Research on Huawei Mobile Phone Marketing Strategy Based on Market Segmentation Theory

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Abstract. The development of Internet technology has promoted the popularity of smartphones and intensified the competition among mobile phone manufacturers. With the improvement of the quality of smartphones, the frequency of changing mobile phones has gradually declined, which means that the previous marketing methods that blindly pursue multi-function and low price can no longer meet the needs of consumers. In this paper, twenty-one factors affecting consumers' purchase motivation are analyzed by factor analysis. Four factors are extracted, which are *"strong performance", "appearance design", "feature function", " advertising and evaluations of people around "*. After cluster analysis with consumers' gender and consumption concept, the smartphone market is finally divided into four parts *:"economic pursuer", "follower of popular trend", "appearance preference" and "personality selves"*. Huawei, as the representative of the domestic mobile phone brand, has a leading share in the domestic market, but there is still a great room for improvement. This paper provides marketing suggestions and strategies for Huawei mobile phone.

Introduction

According to the data in the 43rd Statistical Report on the Development of Internet (Figure 1), released by China Internet Information Center[1], by the end of 2018, the number of Chinese netizens had reached 829 million, the penetration rate of Internet was 59.6%, the number of mobile netizens reached 817 million, and the proportion of Internet users using mobile phones had reached 98.6%.
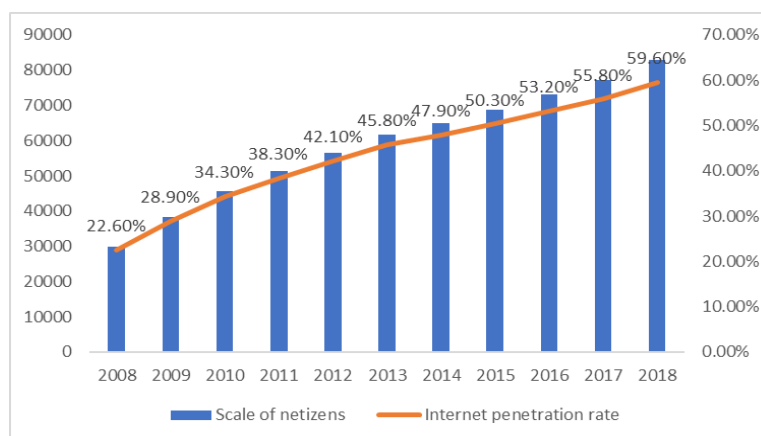

Fig.1 The 43rd China internet development statistics report

There are at least 76 mobile phone brands in the world, while there are dozens of Chinese mobile phone brands. Data show that between 2017Q2 and 2018Q2, the share of Huawei, Oppo, Vivo and Xiaomi has increased from 67% to 82% in the Chinese market. They have already overwhelmed

other brands (including Apple). Huawei has been pushing Apple to rank first in China's smartphone market share since 2016. With the advent of 5G era, Huawei is the pioneer of this era.

According to the mobile phone market operation data of CITIC in 2018: Since 2017Q3, smartphone shipments in China have been negative, and the number of smartphone shipments in 2018Q1 has declined by 16%. Behind these data, it reflects that the upgrading of mobile phone product quality leads to the prolongation of the switching cycle. China's smartphone market is gradually approaching saturation. The fierce competition among mobile phone manufacturers is doomed to be a process of survival of the fittest. How to make up for the weaknesses? How to retain more users? How to grasp its own characteristics? These are the problems that every manufacturer urgently needs to solve at present. In this context, it is an effective measure to help manufacturers get out of the predicament to understand the characteristics of user consumption and accurately locate the target consumer groups.

Literature Review

The Concept of Market Segmentation

Smith, an American scholar, first put forward the idea of market segmentation in 1956. [2] Since then, Kotler and other scholars have supplemented it in classification criteria, basis and criteria. [3] Based on the experience of scholars, this paper holds that market segmentation is the process of dividing consumers with similar characteristics and purchasing characteristics into several types of aggregates, each of which is called a market segmentation.

The Basis of Market Segmentation

When subdividing the market, we should synthesize different kinds of factors and find the best way to divide the market type. Through consulting the relevant literature, it is found that demographic characteristics, geographical factors, behavioral factors and psychological factors are the main considerations for market segmentation. [4]

Segmentation of Consumer Market Based on Population

According to the demographic factors, market segmentation means that according to the differences of age, gender, family population, education level, income and other variables, the consumer market is divided into various sub-markets with different characteristics. For example, according to age, it can be divided into children, youth, middle-aged and elderly markets.

Segmentation of Consumer Market Based on Geographical Factors

Population density, urban scale, domestic/foreign regions, climate, urban scale and so on can become the criteria for dividing consumer markets. Consumers in different geographical environments and regions will have different needs for products.

Segmentation of Consumer Market Based on Behavior Factors

Consumer behavior factor is an important basis for product market segmentation. The main variables related to consumer behavior are purchase timing, pursuit of interests, utilization rate and so on. [5]Su Shiyu, a Chinese scholar, classifies the market according to four variables: age, purchasing power, customer demand for mobile phones and switching frequency, and gets four types of consumers: entertainment, practical, fashion and entertainment. [6]

Segmentation of Consumer Market Based on Psychological Factors

Lifestyle, personality and social stratum can reflect consumers 'psychological activities. [7]Ma Yuntao gets the segmentation model of China's smartphone market based on the two variables of lifestyle values and key purchase factors. Through consumer questionnaire survey and data analysis in 13 cities of China, he divides China's smartphone market into five segments. [8]

Construction of Segmentation Model and Market Survey

Selection of Subdivision Variables

This paper chooses smartphone consumers as the research object, and studies the market segmentation strategy from three dimensions: purchase motivation incentives, gender and consumption concept. When choosing the incentive factors of purchasing motivation, we adopt in-depth interview method and draw lessons from the selection of incentive variables of purchasing motivation in Hao Wenjun's Research published in 2018. [9]We collect data by designing questionnaires. Finally, we collect 21 external factors. [10]The stimulus variables are analyzed by factor analysis, the main external stimulus factors are extracted, and the smartphone consumer population is subdivided by clustering analysis combined with gender and consumption concept. Therefore, this paper establishes the following smartphone market segmentation model. [11]
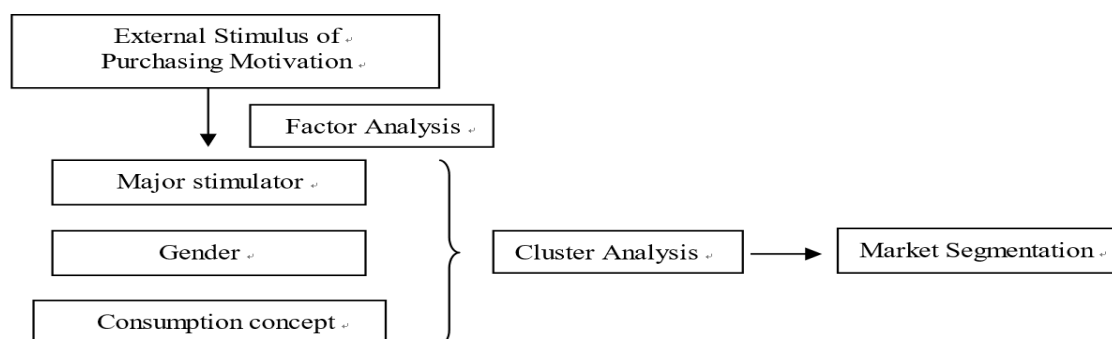
Research Model

Fig.2 Smartphone market segmentation model

Market Research

Questionnaire Design

Smartphone consumers generate consumption motivation by perceiving external stimulus variables. Through this questionnaire, the stimulus factors of smartphone purchasing motivation of this group are obtained. [12]At the same time, combined with consumer gender, consumer attitudes, using factor analysis, cluster analysis and other statistical methods, the market segmentation results are obtained.

Therefore, this paper finally divides the questionnaire into three parts. The first part includes 1-4 questions about consumer's use of smartphone brand, type and gender survey; the second part 5-8 questions about consumer's smartphone consumption concept and consumption tendency judgment; and the third part includes 9-11 questions about consumer's evaluation of Huawei's use sense and performance after purchasing.

Sample Description

479 questionnaires were collected, including 448 valid questionnaires, 305 female user questionnaires, accounting for 68% of the total, 143 male user questionnaires, accounting for 32% of the total, 35% of the respondents used Huawei mobile phone, 28% used Apple mobile phone, 25% used Oppo and Vivo mobile phone. Households range in age from 22 to 26. These data reflects Huawei mobile phones are increasingly favored by young consumers.

Result Analysis

Descriptive Statistics

In the analysis of consumers' scoring of 21 "indicators of concern when purchasing mobile phones" , the top five are "can use all kinds of software applications smoothly", "basic function satisfaction", "good quality, durability", "fast running, system fluency" and "large memory, can store more content". It is not difficult to see that these five indicators belong to the mobile phone hardware indicators. "Beautiful design, good workmanship", "good color, high recognition" and other indicators related to the appearance of mobile phones, photography was included in the second echelon. And the score of "everybody around is using" is only 2.11, which is the lowest among all indicators. This also shows that consumers pay more and more attention to their own experience when choosing mobile phones.

Although the data show that Huawei mobile phone has won more and more praise, it is easy to find that Huawei mobile phone has the lowest average score in appearance design , 19% of the consumers in the survey think that Huawei should improve its appearance design . (Table 1, Figure 3)

Mobile Phone Performance	4.23
After-sale service	4.21
Customer loyalty	4.21
Durability	4.2
Cell Phone Pixel and Sound Quality	4.12
Price	4.06
Appearance Design	3.07

Table 1. Huawei mobile phone performance score

Factor Analysis Results

According to the following table, KMO = 0.937, P < 0.05. It shows that the 21 purchase motivation factors we selected are very suitable for factor analysis.
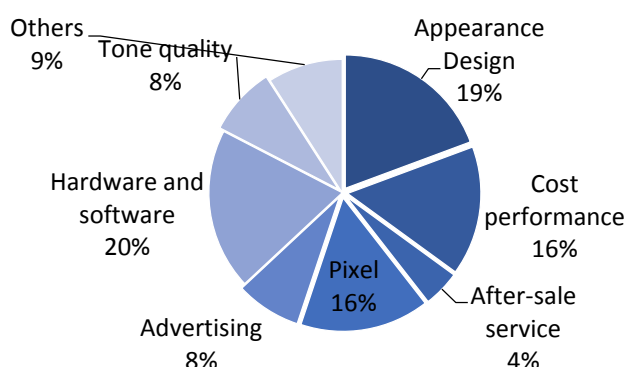

Fig.3 The aspects of Huawei mobile phone need to be improved

Table 2. Examination charts of KMO and Bartlett

Kaiser-Meyer-Olkin		.937
Bartlett	χ^2	6931.792
	df	210
	Sig.	.000

The first factor is mainly related to 11 factors, such as "fast running speed, smooth system", "large battery capacity, strong endurance", "large memory, more content can be stored". Therefore, it is named "*strong performance*". The second factor is mainly related to "light, good feeling", "large screen", "good-looking", so they are named "*appearance design*". The third factor is mainly related to "high pixel, large aperture, anti-shaking, beautiful camera", "fingerprint recognition or high recognition", so it is named "*feature function*". The fourth factor is mainly related to "being influenced by advertisements and likes to read all kinds of mobile phone evaluation content", "people around are using ", so it is named "*advertising and evaluations of people around* ".

Cluster Analysis Results

Based on the four factors extracted above, combined with consumption concept and gender two variables, through K-means clustering analysis, output tables 3and 4, the final results are as follows.

The first kind of consumer belongs to the male consumer who holds rational consumption concept. Its characteristic is to pay attention to the corresponding configuration of mobile phone performance/hardware and software, and strive to realize the maximum use value of personal property. This kind of consumer is defined as "*economic pursuer*". [13]

The second kind of consumer belongs to the female consumer who holds the rational consumption concept. Its characteristics are that they are most influenced by advertisements and the people around them. They do not care enough about the performance and appearance of mobile phones. Therefore, I define this kind of consumer as "*the follower of popular trends*".

The third kind of consumer belongs to the female consumer who holds the impulsive consumption concept. Its characteristics are that they are willing to spend more money to buy better appearance design products. Therefore, I define this kind of consumer as "*appearance preference*".

The fourth category of consumers is male consumers with impulsive consumption concept. They spend a lot of money to buy mobile phones with strong performance, complete functions and excellent appearance. Generally, they are not easily influenced by the choice of the people around them. Therefore, they define such consumers as "*personality selves*".

Table 3. Final cluster center

	1	2	3	4
Gender(1is male)	1	2	2	1
Consumption concept (1is Rational Consumption)	1	1	2	2
strong performance	2.82	1.84	2.62	4.62
appearance design	1.42	1.68	4.37	4.66
feature function	2.69	1.44	2.35	4.47
advertising and people around influence	0.70	2.56	2.88	2.67

Table 4. Cases in each cluster

Cluster	1	52
	2	166
	3	113
	4	117
Valid		448
Missing		0

According to the data in Table 4, it is not difficult to find that there are 166 consumers of "popular trend followers" type, accounting for 37% of the respondents. Secondly, 117 (26%) are "personality selves" in the second place, 113 (25%) are "appearance preferences" in the third place, and 52 (the smallest) are "economic pursuers".

Research Conclusions and Suggestions

According to the cluster analysis results, we eventually divide the smartphone consumer market into four categories: economic pursuers, popular trend followers, appearance preferences and personality selves. The specific characteristics of each type of consumer are as follows.

"Economic Pursuer" customers, who have a more rational consumption concept. They not only have requirements on the basic performance of mobile phones, such as speed, battery capacity and memory, but also care about the special functions of mobile phones, such as photography, fingerprint recognition, etc. Surrounding people's opinions are not influenced by advertisements. Most of these people are male, and they account for a small part of the population.

Consumers like "popular trend followers" like to follow the footsteps of other customers and are easy to be affected by advertisements and comments from people around them. Therefore, they often lag behind in purchasing mobile phones. They often hang around commentary websites, hoping to gain the basis of their own purchases from the user experience of others, so they are often rational consumption concept of women. These groups account for the largest proportion .

As the name implies, consumers like "appearance preference" have a strong preference for the shape design of mobile phones. They have beautiful design, good color, light and textured mobile phones. They are generally female groups with impulsive consumption concepts.

The purchase decision of consumers like Personal Self is not influenced by the people around them. As long as they have good performance and good appearance, they will not consider the price factor. This kind of users are often the test-takers of new mobile phones and have strong loyalty to the brand.

Undoubtedly, the appearance design of Huawei's mobile phone is the most weak. In the survey, the score of the appearance of mobile phone is the lowest, only 3.07. At the same time, nearly one fifth (19%) of the respondents think that Huawei's mobile phone needs to change its appearance design, which shows that if it can't make progress, a quarter of the mobile phone population will be lost.

Consumers in the appearance preference market are very sensitive to the appearance design of smartphones, and have higher requirements for basic functions. If smartphone products and service providers want to improve the market share and competitiveness, they need to focus on improving the appearance design of mobile phone products according to the following suggestions. [14]

This paper argues that the "appearance-high price" marketing strategy can be adopted for consumers in the market with appearance preference. Appearance design includes smartphone's "big screen, better looking", "beautiful design, good workmanship", "light and thin, high-end feeling", "good feel, comfortable grasp", "good color, high recognition". It can be seen that the female consumers in this market segment have higher requirements on screen size, industrial design, manufacturing materials, color, weight and thickness of smartphones.

In smartphone appearance design, try to use large screen, use more advanced production technology and materials to make the mobile phone design thinner, and use less or no color on the market to publicize. In terms of price strategy, they should adopt high-price strategy to focus on the promotion of female consumers. [15]

Reference

[1] The website of China Internet Information Center (http://www.cnnic.net.cn/).

[2] Smith, Wendell. R. Product differentiation and market segmentation as alternative product strategies [J]. Journal of Marketing. 1956, 11(7): 3- 8.

[3] Philip Kotler. Development Trends of Marketing in the New Millennium [J]. Sales Market. 2001 (1): 5-8.

[4] Wang Jinsong. Research on China Mobile Market Segmentation and Market Positioning [D]. Chongqing: Chongqing University, 2003:1-46.

[5]Pi Yonghua, Xu Shaojun. Information Contact Process Analysis of Consumer Impulsive Purchasing Behavior [J]. Technological Economy, 2004 (7): 20-21.

[6]Su Shiyu. Brief analysis of Huawei's mobile phone marketing strategy [J]. Northern Economy and Trade, 2018, 8:39-41.

[7]Dong Yali, Zhang Qiang. Empirical Study on Consumption Concept and Consumption Behavior [J]. Business Research, 2011 (8): 7-10.

[8]Ma Yuntao. An Empirical Study on China's Smartphone Market Segmentation [J]. Modern Telecom Technology, 2012, 42 (11): 33-40.

[9]Hao Wenjun. Research on Market Segmentation Strategy of Smart Phone College Students [D]. Beijing: Beijing University of Posts and Telecommunications, 2018:1-52.

[10]Francis Buttle, Marilyn Coates. Shopping Motives [J].Service Industries Journal,1984,4(1):71-81.

[11]Zhang Jiawen. A Brief Discussion on Market Segmentation of Mobile Phone [J]. Machinery and Electronics, 2006, 9:31.

[12]Shi Youchun, Geng Xiulin, Zhang Yongjian. New Paradigm of Market Segmentation: Empirical Study Based on Two Different Products [J]. Nankai Management Review, 2010, 3:26-35.

[13] Wang Xia, Bao Qiting. Application of Cluster Return Analysis (CLR) in Market Segmentation Research [J]. Mathematical Statistics and Management, 2008, 2:338-345.

[14] Wendell R Smith. Product Differentiation and Market Segmentations Alternative Marketing Strategies [J]. Journal of Marketing.1956, 7: 3-8.

[15] Condi. Analysis and Research on Marketing Strategy - Take Huawei Company as an example [J]. China Business, 2016, 21:10-11.