

The Preference for Male cosmetics: an empirical analysis

Hanwen Guo*

School of International Business, Jilin International Studies University, Changchun, China

*Corresponding author: HanwenGuo@jisu.edu.cn

Abstract. The market of male cosmetics is believed to become the new blue ocean among the cosmetic industry. However, there are few analytical studies focusing on this market in the existing literature. This article chooses male college students as the target audience and investigates the preference based on the first-hand data obtained from questionnaires. A model of consumption willingness is constructed where six related factors are selected for regression analysis. According to the analysis, simple packaging and common brands are more likely to be favored by male consumers. Subsequently, corresponding suggestions are proposed to cosmetics companies relate to the concepts of the product design and the following strategies. Overall, these results shed light on guiding further exploration of male skincare marketing.

Keywords: Male cosmetics market; market strategy; empirical analysis; regression analysis.

1. Introduction

Contemporarily, the Chinese cosmetics market has developed rapidly, and the concept of male skincare has been awakened and become more and more valued [1]. According to Euromonitor's survey data shown in Fig.1, the size of the Chinese male cosmetics market was ¥10.441 billion in 2013, and it increased to ¥14.485 billion by 2018. It is expected to grow by 6% to 8% annually thereafter. By 2023, it will exceed ¥ 20 billion [2]. According to the "2019 male Skin Care Consumption Trend Report" released by Tmall Inc, China's male skincare market has gone from the 1.0 era of simple skincare with no brand awareness to the 2.0 era of forming daily skin care habits. Finally, it has moved to stage 3.0 where men actively acquire knowledge about male skincare [3]. As a matter of fact, male cosmetics have great potential for development, and it demonstrate the characteristics of high brand and strong price acceptance [4]. These factors make male skincare products not only a blue ocean in the market but also a field with high rates of return in the long run [5].

Therefore, understanding customer consumption preferences is of great significance for promoting the formulation of strategies for cosmetics companies' production, resource deployment, and sales. This article analyzes the impact of various factors of male cosmetics on sales through the compilation of first-hand data collected via questionnaire. To be more specific, an overall analysis of the male cosmetics industry is conducted. To fully acknowledge the tastes of consumers, representative male college students are chosen as the survey audience to create a survey questionnaire containing factors, e.g., purchase and sales channels and consumption willingness [6]. After collecting and screening, 3478 valid questionnaires are obtained in total. Then, descriptive analysis is applied to sort out the factors such as grade, living expense, and purchase frequency of male college students. Afterwards, factor analysis is adopted to integrate these 13 factors into 6 ultimate factors stated as brand efficacy, fashion trends, offline methods, promotional methods, online methods, and packaging, where a preliminary exploration of their relevance is conducted. Finally, a regression model is constructed in terms of these factors [7].

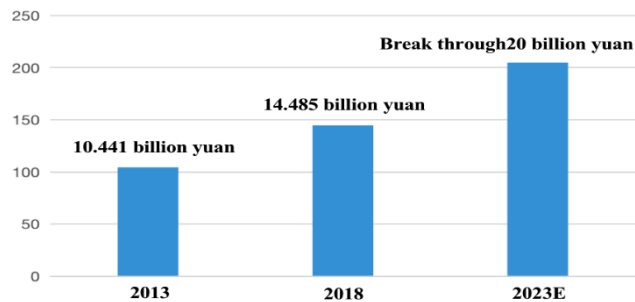


Fig. 1 2013-2023 China male cosmetics market size forecast

2. Consumer’s Preference

To further grasp the needs of male college students and promote the sales for male skincare products, the questionnaire included some factors for male college students, such as brand, packaging, price, and efficacy.

2.1 Questionnaire

2.1.1 Men Accept The Concept of Skin Care

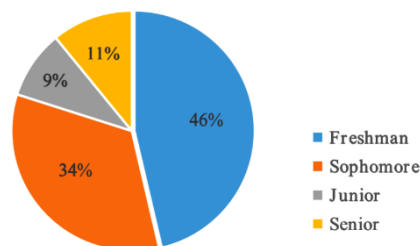


Fig. 2 Grade characteristics of male college students who recognize the concept.

According to Fig 2, the freshmen and sophomores have a high degree of recognition of the concept of male skincare, accounting for 80%. In our survey, freshmen and sophomores were born in 2000 and later. It showed “Millennials” pay more attention to skincare and are bound to become a major consumer group in the cosmetics market.

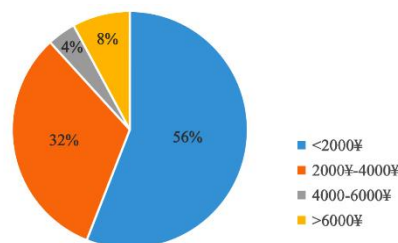


Fig. 3 Living expenses for male college students

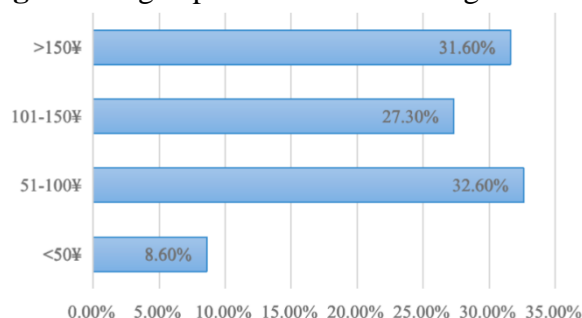


Fig. 4 Acceptable unit price of male cosmetics

Fig 3 and Fig 4 show the living expenses of male college students and the unit price of cosmetics they can accept. Seen from Fig. 3, a minority group of the students, which only constitutes 8.6%, can take the prices below 50 ¥. Comparatively, 32.6% of male college students, which makes most of them, can accept the price range of 51-100 ¥, as for the next price bracket 101-150 ¥, there are 27.3% of students fine with this. Male college students who can accept above 150 ¥ account for 31.6%. Based on the above analysis, students who pay more attention to skincare are willing to buy high-quality skincare products. Therefore, the potential for male skincare companies is enormous. Companies can develop marketing plans for high-quality male-skincare products following above characteristics.

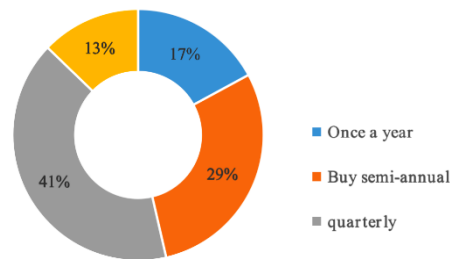


Fig. 5 Frequency of buying male skincare products

As illustrated in Fig 5, the quantity of purchase is the highest when it comes to the change of seasons, accounting for 41%. Therefore, merchants can consider the impact of seasonal factors and special weather on the skin and formulate sales strategies accordingly.

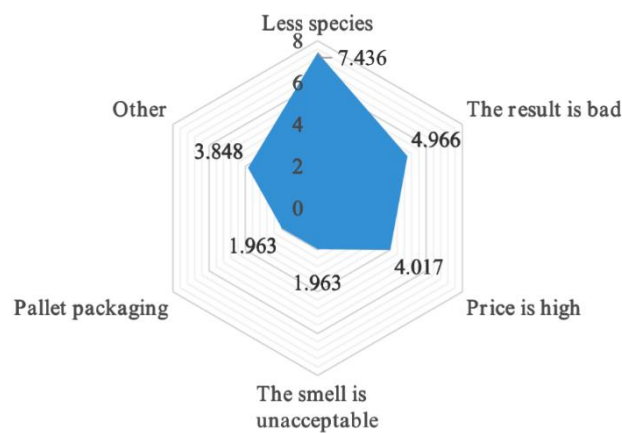


Fig. 6 Cognitive analysis of male skincare products

Through the evaluation for the male skincare products, the main factor leads the male college students to make negative comments about male cosmetics were a small number of types, poor effects, and slightly higher prices. It means merchants also need to understand consumers better and work hard on the user experience.

2.1.2 Analysis of men who do not accept skin care concepts

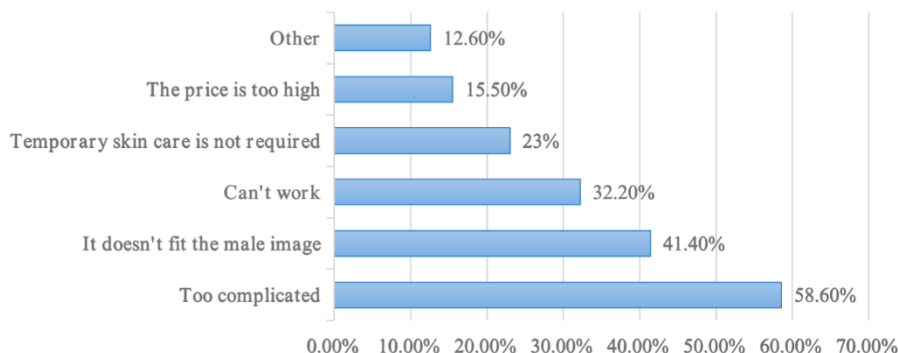


Fig. 7 Ratios of different reasons for Male college students think that they don't need to use cosmetics

In Figure 9, 41.4% of male college students believe that skincare does not fit men. Thereinto, 32.3% of them do not know how to operate. 23% believe that skin does not need care temporarily. 15.5% think the price of male skincare products price is too high. In addition, 12.6% choose other reasons. In this case, if companies are expected a further development in the market, it is necessary to understand consumers better and work hard on the user experience.

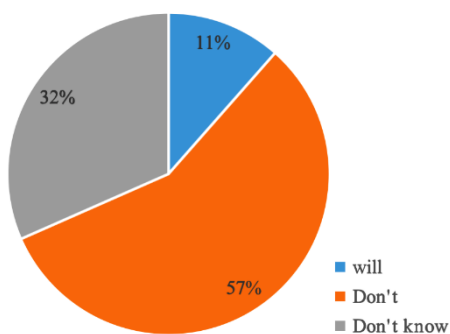


Fig. 8 Do not accept the possibility of using male skincare products by skincare groups

When asked “Do you use cosmetics recommended by your friends?”, more than half of the men still insist that they would not use them. 11.5% of men are willing to consider opinions from friends, and 31.6% of men are not sure. According to the results, men still reserve on their opinions, which is difficult to accept the concept of skincare. The cosmetics companies still need to exploit the male market. In addition, they also need to invest more money to research the preference of males. Creating a high-quality product that can alter their mind and thus build customer confidants is crucial to promote the sale of products.

2.2 Factor analysis

Previous research has examined the influences of social factors, marketing mix, changes in gender temperament and self-esteem on the behavior of male consumers purchasing skin care products [8]. Based on the results, the main reason for male purchasing behavior in skin care products is the awakening of male skin care awareness, which is more acceptable by young men. It used simple factor analysis to illustrate the internal drive force of male purchase behavior, which is affected by the four aspects. Other scholars used the same met hold to 156 samples of men aged 20-50 years old [9], it is concluded that male functional requirements for skin care products are diverse, and the consistency variable. Since they had age restrictions and more samples, the result showed more specific and precise.

In this research, the reliability and validity of this questionnaire are good through the analysis. It also can reveal the importance of the 6 variables in factor analysis. The significance of Bartlett's sphere test is 0.000, and factor analysis can be trusted if it is less than 0.05.

Table 1. Total variance of the interpretation

NO.	Initial eigenvalue			Extract the sum of squares and load			Rotate the sum of squares loading		
	Total	% variance	Of Accumulate%	Total	% variance	Of Accumulate%	Total	% variance	Of Accumulate%
1	5.828	44.827	44.827	5.828	44.827	44.827	2.583	19.871	19.871
2	1.342	10.321	55.149	1.342	10.321	55.149	1.779	13.683	33.554
3	1.006	7.735	62.883	1.006	7.735	62.883	1.708	13.142	46.696
4	0.754	5.804	68.687	0.754	5.804	68.687	1.404	10.797	57.492
5	0.689	5.298	73.985	0.689	5.298	73.985	1.401	10.776	68.269
6	0.576	4.428	78.413	0.576	4.428	78.413	1.319	10.144	78.413
7	0.522	4.017	82.430						
8	0.482	3.711	86.140						
9	0.452	3.474	89.615						
10	0.421	3.239	92.853						
11	0.370	2.848	95.701						
12	0.310	2.381	98.082						
13	0.249	1.918	100.000						

In Table 1, 13 indicators into 6 common factors can explain 78.413% of the information in the questionnaire, which is greater than 60%, indicating that the dimensionality reduction is effective. The 13 indicators are divided into six common factors, which affect the willingness to buy male cosmetics. According to the results in the table, the six different factors affect the willingness to pay for male skincare products.

To further explore the relationship between the six factors and the purchase of male cosmetics by male college students, this study further categorized the questionnaire questions and obtained the following data according to the analysis.

Table 2. Descriptive Statistics Analysis Table

	N	Min	Max	Average	standard	Skewness		Kurtosis	
						statistical	standard	statistical	standard
Brand	304	1.00	5.00	3.9846	0.76150	-1.133	0.140	2.712	0.279
Fashion	304	1.00	5.00	3.5033	0.88440	-0.359	0.140	0.549	0.279
Offline	304	1.00	5.00	3.2681	0.86631	-0.125	0.140	0.140	0.279
Promotions	304	1.00	5.00	3.1678	0.93421	0.002	0.140	-0.008	0.279
Online way	304	1.00	5.00	3.7072	0.95258	-0.538	0.140	-0.113	0.279
Package	304	1.00	5.00	3.1809	1.06713	-0.219	0.140	-0.671	0.279
Consumer	304	1.00	5.00	3.7029	0.76728	-0.415	0.140	0.610	0.279
Effective N	304								

It can be seen from Table 2 that the maximum average value of “brand efficacy” is 3.9846, and the minimum average value of “promotional activities” is 3.1678, indicating that “brand efficacy” has a relatively high impact on male college students’ willingness to spend. The influence of male college students’ willingness to consume is relatively low.

In order to explore whether each factor has an impact on consumer preferences, correlation analysis has been conducted.

Table 3. The Correlation between the Frequency of Male College Students Buying Cosmetics and Six Factors

		Brand efficacy	Fashion	Offline	Promotions	Online way	Package
How often do you buy cosmetics?	Pearson correlation	0.197**	0.160**	0.075	0.110	0.154**	0.087
	Significance (bilateral)	0.001	0.005	0.189	0.055	0.007	0.132
	N	304	304	304	304	304	304

Seen from Table 3, the positive relationship between the frequency of buying skincare products and the six factors. Thereinto, the brand efficacy of male skincare products is most related to the frequency of male college students buying cosmetics, and the offline method of male skincare products is the least correlated with the frequency of male college students buying cosmetics. With this in mind, this paper gives suggestions to the company. The company conducts much publicity in terms of brand efficacy (hiring first-line celebrities to endorse). Besides, the company formulates a reasonable development strategy and pays more attention to the brand efficacy in terms of consumer purchase frequency, and the offline method is purchase frequency. However, it has less impact and not being the priority factor.

Table 4. The correlation between the price selection of male college students' cosmetics and six factors

		Brand efficacy	Fashion	Offline	Promotions	Online way	Package
Acceptable unit price of cosmetics is ?	Pearson correlation	0.289**	0.175**	0.192**	0.095	0.085	0.177**
	Significance (bilateral)	0.000	0.002	0.001	0.099	0.140	0.002
	N	304	304	304	304	304	304

As given in Table. 4, the unit price of skincare products accepted by male college students is positively correlated with six factors. Among them, the P-value of brand efficacy, fashion trend, offline method, and packaging is less than 0.05. Therefore, the brand efficacy of male cosmetics and male college students' choice of cosmetics prices Most relevant, the online way of male cosmetics is the least relevant to male college students' choice of cosmetics prices. In this case, following suggestions are made to the company: the main factor influencing the price of male cosmetics is brand efficacy. The company needs to consider the brand efficacy when achieving reasonable pricing, while the online method has the tiniest impact on the price and is not a priority factor.

This study judges which variables have a certain degree of influence on consumer preferences. Nevertheless, the specific impact still needs to be explored through regression models. Hence, it will further determine the impact of each indicator on consumer preferences by discussing multiple linear regression in the next part.

2.3 Regression Analysis

2.3.1 Build Regression model

By putting the willingness of male college students as the dependent variable, this study explored such willingness related to brand efficacy, fashion trends, offline methods, promotional methods, online methods and package, and then established the following equation [10].

$$Y = \beta_0 + \beta_1 B + \beta_2 F + \beta_3 O + \beta_4 S + \beta_5 I + \beta_6 P \quad (1)$$

Here, Y means the willingness to spend on male cosmetics, B represents brand efficacy, F represents fashion trends, O represents offline methods, S represents promotional methods, and I represents online Method, P stands for package.

2.3.2 Results

Table 5. Regression analysis table

β_0	0.547 (3.212)
B	0.209 (4.456)
F	0.435 (10.125)
O	0.047** 1.104
S	0.121 (3.375)
I	0.121 (3.583)
P	-0.059*** (-1.848)

Notes: t statistics in parentheses. *p<0.1, **p<0.05, ***p<0.01

From Table 5, one noticed that Brand efficacy, fashion trends, promotional activities, and online methods have a significant impact on male college students' willingness to consume. The regression equation showed the negative relationship between the package and willingness to buy. Oppositely, the other five items have a positive impact on the willingness. Among them, the absolute value of the F fashion trend regression coefficient is 0.435, so it has a larger impact on male college students' willingness to consume. To be specific, the absolute value of the regression coefficient of the I-line offline mode is 0.047, so it has a smaller impact. In response to this situation, this research has some suggestions for these companies: brand efficacy, fashion trends, promotional activities, and online methods have a significant impact on male college students' willingness to buy male cosmetics. Companies need to invest resources in their brand, and first-line celebrity endorsements. Meanwhile, male cosmetics companies have increased their investment in scientific research, and while shaping their brands, they have taken efficacy as their corporate advantage. Increase the popularization of male cosmetics by male college students (propaganda on various media platforms), conduct vigorous online publicity, make full use of various shopping festivals in the Internet age, try to make profits, and launch promotional activities affordable to consumers.

3. Recommendations

This paper has drawn the following conclusions by summarizing the above analyses. Based on these validity data, it has combined the corresponding characteristics and put forward relevant suggestions.

3.1 The increased consumption in the college students group is obvious, and male skincare products will become the blue ocean in the market.

According to the survey, many male college students accept the concept of skincare, and there is a huge demand for cosmetics. At the same time, male college students are not sensitive to the price of cosmetics and can accept mid-to-high-end products.

3.2 Male college students focus on product experience, and the market needs to explore.

Regarding the perception of cosmetics, male college students pay more attention to the types and effects of cosmetics. If companies want to occupy more of the market, they need to work hard on the efficacy and user experience of products. In addition, there are still several male college students who do not accept the concept of skincare, so the promotion of the conception of male skincare is also a focus of businesses.

3.3 Focus on the development of brand awareness of cosmetics companies

According to the above regression analysis, brand efficacy is the main factor that affects male college students' purchase of male skincare products. Therefore, companies need to take the brand building as their core Development strategy to attract more consumers.

3.4 The demand for male skincare products is more diversified, and companies should focus on diversified product designs.

In the survey, 57.2% of college students believe there are fewer types of male skincare products, so companies need to create more types of products. The consumer cloud word graph shows that there are fewer types of male skincare products and fewer brands in the current market, so companies need to enrich the types of male skincare products. Besides, companies need to pay more attention to product scientific research to fully understand the market needs and produce male skincare products that are more suitable for men.

3.5 Companies should develop different marketing strategies based on age.

In the fierce market competition, establishing a market-oriented operation and operation mechanism can make the company invincible. In this survey, male college students of different grades have different consumption intentions. The company is responding to this situation. It is possible to formulate marketing methods for different gender needs by grade and make full use of various online and store, advertising, live broadcast, self-media propaganda, and other means to stimulate the willingness of college students of different grades to consume male skincare products, thereby promoting product sales.

3.6 The packaging should simple and attractive.

When the group of male college students becomes the main consumer, they will show more attention to their appearance. Besides, they wish to improve and more publicize themselves. Therefore, companies must seriously consider this factor to produce products that are more attractive to consumers.

4. Conclusion

The Chinese cosmetic industry developed rapidly, with huge market potential. Male skincare products have become a field with high return rates and long duration. This survey adopted a questionnaire survey method and selected male college students as the target group to analyze the willingness to pay. Thus, a company can build male college students' awareness of skincare products. This article analyzes the impact factor of male skincare products on male preference. Firstly, a descriptive graph is presented to understand the basic situation of male college students' use of male

cosmetics. Subsequently, factor analysis and regression analysis and other methods are implemented to comprehensively analyze male college students' use of male cosmetics Willingness to buy.

Through the survey, there will be an in-depth understanding of the consumption pain points of male college students, and it has been found that brand, efficacy, fashion factors, online methods, offline methods, promotional activities, and packaging are the key factors that affect male college students' purchase of male cosmetics. Companies should focus on brand value building and increasing corporate awareness. The price of products can be set in the range of 51-100 when setting prices and providing personalized services for different grades of consumption concepts to promote the sales of male skincare products.

This survey focuses on male college students, but the conclusions reached have certain limitations. It did not take into account the consumer preferences of adult men. Women are also a large potential purchaser of male cosmetics. In the next step, this research will improve the survey objects, and conduct research and analysis based on the company's data, devote to predicting company problems, and better give companies forward-looking suggestions.

References

- [1] Schlessinger, J. (2007). Skin care for men and its marketing. *Dermatologic Therapy*,20(6), 452-456. doi:10.1111/j.1529-8019.2007.00161.x
- [2] 2018 Global Beauty & Personal Care Market Analysis Results. (2019). Retrieved May 29, 2021, from: www.euromonitor.com/zh-passport
- [3] 2019 male skin care consumption trend report. (2019). Retrieved May 29, 2021, from:www.sohu.com/a/344198997_120277462
- [4] Blanchin, A., Chareyron, C., & Levert, Q. (2007). The customer behaviour in men's cosmetics market
- [5] Guo Li. (2021). Leading companies continue to grow bigger and stronger, the rise of market segments-my country's cosmetics investment inventory and outlook from 2020 to 2021. *China Cosmetics* (02), 20-25. doi: CNKI: SUN: ZHJP. 0.2021-02-004.
- [6] Gillham, B. (2008). *Developing a questionnaire*. A&C Black.
- [7] Xu, R., & Wunsch, D. C. (2009). Clustering. In *Clustering* (pp. 1-13). Piscataway, NJ: IEEE Press. doi:10.1002/9780470382776
- [8] SURAKIATPINYO, J., & MOUNGKHEM, C. (2010). A Study of Factors Affecting on Men's Skin Care ProductsPurchasing, Particularly in Karlstad, Sweden.
- [9] Shimpi, S. S., & Sinha, D. K. (2012). A factor analysis on attitude characteristics of consumer buying behaviour for male cosmetics products in Pune City. *International Journal of Marketing, Financial Services & Management Research*, 1(11), 78-87.
- [10] Draper, N. R., & Smith, H. (1998). *Applied regression analysis* (Vol. 326). John Wiley & Sons.