customers did not have any problems with BTTR's shift away from coffee grounds because "in the end, they just wanted products that worked." She added: "We were very upfront and transparent with our customers and told them exactly what we were doing and they were very supportive." Arora believed the company had to be very strong at customer service due to "not being the best at growing mushroom kits initially. Jasmine's mantra was to do whatever it takes to make our customers happy."

On messaging away from coffee grounds, Santiago said: "Now we focus more on the knowledge of what's in your food versus the recycling component. We're still focused on being a sustainable company and being environmentally friendly and what's going in our products in terms of packaging and contents though." Others like Alissa Boddie, who worked on product development and executive coordination at BTTR, said: "You can't sacrifice quality for a story."

Velez said that one team member threatened to quit if the company moved away from coffee. Ironically, this person was the only person on the team (excluding Velez's stepfather) who was still with the team from the early group. "We've turned over our team many times over," said Velez. "It's crazy. It's hard to recruit. We focus on fun, passion, and family, but we work our asses off. Eight of us played college sports and we are all very driven, self-disciplined, and very hard on ourselves. It's not an easy culture to create and not an easy one for people to be a part of."

Velez reflected on partnering with GMI, who had been BTTR's mentors: "We had to convince GMI to work with us. It was a leap of faith on their part. These guys have been in the industry for decades and they knew we sucked at mushroom farming and didn't judge us for that." The two companies had

an exclusive agreement where GMI could only make mushroom kits for BTTR. GMI eventually expanded due to BTTR's growth and opened up another farm in Michigan in 2014.

Shortly after the company's shift to GMI, BTTR also shifted their sales team (around 10 people scattered across the country and one in Canada) back to headquarters in Oakland, which meant laying employees off. Boddie said: "We wanted a core team together because a key competitive advantage is our culture." Arora said: "Hiring, growing, and managing a national sales team was a huge learning curve for us."

After outsourcing production of the mushroom kits to GMI, BTTR also found a logistics company to handle shipping of some of the kits (and later the non-wholesale AquaFarms). As a result, the company began to focus on new products and shifted its focus to product design, marketing, and distribution.

End of Part 1

PART 2

D.I.Y. Product Line Expansion

In May of 2013, BTTR launched its AquaFarm product, a self-cleaning fish tank that also grew food (herbs) (**Exhibit 5**). “The product was based on a centuries-old closed-loop method (aquaponics) of growing food that uses fish waste to fertilize plants, which then clean and oxygenate the water for the fish.”²² BTTR’s strategy was to launch one or two “innovative, impactful products a year and then go deep with them,” said Arora.²³

Arora and Velez had started investigating aquaponics in the spring of 2012. They had visited several aquaponic farms in Los Angeles and other places around the country and thought the concept was “really cool.” Arora said: “It’s the same kind of thing as coffee ground waste to food, just in this case it’s fish bio-waste to food.” As they were investigating, they only found large systems that cost around \$400, so they embarked on designing a system for kitchen counters and classrooms. “Since there was nothing out there, we figured this was a big opportunity,” he said.²⁴

The AquaFarm included a three gallon acrylic tank, five packs of organic seeds, five grow pots, a pump, gravel for the tank, and a coupon for a free beta fish from Petco. The product retailed for \$59.99 and the cost of goods on the AquaFarm was around \$18. The AquaFarm, with its 26 parts, was more complicated to develop than the mushroom kit. Consumers could buy the product on the BTTR website, as well as at the company’s other partner stores such as Whole Foods, Nordstrom, and online retailers such as UncommonGoods.

Eraso said on the decision to launch the AquaFarm: “We had so many ideas that could potentially change what the company stood for. Yes, there is a relationship between the mushroom kit and the AquaFarm, but they are really two totally different products. So the challenge was to create a product that was about connecting people to their food and was consistent with our company’s mission, but at the same time kept innovating the market.”

Despite eventual partner support, the BTTR team had to convince Whole Foods of the value of the AquaFarm product. “It wasn’t easy,” said Velez. In order to demonstrate demand and to de-risk the project, the company developed a prototype. In November 2012 BTTR launched a Kickstarter campaign six months before launch. The team raised \$248,873 from the campaign with more than 4,000 backers and received valuable feedback. “A lot of people think of Kickstarter as just a financing thing but it helps with proof of concept validation,” Arora said.²⁵ They learned things such as needing more space between their initial planters for better aeration to prevent root rot.

Half of the money raised was used to pay for the cost of goods and the rest of the money went to produce molds for the new product. After that, BTTR obtained an additional \$500,000 in financing from Fund Good Jobs to fully launch the product. Fund Good Jobs was an organization that provided blended capital in the form of equity and convertible debt and consulting to small businesses.

BTTR’s AquaFarms were made in the United States by design except for two components (the pots and the pump were made in China). BTTR partnered with a number of companies such as Daylight

²² Jennifer Elks, “Back to the Roots Growing Food Education, Reducing Waste Thanks to Smart Design,” *Sustainable Brands Issue in Focus*, February 20, 2013.

²³ Ibid.

²⁴ Ibid.

²⁵ Ibid.

Design to help with the fish habitat, Kordon, an aquarium company and Seeds of Change (a leading organic non-GMO seed provider in California) for the seeds. “I’m agnostic about Made in America,” said Sanghvi. “We’re not going to save a lot on margins with our mushroom kit if we manufacture overseas. We might save a little more on the AquaFarms if we go overseas, like the cost of goods might be \$12 versus \$20, but the shipping would be expensive and it’s bulky.”

The customer feedback to the AquaFarm was initially very hands-on. Jackson said: “We had to bring on interns and others to help with customer service. I was really shocked to see how many questions customers had regarding this product because in our minds, we had made the product as simple as we possibly could. There was an insane amount of engagement we needed to have with our customers. We were dealing with a living animal, a fish, and people were nervous about that and had a lot of questions.”

The AquaFarm certainly was more challenging than the Mushroom Kit. For example, BTTR had to switch manufacturers related to the pumps in the AquaFarm while fulfilling Kickstarter orders because the pumps had stopped working (BTTR replaced consumers’ pumps eventually). Arora and Velez said: “We didn’t do a good enough job of vetting the air pump that was at the heart of the system. Caught up in the rush to deliver, we didn’t test our product enough, and we shipped out a not-so-great pump that started failing quickly.”²⁶

Despite BTTR’s success, Arora wasn’t worried about competition for any of its products despite the 27 copycat mushroom kits and two copycat AquaFarms. Most of the copycats were overseas companies with only one being in the United States. “We do have a patent on our design of the mushroom kit. Since our product is the first one of its kind—it grows quickly, is small enough to be put on the kitchen counter—we’re not too worried about copycats or competitors because we’ve really dug in and built the first niche for the product. We’re also starting to expand our products, so even if someone else puts out a similar product, we’ll still have other offerings.”²⁷ Velez agreed: “We are a small team and we don’t want to spend a lot of money on legal fees so we’re not too worried right now because the copycats are small.”

In the fall of 2013, BTTR launched a product extension of the mushroom kit, the Mushroom Minifarm, with select retailers (**Exhibit 6**). The Minifarm was a smaller more affordable version of the mushroom kit and sold for \$9.99 to \$12.99, depending on the retailer. The product was sold exclusively through Whole Foods, Home Depot, and The Fresh Market (gourmet supermarkets based in North Carolina), and the Minifarm was not available online.

Jackson commented on the Minifarm: “I think the regular mushroom kit is really expensive and we’re not able to reach as many people as we’d like. The Minifarm is at a lower price point and can reach a lot more people.”

Social Impact and Education

Velez, armed with his minor in education and having started the Sage Mentorship Project at Berkeley, described himself as having an “obsession with mentorship,” particularly related to the inequality of ethnic minorities in America’s educational system (Velez was from Colombia and Arora’s parents had immigrated from India). “At our core, Nikhil and I have education, learning, and youthfulness in us,” he added. “I don’t think of us as social entrepreneurs...It’s just the things we like and we keep doing more of it. That’s how we recruit the team too—it’s based on passion.”

²⁶ <http://www.marthastewart.com/1067513/five-things-we-learned-starting-business>.

²⁷ <http://usindiamonitor.com/2012/07/16/interview-with-back-to-the-roots-co-founder-nikhil-arora/>.

Because of Velez's and Arora's backgrounds and interests, BTTR's mission always included social impact and education, even though it may not have been explicitly articulated. "We have definitely gotten better at articulating our mission because we had to explain to ourselves and our team why we were getting up every morning," said Velez. "Our focus on education has been there right from the beginning, although more implicitly."

BTTR also considered the social mission as synonymous with financial return. Velez felt that there was an "opportunity" versus a tension between social and financial goals. "For companies today, if they don't lead with transparency, they won't be as successful. I don't see focusing on social impact as a social good, I see it as just being transparent with what you do every day. I don't think there's a tension, but a huge opportunity, especially for small brands. So why not start from the ground up?" Arora added: "Our purpose has never been just about scaling revenue, but *how* we do it. We don't think of ourselves as a nonprofit or for-profit, but a 'for purpose,' and understanding why we are doing what we doing."

For example, BTTR donated thousands of kits to elementary school classrooms around the country through its Facebook "1-for-1" campaign launched in 2012, where for every photo of the mushroom kit that a child posted on BTTR's Facebook site, the company donated a kit and sustainability curriculum to a school of their choice. By 2014, the company had donated over 15,000 kits to schools across the country. Arora said: "The hundreds of photos that showed up on our Facebook page were driving a ton of traffic to our website, resulting in high-margin direct-to-consumer sales that funded our donations. It became this really cool upward cycle that the more we gave, the more we got. We learned that supporting your community can also support your bottom line."²⁸ The BTTR staff also conducted "hands-on-sustainability" workshops in classrooms across the country where staff taught kids about growing their own food and sustainability.

Also in 2012, BTTR had a Whole Foods "1 Kit, 1 Dollar Campaign" where for every kit sold in Whole Foods nationwide, the company donated \$1 to the Whole Foods Kids Foundation to encourage a healthy and active lifestyle amongst kids.

BTTR increased attention on their campaign by partnering with companies such as Revolution Foods,²⁹ where they developed a "Grow Food, Give Food" campaign in December 2013. BTTR leveraged on-package marketing to encourage consumers to log onto Revolution Foods' Facebook page to choose one of three nominated schools to receive a donated serving of vegetables. The three schools were chosen from a larger pool of 12 Revolution Foods partner schools that had submitted applications on the company's Facebook page. All 12 semi-finalists received a free BTTR mushroom kit and an AquaFarm so students could experience growing their own food.

Arora's advice to other entrepreneurs was: "Don't just focus on profits. It's important to think about the community, environment, and sustainability. Customers will support companies during tough times if they produce a quality product and operate with integrity, respect, and a desire to help the communities they're in. Pursue opportunities that pull at your heart. If you believe in your product, mission, and long-term vision, the tremendous amount of time and energy—we work 12 to 16 hour days—doesn't seem so hard. Get out there every day, put yourself in front of customers and tell your story. The community support and feedback you will get in return will be invaluable."³⁰

²⁸ https://www.youtube.com/watch?v=K5I9_g1Jv3g.

²⁹ A food company that provided healthy school lunches to schools.

³⁰ Sarah Henry, "Emeryville's 'Mushroom Guys' Grow Their Business," *The Bay Citizen*, November 12, 2010.

Despite the company's focus on social impact, Sanghvi said that revenue was still the most important metric for the company. "Revenue is a rough proxy for how many people we're reaching. We're not a socially responsible business. We're a business and the work that we do does have benefits such as increasing awareness about healthy eating and where our food comes from. If we focus on selling as much as possible, we're going to hit both of our metrics. A lot of companies have a social good mission that's separate from their business, but when times get tough, that gets cut. So it's important that the mission that's doing good is fully integrated into the business mission."

Looking into the Future

BTTR began to evaluate its true path to exponential growth by thinking through their key strengths and differentiating factors. Boddie explained: "Our biggest differentiation is in design. We've realized over the years that our strong suit is really in design, marketing, and our communication to the customer, which is focused on getting anyone to believe that they can grow their own food."

Sanghvi felt similarly to Boddie on BTTR's competitive advantages, but felt that BTTR's strong suits were first and foremost Arora and Velez themselves. Next came distribution relationships and the story. He said: "Alex and Nikhil do an amazing job building relationships with distributors and CEOs from Whole Foods, Nordstrom, and Target. They can sell ice to an Eskimo. This is extremely valuable as an asset. They have a vision and are very excited about it, and they are incredibly hard workers. They will never take 'no' for an answer and they listen to feedback, and people are very impressed by these qualities. We are also really creative in terms of PR and building the brand and story around the products. We're good at product design, but we do have challenges with our products so I would put that below these other things."

Santiago discussed the financial sustainability challenges of BTTR's current product set. "We have huge ups and downs so our business isn't sustainable in terms of cash flow or production," he said. "We want to launch new products that consumers already use regularly and are familiar with. We think that's where the growth is going to be." Arora agreed and said: "Managing inventory is always a challenge because we're such a seasonal business where we have one shot to make a bet on how much we need to produce for the season. And with new accounts coming on, it's really hard to estimate how much product to produce."

Boddie added: "We just don't see ourselves doing DIY long-term because there's only so much growth in DIY we can do and that's no longer our strong-suit. It took a while for us to get the mushroom kit right and to outsource to GMI. DIY is a really hard space and requires a lot of investment—tooling, product investment, and communications."

Sanghvi agreed, stating that the company's risk appetite was still very high, as long as it was "informed risk": "Our vision is very big and a lot of things can fit into it, which can be a challenge. Our first two products didn't really have a market and we created products from scratch and created this market based on passion. But pure passion can only get you so far. We have some runway left on these products, but they're limited because they're niche novelty products. The future is definitely not in these products. The future is in products that people buy regularly."

Continuing Product Line Expansion and New Market

As the company continued to grow, the BTTR team looked for new product opportunities. They were inspired by Annie's model of product expansion, where there are three key drivers of the product development triangle: 1) product iteration at the bottom of the triangle—the constant non-sexy improvements of the products based on customer response (analyzed on a weekly basis); 2) product extension on another side of the triangle—the Mushroom Minifarm kit was an example of this; 3) the big idea (shifting from a mushroom kit to an AquaFarm, for example).

By 2015, BTTR planned to launch a “Garden-in-a-Can” product that could grow basil, cilantro, oregano, or thyme. Velez said: “We have three pillars with this product extension. We hope to take our lens of purposeful, beautiful, and functional design and apply it to this product; focus on transparency and sustainability in how it’s packaged (current products are cheap-looking), and emphasize fun branding that is not gourmet-foody or cheesy that you might find on a sale rack.” The plan was to launch a few varieties of grow kits with retailers such as Whole Foods, Target, and Home Depot.

Boddie said that currently some high-tech growing products existed like Click & Grow that retailed around \$100 and AeroGrow that could retail for over \$300 (with kid versions at \$99). Other products were “cheap and tacky” growing products that didn’t have good design and “especially did not meet the needs of millennial shoppers,” said Boddie. “We wanted to find something in the middle that would have a lower price point and satisfied design tastes if you put it in the kitchen.”

BTTR was also looking for the “next big idea.” They worked with Whole Foods to focus on wheat and grains to launch a breakfast cereal. Velez said: “Wheat and grains are getting beaten by this whole gluten-free BS that is going on. Gluten-free is entirely a marketing scheme and there is a war against wheat. There is a really good opportunity for a few brands to do wheat right and bring people back to healthy grains.” The cereal idea thus came out of multiple internal brainstorm sessions, as well as participation from mentors at Annie’s food company, Pandora, Whole Foods, and external advisors from cereal companies.

The BTTR cereal has only five ingredients (displayed simply on front-of-the-package labeling). If compared to existing products—the sugary cereals and the other cereals with their healthy-looking packaging (of which many had similar ingredients as the sugary cereals)—the cereal offers “something that kids like and adults appreciate,” said Boddie. “It’s a bold move, but we can offer something that no one else is doing. We’re trying to do something that is the simplest and most wholesome way to make a packaged food product while adding in innovation in packaging.” In terms of pricing, Boddie believed BTTR could price the product similarly to price points of comparable healthier cereals.

Sanghvi said: “The concept came from the idea of connecting people to their food in a way that was very simple and would appeal to millennials. We explored other product ideas like unique packaging for mini bananas. Then we went to a conference and learned about grains and we discussed whether we should sell heirloom grains and go back to the roots of food.” The fact that very little innovation and design improvements had been made to cereal (it’s still a bag in a box) for decades, and that buyers gave positive feedback, led the BTTR team to use cereal to reintroduce consumer interest in grains.

Both the Garden-in-a-Can and the cereal would be launched through two national partners, Whole Foods and Home Depot.

The Big Bet

Both Sanghvi and Eraso discussed the potential challenges of cereal including the fact that many successful players already existed. Financially, cereals have very low margins, expensive advertising/marketing, and are threatened by potential reluctance of consumers to change their breakfast habits.

Eraso said: “Cereal is a really challenging product because there are so many competitors that are much bigger than us who have a lot more money. We really have to educate people about their food and it will cost a lot to do so. With our mushroom kit, it was a whole new product so people wanted

to write about us so we didn't spend money on marketing. Things here happen so fast that we don't have time to think about whether we have the experience in cereal. We just focus on what we do best versus doing too much."

Sanghvi added: "This is our big bet and definitely a big leap into the unknown." He also acknowledged that BTTR had little to spend on product marketing compared to large food companies, but he said BTTR would focus on the simplicity of the product with its five ingredients, packaging, and branding. "Cereal is almost a commodity and what will make a difference is the brand and getting the word out. If we're able to do that in conjunction with our retail partners in a way that appeals to our target audience, I think we'll have a pretty good shot."

At the same time, Sanghvi felt that the team had learned from its "mistakes with the mushroom kit and the AquaFarm," and that he often played a "foil" to the founders. "We all take opposing sides so we can have a balanced approach. We're all always open to feedback, and it's impressive how open Alex and Nikhil are to new ideas. We could always do more testing, but there's a balance between getting to market and testing adequately. Alex and Nikhil are really good at getting out of things and making things happen, but going forward as we get bigger and scale, we will need to have more planning and process—when you're dealing with larger production and sales, you can't have our last minute mentality. We'll have to mature and plan and accept that sometimes things will take a little longer. Our company has a great culture in that we are all passionate about what we do. But our team is very young and doesn't have a lot of experience and doesn't always understand the ramifications of everything."

Arora agreed: "Our operations and supply chain could definitely be more organized. We're trying to move so quickly all the time that we are always making changes at the last minute. As we scale, it's forcing us to change and adapt how we work and how we always do things so quickly. With cereal, it's a low price point, high-volume business so packaging is a much bigger deal where our orders are no longer 1,000 mushroom kits, but 100,000 packages."

Arora also felt that the company could improve its marketing function: "On the PR side, we're proactive, but we haven't even scratched the surface in terms of paid ads on Google and on Facebook or Twitter. On Facebook, it's mostly our customers posting so we have a lot of opportunities for improvement." Arora noted, however, that the company only had one person in each function while it was trying to grow quickly, forcing the company to "prioritize within priorities."

The Future

Nikhil Arora and Alex Velez high-fived each other as they walked out of a conference room. It was nearing the end of 2014, and they had just secured external financing from high-profile investors such as John Foraker, CEO of Annie's Homegrown; Kevin Cleary, CEO of Clif Bar; and Chip Conley, founder of Joie de Vivre Hotels. Other investors included a co-founder of LivingSocial; Jessica Steel, former vice president at Pandora; a co-founder of Sweet Dreams, and others. They beamed at each other with disbelief at the \$1.65 million of convertible debt (the round was actually oversubscribed at \$2.65 million) that they had just raised and were excited that all of their "hustle and passion" since graduation was continuing to pay off.

Sanghvi said: "This new smart money is as favorable as we could get because there's no valuation applied yet and it won't convert until the first priced round. It comes with no strings attached in terms of the direction of the company, the investors have some skin in the game, and we can have help from all these great investors when we need it."

The founders reflected on all that they had achieved. By the end of 2014, the team had transformed the company to one that brought sustainable grow-at-home food products into households across the

country. They had successfully marketed and sold DIY mushroom growing kits, as well as an AquaFarm to consumers at Whole Foods, a key partner, and at over 2,500 retailers across the country from Nordstrom, Home Depot, Costco, and Sam's Club, to online channels such as UncommonGoods.³¹

Financially, the startup projected \$5 million in sales for 2014 (\$3 million from 50,000 AquaFarms and \$2 million from 200,000 regular and mini mushroom kits) and \$300,000 to \$500,000 in profits **(Exhibit 7)**, with most sales in the U.S.³² And the company had grown to 11 staff, plus seven more in the warehouse.³³

Despite their successes, Arora and Velez had bigger ambitions. Sanghvi said: "From the first time I met Alex and Nikhil, they said they wanted to be a billion dollar company. I don't think it will happen in two or three years, but they are very very ambitious and have a very clear idea. They want to grow the crap out of it."

As Arora and Velez looked to the future, they were both excited and nervous about new challenges.

End of Part 2

³¹ http://en.wikipedia.org/wiki/BTTR_Ventures.

³² Although BTTR sold most of its products in the U.S., the team was "opportunistic" about international opportunities when they came up. They sold in Canada through Amazon and a few buyers from Russia, Australia, and Europe have purchased larger quantities of products. By 2014, BTTR's international business was in the "single digit percentage" of total revenue, according to Sanghvi and would potentially grow in the future, but due to tax, duties, and perishability issues, BTTR would need to sell higher volumes before such fixed costs could be amortized.

³³ Most staff members were recent college graduates and interns with the oldest being Sanghvi who was 39 years old and Osvaldo Casalongue, operations manager (Velez' stepfather who was in his mid-fifties).

Exhibit 1 Company Timeline

Date	Event
April 2009	BTTR founded
October 2009	First crop of mushrooms sold to Whole Foods
November 2009	Featured in <i>SFGate</i>
March 2010	Launched “BTTR Gourmet Garden Mushroom Kit” and started selling in Whole Foods
July 2010	Named top 3 social venture in BBC/Newsweek 2009 Social Ventures World Challenge
July 2010	Featured on MTV’s <i>Last Call</i> show
July 2010	Named America’s 25 Most Promising Social Entrepreneurs by <i>BusinessWeek</i>
November 2010	BBC featured BTTR for the second time
January 2011	Arora and Velez spoke at TedX in Washington, D.C.
March 2011	BTTR Soil Amendment for sale at Whole Foods
March 2011	Received \$50,000 grant from the 2010-2011 MillersCoors Urban Entrepreneurs Series Business Plan Competition
July 2011	CNN named BTTR “10 Next Gen Entrepreneurs to Watch”
August 2011	Arora and Velez spoke at TedX Presidio
August 2011	Featured on Oprah Radio
August 2011	White House wrote about BTTR as Champions of Change
October 2011	Featured in Oprah’s <i>O Magazine</i> in <i>Favorite Things</i> section
November 2011	Featured on <i>Wall Street Journal</i> ’s <i>Most Innovative Entrepreneur</i> feature
March 2012	Featured on CBS national evening news
2012	Launched Facebook 1-for-1 Campaign
June 2012	10,000 fans on BTTR’s Facebook page
June 2012	Became a B-Corporation
October 2012	Launched Mushroom Kits at Nordstrom
October 2012	Featured at the White House as top 100 entrepreneur (Empact Awards)
October 2012	Launched at Bed Bath and Beyond
October 2012	Launched at Nature’s Marketplace on the East Coast
November 2012	Launched Kickstarter campaign for its AquaFarm (“Home Aquaponics Garden”)
March 2013	Featured on <i>Bloomberg News</i> as a company focused on “making food personal again”
Early 2013	Partnered with Gourmet Mushrooms, Inc. to produce mushroom kits and shifted away from recycled coffee grounds
April 2013	Moved into new office space
May 2013	Donated \$19,381 to Whole Foods to the Whole Kids Foundation for 10 urban school gardens (funds raised from its 2012 “1 Kit, 1 Dollar” campaign)
May 2013	Launched at Toys “R” Us
June 2013	Launched AquaFarm
July 2013	25,000 fans on BTTR’s Facebook page
Fall 2013	Launched Mushroom Minifarm
October 2013	Featured on Martha Stewart’s 10 American Made products for holiday season
February 2014	Launched Grow Food Give Food Campaign with Revolution Foods
April 2014	Featured in <i>Better Homes and Gardens</i> Innovation Issue
August 2014	Ranked #373 on <i>Inc. Magazine</i> ’s List of the 5,000 Fastest Growing Private Companies in America with a special full-page feature of the AquaFarm
Summer 2014	Received new funding from external investors
Early 2015	Garden-in-a-Can and Cereal product launches

Source: Case writer analysis and BTTR.

Exhibit 2 Arora and Velez's Growing Their First Bucket of Mushrooms



Source: BTTR.

Exhibit 3 First Mushroom Kit Packaging



Source: BTTR.

Exhibit 4 New Mushroom Kit Packaging (Versions 2 and 3)



(Left, version 2 packaging launched in 2012 and Right, version 3 packaging launched in 2013)

Version 4 (2014)



Source: BTTR.

Exhibit 5 AquaFarm



Source: BTTR.

Exhibit 6 Mushroom Minifarm



Source: BTTR.

Exhibit 7 BTTR Financials

Year	Revenue	Profit
2010	\$240,000	\$20,000
2011	\$1.1 million	\$274,000
2012	\$2.2 million	-\$270,000
2013	\$3.3 million	-\$50,000
2014	~\$5 million	~\$300,000-\$500,000

Source: BTTR.