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Chinese Consumer Behavior and Product Strategy of Dog Apparel

Abstract

Pet economy has developed quickly in recent years. "Chinese Dog Apparel Standards" was issued in 2007, which accelerated the developing and manufacturing of the dog apparel in China. This research aimed to provide product development strategy for dog apparel in Chinese market based on Chinese Consumer Behavior on dog apparel.

In order to evaluating consumer behavior for dog apparel, data were collected by a consumers' survey. Factor Analysis and Pearson Correlation Analysis focused on the relationships among the purchase decision (consumption result), purchase motivation (individual value) and product attributes. Consumer Means-End Chain of dog apparel and Consumer Preference Model were developed and concluded for Chinese market. Meanwhile, general attributes of dog apparel were evaluated, which were compared with the Consumer Preference Model. Finally, product strategies for dog apparel in Chinese market were suggested according to the recommendation from Consumer Means-End Chain, including demanding a quality system, optimizing product lines, creating characteristic brands, and so on.

Introduction

Many people still consider pet apparel as extravaganza or unnecessary, with attitudes ranging from "some people don't have anything better to do with their time" to "something is wrong with these people". Actually pet economy is in a boom nowadays corresponding pets being regarded as family members providing accompaniment and psychological comfort.

As far as the history, pet apparel of the modern world has been around for many decades. From toy of rich people to popular consumptions, dog apparel has formed a special market segment, in which some professional designers are involved. After the 1st annual Pet Fashion Week celebrated in New York in 2006, much more attention was focused on pet apparel. Pet Fashion Week NY was held every year [1]. New York Institute of Technology opened its first pet product design course 'Fashion Design For Pets 101' in spring 2008 and planned to implement a fuller curriculum in the future [2]. Pet-related products and services have becoming globally popular. Pet population in China has grown by a remarkable 20% in five years [3]. Demands for pet apparel have been stimulated to a large extent. Pet industry was called "one of the ten top potential industries" in China [4]. Pet apparel, relating two large fields, which are fashion industry and pet industry, has become an important loop in the pet business chain. There are increasing opportunities in the market and to make the pet apparel acceptable by more potential customers.

This research is aimed to provide product developing strategy on dog apparel in Chinese market by understanding the consumer behavior. Through analyzing purchase motivation by developing Consumer Means-End Chain and comparing current product situations with Consumer Preference Model, product strategies for dog apparel were discussed and suggested.

Methodology

Consumer behavior and product attributes were investigated to reveal consumer's motivation and preference for dog apparel in Chinese market. According to the Means-End Chain Theory (Gutman, 1982) [5], consumers consider some product attributes as "Means" to achieve "End", which reflects the tendency of consumer's individual value. The Means-End Chain is formed by product attributes, consumption results and individual values (Fig.1) [6]. Finding and amending a significant Means-End Chain is definitely helpful to understand purchase motivation and the relationship between purchase decisions and product attributes.
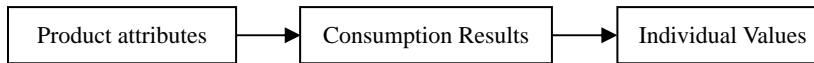
Fig.1 Means-End Chain

The research framework was depicted in Fig.2. The approach includes two aspects: consumer survey and case study.

Stage 1. A survey was conducted to investigate consumer demands for dog apparel in Shanghai, China, which included collecting the information about the product
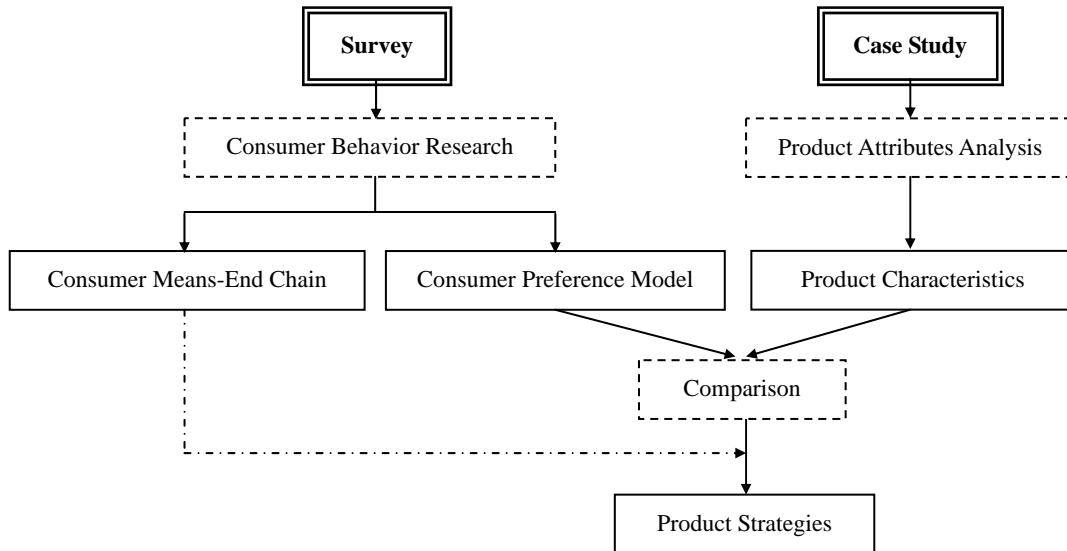

Fig.2 Research approach

image, buying purpose and individual value related to dog apparel.

Based on a pre-survey to collect some words and phrases, a questionnaire was designed in four parts: Product Attributes, Consumer Behaviors, Individual Values and Consumer's Personal Information. The contents of the third part came from Bearden's MILOV (a Multi-Item Adaptation to the List of Values), in which 14 questions were chosen to evaluate the Nine-Individual-Value [7].

In the questionnaire, consumers were asked to choose one or more from the given answers, or give subjective evaluations by Likert's five-point-value scale. The effectiveness and reliability were validated by forty samples before the formal survey. The customers who breed pets or may buy pet apparel were asked to finish the questionnaire. Two hundred and seventy nine samples were collected.

Stage 2. Consumer Preference Model was concluded through Statistic Analysis from the results of survey.

Stage 3. Factor Analysis and Pearson Correlation were used to study the relationships among the product attributes, consumer behavior and individual values to establish Consumer Means-End Chain.

Consumer behavior and motivation were considered the bridge connecting the consumer individual values and product attributes. The consumer's individual value influenced their evaluation to products, and their purchase decision. Understanding their relationships, characteristic product could be developed to satisfy the consumer demands, which could promote to realize the purchase decision.

Stage 4. Case study for products in current dog apparel market includes two ways: one is qualitative analysis, including stores, designers, manufacturers and retailers interview (30 actual stores, 30 internet stores and 7 experts); the other is quantitative analysis, including visiting stores and analyzing 432 styles of dog apparel. Product attributes (item, size, fabric and price) were summed up to compare with the Consumer Preference Model.

Stage 5. From the differences between current products and Consumer Preference Model, in terms of Consumer Means-End Chain, product strategies for dog apparel in Chinese market were suggested in this research.

Findings and discussion

Consumer Behavior Research

Consumer Preference Model

Based on the survey results, consumers' favorite choice to items, fabric and price of dog apparel were analyzed by statistic method, as well as their misgivings about the dog apparel.

Items. Consumers' preference in items of dog apparel was concluded in Table 1. Generally, the T-shirt/jacket was the most popular item, followed in hierarchic order by raincoat, shoes & socks, dress, shirt, sweater and bodysuit. It could be found that consumers were willing to accept many kinds of dog apparel.

Table 1 Consumers' preference in items of dog apparel

Items	T-shirt/jacket	Raincoat	Shoe&Socks	Dress	Shirt	Sweater	Bodysuit

| **Frequency** | 242 | 115 | 97 | 92 | 72 | 58 | 43 |

Fabric. Consumers had different choice in fabric for dog apparel, but cotton was definitely the most popular one, followed by synthetic fiber. Fabric with spandex is especially liked by consumers because of its good fitness. Many consumers in survey expressed that they would ask about fabric before they bought apparel for their pets.

Price. The prices range consumers tend to afford were listed in Table 2. The unit price in RMB20~50 got the highest acceptance, but those in high price, such as more than RMB100, also accepted by certain consumers.

Table 2 Consumers' preference in prices of dog apparel

Unit price (RMB)	<20	20~50	50~100	>100
Frequency	48	139	85	7

Misgiving. In order to understand consumers from different aspects, their misgivings in buying were also recorded (Table 3). Nonstandard size and poor quality were two dominant obstacles to make buying determination. Many consumers were unsatisfied with the quality of current products, especially the fabric quality, which was sometimes blamed to cause their dogs uncomfortable sometimes. Customers need apparels which bring fit and comfort to their pets.

Table 3 Consumers' misgivings in buying dog apparel

Misgiving	Nonstandard	Poor quality	Uneasy to clean	Few styles	Uncomfortable	Few stores	Others
Frequency	168	157	48	34	31	25	14

From the above, the image of dog apparel perceived by consumers could be concluded. A simple and clear Consumer Preference Model was suggested (Fig.3), which provides a relatively thorough understanding of consumer's favorites.
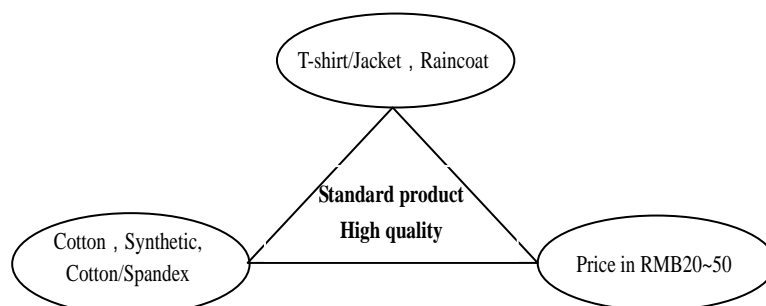
Consumer Means-End Chain

Fig.3 Consumer Preference Model for dog apparel

The Consumer Means-End Chain was explained by product attributes, consumption results and individual values. Factor Analysis was used to simplify influencing indices. The results were shown in Table 4.

Table 4 Factor Analysis results of Product attributes, Consumption results and Individual Values

	Factors	Indices Involved	Variance Explained by Each Factor
Product attributes	Factor 1: Qualities factor	Technique, Size, Price, Style, Fabric	3.02
	Factor 2: Image factor	Color, Accessories, Brand	2.309
Consumption results	Factor 1: Fashion factor	Beautiful, Fashionable, Individuality, Following others	3.151
	Factor 2: Emotion factor	Gift, Fun, Protecting pet	2.066
	Factor 3: Utility factor	Warm, Clean	1.843
Individual values	Factor 1: Independence factor	I dislike being same as others. I like stimulation. I like unusual things. Buying just satisfies demands, nothing else. Everything I do satisfies my own desire.	3.043
	Factor 2: Warm factor	I like to live in harmony. I'm willing to make the situation	2.225

		warmer. I'm proud to finish something.	
	Factor 3: Self-protect factor	I wish to be respected though doing something wrong. I hope others could accept my decision. I hope to be agreed and needed by others.	2.162
	Factor 4: Interesting factor	I love interesting life. Entertainment is necessary to my life.	1.69
	Factor 5: Self-respect factor	I must not do those would hurt my self-respect though unacceptable. I think those that I did right are unvaluable.	1.62

The relationships among the factors belonging to product attributes and consumption results were examined by Pearson Correlation Method, results listed in Table 5.

Table 5 Relation coefficiencies between product attributes and consumption results

		Consumption results		
		Fashion factor	Emotion factor	Utility factor
Product attributes	Qualities factor	0.326(**)	0.012	0.267(**)
		0.000	0.837	0.000
	Image factor	0.496(**)	0.035	0.152(*)
		0.000	0.561	0.011

Remark：(**)significant relationship under $\rho < 0.01$；

(*)significant relationship under $\rho < 0.05$。

The relationships *among Fashion factor -- Qualities factor, Fashion factor -- Image factor, Utility factor -- Qualities factor* were significant ($\rho<0.01$). The significant relationship could be found between *Utility factor* and *Image factor* ($\rho<0.05$). While the relationship between the *Emotion factor* and *Qualities factor* was insignificant. The relationships between the factors belonging to consumption results and individual values were listed in Table 6.

The significant relationships could be found among *Fashion factor -- Independence factor, Fashion factor -- Warm factor, Fashion factor -- Self-respect factor*, and *Emotion factor -- Self-protect factor* ($\rho<0.01$). The relationship between *Utility factor -- Self-respect factor* was significant ($\rho<0.05$). The other factors were not significantly related.

Table 6 Relation coefficiencies between consumption results and individual values
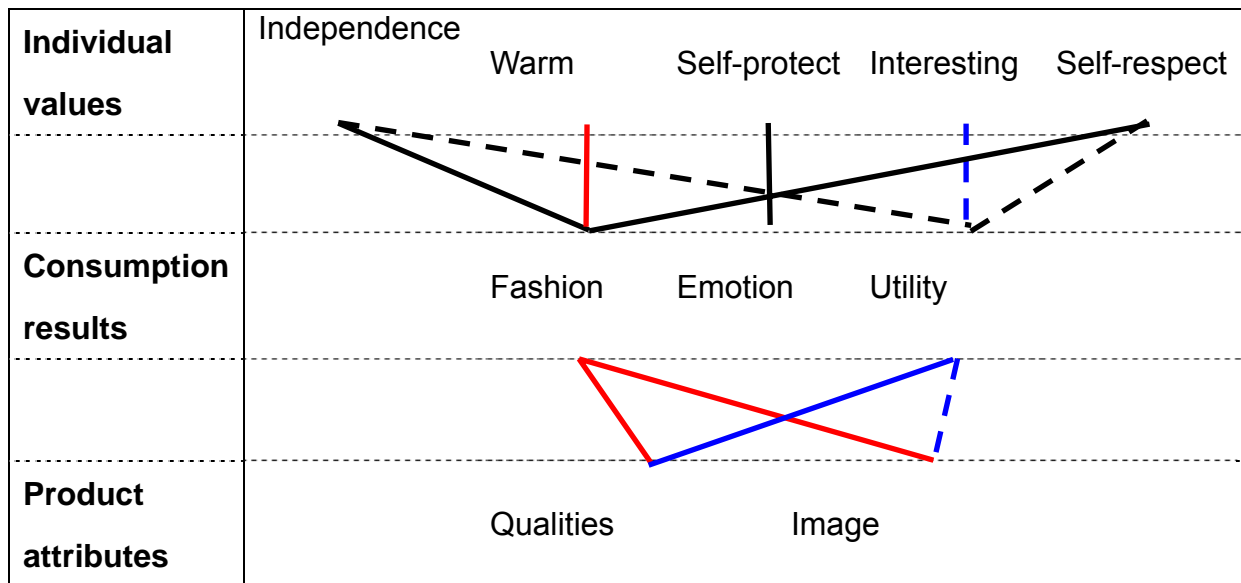
		Consumption results		
		Fashion factor	Emotion factor	Utility factor
Individual values	Independence factor	0.543(**)	0.045	0.151(*)
		0.000	0.459	0.012
	Warm factor	0.255(**)	0.115	0.035
		0.000	0.056	0.565
	Self-protect factor	0.077	0.184(**)	0.084
		0.201	0.002	0.160
	Interesting factor	0.074	0.013	0.117(*)
		0.217	0.829	0.041
	Self-respect factor	0.367(**)	0.079	0.126(*)
		0.000	0.189	0.035

Remark：(**)significant relationship under $\rho<0.01$；

(*)significant relationship under $\rho<0.05$。

Based on the above significant relationships, Consumer Means-End Chain for dog

apparel could be concluded as Fig.4, which showed the connections among the customers' individual values, consumption results and product attributes. Purchase motivation which leaded to consumer behavior and corresponding favorite product attributes could be studied for the consumer-oriented product development.

Individual values	Independence Warm Self-protect Interesting Self-respect
Consumption results	Fashion Emotion Utility
Product attributes	Qualities Image

Remark: Straight lines show the significant relation under ρ<0.01;

       Pin lines show the significant relation under ρ<0.05.

Fig.4 The consumer Means-End Chain for dog apparel

From the survey results, average values were considered as the statistical results. The statements of *I like to live in harmony, I love interesting life* and *I'm willing to make the situation warmer* gained the highest frequency in consumers choice, which belong to *Warm factor* and *Interesting factor* respectively. The two factors were linked to *Fashion* and *Utility* motivations according to the above Means-End Chain. Both factors in product attributes were important, but *Qualities factor* need more emphasis than *Image factor*.

Product Research

Case study for dog apparel included four aspects: Items, Fabric & Quality, Size specification and Price & Brands.

Items. Based on stores investigated and samples analyzed, current dog apparel

could be divided into seven categories: T-shirt/jacket, dress, sweater, shirt, raincoat, shoe&socks and bodysuit (Fig.5). T-shirt/jacket had the biggest proportion because of its wide adoption, and dress also had big proportion for its decorative image. Different from the Consumer Preference Model, raincoat and shoes & socks occupied smaller segments.
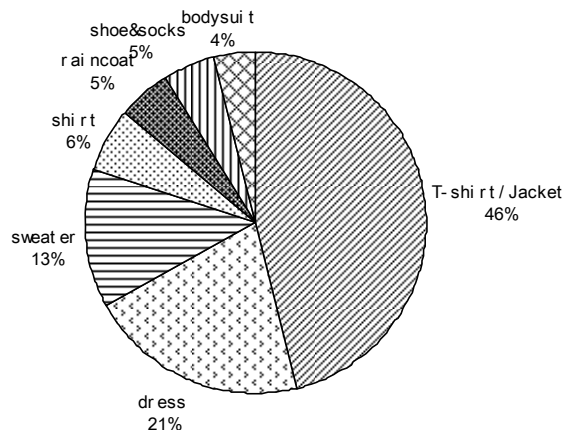

Fig.5 Current style items of dog apparel

Fabric & Quality. From the investigation, knitting fabric was widely used in dog apparel. Knitting fabric's good stretch and extensibility make dog apparel easy to put on or take off, and also provide enough flexibility for dog's movement and running. Cotton, especially with spandex, was most popular in dog apparel. Synthetic fiber was also popular for it's easy to wash, while almost all of the dog apparels were required hand-wash. Additionally, water-proof or wind-proof fabric was used in functional items, such as raincoat and reflective coat.

The quality of dog apparel was not good enough in current domestic market. Poor sewing quality was a big problem. Many fabrics came from stock which were rejected for human's garments endues because of bad quality. That is why consumers complained the clothing was easy broken up and even causing sick in their pets.

Size specification. There are many kinds of dogs in different body shapes. The measurements and classifications have not covered all of them so that it must be a challenge to make standard size system of dog apparel.

From the investigation, different to domestic products, some foreign brands have more detailed size systems, on which product care label or hangtag the dog's weight

was normally marked together with the size for classification. Some brands still clarified the relative dog types suitable for the clothing, for example, West Highland Terrier, Standard Dachshund, Mini Poodle, Pug, and so on. However, Chinese current size system was based on the normal shape of dogs without extending branches. Back length, chest circle and neck circle were three key sizes in dog apparel. Comparing the Chinese standards with overseas products, it could be found that there were less key sizes. For example, neck circle, front length, armhole were lacked in Chinese standards.

From the Consumer Preference Model, renewing size standards was also required by consumers.

Price & Brands. RMB 15~200 was the normal prices for dog apparel in Chinese market. This price range also got most acceptances in Consumer Preference Model. From the investigation, branded products were more profitable with 40%~100% higher prices.

The situation of brands for dog apparel was a little confused in China. Some products have no brands, just only a size label. Some brands came from Japan and Korea. Influential domestic brands were quite few.

Product Stratgies Influenced by Consumer Behavior

Differences could be easily found between Consumer Preference Model and the current product status. Current products can not satisfy the consumers' demands. Consumers' misgivings about size specification and quality were just the weakness of products in the market.

Combined with the Consumer Means-End Chain for dog apparel, the following product strategies were suggested.

Establishing standard size systems. According to consumer behavior research, consumers paid much more attention to the size specification. The basic reason is about product structure and function. There is big difference between human and dog's wearing status. Human's shoulder supports the garments in stand pose. The garments would not block their movement except for the extreme situation. However, pet's backbone supports the clothing in horizontal status. Longer or larger clothing

would influence their movement. The other reason is about the subjective comfort. The uncomfortable sense could only influence human's emotion but they could control themselves except for resulting in physical hurt. Physical or psychological uncomfort may cause pet dangerous disorder or mania. Fortunately, "Chinese Dog Apparel Standards (FZ/T 8103-2007)" was issued on Nov. 1st, 2007 [8], which should be applied widely and strictly.

Improving and strictly controlling fabric and quality. Unsatisfactory quality was another big misgiving in purchase decision. "Chinese Dog Apparel Standards" specified a series of requirements for fiber, fabric and garments, but there is no strict execution till now. Many big retailers abroad have their own quality system which was sometimes relegated to the third part for inspecting, including fabric content & construction, color fastness, fabric & seam strength, appearance after laundering, toxicity, accessories' safety, etc, nearly same as those for human's garments.

Adjusting the items to satisfy consumer's demands. It is necessary to develop more dog apparel items. The functional items, such as raincoat, reflective jacket, safety vest and shoe & socks were supplied less than the demands.

Developing domestic brands and enhancing design ability. Branding and creative designing are the effective ways to improve dog apparel. Consumers always tend to novelty. Most of the current styles of dog apparel imitated human's garments. Brands development will supply more new styles for the market. On the other hand, character brands will be helpful to keep away from price competition by subdividing market into more segments.

Conclusions

Based on the consumer behavior investigation and product analysis, this research established the Consumer Means-End Chain *(Fig.6)* and suggested product strategies for Chinese dog apparel. The conclusions were as follows:

According to *Fig.6*, the dog apparel consumption objective was functional (*warm and clean*) and fashionable (*beauty, fashion, individuality, following others*). The related
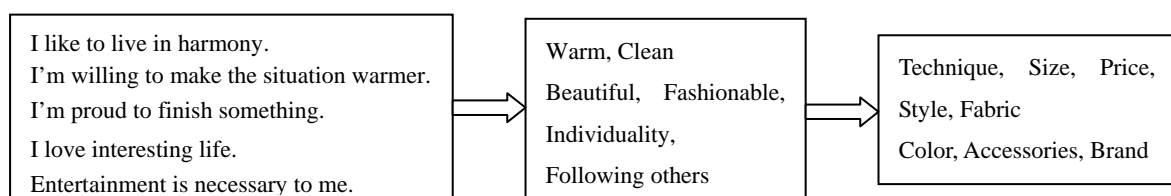
| I like to live in harmony.
I'm willing to make the situation warmer.
I'm proud to finish something.
I love interesting life.
Entertainment is necessary to me. | Warm, Clean
Beautiful, Fashionable,
Individuality,
Following others | Technique, Size, Price,
Style, Fabric
Color, Accessories, Brand |

Fig.6 Consumer Means-End Chain for dog apparel

purchase motivation was the individual value of *harmonious, warm* and *interesting*. Consequently, developing dog apparel should focus on *technique, size, fabric, style, price.* C*olor, accessory,* and *branding* are secondly important.

Great emphasis should be placed on the quality of Chinese dog apparel, especially the fabric quality. Size specification need to be improved by following the standard. It is essential to optimize the product structure to satisfy the consumers' demands. Brands development for characteristic products will be an extended market margin.

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