

# Research on Influencing Factors of Consumers' Fair Trade Product Purchase Behavior Based on Planned Behavior Theory

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**Abstract**— Poverty is an important issue related to the fate of mankind. Many developing countries in the world are facing the social status of poverty and inequality. Maintaining equity, advocating equity and promoting equity are the key to dealing with poverty. Fair trade covers both poverty eradication and green environmental protection. It is a feasible way to improve the terms of trade of developing countries and slow down the impoverished growth of developing countries. In the current context of economic integration and building a community with a shared future for mankind, the role of fair trade movement in global poverty alleviation has become the focus of academia and industry. This paper combines fair trade with consumers, uses the binary logit regression model, and empirically analyzes the purchase preference characteristics of Chinese consumers for fair trade products through the questionnaire survey issued by five provinces in China.

**Keywords**—Fair trade products, Planned behavior theory, Consumer buying behavior.

## I. INTRODUCTION

The rapid development of economic globalization has promoted the improvement of the level of international division of labor and the smooth channels of international trade. Most countries in the world are enjoying the rich economic profits brought by economic globalization, but the benefits it brings have not been shared by all countries in the world. The gap between the rich and the poor is widening in the global process, on the contrary. The existing international trade development model is mainly controlled by some developed countries and their major multinational corporations, and this model has become a tool for developed countries to exploit developing countries to a great extent.

Fair trade is much more than a certification scheme. Behind the famous fair trade label is one of the largest and most diversified reform movements in the world. The campaign works with 1.8 million farmers and workers, including more than 2000 fair trade towns in 28 countries and countless schools, universities and faith groups. These forces from all grass-roots levels around the world form an increasingly strong foundation of supporters.

The fair trade system has many kinds of commodities and is increasing, such as bananas, honey, coffee, Liuding, cocoa, cotton, fresh fruits and vegetables, dried fruits, fruit juices, nuts, vegetable oil, quinine, rice, spices, sugar, tea and red wine. Companies that want to sell fair trade goods can apply for licenses to use fair trade marks on those goods that meet fair trade standards.

In recent years, with the development of consumption oriented culture and the improvement of consumption level, consumers began to gradually question their purchase choices. The growing concern and interest in social problems made consumers more inclined to moral consumption, that is, to buy products that respect specific moral themes (such as human rights, working conditions, animal welfare, environment, fair price of entrepreneurs). In addition, as the consumer market

pays more and more attention to environmental awareness, environmental related problems and phenomena emerge one after another. Most consumers have realized that their own purchase behavior can directly affect many ecological problems. More and more customers will consider environmental issues when shopping (for example, check whether the products are wrapped in recyclable materials) and only buy ecologically compatible products (for example, biodegradable paint, CFC free hair gel or unbleached coffee filter), and more and more individuals are willing to contribute more time and money to environmentally friendly products, to some extent, these can reflect the growing consumption behavior conducive to ecology and equity. The study found that the increase in the number of producers benefiting from fair trade directly depends on the economic market growth, that is, the downstream demand of consumers. The research aimed at understanding consumers' fair trade purchase decisions is of great significance to increase consumers' fair trade consumption and promote this social movement.

## II. JOURNALS REVIEWED

The quality of Ruben's research has contributed to the improvement of the initial (and subsequent) standards for small farmers' access to the market, but it has provided better prospects for private markets. Bottega studied the benefits of NGO certification labels and private labels to monopoly suppliers. The research shows that the existence of private certification labels will help to reduce the scope of public intervention. In addition to bringing price premium to farmers, fair trade can also have an impact on other aspects of farmers. Ronchi believes that fair trade has an impact not only on the fair trade price of producers, but also on producer organizations. Through fair trade, financial and non-financial support, producer organizations enable producers to develop more stably. Mendez and others studied coffee farmers in Central America and Mexico and found that small coffee farmers in Central America and Mexico do have economic

poverty. Although the individually certified coffee market cannot solve the livelihood challenges faced by small farmers, they can still make sustainable livelihoods for a wide range of coffee farmers and contribute to rural development. Fair trade and organic certification have been proved to be effective in supporting farmers' capacity-building and using global development funds to serve small-scale coffee farmers

The renewal and sale of fair trade products can reflect the development and level of fair trade. Therefore, many scholars have made research on consumers' understanding and purchase of fair trade products. P. The research results of L. Taylor pointed out that when consumers buy a product with fair trade label, they will feel that they are engaged in humanitarian or charitable behavior, and the sense of satisfaction is stronger than that of ordinary products [40]. Wright pointed out that fair trade products can meet consumers' desire to improve their moral level. When consumers buy products with fair trade labels, they will feel different from the general public, and then get psychological satisfaction. The premise of fairness and morality in the measurement of labor rights and environmental protection is also the basis of people's specific rights and interests. Oureiro and lotade put forward the importance of ethical consumption. They conducted a survey of consumers' selection of ethical (fair trade) and environmentally sound (organic) products. The survey results show that consumers have a good impression of fair trade and organic products, but consumers are more willing to buy ethical products than environmental products. Alexander believes that although fair trade is a moral mechanism, constantly emphasizing the moral factors of fair trade itself will make consumers feel guilty about the original consumption behavior, which will have a negative effect. In order to mitigate this adverse effect and expand the promotion theme in the future, Flo expands the meaning of fair and extends the original meaning of "fairness" to environmental friendliness. This change makes the original moral information transmitted to consumers transformed into consumers' recognition of their own life state and self style.

Many other scholars have conducted research on coffee, the most typical fair trade product in the world. With the further development of fair trade products, Procter & Gamble (P & G for short) and Starbucks and other large-scale baking enterprises are constantly under pressure from shareholders and consumers, and have to adopt fair trade coffee and its corresponding marketing model. In April 2000, Starbucks began to announce the sale of fair trade coffee, and their purchase of fair trade coffee showed an increasing trend year by year: 650000 pounds in 2001, 1.01 million pounds in 2002 and 2.01 million pounds. P & G began marketing its brand Costa coffee in late 2003. They have been selling fair trade coffee in the UK since 2000. In addition, Marks & Spencer, which accounts for 11% of the UK coffee market, only sells fair trade coffee in its café revive store.

Finally, from the current international consumers' acceptance of fair trade products, Browne (2000) estimated that about 80% of consumers are willing to buy fair trade products without premium and other costs. Maietta (2003) found that consumers are willing to pay more for fair trade

coffee products and 25% more for organic coffee. De delsmacker (2006) found that 10% of the samples were willing to pay 27 euros more for fair trade coffee [45]. Poelman (2008) explained that the concept of fairness and justice advocated by fair trade has been accepted by consumers from the perspective of the change of consumers' consumption consciousness, and the strength of consumption power will become the main driving force to promote the development of fair trade. The author conducted a study on consumers of different ages, education levels and income levels. The results show that consumers are willing to pay extra for goods with fair trade labels.

### III. THEORETICAL MODEL CONSTRUCTION

#### A. Data sources

The data of this paper comes from the survey on the purchase intention of fair trade products conducted in Jiangsu, Guangdong, Hunan, Heilongjiang and other five provinces from July to September 2021. The questionnaire is mainly divided into three aspects: consumer individual characteristics, fairness preference and behavior characteristics. A total of 300 questionnaires were sent and 243 questionnaires were recovered, with a total recovery rate of 81%. Excluding the questionnaires with missing key information or obvious errors, 226 valid questionnaires were obtained, with an effective rate of 75.33%.

#### B. Description of indicators

According to the preference characteristics involved in the previous part of the relevant literature, the characteristics of consumers' purchase preference for fair trade products can be divided into the following two categories: (1) individual characteristics. In the questionnaire, the main variables reflecting the individual characteristics of consumers are gender, age, education and annual income. It is generally believed that the higher the education level and annual income, the greater the acceptance of fair trade products and the stronger the purchase intention. (2) Behavioral characteristics. TPB model can be used to investigate people's fair trade purchase decisions. According to the model, attitude, subjective norms and perceived behavior control can predict consumers' purchase behavior. In the questionnaire, the two questions "I think it is wise to buy fair trade products" and "I think it is beneficial to buy fair trade products to narrow the gap between the rich and the poor" are used for the attitude in the planned behavior theory, and the two questions "family, relatives and friends have a great impact on my purchase of fair trade products" and "people in my circle of friends and microblog have a great impact on my purchase of fair trade products" are used for subjective norms, "I have enough financial resources to buy fair trade products" and "I can control my purchase behavior of fair trade products to a great extent" are used to measure consumers' perceived behavior control. Generally speaking, the more positive consumers' attitude towards fair trade products, the higher the probability of purchasing fair trade products; The more sufficient the financial resources of consumers, the more convenient the way of purchasing products, the stronger the operability of their

purchase behavior and the higher the possibility of purchase.

TABLE 1. Variable name

Name	Variable
PP	Fair trade product purchase preference
AGE	Age
SEX	Sex
FI	Family income
ED	education
AT1	I think it is wise to buy fair trade products
AT2	I think buying fair trade products is beneficial to narrow the gap between the rich and the poor
SN1	Family, relatives and friends have a great influence on my purchase of fair trade products
SN2	People in my circle of friends and microblog have a great impact on my purchase of fair trade products
PBC1	I have enough money to buy fair trade products
PBC2	I can control my purchase of fair trade products to a great extent

C. Model building

This paper selects logit model to make an empirical study on the characteristic preference of consumers to buy fair trade products. The two dependent variables in logit binary regression model are 0 and 1 respectively. The characteristic preference of consumers to buy fair trade products is set as the dependent variable, i.e.  $Y_i$ . There are two characteristic preferences for consumers to buy fair trade products: one is

willing to buy, let  $Y_i = 1$ ; the other is unwilling to buy, let  $Y_i = 0$ . Thus, the probability that consumers are willing to buy fair trade products is:

$$Prob(Y_i) = p_i = \frac{e^{\beta_0 + \beta_i X_i}}{1 + e^{\beta_0 + \beta_i X_i}} = \frac{1}{1 + e^{-(\beta_0 + \beta_i X_i)}}$$

Where  $X_i$  ( $i = 1, 2, 3, \dots, n$ ) represents relevant factors that may affect consumers' preference for fair trade products.  $\beta_i$  is the coefficient of each relevant factor. From equation (1):

$$e^{\beta_0 + \beta_i X_i} = \frac{p_i}{1 - p_i}$$

Equation (2) is the probability ratio of consumers willing to buy fair trade products and unwilling to buy fair trade products. Take the natural logarithm on both sides of equation (2) at the same time to obtain the final linear regression model, namely logit model.

$$\ln \frac{p_i}{1 - p_i} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n$$

IV. EMPIRICAL ANALYSIS

A. Descriptive analysis

TABLE 2. Variable description

Variable name	Variable number	Variable description	Number of cases	Mean value
PP	Y	None = 0; Yes = 1	226	3.87
AGE	$x_1$	20 years and under = 1; 21 ~ 30 years old = 2; 31 ~ 40 years old = 3; 41 ~ 50 years old = 4; Over 51 = 5	226	1.48
SEX	$x_2$	Male = 0; Female = 1	226	0.56
FI	$x_3$	Less than 100000 yuan = 1; 100000 ~ 200000 = 2; 200000 ~ 500000 = 3; 500000 ~ 1000000 = 4; More than 1 million = 5	226	2.72
ED	$x_4$	Junior high school and below = 1; High school = 2; Undergraduate = 3; Master = 4; Doctor or above = 5	226	3.76
AT1	$x_5$	Totally disagree = 1; Basic disagreement = 2; Neutral = 3; Basic agreement = 4; Fully agree = 5	226	3.98
AT2	$x_6$	Totally disagree = 1; Basic disagreement = 2; Neutral = 3; Basic agreement = 4; Fully agree = 5	226	3.82
SN1	$x_7$	Totally disagree = 1; Basic disagreement = 2; Neutral = 3; Basic agreement = 4; Fully agree = 5	226	4.12
SN2	$x_8$	Totally disagree = 1; Basic disagreement = 2; Neutral = 3; Basic agreement = 4; Fully agree = 5	226	4.34
PBC1	$x_9$	Totally disagree = 1; Basic disagreement = 2; Neutral = 3; Basic agreement = 4; Fully agree = 5	226	2.48
PBC2	$x_{10}$	Totally disagree = 1; Basic disagreement = 2; Neutral = 3; Basic agreement = 4; Fully agree = 5	226	2.94

B. Regression result analysis

This paper uses spss26.0 software, based on the relevant explanatory variables involved in the questionnaire, in the entry criteria  $\alpha = 0.05$  and delete standard  $\alpha =$  Logit analysis was conducted on the survey data of 586 consumer samples at the level of 0.10. In the analysis, the backward step screening method was adopted, and the software automatically selected explanatory variables. The results are as follows:

It is generally believed that the higher the educational background of consumers, the higher the acceptance of fair trade products and the stronger the purchase preference; Consumers have high annual income and sufficient economic strength to support the purchase of fair trade products. The

variable of "education level" is significant at the level of 5%, and the regression coefficient is 0.333, indicating that consumers' personal education can affect their purchase of fair trade products, with an odds ratio of 1.396. It can be seen that in order to improve the sales volume of fair trade products, users with higher education can be the main sales group. However, the two variables of "age" and "gender" did not pass the significance test, which may be the result of the following two reasons: first, consumers of different ages and genders have no obvious difference in their cognition of fair trade products; Second, perhaps affected by the sample size, the potentially significant statistical variables do not appear.

Consumers' purchase behavior is usually affected by three factors: "attitude", "subjective norm" and "perceived behavior

control". The results of the questionnaire show that the five variables representing attitude, subjective norm and perceived behavior control pass the significance test, the relative odds ratio is 1.332, 1.532, 1.328, 1.451 and 1.303 respectively, and the regression coefficients are 0.287, 0.426, 0.284, 0.372 and 0.265 respectively. The remaining variable "I have enough money to buy fair trade products" did not pass the significance test, which means that fair trade products are less controlled by perceived behavior than ordinary goods, and to a greater extent depends on consumers' own attitudes towards products and social norms.

TABLE 3. Regression results

Variable	Regression coefficient	Standard error	Wald	Significance	Exp(B)
X <sub>1</sub>	-0.297	0.275	1.168	0.28	0.743
X <sub>2</sub>	-0.053	0.141	0.141	0.707	0.948
X <sub>3</sub>	0.302	0.175	2.982	0.084	1.352
X <sub>4</sub>	0.333	0.142	5.523	0.019	1.396
X <sub>5</sub>	0.287	0.13	4.876	0.027	1.332
X <sub>6</sub>	0.426	0.139	9.397	0.002	1.532
X <sub>7</sub>	0.284	0.133	4.546	0.033	1.328
X <sub>8</sub>	0.372	0.139	7.202	0.007	1.451
X <sub>9</sub>	0.234	0.129	3.303	0.069	1.264
X <sub>10</sub>	0.265	0.124	4.581	0.032	1.303
constant	-6.59	0.957	47.418	0	0.001

### V. CONCLUSION

Through the regression results, it can be seen that consumers' purchase preference for fair trade products presents the following characteristics: the degree of reflection on age is not strong; More sensitive to the reflection of educational background; When choosing whether to buy or not, consumers are more vulnerable to the influence of product attitude and reference to other people's purchase behavior, and less consider their own economic strength and purchasing power.

Although some individual variables have passed the empirical test, the coefficient value is small, which proves that their role is too weak. For example, factors such as "I can control my fair trade product purchase behavior to a large extent" further illustrate that consumers need the joint action of producers, manufacturers, government and other aspects when facing the purchase preference of fair trade products.

Schools and society can make positive contributions to

promoting the sale of fair trade products. Fair trade products are produced in the context of safeguarding world equity. The acceptance of this concept needs to come from the environment in which individuals live and the education they receive from childhood. Schools should undertake the responsibility of spreading the belief of fairness, adhering to the principle of equality for all, and carry out ideological education for students in class on campus, so that Chinese people can root the connotation of fairness in their hearts. In addition, a large number of consumers who choose to buy fair trade products have higher educational qualifications. For such highly educated people, we should pay attention to the publicity role of the campus and strengthen the indoctrination of the concept of fair trade in the publicity process by carrying out theme publicity, school enterprise cooperation and other forms. The school can also set up independent selling cabinets for fair trade products in public places such as the downstairs of the dormitory and next to the teaching building, so as to save students' purchase time and improve their purchase convenience.

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