

Interrelationships between consumers' attitudes, behaviour toward organic food and dietary habits

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Key words: organic food, consumer's attitude, buying behaviour, dietary habits

Abstract

This study examined the relationship between Taiwanese consumers' attitudes and purchase behaviour toward organic food. A preliminary effort was made to identify the influence of consumers' socio-demographic backgrounds on the variations in their responses. The dietary habits of organic product consumers are another aspect of this study.

Introduction

With the remarkable rise of global organic agriculture, despite controversies and contradictions over the safety and quality of organic food, organic product providers and policymakers recently have focused increasing attention on consumers' attitudes and buying behavior. Studies of this issue in organic agriculture have increased in the past decade (e.g., Grunert and Juhl 1995; Rimal et al. 2001; Lockie et al. 2004; Padel and Foster 2005; Rimal et al. 2005; Tarkiainen and Sundqvist 2005).

To date, the relationship between consumers' attitude and behaviour has been a concern in marketing studies with regard to consumers' lifestyle. For instance, dietary choice has a significant impact on environment and increases consumers' purchases of organic product (Lea 2005). In spite of the small body of literature linking lifestyle with consumers' attitudes and buying behaviour with respect to organic food (e.g., Grunert and Juhl 1995), this theory is useful in revealing the potential linkage between consumers' dietary habits and their buying behaviour.

In light of this information, this study makes three points. First, it investigates consumers' attitudes and buying behaviour toward organic food, and their connection as well. Second, this study identified socio-demographic factors contributing to consumers' attitudes and purchases. Finally, a profile of the dietary habits of organic food consumers was created.

Materials and methods

Adults residing in Taiwan became the target population for the sampling procedure. A state-wide telephone survey consisting of 913 randomly-selected household interviewees was implemented as the preliminary study to explore the attitudes and buying behaviour. A follow-up mail survey targeting loyal consumers of organic food was then employed to conclude a profile of their dietary habits. The later sampling frame was constructed using household lists provided by organic food stores, organic farms, and non-profit consumer associations. Four hundred and twenty-one respondents were recruited.

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Archived at <http://orgprints.org/9655/>

Results

It is found that 78.1% of the respondents were aware of organic food, while 21.9% were not. The descriptive statistics, shown in Table 1, indicate that the general consumers' pesticide anxiety was predominant that over 90% respondents presented their worries. Rather than seeking organic product, nearly two-thirds of respondents expressed extremely low faith in "real" organic products. The willingness to pay a premium price to buy organic product, however, was high once the product was proven to be real. The overwhelming majority of interviewees agreed with the necessity of organic agriculture and approximately 60% were optimistic about its prospects in Taiwan. Moreover, the finding that around half of the respondents have ever experienced purchasing organically produced food was surprising, and attributable to the ambiguous definitions of an organic product. Among buyers, merely 2.2% can be deemed as loyal.

Tab. 1: Consumers' attitudes and buying behaviour toward organic food in Taiwan

Attitude dimensions	Extreme	Fair	Rare	Not at all	No opinion
Pesticide anxiety	435 (47.6)	319 (34.9)	74 (8.2)	41 (4.5)	44 (4.8)
Trust in organic food	74 (8.1)	182 (19.9)	356 (39.0)	236 (25.8)	65 (7.2)
Willingness-to-pay	71 (7.8)	353 (38.7)	208 (22.8)	232 (25.4)	49 (5.4)
Perceived necessity of organic agriculture	469 (51.4)	332 (36.4)	19 (2.1)	2 (.2)	91 (10.0)
Perceived prospects of organic agriculture	201 (22.0)	350 (38.3)	168 (18.4)	42 (4.6)	152 (16.6)
Purchase	20 (2.2)	188 (20.6)	236 (25.8)	438 (48.0)	31 (3.4)

1. n=913

2. parenthesized are percentages (%)

A comparison of Spearman rank order correlation and pair-wise partial correlation controlling all the other variables is implemented to obtain genuine relationships among attitudinal and behavior variables. In terms of bi-variate relationships, most of the attitudinal variables exhibit mutually positive relationships except that between perceived pesticide anxiety and trust toward organic food. It appears that all attitudinal variables are associated with buying behavior.

When the other variables' effects are taken into account, the partial correlations present remarkable differences with regard to perceptions of pesticide anxiety and trust. On the one hand, most of the original in-between relationships with these two variables disappeared and, on the other, the correlation between perceived trust and pesticide anxiety turns out to be negative. It implies that Taiwan consumers' trust in organic food decreases as pesticide anxiety increases. What is noteworthy is that those who were most frightened by pesticide overuse do not believe in the products of alternative farming. Besides, some of the assumed relationships between attitudinal and behavioral variables cease to exist when all the other variables' influence were controlled. Among attitudinal variables, perceived pesticide anxiety and necessity evaluation do not show significant correlation with purchasing. Willingness-to-pay perception, however, is shown to have positive relationships with all the other

attitudinal variables. These findings assert that though the consistencies among attitudes and behaviors are largely supported, the inconsistencies still prevail.

Several logistic regression analyses were conducted to investigate the effects of some socio-demographic factors, presented by dummy variables, on the attitudinal and behavioral variables. All models were found to have superior model fit and goodness-of-fit. It is revealed that female respondents, higher prestige of the household breadwinner's occupation, higher educational attainment of respondents and dining home are the most reliable indicators of buying behavior. Perceived trust of organic product and prospects of organic agriculture were proven to be significant predictors of purchasing behavior. People who possess higher faith and feel more optimistic toward organic agriculture are the most likely to purchase. It reaffirms that not all attitudinal variables are good predictors of buying behavior of organic food.

Segmenting consumers by dietary lifestyle is critical to understanding how specific consumer groups approach shopping organic food. As shown in Table 2, the recruited organic consumers are depicted as more likely to be vegetarians, reluctant to dine out, fond of raw-food diet, and likely to take nutritional supplements. Their diet is low in caffeine, salt, sugar, and oil.

Tab. 2: Dietary lifestyle of organic food consumers in Taiwan

Dietary lifestyle indicators	Frequencies
Vegetarianism	1. complete 96(23.0), 2. part 123 (29.4), 3. no 200 (47.7)
% of food that is organic	1. 10% or below 61 (14.8), 2. 10-29% 105 (25.5), 3. 30-49% 104 (25.2), 4. 50-69% 68 (16.5) 5. 70-89% 41 (10.0), 6. 90% or above 33 (8.0)
Taking Chinese herbal medicine	1. always 33 (7.9), 2. at times 310 (74.2) 3. not at all 75 (17.9)
Taking vitamin or mineral supplements	1. always 66 (15.8), 2. at times 216 (51.6) 3. not at all 137 (32.7)
Smoking	1. yes 12 (2.9), 2. no 400 (97.1)
Number of days cooking and eating at home	1. none 6 (1.5), 2. 1 day 10 (2.6), 3. 2 days 22 (5.6) 4. 3 days 24 (6.1), 5. 4 days 32 (8.2), 6. 5 days 87 (22.3) 6. 6 days 77 (19.7) 7. 7 days 133 (34.0)
Percentage of raw food diet	1. 10 % or below 219 (54.3), 10-29% 131 (32.5) 3. 30-49% 34 (8.4) 4. 50% or above 19 (4.7)
Tea intake	1. above the average 35 (8.7), 2. on the average 73 (18.2) 3. below the average 210 (52.2), 4. none 84 (20.9)
Coffee intake	1. above the average 9 (2.2), 2. on the average 25 (6.1) 3. below the average 180 (44.0), 4. none 195 (47.7)
Cooking oil intake	1. above the average 10 (2.5), 2. on the average 120 (29.5) 3. below the average 276 (67.8)
Salt intake	1. above the average 7 (1.7), 2. on the average 119 (29.2) 3. below the average 281 (69.0)
Sugar intake	1. above the average 7 (1.7), 2. on the average 84 (20.5) 3. below the average 319 (77.8)

n=421, parenthesized are percentages

Discussion

The finding that the overwhelming majority of Taiwan respondents are anxious for pesticide overuse and in the meantime extremely sceptical for organic product is of special interest in organic food consumption studies and deserves future investigation. Despite this attitudinal ambivalence, however, half of the respondents have purchased organic food. This phenomenon illustrates a special type of consumption culture that merits further examination and interpretation.

Conclusions

It is found that the hypothesized relationships among consumers' attitudes and behaviour toward organic food were largely supported, with some exceptions among Taiwan residents. It has also been confirmed that consumers' dietary habits should be incorporated into their attitudes and in predicting their purchase behaviour.

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