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12/14/20

Module 4: Start your own company

Abstract

This paper shows a product from my company. The line is called Arctic Flare and how we use smart textiles and sustainability in our garments. After reading this paper, the reader should have a better understanding of how smart textiles work in garments, see how technology is advancing in the fashion industry, how much our products cost and who our products are made for.

Final Project

Through the years, technology has advanced tremendously and many fashion companies have been able to incorporate it into their businesses and become successful. The fashion industry is one that is very busy and is always moving; there's always a new trend happening often. Some noticeable changes the fashion industry goes through are they are becoming more sustainable, they are using biosynthetic or smart textiles/clothing etc.

My company is called **Arctic Flare** and we use both sustainable fabrics and smart textiles to produce a garment that is perfect for many different people. It's similar to long johns and they have built in heated technology. The clothing is a set that comes with a long sleeve shirt and leggings that are made out of recycled polyester and spandex. The purpose of this line is for women and men to have the chance to do winter activities without needing a heavy bulky down coat. Also, this clothing line could help one relieve muscle pain as the built in heated technology can act as a portable heating pad. How the garment works is that it comes with a battery (5V Power Bank 6000mAh) which is used to heat the garment up. There are heating zones located in the upper back region and chest area for the shirt (see figure 1). For the pants, the heating zones are placed in the knees and butt area (see figure 2). There are four levels of heat settings that light up in different colors to indicate which setting is being used. The first color, **blue** heats up to 50°F which is the lowest setting and can last up to 5 hours. The second color is **white** and it heats up to 90°F and can last up to 4 hours. The third color is **orange** which heats up to 110°F and can last up to 3 hours. The last color is **red** and it heats up to 140°F and can last up to 2 hours. These settings apply to the leggings as well. On the top of the shirt and top of the leggings, there is a small button that the buyer can press and it shows the color that indicates which heat setting is being used (see figure 3). The shirt and pants are machine washable

however, it is recommended to do hand washing spot cleaning. If one wanted to machine wash, they would need to put the wires and battery tucked into the pockets and zipped (thewarmingstore.com) When one buys the garments, it comes with the power bank, the shirt or leggings and the USB charging kit. Our garments are very easy to use as the first step is to charge the power bank with the charging kit. Then you connect the power bank to the USB plug that's found in a pocket located on the stomach region (for shirt) and thigh pocket (for leggings). Lastly, one presses the touch control button (located on the shoulder for shirts and waist for leggings) for about 3 seconds to turn on the garment and control the heat settings (thewarmingstore.com).

The reason why this product is different from others that have been around is because it's made with sustainable fabric which is meant to last longer than traditional fabrics. Also, this piece of clothing is great for older people because of how comfortable it is. Elderly people deal with a lot of pain and wearing a heavy down coat in the winter while grocery shopping will just weigh them down and cause them more pain. With Arctic Flare, they can wear a lightweight jacket and still be warm enough to go outside during the winter season.



Figure 1: Arctic Flare shirt with heating pads in chest and back areas



Figure 2: Arctic Flare leggings with heating pads in the bottom and knees area



Figure 3: Button used to turn on device as well as control heat settings. Also shows the pocket the powerbank goes in.

Swot Analysis

Some **strengths** that are seen with this kind of product are they are size inclusive. Another strength is that it's very easy to use and wear. Since it's a base layer, it's very lightweight and comfortable. Some **weaknesses** that are seen with this product are that in some places it barely gets cold so they wouldn't have a reason to purchase a garment that heats up. Also, big fashion brands have advanced their use of technology and are able to produce something similar to Arctic Flare which makes it hard for our company to gain exposure. Some **threats** that are seen with this product as mentioned before, well known brands could release something similar. For example, the company The North Face started incorporating heated technology in some of their outerwear. One of their products is the Women's Inlux 2.0 Insulated Jacket (ems.com). As we all know, The North Face is a very popular brand that is targeted to a younger audience and if companies like this continue to expand their products and add new technology to them, it could be a huge threat and cause competition between brands. In some cases, people buy products from The North Face for the name because it's a well known company that a lot of younger adults are wearing meaning it would be hard to gain a younger audience with our products. Some **opportunities** that are seen in this product are they can be sold in many popular stores and gain exposure. Stores that sell different fashion company lines like Macy's, Burlington, Marshall's, JCPenney etc. can include this kind of product in their store meaning there's a strong possibility for a new target market. Another opportunity is that since Arctic Flare is a lightweight base layer clothing, they will be priced cheaper than coats and other garments that use the same technology. As mentioned earlier, The North Face has been using heated technology in their garments but the price point of The North Face is quite expensive and

not for everyone. Arctic Flare's price point is more fair because it would cost less to produce the clothing line.

Cost and Demographics

Arctic Flare is targeted to women and men between the ages of 20-80. This kind of garment can have multiple uses like keeping one warm in the winter while doing activities like snowboarding, motorcycle riding etc and it can also relieve muscle pain for elders as well as athletes. The reason why Arctic Flare can reach a broader demographic is because it's very dangerous for seniors to be out and about in cold weather because it can cause hypothermia. The body temperature of seniors can drop as low as 35 degrees which can cause many different injuries to the body and can sometimes be fatal (Questions, B., & Admin, 2020). This is the main reason why Arctic Flare targets seniors. Arctic Flare also targets athletes and younger adults because there are many health benefits from heat. According to the article, "The Health Benefits of Heated Clothing for Winter Athletes", it states that "applying heat promotes healthy blood flow that increases the oxygen and nutrient flow to muscles, relieving pain, decreasing recovering time and improving overall performance." This quote basically explained why heat therapy is needed especially in winter months. Heat therapy can decrease stiffness, sensitivity, the likelihood of injuries/soreness, recovery time while increasing muscle efficiency, flexibility and range of motion (Formerly Torch Electrek, n.d). Both the shirt and leggings cost \$159.99. This is because the product includes a charging kit and a rechargeable 6000mAh power bank.

Scalability

Our product can be scaled up if it becomes viral by mass manufacturing. This will allow us to have many products made in different sizes and colors so everyone can purchase one that

fits their style. Mass production allows us to have less waste being collected as well as having extra textile fabrics get put back into the clothing cycle (Scaling Sustainable Fashion).

Fair Trade

Our products will be able to sustain fair trade principles and still make a profit because we will have our own companies built in New York and Los Angeles which eliminates the need for us to use sweatshops. We want our customers to know how our garments are made. It's important for companies to take fair trade into consideration because global issues are constantly becoming worse, especially in the fashion industry. Sustainable clothing is becoming a trend recently and this is a great start to ending some major global issues (Keegan, 2019). The goal of fair trade is to make sure companies that are in developed countries pay a fair price to producers in these countries for their work (Keegan, 2019). As mentioned earlier, we have our own factories built in places like New York and Los Angeles and they are able to use recycled fabrics to create garments. It won't affect the cost and demographic because people will know their clothing is sustainably made with recycled polyester.

Arctic Flare is a brand that is suitable for almost anyone. The company's goals are to produce a product that is a great price for their target market while giving them a garment that's sustainable and comfortable to wear.

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