

A Study of Consumers' Organic Products Buying Behavior in Taiwan - Ecologically Conscious Consumer Behavior as A Segmentation Variable

Wei-Chih Tseng¹⁺ and Chun-Hui Chang²

¹ National Chengchi University, Taiwan, ROC

² Tamkang University, Taiwan, ROC

Abstract. The purpose of this study is to explore the key antecedents that drive consumers' choice of organic products in Taiwanese market, and segments consumers in high or low level of ECCB (ecologically conscious consumer behavior), and this work is done from an integrated research framework which allocates utilitarian value and hedonic value as the antecedents, and incorporates Theory of Planned Behavior (TPB) into the research framework. By using Structural Equation Modeling (SEM) analysis, the research results of this study indicate that, we can truly take ECCB as an effective segmentation variable. Firstly, when consumers in a high level of ECCB, either subjective norm or perceived behavioral control (PBC) has no impact on the their purchase intention directly and indirectly, but both utilitarian and hedonic values have positive impact on the consumers' purchase intention. Secondly, when consumers in a low level of ECCB, Subjective norm has an impact upon consumers' purchase intention through the mediating effect sourced from the attitude of consumers, and PBC has impact on their purchase intention directly, moreover, compare to hedonic value that just utilitarian value has impact on the consumers' purchase intention toward organic products. Finally, the potential consumers could be encouraged to purchase organic products via the advertisements to educate consumers about the products' benefits.

Keywords: Ecologically conscious consumer behavior, ECCB, Perceived value, utilitarian value, hedonic value, TPB, subjective norm, perceived behavioral control, attitude, green, organic products.

1. Introduction

With the popularization of the issues of global warming and climate change, more and more people are aware of environmental damages caused by human behavior. The fundamental living necessities of humans, such as food, water, clothing, housing and transportation, all take place on the Earth. Many environmentalists and governments worldwide have started to promote low carbon and green concepts.

Such a green urgency is sweeping the world. Based on the surveys conducted by the Organic Trade Association (OTA) in 2013, over 40% of those surveyed in US households have a higher level of motivation to purchase organic products, for the sake of their own and their family's health. In addition, 97% of organic product buyers had purchased organic fruits or vegetables in the past six months. We can also see this kind of situation in Taiwan, where about 80% of consumers are willing to pay more money to purchase environmentally friendly products. The OTA even maintains that, except for Japan, Taiwan is the fastest growing organic market in Asia. Therefore, this study aims to explore the consumers' purchase behaviour behind the organic market in Taiwan.

The organic market in Taiwan covers the products from agriculture, food processing, textiles, apparels, and even personal care products and cleaning supplies. Following this green trend that seeks to enhance

⁺ Corresponding author. Tel.: +886-922-859-280.
E-mail address: wythee@gmail.com.

human health and to maintain a sustainable earth to live on, organic stores in Taiwan has become an emerging industry and there seem to be endless business opportunities in this potential organic market.

In order to position green product offerings, companies must first segment the market according to levels of pro-environmental purchase behavior and then target the “greener” consumer segments, so in this article we pay attention to ECCB, so as to acquire a significant market share, it is necessary for enterprise managers to understand consumers' perceived value of organic products and how this determinant, perceived value, impact their purchase intention.

In order to explore the consumers' possible decisive path from perceived values to purchase intention toward organic products in high or low ECCB of consumers (see Fig. 1), this study includes the variables utilitarian value and hedonic value as the antecedents, attitude as the mediating factor, both subjective norm and perceived behavioral control as other influential factors, and ECCB as the moderator.

2. Literature Review and Conceptual Framework

2.1. Ecologically Conscious Consumer Behavior (ECCB)

ECCB has become a popular topic for investigation in the marketing academia. Various aspects of environmental and ecological protection have been studied in the literature. Meffert and Kirchgeorg (1993) suggest that ECCB might occur in several ways, and they list five types of ECCB: Reducing the consumption of traditional goods, adjusting to purchasing eco-friendly products instead of traditional goods, consuming environmentally efficient goods, participation in recycling, and taking part in environmentally conscious complaints or protests. Roberts (1996) point out that a consumer is to be considered environmentally conscious if they purchase products and services which they believe to have a positive or a less negative impact on the environment. Kotler (2003) also predict that environmental concerns and social marketing concept have increased over the past twenty years.

2.2. Perceived Value

Perceived value is the overall purchase experience of consumers. It is based on the consumers' comparison between the quality and quantity of products received and paid out, and their objective and subjective consideration of certain factors (Schechter, 1984; Zeithaml, 1988). Perceived value varies with the type of products and services and consumers' personal traits (Zeithaml, 1988). Perceived value is a complicated construct and, therefore, its impact on consumers' purchase intentions toward products cannot be judged from a single dimension only (Bolton & Drew, 1991). Literature on perceived value divides it into utilitarian and hedonic values. Utilitarian value refers to the perceived value acquired by consumers after their purchasing goals have been achieved in the process of consumption. That is to say, utilitarian value is the task- and rationalization-oriented decisions of consumers. On the other hand, hedonic value is affiliated to the individual emotional and irrationality phase of consumers, which usually occur during the process of consumption. Consumers commonly feel pleasant emotions and feelings of motivation and accomplishment, or can even fulfill their desire for escape (Babin & Attaway, 2000; Babin, Darden, & Griffin, 1994).

Past studies have pointed out that perceived value has a direct impact on the purchase intention (Grewal, Monroe, & Krishnan, 1998). However, in the Value-Attitude-Behavior Model, Homer and Kahle (1988) indicated that perceived value affects consumers' purchase intention through the mediating effect sourced from their attitude.

2.3. The Theory of Planned Behavior (TPB)

TPB has been commonly used to explain a variety of human behaviour (Cunningham and Kwon,2003; Andrews, Silk and Eneli,2010; Kim & Chung, 2011). The TPB mainly focuses on the influence of three behavioural intention dimensions of individuals: attitude, subjective norm and perceived behavioural control. In short, following the fundamental concept of TPB (Ajzen, 1985), this study explored the variables of (1) consumers' attitude towards organic products, (2) the subjective norm, represented by the pressure from family members and close friends, and (3) the perceived behavioural control, presenting perceived ability to control the availability and accessibility of organic products. The ultimate goal of this research is to find out the critical determinants influencing consumers' purchase intentions towards organic products.

2.4. Conceptual Framework and Hypothesis

According to literature review of this article, the conceptual framework is summarized in Figure1, and hypotheses are listed below.

- H1: Subjective norm has a positive impact on the formation of consumers' attitude toward organic products when consumers in high level of ECCB(a) / low level of ECCB(b).
- H2: Perceived behavioral control has a positive impact on the formation of consumers' attitude toward organic products when consumers in high level of ECCB(a) / low level of ECCB(b).
- H3: Subjective norm has a positive impact on the consumers' purchase intention toward organic products when consumers in high level of ECCB(a) / low level of ECCB(b).
- H4: Perceived behavioral control has a positive impact on the consumers' purchase intention toward organic products when consumers in high level of ECCB(a) / low level of ECCB(b).
- H5: Positive attitude of consumers has a positive impact on their purchase intention toward organic products when consumers in high level of ECCB(a) / low level of ECCB(b).
- H6: Utilitarian value has a positive impact on the formation of consumers' attitude toward organic products when consumers in high level of ECCB(a) / low level of ECCB(b).
- H7: Hedonic value has a positive impact on the formation of consumers' attitude toward organic products when consumers in high level of ECCB(a) / low level of ECCB(b).
- H8: Utilitarian value has a positive impact on the consumers' purchase intention toward organic products when consumers in high level of ECCB(a) / low level of ECCB(b).
- H9: Hedonic value has a positive impact on the consumers' purchase intention toward organic products when consumers in high level of ECCB(a) / low level of ECCB(b).

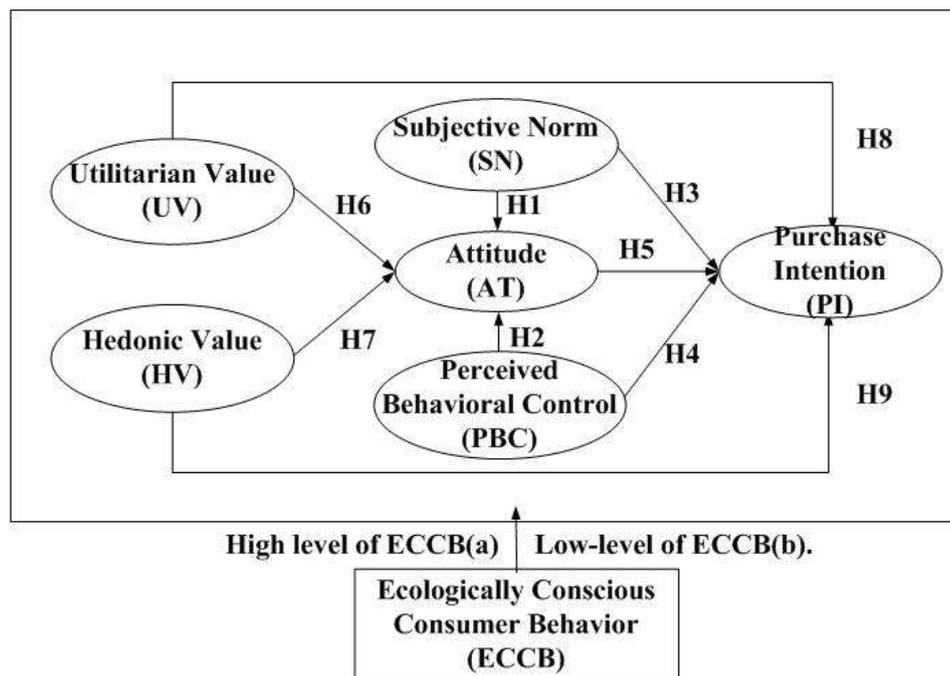


Fig. 1: Conceptual framework and hypotheses

3. Methodology

3.1. Sampling

This study mainly targeted the consumer behavior of consumers from the Taipei area in Taiwan toward organic products. In summary, there were 565 copies collected. Excluding invalid questionnaires (73 copies), the number of valid questionnaires was 492 in total. The valid response rate was 87%.

3.2. Participants

In this study, most of the respondents were female, accounting for 57.7%, with only 42.3% males. Respondents who were aged 20 to 29 took the majority, accounting for 37.6%. This was followed by people aged from 30 to 39 (37%) and those aged from 40 to 49 (18.5%). Regarding the educational level of the respondents, the people who had a bachelor degree took the majority with 65.2%, followed by those with a postgraduate degree at 30.5%. Of the respondents, the marital status of most of the respondents was single (63%).

3.3. SEM

The SEM is a statistical technique combining both factor analysis and path analysis and is widely used in social and behavioural science studies. Therefore, this study adopted the SEM as the analytical tool to explore the causal relationship among the latent variables.

4. Results

4.1. Model Testing

This study facilitated the LISREL software program to conduct the evaluation of the measurement model and the structural model of SEM. SEM assumes linear relationships among variables, and it tests these relationships against the data collected. The analytical procedure assumes a causal structure between endogenous and exogenous variables, and it allows for the estimation of direct, indirect, and total effects (Jöreskog, Andersen, Laake, Cox, & Schweder, 1981).

The fit indices of this investigation for the estimated model pass the cutoffs of seven different kinds of fit indices. GFI = 0.91, CFI = 0.99, NFI = 0.98, NNFI = 0.99, AGFI = 0.89, SRMR = 0.096, RMSEA = 0.053, most of which are in line with evaluative standards (GFI, AGFI, NFI, NNFI, AGFI > 0.8; SRMR < 0.1; RMSEA < 0.08).

4.2. Hypothesis Testing

This study proceeded to evaluate the structural model among latent variables, which was to test and verify whether the hypotheses proposed by this study were supported or not. The hypotheses of the positive or negative relationships between latent variables are judged by estimated value. The test results are summarized in Tables 1 and Fig. 2. From the table below, we can see that, H1a-H4a, H2b, H3b, H7b and H9b which were rejected, all other hypotheses proposed by this study were supported.

Table1: Summary of the test results for the hypotheses of this study

High-ECCB				Low-ECCB			
Hypothesis	Estimated Value	t-value	Result	Hypothesis	Estimated Value	t-value	Result
H1a : SN→AT	0.16	1.55	Reject	H1b : SN→AT	0.4	4.85***	Support
H2a : PBC→AT	0.01	0.29	Reject	H2b : PBC→AT	-0.04	-0.82	Reject
H3a : SN→PI	-0.07	-0.64	Reject	H3b : SN→PI	-0.06	-0.57	Reject
H4a : PBC→PI	0.04	0.84	Reject	H4b : PBC→PI	0.11	2.14*	Support
H5a : AT→PI	0.41	2.91**	Support	H5b : AT→PI	0.52	3.31***	Support
H6a : UV→AT	0.66	6.02***	Support	H6b : UV→AT	0.54	5.98***	Support
H7a : HV→AT	0.14	2.06*	Support	H7b : HV→	0.07	0.88	Reject

				AT			
H8a : UV→PI	0.32	2.12*	Support	H8b : UV→PI	0.25	2.00*	Support
H9a : HV→PI	0.21	2.95**	Support	H9b : HV→PI	0.17	1.95	Reject

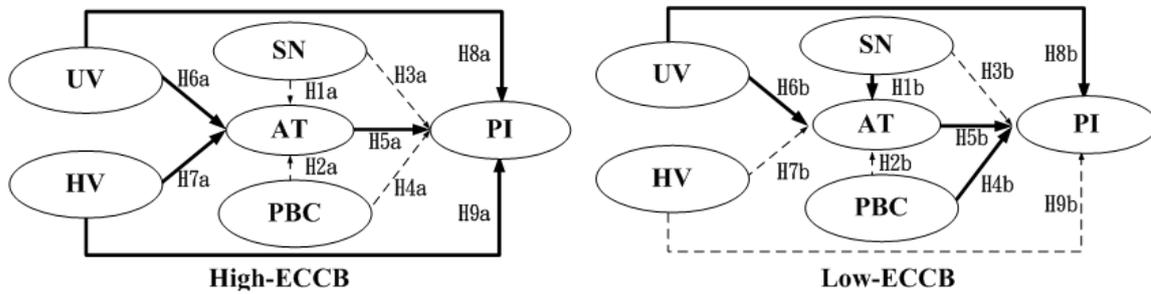


Fig. 2: Conceptual framework and hypotheses

5. Discussion and Conclusions

5.1. Consumers in a high level of ECCB

Both subjective norm and TPB don't have impact on the consumers' purchase intention directly, and don't mediate the relationship between attitude and purchase intention, but both utilitarian and hedonic values have positive impact on the consumers' purchase intention directly and indirectly. The findings of this study confirmed the claims proposed by many scholars that perceived value is a critical determinant affecting the purchase intention of consumers (Zeithaml, 1988). This study found that utilitarian and hedonic values are, indeed, the important driving antecedents for consumers to purchase organic products for consumers of high ECCB.

The empirical results of this study show perceived value is an important antecedent driving consumers to purchase organic products in Taiwan, especially when consumers in a high level of ECCB. Besides, perceived value is a multi-dimensional construct, as Ryu et al. (2010) suggested in order to explain all consumptive phenomena, and we should consider their overall evaluation of utilitarian and hedonic values that are taken into account during their consumption experience.

5.2. Consumers in a low level of ECCB

Subjective norm has an impact upon consumers' purchase intention through the mediating effect sourced from the attitude of consumers, and PBC has impact on their purchase intention directly. In other words, when consumers purchase organic products, they have been deeply affected by factors regarding the degree of their knowledge of organic products, the accessibility of the organic products, or some pressure from their family members and close friends, especially when consumers in a low level of ECCB. In that case, the channel strategy and the store coverage of organic products should be very critical in the ever-booming organic products market in Taiwan.

Moreover, compare to hedonic value that just utilitarian value has impact on the consumers' purchase intention toward organic products for consumers of low ECCB. What is more important is that managers can directly emphasize the quality, practical value of organic products, and the contribution that organic products make to people's health and environmental protection. This not only directly drives consumers to purchase organic products but also further promotes the degree of satisfaction of consumers towards organic products, subsequently increasing the chances for organic products to be purchased.

5.3. Potential consumers

This investigation finds that a certain proportion of consumers do not purchase organic products because they do not understand the organic products, which is also a very important clue for the companies that intend to penetrate the market. They could spread environmental protection knowledge via the advertisements to educate consumers about the benefits (such as protecting the environment, and being good

to health, etc.) of the usage of organic products. In that way, the potential consumers could be encouraged to purchase organic products and this will be beneficial for the development of total organic product market.

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