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# Research on the Types of Cigarette Products Preferred by Consumers

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**Abstract** Cigarette design and improvement according to consumer needs is an important basis for market-oriented management. The preferences of cigarette consumption such as cigarette product types, packaging styles, packaging colors and packaging materials were investigated and the real needs of cigarette consumers were figured out, in order to provide specific work guidance for the development of new cigarette products.

**Key words** Consumer, Cigarette products, Product type, Packaging

## 1 Introduction

Tobacco industry is an important part of national economy. In recent years, a market-oriented management concept oriented by consumer needs has been formed, with the development of market economy. In this management mode, understanding consumers' needs and designing and improving cigarettes for consumers is an important basis for market-oriented management<sup>[1-2]</sup>.

For a long time, consumers have their own language to evaluate whether cigarettes are good or bad. In-depth analysis of consumer preferences and understanding of consumer needs and consumption characteristics are important basis for cigarette operators to make decisions<sup>[3]</sup>. According to the current concept of market-oriented management, the design, production and marketing of cigarette products should be oriented by consumer needs, and strategies from design, production to marketing should be carried out according to consumers' consumption behaviors and characteristics, as well as their evaluation and satisfaction of various cigarette products<sup>[4-5]</sup>. For cigarettes, consumption often changes due to the customers' age, occupation, income, region, cigarette preference, brand loyalty, and policy effect. Only by grasping the characteristics of customers' consumption effectively and mastering the consumption demand accurately can we provide effective guidance for marketing strategy.

With the deepening reform of China's market and the improvement of cigarette retail terminals, large cigarette production

enterprises have become more dependent on data. Retail outlets need big data to understand customers, and enterprises need to understand consumers' feelings and the dynamics of the market. Therefore, it is necessary to strengthen the analysis and application of cigarette consumer data and to improve the dynamic monitoring of cigarette enterprises. In this survey, the consumption demand of cigarettes was collected to understand the types of cigarette products that consumers preferred, and the real demand of cigarette consumers was figured out, in order to provide specific work guidance for the development of new cigarette products.

## 2 Research methods

**2.1 Survey time** The survey was conducted from December 1, 2021 to January 30, 2022.

**2.2 Respondents** Taking Kunming, Hangzhou, Guangzhou, Chengdu, Lanzhou, Wuhan, Dali, Shanghai, Shenzhen, Chongqing, Liuzhou and Dalian as the research cities, a questionnaire was distributed to cigarette consumers living in the research cities, and the cigarette consumers aged 18–55 years were the main respondents.

**2.3 Survey methods** The questionnaire was collected by scanning code and self-filling method. A total of 8 707 questionnaires were collected in this survey, 8 088 of which were valid. The effective sample volume of each city is shown in Table 1.

**Table 1** Effective sample volume of each city

City	Effective sample volume	City	Effective sample volume
Kunming	810	Dali	401
Hangzhou	812	Shanghai	806
Guangzhou	801	Shenzhen	805
Chengdu	810	Chongqing	802
Lanzhou	801	Liuzhou	405
Wuhan	424	Dalian	400
Total	8 088		

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**2.4 Survey content** The basic characteristics of consumer groups included the city where consumers live, age, length as a smoker, gender, occupation, education level and average monthly income. Consumer preferences included favorite cigarette types, packaging styles, *etc.*

In this survey, the degree of satisfaction algorithm was calculated by hundred-mark system. The specific algorithm is as follows:

$$\text{Degree of satisfaction} = (\text{number of people who choose "very satisfied"}/\text{total number of respondents}) \times 100 + (\text{number of people who choose "relatively satisfied"}/\text{total number of respondents}) \times 80 + (\text{number of people who choose "general"}/\text{total number of respondents}) \times 60 + (\text{number of people who choose "relatively dissatisfied"}/\text{total number of respondents}) \times 40 + (\text{number of people who choose "very dissatisfied"}/\text{total number of respondents}) \times 20;$$

$$\text{Satisfaction rate} = (\text{number of people who choose "very satisfied"}/\text{total number of respondents}) + (\text{number of people who choose "relatively satisfied"}/\text{total number of respondents}).$$

### 3 Results and analysis

**3.1 Description of basic consumer information** In the samples tested, cigarette consumers were mostly male, accounting for 80.74% of the total. In terms of age group, cigarette consumers mainly aged 18–55 years, 63.80% of them aged 26–45 years. In terms of length as a smoker, the average length was 10.62 years. In terms of occupation, "workers, ordinary staff, salespeo-

ple, service personnel", "ordinary staff of enterprises and institutions" and "freelancers" accounted for 61.56%. In terms of educational level, except for master's degree or above (3.24%) and junior high school education or below (9.36%), the proportion of people at other different educational levels was equal. In terms of income level, people with an income of 5 000–7 999 yuan accounted for 37.18%, and those with an income of 2 000–4 999 yuan accounted for 29.85%, with an accumulative total of 67.03%.

#### 3.2 Types of cigarettes consumers prefer and the reasons

At present, there is still very large consumer group of regular cigarettes, but with the development of society, rational consumption and health-conscious awareness has become the development interest of cigarette consumption, and slim cigarettes, cigars, medium cigarettes, cigarettes with capsule and electronic cigarettes will usher in a better prospect of development. In this survey, although more than half of consumers preferred regular cigarettes, regular cigarettes were mainly favored by middle-aged and elderly consumers, and only 37.18% of young consumers aged 18–25 years preferred regular cigarettes. Therefore, it is speculated that with the development of the times, the consumers who prefer regular cigarettes are gradually declining. The survey results showed that regular cigarettes were preferred by consumers over 66 years old, while slim cigarettes were preferred by consumers between 18 and 25 years old (Table 2).

In the perspective of different cities, the majority of consumers in each city still preferred regular cigarettes (Table 3).

**Table 2** Types of cigarette preferred by consumers

Type of cigarettes	Consumer age//years old						Overall situation
	18–25	26–35	36–45	46–55	56–65	Over 66	
Cigar	2.05	0.63	0.85	0.33	0.00	1.92	0.89
Electronic cigarette	6.41	2.53	2.69	2.30	0.91	0.00	3.06
Cigarette with capsule	10.77	5.58	5.95	5.26	4.55	0.00	6.34
Medium cigarette	20.00	18.76	22.66	16.78	22.73	7.69	19.82
Regular cigarette	37.18	51.58	48.87	66.12	60.91	78.85	51.30
Slim cigarette	23.59	20.91	18.98	9.21	10.91	11.54	18.59

**Table 3** Types of cigarettes preferred by consumers in different cities

Type of cigarettes	Kunming	Hangzhou	Guangzhou	Chengdu	Lanzhou	Wuhan	Dali	Shanghai	Shenzhen	Chongqing	Dalian	Liuzhou
Slim cigarette	20.10	10.60	32.20	11.90	9.50	6.20	16.50	7.50	17.90	25.50	27.80	29.80
Regular cigarette	44.00	78.80	37.10	33.90	68.90	56.70	45.70	65.10	52.10	58.30	44.80	43.90
Medium cigarette	22.20	10.60	26.20	15.50	14.20	22.80	17.30	14.20	25.90	14.00	22.00	19.30
Cigarette with capsule	8.90	0.00	1.10	22.60	7.40	11.80	9.40	4.70	2.70	1.40	4.00	0.00
Electronic cigarette	3.40	0.00	1.50	13.70	0.00	2.40	7.10	8.50	0.80	0.70	0.90	7.00
Cigar	1.40	0.00	1.90	2.40	0.00	0.00	3.90	0.00	0.80	0.00	0.40	0.00

**3.2.1** Reasons why consumers prefer slim cigarettes. The main reason why consumers preferred slim cigarettes was "slim cigarettes are healthier", "fashionable and exquisite pack". Survey data showed that there were 33.87% of consumers who believed "slim cigarettes are healthier" (Fig. 1).

**3.2.2** Reasons why consumers prefer regular cigarettes. The main reason why consumers preferred regular cigarettes was the formation of consumers' habits all the time. According to the sur-

vey data, there were 51.08% of consumers who chose "habit formation, all through the way" (Fig. 2).

**3.2.3** Reasons why consumers prefer medium cigarettes. The main reason why consumers preferred medium cigarettes was "the concentration of medium cigarettes is just enough to meet the demand for smoking". According to the survey data, there were 37.77% of consumers who believed "the concentration is just enough to meet the demand for smoking" (Fig. 3).

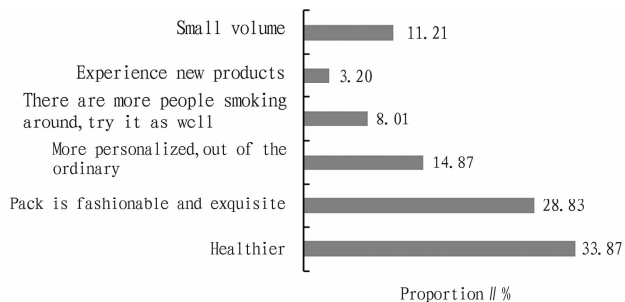


Fig. 1 Reasons why consumers prefer slim cigarettes

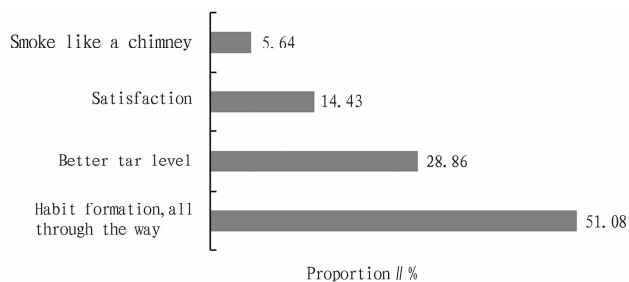


Fig. 2 Reasons why consumers prefer regular cigarettes

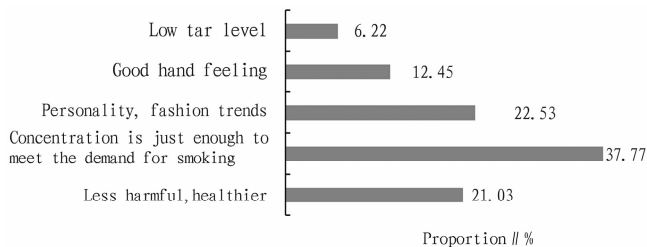


Fig. 3 Reasons why consumers prefer medium cigarettes

**3.2.4** Reasons why consumers prefer cigarettes with capsule. The main reason why consumers preferred cigarettes with capsule was "fresh taste, low tar level", "mellow taste, refreshing". The survey data showed that there were 26.85% of consumers who felt "mellow taste, refreshing" (Fig. 4).

**3.2.5** Reasons why consumers prefer electronic cigarette. The main reason why consumers preferred electronic cigarette was "find interesting, fashionable", "stand by when want to smoke", "convenient for smoking". Survey data showed that there were more than 20% of consumers who chose the three reasons above (Fig. 5).

**3.3** The packaging styles favored by consumers Consumers' favorite packaging styles were mainly "pack with cultural connotations" (29.21%), "high-end and fashionable pack" (24.80%), "simple and elegant pack" (20.24%). The survey data showed

that consumers under 25 years old mainly preferred the style of "high-end and fashionable pack"; consumers aged 26 – 45 years mainly preferred the style of "pack with cultural connotations"; and consumers over 66 years old mainly preferred the style of "simple and elegant pack" (Table 4). In view of this significant feature and the consumption characteristics of young consumers, it is suggested to focus on cultivating one or several medium- and high-end cigarette brands with low harm and young personality. It not only meets the needs of young people, but also enhances the brand structure of cigarette.

**3.2.6** Reasons why consumers prefer cigars. The main reason why consumers preferred cigars was "cigar has a unique taste". According to the survey data, there were 47.62% of consumers who believed "cigar has a unique taste" (Fig. 6).

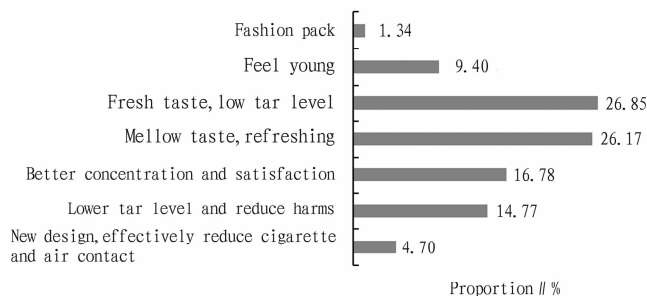


Fig. 4 Reasons why consumers prefer cigarettes with capsule

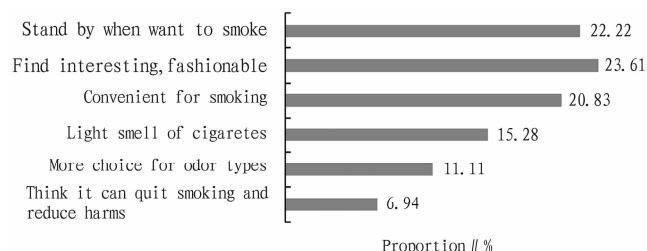


Fig. 5 Reasons why consumers prefer electronic cigarette

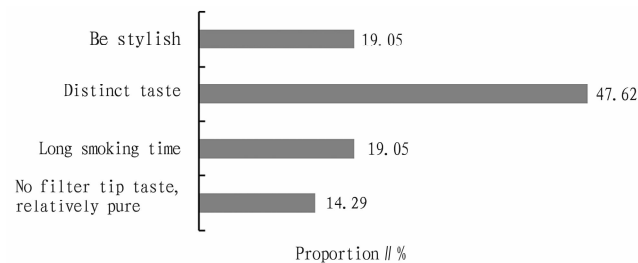


Fig. 6 Reasons why consumers prefer cigars

Table 4 Packaging styles favored by consumers

Packaging style	Consumer age//years old						Overall situation
	18 – 25	26 – 35	36 – 45	46 – 55	56 – 65	Over 66	
Weird	2.44	3.77	1.93	3.87	1.23	0.00	2.72
Fresh	7.93	6.13	4.71	11.05	8.64	9.52	6.77
Simple and elegant	23.78	17.45	14.99	29.83	27.16	38.10	20.24
With cultural connotations	21.95	29.25	31.26	24.31	39.51	35.71	29.21
High-end, fashion	33.54	24.76	30.19	15.47	7.41	4.76	24.80
Modest luxury	10.37	18.63	16.92	15.47	16.05	11.90	16.26

**3.4 Packaging why colors favored by consumers** The packaging colors favored by consumers were mainly "simple but elegant color" (28.26%) and "noble color (such as black, gold and red)" (26.42%). According to the survey data, consumers un-

der 25 years old and above 46 years old mainly preferred the pack with "simple but elegant color", while consumers between 26 and 45 years old mainly preferred the pack with "noble colors" (Table 5).

**Table 5 Packaging colors favored by consumers**

Packaging color	Consumer age//years old						Overall situation	
	18 – 25	26 – 35	36 – 45	46 – 55	56 – 65	Over 66		
Three-dimensional modeling of patterns		5.49	3.54	3.43	1.66	4.94	4.76	3.61
Novel patterns		12.20	8.73	9.21	17.13	16.05	7.14	10.82
High manufacturing technology		20.73	15.57	13.92	24.85	20.99	26.19	17.51
Noble color (such as black, gold and red)		20.12	30.19	29.55	24.31	13.58	11.90	26.42
Simple but elegant color		29.27	26.42	27.62	27.62	33.33	42.86	28.26
Bright color		12.20	15.57	16.27	4.42	11.11	7.14	13.39

**3.5 Packaging materials favored by consumers** The packaging materials favored by consumers were mainly "hard pack" (28.11%) and "concave and convex pattern" (23.40%). Sur-

vey data showed that consumers of all ages preferred cigarettes with flip-top hard pack (Table 6).

**Table 6 Packaging materials favored by consumers**

Packaging material	Consumer age//years old						Overall situation
	18 – 25	26 – 35	36 – 45	46 – 55	56 – 65	Over 66	
Thin pack	7.93	7.55	3.43	4.42	13.58	0.00	5.89
Side push	6.10	4.25	4.07	3.87	2.47	0.00	4.12
Side flip	7.93	8.25	6.64	7.73	1.23	16.67	7.43
Flip top	9.15	12.50	10.28	14.92	9.88	7.14	11.33
Soft pack	14.02	21.70	20.77	20.99	13.58	16.67	19.72
Hard pack	27.44	25.94	28.91	25.52	29.63	47.62	28.11
Concave and convex pattern	27.44	19.81	25.91	21.55	29.63	11.90	23.40

**3.6 Other pack types favored by consumers** Pack style: creative, distinctive personality; introverted and elegant; plain and simple but elegant, simple and elegant; resplendent, rich and noble; noble and generous, warm and unrestrained, rich and noble flavor; national style, or with local characteristics; modest luxury; passionate and unrestrained, *etc.*

Pack color: deep color; bright color; diverse colors, *etc.*

Pack material: hard pack is not easy to crush and is easy to open; pack is simple and tight; pack is thin and easy to take; pack is iron box, or aluminum box; pack is of textual quality, *etc.*

## 4 Conclusions and suggestions

The market demand for cigarette products is directly proportional to the reputation of cigarette brands. When the brand reputation increases, consumers also accept cigarette products which will have a certain place in the psyche. Under the influence of other brands, those with low brand reputation will not be considered. When the brand reputation is improved, the emotional coefficient will increase upward, and the demand for cigarette products will keep increasing. Consumers have little price elasticity of products and are insensitive to price changes, which can improve the overall earnings of enterprises. Therefore, brand cultivation is the focus of enterprises. Brand positioning is the premise of brand cultivation. The accuracy of a brand positioning determines whether the brand can be successfully cultivated. Brand positioning is the direction of brand cultivation, and it will directly guide brand cultivation to target market. No cigarette brand can be suitable for all consum-

ers, nor can it meet the needs of every consumer. It requires tobacco commercial companies to divide the overall market into several different consumer groups with similar attributes according to different desires and demands, purchasing behaviors and habits of consumers in the target market through sufficient market research, and to determine the target market. Cigarette brands are combined according to different target markets, so as to meet the needs of consumers. Only after comprehensive consideration of geographical, demographic, psychological and behavioral factors can cigarette commercial companies lock the target consumer groups, so as to achieve success in brand cultivation.

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