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## Article

# Relationship between sustainable buying intention and marketing strategies

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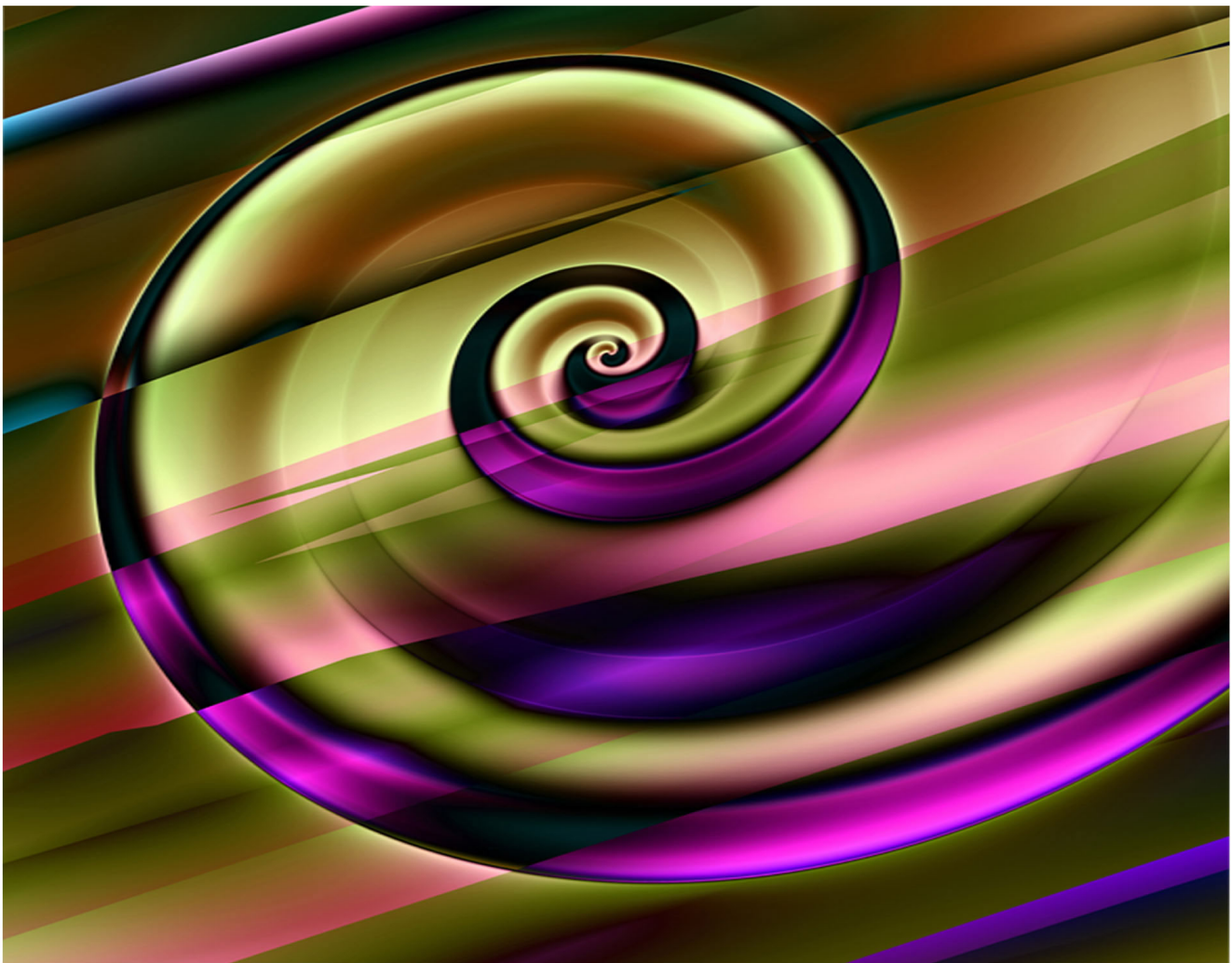
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## Relationship between sustainable buying intention and marketing strategies

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### Abstract

In this paper, we analysed the relationship between sustainable buying intention (SBI) and marketing strategies (price, product, communication and placement) and We use a theoretical model to test hypothesis via structural equation model by maximum likelihood in AMOS version 19.0 software. Sampling (N=524) was performed at sale points of the business premises where volunteer participants answered a structured questionnaire in the five-point Likert scale. The results show a strong association with marketing strategies and sustainable buying intention, so the price is still a very important factor when purchasing. The managerial implication of this study more relevant would focus on the importance for companies to recognize that marketing strategies are assets which have to invest more effort.

**Keywords:** marketing strategies, sustainable buying intention, Structural equation model, green marketing, corporate social responsibility.

### 1. Introduction

The demand for organic products, defined as those who do not use synthetic chemicals instead they are natural origin that is readily biodegradable, low-impact or can be recycled (as in the case of packaging, packaging and labeling) began to expand dramatically in developed countries in the late eighties. Since then it has seen strong growth in businesses, institutions and consumers in the concern for the environment.

Initially green purchasing is attributed to the generation of benefits to protect the environment. However, studies have now found a strong relationship between health and consumption of organic products (Horrigan et al 2002, Zanolli & Nasperti 2002; Pedersen 2003; Salgado-Beltrán & Beltrán-Morales, 2011)

In addition, evaluation of alternatives depends on the brand recognition, attitude (environmental awareness) to organic products and the trust that is attributed to the product or the brand increase sustainable buying intention



(SBI). In this context, the critical factor in making green purchasing is not consumption itself but the amount of energy and resources used it causes. Thus, the company must integrate the environmental component in all stages of their marketing strategies (Handfield et al, 1997).

There are studies on the factors of marketing strategies for organic products like: price (Bhate & Lawler 1997; Mathur & Mathur 2000; Moon *et al* 2002), product (Martinsons *et al* 1997; Chen 2001; Handfield *et al* 2001; Pujari *et al* 2003; De Caluwe 2004; Bhaskaran *et al* 2006; Jansen & Stevels 2006; De Ferran & Grunert 2007), placement (Handfield *et al* 1997) and communication (Banerjee *et al* 1995; Carlson & Grove 1996; Mohr *et al* 1998; Wagner & Hansen 2002; Lankard & McLaughlin 2003).

And about variables that can influence the purchase of organic product: values (Wiener and Sukhdial 1990; Stern *et al*, 1993; McCarty and Shrum 1994; Peattie 2001;) belief (Alba and Hutchinson 1987; Vining and Ebreo 1990; Crane 2000; Chan 2001) motivations (Mainieri and Barnett 1997) attitudes (Schlegelmilch *et al* 1996; Dietz *et al* 1998) the study of the relationship between SBI and marketing strategies has not been discussed deeply. So, for actionable solutions, leaders must navigate a complex network of systems interlinkages, difficult trade-offs, and powerful feedback loops within the political, business, and natural environments (Krantz, (2010). This fact implies a relevant contribution since the literature analyzing simultaneously the concepts of SBI and price, product, communication, placement (marketing strategies) is really scarce in this particular context.

Accordingly, the purpose of this paper was analyzed the relationship between SBI and marketing strategies as perceived by Catalan consumers. Particularly, establishing a causal relationship through the factors mentioned, contrasting their effects by providing information to the relations referred. We used the Structural Equation Model (SEM). This applying provided more powerful tools for the study of causal relationships on experimental data when these relationships are linear. The importance of this research is to provide evidence on how consumers see marketing efforts to generate success strategies for organic products, taking into account the average consumption rate in Spain, it is set to two times per week (GFK, 2011).

This paper is organized as follows. In section two we briefly revised the elements of the theoretical model. Section three presents a design research of the relationship between SBI and marketing strategies. Section four presents the investigation results and section five summarizes the main conclusions of the paper.

## **2. Theoretical model**

In this section, we briefly define some basic concepts to be used throughout the paper such as SBI and marketing strategies (price, product, communication, placement). These elements are a continual attempt to influence or persuade consumers to buy your products or services.

### **2.1. Defining sustainable buying intention**

The buying intention toward a product depends on the attitudes and beliefs to this particular product derived from theory of reasoned action (TRA) (Fishbein and Ajzen, 1975, 1980). The key application of the theory of reasoned action is prediction of behavioral intention, spanning predictions of attitude and predictions of behavior. The subsequent separation of behavioral intention from behavior allows for explanation of limiting factors on attitudinal influence (Ajzen, 1980). In addition, it is possible to indicate that buying intention is a future projection of consumer behaviour that significantly helps to form his/her attitudes (Espejel et al 2008).

When we talk about organic products, there are several approaches to measure the sustainable buying intention (Schwepker & Cornwell 1991; Amyx et al 1994; Schlegelmilch et al 1996; Chan 2001; Tarkiainen & Sundqvist 2005; Vermeir & Verbeke 2006; Salgado-Beltrán et al 2009).

If we analyze the basic aspects of the behavioral pro-ecologic model (Corral-Verdugo et al, 2009), there is not a general category of pro-environmental behavior of a consumer but it is manifested as a set of multiple independent factors (Lee et al. 1995; Corral-Verdugo 1996; Bratt 1999) although there is evidence that could relate to each other (Tracy & Oskamp 1984; Diamantopoulos et al. 2003).

In short, the SBI is an attitudinal conduct pattern of the consumer conscious regarding a future purchase. The evaluation of alternatives depends on the brand recognition of the attitude (environmental awareness) to organic products and the confidence attributed to the product or brand, increasing SBI.

## ***2.2 Defining Marketing strategies, the price***

Any product or service has a price, conceptually, is defined as the expression of value that is assigned to that product or service in monetary terms. The variable price is one of the most important and elemental in an ecological buying intention. The existence of a price premium for ecologic products is a result of both higher costs of production and processing, and the greater usefulness to consumers, who are perceived as higher quality, healthy and environment friendly. This premium is very varied, depending on product type and the type of establishment where it is sold, varies between 10 and 200% (Salgado et al, 2009).

Bhate & Lawler (1997) has associated the price with the purchase of ecologic products, resulting image/presentation of these products would influence to will ingness to pay (WTP) for a premium price. Lohr (1998) says that as there are consumers with higher income levels, the ability to sustain premium prices for ecologic products is higher, but to the extent that consumers do not distinguish between a certified “pesticides free” there are not reasons for willing to pay a premium price.

The operational marketing strategy can handle higher prices than the competition because the company holds up higher costs resulting from the internalization of environmental costs. Otherwise, prices lower or similar to that of competitors can generate an image of poor quality product. This strategy may have advantages and disadvantages as consumers may consider that the ecological attribute is a value added to the product and if it is worth less because their quality is inferior.

## ***2.3 Defining Marketing strategies, the product***

In this section we analyze the product as a marketing tool and its ecological attributes. The basic rules of International Federation of Organic Agriculture Movements (IFOAM) use the terms ecologic products and organic as equivalent. The designations biological, ecological and organic with bio and eco diminutives are unique from July 1 of the production obtained by the organic method, as EU law and regulated as provided for in Royal Decree 1614/2005 on organic production and indication on agricultural products and foodstuffs.

As we can see an organic product is one that performs the same functions of the equivalent products, but the damage to the environment is less to-do over its life cycle. The most representative and sophisticated tool for analyzing and quantifying the consumption of resources and their environmental impact throughout the entire life cycle of a product is Life Cycle Assessment (LCA) (Jeong et al, 2010).

The certifications (eco-labeling) are linked to LCA. It must be credible process if:

- 1) It assures consumers that organic food is produced according to rules to protect environment (Lohr 1998), particularly with regard to waste of electrical and electronic equipment (WEEE), restriction of hazardous substances directive (RoHS ) and energy using product (EuP) (Curran, 1996).
- 2) The producers unscrupulous will not use the term organic; and
- 3) Makes that market more efficient in the marketing channel from producer to consumer (Lohr 1998).

Then the green marketing can learn from conventional marketing to discover other meanings of eco-labeling to promote these products (Rex & Baumann 2007).

In addition, organic products are perceived as difficult to find and expensive although most consumers judged them as positive. They associated them with health in different levels of abstraction and they want good products, tasty and nutritious (Zanoli & Naspetsi 2002). So the attributes of freshness and nutrition of organic products are highlighted by consumers and the greater propensity to buy organic products is between fresh and well-educated young women (Wier & Andersen 2001).

The product strategy is to meet the needs and desires of consumers; that is, products that are commonly accepted by consumers may cease to be due to its negative image ecological, among others. Specifically eco-efficiency strategy that it mean competitively priced goods and services that satisfy human needs and bring quality of life while progressively reducing environmental impacts of goods and resource intensity throughout the entire life-cycle to a level at least in line with the Earth's estimated carrying capacity (UNEP-WBCSD 1998).

The mere development of green products may be insufficient for commercial success in the green segment, if not based on an effective positioning strategy (Coddington, 1993) Therefore, it requires a proactive response by the companies.

#### ***2.4 Defining Marketing strategies, the communication***

The green marketing requires more than developing a good product and determines the price should be communicating with customers, especially to inform and educate environmental awareness and generating ecological buying intention.

The costs calculated to estimate price and benefits for the goods in the companies, do not report the ecological reality of the manufacturing process and components, as effect: incomplete information (Hawken, 1993). If consumers receive this information completely, it is likely that change their buying intention.

It is important to inform consumers about the benefits of ecologic products. If credible and verifiable, can help consumers feel they are making a difference to buying the product.

The environmental ads can be expressed a relationship between a product or service and the environment, may present a corporate image of environmental responsibility and can promote a green lifestyle (Wagner & Hansen 2002).

#### ***2.5 Defining Marketing strategies, the placement***

This part would cover the environmental impacts related to packaging, transport and distribution of good to its users (Azqueta, 2000). Nowadays the limited awareness and unavailability of organic products and services inhibit the green consumerism (Martinsons et al, 1997). This awareness does not always lead to organic consumption decisions (Shamdasani, 1993). If the consumer wants to buy organic products and he is not finds a point of sale, the company / producer would be failing.

Therefore, the distribution systems should be evaluated and designed according to a global result, not to the comparisons between the isolated parts for ecological benefit. As well as the implications for businesses and consumers that could originate, as they may affect the competitiveness as a whole.

### 3. A research

In this section, we describe a research applied to Catalan consumers to find the relationship between SBI and marketing strategies via a structural equation model (SEM) to verify the theoretical model.

#### 3.1. Procedure

Firstly, we conducted group sessions to have an idea about the opinions of a number of consumers and to construct the bases for developing the scales to quantify the marketing strategies and ecological buying intention constructs. A construct is defined as underlying properties that cannot be measured directly, but through external manifestations of its existence, that is, through indicators (Torgerson, 1958; Kerlinger, 1964; Bunge, 1973). Then, we presented the scales to various external marketers and ecological product specialists like entrepreneurs. To complement the study we asked about socio demographic items.

Second, for the gathering of information was carried out a pilot survey. Sampling was performed at sale points of the business premises where volunteer participants answered a structured questionnaire in the five-point Likert scale. The application of this type of survey called personal survey or by customer is designed to locate the respondent, the same time it is intended to be actual or potential client. We used the formula for infinite populations, segmenting the population aged 18 to 65 years obtaining a sample size of 524 valid cases, with a sample error  $\pm 4$  per cent and confidence level of 95 per cent (table 1).

Table 1. Sample Design

Geographic scope	Barcelona city
Universe	Consumers of organic products
Methodology	Personal surveys
Sampling procedure	Convenience
Sample size	524
Sample error	$\pm 4$ per cent
Confidence level	$95 \times 100 \ p=0.5 \ q=0.5$
Fieldwork date	Mayo 2010

The final scale to measure marketing strategies is composed by eight items in relation to “the price”, “the product”, “the communication” and “the placement”. SBI scale is comprised by five items (table 2)

Table 2. SBI and Marketing strategies items

Marketing Strategies	Salgado-Beltrán and Beltrán-Morales (2011)
Price	I buy more organic products if the price is similar to conventional product The high price of organic product tells me that is of higher quality
Product	I seek information about environmental damage to the product I would like the product package specify the percentage it has of ecological

	component.
Communication	Ecological information on advertising helps me make a buying decision Advertising of organic product should be more attractive
Placement	I wish there were more point of sales Organic products are not readily available

#### **Sustainable Buying Intention**

I buy ecological products mainly by health  
I think to buy an ecological product will contribute to reduce environmental damage  
I like to be informed about regulations (ecolabelling) of a product before purchase  
I intend to continue buying the ecological product  
If a friend or relative recommended me ecological product I would buy it

### **3.2. Processing of data**

We make the filtering process of the scales with an exploratory analysis for reliability and unidimensionality of the scales through Cronbach's alpha coefficient, with values greater than .70 based on the suggestion of Nunnally (1967), providing satisfactory levels in all cases: marketing strategies 0.90 and SBI 0.95, so we consider needless eliminate any of the indicators.

In correspondence, the variance explained by the different dimensions was: marketing strategies 68.00 per cent and SBI 74.8 per cent. It is considered that an indicator should have at least 50 per cent of its variance in common with the latent variable. Therefore, the limit considered acceptable for this measure of composite reliability is 0.50 (Sharma, 1996).

Subsequently, we estimated the structural equation model by maximum likelihood in AMOS version 19.0 software. Indicators were calculated for goodness of fit Chi Square ( $\chi^2$ ), normed fit index (NFI), comparative fit index (CFI) and the root mean square error (RMSEA). This step required the development of several confirmatory models; we followed the three criteria established by Jöreskog (1993).

### **3.3. Research hypotheses**

According to Pedersen (2003: 247) in order to enable consumers to decide about the future of organic food production certain basic consumer demands must be met in the market. These are:

1. Price transparency in the production chain;
2. An agricultural subsidy scheme that does not stimulate quantity over quality;
3. Internalization of external costs, which at the present non-sustainable status of agricultural practice will highlight the differences between conventional and organic product;
4. Awareness rising among consumers thought information campaigns, education, etc.
5. Access to detailed, truthful and attractive market information that will enable consumers to make well-informed choices and;
6. Better competition rules for the retail sector

In this context, price, product, communication and placement (marketing strategies) can be used by the company to sensitize environmentally to its potential market, especially in regard to environmental aspects directly related to their business or their product.

First, consumers are willing to pay a high price (DPA) for organic products because they are not sufficiently involved with environmental issues (Bhate & Lawler 1997, Moon et al 2002; Gifford & Bernard 2011) or were willing to do so only if they liked the product or if the product was of comparable quality to the regular Brand.

**H<sub>1</sub>**= *the price strategies have a positive and significant effect on sustainable buying intention of catalan consumers.*

It assures consumers that organic food is produced according to rules to protect environment (Lohr 1998). Thus, the following hypothesis is proposed:

**H<sub>2</sub>**= *the product strategies have a positive and significant effect on sustainable buying intention of catalan consumers.*

To generate an SBI is necessary to use a tool of persuasion, communication, if companies do not report the environmental costs of production to consumers, is an effect of incomplete information (Hawken 1993). Upon receiving this information completely, the propensity to change in attitude could be higher (Wagner & Hansen 2002).

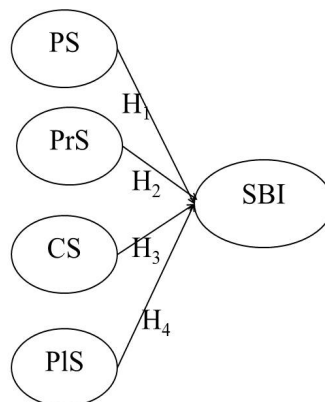
**H<sub>3</sub>**= *the communication strategies have a positive and significant effect on sustainable buying intention of catalan consumers.*

Finally, the limited awareness and unavailability of organic products and services inhibit the green consumerism (Martinsons et al, 1997).

**H<sub>4</sub>**= *the placement strategies have a positive and significant effect on sustainable buying intention of catalan consumers.*

The hypothesis of causal model proposed would be reflected in the following manner (Figure 1):

Figure 1. Hypotheses



#### 4. Results

First, we have a descriptive profile of catalan consumers. 15.3% of respondents have 33 years old. 67.2% are women and 34.4% are men. 46.4% of respondents are single and 34.4% are married. About studies, 51.7% have a degree, 19.7% bachelor's degree and 17.2% are graduate. 61.6% of respondents earn income by 500-1501€.

Table 3. Descriptive profile

Age	33 years = 15,3%
Sex	Man= 32,8%
	Woman = 67,2%
Marital status	Married = 34,4%
	Single = 46,4%
Studies	Bachelor's degree = 19,7%
	Degree = 51,7%
	Graduate = 17,2%
Income	Less of 500,19€ = 5,9%
	500-1501€ = 61,6%

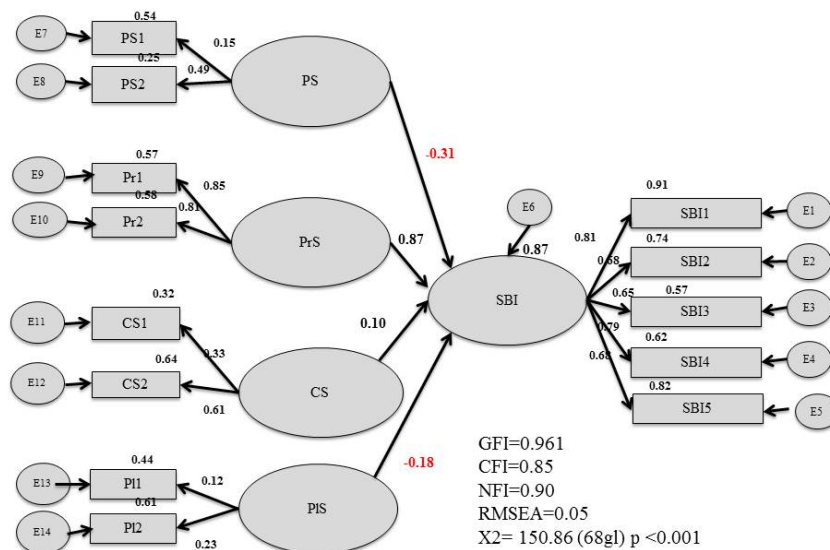
In the structural equation model, marketing strategies causes SBI, each construct is represented with their respective variables.  $\chi^2$  statistic for the reduced values represents less discrepancy between the observed and predicted by the model and therefore a better fit. That is, high values of  $\chi^2$  compared to the degrees of freedom  $df$  indicate a poor fit (Batista & Coenders 2000). In the model this indicator reveals  $\chi^2=150.86$  (68gl) with a  $p<.001$ .

The normed fit index (NFI) measures the proportional reduction in the adjustment function when going from zero to the proposed model. The range of variation of this index is between 0 and 1, with recommended values above 0.90 (Bentler & Bonett 1980). In this case NFI= 0.90.

The comparative fit index (CFI) shows a good fit of the model to values close to 1 (Bentler 1990). In the model the CFI= 0.85. The root mean square error (RMSEA) defines the discrepancy between the two matrices that this measure in terms of population and not in terms of the sample. Values below 0.08 are indicative of goodness of fit model in the population (Steiger 1990), in this case was obtained RMSEA = 0.05. These indices permit to affirm that the theoretical relationship model finds support in the data according to compliance with convergence Steemkamp & Van Trijp (1991). The results are shown in figure 2.



Figure 2. Tested model of SBI and marketing strategies



Concerning the results obtained, we should note, that the price strategies have a negative and significant effect on SBI of catalan consumers, rejecting hypothesis 1. The product strategies have a positive and significant effect on SBI of catalan consumers, supporting hypothesis 2; the communication strategies have a positive but non-significant effect on SBI of catalan consumers, supporting hypothesis 3 and the placement strategies have a negative and significant effect on SBI of catalan consumers, is rejected the hypothesis 4.

## 5. Conclusions

The results show a strong association with price strategies and SBI, so the price is still a very important factor when purchasing. 5 out of 10 respondents would like that the organic products were cheaper and they had more points of



sales, as these products are difficult to find and usually are imported. This is the reason that placement strategies have a negative cause-effect relationship on SBI for Catalan consumer. Hence, those findings confirm the results of GFK (2011) research. An important information is that 8 out of 10 purchased primarily for health as outlined in the study of Horrigan et al (2002).

In the structural equation model shows the price and placement strategies have a negative and significant effect (-0.31 and -0.18 respectively) on SBI. On the other hand, product and communication strategies have a positive and significant effect on SBI (0.87 and 0.10 respectively). However, communication strategy has to be more credible, this require strengthening the consumer perception of environmental communication, in all formats, expressing the relationship between a product/service and the environmental, presenting a corporate image of environmental responsibility and promote an ecological lifestyle (Wagner & Hansen 2002).

Therefore, is fulfilled the objective of this paper that was analyzed the relationship between SBI and marketing strategies as perceived by Catalan consumers.

The managerial implication of this study more relevant would focus on the importance for companies to recognize that marketing strategies as noted Grundey & Zaharia (2008) are assets which have to invest more effort to accommodate them in the market for organic products increasing SBI. It should be emphasized in the design of price strategies for organic products to get higher WTP (Bhate & Lawler 1997; Moon et al 2002). Because the lack of knowledge or familiarity on the production process of this type of consumer products have significantly reduced WTP (Gifford & Bernard, 2011).

All together would generate an increase in the consumption of organic products, contributing with product development (eco-design, eco-labeling, etc.) to reduce the environment impact and producing satisfaction in the health-conscious consumers and environmental awareness.

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