

IEOR 4998 Group Paper 1

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Introduction

The team focuses on an idea to create a pet service with both online and offline experience inspired by the increasing demand. In the past two years, the USA's pet market has grown rapidly. Seventy percent of U.S. households, or about 90.5 million families, own a pet, according to the 2021-2022 National Pet Owners Survey conducted by the American Pet Products Association (APPA). There are certain reasons behind the development of the country's pet market.

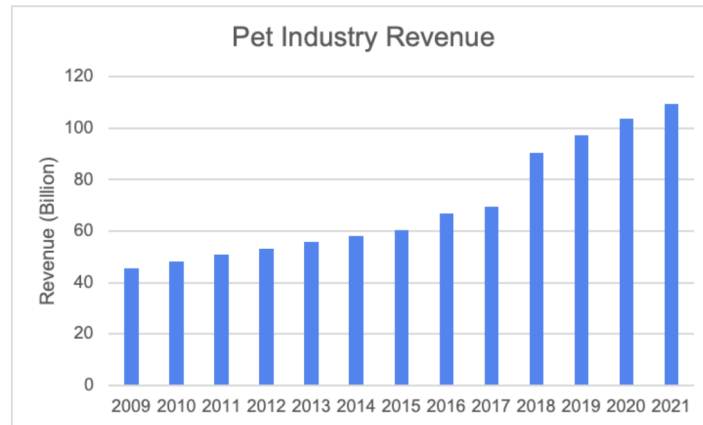
The COVID-19 pandemic has affected the pet industry in significant ways. During a survey (APPA, 2021) carried out in November 2021, 14 percent of respondents in the United States reported acquiring a new pet. This is an increase of four percent compared to December 2020, when 10 percent of respondents reported getting a new pet. With nationwide lockdowns forcing people to spend most of their time confined at home, people spend more time with their pets as a result of social distancing regulations.

Pets provide benefits to older people, while the aging population in the United States is continuing to increase. Animals can help reduce stress, lower blood pressure, and increase social interaction and physical activity. They can have an astounding effect on symptoms of depression and feelings of loneliness. In recent years, the aging of my country's population has continued to increase, and the number of empty nesters has also increased. Under such circumstances, many elderly people choose to keep pets to enrich their lives and relieve the loneliness of being unaccompanied. According to the National Poll on Healthy Aging, 10% of all people between the ages of 50 and 80 got a new pet between March 2020 and January 2021.

In addition to empty nesters, more and more young people living alone in my country have started to keep pets. These young people who live alone may be for work or because they yearn for freedom, but in any case, alone, there will always be a sense of loneliness and emptiness that cannot be ignored. Therefore, many people who live alone also choose to keep pets to relieve their loneliness. Millennials are a generation of pet parents. YPulse's survey found that 76% of 20-38-year-olds have a pet (2020), with over half reporting they have dogs and 35% owning cats. So, the large majority of the largest living generation (Millennials now outnumber Boomers) have pets in their homes—making them unquestionably the target market for pet brands everywhere. The report also shows that 7% of Millennials say that they have adopted a pet during COVID-19 to have company during quarantines, which means that there are millions of new pet-owners in this generation as well.

Industry Analysis

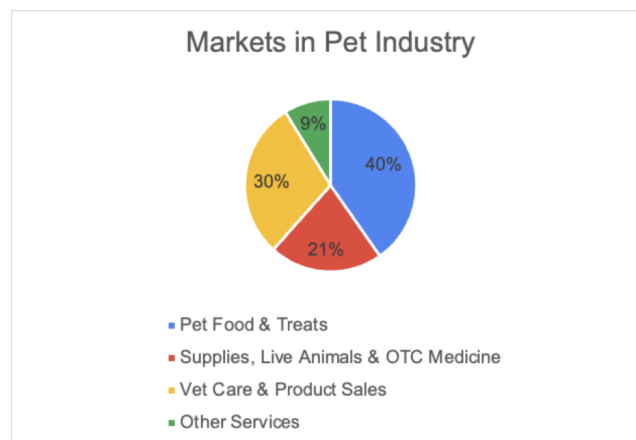
We want to operate in the **pet industry** in the US. As we can see from the plot below, the pet industry market is steadily growing and has an accelerating upward trend since 2018 (spots.com/pet-industry-statistics).



Three major markets in the pet industry are: pet food & treats, vet care & product sales, supplies, live animals & OTC medicine. The breakdown of market sizes (in revenue) are in the table below.

Pet Food & Treats	\$44.1 billion
Supplies, Live Animals & OTC Medicine	\$23.4 billion
Vet Care & Product Sales	\$32.3 billion
Other Services	\$9.7 billion

(Other services include: boarding, grooming, insurance, training, pet sitting and walking and all services outside of veterinary care)



The target customers are pet owners who care for the wellness of their pets and have the financial ability to pay for pet products & services. And, of course, the direct targets that businesses in the pet industry serve are the adorable pets that keep their owners accompanied.

Pet industry provides daily necessity supplies for pets which keep them entertained and ensure they get the medical treatment (prevention & treatment) when needed, and some other services derived from specific needs of some types of pets and pet owners (dog walking, animal boarding, grooming, etc.). Driven by the advancement of technology and improvement of household financial capabilities, making the services more time-convenient, accessible, and providing higher-quality products have been the major targets of the companies in the pet industry.

Overall, the pet industry is a stable industry, as it shows in the steady market growth. Every product is designated to serve the needs of the pets and their owners. Most pet owners have a clear understanding of what they are looking for, and the markets in this industry are well established, so no unexpected surprises are anticipated for the foreseeable future. Except that the business models of the pet care companies will be impacted by the trend of digitization, which means there will be increasing need for online pet product shopping, vet diagnoses services, and pet training. The online pet market has nearly quadrupled from 2014 to 2018. By 2020, over 40% of pet owners in the United States purchased pet supplies online instead of visiting retail stores (statista). Also, the development of AI technology might also have an impact on the needs of the pet owners, leading to emergence of pet care robots. It is estimated that the pet care robotic market size will reach 3.65 billion by 2030 with a CAGR of 11.2% from 2022 - 2030 (globenewswire).

Market Analysis

With the characteristics of high growth in the pet adopting industry, increased awareness of pet caring and average money spent on pets, pet care is a market with great potential. Through the research about the whole pet industry, we found that we can divide the industry into several segments: pet selling/adopting, pet grooming, and pet caring. More specifically, pet caring involves the daily care of pets as well as the health treatment for pets. Since the pet selling/adopting segment has relatively high barriers to entry and involves complicated supply chains in animal transportation, we decide to choose the **pet industry** to enter. We would like to offer a one stop solution for all pet owners to solve all the after-sell/adopting problems that they might encounter. Our business channels will combine both online and offline and the main target customers are those middle-class pet owners since one research has shown that middle-class people tend to be willing to spend more money on their pets. The main pets that we are targeting are dogs and cats only at the beginning but we will consider having other popular pets categories in the future.

More specifically, we want to open a boutique positioning pet related store that sells pet products e.g., foods and supplies, and provides pet service e.g., pet grooming, pet training and pet medical care. One of the creative points of our business is that we plan to offer part of pet training and pet medical care service online. That is because we found that one of the pain points of pet owners under COVID is that the social distance policy hinders that they bring their pets to some training class and another frequent complain is that it is very expensive, inconvenient and time consuming to make medical care reservations for pets, it always takes even more than a week ahead for pet owners to make an appointment. The global pandemic accelerates the development of live streams and short videos such as TikTok, and people start to adopt the online format training and have gradually considered online courses to be a great way to obtain knowledge. Therefore, we believe that offering online pet training courses and pet medical care will be a profitable business.

To complete a market sizing of our business and estimate our potential revenue, we decide to separate our main revenue stream into 2 parts, products and services (appendix I). After making these assumptions, we can calculate our one year revenue is \$5.34Billion.

Five Forces Analysis

1. Barriers to Entry

Barriers to Entry in this industry are high. On the one hand, Government regulations, including federal and state laws, regulate pet shops and the sale of animals. Pet shops need to address a range of issues and receive licenses based on federal and state

requirements before permission to operate is granted. On the other hand, industry concentration can be another barrier to potential entrants. Two national retail chains in this industry account for nearly half of industry revenue, leaving smaller players with the remaining portion. Although this industry is highly fragmented, there is intense price competition from mass merchandisers, online operators and catalog retailers, which may provide a barrier for new, independent retailers. Additionally, a significant share of funding may be directed toward marketing to build consumer interest and recognition.

2. Bargaining Power of Consumers

The bargaining power of buyers can be considered high within the pet industry. Buyers are becoming more educated about pet food products, which increases buyer bargaining power. This reveals that more and more consumers are becoming informed about pet food and pet treat ingredients as well as the nutritional benefits their pet will receive.

Consumers have many alternatives available to them. This increases the power of the buyer, as there are dozens of major brands within one retail location, each with several lines of food and treats available for purchase.

3. Competition in the industry

We encounter high competition in the industry. There are many giant corporations that dominate the market. PetSmart and Petco accounted for nearly half of the online pet product revenue. Both companies were founded over 30 years ago, so they have accumulated lots of resources, technologies, and business strategies that helped them maintain their leading positions. Meanwhile, there are many newly founded but fast-growth companies like NuLeaf Naturals and Embark Veterinary. Those companies are great at expanding their business and make the pet industry even more competitive.

4. Power of suppliers

The bargaining power of suppliers is low in the industry. Since the requirements of ingredients to make the pet supplies are not high as for human supplies. There are many farms, growers, factories and retailers that could supply the raw materials to make the pets' foods, toys, clothes, and other stuff. Also, there are not any patents or technology requirements for suppliers.

5. Threat of substitute products

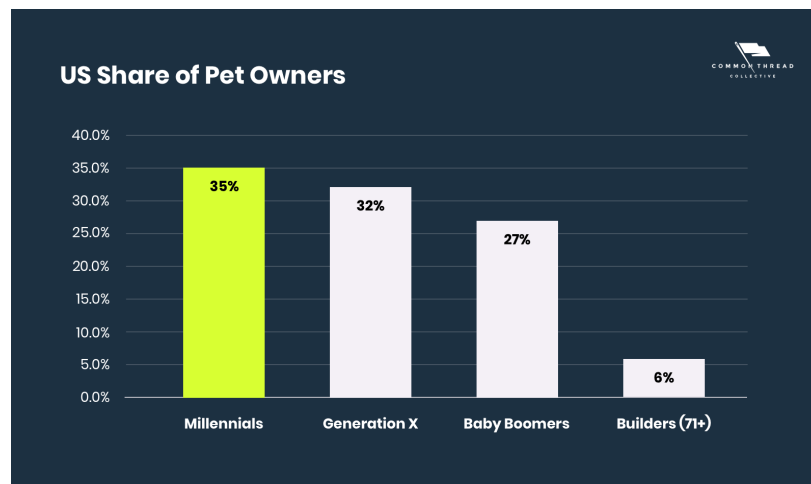
In fact, there are substitutes in every aspect of the pet service industry. For example, there are many human foods that can replace pet food. For example, dogs can eat boiled

chicken breast or pumpkin, and cats can eat boiled egg yolk and fish. Another example is pet grooming. If it is a small dog, the owner can bathe the pet for grooming and trim nails at home. Although these substitute products cost money or time, they are still an alternative for pet owners. .

Customer Segmentation

According to the American Pet Products Association (APPA), 68% of American Households own one of the pet types, and in 2021, there were around 129.93 million households. It indicates that the United States is one of the biggest pet markets in the world. With so many pet owners, Therefore, it is important to analyze the customer segmentation of the United States.

There are 4 types of marketing segmentation: Geographic segmentation, Demographic segmentation, Psychographic segmentation, and Behavioral segmentation. From the geographic side, for cities like New York and San Francisco, people can easily buy products and there are more choices for the products and services. From the demographic side, there is a survey that shows that the baby boomers would like to spend more time and money on quality pet products instead of pet owners from the millennial generation who are seeking cheaper pet products online. These "Generation Z" people born between 1995 and 2009 are rapidly pushing up their demands for pet medical care. Compared with medical expenses that cost hundreds of dollars, they care more about the health of pets, even if they have to live a tight life. According to statistics from the American Pet Products Industry Association, in 2020, the largest proportion of people who keep pets in the United States are 25-40 years old, accounting for 32%. And among the 18-34-year-olds, more than half of them regard pets as children, and they are willing to spend more money on "children".



From these four segments, we can better optimize our products, marketing, advertising, and sales strategies, and it allows us to brand new strategies and meet the demand of different customers. Eventually, we can personalize depending on the customers and finally achieve success.

Competitors

The main competitors in the United States are Amazon, Chewy, PetCo, and PetSmart. The first three are the online retailers and the second one is more focused on the in-store service. For Amazon, it is unique as the largest e-commerce company and its fast delivery service.

Chewy started operation in 2011. The strength is that it is a pure pet e-commerce self-operated platform that provides all products needed by pets including medicines and more than 1,600 brands and more than 45,000 kinds of pet products involving pets including cats, dogs, fish, horses and reptiles, and so on. Chewy earns money by selling pet food and related items on its website. To differentiate itself in the market, it offers exemplary customer service and allows pet owners to speak to a vet free of charge. It also provides autoship, where customers can subscribe and get it delivered periodically.



PetCo is the second-largest pet specialty retailer in the United States. The company provides both pet products and pet care services. Based on the solid foundation of "retail + platform", the company actively expands its business and implements "non-physical store" mergers and acquisitions. Moreover, PetCo has opened the first store-in-store pet specialty hospital and launched the Heads & Tails APP.

Last but not the least, Petsmart in the United States is the largest in the global pet industry with more than 1,300 stores. Petsmart provides not only pet food, but also a variety of quirky pet daily necessities, pet training, pet grooming, and other peculiar services. Its strength is to provide customers with high-quality services that focus more on service experience and emotional connection, including basic beauty care, pet health spa care, pet fashion styling, and high-end foster care, etc.

Main Competitors	Amazon	Chewy	PetCo	PetSmart
Online/In-Store	Online	Online	Online + Retail	In-Store Service
Business Model	Largest E-commerce	Self-Operated Platform	Second-largest pet specialty retailer	Global Pet Industry
Differentiation	Fast Delivery	Autoship	Retail + Platform	More Pet Services
Market Size	World's largest online marketplace	Nearly 50% market share of online pet products	1,500 pet specialty stores	More than 1,300 stores

Customer Interview

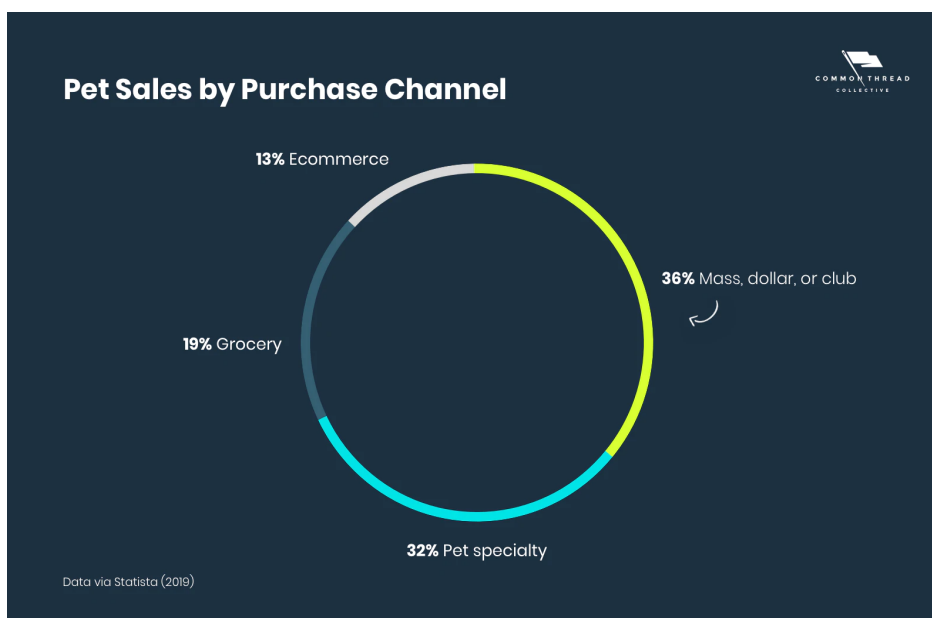
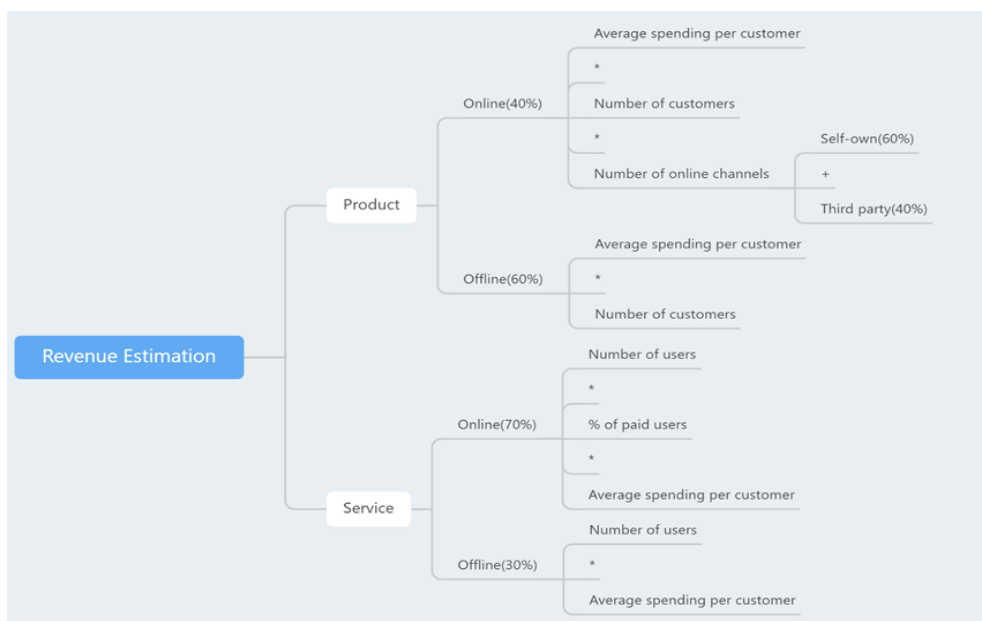
For the pet care service industry, the quality of service for pets is of paramount importance. But at the same time, the service for pet owners is also an important point to enhance competitiveness. The development of the company is inseparable from sufficient customer sources. Therefore, it is very important to attract more customers and understand their needs. Before expanding potential customers, it is necessary to clarify the target customers of the market. In the initial decoration design of pet stores, it is necessary to highlight the preferences of target customers. To screen target users through customer extension activities to lock in interested customers. While attracting new customers, a consistently high standard of service quality to existing customers should be guaranteed. Not only whether there is love for pets, whether it can meet some needs of customers, and whether the advice provided is professional enough are all details that customers care about. The trust of customers is the greatest treasure of the pet care service. Questionnaire surveys can be conducted for the needs of potential target users. Also, questionnaire surveys can be conducted in various forms. Internet advertising, telephone survey and questionnaire survey after customer extension activities. There is still much room for improvement in the current market. When entering this market, it is necessary to apply current strengths and to improve current weaknesses. Therefore, the opinions of owners who usually bring pets for pet service are very important. Based on the understanding of user needs, the following user interview script will be developed. (Appendix II)

Appendix I: Market Sizing

To obtain a better estimation of market size, we have made several assumptions:

1. Number of customers = number of target customers * market share = 90.5M * 5% = 4.525 M

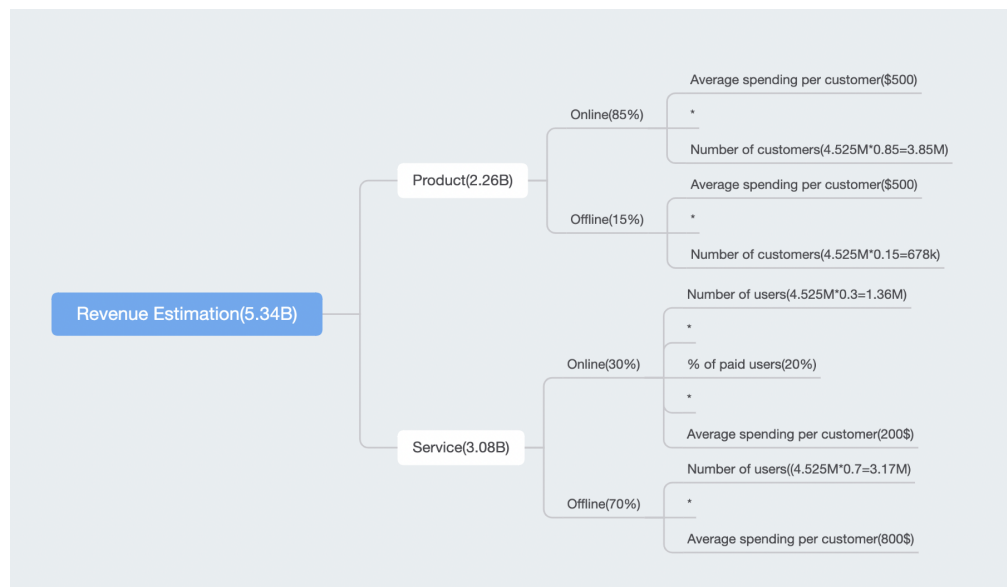
1a) Seventy percent of U.S. households, or about 90.5 million families, own a pet, according to the 2021-2022 National Pet Owners Survey conducted by the American Pet Products Association (APPA). This is up from 56 percent of U.S. households in 1988, the first year the survey was conducted, and 67 percent in 2019.



1b) From the chart of “Market share of the leading pet store companies in the United States in 2021”, we can see that the pet car market is quite an oligopoly market with 2 leading companies taking 40% of the market share and the rest of small companies share 60% of the market. We estimate that we could obtain 5 % of the market share.

2. Proportion of product and service in sales: 55% of product and 45% of service.
3. Proportion of sales in offline channels and online channels:
 - a. Product: 85% offline and 15% online.
 - b. Service: 70% offline and 30% online. Because we want to emphasize our OMO(Online Merge Offline) business model, we make this estimation.
4. Average spending:
 - a. Average spending on product: \$500 per year.
 - b. Average spending on service: \$200 per year(online) and \$800 per year.(offline)

After making these assumptions, we can calculate our one year revenue is \$5.34Billion.



Appendix II: Interview Script

When was the last time you had a bad pet service experience? What happened?

When was the last time you had the best pet service experience? What happened?

What's the decoration of the best pet store you've seen?

When was the last time you took your pet to grooming?

How much did your last pet grooming cost?

Do you have any comments or suggestions for the existing pet service industry?

When was the last time you ordered pet supplies online? Which website?

What do you do and where do you go while you wait for your pet to be groomed?

What kind of free service do you need during pet baths or short-time services?

Have you ever had someone else take care of your pet? What was your biggest concern about what happened to your pet during that time?

Are you more inclined to take your pet to the pet store yourself or have someone pick it up?

Do you have any worries or concerns if the service staff comes to pick up and drop off your pet?

Do you have any store membership now?

What is your reasonable membership price range?

When choosing a pet care service, what are you most concerned about?

Which way do you prefer to get the dynamics of pets? Live video on the app or texting or calling with a store associate?

Do you have any apps about pets on your phone? What do you use it for?

If your pet is sick, will you take him/her to the pet hospital directly, or search online to find the solution?

Will online medical treatment be an acceptable and trustworthy way to see a pet doctor for you?

Reference

- APPA. (January 28, 2022). How has your pet ownership been affected by COVID-19?. In Statista. Retrieved March 02, 2022, from <https://www.statista.com/statistics/1191395/pet-ownership-status-due-to-covid-19-in-the-us/>
- APPA. (n.d.). American Pet Products Association's 2021-2022 National Pet Owners Survey. Retrieved March 2, 2022, from https://www.americanpetproducts.org/pubs_survey
- Financials. Chewy, Inc. - Financials. (n.d.). Retrieved March 4, 2022, from <https://investor.chewy.com/financials/quarterly-results/default.aspx>
- Leading pet stores in the U.S. based on market share 2021. Retrieved March 31, 2022, from <https://commonthreadco.com/blogs/coachs-corner/pet-industry-trends-growth-ecommerce-marketing>
- Pet Care Market Size, Share & COVID-19 Impact Analysis, By Product Type (Pet Food Products, Veterinary Care, and Others), Pet Type (Dog, Cat, and Others), Distribution Channel (Online and Offline), and Regional Forecast, 2021-2028, from <https://www.fortunebusinessinsights.com/pet-care-market-104749>
- Pet industry market size, Trends & Ownership Statistics. American Pet Products Association. (n.d.). Retrieved March 4, 2022, from https://www.americanpetproducts.org/press_industrytrends.asp
- Pet industry trends, Growth & Statistics in 2022 and Beyond: Unleashing your ecommerce pet marketing strategies. Common Thread Collective. (n.d.). Retrieved March 26, 2022, from <https://commonthreadco.com/blogs/coachs-corner/pet-industry-trends-growth-ecommerce-marketing>
- Published by Emma Bedford, & 14, J. (2022, January 14). Petco Animal Supplies Revenue United states 2016/17-2021/22. Statista. Retrieved March 4, 2022, from <https://www.statista.com/statistics/254126/total-revenue-of-petco-animal-supplies-in-the-us/>
- Research and Markets. (2022, March 24). The worldwide pet care robotic industry is expected to reach \$3.65 billion by 2030. GlobeNewswire NewsRoom. Retrieved March 26, 2022, from <https://www.globenewswire.com/news-release/2022/03/24/2409234/28124/en/The-World-wide-Pet-Care-Robotic-Industry-is-Expected-to-Reach-3-65-Billion-by-2030.html>

Tighe, D. (n.d.). Topic: PetSmart. Statista. Retrieved March 4, 2022, from <https://www.statista.com/topics/4670/petsmart/>

US Census Bureau. (September 17, 2020). Percentage of single-person households in the United States in 2019, by state [Graph]. In Statista. Retrieved March 02, 2022, from <https://www.statista.com/statistics/242284/percentage-of-single-person-households-in-the-us-by-state/>

YPulse. (August 24, 2020). 76% of millennials are pet parents-here's what they've been buying for them. Retrieved March 2, 2022, from <https://www.ypulse.com/article/2020/08/24/76-of-millennials-are-pet-parents-heres-what-theyve-been-buying-for-them/>