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## A Study of the Relationship between Ethnocentrism and Purchase Intention for Japanese Products

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### **Abstract:**

After Taiwan's entry to the WTO, the trade barrier between Taiwan and other countries has been reduced, resulting in the presence of more MIT (made in Taiwan) products on the market for customer choices. There are, nevertheless, a variety of factors affecting customers' purchase intention. This study aims to discuss whether, due to factors such as consumers' product knowledge and perceived product value, Taiwanese consumers' We-identities (ethnocentrism?) obstructs their purchase intention toward Japanese goods. Research result shows, based on their product knowledge and perceived product value, consumers' purchase intention of the tested product (digital camera) is far beyond their own we-identities. The weight of We-identities (ethnocentrism?) is relatively low in this study. Having been in existence for more than one hundred years, we-identities (ethnocentrism?) will still have its presence and remain an observable phenomenon.

**Keywords:** Consumers' we-identities (ethnocentrism), product knowledge, perceived product value, purchase intention

### 1. Introduction

This paper examines whether there exists ethnocentrism among the Taiwan public by referring to their purchase intention of the Japan-made Sony camera and Taiwan-made Ben-Q digital camera. Klein, Ettenson, and Morris (1988) suggested that the reason why Chinese consumers are reluctant to purchase Japanese products despite their good quality has to do with atrocious behaviours conducted by Japanese soldiers during World War II. Consequently, they are inclined to purchase China-made products. Taiwan was colonized by Japanese for fifty years. It is interesting therefore to know whether Taiwanese consumers manifest such psychological mindsets. By referring products from the two nations, this study investigates whether there exists consumers' ethnocentrism among the general Taiwanese public.

Based on the above-mentioned backgrounds and motivation, the present study aims at a threefold purpose: (1) whether long-term dependence on Japanese 3C products has had influence on Taiwanese consumers and whether consumers' ethnocentrism still exists by referring to Taiwanese nationality and dependency; (2) whether consumers' product knowledge affects consumers' ethnocentrism and purchase intention for imported products; (3) whether consumers' perceived product value affects consumers' ethnocentrism and purchase intention for imported products.

### 2. Literature Review

#### 2.1. Purchase Intention

Psychologists and sociologists hold the belief that conviction, attitude and intention are mutually correlated. Their relationship has been confirmed and is solidly grounded in terms of behavioral theory. The multi-attribute attitude model has been frequently employed to assess consumer attitude. Behavioral theories such as the theory of reasoned action (TRA) and the theory of planned behavior (TPB) are all based on and developed from the model theory. Although they acknowledge the presence of other factors including subjective discipline and behavioral control of perception, they basically hold the idea that conviction and attitude can affect consumer purchase intention to a certain degree.

#### 2.2. Consumers' Ethnocentrism

Consumers' ethnocentrism consists of two constructs, namely positive attitude toward the group one belongs to and negative attitude toward other groups. Consumers' ethnocentrism explains why consumers prefer local-made products to imported products. Shimp and Shama (1987) developed CETSCALE to measure consumers' ethnocentrism. Their study found (1) the reliability and validity of the 17 scale items are supported, (2) consumers' ethnocentrism negatively affects consumer judgment of imported products, and (3) consumers' ethnocentrism positively and significantly affects consumer intention to buy local-made products, while negatively affects their intention to purchase imported product.

#### 2.3. Perceived Product Value

Perceived product value is the sum of perceived value and perceived transaction. The higher the sum is, the more intensified consumer purchase intention becomes. To intensify consumer perceived product value, sellers need to take consumer perceived product benefit and quality into concern so that perceived product value can be obtained (Dodds,

Monroe, and Grewal, 1991; Monroe and Krishnan, 1985; Ziethaml, 1988). Sellers can base their marketing on one of three strategies, including (1) high quality, (2) low price, and (3) a balance of both. Consumers refer to their perceived product value when undergoing consumption. They tend to choose perceived high value products with a higher quality or at a lower price. Perceived product value, however, may vary as a result of consumers' increasing and accumulated perceived product knowledge.

#### 2.4. Product Knowledge

According to Alba and Hutchinson (1987), consumer product knowledge consists of product familiarity and professional knowledge. Product familiarity refers to consumers' accumulated experience in purchase and use of a certain product, while product professional knowledge indicates whether a consumer possess professional-level understanding of that product. Brucks (1985), based on his analysis of previous research, proposed three types of consumer product knowledge measurement. They are: (1) Measurement of knowledge of all products as perceived by a consumer, meaning to what degree a consumer himself or herself recognizes, understands and familiarizes with a certain product. This is so called subjective knowledge. (2) Measurement of actual amount and form of knowledge in a consumer's memory. This is so called objective knowledge. (3) Measurement of a consumer's experience in purchase and use of that product. Research in the past few years has employed subjective and objective knowledge to measure consumers' product knowledge.

#### 2.5. Relationship between Purchase of Imported Product and Consumers Ethnocentrism Perceived Product Value and Product Knowledge

Consumers with more intense ethnocentrism regard it inappropriate to buy imported products. Purchasing imported products, according to them, can reduce competitiveness of local products, thus leading to economic stagnation and higher unemployment rate. Such a behavior can be dismissed as being unpatriotic. People with less intense sense of ethnocentrism, on the contrary, base their purchase decision on product quality and price instead of the origin of production. Shimp and Shama (1987) categorized the features of consumers with more intense ethnocentrism into overestimate of local made products, underestimate imported products, preference for local made products to exclusion of imported products.

Past research concerning perceived product value indicated the higher consumer perceived product value is, the less intensified consumer intention for imported products becomes. This suggests the degree of perceived product value is related to ethnocentrism-oriented consumers' intention to purchase imported products.

Brucks (1985) found that subjective product knowledge can be affected by objective product knowledge on the one hand and consumer product knowledge and confidence on the other. Park and Lessing (1981) indicated assessment of consumer subjective knowledge can offer more understanding of consumer systematic bias in decision than objective knowledge does.

### 3. Methodology

#### 3.1. Research Framework

The framework of this research is provided by Fig.1:

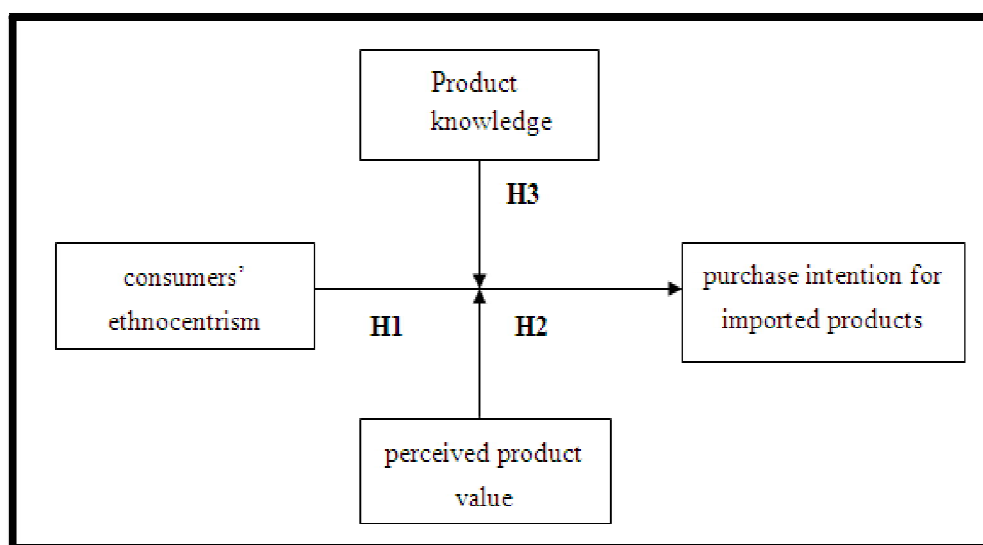


Figure 1: Research Framework

#### 3.2. Hypotheses

The present study aims to investigate how consumers' ethnocentrism (independent variable), product knowledge and perceived product knowledge (moderating variables) affect purchase intention for imported products (dependent variable). The following research hypotheses are proposed based on referred literature and research framework:

- H1: Consumers' ethnocentrism affects purchase intention toward imported products. Both are inversely related.
- H2: Consumers' ethnocentrism and purchase intention can be affected by perceived product value. This means consumers' ethnocentrism and purchase intention for imported products are inversely related. Imported products with higher perceived product can weaken consumers' ethnocentrism.
- H3: The relationship between consumers' ethnocentrism and purchase intention for imported products can be affected by product knowledge, meaning the inverse relationship between ethnocentrism and purchase intention for imported products can weaken because of more consumer product knowledge.

### 3.3. Empirical Analysis

#### 3.3.1. Hierarchical Regression Analysis

##### 3.3.3.1. Regression analysis of consumers' ethnocentrism

Hierarchical regression analysis is employed for test of the influence of individual consumer's ethnocentrism on consumer purchase intention. Table 1 shows the result of analysis. Both model 1 ( $F=5.368$ ,  $p<0.001$ ) and model 2 ( $F=5.394$ ,  $p<0.001$ ) are found to be at the significant level. Model 2 demonstrates that consumers' ethnocentrism significantly affects purchase intention for imported products ( $\beta=-0.051$ ,  $p<0.001$ ), thus supporting Hypothesis 1.

Regression Model				
Predictor variable	Dependent variable: purchase intention			
	Model 1		Model 2	
Control variable:	Beta	VIF	Beta	VIF
gender	0.066**	1.045	0.070**	1.051
age	-0.009	3.001	-0.005	3.006
education level	0.018	1.241	0.011	1.263
department	-0.042	1.120	-0.041	1.121
marital status	-0.016	2.110	-0.013	2.112
occupation	-0.025	1.510	-0.025	1.510
province	-0.068***	1.024	-0.071***	1.028
political inclination	-0.067***	1.018	-0.071***	1.022
monthly expenditure	-0.032	1.618	-0.036	1.624
residency	0.022	1.030	0.023	1.030
consumer ethnocentrism			-0.051*	1.062
F value	5.368***		5.394***	
Adj R <sup>2</sup>	0.019		0.021	
$\Delta$ F value	5.368		0.026	
R <sup>2</sup>	0.024		0.026	
$\Delta$ R <sup>2</sup>	0.024		0.002	

\* $P<0.05$ , \*\* $P<0.01$ , \*\*\* $P<0.001$

Table 1: Regression Analysis of Consumers' Ethnocentrism

##### 3.3.3.2. Subjective Product Knowledge

Hierarchical regression analysis is employed for test of the moderation of subjective product knowledge on consumers' ethnocentrism and purchase intention. Table 2 shows the result of analysis. All four models are found to be at the significant level ( $F=5.368$ ,  $p<0.001$ ;  $F=5.394$ ,  $p<0.001$ ;  $F=15.605$ ,  $p<0.001$ ;  $F=14.819$ ,  $p<0.001$ ). Model 2 demonstrates that consumers' ethnocentrism positively affects purchase intention for imported products, indicating consumers' ethnocentrism positively affects purchase intention (regression coefficient: -0.05). Model 3 shows that subjective product knowledge positively affects purchase intention for imported products ( $\beta=.232$ ,  $p<0.05$ ). Model 4 shows that through adding one moderating variable the total variance explained significantly increases accordingly, meaning this moderating variable has statistical power over purchase intention. Therefore, concerning consumer' ethnocentrism, subjective product knowledge significantly affects it ( $\beta=.204$ ,  $p<0.05$ ).

Regression Model				
predictor variable	dependent variable: purchase intention			
	model 1		model 2	
control variable:	Beta	VIF	Beta	VIF
gender	0.066**	1.045	0.070***	1.051
age	-0.009	3.001	-0.005	3.006
education level	0.018	1.241	0.011	1.263
department	-0.042	1.120	-0.041	1.121
marital status	-0.016	2.110	-0.013	2.112
occupation	-0.025	1.510	-0.025	1.510
province	-0.068***	1.024	-0.071***	1.028
political inclination	-0.067***	1.018	-0.071***	1.022
monthly expenditure	-0.032	1.618	-0.036	1.624
residency	0.022	1.030	0.023	1.030
main effects:				
ethnocentrism			-0.051*	1.062
Subjective product knowledge				
moderating effects:				
ethnocentrism x subjective product knowledge				
F value	5.368***		5.394***	
Adj R <sup>2</sup>	0.019		0.021	
△F value	5.368		0.026	
R <sup>2</sup>	0.024		0.026	
△R <sup>2</sup>	0.024		0.002	
Regression Model				
predictor variable	dependent variable: purchase intention			
	model 3		model 4	
control variable:	Beta	VIF	Beta	VIF
gender	0.073***	1.051	0.073***	1.051
age	0.011	3.011	0.013	3.013
education level	0.000	1.265	0.000	1.265
department	-0.049	1.122	-0.049	1.122
marital status	-0.030	2.118	-0.030	2.118
occupation	-0.014	1.513	-0.012	1.514
province	-0.069***	1.028	-0.070***	1.029
political inclination	-0.075**	1.023	-0.072**	1.027
monthly expenditure	-0.052	1.629	-0.055	1.632
residency	0.025	1.030	0.026	1.031
main effects:				
ethnocentrism	-0.092***	1.095	-0.243***	11.943
subjective product knowledge	0.232***	1.040	0.126***	6.453
moderating effect:				
ethnocentrism subjective product knowledge			0.204*	19.813
F value	15.605***		14.819***	
Adj R <sup>2</sup>	0.073		0.075	
△F value	10.211		-0.786	
R <sup>2</sup>	0.140		0.142	
△R <sup>2</sup>	0.114		0.002	

Table 2: Regression Analysis of Moderating Effect of Subjective Product Knowledge

### 3.3.3.3. Regression Analysis of Moderating Effect of Objective Product Knowledge

Hierarchical regression analysis is employed for test of the moderation of objective product knowledge on consumer ethnocentrism and purchase intention. Table 3 shows the result of analysis. All four models are found to be at the significant level ( $F=5.368$ ,  $p<0.001$ ;  $F=5.394$ ,  $p<0.001$ ;  $F=30.145$ ,  $p<0.001$ ;  $F=28.232$ ,  $p<0.001$ ). Model 2 demonstrates that consumer ethnocentrism positively affects purchase intention for imported products, indicating consumers' ethnocentrism positively affects purchase intention (regression coefficient: -0.05), thus supporting Hypothesis I. Model 3

shows that objective product knowledge also positively affects purchase intention for imported products ( $\beta=.231, p<0.05$ ). Model 4 shows that adding one moderating variable increases the total variance explained significantly, meaning this moderating variable has statistical power over purchase intention. Therefore, as far as consumers' ethnocentrism is concerned, product knowledge positively affects it ( $\beta=.233, p<0.05$ ).

Regression Model				
predictor variable	dependent variable: purchase intention			
	Model 1		Model 2	
Control variable:	Beta	VIF	Beta	VIF
gender	0.066**	1.045	0.070***	1.051
age	-0.009	3.001	-0.005	3.006
Education level	0.018	1.241	0.011	1.263
department	-0.042	1.120	-0.041	1.121
Marital status	-0.016	2.110	-0.013	2.112
occupation	-0.025	1.510	-0.025	1.510
province	-0.068***	1.024	-0.071***	1.028
Political inclination	-0.067***	1.018	-0.071***	1.022
Monthly expenditure	-0.032	1.618	-0.036	1.624
residency	0.022	1.030	0.023	1.030
Main effect:				
ethnocentrism			-0.051*	1.062
Objective knowledge				
Moderating effect:				
ethnocentrism x Objective knowledge				
F value	5.368***		5.394***	
Adj R <sup>2</sup>	0.019		0.021	
$\Delta$ F value	5.368		0.026	
R <sup>2</sup>	0.024		0.026	
$\Delta$ R <sup>2</sup>	0.024		0.002	
Regression model				
predictor variable	dependent variable: purchase intention			
	Model 3		Model 4	
Control variable: :	Beta	VIF	Beta	VIF
gender	0.063***	1.051	0.063***	1.052
age	0.002	3.009	0.006	3.012
Education level	-0.027	1.265	-0.025	1.265
department	-0.052	1.121	-0.052	1.121
Marital status	-0.013	2.113	-0.017	2.116
occupation	-0.040	1.510	-0.039	1.510
province	-0.062***	1.029	-0.063***	1.029
Political inclination	-0.063**	1.024	-0.061**	1.026
Monthly expenditure	-0.061	1.631	-0.062	1.632
residency	0.016	1.033	0.017	1.033
Main effect:				
ethnocentrism	-0.104***	1.123	-0.289***	17.869
Objective knowledge	0.341***	1.087	0.231***	6.535
Moderating effect:				
Ethnocentrism x Objective knowledge			0.233*	27.796
F value	30.145***		28.232***	
Adj R <sup>2</sup>	0.136		0.137	
$\Delta$ F value	24.751		-1.913	
R <sup>2</sup>	0.078		0.080	
$\Delta$ R <sup>2</sup>	0.052		0.002	

Table 3: Regression Analysis of Moderating Effect of Objective Product Knowledge

#### 3.3.3.4. Regression Analysis of Moderating Effect of Perceived Product Value

Hierarchical regression analysis is employed for test of the moderation of perceived product value on consumers' ethnocentrism and purchase intention. Table 4 shows the result of analysis. All four models are found to be at the significant level ( $F=5.368, p<0.001$ ;  $F=5.394, p<0.001$ ;  $F=29.631, p<0.001$ ;  $F=27.840, p<0.001$ ). The empirical result of

model 2 supports H1. Model 3 shows that perceived product value also significantly affects purchase intention for imported products ( $\beta=.341$ ,  $p<0.01$ ). Model 4 shows that adding one moderating variable increases the total variance explained of the regression model significantly ( $\Delta R^2=.002$ ,  $p<0.01$ ), meaning this moderating variable has statistical power over purchase intention. Perceived product value as moderation variable significantly affects consumers' ethnocentrism ( $\beta=.233$ ,  $p<0.01$ ). Therefore, H3, which assumes consumer ethnocentrism and purchase intention for imported products can be affected by perceived product value, is thus supported. This means the inverse relationship between consumers' ethnocentrism and purchase intention for imported products can be reduced due to more product knowledge.

Regression Model				
predictor variable	dependent variable: purchase intention			
	Model 1		Model 2	
Control variable:	Beta	VIF	Beta	VIF
gender	0.066**	1.045	0.070***	1.051
age	-0.009	3.001	-0.005	3.006
Education level	0.018	1.241	0.011	1.263
department	-0.042	1.120	-0.041	1.121
Marital status	-0.016	2.110	-0.013	2.112
occupation	-0.025	1.510	-0.025	1.510
province	-0.068***	1.024	-0.071***	1.028
Political inclination	-0.067***	1.018	-0.071***	1.022
Monthly expenditure	-0.032	1.618	-0.036	1.624
residency	0.022	1.030	0.023	1.030
Main effect:				
ethnocentrism			-0.051*	1.062
Perceived product value				
Moderating effect:				
Ethnocentrism X Perceived product value				
F value	5.368***		5.394***	
Adj R <sup>2</sup>	0.019		0.021	
$\Delta$ F value	5.368		0.026	
R <sup>2</sup>	0.024		0.026	
$\Delta$ R <sup>2</sup>	0.024		0.002	
Regression Model				
Predictor Variable	Dependent Variable: Purchase Intention			
	Model 3		Model 4	
Control variable:	Beta	VIF	Beta	VIF
gender	0.063***	1.051	0.063***	1.051
age	0.002	3.006	0.006	3.012
Education level	-0.027	1.275	-0.025	1.276
department	-0.052	1.122	-0.052	1.122
marital status	-0.013	2.112	-0.017	2.119
occupation	-0.040	1.512	-0.039	1.512
province	-0.062***	1.029	-0.063***	1.029
Political inclination	-0.063**	1.023	-0.061**	1.025
Monthly expenditure	-0.061	1.629	-0.062	1.630
residency	0.016	1.031	0.017	1.032
Main effect:				
ethnocentrism	-0.104***	1.087	-0.289***	16.763
Perceived product value	0.341***	1.039	0.231***	6.663
Moderating effect:				
ethnocentrism x perceived product value			0.233*	25.012
F value	29.631***		27.840***	
Adj R <sup>2</sup>	0.134		0.135	
$\Delta$ F value	24.237		-1.791	
R <sup>2</sup>	0.138		0.140	
$\Delta$ R <sup>2</sup>	0.112		0.002	

Table 4 Regression Analysis of Moderating Effect of Perceived Product Value

### 3.3.3.5. Regression Analysis of Two Moderating Variables

Hierarchical regression analysis is employed for test of the moderating effect of product value and perceived product value on consumer ethnocentrism and purchase intention. The regression analysis of the three models manifest significant level ( $F=5.368, p<0.001$ ;  $F=5.394, p<0.001$ ;  $F=28.232, F=14.819, F=27.840, p<0.0011$ ). The empirical result of model 2 indicates that consumers' ethnocentrism and perceived product value significantly affects purchase intention for imported products. Model 3 shows both moderating variables significantly affect consumers' ethnocentrism and purchase intention for imported products.

### 3.3.3.6. Result of Hypothesis Test

Table 5 provides the test result based on the above-mentioned analysis and verification

Research Hypotheses	Result
H1: Consumers' ethnocentrism affects purchase intention toward imported product.	accepted
H2: Consumers' ethnocentrism and purchase intention can be affected by perceived product value. This means consumers' ethnocentrism and purchase intention for imported products are inversely related. Imported products with higher perceived product can weaken ethnocentrism.	accepted
H3: The relationship between consumers' ethnocentrism and purchase intention for imported products can be affected by product knowledge, meaning the inverse relationship between ethnocentrism and purchase intention for imported products can weaken because of more consumer product knowledge.	accepted

Table 5: Test Result of Research Hypotheses

## 4. Conclusion

### 4.1. Influence of Consumers' Ethnocentrism on Purchase Intention

The empirical analysis of the regression model reveals consumers' ethnocentrism positively affects purchase intention at significant level, while it is in inverse relationship to purchase intention for imported products. The result conforms to the study by Shimp and Shama (1987). The test results of related studies conducted by other scholars are also in conformation to that of the present study. Higher degree of consumers' ethnocentrism leads to less purchase intention. In other words, lower degree of consumers' ethnocentrism means more intensified purchase intention. Hypothesis 1 is therefore accepted.

### 4.2. Moderating Effect of Perceived Product Value

The empirical analysis of the regression model reveals that perceived product value positively affects consumers' ethnocentrism at significant level. This finding supports Zeithaml (1988), which suggests higher perceived product value significantly affects purchase intention, given consumers' ethnocentrism unchanged. H2 is thus well supported.

### 4.3. Moderating Effect of Product Knowledge

The empirical analysis of the regression model reveals subjective and objective knowledge positively affects consumers' ethnocentrism at significant level. This indicates when consumers have more subject and objective product knowledge, their purchase intention will be more intensified, given consumers' ethnocentrism unchanged. Therefore, purchase intention depends on product knowledge. This finding conforms to Anderson & Brucks (1985), which suggests consumers who have more product knowledge tend to buy goods to meet their individual needs. Hypothesis 3 is therefore accepted.

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