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Research Article

Consumer Purchase Decisions of Organic Food Products: Empirical Analysis of Consumer Skepticism of Organic Products called "Green" in Riverdale Georgia

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Abstract: Almost everything influences food alternatives, at just one occasion and place or another. The relative importance of 'demand-pull' from organic green customers or 'legislative push' from socio-environmental legislation varies widely between completely different sorts of the market. The organic food industry has been the topic of much media attention over the past decade. the difficulty of the buyer of "How do the randomly selected consumers have knowledge/awareness of organic food products?" and "Why are some customers skeptical (doubt), regarding organic food merchandise referred to as green (SOP-Green) whereas others are not?" the aim of this paper is to bridge the research gap by conducting an explanatory study to look at consumers skepticism of organic products claiming to be "Green" (SOP-Green) in Riverdale, Georgia, while the goal is to analyzes consumer whether or not they are skeptical of organic products claiming to be "Green" (SOP-Green) supported choice experiments to be conducted through face-to-face interviews. Specifically, the target is to work out which demographic variables (Age and Marital status) and knowledge/awareness of organic food variables (buy organic food products, conversant in organic food products, and believe the knowledge published about organic advantages) may affect consumers about SOP-Green in Riverdale, Georgia. Data collection happened last year between August-December, 2018 in Riverdale, Georgia. the info collection survey instrument was designed in two sections. within the first section, consumers' demographic characteristics (e.g., gender, age, family size, legal status, gross household income, education level) were included. within the second section, consumers' knowledge/awareness of organic food products was considered. Purchasers were approached during their food shopping in outlets of three retail chains in two different areas of Riverdale (one outlet per chain) employing a structured questionnaire. Overall, 80 people were approached, 60 of which were qualified for the sample included within the time-frame of the survey (57.5 percent). SPSS IBM Statistics software v.23 was used for all statistical analyses. In summary of the findings a logistic regression to predict whether a consumer will SOP-Green supported their two binary choices. The stepwise logistic regression model revealed that ever buying organic food products (EBUOF) is that the most variable influencing SOP-Green. It should be noted that if the probability of skeptical about organic products (SOP) called "Green" is bigger than 50%, the consumers will have a more chance of buying organic food products as against others don't. For probabilities under 50%, the consumers will have a more likely chance of buying organic food products. The paper concludes that this pilot study has important implications for the farmers, decision-makers and food industry generally, and for the organic food sector especially. Consumer demographics and attitudes/awareness are found to be important determinants of SOP-Green purchasing decisions, although the consequences might not be identical for consumers. this suggests that market segmentation strategies could also be necessary to make sure effective marketing outcomes.

Keywords: Consumer purchase, Purchase decisions, Organic food, Skeptical of organic green

INTRODUCTION

The common scientific approaches to the reasoning of problems are mathematical reasoning or statistical reasoning. The mathematical or formal reasoning is usually deductive, therein one reason from general assumptions to specifics using symbolic

logic and axioms for multi-criteria decision-making (Oluwoye,1997).

Oluwoye, Chembezi and Herbert 2017 within the quote "There has been both a big and major shift within the types and numbers of food retailers, manufacturers and distributors within the organic food industry thanks to the rapid climb of this sector and this have consequently widened the customer base at the retail level. The retailing horizon of organic food products has changed with traditional purveyors facing increased competition from new companies; also, organic food point of sale was not only limited to in natural-product stores like whole foods and food cooperatives but now included in traditional supermarkets and club stores like Wal-Mart and Costco respectively. As of 2008, organic manufacturers were either in direct competition with traditional food manufacturers or had been absorbed by these firms. the resultant effect of those changes has been twofold: both the amount and average size of participating firms are now larger. This study will provide a deep insight into consumer choice behavior toward healthcare quality information and it'll greatly help to enhance overall health care quality within the US." IJARSFS Vol. 4(3) 24 September 2017 p165.

Almost everything influences food choice, at just one occasion and place or another. The relative importance of 'demand-pull' from green consumers or 'legislative push' from socio-environmental legislation varies widely between different sorts of the market. The organic food industry has been the topic of much media attention over the past decade. First chronicling its massive year over year growth rates and increasing popularity, and within the wake of the present economic recession, falling sales numbers. Within the last month there has been significant attention paid to the topic after the discharge of a serious report questioning consumers' perceptions of the standard of organic food. These developments have made the organic food space very topical, and therefore the recession presented a singular opportunity to validate whether many of the conclusions drawn during better economic times were still valid amongst falling consumer confidence and a big drop by consumer spending (especially on organic food products).

Almost everything influences food choice, at just one occasion and place or another. The relative importance of 'demand-pull' from green consumers or 'legislative push' from socio-environmental legislation various widely between different sorts of market. In most markets, the ultimate consumer and therefore the buyers within any marketing intermediaries, are a crucial influence on the greening process. Marketers saw increasing consumer interest within the environment as a marketing opportunity to focus on ecologically-concerned consumers. Variety of companies and industry groups have skilled environmental concerns by integrating environmental issues into their corporate policies.

Organic foods are made consistent with certain production standards. The National Organic Standards Board of the US Department of Agriculture (USDA) established a national standard for the term "Organic". Organic food must be produced without the utilization of sewer-sludge fertilizers, most synthetic fertilizers and pesticides, gene-splicing (biotechnology), growth hormones, irradiation, and antibiotics. Environmental Marketing is predicated on three principles: social responsibility, the pursuit of sustainability and a holistic approach. it's open-ended, focuses strongly on the natural environment, has an intrinsic value and focuses on global concerns instead of those of particular societies.

Purpose

The purpose of this paper is to bridge the research gap by conducting an explanatory study to look at consumers skeptical of organic products claiming to be "Green" (SOP-Green) in Riverdale, Georgia, while the goal is to research consumer whether or not they are skeptical of organic products claiming to be "Green" (SOP-Green) supported choice experiments to be conducted through face-to-face interviews. Specifically, the target is to work out which demographic variables (Age and Marital status) and knowledge/awareness of organic food variables (buy organic food products, conversant in organic food products, and believe the knowledge published about organic advantages) may affect consumers about SOP-Green in Riverdale, Georgia.

LITERATURE REVIEW

This section and therefore the keywords perceptions of quality and price premium are extracted from Oluwoye et.al. (2017) paper entitled "Consumer Perception of Organic Food Products and buy Behavior of Shopping in Outlets of Retail Chains: A Pilot Study of Huntsville, Alabama", Vol. 4(3) 24 September and Oluwoye (2017) paper entitled "The Association between Consumers' Socioeconomic Factors and Knowledge of Organic Food Products in Huntsville, Alabama: A Pilot Study", Vol. 4 (4) November and Oluwoye (2018).

Psychological factors that influence an individual's decision when purchasing because the individual's motivations, perceptions, learning, and beliefs (Callwood, 2013). Consumer behavior could also be defined because the mental, emotional, and physical activities regarding purchasing, utilizing or removing products and services that satisfy a requirement (Priest, Carter, & Statt, 2013). Attitudes affect intentions, the more desirable the attitude is that the greater it'll and intention to hold out a

specific behavior are going to be (Tarkiainen & Sundqvist, 2009).

Tarkiainen and Sundqvist (2009) claim that attitudes are communicated between people and thus, people with positive attitudes regarding a product will affect the attitudes of their surrounding people. As a results of this crossover effect, subjective norms are going to be seen as a precursor of attitudes during this study. Among the tiny number of studies that studied the subjective norms regarding the acquisition of organic food, it had been discovered that there's a crucial relationship between subjective norms and attitudes.

Klöckner (2012) explains the complexity of human decision-making with reference to purchasing organic food. Their model framework is printed with the nested structure of decision and therefore the impact of earlier decisions has on the decisional space of later decisions. Environmental consideration has been suggested as an interesting factor. Ling (2013) evaluated consumers' intent to get the green product as a way of examining the driving variables that influence consumers' purchase intent. Other studies have indicated the relevance of socio-demographic and cultural factors like product quality, price, place of sale, ambiance, country of origin, and convenience in purchasing affect purchase decisions of food consumers (Akpinar, et al.; 2009, Gupta, 2009; Van Waterschoot et al., 2008; Vukasovič, 2013). Shafie and Rennie (2012) suggested that future studies should choose a consumer-based approach which is vital not just for consumers but also in terms of responses to changes in market dynamics.

Perception of Quality
Previous literature has suggested that the way consumers perceive the standard of organic food has played an enormous role in its rapid expansion. (Essoussi & Zahaf, 2008). there's a big indication from the literature that taste quality is an influential think about consumer behavior by providing a measure to justify price premium (Shaw-Hughner et.al., 2007). the worth premium also has an impact on consumer perceptions toward the standard of organic products (Harrison, 2009; Shaw-Hughmer, 2007). However, when it involves food quality, there are serious questions on the ways during which both consumers that purchase it and supermarkets who market and sell it are judging the general quality of products. This was the experience within the UK with Tesco. When the corporate experimented with lowering the worth of organic products slightly below the worth of its conventional food equivalent and there was a particularly low conversion rate. this suggests customers are likely to get organic therein circumstance but they're impossible to continue purchasing organic when the worth rises again. Tesco attributes this to customers experiencing organic food and finding they

can't tell any difference in terms of quality (Pierce, 2009).

Experts (i.e., Claire Harrison) have argued that quality standards for conventional food are a part of the rationale organic food gained prominence within the first place. Appearance and size standards set by supermarkets necessitated an increasing use of pesticides and other chemicals to satisfy yield requirements also as quality standards (Harrison, 2009). Additionally, in July 2009 a landmark report released within the UK raised serious questions on the particular nutritional value of organic food over its conventional competitors. Dragour and colleagues (2009) found that there was actually virtually no nutritional difference in organic food, undermining consumer perceptions about quality.

Price Premium
The price of organic food is clearly likely to play a serious part within the purchasing intentions and behavior of consumers. Likely within the sort of a barrier thanks to the worth premiums of organic produce vs. conventional. In fact, the worth of organic food has been cited in many articles to be the most obstacle for not buying organic food (Hughner et al., 2007; Shafie et al., 2012). this might be likely to be very true in times of economic downturn, like those during which we currently find ourselves.

One area that has been extensively researched is that the willingness to pay (WTP), which has been the main target of several studies. Consumers are for instance prepared to a minimum of hypothetically to pay a premium for organic produce, however, they weren't willing the pay the steep increase in price compared to standard produce (Shaw et al., 2007). Tesco's experience with price within the current economic climate has been very interesting. In most stores, the shelving space dedicated to organic food has been decreasing thanks to falling sales. Unsurprisingly the quantity of stocked organic food was directly correlated to a geographical area, so more affluent areas would stock more organic produce as consumers were more likely to get, Tesco's research indicates income and willingness to pay are correlated. They also tried to tactically price so as to shift stock on organics, which manifested low conversion rates with organic which seems to point that price may be a major factor.

Perceived differences also are likely to play a task here, however, as consumers might not see an increased benefit within the that's well worth the premium price (Pierce, 2009). Ozguven (2012) studied the motivation factors of consumers to shop for organic food products in Izmir. The analysis revealed that buyers preferred organic milk, fruit, and vegetables. The results indicated that quality and price were more explanatory factors and had a more significant relationship than the opposite factors.

Trust in Labelling and Marketing

Research suggests one among the more critical factors in understanding consumers' willingness to buy organic food is an inherent trust in certification and labeling claims made on organic food packaging and promotion. (Mohamed et al., 2012). Consumers are required to deposit a big amount of trust when purchasing organic food – effectively they're often blindly placing their faith in claims made by producers, marketers, and supermarkets because it's exceedingly unlikely that at the point-of-purchase there would be any way of independently verifying organic claims. (Bellows, 2008).

The results of variety of studies into this issue reveal organic purchasing behavior, as influenced by value; seems to be reflective of low-self transcendence deciding. During a 2008 study investigating motivators behind organic purchasing intentions found that organic foods are generally being purchased by consumers who expect positive consequences for themselves as a result. (Arvola et al., 2008). Other studies have also found instances of low transcendence. (Bellows, 2008; Saher, 2006). additionally, there are moral measures that have had a more "considerable" role in predicting purchasing intentions. They clearly state that their results lend support to the inclusion of measures "which capture the affective and moral bases of behavior" (Arovla, 2008).

For instance, a U.S. study conducted in 2008 asked respondents what proportion they valued food and the way large a task it played in their lives. Questions like, "I believe food a lot" and "food is a crucial a part of my family traditions." What they found was that of these who buy organic food regularly, 45% said they "always cooked" indicating a disproportionate number of organic food buyers cooked regularly over those that don't buy organic." (Bellows, 2008). of these same numbers who buy organic food regularly 66% were their household regular shoppers, versus 59% as expected" (Bellows, 2008). The study found a correlation between certain values and therefore the likelihood of intent to get. Research into reasons consumers were willing to pay more for organic food demonstrated that values are increasingly being shown to play a central role choose to adopt a particular dietary lifestyle. (Krystallis, 2008).

Alternatively, the intent to get due to values hasn't always translated into actual purchasing. Studies have shown that 39% of respondents claimed they highly valued "organic production methods." However, only 13% actually purchased organic products on a daily basis (Bellows et al., 2008). Sabato Cinque argued his experience showed organic purchasing behavior reflected a "trend" (Cinque, 2009) instead of the manifestation of adjusting consumer values.

MATERIALS AND METHODS

The research paper goal necessitated the identification of the varied factors that influence the acquisition of organic food. The literature review was utilized in the identification of potential factors affecting consumers purchasing behavior of organic food products. Following the literature review research phase, the researchers conducted variety of semi-structured interviews with industry experts so as to collect qualitative insight into what had been uncovered within the academic literature. the info are obtained from consumers within the vicinity of huge shopping malls located in Riverdale, Georgia through the planning of a questionnaire survey on sixty-one (61) Riverdale Georgia respondents for the aim of answering the difficulty of "How do the chosen randomly consumers have knowledge/awareness of organic food product?" and "Why do some consumers skeptical (doubt) about organic food products called Green (SOP-Green) while others do not?". Data collection happened in August-December, 2018 in Riverdale, Georgia and the information collection survey instrument is meant in two sections. within the first section, consumers' demographic characteristics (e.g. gender, age, family size, legal status, gross household income, education level) were included. within the second section, consumers' knowledge/awareness of organic food products. Purchasers were approached during their food shopping in outlets of three retail chains in two different areas of Riverdale (one outlet per chain) employing a structured questionnaire. Overall, 80 people were approached, 60 of which were qualified for the sample included within the time-frame of the survey (57.5 percent). SPSS IBM Statistics software v.23 was used for all statistical analyses.

Model Specification

Discrete Choice Experiments are widely utilized in social and behavioral sciences also because the built environments studies (Oluwoye, J. 2006, Oluwoye, J. 1996, Oluwoye, J. 1998, Oluwoye and Higgins, D.1999, Oluwoye, J.1999), which this paper will repose on on the author previous publications. additionally, the concept discussed during this section were extracted and modified from the author chapter during a book entitled "Oluwoye, J (2006) "Application of Statistical Methodology and Model Design to Socio-Behaviour of HIV Transmission", in Biomathematics-Modelling and Simulation, Ch 2, pp37-59. Edited by JC Misra and published in September 2006 by World Scientific. ISBN 978-981-238-110-1 524pp. to support the discrete choice experiments.

Looking at different conceptualizations of consumer's skeptical behavior there seems to be recognition of a conceptual framework with variety of characteristics and in recent years the interaction-oriented approach has been articulated within the sort

of a systems framework. In its application to the case of consumer acceptance and preference behavior, one should point to the definition of a system and therefore the notion of interaction as being the foremost useful in providing a relevant framework (Oluwoye, 1999). It should be noted here that a system is defined as a group of elements having definite attributes, along side the relations between the weather and between their attributes. Since the systems usually exist in some quite an environment, one can define the environment as a group of these elements which don't belong to the system and whose attributes influence the system or are influenced by it. Finally, each system features a specific function that imposes an outlined standard of performance.

In a discrete choice modeling framework, all alternatives must satisfy the subsequent criteria: 1) alternatives are exhaustive, 2) alternatives are mutually exclusive, and 3) the amount of alternatives is finite. All respondents are assumed to be utility maximizers, facing a choice among competing alternatives that return different levels of utility. The analyst cannot directly observe respondent utility but can observe attributes about the competing alternatives.

Discrete choice modeling may be a well-established regression technique that has been used extensively in several disciplines regarding psychology, economics, mathematics, and transportation engineering. Several books and papers are written on this subject (Ben-Akiva and Lerman, 1985; Henser and Johnson, 1981; Train, 1986; Rintamaki, 1980; Stopher et.al., 1984; Aldrich and Nelson, 1984).

Notwithstanding, the multinomial logit (MNL) model calculates the possibilities of selecting different alternatives in sampling consumers' preference behavior. within the MNL model, consumers' preferences are assumed to settle on the choice that yields the very best utility. a number of the authors (Cox, 1970; Dobson, 1983; McCullagh and Nelder, 1983) have emphasized that data derived from binomial counts should be analyzed to require under consideration the binomial denominator, in order that the proportion (percentage) of the consumers skeptical of organic food products called Green are often analyzed so as to accommodate the variance while at an equivalent time retaining the binomial probability distribution inherent within the data.

In order to know the logit approach as a representation of an alternate behavioral hypothesis, the researchers consider the case of any number of other outcomes. it's an inexpensive behavioral hypothesis that consumer's act to maximise utility (V) which they constantly evaluate other ways of achieving outcomes (s) according to this behavioral postulate. An alternative outcome is closer if and only if it provides the highest (indirect) utility. That is, if-

$$V_S > \max V_j \qquad \text{Eqn. (1)}$$
$$j = 1, \ldots\ldots, M$$
$$j \neq s$$

The probability that alternative s will be chosen is given by:

$$P_S = \text{prob } (V_S > \max V_j \; \forall j \; \Sigma \; Mi \; j \neq s) \qquad \text{Eqn. (2)}$$

The author define:

$$n_S = \max V_j - \mu_S \qquad \text{Eqn. (3)}$$
$$j = 1, \ldots\ldots, M$$
$$j \neq s$$

The alternative s is chosen if and only if $\beta^r_S X_S > \eta_S$

The unobserved effects are assumed to be independently and identically distributed extreme value. It can be shown that given a vector of exogenous variables, X, the distribution of $F(\eta_S)$ of η_σ is:

$$F(\eta_S) = \exp(\eta_S)/[\exp(\eta_S) + \sum_{\substack{j=1 \\ j \neq s}}^{M} \exp(\beta^1_j X)] \qquad \text{Eqn. (4)}$$

and the probability that the alternative s will be chosen is:

$$P_S = \frac{\exp(\beta_S X)}{\sum_{j=1}^{M} \exp(\beta^1_S X)} \qquad \text{Eqn. (5)}$$

This is the multinominal digit model (Henser and Johnson, 1981; McFadden,1981;

Greene,1990). To derive the auxiliary regression let Φ denote the standard normal distribution function. The transformation $J = \Phi^{-1} F$ proposed by Lee (1983) is strictly increasing, and the transformed random variable η_S^* where $\eta_S^* = J(\eta_S)$ will be a standard normal variate. Since J is a strictly increasing transformation, the alternative s is chosen if, and only if $J(\beta_S^1 X) > \eta_S^*$. Since both the random variables ε_S and

$\eta_s{}^*$ are normally distributed, the author assumes that ε_s and η_s are jointly normally distributed. The specification implies that conditional on the alternative being chosen (Lee, 1983):

$$Y_s = \delta_s{}^1 z - \sigma_s \, \rho_s \, \phi \, (J \, (\beta_s{}^1 x_s))/F \, (\beta_s{}^1 x_s) + \xi_s$$

Eqn. (6)

where $E(\xi_s \, 1 \, s \text{ is chosen}) = o$, ϕ is the normal density function, σ_s is the standard deviation of the disturbance ε_s and ρ_s is the correlation coefficient of ε_s and $\eta_s{}^*$. The conditional variance of is ξ_s :

$$\text{var} \, (\xi_s / s \text{ is chosen}) + \sigma_s{}^2 - (\sigma_s \, \rho_s)^2 [J \, (\beta_s{}^1 x) + (J \, (\beta_s{}^1 x))/F(J \, (\beta_s{}^1 x) \, * \, \phi \, (J \, (\beta_s{}^1 x))/F(J \, (\beta_s{}^1 x)$$

Eqn. (7)

Equation (6) can be estimated in two stages. First, the logit choice model to obtain maximum likelihood parameter estimates for the choice between **consumers skeptical of organic food products called "Green" Yes or No**. Then estimate equation (8) by OLS after substituting $\beta_j{}^1$, $j + 1, ... , M$ into equation (6):

$$y_s = \delta_s \, z - (\sigma_s \, \rho_s)\phi \, (J \, (\hat{\beta}_s{}^1 x_s))/F \, (\hat{\beta}_s{}^1 x_s) + \bar{\xi}_s$$

Eqn. (8)

where: $\bar{\xi}_s + \xi_s + \sigma_s \, \rho_s \, [\phi \, (J \, (\hat{\beta}_s{}^1 x_s))/F \, (\hat{\beta}_s{}^1 x_s) - \phi \, (J \, (\beta_s{}^1 x_s))/F \, (\beta_s{}^1 x_s)]$

The unobserved effects □s are hetroscedastic just as they are in the probit specification. A corrected asymptotic variance matrix is constructed to enable OLS estimation to accommodate this correction. Each dimension has been presented as a hypothesis as to its role in influencing each of the variables within the model.

In order to elucidate the logit method because it relates to the food choice of organic food purchase behavior, consider that the target is to construct a model to seek out the probability, P, which one can calculate in preference to a different aspect of engaged activity patterns. This probability of choice is often explained in terms of a mixture of explanatory variables. Thus the author decided to use a population with only two choice alternatives: i.e. consumers skeptical of organic food products called "Green". It should be noted here that the worth of an explanatory variable couldn't be an equivalent for all alternatives. However, explanatory variables hypothesized to influence this probability was listed in Table 1.

Table 1 description of explanatory variables in the statistical model and their hypothesized relationships with the likelihood to SOP-Green.

Variable Name	Description	Expected Sign
	• Demographic Variables	
MS	Marital Status 1 if respondent is married 0 otherwise	+/-
AG	Age of respondents in years	+
FWOF	• Knowledgeable Awareness variables Familiar with organic food 1 if respondent familiar with organic food 0 if respondent not familiar with organic food	+/
IP	Respondent believe the information published about organic advantage 1 if respondent believe the information published 0 Otherwise	+
BUOF	Ever buy organic food products 1 if respondent ever buy organic food product 0 Otherwise	+/-

Data Analysis and Results

This research study was conducted through the design of a questionnaire survey on sixty-one (61) Riverdale Georgia respondents for the purpose of answering the issue of "How do the selected randomly consumers have knowledge/awareness of organic food product?" and "Why do some consumers skeptical

(doubt) about organic food products called Green (SOP-Green) while others do not?"

Model Development

The major driving issue in modeling the current study is the dichotomous-choice response the question, "Why do some consumers skeptical (doubt) about organic food products called Green (SOP-Green)

(value = 1)   while others do not (value = 0)?" In such cases, the dependent variable of the model is dichotomous in nature (Y = 1 or 0) while the explanatory variables may be categorized in either dichotomous (e.g., marital status, etc.) or continuous (e.g., age, etc.) formats. Under these circumstances, the use of logit analysis is appropriate, as its specification allows for monotonic transformations to guarantee that predictions (probabilities) lie in the unit interval.

The Logit Model   in general, the logit model is characterized as:

$$Log [P/(1-P)] = \beta_0 + \beta_1 X_1 + ... + \beta_n X_n + \varepsilon \qquad (1)$$

where, P = the probability of the respondent skeptical about organic products (SOP) called "Green";
X = explanatory variables hypothesized to influence this probability as listed in Table 1;
β = coefficients for the explanatory variables;
ε = stochastic disturbance term; and,
P/ (1 − P) = the ratio of the probability that the respondent skeptical about organic products (SOP) called "Green"
SOP-Green to the probability that he/she does not. It can also be considered as the odds of the respondent to indulge in green purchasing behavior.

Table 2: Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	60	100.0
	Missing Cases	0	.0
	Total	60	100.0
Unselected Cases		0	.0
Total		60	100.0

a.   If weight is in effect, see classification table for the total number of cases.

The above table 2 simply shows the case summary that reflects the valid sample size.

Furthermore, the next three tables are the results for the intercept model.

Table 3: Omnibus Tests of Model Coefficients.

		Chi-square	df	Sig.
Step 1	Step	19.543	5	.002
	Block	19.543	5	.002
	Model	19.543	5	.002

The table 3 includes the Chi-square goodness of fit test. It has the null hypothesis that intercept and all coefficients are zero. The null hypothesis was rejected.

Table 4: Model Summary:

Step	-2 Log Likelihood	Cox & Snell R Square	Nagelkerke R Square
1	63.568[a]	.278	.371

a.   *Estimation terminated at iteration number 5 because parameter estimates changed by less than .001*

The model summary in table 4 above includes the pseudo R^2, the -2log likelihood is the minimization criteria used by SPSS. From the above table one can see that Negelkerke's R^2 is .371, which indicates that the model is good but not great. Cox & Snell's R^2 is the nth roster. (our case the 61th of the -2log likelihood improvement) One can interpret this as 28% of probabilities of the consumer skeptical of organic products called "Green" in Riverdale, Georgia is explained by the logistic model.

Table 5: Classification Table[a]

			Predicted		
			Sceptical about organic green		Percentage Correct
Observed			1	2	
Step 1	Skeptical about organic green(SOP-Green)	1 0	20 9	9 22	69.0 71.0
	Overall Percentage				70.0

The next table 5 contains the classification results, with 70% a correct classification the model is not too bad-generally a discriminant analysis is better in classifying data correctly.

Table 6: Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	
Step1[a]	1 MS	.539	.251	4.609	1	.032	1.714	1. Marital Status MS
	2 BUOF	-1.567	.635	6.091	1	.014	.209	2.Ever Buy organic food EBUOF
	3 FWOF	-.820	.622	1.739	1	.187	.441	
	4 AG	.204	.176	1.337	1	.248	1.226	3. Familiar with organic food
	5 IP	.515	.622	.686	1	.408	1.674	4. Age
	Constant	.491	2.027	.059	1	.809	1.633	5. Information published.

a.   Variable(s) entered on step 1: MS, EBUOF, FWOF, AG, IP

However, one can sees from table 6 above that MS & EBUOF are significant while other variables are not. For small samples the t-values are not valid and the Wald statistic should be used instead. Wald is basically t2 which is Chi-square distributed with df = 1. The variable in the equation table 6 is the most important for logistic regression analysis.   It shows the regression function 0.491 + .539* MS – 1.567*EBUOF - .820* FWOF + .204* AG + .515* IP. The table 6 also includes the test of significance for each of the coefficients in the logistic regression model.

Table 7: Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	EBUOF	-1.540	-556	7.686	1	.006	.214
	Constant	2.388	.886	7.264	1	.007	10.889
Step 1[b]	MS	.576	.239	5.818	1	.016	1.779
	EBUOF	-1.626	.599	7.376	1	.007	.197
	Constant	.800	1.081	.547	1	.459	2.224

a*. Variable(s) entered on step 1: EBUOF*
b. *Variable(s) entered on step 2: MS.*

The above model in table 7 shows the method of forward that improves the quality of the logistic regression. Thus, the model simplifies to EBUOF and the intercept. Then the logistic equation.

$$P = \frac{1}{1 + \ell\,(2.388 - 1.540\,EBUOF)} \qquad (2)$$

This equation reveals that 1% increase on BUOF multiplies the odds of SOP – Green by 0.214 (expo (-1.540)). The author calculate the critical value for P = 50%, which is EBUOF = intercept/coefficient = 2.388/-1.540 = -1.55   this is if a consumer EBUOF increase than 0.848 on the SOP-Green, the logistic

regression predicts that the Riverdale consumer will SOP-Green.

The sign in front of each coefficient in table 7 indicates whether or not the variable improves the probability of SOP-Green purchase or discourages the probability of SOP-Green. The negative sign in front of the EBUOF implies that as EBUOF increases, the probability of SOP-Green purchase decreases. The positive sign in front of the marital status (MS) implies married couple will improve chances of SOP-Green purchase.

CONCLUSION

In summary of the findings a logistic regression to predict whether a consumer will SOP-Green supported their two binary choices. The stepwise logistic regression model reveals the foremost influential knowledgeable and awareness variable is ever buying organic food products (EBUOF). The findings of this paper have important implications for the farmers, decision-makers and food industry generally, and for the organic food sector especially. Consumer demographics and attitudes/awareness are found to be important determinants of SOP-Green purchased decisions, although the consequences might not be identical for consumers. this suggests that market segmentation strategies could also be necessary to make sure effective marketing outcomes. However, this study represents one among the first attempts at econometrically determining the consequences of socio-demographic and attitudinal factors on OFP purchasing decisions in Riverdale, Georgia. With data availability, future studies might replicate the analysis during this paper by using nationwide consumption data or longitudinal panel data to assess the robustness of our endings.

Finally, the paper concludes that if the probability of skeptical about organic products (SOP) called "Green" is more than 50%, the consumers will have a more chance of buying organic food products as against others don't. For probabilities under 50%, the consumers will have a more likely chance of buying organic food products.

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