

APPROVAL OF THEORETICAL MODEL CONCERNING ORGANIC FOOD CONSUMPTION IN BULGARIA

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Abstract: *The aim of the study is to validate a model of consumer behavior towards organic foods, particularly processed ones. The author of the present study assumes that the consumer of organic products in Bulgaria shows a specific market behavior when buying organic food, which needs to be considered in a context that takes into account the external impact - situational factors and incentives. By applying single and multiple regression analysis to data obtained from empirical research, the theoretical model for organic foods is validated. The combination of the variables "Situational Factors", "Social Environmental Stimulus", "Social Norms", and „Personal Values" can explain 13.4% in the change in intention to purchase organic food.*

Key words: *consumer behavior, organic food, theory of planned behavior, conceptual model*

АПРОБАЦИЯ НА ТЕОРЕТИЧЕН МОДЕЛ ОТНОСНО ПОТРЕБЛЕНИЕТО НА БИОХРАНИ В БЪЛГАРИЯ

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Резюме: *Целта на изследването е валидиране на модел на потребителското поведение към биологични храни, в частност преработени такива. Авторът на настоящото изследване приема, че потребителят на биологични продукти в България проявява специфично пазарно поведение при закупуване на биологични храни, което е нужно да се разглежда в контекст, отчитащ в по-голямата си част външното въздействие – ситуационни фактори и стимули. Чрез приложен единичния и множествен регресионен анализ към данни, получени от емпирично изследване се апробира теоретичният модел към биологични храни. Комбинацията от променливите „Ситуационни фактори“, „Стимул на средата“, „Социални норми“, „Персонални ценности“ могат да обяснят 13,4% в промяната на намерението за покупка на биологични храни.*

Ключови думи: *потребителско поведение, биологични храни, теория планираното поведение, концептуален модел*

1. Introduction

The marketing of organic products is often regarded as "green marketing" or social marketing, but these concepts do not fully reflect consumers' motivation such as fashion, image, enjoyment, and nutritional value. Organic farming is not only a source of food – it also provides a wide range of values (public benefits, improved quality of life, care for the natural resources and animals, health, social responsibilities, etc.). These values are not easy to determine - consumers cannot detect the presence or absence of organic characteristics even after purchasing and consuming organic products. Therefore, the marketing of organic food must be built around factors that influence the customer's

decision. It must present and make visible the added values that are being promoted. The term consumer attitude can be used to measure a consumer's general evaluation of a brand or product. Attitudes are assumed to follow reasonably from beliefs about the attitude object, as described by the expectancy-value model [1]. This term was introduced into social psychology through a three-component model, the elements of which also include intention. Purchase intention can be considered the best predictor of actual behavior [1]. It is a fact that a great number of respondents who express a positive attitude towards organic food do not carry out their intention to buy it due to various reasons, most often financial. The results of a conducted survey show that 50% of

consumers claim that they buy organic products, but only 15% in reality do [3].

This delay in purchase can be defined as a gap between attitude and intention. Therefore, the attitude measurement approach must be preceded by a purchase measurement process.

2. Research methodology

The purpose of the study is to validate a conceptual model that reveals the main factors and values that directly influence and mediate the relationship between intention and purchase of organic food. Theories that have proven their explanatory value in the field of "organic" consumption are identified - the Theories of Reasoned Action TRA and Planned Behavior TPB, the Attitude-Behavior-Context (ABC) Theory as well as the S-O-R model. The summary of the theories and arguments are presented in a conceptual model (see Fig. 1.) according to which consumers are guided by their experience and attitudes, are subjected to various incentives and contextual environmental factors that can change the course of their initial decision as to whether to buy organic food [4].

A study of US consumers concluded that "demographic variables are poor predictors of organic shopping behavior. Attitudes and behaviors better reflect references and hence are better predictors" [5]. To validate the model, the linear combination of the following independent factors was established through two multiple regression analyses.

H1ab: Social norms (would you recommend organic food) will positively influence attitudes/intentions to purchase organic food.

Social norms are the impact of attitudes and the influence of important individuals from one's social environment. If consumers' close friends and family approve the purchase of organic food, they would be more likely to form a positive attitude towards organic food and this would influence their intention to purchase it. Consumers of organic food use different sources of information, the most preferred being the Internet - social networks, and recommendations from friends and acquaintances [11, 12, 13].

H2ab: A social environmental stimulus such as an increase in income will positively influence attitudes/intentions to purchase organic food. Results of a correlation-regression analysis of the relationship between income and the consumption of organic products in individual EU countries show [8] that 96.61% of the growth in the consumption of organic products for the period 2010-2015 is due to an increase in the income of consumers.

H3ab: Situational factors, such as for whom food is purchased, will positively influence attitudes/intentions to purchase organic food.

In a study conducted in Ghana, the authors [6] claim that households with children under the age of 15 are much more likely to buy organic food. Most consumers shop for the whole family [7].

H4 ab: Personal values (the evaluation of purchases) will positively influence attitudes/intentions to purchase organic food.

Personal value. Buying organic food is somewhat of a moral dilemma, but because it also involves a financial burden the consumer is likely to deviate from personal norms to some extent when making this choice. Health concern is a leading incentive [7, 8, 9] & [9, 10, 11] and environmental protection is the second most important motive in the cited studies. Diet is another motive - following a vegan diet or having a vegetarian family member [14].

Purchase attitude is a central category in consumer behavior, formed under the influence of social norms and previous experience. Social norms are included in the model i.e., dynamics in the regulatory environment, such as trust in institutions and in producers, directly reflect on the attitude and intention to purchase organic food.

H5ab: Attitudes (planning to purchase organic food) / intentions (separate purchase budget) to buy organic food have a positive relationship with social norms. The lack of information about the benefits of organic food, as well as the methods of their production and points of sale have a negative influence on the propensity to purchase organic products [11,12], [15].

Through the methods of synthesis and analysis of research results, a conceptual model of consumer behavior towards organic food was prepared (see Fig. 1.) - according to it, consumers are guided by their experience and attitudes, are subjected to various incentives and contextual environmental factors that can change the course of their initial decision as to whether to buy organic food.

3. Results and discussion

The study uses regression analysis to determine how important the independent variables are regarding the dependent variable and to test the research hypotheses from the theoretical model.

A guaranteed probability of 95% is set. 151 people responded to an online survey - their profile is indicated in table 6. An online survey was conducted by providing a link to a questionnaire. The choice of an online survey carried out among organic food consumers was determined by the fact that they have an accumulated experience and do not need

explanations about what an organic product is. The data was collected *in the period April-June 2018*.

The number of observations must be greater than $N=104+k$, where k is the independent variable. The sample size meets the research objectives. In our study, $N=151$, $k=4$, the condition for testing each independent variable is met.

The selection of the variables that operationalize the factors was done by stepwise regression in which the demographic variables were not significant. Pearson's correlation analysis of variables was performed to check for correlation between the independent variables and the normal distribution of the dependent variable.

To test hypothesis H1a, a single linear regression analysis was conducted. The prerequisites for the analysis were met and the factor "Social norms" could statistically significantly predict the variable "Purchase Attitude". The result shows that the value of the adjusted coefficient of determination (adjusted R²) is 0.22 and the value of p is lower than .05 (significantly), indicating that 2.2% of the changes in social norms can predict purchase attitude:

$$(3) Y = 2.120 - 0.398 \times \text{Social norms.}$$

A single linear regression analysis was conducted to test H1b. It was found that the factor "Social Norms" cannot statistically significantly predict the variable "Purchase Attitude", $F(1,149) = 3.820$, $p > 0.05$. The regression constant $a = 1.519$, $p < 0.01$ is significant, but the regression coefficient $b = 0.537$, $p > 0.05$ is not statistically significant (Table 2).

To establish the linear combination between 'situational factors', 'social environmental stimulus', 'social norms', 'personal values' and 'purchase attitudes', a multiple linear regression analysis was conducted. The combination of variables is statistically significant for the prediction of the "purchase attitude", $F(4,146) = 5.802$, $p < 0.01$, but the regression coefficient is not significant $p > 0.05$, therefore we do not propose a regression equation (Table 4). To establish the linear combination between the analogous constants and the variable "Purchase Intentions", a multiple linear regression analysis was conducted (Table 3). The construct variables are statistically significant for the prediction of "Purchase Intention", $F(4,146) = 6.798$, $p < 0.01$, all regression coefficients are significant $p < 0.05$. The regression constant is $a = 1.145$, $p < 0.01$ therefore we compile (3) regression equation.

4. Conclusion

H1a: Social norms influence attitudes i.e., a given recommendation forms a positive attitude towards organic food, but not a specific intention.

H2b: Social environmental stimuli directly influence purchase intention.

H3ab: Situational environmental factors (for whom the food is purchased) influence both attitude and intention to purchase organic food.

H4ab: Personal values are associated with both the intention and the attitude to carry out this behavior.

H5b: The attitude towards the purchase of organic food affects social norms too, not just the other way around i.e., the purchase of organic food leads to a more responsible model of behavior.

The theoretical model was tested for adequacy through correlation analysis between variables, as well as to determine what is the joint influence of the group of variables on the dependent variable through regression analysis. Two multiple regression analyses were performed, as well as two single regression analyses, at a set confidence level of 95%. Based on the tested relationships in the models, the following hypotheses, summarized in table 5 with values of coefficients from table 3 and table 4, are accepted as significant. The combination of the variables "Situational Factors", "Social Environmental Stimulus", "Social Norms", "Personal Values" can explain 13.4% in the change of "Purchase Intention".

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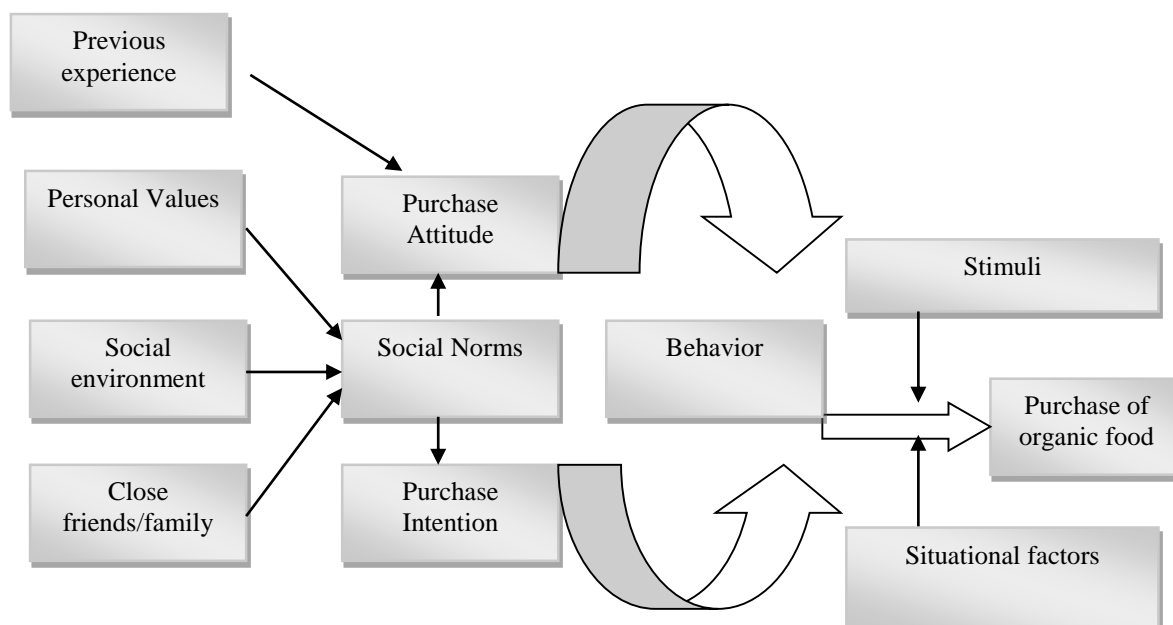


Fig.1. Conceptual model

Table 1. Single Regression Analysis Dependent Variable "Purchase Attitude"

Model	Non-standardized Coefficients		Standardized		Sig.
	B	Std. Error	Coefficients Beta	t	
(Constant)	2,120	,066		32,245	,000
social norms	-,398	,190	-,169	-2,090	,038
R	R Square	Adjusted R Square	Std. Error of the Estimate		
,169	,028	,022	,758		

Table 2. Single Regression Analysis Dependent Variable "Purchase Intention"

Model	Non-standardized Coefficients		Standardized		Sig.
	B	Std. Error	Coefficients Beta	t	
(Constant)	1,519	,095		16,019	,000
social norms	,537	,275	,158	1,955	,053
R	R Square	Adjusted R Square	Std. Error of the Estimate		
,158	,025	,018	1,093		

Table 3. Multiple Regression Analysis Dependent Variable "Purchase Intention"

Model	Non-standardized Coefficients		Standardized		Sig.
	B	Std. Error	Coefficients Beta	t	
(Constant)	1,145	,337		3,401	,001
Stimulus	,413	,177	,180	2,335	,021
Social norms	,524	,258	,154	2,032	,044
Situational factors	,311	,097	,25	3,227	,002
Personal values	-,359	,150	-,187	-2,387	,018
R	R Square	Adjusted R Square	Std. Error of the Estimate		
,370	,137	,114	,722		

$$(4)IT = 2.108 + 0.311SF + 0.41ST + 0.524SN + 0.359PV + \epsilon,$$

$IT = \beta_0 + \beta_1SF + \beta_2ST + \beta_3SN + \beta_4PV + \epsilon$, where

$IT = intention$,

$\beta_0 = invariable$

$SF = situational factors$

$ST = stimuli$

$SN = social norms$

$PV = personal value$

$\epsilon = standard error$

$\beta_1, \beta_2, \beta_3, \beta_4 = coefficient of each factor$

Table 4. Multiple Regression Analysis Dependent Variable "Purchase Attitude"

Model	Non-standardized Coefficients		Standardized		Sig.
	B	Std. Error	Coefficients Beta	t	
(Constant)	2,054	,237		8,679	,000
Stimulus	-0,005	,124	,003	,037	,097
Social norms	-0,385	,181	-,163	-2,123	,002
Situational factors	-0,160	,068	-,185	2,253	,000
Personal value	0,318	,106	,239	3,016	,003
R	R Square	Adjusted R Square	Std. Error of the Estimate		
,369 ^a	,157	,134	1,027		

