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Executive Summary

The alpaca industry as a whole has tremendous potential to become the next best in textiles. The fiber quality is comparable to other natural fibers and are even finer than cashmere. However, in order for them to reach their full potential they are going to need to take immense strides in improving their marketability, infrastructure, and product diversity.

The industry has deeply traditional roots that are honored in their everyday farming practices which makes it such a respectable industry. Their strides to maintain cultural tradition and sustainable farming practices makes it an environmentally friendly industry and economically viable option for consumers. The vertically integrated structure of many companies has allowed them to control all aspects of production and maintain a profitable business. This structure seems unattainable for other industries but the smaller scale operations in Peru allow them to maintain control. Additionally, their dedication to obtaining certifications such as FairTrade, STeP, BASC, etc. makes their consumer appeal stronger. As these companies make a promise to consumers that they hold themselves to the utmost ethical and sustainable standards and practices. Emphasizing these aspects when marketing products will strengthen their customer loyalty and help them attract new customers who hold the same values.

While the industry has done an amazing job of creating sustainable products, there is room for improvement regarding their infrastructure, marketability, and product diversity. One of the main barriers to expansion is the lack of infrastructure in the Andean region. There is a lack of government support for the industry as it is not seen as providing a huge economic impact. Providing the farms with electrical improvements and increased road coverage would allow for the process of sourcing fibers to improve. Moreover, the lack of product diversification is

causing a plateau of sales as international consumers are uninterested in the current product selection. An increase of uncommon goods like home furnishings and athletic clothing would open the industry up to an entirely new market. The most important aspect to emphasize when marketing products is that of the sustainability of alpaca. Many people in the United States are placing a heavy emphasis on the importance of purchasing products that are produced ethically and sustainably. They have often been led astray by American companies greenwashing and claiming sustainability when down the supply chain unethical practices were used. Being able to show them an entirely sustainable supply chain would convince them to try alternate products made of alpaca fibers. Along with this issue, is that of a lack of education about alpaca fibers. The average American does not know anything about the fiber nor the benefits of its breathability and lightweight feel when blended with cotton or nylon. An increase in marketing that includes information about alpaca fibers would result in an almost immediate increase in American consumers. Additionally, the European market would be swayed with more information regarding the fiber quality and emphasis on its superiority to cashmere fabric.

Farming and sourcing

The alpaca industry stands out as an excellent example of sustainable farming practices, which shows a positive relationship between agriculture and the environment. One of the key strengths lies in the grazing behavior of alpacas, which is less damaging than those of goats or other animals. Alpacas graze on grass while their hooves have a lesser impact on the land, minimizing damage and preserving soil integrity. This grazing method not only sustains the health of the fields but also promotes biodiversity leading to a balanced ecosystem. Protecting the land allows for farming practices to continue for generations. Additionally, the resilience of alpacas is amazing as they are well-suited for survival in various environments. They thrive in

high altitudes and they endure challenging environmental conditions, and it has no effect on the quality of their fibers. This emphasis on natural, environmentally friendly practices not only minimizes the industry's ecological footprint but also ensures the health and well-being of consumers. The rich tradition associated with alpacas and their fibers adds another strength to the foundation of this industry. The industry is rooted in the cultural heritage of the high altitude Andean regions where they are farmed. For the Peruvian culture alpacas can symbolize a connection to the land and people, making sustainable farming practices not just practical but also deeply meaningful. Also, alpaca fibers are known for how sustainable they are because they are biodegradable and typically not touched with chemicals during production, alpaca fibers align perfectly with consumers who are eco-conscious. Especially in today's society, the emphasis of sustainable farming practices is really important for people and can be used as pull for drawing in new customers. In essence, the alpaca industry serves as a shining example of how sustainable farming can be achieved.

However, with all of the strengths associated with the first step of the supply chain, there are countering weaknesses. The industry's structure presents distinctive challenges, particularly concerning fiber sourcing. Unlike other natural fibers, like sheep's wool, where production companies may own the animals, alpacas are typically owned by individual farmers or small scale operations. This arrangement complicates the farming of fibers as the animals are not always readily accessible. However, the support for local and indigenous people by sourcing from the farmers can be a selling point if this is emphasized to consumers. This is because consumers typically want to protect local people and do not like to support big businesses who push out people who have been running the industry for generations. Furthering the challenge is the fact that alpacas are only sheared once a year, which limits the opportunities for fiber

collection and production. This is a weakness that unfortunately cannot be fixed because the alpacas need their wool for the winter but since they are able to live in a vast variety of environments perhaps if they were moved somewhere with less variable temperatures they could be sheared twice a year. Also, the alpaca population itself remains relatively small compared to other livestock, deepening the scarcity of these valuable resources. This combination of factors are the reason for the complexities in alpaca farming and fiber production. Overcoming these challenges will be difficult as some are out of our control. However, calculated planning and proper management to ensure ethical practices are still used for breeding and farming can help to lessen the impact of these weaknesses. Strategies such as fostering collaborations between producers and farmers or exploring innovative breeding techniques can help lessen these obstacles.

While the industry seems to have a handle on sustainable farming practices and the overall sourcing of fibers, there is still room for improvement and opportunities for expansion. One opportunity lies in the breeding of certain alpacas to produce the desired natural colors. For example, Incatops emphasized the importance of black alpacas and emphasized consumers' desire for these naturally colored fibers. There is great consumer appeal of naturally colored fibers because there is a positive connotation surrounding the descriptor “natural” as it implies products are clean and sustainable. The overall opportunity for the farming practices is to conduct a general expansion to generate more profit. In order to achieve this goal there needs to be substantial government support to overcome infrastructure challenges. Accessing remote areas in the Andes region, where alpacas thrive, is difficult due to the vastness of the area where alpacas are currently farmed, spanning an area equivalent to the size of England. Essential changes like building roads and electrical infrastructure are crucial for facilitating industry

growth but are difficult to obtain in such remote areas. Another opportunity lies within fostering competitions within the industry. Incatops emphasized the importance of competition as any exposure to the industry benefits all companies involved. With appropriate government backing and healthy competition, the alpaca industry can overcome their weaknesses and reach its full potential. The main need from the government is funding for new infrastructure like roads to help carry the fibers from the highlands to the factories for production and increasing electricity and running water. These improved resources would greatly help the farmers in the Andes thrive and in turn would cause the industry to thrive. Obtaining more government support can help the industry pave the way for sustainable growth while meeting consumer demand for these high-quality alpaca fibers.

There are also some threats to the breeding and sourcing of alpaca fibers, mainly rooted in environmental difficulties. The two main industries of the Andean highlands are alpaca farming and mining. With that, mining has a detrimental impact on the environment and the runoff generated from mines can destroy and pollute alpaca farms in the neighboring areas. Furthermore, the climate crisis, specifically La Niña events in Peru, accelerates environmental changes, intensifying extreme weather patterns like droughts and erratic rainy seasons. These climatic shifts can have terrible consequences, with extreme droughts contributing to heightened offspring mortality and miscarriages among alpacas. Warmer temperatures make the situation worse by fostering the spread of diseases and parasites, posing substantial health risks to alpaca populations. The threats to alpaca populations pose a major issue for the industry as the only way for them to continue to thrive is to breed more alpacas. These challenges emphasize the need for adaptive measures within the industry, prompting changes in standards and practices to mitigate the impacts of climate change and ensure the resilience of alpaca farming communities.

Production

The production of alpaca products including tops and yarn, weaving/knitting, and design and product development is already fairly successful and advanced. The yarn creation process is a relatively seamless process due to the heavy machinery that is used to comb, card, wash, and process tops to develop yarn. As seen in the Incalpaca factory, the hand picking of fibers in order to mark them as completely processed is lengthy but inevitable as there is only so much the machinery can do. This process ensures fibers are entirely clean and the yarn is produced with the utmost quality. Another strength of many companies is that they have in-house designers which allows for their brand to have a clear image and facilitates higher sales. Additionally, the vertical integration of many companies allows them to be in control of all parts of the supply chain on their own without interference. Their ability to control the processing of fibers, creation of yarn, and development of products is what makes this industry so unique. This business structure places little reliance on other people and has allowed for companies to be more profitable. These companies are able to optimize efficiency and prioritize the needs of consumers while maintaining the integrity of their business.

The production stage is not without its limitations and these weaknesses may be the reason the industry has not taken off in other countries. Most people who are exposed to alpaca products are under the assumption that they are made for cold weather climates as they are seeing sweaters rather than any of the unconventional products made with alpaca fibers. Within these traditional pieces like sweaters, hats, scarves there has been limited experimentation with designs. Many of the storefronts observed throughout Arequipa and Cusco for stores such as Sol Alpaca, Kuna, Anntarah the designs are fairly plain and look like any other sweater made of

different materials. The lack of unique designs leads people to purchase cheaper items from other sources as they can get the same product for half the cost. The typical consumer is not going to be as concerned with the fabric blend as they are with the physical appearance of a garment. In order for sales to increase and for traditional alpaca products to take off, there needs to be a serious consultation with designers who understand the markets they are trying to tap into. When targeting American consumers companies need to consider trend forecasts and the colors of the season as they are more likely to develop a product tailored to their audience's desires. One company, Art Atlas, has done a great job adapting and partnering with Kate Spade and Eileen Fisher utilizing their designers to develop products that appeal to consumers. However, they are developed for private sales and are not owned by ArtAtlas and this is a huge weakness. Their most appealing products are not owned by them. The greatest weakness facing the production of garments is the lack of consideration for what the consumer wants, rather products are developed the same as they have been for years. There is a lack of innovation.

With those weaknesses, the best opportunities for expansion lie in developing unconventional goods. Sandra Jordan has done a wonderful job of developing home furnishings out of alpaca fibers and should be used as a model for possibilities within the industry. The properties of alpaca fibers allow for them to have immense potential. Most consumers assume that alpaca can only be used to develop winter garments and have not seen the capabilities of alpaca in athletic clothing. Companies like Paka have been able to harness the moisture wicking abilities of alpaca fibers and develop everyday athleisure clothing as well as socks and undergarments. This has all been accomplished through the use of blended fabrics. One of the main complaints consumers have regarding alpaca garments is that they are too rough and do not seem as though the fibers are as fine as cashmere, even though they are. Alpaca fibers should be

blended with other fibers like silk to create the finest goods or even pima cotton to keep them exclusively Peruvian and maintain their cultural integrity. Fiber blends have a more appealing feel and often have properties that allow them to withstand harsh conditions. Depending on what other fibers alpaca is blended with, products can be developed for a variety of uses. In order for companies to implement these expansion opportunities they need to consider developing a larger creative team to curate fabric blends developed for unconventional product lines.

The production of alpaca tops, yarns, and goods may face threats as no industry is inherently perfect nor without limitations. Incatops, for instance, faces a specific threat due to its use of non-natural dyes in fabric production. A huge appeal of the alpaca fibers from other companies is that their dyes are developed naturally through the use of local foliage where they conduct traditional dyeing techniques. However, Incatops' use of black alpaca and undyed fabric does set them apart when it comes to consumers' desire for untouched raw colors that appeals to those searching for authenticity. Additionally, the processing of raw fibers presents its own set of challenges. Although machines conduct the combing, carding, and washing processes, the fibers are ultimately hand checked which can take a lot of time. This slow processing is countered by the process of turning tops into yarn as it is pretty efficient due to the machines that can spin yarn quickly. However, when comparing alpaca yarn to certain synthetic yarns they are relatively similar but the cost of alpaca is noticeably high. This pricing dynamic poses a hurdle as many consumers may opt for cheaper alternatives, perceiving alpaca as a luxury they are unwilling to pay for. This is a societal threat that is caused due to a lack of exposure or understanding of alpaca fibers. While alpaca fibers exhibit properties of softness and durability it is often overshadowed by more familiar options in the market. This is hindering alpacas' broader adoption among consumers. When navigating these threats companies must explore strategies to

educate consumers about alpaca fibers and emphasize their superior qualities over more popular fibers. Additionally, investing in research and development to enhance production processes and reduce costs could help improve competitiveness and broaden market appeal.

Retail/sales

One of the pivotal aspects of a company lies in their ability to generate sales which is done during this last step of the supply chain. This stage includes many elements such as company management, certifications, partnerships, and marketing of products. Currently the biggest drive for alpaca products is observed in Norway, a region typically characterized by a cold climate. This is a strong country to have under the industries belt as it should not take long for other European nations to adopt the same love for alpaca fibers. Additionally, the relationships between different companies are positive and have a sense of healthy competition fostering mutually beneficial outcomes where exposure for one translates into business opportunities for all involved. Any form of exposure to the alpaca industry is positive, contributing to its growth and sustainability. While there were many challenges that erupted due to the Covid-19 pandemic, the alpaca industry experienced a surge in demand. The industry flourished as people indulged in new hobbies and were purchasing yarn at unprecedented rates. This was a really strong time for the industry and its ability to thrive through times of hardship suggests that a sustained demand for yarn could increase its prosperity. Also, all of these companies are committed to securing certifications that ensure they are complying with industry standards and practices which is extremely important. ArtAtlas, for instance, has demonstrated exemplary efforts in obtaining a multitude of certifications including BASC, Peru Fair Trade, WRAP, World Fair Trade, ISO, GOTS, and Empresa Segura. Holding these certifications not only displays the company's dedication to ethical business practices but also signifies its

commitment to sustainable production practices. This not only increases consumer trust but also reinforces the industry's reputation for responsible business, thereby strengthening its position in the market. The industry's success hinges on fostering collaborative relationships, capitalizing on emerging market trends, and upholding the utmost ethical and sustainable standards. Through conscious efforts in these areas, the industry will continue to grow and exhibit resilience in the face of challenges and opportunities.

The industry faces significant weaknesses stemming from widespread ignorance about alpaca and its characteristics. In the United States, for instance, many consumers lack awareness not only of the materials in their clothing but also of the unique properties of natural fibers like alpaca. Many cannot even tell the difference between camelids such as an alpaca or a llama. Additionally, marketing alpaca as simply being used for winter gear poses a great threat. People in warm climates are unlikely to purchase alpaca due to the common misconception that wool is used for keeping warm and they are under the impression that they would have no use for alpaca fibers. To lessen these weaknesses, it is important to broaden consumer understanding of alpaca beyond its association with winter clothing. Highlighting its versatility in lightweight, comfortable clothing when blended with materials like cotton or nylon. This can reshape perceptions of alpaca and generate demand from people in varying locations. By emphasizing alpaca's ability to be used year-round and its potential to enhance the quality and comfort of clothing, the industry can effectively overcome misconceptions and expand its reach, and ultimately its profitability.

Objectively the biggest opportunity for expansion of the alpaca industry lies in the marketing and partnerships. The ability of companies to partner with well known brands like MaxMara, Kate Spade, Eillean fisher, Stella McCartney, etc has allowed for alpaca products to

reach a different audience. However, there is still much to be done to increase awareness and use of alpaca garments. A great way to increase exposure is to obtain partnerships with brands that exemplify the same values and standards as the industry. For example, a young brand Aviator Nation sells loungewear made of a blend of cotton, cashmere, and other luxury fibers. They are a brand that values sustainable and ethical business practices and would probably love to collaborate with an industry that has these same values. Attempting to contact national brands such as this one to develop a line of alpaca and cotton blended loungewear could create a chain reaction for other popular brands to do the same. Additionally, if companies within the alpaca industry would like to keep the traditional uses of alpaca and remain focused on winter gear, they can partner with brands like Patagonia or NorthFace. One of the easiest ways to market products is through collaboration with fashion influencers, sustainability advocates, and textile experts to amplify outreach efforts and lend credibility to messages promoting alpaca's year-round appeal. Utilizing social media platforms, digital marketing campaigns, and experiential events can further strengthen these messages by reaching a broader audience and generating consumer interest in alpaca products beyond traditional winter wear.

Strengths within the alpaca industry often go hand in hand with threats faced by other companies in the same industry. For instance, companies lacking certifications may lag behind competitors due to the industry's emphasis on sustainability and ethical practices. Certifications serve as a symbol of adherence to these values; thus, the absence of such certifications may show a failure to meet industry standards, which causes a lack of consumer trust and loyalty. Also, competition from other fibers, both natural and synthetic, poses a significant threat to South American camelid fibers. Cashmere, in particular, emerges as a worthy competitor, loved for its luxurious appeal and sought-after status. While alpaca fibers have comparable fineness and

versatility, their potential remains largely untapped because of limited consumer awareness. Cashmere's higher price point further strengthens the perception of superiority among natural fibers, overshadowing the unique attributes of alpaca. To capitalize on its strengths and lessen these threats, the alpaca industry must prioritize efforts to obtain certifications and demonstrate commitment to sustainability and ethical practices. Enhancing consumer education and awareness regarding the diverse applications and benefits of alpaca fibers is equally important. Through showcasing alpaca's versatility, durability, and environmental benefits compared to competing fibers like cashmere, the industry can differentiate itself and develop a distinct niche in the market. Collaboration with industry stakeholders, investment in marketing campaigns, and using digital platforms for outreach can help with these efforts, generating greater consumer appreciation and demand for alpaca products. Ultimately, by addressing weaknesses and seizing opportunities to showcase its properties compared to cashmere, the alpaca industry can overcome these challenges and emerge as a competitive player in the textile market.