

Consumer preference and Marketing of Smart Phone for college students

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Abstract. Contemporarily, the domestic social economy has been rapidly developed and promoted, and the competition in the smartphone market has continued to intensify. As a relatively independent consumer group, college students' consumption decisions are influenced by factors (e.g., price and brand). The article analyzes the online questionnaire survey of college students based on SPSS software and finds the factors that affect college students' mobile phone purchase intention (including brand, price, parameters, appearance and after-sales service). Therefore, it is suggested that domestic mobile phone brands should carry out marketing from four aspects: developing cost-effective and uniquely attractive models, marketing and promotion to enhance brand awareness, good after-sales service to enhance brand reputation, and a combination of online and offline diversified channel strategies. These results shed light on guiding further exploration of smart phone consumer behavior.

Keywords: Smartphone, Marketing strategy, College students, Consumer behavior.

1. Introduction

As smartphones continue to innovate and develop, market analysis company Canalys reports that the total annual global shipments of smartphones in 2021 will be 1.35 billion units, and the penetration rate is getting higher and higher [1]. In addition, there will be 3,012 colleges and universities nationwide in 2021, with more than 44 million college students, and college students have become one of the backbones of the smartphone consumer market [2]. Smartphones are divided into Android system and IOS system according to the application system. The Android system mobile phone brands are represented by Huawei, Xiaomi, OPPO, etc.; the IOS system is the Apple mobile phone system [3]. Data reported in 2021 shows that vivo ranks among the top five, with domestic brands Xiaomi, OPPO, and vivo occupying a total of 35% of the market share, Samsung and Apple ranking first and second [1].

Smartphones emerged in China around 2009. Especially in 2010, the launch of Apple's iPhone4s led the wave of smartphones. Since then, domestic smartphone brands have also emerged, and the mobile phone market has ushered in a round of upgrading. China's smartphone production has maintained growth from 2009 to 2016, during which time smartphones were gradually recognized and understood, and quickly replaced feature phones to occupy the market. With the continuous growth of demand and sales volume and the gradual decline of production costs, China's mobile phone market has gradually approached saturation after several years of rapid development. The growth rate of mobile phone sales has begun to decline, and even negative growth has occurred in some years. Competition has also become more intense [4]. However, China's smartphone production began to show negative growth in 2017, and in 2018, China's smartphone production continued to decrease, returning to the level before 2015 [5].

According to the data collected in 2020, the number of netizens nationwide will reach 900 million, and the Internet penetration rate has reached over 70%. Therefore, mobile phone market in China has always been one of the markets that major manufacturers value heavily. Nowadays, domestic manufacturers have continued to make efforts in the Chinese mobile phone market, innovating in terms of screen ratio, fast charging, and photography. With their local advantages, they have occupied at least 80% of the domestic market [6]. According to data from Canalys, Huawei's mobile phone shipments reached 40.2 million units in the second quarter of 2020, far ahead of other manufacturers,

with a 44% share. VIVO, OPPO, and Xiaomi followed, accounting for 16.3%, 16%, and 10.3% respectively. Apple, which was once hard to find, ranked fifth, accounting for 8.5% [7]. It also indicates that domestic manufacturers are already very competitive in the Chinese market.

In order to understand college students' preference for brands and consumer psychology, this paper designs a questionnaire and conducts a sample questionnaire survey. The rest part of the paper is organized as follows. The Sec.2 is about the data and method used in this paper. The Sec.3 will talk about the investigation and deeply analyze the buying behavior of college students. The Sec.4 describe several main reasons that influence the purchasing behavior of college students. The Sec.5 gives some advice of marketing strategies for smartphone brands.

2. Data & Method

Before the investigation and research, this paper retrieves, reads, and sorts out the relevant literature and experience of college students' purchasing behavior preferences as references. This paper designs a questionnaire and conducts a sample questionnaire survey to measure the gender, grade, mobile phone brand used, factors that are valued in purchasing mobile phones, purchasing budget, frequency of changing mobile phones, purchasing methods etc. A total of 300 people fill out the questionnaire. All 300 are valid questionnaires. Among the survey samples, boys accounted for 65.33% and girls accounted for 34.66%; there were 66 seniors, 84 juniors, 89 sophomores, and 61 freshmen. According to the analysis, the Cronbach's alpha coefficient is 0.711 (a relatively large value), indicating that reliability of the questionnaire is good.

3. The Investigation and Analysis of College Students' Buying Behavior

3.1 Model selection

With the increasingly high-end domestic mobile phone flagship, its price is gradually approaching some of the Apple mobile phones after the price reduction. Compared with high-end models and relatively cheap models, college students are more inclined to buy the latter group, and 52.8% of them prefer to choose relatively cheap models (3,000-5,000 yuan). Based on questionnaire data analysis and supplementary research, the main reason for the respondents to choose relatively cheap models is that with the continuous improvement of the brand reputation of domestic mobile phones. Its cost performance and practical advantages are more prominent, thus weakening the high-end mobile phone brand advantages [8]. In addition, the questionnaire shows that 172 people choose good quality and high-cost performance in terms of factors of purchasing mobile phones. The advantages of domestic mobile phones are mainly reflected in performance, heat dissipation, charging, screen, camera and so on. Among them, there are not only the performance improvement brought about by technological combination innovation, but also the typical functions that can better meet the specific needs of domestic college students' consumer groups.

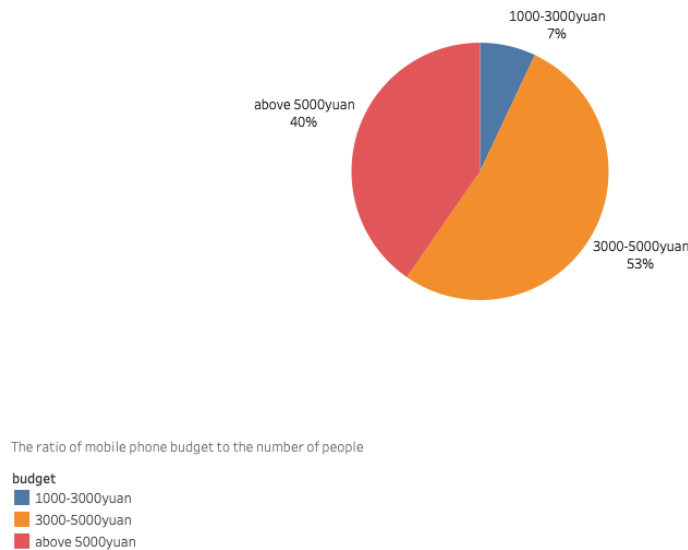


Figure 1. College students’ budget of purchasing mobile phones

At the same time, it can be seen from Fig. 1 that the college students' awareness of high-end models is not particularly high. The survey found that a total of 66 people fully understand high-end models, of which more than 2/3 are boys. In comparison, girls have a low understanding of cost performance and practicality, and their consumption decisions are more inclined to brands and others. In actual business, high-end mobile phones are the most high-end and most eye-catching models of the brand. These types of mobile phones often have excellent performance, new technologies and powerful functions. Whereas, the overall awareness among college students is low, which may affect consumers' choice of mobile phone brands to a certain extent [9]. In addition, as depicted in Fig. 2 that in terms of the choice of channels for college students to purchase mobile phones, 103 respondents ordered mobile phones through the official website, 85 chose mobile phone stores, 31 chose shopping malls, and 51 chose T-mall and other e-commerce platforms. In the meantime, 30 people chose to buy second-hand products. The diversity of purchase channels also indirectly reflects the speed and equivalence of information dissemination. Consumers have more choice channels and choices, which accelerates the survival of the fittest in the smartphone market and enables brands to fully compete.

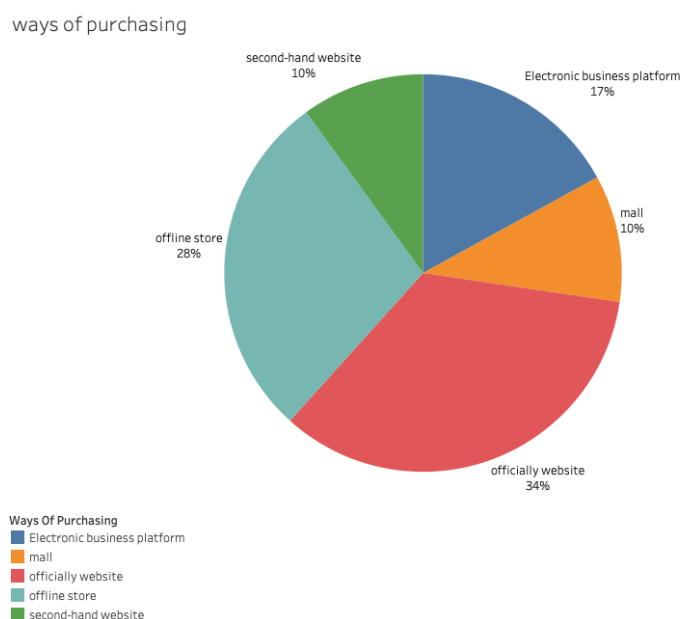


Figure 2. College students’ choices of purchasing mobile phones.

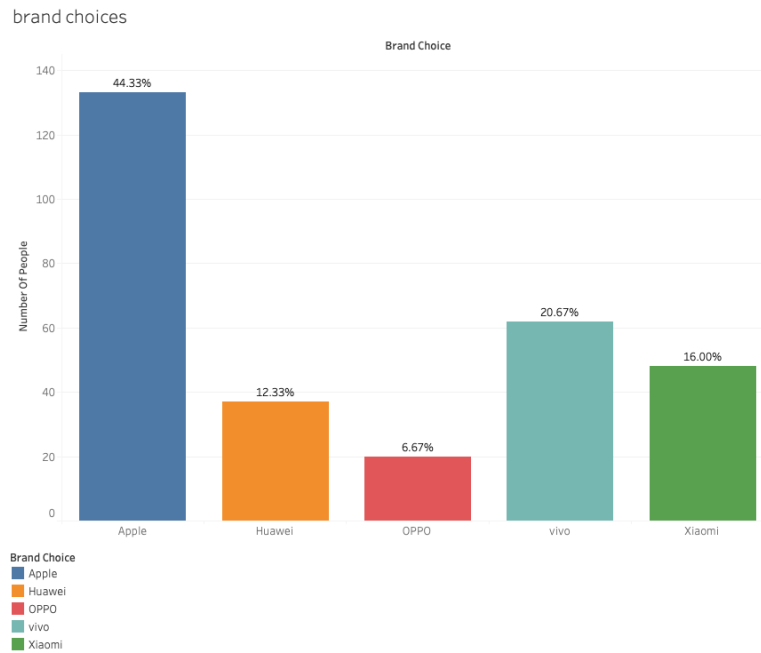


Figure 3. Brand choices of college students.

3.2 Brand Selection

The questionnaire shows that 133 people use Apple mobile phones, 62 people use vivo, 20 people use OPPO, 48 people use Xiaomi, and 37 people use Huawei. On the question of why not to buy iPhones, the survey found that 67 people recognized the reputation and quality of iPhones but gave up because they were too expensive; 39 people felt that the software or use of iPhones was inconvenient; 14 people felt that iPhones were not Chinese brands do not choose to buy; 47 people feel that Apple mobile phones are not cost-effective and do not choose to buy. Other factors include the monotonous appearance of the iPhone.

4. The influencing factors of college students' purchasing behavior decision-making

4.1 The brand factor

College students are a consumer group that pursues fashion and brands. The survey data shows that college students have a strong brand awareness when purchasing mobile phones. This group believes that brands represent quality, and the questionnaire shows that brands such as Huawei and Xiaomi are highly recognized among domestic mobile phones [10]. 23% and 26% are satisfied with the Huawei and Xiaomi brands, respectively. At the same time, owing to the fact that college students have different brand loyalty when buying smartphones.

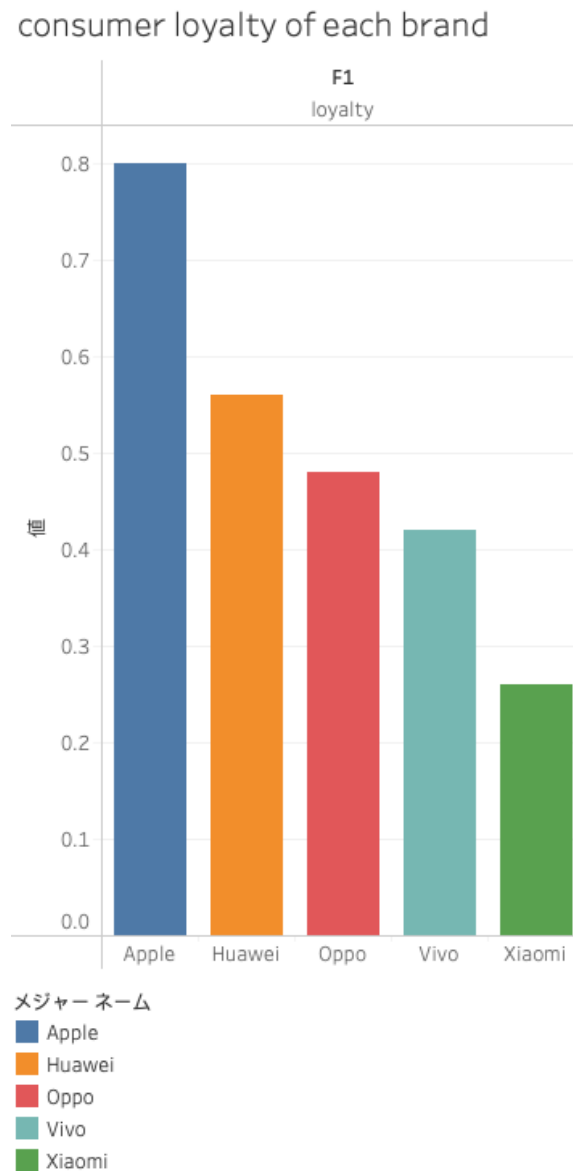


Figure 4. College students’ loyalty of each brand.

4.2 The price factor

Cost-effectiveness is one of the important factors for college students to consider whether to buy. The survey results show that about 53% of college students' budget for purchasing smartphones is in the range of 3,000-5,000 yuan, and mobile phones in this price range are more cost-effective. During SPSS analysis, the mobile phone brand used by college students is used as the dependent variable, and the five variables of college students' gender, grade, monthly living expenses, the price range of mobile phone purchases, and the frequency of mobile phone replacement are used as independent variables to perform logistic regression:

Table. 1 Likelihood Ratio.

Intercept	Condition	Validation		
	Log2	χ^2	Freedom	Significance
Grade	2.773 ^a	.000	0	.
Living expenses per month	8.318 ^b	5.545	4	.236
Price range of purchasing phones	26.269 ^b	23.496	12	.024
Frequency of changing phones	11.090 ^b	8.318	12	.760
Intercept	19.145 ^b	16.372	8	.037
Gender	14.909 ^b	12.137	16	.735

Seen from the Table. 1, the overall fitting effect of the model is good. From the perspective of various variables, the price range of mobile phones purchased by college students has a significant effect on the mobile phones used by college students. Meanwhile, although the ownership rate of Apple mobile phones is relatively high, the price of Apple mobile phones is often more than 5,000 yuan. Most mobile phones in these ranges cannot be purchased because of economic constraints and other factors. More than 60% of the respondents indicated that they are willing to purchase iPhone as long as the price drops.

4.3 Quality factor

The quality of mobile phones is another important factor that college students pay attention to. The quality of mobile phones is another important factor that college students pay attention to. Judging the quality of a product mainly depends on the quality standards of the product. The inspection factors of mobile phone quality mainly include complete functions, signal sensitivity, performance stability, safety, durability, maintainability and so on. For college students, if they use it for a long time, they can reduce the number of mobile phone replacements to save economic expenses. Therefore, the quality of mobile phones has become one of the main factors that college students consider when they choose to buy mobile phones [11]. The questionnaire shows that among the reasons for preferring mobile phones, 63% The quality of the people who choose to judge the quality of a product mainly depends on the quality standards of the product. The inspection factors of mobile phone quality mainly include complete functions, signal sensitivity, performance, durability, maintainability etc. In addition, in terms of the frequency of changing mobile phones, only 27% of people will change their mobile phones within 1-2 years. For the consumer group of college students, if the mobile phone is used for a long time, the number of replacements of the mobile phone can be reduced to save economic expenditure. Therefore, the quality of mobile phone has become one of the main factors considered when college students choose to buy a mobile phone.

4.4 Appearance factor

Appearance is also one of the influencing factors. According to the analysis, female consumers are more likely to be influenced by appearance factors. Appearance factors mainly include the color, thinness, material, body size, design and shape of the mobile phone. The consumer group of college students pursues the unique style of fashion and individuality, and pays special attention to the design.

4.5 After-sales factors

Based on the analysis, the after-sales service factor is relatively low in attention when purchasing mobile phones, and only 12% of people pay attention to after-sales service. However, as some brand owners pay more and more attention to improving brand reputation through after-sales service. Especially college students who buy products through the Internet, they pay more attention to after-sales service after purchase, hence the influence of after-sales factors will continue to increase.

4.6 Limitation

There are still many deficiencies in the survey on the behavior of college students to buy mobile phones. First, the sample size is still a severe limitation. The questionnaire survey only involved 300 people, and the sample is too small to be representative of the number of college students in the country. In the questionnaire design, there are also certain restrictions on mobile phone brands, and there are still many popular mobile phone brands that are not included.

5. Mobile phone brand business marketing strategy countermeasures and suggestions

Based on above analysis, suggestions are proposed accordingly. Primarily, one ought to develop cost-effective and uniquely attractive models. From the influencing factors of college students' mobile

phone purchase decision, it can be seen that the purchase decision of this group is more concerned with the quality of mobile phones, especially the performance stability and durability. Mobile phone manufacturers should pay attention to the research and development technology of mobile phone quality and performance, and manufacture smart phones that are more in line with students' modernization. In the meantime, college students have increasing requirements for mobile phone functions and are subject to economic conditions. This group prefers brand mobile phones with low price, stylish appearance, complete functions and durability. Therefore, domestic mobile phone brands can develop and design models that are cost-effective and have the preferences of the student consumer groups specially for student consumers, so as to meet the needs and win the market. In addition, college students are consumer groups who pursue fashion and show their individuality. Mobile phone brands should incorporate more entertainment and popular elements in the design process. Besides, they must have special functions, e.g., ultra-thin, high-quality music and other functions, from a fashion perspective. Especially in terms of mobile phone style, shape and color, it conforms to students' preferences and aesthetics, and meets their psychological needs of showing individuality and fashion.

In addition, it is necessary to realize marketing promotion to enhance brand awareness. The brand awareness of college students' consumer groups is relatively strong. They believe that the brand determines the quality, and the quality of the brand is naturally credible. Mobile phone brand owners should pay attention to brand promotion and emphasize the emotional factors of the brand, e.g., inviting fashionable and energetic stars as mobile phone brand image spokespersons, giving mobile phones full of youthful vitality, and positive brand characteristics to enhance brand awareness.

Moreover, one should do a good job in after-sales service to enhance brand reputation. College students are also affected by the quality of after-sales service when purchasing mobile phones. Mobile phone brand owners should attach importance to establishing a good after-sales service system to establish a good corporate image, and at the same time to win the love and loyalty of the consumer group of college students for the brand, and enhance the brand reputation.

Last but not least, diversified channel strategy combining online and offline should be implemented. The main way for college students to obtain information is the Internet. Before buying a mobile phone, more information is collected through the Internet to assist decision-making, and the ways and channels of purchase are also more diversified. College students tend to pay attention to online reviews and follow-up reviews, and purchases usually happen in brick-and-mortar mobile phone stores. For mobile phone brands, they can mainly sell mobile phones in mobile phone stores and monopoly stores near colleges and universities, and can appropriately launch discounts during holidays, and give students their favorite gifts to promote sales. In the meantime, one ought to pay attention to Online evaluation and feedback to guide consumer decision-making.

6. Conclusions

To sum up, based on the changes in the mobile phone market data, this research has investigated the college students' preferences for brands and consumer psychology. To be specific, the changes in factors influencing college students' decision to buy mobile phones are summarized. Besides, competing product strategies and positioning adjustments are also analyzed, and competitive strategies are tracked and observed. Effectiveness and sustainability, the research results can provide a reference for the adjustment of market strategies of similar products.

References

- [1] Canalys, Global smartphone market returns to pre-COVID-19 level in 2021 despite supply issues, January 28 2022, July 20 2022, retrieved from: www.canalys.com/newsroom/global-smartphone-market-2021.
- [2] How many college students are there and how many universities are there in 2021, March 1st 2022, July 20 2022, retrieved from: www.wuhan.com/xinwen/88749.html.

- [3] Mei S, Chai J, Wang S B, et al. Mobile phone dependence, social support and impulsivity in Chinese university students[J]. *International journal of environmental research and public health*, 2018, 15(3): 504.
- [4] Pan D, Chen N, Rau P L P. The acceptance and adoption of smartphone use among Chinese college students[C]. *International Conference on Cross-Cultural Design*. Springer, Berlin, Heidelberg, 2013: 450-458.
- [5] Gamatche A A, Niu S. Research on the Smartphone Fast Growing Impact on Mobile Gaming Industry in China[J]. *Journal of Management, Marketing and Logistics–(JMML)*, ISSN, 2016: 2148-6670.
- [6] Wei R, Lo V. News on the move: Predictors of mobile news consumption and engagement among Chinese mobile phone users[J]. *Electronic News*, 2015, 9(3): 177-194.
- [7] Canalys, Global smartphone market Q2 2020, July 31 2020, July 20 2022, www.canalys.com/newsroom/canalys-global-smartphone-market-declines-q2-2020.
- [8] Yang J, He X, Lee H. Social reference group influence on mobile phone purchasing behaviour: a cross-nation comparative study[J]. *International Journal of Mobile Communications*, 2007, 5(3): 319-338.
- [9] Sujata J, Yatin J, Abhijit C, et al. Factors affecting smartphone purchase among Indian youth: A descriptive analysis[J]. *Indian Journal of Science and Technology*, 2016, 9(15): 1-10.
- [10] Manorek S L. The influence of brand image, advertising, perceived price toward consumer purchase intention (case study: samsung smartphone)[J]. *Jurnal Berkala Ilmiah Efisiensi*, 2016, 16(1).
- [11] Moslehpour M, Huyen N T L. The influence of perceived brand quality and perceived brand prestige on purchase likelihood of iPhone and HTC mobile phone in Taiwan[J]. *Research in Business and Management*, 2014, 1(1): 62-77.