

CONSUMERS' PSYCHOGRAPHICS AND GREEN CONSUMPTION INTENTION: COMMUNITY SUPPORTED AGRICULTURE BUSINESS MODEL IN CHINA

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ABSTRACT

This paper explores (a) who will be consumers, and (b) what factors will influence consumers' intention in view of the Community Supported Agriculture business model. Due to food safety issue in China, this paper identifies consumers' psychographic factors and their consumption behavior towards the CSA model. The objective of the paper is to examine the (a) awareness of certified organic label, (b) food safety attitude, and (c) green product awareness, and its related with customers' purchase intention, as moderated by income and gender, respectively. The research sample comprises 486 respondents from Shantou, Shenzhen, and Guangzhou in China via a simple random sampling. The collected data were analyzed by the hierarchical moderator regression analysis and multiple regression analysis in terms of moderating variables scale. The result indicated that the (a) awareness of certified organic label, (b) green product awareness, (c) food safety attitude, and (d) income have a positive direct influence on consumers' purchase intention. The correlation between food safety attitude and purchase intention was moderated by income, while gender did not moderate the correlation between the (a) awareness of certified organic label, (b) green product awareness, (c) food safety attitude, and (d) purchase intention.

Keyword: China; Community supported agriculture; Purchase intention; Organic food; Green consumption

1. INTRODUCTION

This paper studies consumers' green consumptive behavior towards the Community Supported Agriculture (CSA) business model in China's market. In 2014, one of the famous fast food suppliers, named as Shanghai Hushi Food in China (Li, 2014), which is a unit of the OSI group from the US (Li, 2014), provided expired beef and chicken products to McDonald's, Papa John's, Burger King, KFC, and Pizza Hut in several cities in China, including to McDonald's in Japan (Jourdan, 2014; Li, 2014). Specifically, after the Milk Scandal in 2008 (Ramzy & Yang, 2008), food safety has become a topic of argument in China. Since 2008, China continuously experiences food safety issues every year (The New York Time, 2018). Because of these, almost all Chinese consumers do not solely look for reliable brands and distribution channels (Jourdan, 2014). They also emphasize their demand for food safety by desiring organic vegetables and fruits (Hatton, 2015).

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The food safety issue has made consumers who become more concerned and supportive with local farmers to ensure their food safety. At the same time, to earn a higher income and satisfy the market demand, farmers have shifted their approaches towards planting by utilizing organic methods to grow their foods (Hatton, 2015). Therefore, the CSA model has appeared in different countries. CSA began in the early 1960s in Germany and Switzerland (FairShare CSA Coalition, 2016a; JustFood, 2016a; Biodynamic Association, 2016). Japan started the CSA in the 1970s, which they named "Teikei", whereas in the US the CSA business model began in the 1980s (FairShare CSA Coalition, 2016a; JustFood, 2016a; Biodynamic Association, 2016). Meanwhile, China started the CSA model in 2008 (Hitchman, 2015).

Many studies have concluded that whatever the factors, either from individual or situational elements, they have influenced consumers green behavior (Joshi & Rahman, 2015), such as income (Wong & Mo, 2013), environmental awareness (Papadopoulos et al., 2014). Also, many studies have adopted the Theory of Reasoned Action (Ajzen & Fishbein, 1980), the Theory of Planned Behavior (Ajzen, 1991), Attitude-Behavior-Context model (Guagnano et al., 1995), Motivation-Ability-Opportunity model (Olander & Thøgersen, 1985), Reciprocal Deterministic theory (Phippls et al., 2013). Even if various theories have explained that attitude of consumers does not affect their behavior, they only illustrate the correlation between attitude and behavior. Whereas, there is a lack of the CSA model view to exploring the attitude and behavior of consumers in regard to purchasing organic food. As a result, the CSA model was compared in terms of research of reused product and remanufactured products, in which it should have different factors that influence the consumers' behavior. Furthermore, the paper was utilized by the Wheel of Consumer Analysis (Peter & Olson, 2010) to design its research theoretical framework.

Due to the characteristics of the CSA model, the subject of "How" and "Why" should be interesting to use to explore the consumers' behavior in China's market. For example, from the perspective of the CSA model, the question is "How does the consumer income really affect their behavior to purchase green products?" The second question would be "Does the gender make a difference in consumers' purchasing behavior?" Specifically, when their behavior is related to buy organic food and to pay in advance. These two factors were raised because of the price and person in charge of organic vegetable purchasing. From the market segmentation perspective, there are also two questions in regard to the CSA model. The first question is "Who will be the consumers?". The second is "Why do they purchase?". Therefore, to combine four questions into two research questions are (a) "Who will buy organic foods and pay in advance?" and (b) "What factors will affect them to do so?"

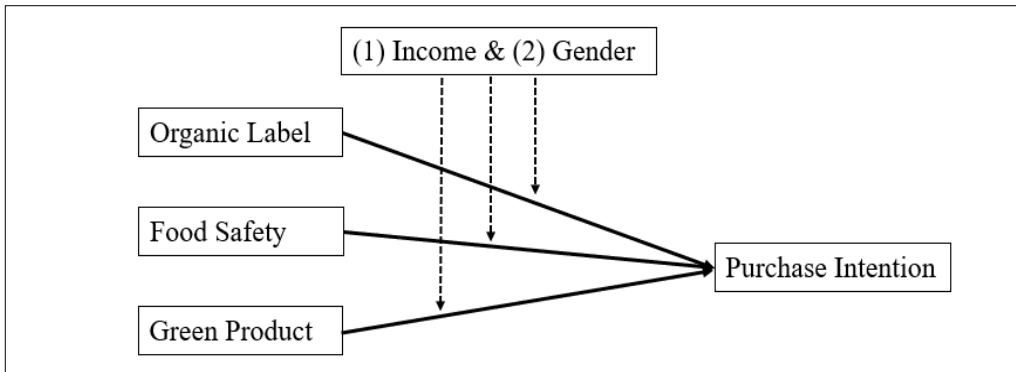
2. LITERATURE REVIEW

This study reviews on green consumption comprising of green product, price and quality of green products, green consumers' intention and behavior, demographic factors, environmental knowledge, trust, value, attitude, and consumers perception (Fisher et al., 2012; Narine et al., 2015; Purohit, 2012; Wong & Mo, 2013; Wee et al., 2014; Wong & Zeng, 2015). For instance, Joshi and Rahman (2015) reviewed 53 articles from 2000 to 2014 based on the Scopus database. They have analyzed and summarized these factors which have influenced green purchase behavior. The definition of the purchase behavior included purchase intention, willingness to pay, and

consumption. Furthermore, these influential factors were various, such as individual factors like attitude, value, emotion, knowledge, trust, and situational factors like price, product, quality, and eco-labeling.

To comprehend the relation between factors of green consumers' psychographics and their consumption intention, this paper adopted the Wheel of Consumer Analysis (Peter & Olson, 2010). Peter and Olson (2010) illustrated that consumer behavior involved people's thought and feeling, experience and actions when they perform consumption processes. Peter and Olson adopted four components that consisted of (a) affect and cognition of consumer, (b) consumer environment, (c) consumer behavior, and (d) marketing strategy, to illustrate how these components interact with each other. Based on the Wheel of Consumer Analysis, the research theoretical framework is presented in Figure 1. The paper consisted of two models because of the moderating variables. The moderating variable of Model One is income that is measured by the ordinal scale. Gender, which is measured by the nominal scale, is also the moderating variable for Model Two.

Figure 1: Theoretical Framework Design



This paper has two objectives. First, it examines the (a) awareness of certified organic label, (b) food safety attitude, and (c) green product awareness of consumers about how they affect their (d) purchase intention. Second, since the paper is related to organic food purchasing intention, income and gender of consumers were added to explore green consumer studies. It accordingly examines that these corrections were moderated by their income and gender, respectively. The paper contributes on how to identify psychographic factors from the attitude, cognitive, and perception of consumers towards the purchasing intention of green products that can be integrated into green marketing strategies.

2.1. CSA Model

The characteristics of the CSA are to (a) unitize a member system, (b) pay in advance, (c) share the risk with farmers, (d) offer food safety, and (e) protect the living environment (Just Food, 2016a; FairShare CSA Coalition, 2016b; JustFood, 2016b; Local Harvest, 2016). Conversely, these local farmers produce fresh vegetables, fruits, eggs, meat, and flowers. They offer a variety of

payment plans with weekly home deliveries (normally two to three times per week) or at a convenient drop-off location; and they produce fresh food according to the seasons (Just Food, 2016; Local Harvest, 2016; FairShare CSA Coalition, 2016b). These fresh foods are basically organic food (Just Food, 2016) for the reason that farmers cannot utilize herbicides, pesticides, or artificial fertilizers, where groundwater pollution and toxic residues on food are avoided (Biodynamic Association, 2016). In terms of the definition of the green product (Dahlstrom, 2011), the CSA model belongs to one of the green products and is a way to produce organic foods as one of the business models.

2.2. Purchase Intention

Peter and Olson (2010) defined purchase intention as the consumer's willingness to purchase a product or/and service in the future. Conversely, purchase behavior indicates consumers' action to purchase a product and/or service in the past. The main difference between consumers' purchase intention and behavior is the timeframe.

With regards to the purchase intention, the researches found that the demographic factors affect the purchase intention of consumers in terms of green product attributes. For instance, Wong and Zeng (2015) explored the conflict between price and quality of remanufactured products that were related to the relationship between consumer's purchase intention and behavior, which was moderated by income in China. Results showed that the price of remanufactured products affected purchase intention, which was translated into consumers' purchase behavior of remanufactured products. In contrast to price, quality of manufactured products did not affect the consumers' purchase intention and behavior. The income moderated the effect of purchase intention and purchase behavior.

One similar research of Wee et al. (2014) examined the consumers' perceptions, purchase intentions, and purchase behavior relative to organic foods products in Malaysia. As a result, the consumers' purchase intention towards organic food significantly influenced the perception of safety, health, environmental factors, and animal welfare of the products. Similarly, Narine et al. (2015) indicated that living location, educational background, and income of consumers influenced their willingness to pay for organic foods and vegetables in Trinidad. Because of that, the purchase intention of consumers was adopted in this paper as the dependent variable to explore the correlation with organic food.

2.3. Awareness of Certified Organic Label

The label is not just an attached tag; it also provides several functions such as identification, branding elements (Kotler & Keller, 2016) and communicates with consumers to deliver useful information to the government's regulation requirements (Solomon et al., 2015). There are numerous names to represent green labels, such as eco-label, green logo, organic label, or energy label (Borin, et al., 2011; Purohit, 2012). These certified labels or logos are an accredited process by third-party associations in different countries and contain the meaning of "reassurance" for its green products (Castka & Corbett, 2016). Furthermore, applying organic accreditation is voluntary (Castka & Corbett, 2016).

The functions of the certified organic label provide clear information about environmental protection (Khare et al., 2013) and the safety of foods (Quah & Tan, 2010). The features of organic food consisted of non-chemical residues in food production and environmental protection (Biodynamic Association, 2016; Quah, & Tan, 2010). When an organic label provides clear and positive environmental messages, it creates consumers' interest (Khare et al., 2013) and an evaluation of the green products (Borin et al., 2011). Therefore, the organic label becomes an important element for consumers to identify organic food process and production (Purohit, 2012). Its contents will affect the consumer's value, attitude, and perception to purchase (Purohit, 2012). Purohit (2012) illustrated that organic label had influenced consumers' decision-making to purchase green products. The messages and contents of the label had affected the consumers' decision-making in purchasing and perceiving consumer effectiveness (Cucchiara et al., 2015) because of consumers' live healthy (Chauhan, 2011; Rahbar & Wahid, 2011; Speer, 2011). Certified labels, or eco-labels, or eco-brands have a positive green brand image (Cucchiara et al., 2015). Furthermore, the organic label will reveal its products processing. Because of these, the paper will utilize the organic label as an independent variable.

H₁: The awareness of the certified organic label of consumers has a correlation with their purchase intention.

2.4. Food Safety Attitude

Food safety becomes a significant factor in the choice of food products (Langiano et al., 2012; Yeung & Yee, 2012). Mainly, consumers desire to purchase organic food due to healthy life and food safety issues (Quah & Tan, 2010). This group of consumers has an abundance of knowledge about food safety, risk perception of foodborne diseases, environmental protection (Langiano et al., 2012). The research by Langiano et al. (2012) in Cassino, Italy, indicated that when consumers were living with children, the elderly, or pregnant women, they tend to be more aware foodborne diseases and pathogens to have a healthy life. Furthermore, the food purchasing buyers who live with mothers (51.4%), parents (29.5%), children (5.9%), and fathers (4.2%), mostly purchase their food from the supermarkets and/or shopping centers (63.5%). Specifically, married couples and housewives are more concerned with food safety. Langiano et al. (2012) concluded the food safety related to buyers' purchase behavior. Regarding food safety topic in China, the research of Feng, Feng, Tian, and Mu (2012) have explored the correlation between price, quality, and safety of grape products in China. They found consumers were willing to pay for the safety of grape products. In their studies, they concluded that consumers will pay a premium price for a "safety" grape. Because of that, this paper utilized the food safety as an independent variable.

H₂: The food safety attitude of consumers has a correlation with their purchase intention.

2.5. Green Product Awareness

There are two definitions of green product. First, green products and/or services have less impact on environmental hazards (Chauhan, 2011; Speer, 2011). Second, green products are harmless to human health (Chauhan, 2011; Speer, 2011). Green products are known as ecological products, organic foods, or environmental friendly products that include renewed or recycled product materials, by using minimal packaging; the products are harmless and non-polluting to the

environment, and where the products are originally grown without toxic chemical compounds (Chauhan, 2011; Dahlstrom, 2011; Speer, 201; Ottman, 2004).

Ottman (2004) illustrated that in general, consumers are unable to identify the difference between green and non-green products because they do not have knowledge of environmental protection. If consumers are unaware of green products, they do not purchase. Additionally, they do not perceive the benefits of purchasing green products. The existing problem is that consumers do not realize the knowledge about environmental protection and the meaning of green products (Ottman, 2004).

Understanding the green product, environmental knowledge, and concerns will assist consumers in their environmental attribute in their purchasing behavior. In developing awareness of a green product, organizations attempted to augment consumers' knowledge of the product and its environmental attributes to identify the consumers' purchasing behavior. For instance, Papadopoulos et al. (2014) discovered that environmental awareness has a major influence on consumers' decision to purchase furniture, where consumers are willing to pay an extra 2 to 16 % for eco-labeled furniture.

In addition, Yaacob and Zakaria (2011) illustrated a positive attitude towards green products, particularly in developing countries like Malaysia. A research by Yaacob and Zakaria (2011) showed that the green product awareness becomes an important element for consumers buying powers on green products (Laheri & Anupam, 2015; Khare et al., 2013; Ottman, 2004). Because of that, this paper has utilized the green product as an independent variable.

H₃: The green product awareness of consumers has a correlation with their purchase intention.

2.6. Demographics: Income and Gender

Market segmentation is an important aspect of consumers' behavior (Solomon, 2015) and targets consumers who have similar needs and desires (Kotler & Keller, 2016). To segment target markets (Armstrong, Kotler & Opresnik, 2017), consumers have been segmented by their demographic factors and psychographic elements (Kotler & Keller, 2016; Solomon, 2015). Besides, the demographic factors affect consumers' purchase intention and behavior in terms of the product attributes and living environment (Pride & Ferrell, 2016; Wong & Ho, 2013). Specifically, income affects consumers' lifestyle which is reflected in what they can afford to purchase (Pride & Ferrell, 2016). This is due to consumers allocating their income in terms of their lifestyle and age group (Kotler & Keller, 2016).

With regards to the demographics impacts on green products, Wong and Mo (2013) adopted age, gender, income, and a reference group of consumers to explore their purchase intention and behavior in China. The results concluded that the income and reference group of consumers affected their purchase intention, which turns into purchase behavior, for a remanufactured product (Wong & Mo, 2013). However, Fisher et al. (2012) adopted demographic factors that consisted of (a) gender, (b) age, (c) education, (d) marital status, (e) children, (f) income, and (g) race to explore consumers' daily behavior in the US. The daily behavior indicates consumers who are (a) buying the green product, (b) using the recyclable product, (c) recycling, and (d) switching behavior from non-green products to green products. Their results found that the income of an individual has a

significant influence on green product buying behavior and products recycling. The gender of consumers did not only affect the green products buying behavior and products recycling but also impacted the consumers' switching behavior from non-green products to green products. Because of different finding results between Wong and Mo (2013) and Fisher et al. (2012), this paper has adopted income and gender as the moderating variables to explore a correlation with their purchase intention of green products.

H₄: Income moderates the correlation between the organic label and purchase intention.

H₅: Income moderates the correlation between the food safety and purchase intention

H₆: Income moderates the correlation between the green product and purchase intention.

H₇: Gender moderates the correlation between the organic label and purchase intention.

H₈: Gender moderates the correlation between the food safety and purchase intention.

H₉: Gender moderates the correlation between the green product and purchase intention.

3. Methodology

3.1. Research Sampling

This research utilized questionnaires to collect data in Shantou, Shenzhen, and Guangzhou, China because of two reasons. First, food safety in China is a global issue (Ching & Tin, 2017). Specifically, it mainly relates to agriculture products in China, such as mislabeling packaging, abnormal coloring, and odors (Hunt, 2015). Second, the CSA model is limited by a few cities in China. Because of the GDP, politics, and population in China, China divides its cities into five tiers (Smith, 2017). Based on the definition of tier cities, their residents' average income levels are various. Shenzhen and Guangzhou are owned by first-tier cities. Shantou is part of third-tier cities.

3.2. Data Collection

The data collection period took place over eight days at each city, covering four weekends at shopping malls and community's residences via a simple random sampling. The questionnaire was a self-reported survey instrument and was written in Mandarin. The translated instrument (English version) is provided in Table AT1. In China, Mandarin is one common language to communicate for reading and writing. The participants completed the questionnaire within 10 to 15 min. Furthermore, these participants were invited to participate in a face-to-face interview.

3.3. Measurement

The questionnaire was divided into two sections. The first section consisted of the organic label, food safety, green product, and purchase intention. There were five questions to cover each topic of the organic label, green product, and purchase intention. Three questions covered the topic of food safety. In order to measure the respondent's attitude and opinion, a 5-point Likert was utilized with 1 indicating "strongly disagree" and 5 indicating "strongly agree". The construct and scale item of the questionnaire are presented in Table AT1. The second section of the questionnaire

consisted of location, gender, age, educational level, marital status, and monthly income. A pilot study was conducted to assess the validity and reliability of the survey instrument.

4. Data Analysis and Interpretation

The research sample was composed of 486 respondents which comprised of 82 respondents from the pilot test, 255 respondents from Shantou and 231 respondents from Shenzhen and Guangzhou. Table AT2 at appendix lists the participants' demographics. Table AT3 displays the coefficient correlation among organic label, food safety, green product, purchase intention, age, educational level, income.

The result of the validity indicated the score of the convergence validity (AVE) and discriminant validity, and of the reliability indicated the score of the Coefficient Alpha (α) in Table 1. As shown in Table 1, All values of the Coefficient α values were over 0.70, all four constructs were satisfactory reliability (Hair, Black, Babin, Anderson & Tatham, 2006). These values of AVE are over 0.50 (Fornell & Larcker, 1981). These values of discriminant validity are presented at Table 1, the diagonal elements in the matrix are the square roots of the AVE, the square roots of the AVE are higher than the values of its corresponding rows and columns (Fornell & Larcker, 1981). Therefore, convergence validity and discriminant validity appeared satisfactory validity for all constructs (Hair et al., 2006; Fornell & Larcker, 1981).

Table 1: The Mean, Standard Deviation, Cronbach's Alpha, Convergence Validity, and Discriminant Validity for the measurement model.

Construct	Number of Items	Mean	Std. Dev.	Cronbach's Alpha (α)	Convergence Validity AVE	Discriminant Validity			
						OL	FS	GP	PI
OL	5	3.56	.88	.89	.70	.84			
FS	3	4.19	.75	.80	.71	.34	.85		
GP	5	3.37	.84	.76	.51	.42	.34	.71	
PI	5	3.80	.85	.90	.72	.49	.40	.37	.85

Note: The items on the diagonal represent the square roots of the Average of Variance Extracted (AVE); off-diagonal elements are the Pearson correlation estimates.

OL: Organic Label, FS: Food Safety, GP: Green Product, PI: Purchase Intention.

4.1. Model One: Hierarchical Moderator Regression Analysis

As the moderator variable, dependent variable, and three independent variables were continuous variables, Model One utilized hierarchical moderator regression analysis (Baron & Kenny, 1986). The variables of the (a) organic label, (b) food safety, (c) green product, and (d) purchase intention formed a summation index at the initial step. The technique of least squares was used with the main independent variables, entering as a block in the first step. Thereafter, the moderating variables are indicated in the second step. The following regression equation was analyzed as indicated below.

$$YI = \alpha + \beta_1 X1 + \beta_2 X2 + \beta_3 X3 + \beta_4 X4 + \beta_5 X4X1 + \beta_6 X4X2 + \beta_7 X4X3 + \epsilon$$

Where, YI = purchase intention, α = intercept, $X1$ = organic label, $X2$ = food safety, $X3$ = green product, $X4$ = income, and ϵ = random disturbance terms (where indicated a normal distribution random residual whose mean is 0). The moderating variable of the income effect on the correlation between the organic label and purchase intention was $X4X1$. The $X4X2$ presented the moderating variable of income effects on the correlation between the food safety and purchase intention. The $X4X3$ presented the moderating variable of income effects on the correlation between the green product and purchase intention.

As an observation, Table 2 presents the results of the hierarchical moderator regression analysis. First, the (a) income, (b) organic label, (c) food safety, and (d) green product have a significant influence on the consumers' purchase intention. However, the adjusted R^2 value of 0.321 in Step 1 indicated that 32.1% of variations of the purchase intention was explained by the income, organic label, food safety, and green product.

Second, after the moderating variable was added, Step 2 in Table 2 indicates that the correlation between food safety and purchase intention was affected by income. Conversely, income did not moderate the correlation either (a) between the organic label and purchase intention; or (b) between the green product and purchase intention.

Moreover, the R^2 from 0.327 increased to 0.333 and the adjusted R^2 value was 0.324. It indicated that 32.4 % of the variations on purchase intention were explained by the (a) income, (b) organic label, (c) green product, (d) food safety, and (e) interaction effect between income and food safety. In addition, the figures of "Tolerance" and "VIF" displayed that it did not have a multicollinearity issue. As a result, Model One failed to reject the H_1 , H_2 , H_3 , H_5 and failed to accept the H_4 and H_6 .

Table 2: Hierarchical Regression Result of the Organic Label, Food Safety, Green Product, Purchase Intention, and Income

	<i>B</i>	<i>SE b</i>	β	<i>Tolerance</i>	<i>VIF</i>
<i>Step 1</i>					
Constant	.000	.037			
Income	.095	.038	.097*	.982	1.020
Organic Label	.345	.042	.345***	.783	1.277
Food Safety	.228	.041	.228***	.829	1.206
Green Product	.140	.042	.140**	.786	1.272
$R^2 = .327, \Delta R^2 = .321, F = 58.304***$					
<i>Step 2</i>					
Constant	-.006	.038			
Income	.097	.038	.092*	.978	1.022
Organic Label	.343	.042	.343***	.780	1.281
Food Safety	.234	.041	.234***	.823	1.214
Green Product	.135	.042	.135**	.782	1.277
IncomexOL	-.056	.046	-.0055	.686	1.458

IncomexFS	.085	.041	.090*	.754	1.326
IncomexGP	-.025	.045	-.025	.700	1.429
$R^2 = .333, \Delta R^2 = .324, F = 34.155^{***}$					

Note: Dependent Variable: Purchase Intention. *P < .05, **P < .01, ***P < .001.

4.2. Model Two: Multiple Regression Analysis

The research framework of Model Two consisted of (a) moderating variable, the gender that is a dichotomy, (b) independent variables are the organic label, food safety, and green product as a continuous variable, and (c) the dependent variable is the purchase intention as a continuous variable. As Baron and Kenny (1986) illustrated, this research framework utilized multiple regression analysis to test the moderating variable effect on the correlation between independent variables and dependent variable by individual tested, because of the dichotomous variable. The following regression equation of male was analyzed as indicated below.

$$YI = \alpha + \beta_1 X1 + \beta_2 X2 + \beta_3 X3 + \beta_4 X4 + \beta_5 X4X1 + \beta_6 X4X2 + \beta_7 X4X3 + \varepsilon$$

Where, YI = purchase intention, α = intercept, $X1$ = organic label, $X2$ = food safety, $X3$ = green product, $X4$ = male, and ε = random disturbance terms (where indicated a normal distribution random residual whose mean is 0). The moderating variable of the male effects on the correlation between the organic label and purchase intention was $X4X1$. The $X4X2$ presented the moderating variable of male effects on the correlation between the food safety and purchase intention. The $X4X3$ presented the moderating variable of male effects on the correlation between the green product and purchase intention. Regarding females, only $X4$ equals females in the above regression equation.

Then, to measure the effect of a moderating variable, it examined the differences between the two regressions coefficient derived from two separate samples. Baron and Kenny (1986) indicated that the equation was given by Cohen and Cohen (1983). If the test statistic, z is greater than 1.96 or p -value less than 0.05, it means that the null hypothesis will be rejected. It can conclude that the predictor is likely to be a meaningful addition to the model because changes in the predictor's value are related to changes in the response variable. The equation of the differences between the two regression coefficients is as follows, where $b1$ = unstandardized coefficient of male, $b2$ = unstandardized coefficient of the female.

$$z = \frac{(b_1 - b_2)}{\sqrt{se_{b_1}^2 + se_{b_2}^2}}$$

As an observation, Table 3 presents the results of the two multiple regression analyses. First, the purchase intention of male and female consumers was affected by the (a) organic label, (b) food safety, and (c) green product. Second, the R^2 of male consumers was 0.317, and the adjusted R^2 value was 0.307. It indicated that 30.7% of the variations on purchase intention of male consumers were explained by the (a) organic label, (b) food safety, and (c) green product. Also, the figures of the "Tolerance" and "VIF" displayed that it did not have a multicollinearity issue. Third, the R^2 of

female consumers was 0.323, and the adjusted R^2 value was 0.316. It indicated that 31.6% of the variations on purchase intention of female consumers were explained by the (a) organic label, (b) green product, and (c) food safety. Also, the figures of the “Tolerance” and “VIF” also displayed that it did not have a multicollinearity issue.

Table 3: Multiple Regression Results of the Organic Label, Food Safety, Green Product, and Purchase Intention

	<i>B</i>	<i>SE b</i>	β	<i>Tolerance</i>	<i>VIF</i>
Male					
Constant	.028	.061			
Organic Label	.324	.072	.318***	.690	1.450
Food Safety	.186	.068	.180**	.783	1.274
Green Product	.191	.067	.202*	.674	1.483
$R^2 = .317 \Delta R^2 = .0307 F = 30.781^{***}$					
Female					
Constant	-.015	.048			
Organic Label	.353	.053	.58***	.840	1.191
Food Safety	.270	.051	.76***	.876	1.142
Green Product	.123	.056	.117*	.855	1.170
$R^2 = .323 \Delta R^2 = .316 F = 44.413^{***}$					

Note: Dependent Variable: Purchase Intention. * $P < .05$, ** $P < .01$, *** $P < .001$.

Table 4 shows that the gender of consumers did not moderate the correlation between (a) the organic label and purchase intention, (b) the food safety and purchase intention, and (c) the green product and purchase intention. As a result, Model Two failed to accept H_7 , H_8 , and H_9 .

Table 4: Comparing Two Estimates of Male and Female

Test of Interaction	Male		Female		<i>z</i> value
	<i>B</i> ₁	<i>SE b</i> ₁	<i>B</i> ₂	<i>SE b</i> ₂	
Organic Label	.324	.072	.353	.053	-.324
Food Safety	.187	.068	.270	.051	-.976
Green product	.191	.067	.123	.056	.778

5. DISCUSSION AND CONCLUSION

5.1. Discussion

This paper only focused on consumers' intention relative to purchasing green products and adopted influential factors from consumers' psychological elements in terms of the CSA features. Based on Table 2, Table 3, Table 4, and Table AT2, the results speculated that this group of consumers, who take care of health as lifestyles of health and sustainability, was because of their lifecycle. Furthermore, if one wanted to rank the purchase intention by influenced factors in terms of Table

2: first was awareness of certified organic label, second was food safety attitude, third was green product awareness.

Regarding the awareness of certified organic label, the result indicated the organic label directly influenced the consumers' purchase intention. Furthermore, the organic label had a strong significant correlation with consumer's food safety attitude and green product awareness, according to Table 2 and Table AT2. The reason was that the Chinese community experienced many food safety incidents from distinguished brands or companies, such as KFC and McDonald's since 2008 (Jourdan, 2014; Li, 2014). It may be the reason for Chinese consumers who believed in the green certificate system and evaluation process, even though the evaluation system was incapable to guarantee the foods was 100% safe.

Relating to the food safety attitude, as described by Yeung and Yee (2012), nowadays consumers continuously take care of food safety when they select foods. Also, the finding of this paper indicated that income had a significant influence on the correlation between food safety attitude and purchase intention of consumers. Specifically, Table AT 2 shows that these old and high-income consumers have a strong food safety attitude. When consumers have a high level of food safety attitude, they have a high purchase intention too. Also, the research by Fisher et al. (2012) indicated that older consumers have switched from non-green products to green products in the US.

About the green product awareness, consumers were required to understand the concept of the green product and have environmental knowledge. However, nowadays not all consumers realize the definition of green products (Ottman, 2004), and how green products relate to environmental friendly issues (Laheri & Anupam, 2015). This paper found that green product awareness had a positive influence on the consumers' purchase intention, which was similar to the research by Yaacob and Zakaria (2011). Therefore, consumers should have the knowledge of green product awareness and how to relate their purchase intention based on Table TA2.

On the subject of the consumers' income, the results indicated that the income affected purchase intention, as the cost of organic vegetables was premium, they had to pay in advance. Table AT2 presents that consumers with high income, who have a higher purchase intention than low-income consumers. Either in green product purchasing or green marketing, the income was an important factor which obviously did affect the purchase intention and behavior of green consumers in China (Wong & Mo, 2013; Wong & Zeng, 2015). It is assumed that when consumers are worrying whether their foods are safe or not, their income will be one of the major factors to affect their purchasing capacity in China's market.

For the consumers' gender, this paper found that the gender did not moderate the relation between organic label, food safety, green product, and consumers' purchase intention. Even though the result of the paper differed from Fisher et al. (2012), this main reason may be in connection with the consumers' living environment; the research by Fisher et al. was in the US while this paper was in China. Specifically, a couple of young people in China has their own career, and thus, they do not decide "who" will be the person in charge to purchase vegetables daily. Furthermore, Wong and Mo (2013) also indicated that the gender of consumers did not affect their purchase intention, which turns into purchase behavior for a recycled product in China.

5.2. *Conclusion*

There are two research questions in the initial paragraphs. In response to the first research question - who will buy organic vegetables, the answer is old and high-income consumers. In response to the second research question - what factors will affect consumers' purchase intention, the answer is that (a) the awareness of certified organic label, (b) food safety attitude, and (c) green product awareness have directly affected consumers' intention to purchase original vegetables. In other words, from the view of the CSA model, its potential consumers are old and high-income people, either male or female, and have a high purchasing intention that is related to (a) awareness of certified organic label, (b) food safety attitude, and (c) green product awareness.

This paper revealed two points. First, it is related to the ranking in order of the influenced factors on consumers' intention. The ranking in order was the organic label, food safety, and green product based on Table 2. Therefore, firms should acquire a certified green label or logo for their organic foods. At the same time, firms should open its information on how to grow and deliver their foods; thus, the tracking number is one reasonable tool to communicate with farmers and consumers.

Second, regarding its market segmentation, firms should target who are old and high-income consumers based on Table AT2. This group of consumers presumed that they take care more of their healthy life and lifestyle as well as food safety. Based on this inference, firms should have a communication channel to communicate with this group of consumers to share the concept of the original vegetables. The content of the communication should have (a) how to educate consumers' organic product knowledge to relate the healthy life and (b) how to build up trust between consumers and firms.

This paper has explored how consumers' psychographics affect their purchase intention via the CSA model based on the Wheel of Consumer Analysis by Peter and Olson (2010). Since the paper was related to organic food purchase behavior, added income of consumers provided an evidence for green consumer studies. Except for these factors from consumers' psychographics, specifically, when consumers behavior was related to green product consumption, their income was an index to measure consumers intention who were able to purchase green products or not. In other words, to implicate any theory of green consumer behavior in the future, income should be adopted to explore the green consumer behavior when consumers have food safety attitude.

This paper had two contributions for a business environment that specifically had related to the CSA model. First, firms should develop the concept of green products to integrate with green marketing in the marketplace. The objective is to let consumers understand what green products are and how to protect the living environment through green products purchasing and consumption behavior (Kotler & Keller, 2016; Ottman, 2004). Second, all green products were delivered by tracking the number to consumers, specifically in the China market. This carries the means of developing the consumers "know-how" in obtaining the green certificates, logos, and labels in order to build consumers' belief and trust (Hoyer & MacInnis, 2010; Peter & Olson, 2010; Solomon, 2015).

5.3. *Limitation and Future Research*

This paper has two limitations. First is the location of the research sample. The paper collected research samples from three cities in Guangdong province, China because the CSA model of suppliers was limited. Therefore, future research may collect research samples in other cities in China or other countries such as Japan, Malaysia. Second, the paper only adopted three factors to explore its relationship with consumers' purchase intention that was moderated by either the income or gender. This research framework only explains approximately 32% of the influential factors on green consumers intention of the CSA model. Therefore, the further research model should add other factors to explore, such as price, trust, environmental awareness, past purchasing behavior, to have an accurate and reasonable research model.

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APPENDIX

Table AT1: Construct and Scale Item of Questionnaire

Construct	Scale Item
Awareness of Organic Label	1) Organic labeling can identify the differences in organic vegetables and non-organic vegetables.
	2) Organic labeling can guarantee the safety of vegetables.
	3) Organic labeling can guarantee the quality of vegetables.
	4) I am more likely to trust the certified organic vegetables.
	5) I would prefer purchasing these organic vegetables with certified logo.
Food Safety Attitude	1) I often worry about the food safety and quality problems.
	2) I worry about the current quality and safety of vegetables in the marketplace.
	3) I understand that long-term consumption of excessive pesticide residues in vegetables may cause chronic poisoning to the body.
Green Product Awareness	1) I have heard of organic vegetables.
	2) I can identify organic vegetables by certified organic labeling or logo.
	3) I understand the definition and production standards of organic vegetables.
	4) I know the difference between organic vegetables and non-organic vegetables.
	5) I believe that organic vegetables are safer than non-organic vegetables because of non-pesticide residues and heavy metals.
Purchase Intention	1) I would consider buying the organic labeling or logo certification marked on organic vegetables.
	2) I am willing to purchase this organic labeling or logo for organic vegetables.
	3) For safety reasons, I am willing to buy vegetables with organic labeling or logo.
	4) If the price of organic vegetables is only 30% higher than non-organic vegetables, I would be willing to purchase.
	5) If it is convenient to buy, I would like to buy organic vegetables.

Table AT2: Demographic Attributes of the Respondents

Characteristics	N = 486	Percent (%)
City		
Shenzhen & Guangzhou	231	47.5
Shantou	255	52.5
Gender		
Male	203	41.8
Female	283	58.2
Age		
25 and Below	231	47.5
26-30	86	17.7
31-35	55	11.3
36-40	34	7
41-45	32	6.6
46-50	27	5.6
51-55	14	2.9
Above 56	7	1.4
Education		
High School	111	22.8
Diploma	91	18.7
Undergraduate	248	51
Postgraduate	36	7.4
Monthly Income (CNY)		
Below 4,000	141	29
4,001-8,000	165	34
8,001-12,000	95	19.5
Above 12,001	85	17.5

Table AT3: Coefficient Correlation Among Organic Label, Food Safety, Green Product, Purchase Intention, Age, Education, and Income

	OL	FS	GP	PI	Age	Education	Income
OL	1						
FS	.341**	1					
GP	.418**	.338**	1				
PI	.487**	.404**	.372**	1			
Age	.009	.139**	-.015	.104*	1		
Education	-.081	-.074	-.036	-.041	-.251**	1	
Income	.055	.132**	.074	.157**	.224**	.227**	1

Note: OL= Organic Label, FS = Food Safety, GP = Green Product, PI = Purchase Intention.

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).