

# ***The Analysis of the Effects of Purchasing Behaviour and Attitude on Green Marketing among the Post-90s***

**Junqin Sun<sup>1,a,\*</sup>**

<sup>1</sup>*École Supérieure de Commerce de Paris, Paris, France*

*a. junqin.sun@edu.escp.eu*

*\*corresponding author*

**Abstract:** With the continuous development and progress of society and the deterioration of the global environment, Environment, Social and Governance (ESG), as an important part of the non-asset valuation of enterprises and a major measure to protect the environment, has received more and more attention from the management. As one of the most crucial processes of ESG for enterprises, green marketing has become an important measure to ensure the overall development of each company. This study conducted a survey on 3,169 Chinese post-90s consumers using a stratified sampling method and collected 2,028 valid ones. The data were analyzed through chi-square analysis and descriptive analysis to analyze their green consumption channels, behaviors, psychology, and attitudes, in order to help enterprises better develop and improve their green marketing programs. By the end, as the main green consumer group in China, post-90s consumers pay much attention to green consumption behavior and choose different consumption channels, consumption behaviors, and consumption purposes according to their ages, incomes, and occupations.

**Keywords:** purchasing behaviour, purchasing attitude, green marketing, post-90s

## **1. Introduction**

While human civilization is developing at a high speed, global ecological issues are facing more and more severe problems and challenges. As governments worldwide implement policies to promote the green economy, companies need to adapt to and empower these policies, making green marketing particularly important for businesses. At the same time, as the Chinese government continues to promote the quality of civic education, young consumers, as one of the major consumer groups, are becoming more and more mature in their green consumption concepts. However, there are relatively few Asian-based green marketing studies compared to Western works and even fewer studies on China. The same is true for related studies after breaking down the age groups of consumers.

Thus, this paper aims to fill the gap by studying the green consumption concepts of Chinese post-90s young generation consumers and analyzing the influencing factors of consumers in the consumption decision-making process to help develop green marketing planning. This paper adopts a stratified sampling method, randomly collecting data from Chinese consumers aged 14 to 33 through a questionnaire, and then through descriptive analysis and chi-square test through SPSS, studies and analyzes the relationship between the variables in order to come up with the factors influencing consumer behavior.

## 2. Literature Review

As global ecological problems become more and more serious, environmental sustainability has become a very important issue among many governance policies. As early as 2015, the European Union promulgated a plastic restriction directive, but also in 2021 to promulgate a more stringent bill, which will be completely banned from the use of disposable plastic products such as drinking straws, tableware, and cotton swabs in the EU countries from 2021 [1]. As for China, it also been promulgated and implemented relevant law on June 1, 2008, and the upgraded version of the ‘Plastic Restriction Order’ promulgated after the official ban on all non-biodegradable plastic on January 1, 2021 [2].

In this context, companies are faced with a dilemma, which is how to adjust to the policy and cleverly integrate it into the corporate culture to generate revenue. Values are significant objectives that customers can relate to, such as the desire to succeed or fit in. Individuals learn values through both close and distant surroundings, including families, businesses, organizations, and other environments. Cultural values have a direct impact on how customers perceive and use specific brands, goods, and services. Values are the objectives people strive for and the actions they take to achieve those objectives. Numerous marketing communication activities, including buying and advertising, acknowledge the significance of values [3].

In addition, consumers’ behavior and attitude need to be defined. Numerous experts have stated that consumers are psychological beings with goals, personalities, and attitudes who think, perceive, and learn. Consumer behavior is influenced by these psychological factors, and marketers work to alter or profit from them. Businesses and social organizations both regularly succeed in modifying behavior by altering attitudes toward a good or service, and these changes can have a negative or positive impact on consumer choices. An experience-based mental and neurological state of readiness that directs or influences a person’s conduct toward all things and circumstances that it is connected to, which is what is meant by an attitude. In other words, how consumers perceive things or goods affects whether or not they are willing to accept and use them [4-6].

Starbucks, for example, had already started its plastic restriction program before the law was enacted, and by 2020, nearly all Starbucks stores worldwide will have replaced paper straws. Starbucks has also implemented a series of marketing policies, such as using ‘straw-free lids’ and making discounts for bringing in your own cups, which are well integrated into the company’s culture [7,8].

Recent years have seen a rise in the importance of green marketing, which has been shown to be successful in advancing the ideas of sustainable development and environmental conservation [9]. Green consumers, as the main target group of green marketing, can be defined as people who steer away from goods that could endanger their own or others’ health, cause serious harm to the environment during production, use, or disposal, use materials from endangered species or environments, or consume too much energy [10].

## 3. Methodology

### 3.1. Questionnaire Design

This study used the questionnaire research method to randomly take a stratified sampling of people aged 14-33 years old in China to conduct an empirical study. The questionnaire had a total view count of 3169, with a total of 2028 valid data collected, an overall completion rate of 63%, and an average response time of 3 minutes and 34 seconds.

The questionnaire focuses on three single or composite variables to help companies develop relevant marketing strategies for different conditions of consumers, namely, respondents’ basic personal information, purchase choices, frequency, reasons, channels, habits and expectations for

green products, and attitudes toward existing responses to some of the relevant marketing behaviors. The questionnaire first collected respondents' basic personal information through questions 1 to 6, including age, gender, occupation, highest education, monthly income after tax, and city of living. Secondly, questions 7 to 12 were used to obtain respondents' choices of green products (Q7), frequency of consumption of organic food (Q8), reasons for purchasing green food (Q9), channels for purchasing green products (Q10), habits of choosing green product brands in order to analyze their brand value (Q11, Q12), attitudes toward existing related marketing strategies (Q13, Q14), and expectations for green products (Q15, Q16).

### 3.2. Research Method

The data were analyzed using a variety of statistical and analytical methods to reveal relationships, trends, and influencing factors between different variables.

Firstly, the descriptive analysis compares the relative magnitude of different options by calculating percentages in each case. Descriptive analysis is used to compare the relative size of options by calculating percentages in various situations. Proportional analysis was used to reveal the distribution of options in the overall picture when analyzing questions such as reasons for purchasing green products, choice of purchasing channels, and attitudes toward buying to-go cups [11].

In addition, this study also uses the chi-square test. It is because that the data collected through the questionnaire is categorical data, this paper will not use the commonly quantitative method for linear correlation analysis but rather go for non-linear correlation analysis through the chi-square test method to check the independence between two categorical data [12].

## 4. Data Analysis

### 4.1. Descriptive Analysis

This study will focus on a descriptive analysis of the data presented in Table 1, with the focus being on consumer income, reasons for purchase, and channels of purchase.

Firstly, the analysis of the data shows that the distribution of the different income levels presents some significant features. The data shows that the majority of people's monthly after-tax income is concentrated in the range of 0-5,000CNY, accounting for 73.20% of the total population. This means that the majority of consumers have a weaker economic base, and they are likely to pay more attention to the price sensitivity of green products. They may prefer discounts and promotions in their purchasing decisions. As for the high-income group, those with monthly after-tax incomes of 10,000-15,000CNY and above 15,000CNY account for 5.50% and 2.90%, respectively. Although the proportion is small, the purchasing power of the high-income group is stronger, and they pay more attention to the quality, uniqueness, and high-end experience of the products. For marketing green products, quality, and innovation may be the key factors to attract this group. Brands can target this group by highlighting the high-quality features of green products, emphasizing their uniqueness and differentiation, and the premium experience they may offer.

Consumers at different income levels have different concerns and motivations for purchasing green products. When developing their marketing strategies, brands need to tailor their product positioning, pricing, and marketing to the characteristics of different income groups in order to meet the diverse needs of consumers.

Secondly, among the motivations for choosing to buy green products, consumers focus on several factors. For instance, 65.60% chose to buy green products because these products could meet their functional needs. This reflects their recognition of green products in terms of performance, effectiveness, and usage, emphasizing that consumers are not only concerned about environmental protection but also value the practical utility of the products. Similarly, 64.60% of people choose to

buy green products for health reasons. This indicates that people are increasingly concerned about their health and quality of life, and they are willing to reduce the risk of exposure to harmful substances and the environment by choosing green products.

Table 1: Proportion Distribution.

	Proportion
Consumer Income	
0-5,000CNY	73.20%
5,000-10,000CNY	18.40%
10,000-15,000CNY	5.50%
15,000CNY and above	2.90%
Purchasing Reasons	
Function needed	65.60%
Health and wellness	64.60%
Preservation of the environment	56.20%
Recommended by others	44.50%
Impulsive consumption	35.00%
Treating yourself	23.50%
Following trends	19.50%
Showing taste	12.30%
Others	3.20%
Purchasing Channels	
Celebrity live bandwagon	77.60%
Offline boutique	57.00%
Online official flagship store	45.00%
Supermarkets	35.40%
Online general store	23.40%
High-end shopping malls	12.70%
Others	3.50%

Environmental protection is also a notable motivation, with 56.20% of people choosing to buy green products for the purpose of protecting the environment. This shows an increase in environmental awareness, and consumers are willing to contribute to sustainable development by purchasing environmentally friendly products. In addition, 44.50% were influenced by others' recommendations to purchase green products. This highlights the key role of word-of-mouth and social influence in purchasing decisions, with consumers more likely to trust the advice of friends and family.

Thirdly, through descriptive analysis of the purchase channel data for buying green products, clear trends and tendencies can be observed. Specifically, as many as 77.60% of consumers choose to buy green products through the live broadcast of net stars or celebrities. This highlights the significant influence of social media and live-streaming platforms in guiding purchasing decisions. This phenomenon interprets that consumers are significantly influenced by others' recommendations and

actual demonstrations in their purchasing decisions, which provides a strong impetus to the sales of green products.

On the other hand, 57.00% of consumers choose to buy green products from offline stores. This may be due to the fact that specialty stores usually offer a wider selection of green products, allowing consumers to have more direct access to and understanding of product features. Meanwhile, 45.00% of consumers preferred to purchase green products through the brand’s official online flagship store. This reflects the convenience of online shopping and also shows that consumers are more willing to trust official brand channels. Official channels usually provide more product information, reliability, and after-sale protection and are therefore trusted to a certain extent.

## 5. Chi-Squared Test

In this section, the chi-square test will be performed on the data in Table 2 to test the relationship between the two variables between the two questions of the questionnaire. This study will focus on analyzing the relationship between purchase frequency and consumer age or occupation and the relationship between consumer income and consumer spending choices in ‘bring your own bottle’ (BYOB) marketing cases.

Table 2: Results of Chi-Squared Test.

	$\chi^2$	p-Value
Frequency of Purchase by Age	88.272	0.000**
Frequency of Purchase by Occupation	219.234	0.000**
Purchasing Choices of Consumers at Different Income Levels	34.483	0.003**

Notes: \*p<0.05 \*\*p<0.01

Firstly, the chi-square analysis was used to study the purchase frequency distribution of people of different age groups when purchasing food products with green and organic certificates. From the results of the analysis, it can be seen that the  $\chi^2$  value is considerable. The p-value is much less than 0.05 and even less than 0.01, which means that the correlation between the age groups and the purchase frequency is statistically very significant. In addition, under each purchase frequency option, the percentage of people in different age groups is different. This suggests that age would influence attitudes and behaviors regarding the frequency of purchase of green and organic certified foods. The number of people who purchased green organic certified foods almost daily and 1-2 times a week seemed to be relatively high in all age groups. It implies that people of different ages are more inclined to make environmentally friendly and healthy dietary choices in their daily lives. The distribution of purchase frequency options within each age group shows that the differences between age groups are significant. For instance, the difference in percentage comparisons shows that the percentage of people who are 24-28 years old choose 3-4 times per week, 45.45%, would be significantly higher than the average, 33.93%.

Secondly, in the analysis of the distribution of people in different occupations in terms of frequency of purchase, it is evident from the results that the association between occupation and frequency of purchase of green and organic certified food products is statistically significant. The P-value is much less than 0.05, indicating that the relationship between occupation and purchase frequency is significant. There is a significant difference in the percentage distribution of the number of people under each purchase frequency option among different occupations. The difference in percentage comparisons leads to the conclusion that there is a significant difference in the preference of different occupations for purchase frequency. For example, 24.74% of consumers in freelance professions chose to purchase rarely, which would be meaningfully higher than the average of 12.18%.

This provides a strong basis for brands to develop marketing strategies and promotional activities for different occupations in order to meet the purchasing needs and preferences of different occupational groups.

Thirdly, in the distribution of the number of people with different monthly after-tax income levels choosing whether they would choose BYOB (Bring-Your-Own-Bottle) with a discount or not, it can be seen from the results that the association between the level of monthly after-tax income and the choice of BYOB with a discount is statistically significant. The p-value of 0.003, which is less than 0.05, indicates that the relationship between the level of monthly after-tax income and purchasing behavior is significant. There is a significant difference in the percentage distribution of the number of people under each choice option across different levels of monthly after-tax income. The difference in percentage comparisons shows that consumers with incomes under 5,000 CNY are generally more likely to choose more favorable purchases (59.78% choose to BYOB often or most of the time), but the percentage of this group that chooses to rarely bring their own cups is similar to the percentage of those in the middle-income group (5,000 CNY-15,000 CNY) who choose to do so, namely, 10.38% compared to 10.96% and 9.91%. On the other hand, the percentage of consumers earning 15,000 CNY and above who choose to BYOB most of the time is 38.98%, which is higher than the average of 27.66%.

## 6. Conclusion

The descriptive analysis and chi-squared test of the data through SPSS provided can reveal a range of salient features in consumer buying behavior. These features cover not only the consumers' preferences and motivations but also present differences in purchasing decisions among different groups of people. From the distribution of monthly after-tax income to attitudes towards purchase frequency, from the motivations for green products to the choice of purchase channel, each data provides insights that help to gain a deeper understanding of the drivers behind consumers' purchasing behavior.

The data shows that the vast majority of consumers' monthly after-tax incomes are concentrated at lower levels, which means that price sensitivity dominates purchasing decisions. However, at the same time, consumers are highly concerned about the health and environmental attributes of green products, suggesting that they are not only considering economic factors when making purchasing decisions but also focusing on the long-term value and impact of the products.

The data reveals that influencers' and celebrities' live streaming with goods has become a major purchasing channel, accounting for 77.60% of the total. This emphasizes the significant role of social media in guiding consumers' purchasing choices. In this process, consumers are influenced by influencers' and celebrities' recommendations and digital marketing, so brands should actively leverage this channel and work with influencers to expand the reach and visibility of their products through vivid displays and leads. This enhances the interaction between brands and consumers and boosts product exposure on social media platforms.

There is a correlation between age and the frequency of purchasing green and organic certified foods. Older consumers are more inclined to make frequent purchases, which may reflect the changes in consumption habits and values of people at different life stages and different age groups. Elderly people may pay more attention to health and environmental protection and thus are more inclined to purchase green and organic certified food products to fulfill their health and environmental protection needs.

Occupation showed a significant association with purchase frequency and attitude. This indicates that different occupations have an impact on purchasing behaviors and attitudes, which may be due to the fact that people in different occupations have different lifestyles, values, and economic

conditions. Brands can develop more personalized and targeted promotion strategies based on the characteristics of different occupations to better meet the needs of different occupational groups.

Income level is associated with attitudes toward choosing BYOB offers. There is a correlation between income level and attitude toward choosing BYOB offers. Higher-income groups are more likely to choose that they will always choose BYOB, which may mean that higher-income groups value environmental protection and conservation more and are willing to pay more to support environmentally friendly behaviors. It may also be related to their greater environmental awareness and more generous spending budgets.

This study analyzes the consumers' attitudes and behavior to help the planning of green marketing, but it may not comprehensively consider the analysis of other variables in addition to the analysis of consumer behavior. In addition, the respondents may be affected by various aspects when filling out the questionnaire, which may lead to the results of filling out the questionnaire, and the reality of the situation may have deviated. In the future, research can be more on consumer behavior and psychology and the company's financial situation or the general environment of the economic situation for composite analysis, or research to collect more data to analyze in order to obtain more accurate information to analyze the green marketing behavior.

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