Smart Pet Collars Possess Potential in the Chinese Market

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ABSTRACT

Approximately 60% of people kept or have kept pets, and a significant problem is the loss of pets. Thus, our group decided to design a product with a localization function such as a smart pet collar to address the pet loss issue. In order to verify whether such a product is feasible in the Chinese market, we have done a feasibility study. In Particular, we did a survey and interview. The data illustrated that more than 80% of them were willing to buy a smart collar for their pets. Moreover, according to this survey, we identified our target customers and set a detailed customer profile through an interview. In addition, we discovered that there are a few pet collars aimed to locate pets in the Chinese market. Therefore, this product has desirability and potential in China, and we can promote smart pet collars in the Chinese market. The early development of our smart pet collar included positioning functions. The GPS device is designed to use the existing button-shaped anti-lost tracker, and the button in the middle can connect the tracker to the equipped app so that the pet owner can check the exact location of the pet at all times. In addition, the security level of pet collars is very high. Only the face ID and fingerprint of the pet owner can unlock the collar. If a stranger wants to open the collar maliciously, an alarm will be triggered. When our positioning collar products began to have some sales and profit, we added the health monitoring technique into the collar to address the problem of pets' health issues: pet owners can constantly monitor the pet's heartbeat, breathing, exercise volume, and sleep conditions, etc. Moreover, a health report will be generated every week.

Keywords: collar tracker, smart pet collar market, and health monitor

1. INTRODUCTION

In modern society, many families will keep dogs, cats and other pets because they are good companions. However, the rate of pet loss increases annually, and the pet loss problem has become a sore point in society nowadays. Moreover, it is undoubtedly inefficient and ineffective to run around looking for the dog outside or asking other people. Thus, if we can monitor the exact location of the pet through intelligent devices in real-time, such as the smart pet collar with GPS function [1], then the incidence of losing a pet will be decreased. But, is there desirability of smart pet collars in the China market? Thus, we conducted a feasibility study.

1.1 Global Pet Market

According to the research, the smart pet collars market possesses enormous potentials globally, Global Smart Dog Collar Market (2021-2027) generated market was valued at USD 326.9 million in 2019 and is expected to reach USD 1398.4 million by the end of 2026, growing at a CAGR of 22.7% [2]. In particular, the most famous existing smart positioning pet collars for sale are merely Fi smart dog collars and Link AKC smart collars in American countries and European countries, and The Fi Smart dog collar offers features such as combined GPS and LTE-M networks for accurate tracking of your dog's location even in remote areas. It also has an activity tracker and activity history that you can see on the Fi App. Real-time location, alerts, and setting your dog's daily goals can all be seen and done on the app. You can also

create and set your own geofence for your peace of mind using the app [3]. However, they are scarcely known and barely popular in China.
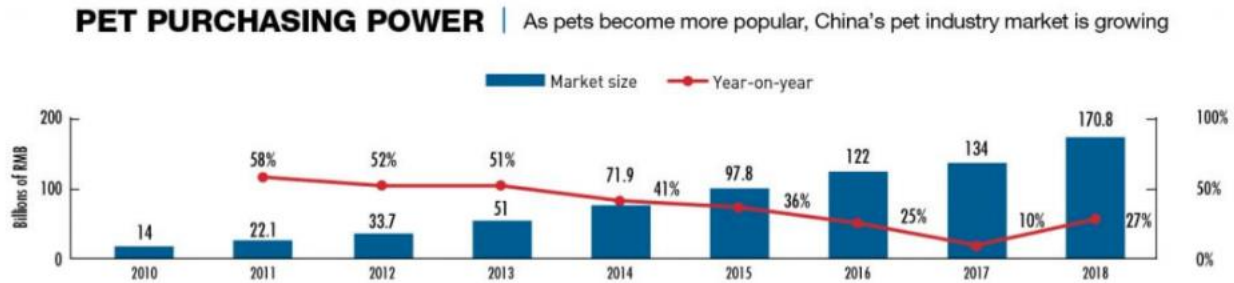
Current China Market

Figure 1: A line chart showing the increase of the Chinese pet industry from 2010 to 2018 [4].

1.2 Feasibility Analysis

According to feasibility analysis, the smart pet collar market is indeed a blue ocean market at present in China. In recent years, more and more Chinese people have begun to pay attention to pets, and the number of pet keepers increases rapidly, and the number of pet-owning households in China increased from 69.3 million in 2013 to 99.8 million in 2018, showing an increase of 43.9% over the past five years. It is now worth over RMB 172.2 billion ($25.02 billion) according to CBNData [4]**.** As people attach more importance to their pets, they start to care about their pet's health. Therefore, we plan to add the health detection function to the product in the next generation so that owners can keep an eye on the health of their pets.

2.   METHOD

We used qualitative research to test whether there is desirability of smart pet collars in the China market since qualitative research provides and explores participants with in-depth answers and opinions. Therefore, compared with quantitative research data, qualitative research is able to collect information with higher reliability and is more suitable in our case. Moreover, anonymous questionnaires were used to reduce participants' bias and ensure the reliability and validity of the survey. In addition, to collect feedback from participants all over China more conveniently and efficiently, we designed the online questionnaire and posted it on a pet website.   166 random pet owners, ranging in age from teenagers to middle-aged, filled out the questionnaire to avoid the bias from different age groups. According to the results of the survey, we selected two age groups to do further interviews based on the rate of participants: 2000s and 1970s. Additionally, through face-to-face and phone-call methods, we interviewed with 2 individuals born from the post-2000s

generation and post-1970s generation respectively with the questions about their name, the specific age, the occupation, the city of residence, the experience of losing pets, the amount of money spent on pets, in which ways they would spend on their pets, the pets species, and the interests in smart pet collars to portray the detailed customer profiling.

3.   RESULTS

Through the data of the survey, we discovered that the two groups with the largest number of people filling in the questionnaire are Generation Z-X and Generation Y, which are roughly the young generation and our parents. Moreover, most of the participants had the experience of raising pets and concerns about pet loss. In addition, 77.11% of participants are willing to spend abundant money on their pets and over 52.34% of them were born in 1970-1980. Moreover, 80.63% of participants who are interested in our product are of the younger generation, indicating that smart pet collars are feasible and desirable in China, especially among the young generation and middle-aged groups. According to the answers of interviews with the 2000s and 1970s individuals, we identified our target customer profiles as middle and upper-class only-children living in developed cities and the housewives who keep purebred dogs at home. In particular, we interviewed a 17 years old girl who is the only child in the upper class. She lives in Nanjing, a first-tier city in China, and she has kept a schnauzer for seven years. She had a terrible experience of losing a pet before, "I lost my dog before. The first time was in 2016; I unleashed my dog when I walked with it at night. My dog suddenly ran away, and I could not find it anywhere. I cried for two hours. After that, an older man discovered that my dog curled up next to a trash can. " Thus, she is interested in our products. She is usually willing to spend money on treats, toys, cages, and a teething stick for her pet, and she spends more than

5,000 yuan a year on a dog. We interviewed a mother born in Generation Y who raised a dog in her family. Her child liked this dog very much and regarded it as his family member. But one day, when they were walking their dog without a leash, the dog ran away and was hit by a car and killed, which caused the child to be unfortunate and have a psychological shadow. The mother told me, "If there were a product that would help her protect her pet, she would pay for it without any second thought of cost, as long as her child was happy." Keeping a dog can keep children away from loneliness. If parents don't have time to be with them, then pets are a perfect choice. If we decide to adopt, we must be responsible for it. We cannot promise easily because we must be accountable for it.

3.1 Outcome 1

Since the majority of Generation Z people do not have an independent apartment and house, sufficient funds to keep a pet currently, and are busy with their work, usually from 9 a.m. to 6 or 7 p.m., and even work overtime, they are not able to raise a pet independently. Thus, the probability of a family owning a dog is relatively higher than that of other age groups. Often a family will choose to have a pet because of their children; even if the parents have no intention of having a pet, they are willing to spend more money on the pet. Chinese Children, many of them are only children, often lack companionship. Once the pet is lost, these children can be very upset. Parents will try their best to keep the pet safe because they take the pets as family members.

3.2 Outcome 2

From the figure 1, figure 2, figure 3 and figure 4 below, people can clearly see the crowd of buyers and aspiration.
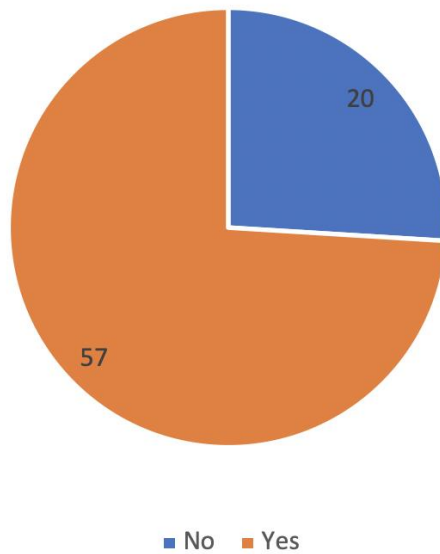
Are they worried about losing their pets

Figure 2: Percentage of people are worried about losing their pets

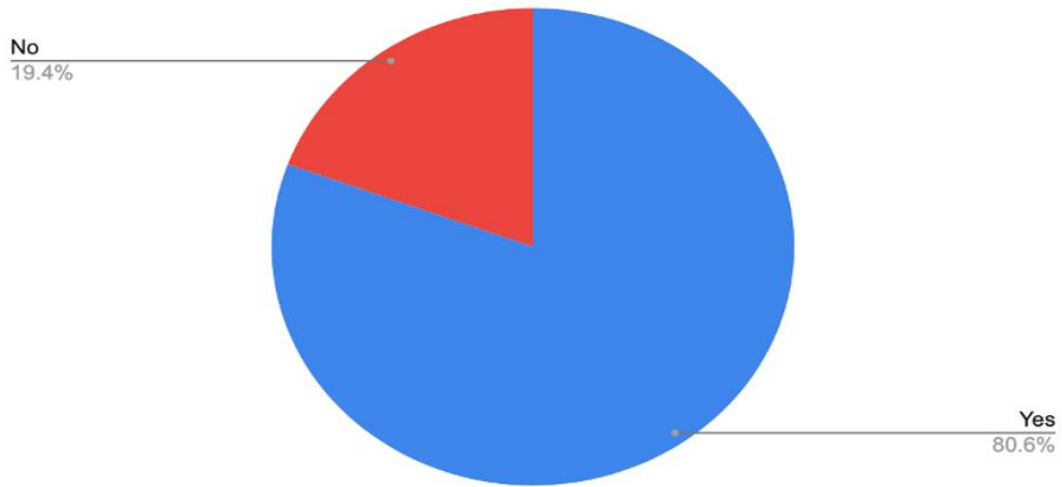## Are they willing to spend (more) money on pets especially a smart pet collar

No
19.4%

Yes
80.6%

Figure 3: Percentage of people willing to spend more money on pets

Number of people

40-50
32.5%

young generation (0-...
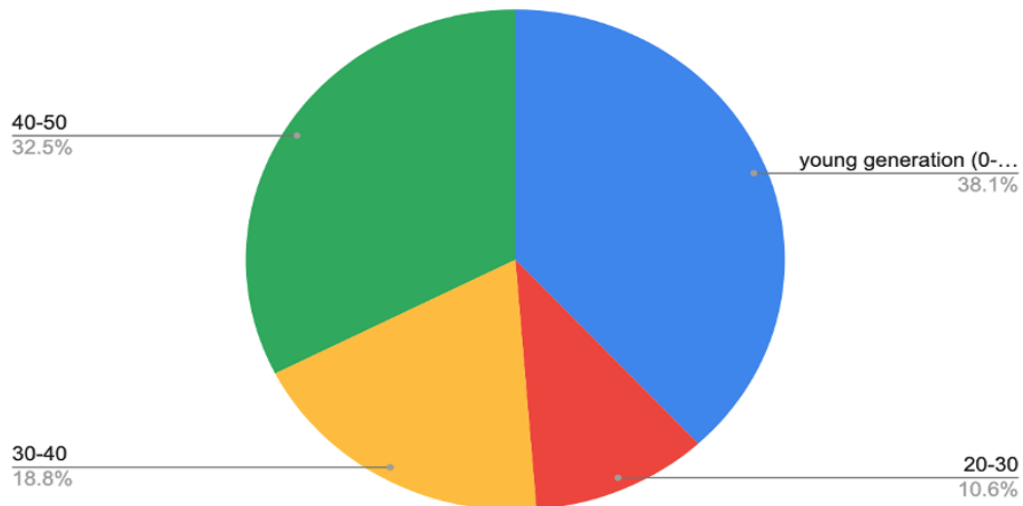38.1%

30-40
18.8%

20-30
10.6%

Figure 4: Percentage of number of people filling the questionnaire

4. CONCLUSION

While smart collars are more prevalent in North America and Europe than Asia, it also has potential in the China market. In the developed cities of China, such as Beijing and Shanghai, the number of pet owners has skyrocketed, indicating that the demand for protecting pets increases. According to our surveys and interviews, we find that Chinese people pay highly attention to pets and are willing to spend money on them. According to the survey results, from the perspective of most consumers in China, spending money on pets is a very

reasonable thing. More than 80% of people (including the age group between 10 to 60) are willing to buy a smart electronic collar for the safety of their pets, especially a collar with advanced technique and attractive appearance design. In other words, groups born between 2000 and 2020 and 1970-1990 are defined as our target customer portraits. It also reflects that smart pet collar products possess potential in the Chinese market. Moreover, few industries or companies manufacture similar products like us, so our monopoly power will become very strong once we let more people know about our product, so we reckon that the potential of our product in the domestic

market will be great. However, the subsequent construction of other functions such as the health status monitor on the smart collar and a social app for pet owners equipped on the mobile phone will require some investment. Therefore, developing new and unique product features while reducing the cost will be one of the directions of future research.

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