

# Analysis of the Future Development Trend of the Pet Industry

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## ABSTRACT

The pet industry is a very promising market that has risen in recent years. Its external influences on its development provide catalysts that should be identified. And due to the continuous growth of people's demand for pets, the pet economy has developed into a new economic form. The future development trend is the concerns of practitioners in the pet industry. This article highlights the main challenges through a political, economic, social, and technological (PEST) analysis. This article will focus on using data analysis to figure out the dynamics of the pet market. The results of the analysis show that the market economy of the pet industry will show a growing trend in the future. People's growing demand for pets and the support of modern technology have allowed the pet industry to develop more types of products. And with the development of society, the future market and products of the pet industry will further expand. Researchers can use the relevant data in this article to understand the future development trend of the pet industry.

**Keywords:** *Pet economy, modern technology, development trend*

## 1. INTRODUCTION

The pet industry has a history of more than 100 years in developed countries and has formed an industrial system of products and services such as pet raising, pet food, pet supplies, pet training and pet medical treatment. The pet industry now has a well-established system that does more than just buy and sell pets, and the market size of the pet industry is growing every year [1]. Even in the case of the Covid-19 epidemic last year, the global economy suffered a huge blow, and the market sales of the pet industry exceeded 100 billion US dollars.

At present, no researchers have conducted an overall analysis of the pet economic market. The key research question is to identify external factors that bring opportunities to the pet industry. We decided to investigate a major pet market as the research direction of this time, that is, the U.S. pet market.

In the work, the article gives the corresponding analysis results by analyzing the data of the US market. In this research paper, the author investigates the U.S. pet industry by using economic, social, and technical (PEST)

analysis. Since there is no political information in pet industry research, there will be no political research in this paper.

## 2. ECONOMIC FACTORS

### 2.1. Per capita disposable income

The impact of per capita disposable income on industry development arises in two ways, both of which contribute to the growth of the pet market.

On the one hand, per capita disposable income affects the purchasing power of consumers. The purchasing power of consumers determines the production of companies, which adjust their products to the changes in consumer demand. Therefore, in the pet market, it is observed that as per capita disposable income increases, the purchasing power of consumers increases [2]. The increase in overall consumer demand will promote the innovation and production of the market, and thus the production from the pet market is also promoted.

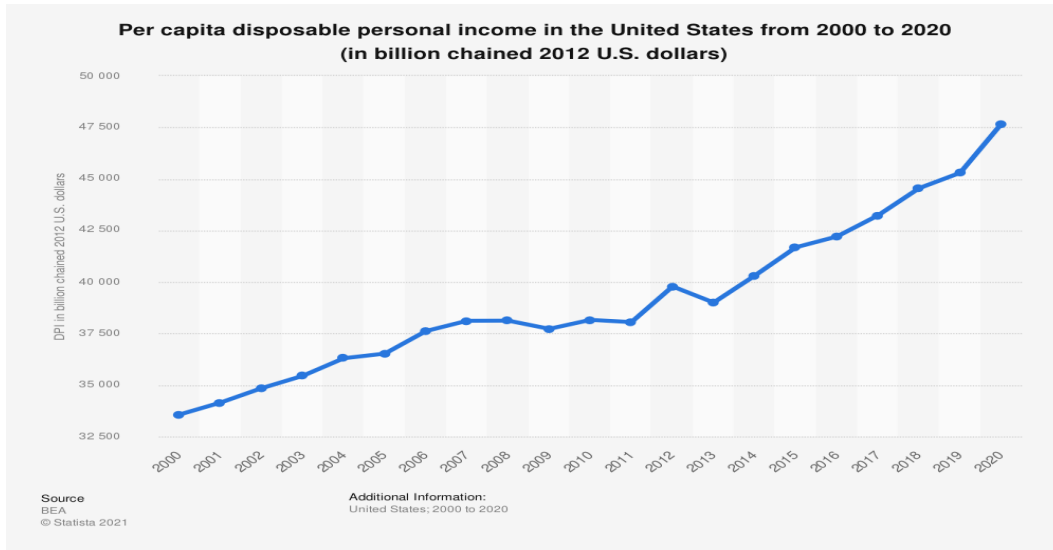


Figure 1: Per capita disposable personal income in the United States from 2000 to 2020 [3]

On the other hand, the change in per capita disposable income determines the change in business production. When the per capita disposable income increases rapidly, the market will tend to prosper, and companies should increase their production. For example, the growth rate of disposable income per capita in the U.S. from 2019 to 2020 is greater than in previous years, indicating that business productivity will increase faster in 2019 as well. As can be observed in figure 1, disposable income per capita in the U.S. continued to increase rapidly by 42% from 2000 to 2020, and business productivity is also increasing rapidly. This has become the consumer base that enables the pet industry to grow rapidly.

employment rate continues to increase by 2.4%, and although it declines significantly in 2020 due to the epidemic, the overall trend shows that employment is increasing [3]. The benefit of grown employment is stable income, and more consumers with stable income intend a large amount of domestic demand is generated. The increase in demand leads to more consumption. On the other hand, an increase in employment in the industry can provide a talent pool for industry development and provide more innovation and ideas to complete the optimization and improvement of the industry. For the pet market, an increase in employment can ensure that more pet owners have a certain amount of income and have expenses to allocate to their pets. At the same time, the employment rate contributes to the improvement of the pet market structure.

## 2.2. Employment rate

The figure 2 shows that from 2011 to 2019, the U.S.

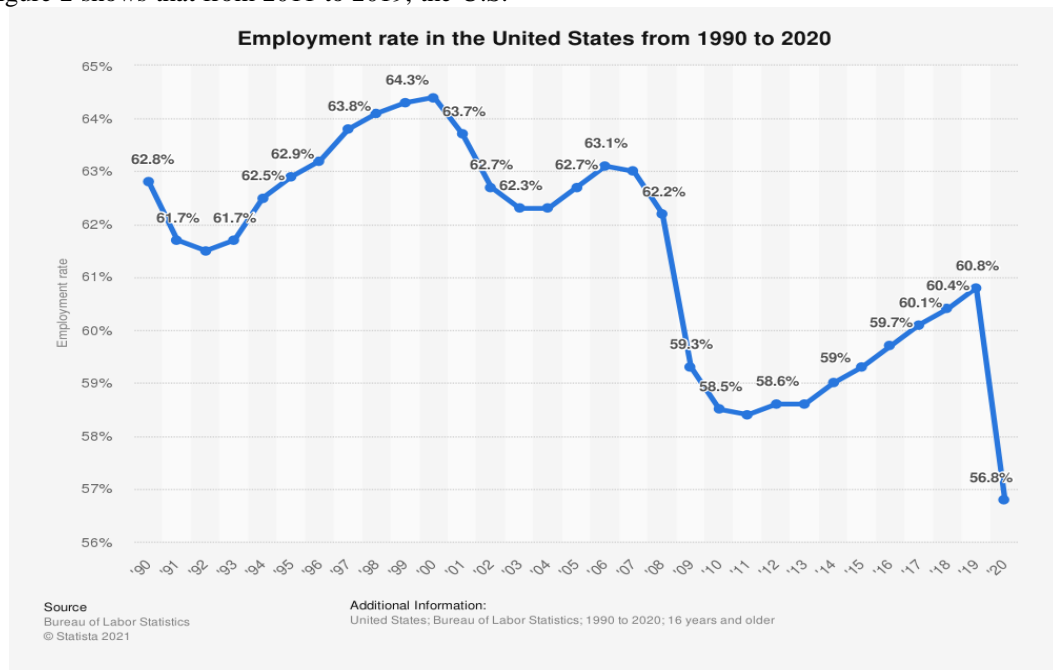
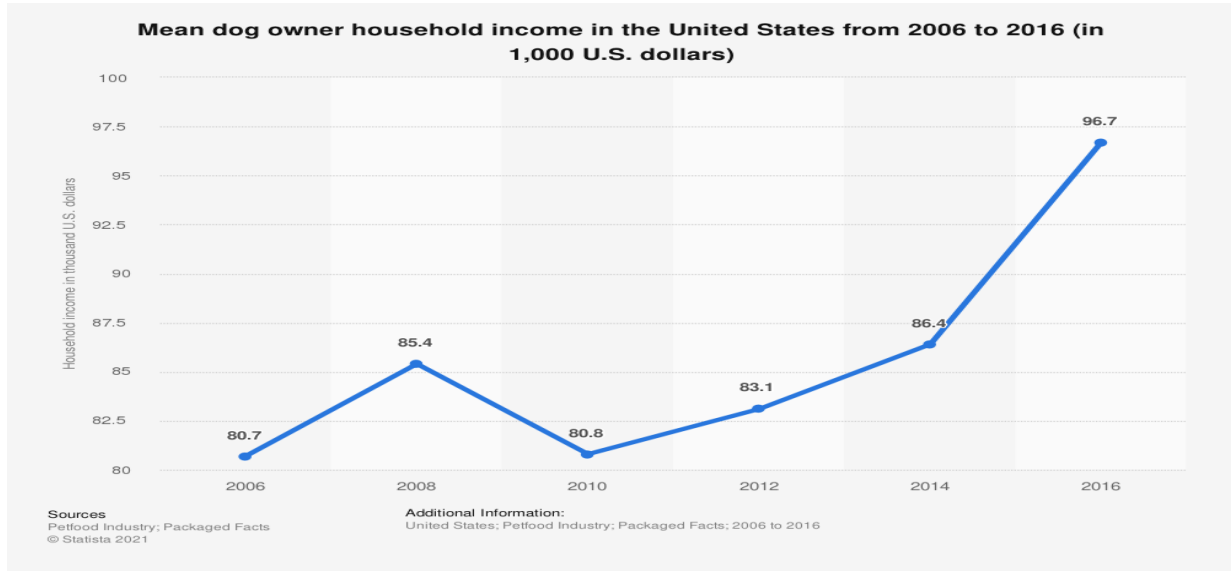


Figure 2: Employment rate in the United States from 1990 to 2020 [3]

**2.3. Pet market size**

The market size is an essential way to assess and measure sales potential and profitability. Figure 3 shows that \$10.36 billion was spent on pets in the U.S. in 2020. According to calculations, compared to 2018, the market size of 2020 increased by 14.5% [4]. The pet market is expanding year by year, with pet food and treats accounting for a large proportion of the market, in

addition to pet lifestyle products, live animals, over-the-counter drugs, veterinary care, product sales, and service consumption. The first determination that increasing market size leads to the pet industry is that the expansion of the pet market size means that there is sufficient money and consumer demand in the market. Additionally, the increase in market size can expand the customer base by providing a wider variety of products and services. Therefore, the expanding size of the pet market indicates that it has good commerce potential.



**Figure 3 :** Mean dog owner household income in the United States from 2006 to 2016 (in 1,000 u.s.dollars) [3]

**Table 1:** Total U.S. Pet Industry Expenditures

**Total U.S. Pet Industry Expenditures**

Year	Billions of dollars
2020	\$103.6 Actual
2019	\$97.1
2018	\$90.5

(Data was announced at the 2021 State of the Industry presentation on 3/24/21)

**Actual Sales within the U.S. Market in 2020**

In 2020, \$103.6 billion was spent on our pets in the U.S.

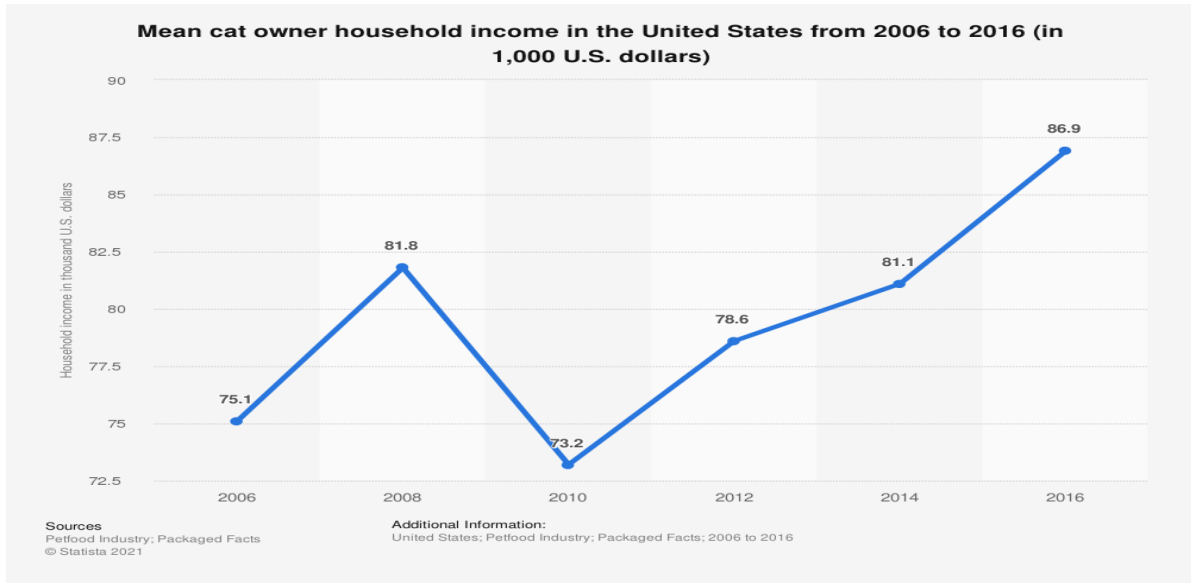
**Breakdown:**

Pet Food & Treats	\$42.0 billion
Supplies, Live Animals & OTC Medicine	\$22.1 billion
Vet Care & Product Sales	\$31.4 billion
Other Services	\$8.1 billion

*Note.* This table shows the market size and Breakout from 2018 to 2020. [5]

**2.4. Income situation**

Resident income is also related to the pet economic market. When residents' income grows, the scale of the pet market will expand. In figure 4, the income of pet owners rose from 2006 to 2016, with households with dogs increasing by 19.8% and households with cats increasing by 15.7%. Since the pet-owning population itself has a steady demand for pet products, such as dog food, snacks, and grooming services, among others [5]. When income increases and pet owners maintain their original allocation of pet product spending, the amount spent rises. Therefore, the increase in income can effectively and visually increase the sales of the pet market.



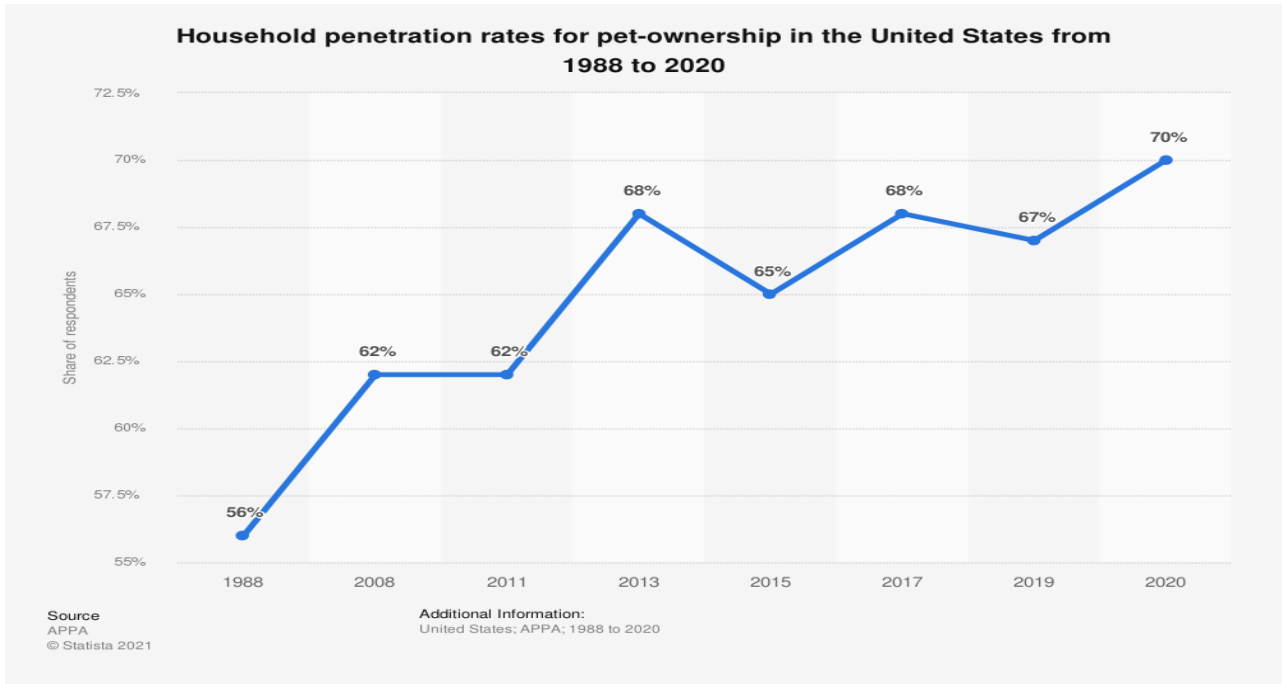
**Figure 4:** Mean cat owner household income in the United States from 2006 to 2016 (in 1,000 u.s.dollars) [5]

### 2.5. Consumer preferences

The fifth point is that consumer preferences are changing. Due to the renewal of the concept of scientific pet ownership, people's income increases, young people become the main force of pet ownership and other reasons. Consumers in the pet product consumption preferences have also changed. Some consumers will be attracted by the nutritional content of product marketing without looking at health and safety issues, and some pet owners will consider natural food safer than processed pet food and anthropomorphize their pets to give them human leftovers [7]. According to the survey in the article Determinants of pet food purchasing decisions, more than half of people think it is important to buy healthy food for their pets [7]. The shifts in consumer preferences in recent years or a large degree of the pet market provide some stimulation [7]. However, this can be uncertain in that pet owners may not be well-informed and therefore are prone to follow marketing or trends at the time to choose products, which can lead to health problems when giving pets unsuitable food instead. Moreover, it can be inferred that young consumers have the concept of following the trend in the choice of pet products, so good marketing can bring a great boost to the pet market [7].

### 3. SOCIAL FACTORS

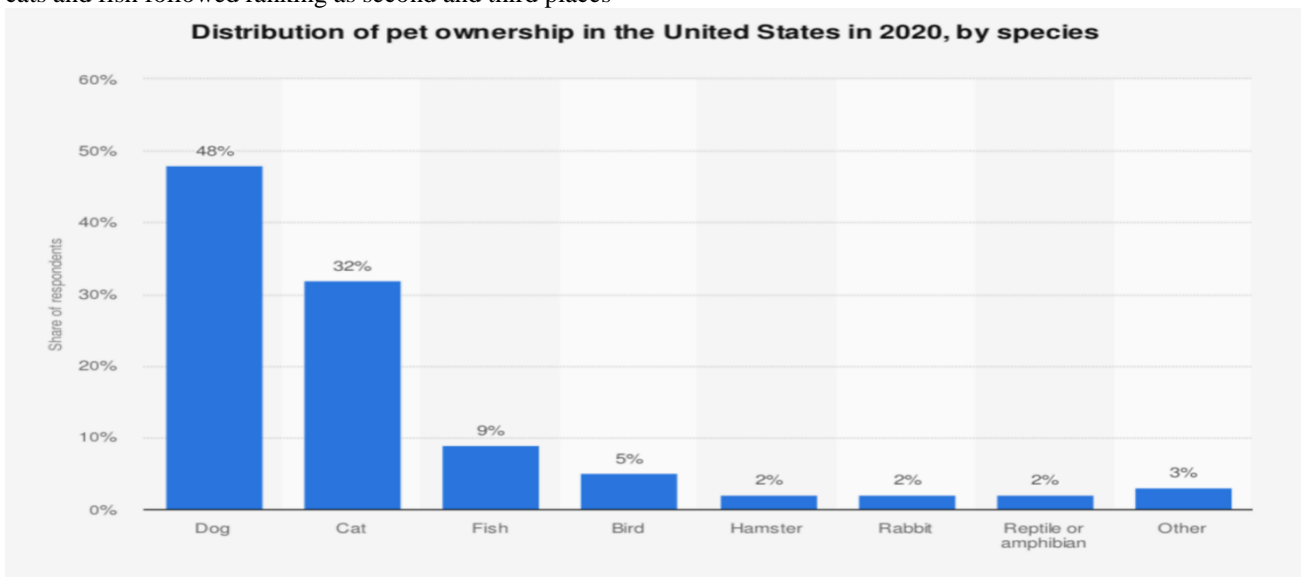
The pet population is dynamic and changing. The number of pet ownership is approaching its plateau. The line graph shows the household penetration rates for pet-ownership in the United States from 1988 to 2020, seventy percent of households in the United States owned one or more pets in 2020. Households' penetration rates for pet-ownership have increased by 14 percent since the beginning of the survey period in 1988. In 2020, around 67 percent of all households in the United States owned a pet. This is around a 20 percent increase from 1988. The typical pet owner is a married female with children, living in the suburbs and most likely employed [7]. Works press their time with children, so it is a considerate choice to have pets to keep children's company. Despite keeping pets for others, there are some people who pick a pet for their own [7]. Living in a world with a high pace of life, sometimes people can't spare ourselves to hang out or chat with their friends and family members. Young people can't help feeling lonely and pressured in this impetuous reality, and pets are the most loyal company when these moments occur. So, it is no surprise that more and more households own pets. As one of the most stable industries around the world [10], the pet industry will continue to steadily grow.



**Figure 5:** Household penetration rates for pet-ownership in the United States from 1988 to 2020 [8]

Under the influence of social environment and culture. It is no surprise that man’s best friend, the dog, is the most loved household pet. In figure 5, the penetration rate of pet ownership in U.S. households continues to rise. According to a survey in 2020 about pet preference, over 48% of the households owned at least one dog. Dog became the most popular pet in the United States with cats and fish followed ranking as second and third places

[8]. It would seem to make sense because cats should be perfectly adapted to today’s lifestyle; cats are compact and do not need to walk, they are happy to stay at home and offer a great deal of companionship [9]. Besides, since those species are the most popular in today’s live animal market, people can buy their pet-related products without any confusion.



**Figure 6:** Distribution of pet ownership in the United States in 2020, by species [1]

In figure 6, dogs are the main pet species in American households, with a share of 48%. With the advance of human life, people tend to purchase products which are elaborate and high quality instead of products that only satisfy their lowest demand. This change also has a great impact on their pet breed concept. In the past, people kept pets to kill time or be a guard for their home, but now pets

are the closest friends to pet owners [1]. So, it is reasonable for pet owners to treat their cute friends better, from the histogram below. Figure 7 shows that the overall sales of the pet market in the United States is on the rise. We can figure out that though pet food maintains the highest selling in the pet market category, the market that combine the sales of live animals’ purchases, vet care,

and product sales and supplies, live animal and OTC medicine grew to its current size from about half that level ten years ago. Pet owners are flocking to buy products and services that enhance the well-being of their

pets. Businesses, meanwhile, facing slimmer margins on their human-oriented products need to seek to capitalize on the craze by serving pet keepers and the increasingly sophisticated needs of their beloved companions [11].

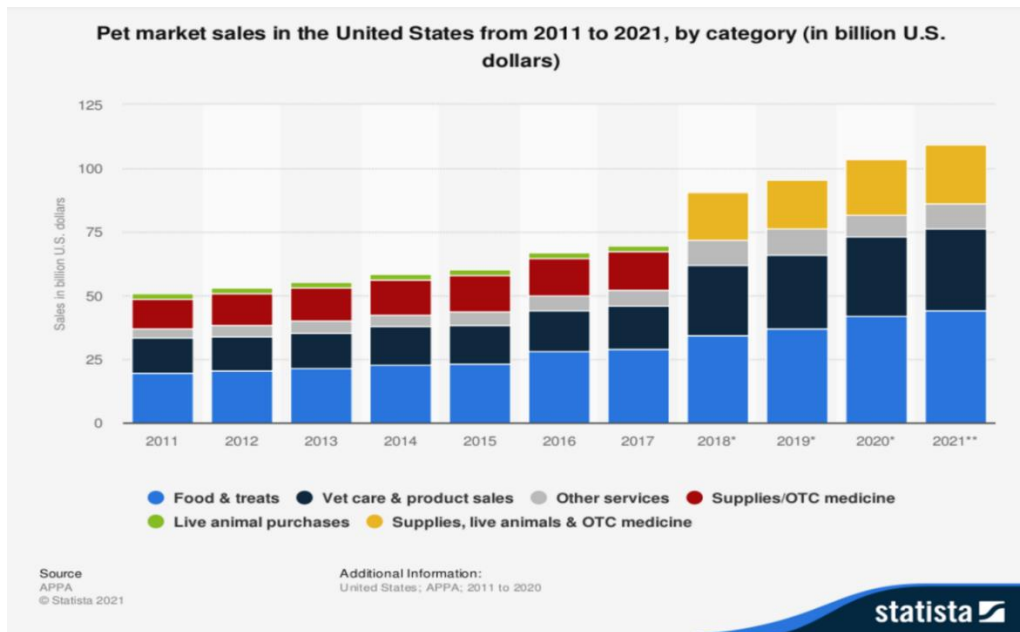


Figure 7: Pet market sales in the United States from 2011 to 2021, by category (in billion U.S. dollars). [6]

As shown in Figure 8, 2020 survey about pet store consumers in the United States, about 45% pet consumers felt it is important to have a wide range of products in pet stores. Approximately 40 percent of U.S. pet owners also stated they always buy their pet food and accessories in the same shop, about 25 percent prefer buying their pet supplies online rather than in a store, and around 23 percent of pet owners highly value receiving one-on-one

advice in a store. Consumers like to go to the same stores because they are already familiar with them, they know exactly which products are right for them. It is an era in which people are chasing convenience and efficiency, also, more and more emphasis on personal customization. These attitudes toward life reflect their preference on pet-oriented products, to be convenient to purchase and easy to operate.

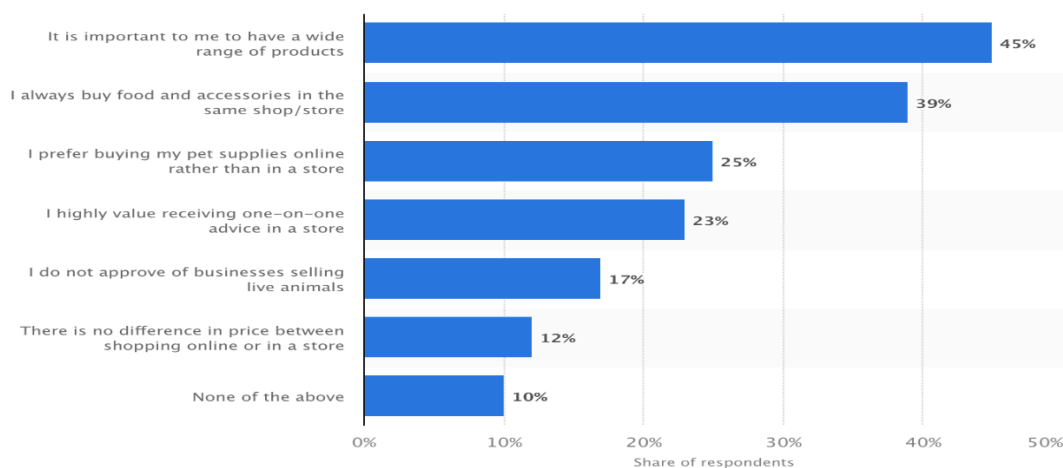


Figure 8: Survey about pet store consumers in the United States (2020) [8]

## 4. TECHNOLOGICAL FACTORS

### 4.1. Online shopping

The habit that peoples now start to buy online is based

on the rapid development of Internet technology. At present, the rapid development of e-commerce is also affecting the structure of the pet industry. In the past, people had to go to physical stores to buy food or supplies for their pets, but with the rapid development of e-commerce, people began to rely on online shopping.

Amazon and Chewy leading the way in pet e-commerce [10]. As pet ownership continues to rise, the target market for the entire industry will expand, allowing for new penetration points. For entrepreneurs eager to enter new markets, pet food and pet supplies are the second and

third largest e-commerce CPG categories in the entire industry (see Figure 9). In the natural food, animal care and supply sectors, the prospects for prosperity are very bright.



Figure 9 : Leading US Ecommerce CPG Categories[11]

#### 4.2. Pet Microchips

Pet chipping is becoming more common as more people start owning pets. People can give their pets an ID card by getting them chipped. Major Applications are as follows: Horse, Dogs, Cats and others. Pet microchipping is a technology in which a microchip is implanted into a pet and the owner's information within the chip can be retrieved via radio waves. Global Pet Microchips Market size valued at USD 401.5 Million and is forecast to 502.2 million US in 2027, growing at a CAGR of 3.8% during forecast period [11]. With the development of science and technology, many pet-related technology products have emerged in the pet industry. The level of smart home appliances and health care services for pets is improving with the progress of technology.

#### 5. CONCLUSION

According to the data analysis of this article, the pet economic market is gradually expanding. And with the continuous improvement of the level of technology, the types of products in the pet market will be further diversified in the future. This article analyzes the future development trend of the pet market from three aspects of economy, society and technology, and believes that the pet economy will be even larger in the future.

On the economic front, the increase in disposable income, the increase in income of pet consumers, the expansion of the market size of the pet industry compared to previous years, and the increase in employment has provided unprecedented economic support to the pet industry. From a social perspective, we analyze the pet industry from four points: penetration, demographics, consumer purchasing behavior, and lifestyle. Social trends dictate work patterns and consumer tastes and preferences in the pet industry. The monitoring of social

trends enables a firm to reposition its product or services to fit the changing expectations of customers. In terms of technology, e-commerce is gradually occupying market share, convenient and fast shopping mode is conducive to promote the consumption of pet products. In addition, pet appliances are constantly being updated and innovated, as well as technological improvements in pet grooming and health services are providing technical support for the oversized pet market.

As the pet market continues to improve, this market will also bring more jobs and consumption in the future. And with the continuous improvement of the level of science and technology, the pet economy and modern technologies such as the Internet and big data will be further integrated in the future. Maybe one day in the future, people can interact with pets online. This article believes that the future development trend of the pet market will be further intensified, and relevant practitioners need to adjust their strategies according to the actual pet economic development trend in order to better adapt to the development and changes of the pet market.

#### REFERENCES

- [1]. Nast, H. (2006). Critical pet studies? [https://www.sas.upenn.edu/~cavitch/pdf-library/Nast\\_CriticalPetStudies.pdf](https://www.sas.upenn.edu/~cavitch/pdf-library/Nast_CriticalPetStudies.pdf)
- [2]. Statista Research Department (2021). Per capita disposable personal income in the United States from 2000 to 2020. <https://80-3-5-2459-s-a839.ssl.baikelib.com/statistics/710215/us-disposable-income-per-capita/>.
- [3]. Statista Research Department (2021). Employment rate in the United States from 1990 to 2020. <https://80-3-5-2459-s->



- a839.ssl.baikelib.com/statistics/192398/employment-rate-in-the-us-since-1990/
- [4]. American Pet Products Association. (2021) Pet industry market size, Trends & Ownership Statistics. [https://www.americanpetproducts.org/press\\_industrytrends.asp](https://www.americanpetproducts.org/press_industrytrends.asp).
- [5]. Roberts, R. (2021). Pet industry TRENDS, growth & statistics in 2021 and Beyond: Unleashing your Ecommerce Pet marketing strategies. <https://commonthreadco.com/blogs/coach-corner/pet-industry-trends-growth-ecommerce-marketing>.
- [6]. Susie C. (2001). Pet populations in Australia. Dogs increasing and cats decreasing -why is it so? [https://aiam.org.au/resources/Documents/2001UAM/PUB\\_Pro01\\_SusieChasling.pdf](https://aiam.org.au/resources/Documents/2001UAM/PUB_Pro01_SusieChasling.pdf)
- [7]. Schleicher, M., Cash, S.B. and Freeman, L.M. (2019). Determinants of pet food purchasing decisions. *The Canadian Veterinary Journal*, 60(6), pp.644–650. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6515811/>.
- [8]. Statista Research Department (2021). Mean dog owner household income in the United States from 2006 to 2016. <https://80-3-5-2459-s-a839.ssl.baikelib.com/statistics/699136/mean-household-income-dog-owners-us/>.
- [9]. Statista Research Department (2021). Mean cat owner household income in the United States from 2006 to 2016. <https://80-3-5-2459-s-a839.ssl.baikelib.com/statistics/699132/mean-household-income-cat-owners-us/>.
- [10]. Priya, R & Muniappan, Nandhini. (2019). EVOLVING OPPORTUNITIES AND TRENDS IN THE PET INDUSTRY -AN ANALYTICAL STUDY ON PET PRODUCTS AND SERVICES. [https://www.researchgate.net/profile/Nandhini-Muniappan/publication/334824605\\_EVOLVING\\_OPPORTUNITIES\\_AND\\_TRENDS\\_IN\\_THE\\_PET\\_INDUSTRY\\_-AN\\_ANALYTICAL\\_STUDY\\_ON\\_PET\\_PRODUCTS\\_AND\\_SERVICES/links/5d42aa\\_a74585153e59326c85/EVOLVING-OPPORTUNITIES-AND-TRENDS-IN-THE-PET-INDUSTRY-AN-ANALYTICAL-STUDY-ON-PET-PRODUCTS-AND-SERVICES.pdf](https://www.researchgate.net/profile/Nandhini-Muniappan/publication/334824605_EVOLVING_OPPORTUNITIES_AND_TRENDS_IN_THE_PET_INDUSTRY_-AN_ANALYTICAL_STUDY_ON_PET_PRODUCTS_AND_SERVICES/links/5d42aa_a74585153e59326c85/EVOLVING-OPPORTUNITIES-AND-TRENDS-IN-THE-PET-INDUSTRY-AN-ANALYTICAL-STUDY-ON-PET-PRODUCTS-AND-SERVICES.pdf)
- [11]. Tribune, M. T.-I. H., & 2004, undefined. (2001). The unleashing of the pet industry. [http://www.charlottereed.com/images\\_press\\_print/2004\\_oct\\_iht.pdf](http://www.charlottereed.com/images_press_print/2004_oct_iht.pdf)