we don’t just make clothes, we make change.
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Executive Summary

This project is the culmination of a multidisciplinary effort to create a sustainability strategic plan for a start-up clothing company, ARRO. ARRO is focused on providing a better alternative to existing custom clothing and accessories brands, by focusing on sustainability and social responsibility as the foundation of their business.

This plan provides an outline of ARRO as a company, including important aspects of their business model, and the customer segments they plan on marketing to. We have also provided an examination of ARRO’s competitors and core competences, in order to provide a better understanding of who the company is and how they will operate within the existing market.

The bulk of the project is an in-depth look at ARRO’s current sustainability initiatives, along with their efforts towards social responsibility. These sections provide a look into the efforts taken by ARRO to ensure their impact is mitigated in every way possible, and that they have a positive effect on the world and their communities while still operating as a viable, revenue generating business.

Finally, we examine the risks, opportunities, and steps ARRO will take to move forward based off of the information in this report.

While ARRO is indeed a business in its formative stages, it is still very early on in the development process. For the purposes of this project, some of the information provided is hypothetical and not a true reflection of ARRO and its operations.
The Responsibility of a Business

Many businesses seem to think of themselves as above the law. As entities without any responsibility outside of themselves. We have seen examples time and time again of large corporations acting irresponsibly, unethically, and without regard for the world in which they exist. At ARRO, we conduct ourselves differently.

While we are a business, and thus we aspire to make a profit, we do not believe that the goal of making money is the end-all-be-all, and it should not control our moral compass. We are all citizens of this Earth, and as such it is our duty to also be stewards of this Earth.

We may be just a start up, but building our business on a foundation of sustainability is of the utmost importance to us. We don’t want to develop our business and then work towards sustainability, we want integrate it into everything that we do, from the ground up.

We want to do better for our world, so that together, we can be greater.

Nurwan Dhillion
ARRO Sustainability and Social Responsibility Coordinator
Our Business

arro>
ARRO is a Rochester, NY based apparel and accessories brand that was founded to not only make clothes, but to make change. We exist to provide a better option to socially responsible companies to market themselves and raise funds through apparel branding and sales through our sustainable, responsibly manufactured product lines.

We also provide quality apparel and accessories to individuals through our online store that follow the same stringent sustainability requirements. As an organization that’s socially and environmentally conscious, we don’t think you should have to compromise your values in any aspect of what you do, including the products you buy.

ARRO has a local focus, donating a portion of proceeds to local charities and causes. We want the customer to be connected to the product they buy and the cause they want to support, so we offer individuals who purchase our products the opportunity to donate a portion of the proceeds to an organization of their choice.

ARRO is committed to changing the status quo and working to inspire change in our community.
Customer Segments

Our goal is to provide apparel and accessories to companies and individuals with similar environmental and social values as our own. Our approach allows us to target three distinct customer segments in order to have a larger, more effective market share.

**Our Customer Segments:**

- **Local Non-Profit Organizations:** Teaming up with local Rochester chapters to help in their green production of shirts and other apparel needs.

- **Socially Focused Businesses:** Businesses with a vision to help the community and an awareness of environmental issues in the Rochester area.

- **Socially Conscious Individuals:** Channel Rochesterians with similar environmental mindsets to springboard ARRO into the market.

Our Customer Vision:

Bringing together environmentally and socially conscious individuals through business and our lifestyle brand.
In order to spread the apparel and lifestyle brand of ARRO, we will channel like-minded individuals with the help of Festivals and Events in the Rochester area focusing on Environmental Awareness and Sustainability.

**Greentopia Festival**
- Located near high falls in Rochester, each year Greentopia draws thousands of Rochesterians to the festival showcasing environmental initiatives throughout the community. (Greentopia)
- Being a sustainable business in the Rochester area requires finding the proper customers who will purchase the goods. Greentopia provides a platform for ARRO to sell clothing to like-minded people who desire the goods. (Greentopia)
- Once the individuals purchase the goods and wear them, word of mouth will allow ARRO to spread their customers from the green world out to the Rochester community. (Greentopia)
- Their core values center around sustainability, courage and dedication, collaboration, community, and preservation. (Greentopia) All of which correlate with ARRO and our goals and values.

**Rochester Public Market**
- The Rochester Public Market is located on Union Street, just north of Main Street. With over 300 vendors and thousands of shoppers, it is the perfect location for selling ARRO’s clothing and accessories. (City of Rochester)
- The Rochester Public Market offers a customer segment of socially conscious individuals that desire local goods from the Rochester community.
- Taking advantage of this customer segment will allow ARRO to move into a community of individuals that desire the goods and services we have to offer.

**Fast Forward Film Festival**
- FFFF is a yearly film festival displaying 5 minute or less short films of environmental initiatives throughout the Rochester area. (FAST FORWARD FILM FESTIVAL)
- This event offers “friends of the festival” tabling opportunities along with marketing opportunities through social media and Rochester City News paper. (FAST FORWARD FILM FESTIVAL)
- Their Gala Event has 500 attendees of environmentally conscious individuals offering a perfect market segment for ARRO to tap into. (FAST FORWARD FILM FESTIVAL)
- Potential Business Venture: design and print the shirts for volunteers and film makers for the event.
Local Non-Profit Organizations:

Building relationships with local non-profits will allow ARRO to establish credibility within the market. Using local non-profits with similar ideals and social and environmental mindsets, ARRO will have another foot forward in community, and another means of providing support to organizations that are working to make positive change in our community.

**In the City Off the Grid**

- ICOG is a Rochester-based cooperative business that offers solar installation services and general construction services, while engaging in community development projects and employee training. (In the City / Off the Grid)
- With sustainable initiatives in building, ICOG would be great for networking and reaching out to the Rochester community who seek green development. (In the City / Off the Grid)
- ICOG initiative is to bring people out of the dark with modern renewable energy options paired with sustainable development. (In the City / Off the Grid)

**Habitat for Humanity**

- Building over 200 homes across Monroe County, Flower City Habitat is continuously giving back to the Rochester Community. (About Flower City Habitat for Humanity)
- With ever growing support and volunteers, Flower City Habitat would be the perfect place to start the non-profit clothing initiative.
- An example, to the right, would be a potential t-shirt design for Flower City Habitat, with their logo across the main part of the shirt and ARRO on the bottom right.
- This allows ARRO to market themselves while staying involved with local non-profits.

**Seedfolk City Farm**

- With multiple locations across Rochester, NY, Seedfolk City Farm engages in project-based learning with the youth. They help spread the ideas of building resilient urban communities along with localized community food systems. (About us)
- A quote about their commitment to Rochester’s food situation:

  “Currently, Rochester is ranked the 5th poorest city in the country with approximately 135,000 Rochesterians struggling with food insecurity. As a result, issues of food access and education are critically important to our organization. In order to bridge the disconnect between the lack of food access in our city with those who need it most, we believe that our communities must transform the way they relate to the food that they eat. One of our guiding principles is the idea that change can only be created through an active cultivation of skills and knowledge within these communities.” (About us)

- With their commitment to the food industry in Rochester, NY, a partnership would help push ARRO towards a successful future while putting them ahead the future competition.
**Socially Conscious Businesses**

In order to reach out into the Rochester Community and partner with other environmentally and socially conscious individuals, ARRO can access more of the market by seeking businesses with similar social goals for the community.

### Just Juice 4 Life

**What they are**
- Holistic Health Coaching
- Social and Health conscious business
- Growing their own food
- Purchase food from local sources (Our Philosophy)
- Offer diverse ways to get juice to customers

**Impact for ARRO**
Essential for ARRO to work with another organic business with the desire to help the environment and the people in the Rochester community.

### Reverb

**What they are**
REVERB is a group that creates and executes programs to partner with musicians in order to add an educational aspect to their tour and engage concertgoers. They mainly focus on encouraging youth to take action to protect the environment.

**Impact for ARRO**
By partnering with REVERB, ARRO would have access to a large audience of individuals who are passionate about music, and the causes the artist supports.
Archimage

- A clothing and accessory store located on Monroe Avenue in Rochester, NY. (Archimage)
- Sells mostly natural fibre goods along with being socially conscious of the needs and happiness of its customers. (Archimage)
- Comparatively, the unique bohemian style clothing is targeted towards an alternative customer segment that ARRO is not planning to market towards. (Archimage)

Knitzees LLC

- Founded in 2012, Knitzees is relatively new to the sustainable market. (Knitzees LLC)
- Knitzees makes luxury, organic cotton baby clothes. They sell hats, sweaters, and blankets and more, all made by hand. (Knitzees LLC)
- They value natural, homemade goods and use that for their marketing to their customer segment. (Knitzees LLC)
- Although ARRO is not looking to make baby clothes, they see the competition in the organic world and potential partnerships in the future. (Knitzees LLC)

ARRO

- Creating trust with the customers and creating partnership ties with the environmental community of Rochester
- Establish credibility within the market.
- Differentiation to others by not only credibility but design.
- Through innovation and market research, ARRO will be able to remain ahead of the potential competition.
The above aspects are core competencies that we wish to implement as a leader in environmentally and socially conscious products and stewardship. We believe that it provides a strong competitive advantage to provide our customers with a transparent supply chain and to utilize a two sided business model to firmly build that relationship with our customers. Moreover, engaging ourselves within the community by volunteering and giving back shows our customers that we care about what we preach.

### Core Competencies

<table>
<thead>
<tr>
<th>Recommended Core Competencies</th>
<th>Imitatable?</th>
<th>Cost Savings?</th>
<th>Consumer Willingness to Pay</th>
<th>Provides Differentiation?</th>
<th>Credible Information</th>
<th>Innovative?</th>
<th>Does it provide a competitive advantage?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donate a fraction of profits back to the Rochester Community</td>
<td>Hard to imitate and remain successful.</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Able to be provided</td>
<td>Yes</td>
<td>Yes. Customers want to be able to donate to charities but sometimes forget. This way provides them with awesome clothing and an ability to donate.</td>
</tr>
<tr>
<td>Transparent Supply Chain</td>
<td>Easier to imitate.</td>
<td>-</td>
<td>Yes</td>
<td>Yes</td>
<td>Able to be provided</td>
<td>No</td>
<td>Yes. People are increasingly demanding details about the systems and sources that deliver goods (New, 2010)</td>
</tr>
<tr>
<td>Employees/workers volunteer weekly in the local community</td>
<td>Not easily, but imitable.</td>
<td>-</td>
<td>-</td>
<td>Yes</td>
<td>Able to be provided</td>
<td>Yes</td>
<td>Yes. This puts ARRO in the spotlight of the market they want to target. It also helps to pull in people who see the good the employees are providing and want to help financially by buying products.</td>
</tr>
<tr>
<td>Responsible Sourcing</td>
<td>Not easily, but imitable.</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Able to be provided</td>
<td>Yes</td>
<td>Yes. Similar to having a transparent supply chain, consumers increasingly want to know how and where their products are being created. Using TS Designs does just that.</td>
</tr>
<tr>
<td>2 Sided Business Model: Bus- Bus and Bus- Consumer</td>
<td>Hard to imitate and remain successful.</td>
<td>-</td>
<td>Yes</td>
<td>Yes</td>
<td>Able to be provided</td>
<td>Yes</td>
<td>The competition works primarily on a business to consumer model, while this model provides more customers.</td>
</tr>
</tbody>
</table>
Market Research
Market Research Survey

Our preliminary market research was conducted through online survey. All responses to the following questions were collected through one survey, with a reach of 94 respondents.

Demographic Information

While our survey was widely distributed, and we accepted responses from anyone who completed the survey, we wanted to have an idea of the demographics of the respondents. Age is an important part of our customer segment as we believe individuals outside of a certain age range (18-29) won’t be as interested in our product, thus their data is less valuable. The vast majority of respondents, however, were within our target market and as such, our data is all extremely valuable. Secondly, because ARRO is a local Rochester Organization that strives to give back to its local community, we wanted to assess what portion of our respondents were within the area. Again, the majority of respondents were within our target audience.

Age

Do you currently live in the greater Rochester area?
Product focus

One aspect of our business that needed to be built entirely based on customer feedback was the type of items we would focus on providing to our customers. ARRO was born on the idea of making custom T-shirts, however, that idea would hold no merit if customers did not actually want to purchase T-shirts. To address this question, we simply asked survey respondents which articles of clothing they purchased most often. Because ARRO is also a lifestyle brand, we want to ensure that we have the items people are most often in the market for. As shown by the survey responses, T-shirts are by far the most common item purchased. Due to this finding, we have decided to keep the main focus of our business on T-shirts, with the goal of expanding to other items as the company grows.

What clothing items do you purchase most often? (94 responses)

- T-shirts: 58.5%
- Pants: 11.7%
- Sweatshirts: 12.8%
- Sweatpants: 11.7%
- Hats: 12.8%
- Other accessories: 14.9%

[Image of a man wearing a T-shirt with ARRO logo]
Pricing Structure

This was the most difficult aspect of developing our business concept, and the one that required the most research to adequately address. Because our business aims to have an impact beyond simply bringing in profits to our company, that is both an additional cost, and an added value to our products. Finding the delicate balance between addressing this cost and determining the value customers found in this value added piece, and how much they would be willing to pay for it, will be the key to ARRO’s success.

To Determine the ideal price point, customers were asked about their current purchasing habits, and how much they currently pay for a T-shirt. These results were quite surprising to us, because we did not think the numbers would be quite so high. We also determined from our survey that the vast majority of people were willing to pay more for an item if they knew it was eco-friendly, made in America, and part of the process went to charity, all of these are aspects of ARRO’s business model. These findings are very positive for ARRO’s success.
TS Designs cleverly designs the products page in order to provide for quick comparisons in quality and pricing. The products that encompass all green qualities are the most expensive, while the cheapest ones have less desirable attributes. ARRO will offer the top 3 choices of product manufacturing which include: American Soil Organic, Cotton of the Carolinas, and Cloud Organic. Offering all of these options provides consumers with different pricing options while still maintaining “green” decisions. All choices have the ability to make a statement, which ARRO strives to do.
**Rehance vs Traditional Printing**

**Rehance**
- Amends the cotton at the molecular level allowing the fiber to remain breathable after printing.
  - The process also slightly stretches with the fabric making it less prone to cracking ("Rehance").
- Employs a specially-formulated water based ink that resists dye, meaning TS Designs must print white shirts and then dye them a color (Michel, 2010).
- Does NOT utilize PVC plastics or phthalates, making it more environmentally friendly.
- Rehance allows for a completely breathable, permanent, lively print (Michel, 2010).

**Traditional Printing**
- Usually utilizes plastisol or water based inks, in which plastisol ink is PVC plastic based that contains no solvent.
- A typical screen printer will take a dyed shirt and print it with plastisol inks.
- Since plastisol inks are plastic based, they tend to create a surface coating on the shirt that feels like plastic. In turn, this leaves the fabric with an uncomfortable, rubbery print that can crack and peel off the shirt (Pros and Cons of Screen Printing and Heat Press, 2016).
- These inks also have a negative environmental impact as they almost always contain PVC and phthalates:
  - PVC is a common plastic made with chlorine and is also held responsible for carbon dioxide emissions, presenting an ongoing debate (Buekens, & Cen, 2011).
  - During manufacturing processes, PVC emits a potent environmental pollutant called dioxins and phthalates can cause negative health effects (Michel, 2010).

**Heat Press**
- This is a machine that essentially presses a design onto material using heat and heavy pressure (Pros and Cons of Screen Printing and Heat Press, 2016).
- Benefits:
  - Several colors and photographic material can be used and it is not a messy application.
- Drawbacks
  - It can be expensive to implement
  - Colors cannot be layered
  - Time can be consumed in cutting the images in exact formations to eradicate the need for extra materials
- (Pros and Cons of Screen Printing and Heat Press, 2016).
Why Water Based Inks?

Water based inks contain a tool whose binder is water-soluble or water-dispersible (Gooch, 2007).

Traditional Printing Methods

**Plastisol** - option of choice for most printers

It has *environmental disadvantages* – Especially in cleaning the screen and equipment, in addition to the solvent required in the proper cleaning of plastisol inks.

Both solvents and plastisols must be disposed of properly in order to minimize environmental impact (Ukena, n.d.), requiring conscious decisions and added effort made by the manufacturers and users.

**Water based inks**

- Lack many harmful components that plastisol includes. Some of these include:
  - PVC (Polyvinyl chloride)
  - Phthalates
  - Formaldehydes
  - Heavy metals
  - Alkylphenol ethoxylates (Aqua: Water Based Inks, 2016)
- Harsh chemicals are not needed in the cleaning of water based inks, providing another environmental advantage (Mazzuca & Mazzuca, 2015).
- All in all, they prove to be more environmentally friendly than other options and should be utilized in ARRO product manufacturing.
Shipping and Transportation

Shipping is an industry that contributes greatly to global greenhouse gas emissions. Our first objective in terms of shipping is to reduce and eventually eliminate overseas shipping of any materials. This includes wholesale products, such as unprinted clothing and accessories, finished products, and even raw materials, like inks and dyes, wherever possible. This is yet another reason that we choose made in America materials, with the goal of sourcing from as close to home as possible.

Most of ARRO’s shipping will be done within the US. While this reduces our overall footprint, we want to ensure that any shipping done is practiced in the most environmentally conscious way possible. To this effect, we will choose our primary shipping carrier based on sustainability initiatives.

Standard delivery trucks today release a substantial amount of greenhouse gases and other pollutants to the atmosphere, having negative effects on the climate and environment (Corbett & Winebrake, 2016). While there are few options beyond standard shipping vehicles, alternatives are growing. Last year, UPS purchased 125 high technology electric hybrid delivery trucks (UPS Expands Hybrid Electric Fleet).

The new UPS hybrid trucks offer better fuel efficiency, up to four times better than standard trucks (UPS Expands Hybrid Electric Fleet). We strongly support initiatives such as these, and will continue to choose the carrier that shows an initiative towards sustainability.
Step 1: Partner with Existing B Corps

At ARRO, we believe that business can be a force for good. That’s why we partner with existing businesses that have been certified by this third-party organization. B Corp examines how businesses focus on people and the planet, as well as profits, taking it a step (or two) above how standard businesses operate. As a new business, we need to work with other businesses in order to produce our product, so why not work with companies that are already doing it right?

Step 2: Become a Certified B Corp

As a team, ARRO is aware of the impact we have, no matter what we do. We are all a part of this earth and the communities we live in, isn’t it time we became responsible for ensuring their longevity and wellbeing? That’s why we’re working toward earning B Corp certification ourselves. We don’t just want to talk the talk. Talk is cheap. We want to walk the walk and lead by example. Our goal is to submit all materials for certification by the end of 2016.
Policies

In order to gain credibility within the customers and fellow business ventures, ARRO wants to follow specific policies regarding organic trade and environmental regulations.

The most prestigious and highly sought out regulatory party for certified organics is the Organic Trade Association. In addition, the voluntary but highly rigorous ISO 14001 provides environmental standards for businesses to follow.

The Organic Trade Association (OTA)

National Organic Program

One program that could be incorporated by ARRO is the National Organic Program. Through the Organic Trade association, the National Organic Program was established to oversee and require mandatory certification of organic production.

The National Organic Program entails:
- Certified organic fiber grown in the U.S. must follow standards
- Residue testing for grown fibers within the U.S.
- Does not cover processing and manufacturing processes

Global Organic Textile Standard

Another Standard that can be followed is the Global Organic Textile Standard. The standard focuses on ecology and social responsibility and covers different environmental efforts that the National Organic Program does not.

The standard includes:
- Stringent voluntary regulatory standards
- Ensure organic status of textiles from harvesting, to manufacturing, to end user
- Allows a more “cradle to grave” coverage of organic goods rather than just from a growing and harvesting standpoint.

ISO 14001

A well known environmental international standard is ISO 14001. ISO brings in specialist in each field to incorporate a wide variety of influence when establishing the standards. Although it is expensive to become officially ISO certified, following the standards will allow ARRO to be more environmental conscious in their management practices.

Some aspects of the ISO 14001 standard are:
- It is a voluntary regulatory standard
- Provides framework for environmental management of a company or business
- Gives best management practices to allow businesses to reduce their environmental impact

Utilizes at least one or all of these policies for ARRO allows them to stay ahead of the game in the organic and environmental clothing business. Giving them a cutting edge advantage against future competition.
Risks, Opportunities, and Moving Forward
**Risks**

As a startup, one of our biggest challenges is breaking into the market. Competing with brands that have name recognition and have been in the industry for longer than we have poses a substantial risk. However, the custom apparel industry is flooded with cheaply made products made with unethically sourced materials and unsafe labour practices. We believe we have significant competitive advantage that will differentiate us from our competitors.

Another risk to our company is developing significant barriers to imitation. Currently, because none of our products are made in-house, they could be relatively easy to imitate if a competitor were to use the same suppliers as we do. Our goal is to eventually produce everything ourselves, in-house, using advanced technologies and superior materials to prevent the possibility of imitation.

Because we do outsource our manufacturing, our current structure relies heavily on our suppliers for materials, printing, and production. As mentioned above, we hope to alleviate this risk with growth as we plan to move everything in-house.

**Moving Forward**

ARRO has an abundance of opportunities to grow and develop our business. The first and foremost factor that will contribute to our continued growth and success is the growth of sustainability initiatives and social consciousness in both individuals and other businesses.

ARRO has done preliminary market research that suggests people are definitively willing to pay a premium for a product that is made in a sustainable, socially responsible manner, especially if it is made in America. Because ARRO is intending on filling all of these criteria, we believe we have an excellent opportunity to break into this new market and continue to grow from the Rochester community outward.

![Graph showing survey results on willingness to pay more for eco-friendly products made in America.](image)
References
