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# Organic Products Purchase Behavior: A Case Study for Urban Consumers in Central Taiwan

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***Abstract*— The purpose of this study was to understand the purchasing behaviors of urban consumers toward to organic products. This study examined the relationships between product knowledge, perceived risk, perceived value, and purchasing intention. A total of 600 questionnaires were distributed in traditional farmers' markets in Taichung City, of which 516 were (86.0%) completed. Results showed that product knowledge had a positive influence on perceived risk, perceived value, and purchasing intention. Perceived risk had a negative influence on perceived value and perceived value has a positive influence on purchasing intention. Results showed both theoretical and practical implications.**

***Keywords*— organic product; urban consumers; perceived risk; perceived value; purchasing intention**

## 1. Introduction

Since environmental issues have become more prominent, organic food has become a major research topic in the consumer market. Based on the health and protection of the environment, consumers are willing to "pay for the privilege of buying green" [6] [9] [11]. Ref. [11] found that consumers who bought organic food were more satisfied with their food then those who bought inorganic food. Results showed that consumers believed that they could pay a higher price for healthier, eco-friendly products. Thus, Ref. [11] suggested that organic food would be a valuable market segment.

According to Ref. [12], organic food consumers were older, better educated, and they believed that organic food was environmentally friendly. Ref. [7] found that the product knowledge of urban consumers affected their purchasing behavior. The results of a survey by Ref. [15] to understand Taiwanese respondents' ideas about organic food showed that the majority of organic food consumers were female and well-educated.

Those consumers showed a high level of concern about pesticides, but they did not fully trust organic food because the product certification levels were confusing.

Based on previous research, it is known that organic food consumers pay more attention to their health and the environment. Most of organic food consumers are willing to pay premium to buy, and majority of them are well educated. Therefore, this study aimed to identify the urban consumers who would purchase organic agricultural products.

The main purpose of this study was to examine the relationship between product knowledge, perceived risk, perceived value, and purchasing intention. Therefore, this study was guided by the following hypotheses: (H1) product knowledge will have a negative influence on perceived risk [16]; (H2) product knowledge will have a positive influence on perceived value [16]; (H3) product knowledge will have a positive influence on purchasing intention [2] [11]; (H4) perceived risk will have a negative influence on perceived value [13]; (H5) perceived risk will have a negative influence purchasing intention [3] [16]; and (H6) perceived value will have a positive influence on purchasing intention [3] [16](See Figure 1).

## 2. Methods

The study population included consumers in Taichung city, Taiwan. Since the study was aimed at urban consumers, the original Taichung districts were selected, which included 8 districts in urban areas. The population is difficult to determine, so a 95% confidence level and a minimum sample size of 385 was employed. A total of 600 questionnaires were distributed in traditional farmers' markets in 8 districts in Taichung City. The survey occurred between April 1 and June 13, 2015, and 516 were (86.0%) completed.

The survey questionnaire included five parts: (1) product knowledge based on three dimensions – subjective knowledge, objective knowledge, and experience [1]; (2) perceived risk including financial risk, performance risk, physical risk, psychological risk, social risk, and time risk [8] [10]; (3) perceived value including emotional value, social value, functional value, and conditional value [14]; (4) purchasing intention [4]; and (5) demographic items.

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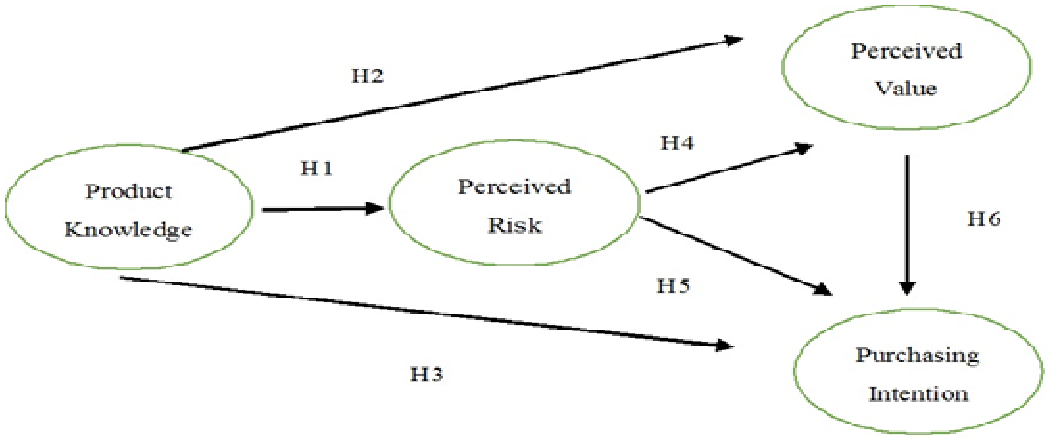


**Figure 1.** Proposed Hypothesis model

## 3. Findings

Among the respondents, 293 (56.8%) were male and 223 (43.2%) were female. For the age distribution, 223 (43.2%) respondents were between 20 and 29 years old; 54 (10.5%) were between 30 and 39 years old; 110 (21.3%) were between 40 and 49 years old; 93 (18.0%) were between 50 and 59 years old; 26 (5.0%) were between 60 and 69 years old; and 10 respondents (1.9%) were 70 or older. The majority of respondents were single (53.3%), while 45% of respondents were married. Only 1.7% of respondents were divorced. The household income of a majority of respondents was between 20,000 and 39,999 NTD (44.3%), while 20.1% were between 40,000 and 59,999 NTD. Most of the respondents graduated from college (54.5%), and 30.6% of respondents graduated from high school.

The analysis of the study consisted of two steps: the first step was a confirmatory factor analysis (CFA) to examine the constructs. Composite reliability (CR) has been recommended for measuring the factors for each construct and refers to the internal consistency of indicators of the underlying factors (Fornell & Larcker, 1981). The results of the first step revealed that the following four variables had adequate reliability: product knowledge (CR=0.879), perceived risk (CR=0.886), perceived value (CR=0.944), and purchasing intention (CR = 0.948) (Table 1).

**Table 1.** Reliability of Measurement Scales

| Constructs | Variable | Factor Loading | T Statistics | CR | AVE | Cronbach's Alpha |
|---|---|---|---|---|---|---|
| Product Knowledge | Subjective Knowledge | 0.868 | 12.009 | 0.879 | 0.784 | 0.726 |
| | Experience | 0.903 | 18.344 | | | |
| Perceived Risk | Performance | 0.785 | 32.929 | 0.886 | 0.661 | 0.835 |
| | Physical | 0.871 | 69.815 | | | |
| | Psychological | 0.770 | 34.408 | | | |
| | Social | 0.822 | 44.981 | | | |
| Perceived Value | Emotional Value | 0.932 | 158.751 | 0.944 | 0.809 | 0.921 |
| | Social Value | 0.889 | 69.337 | | | |
| | Functional value | 0.836 | 49.567 | | | |
| | Conditional Value | 0.937 | 179.908 | | | |
| Purchasing Intention | Future purchasing | 0.944 | 188.026 | 0.948 | 0.860 | 0.918 |
| | Consider purchasing | 0.903 | 72.603 | | | |
| | Volunteer purchasing | 0.934 | 177.954 | | | |

The second step used the partial least squares (PLS) method to examine the hypotheses. The results in Table 1 show that most of the hypotheses were supported, while only H5 was not supported (Table2).

**Table 2.** Parameter Estimates of Structural Model

| | Path Coefficient | Standard Error | T Statistics | p Value | Test Result |
|---|---|---|---|---|---|
| Product Knowledge → Perceived Risk | -.132 | .050 | 2.636 | .001 | Supported |
| Product Knowledge → Perceived Value | .152 | .037 | 4.076 | .001 | Supported |
| Product Knowledge → Purchasing Intention | .103 | .031 | 3.533 | .001 | Supported |
| Perceived Risk → Perceived Value | -.644 | .032 | 20.056 | .001 | Supported |
| Perceived Risk → Purchasing Intention | .023 | .040 | 0.560 | .576 | Not supported |
| Perceived Value → Purchasing Intention | .783 | .031 | 25.619 | .001 | Supported |

For the PLS structural equation modeling, the goodness of fit was 0.539 and it was considered an adequate model fit (Table 3).

**Table 3.** Goodness of Fit Results

| Constructs | AVE | CR | $R^2$ | Cronbach's Alpha | Communality | Redundancy | GOF |
|---|---|---|---|---|---|---|---|
| Product Knowledge | 0.784 | 0.879 | | 0.726 | 0.784 | | 0.539 |
| Perceived Risk | 0.661 | 0.886 | 0.017 | 0.835 | 0.661 | 0.011 | |
| Perceived Value | 0.809 | 0.944 | 0.463 | 0.921 | 0.809 | 0.040 | |
| Purchasing Intention | 0.860 | 0.948 | 0.639 | 0.918 | 0.860 | 0.041 | |

## 4. Application of results

This study was aimed at understanding consumers in urban areas, therefore the results may only be applicable to specific circumstances. Consumers are primarily concerned about the physical risk and emotional value; hence, agriculture producers should make effort to provide quality products. For example, organic products should be traceable agricultural products, use a friendly eggs production system, have a vegetable certification system, and other quality assurance mechanisms.

## 5. Conclusion

Product knowledge was affected mostly by experience, which meant that consumers would learn about organic agriculture products from previous purchasing experiences. Results showed that positive product knowledge decreased consumers' perceived risk and positively affected perceived value and purchasing intention.

Perceived risk was influenced mostly by physical risk, and consumers were concerned that organic agriculture products did not have those benefits. Results showed that perceived risk had a negative influence on perceived value. However, the hypothesis that perceived risk had a negative influence on purchasing intention was not supported by this study. The results of this study did, however, support the hypothesis that perceived value affected purchasing intention.

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