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A study of intra-national consumer behaviors in China: the role of regional wealth

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Abstract

The objective of this article is to respond to the need for intra-national research through multilevel analysis and to assist scholars and managers to better understand individual, cultural, and socioeconomical attributes in consumer purchase decisions. We develop an empirical model to examine the role of Confucian belief, consumer ethnocentrism, product involvement, and regional wealth on Chinese consumers' willingness to purchase foreign products. The findings indicate cross-level interactions in that the effects of Confucian belief, consumer ethnocentrism, and product involvement are more profound in affluent regions. This study also shows cases how MNCs could unleash business opportunities from the managerial implications.

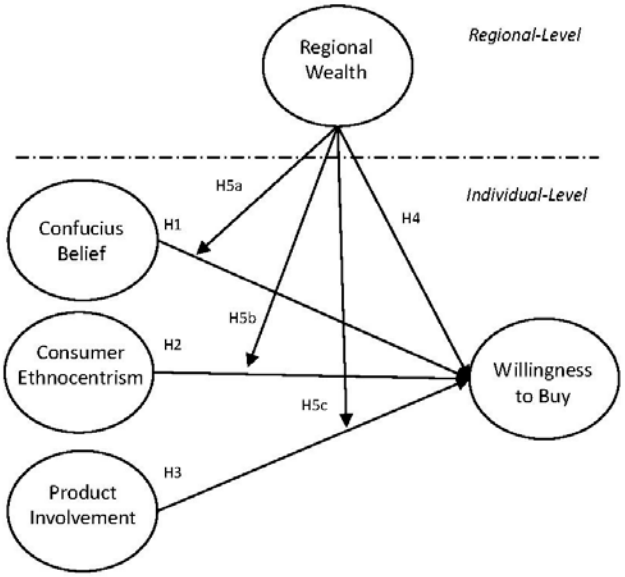
Key words: *consumer ethnocentrism; confucian dynamism; involvement; regional wealth*

1 Introduction

This research attempts to address the aforementioned literature gap by proposing a framework that examines consumer purchase decisions on foreign products through an intra-regional investigation in China. Specifically, we adopt a multilevel modeling technique to explore the roles of regional wealth at the macro level, as well as Confucian belief, consumer ethnocentrism, and product involvement at the individual level, on consumers' willingness to purchase foreign goods. We also explore cross-level moderation in the current study to gain a better understanding of why some consumers develop an appetite for imports while others thwart against them. Based on data representing the entire nation of China, findings from this study could bring tremendous theoretical implications to the literature as they help to clarify the roles of cultural and socioeconomical effects on consumer behaviors. As China is shifting the focus of its economy toward services and consumer products (*J. Devan, et al.*[1]), we test 5

hypotheses (please refer to Figure 1) to show cases how multinational firms could unleash these business opportunities.

Fig. 1 – Conceptual framework



H1: Consumers' Confucian belief has a negative impact on their willingness to buy foreign products.

H2: Consumer ethnocentrism has a negative impact on consumers' willingness to buy foreign products.

H3: Product involvement has a positive impact on consumers' willingness to buy foreign products.

H4: Regional wealth has a positive impact on consumers' willingness to buy foreign products.

H5a: Regional wealth has a significant moderating role in the negative relationship between Confucian belief and willingness to buy foreign products. Specifically, the relationship will be weaker for high-wealth regions than for low-wealth regions.

H5b: Regional wealth has a significant moderating role in the negative relationship between consumer ethnocentrism and willingness to buy foreign products. Specifically, the relationship will be weaker for high-wealth regions than for low-wealth regions.

H5c: Regional wealth has a significant moderating role in the positive relationship between product involvement and willingness to buy foreign products. Specifically, the relationship will be stronger for high-wealth regions than for poor-wealth regions.

2 Methods

We used hierarchical linear modeling (HLM) to examine the multiple-level nature of the

proposed research model. We followed *L. Zhou, et al*[2] and tested the hypotheses incrementally: Control variables were explored in Model 1, individual-level predictors were tested in Model 2, the regional-level predictor was tested in Model 3, and cross-level interactions were examined in Model 4. We included individuals' socio-demographics such as gender, age, education, income, and rural/urban residence as the control variables. We made our centering decision based on *S. Raudenbush* and *A. Bryk*[3]; since we postulated that the predictors varied randomly among regions, we group-mean centered the individual-level variables to assist our interpretations.

3 Findings

In order to test the hypotheses established in Figure 1, we first examined a null model for the individual-level dependent variable: willingness to buy. The intra-class correlation ICC (1) value indicates that 9% of the variance in the criterion variable is attributable to regions. The χ^2 test ($\chi^2_{(33)} = 179.59$, $p < .001$) reveals significant mean variation among regions, which warrants use of HLM. In addition, ICC (2), which assesses the internal consistency reliability of the group means, is .77, which falls within the acceptable threshold (Bliese, 2000) when the individual-level variables are controlled.

To examine the hypothesized relationships, we performed a series of additive models in a stepwise manner as mentioned above. Model 1, the baseline model, analyzes the controlled variables; the results reveal that female ($\gamma = .13$, $p < .10$), younger ($\gamma_{20} = -.33$, $p < .001$), higher income ($\gamma = .06$, $p < .001$), better educated ($\gamma = .12$, $p < .10$), and urban inhabitants ($\gamma = .45$, $p < .001$) are significant more likely to purchase foreign clothing (see Table 3). Model 2 includes the three individual-level predictors of interest in the model; the results attest that the postulated effects are warranted: Confucian belief ($\gamma = -.14$, $p < .001$), consumer ethnocentrism ($\gamma = -.08$, $p < .05$), and product involvement ($\gamma = .24$, $p < .001$). Hence, hypotheses H1, H2, and H3 are supported. Furthermore, the gender effect is vanished when the predictors are controlled.

Model 3 tests the effect of regional wealth as a contextual influence on consumers' purchase intention on foreign products. The result indicates that the relationship is significant ($\gamma = .29$, $p < .001$), hence supporting hypothesis H4. We examine the proposed cross-level moderating effects of regional wealth in Model 4. The findings reveal a significant cross-level interaction of consumer ethnocentrism × regional wealth interaction ($\gamma = .07$, $p < .001$); while the Confucian dynamism effect is positive among wealthy regions (e.g., Beijing, Shanghai, Hong

Kong, Taiwan, and Macau), the effect is negative among poor regions (e.g., Shaanix, Anhui, Henan, Sichuan, Hunan, Guizhou, Yunnan, Guangxi, Jiangxi, and Hainan). The Confucian dynamism × regional wealth interaction is significant (γ = -.06, p < .001) in that the consumer ethnocentrism effect is more salient in affluent regions than in deprived locales. The involvement × regional wealth interaction is also significant (γ = .05, p < .001) in that the effect is more pronounced in high-wealth regions than their low-wealth counterparts. The evidence supports hypotheses H5b and H5c, but fails to support H5a as the effect is not in line with our hypothesized direction.

In sum, the model is able to explain 16% of variation of willingness-to-buy at the individual level. In addition, regional wealth is able to explain 79% of the mean variation of the criterion variable among regions. Regional wealth is also able to account for 5%, 32%, and 25% of slope deviations of the effects of Confucian belief, consumer ethnocentrism, and product involvement respectively.

4 Discussions

Although there is a considerable amount of cross-cultural research on international consumers, a number of theoretical and methodological limitations are highlighted in the recent literature[456]. The objective of this article is to respond to the call from the literature and to assist scholars and managers to better understand individual, cultural, and socioeconomical attributes in consumer purchase decisions. Based on a sizable sample that represents all provinces and special regions in Greater China, we illustrate why and to what extent consumers avoid consumption of foreign goods. The results show significant direct effects of regional wealth, Confucian belief, consumer ethnocentrism, and product involvement on consumers' willingness to obtain imports along a continuum of deprived to affluent regions. While Confucian belief and consumer ethnocentrism may hamper consumption of imports, product involvement helps stimulate consumers' desire to purchase these goods. In addition, the postulated effects at the individual level are moderated by the prosperity of a region. The cross-level interactions presented in our model not only provide a better vantage point to multinational corporations, they also help to advance the literature.

Table 1 – results of cross-level analysis of the proposed model

Variable[a] **\ Model**		**Model 1**	**Model 2**	**Model 3**	**Model 4**
Intercept (mean willingness to buy)	γ_{00}	3.89***	3.89***	3.88***	3.89***
Female[b]	γ_{10}	.13†	.00	.01	.00
Age	γ_{20}	-.33***	-.28***	-.28***	-.29***
Income	γ_{30}	.06***	.05***	.04*	.04*
Education	γ_{40}	.12*	.08†	.08	.08†
Urban[c]	γ_{50}	.45***	.34**	.34**	.34**
Confucian belief	γ_{60}		-.08*	-.06	-.08*
Consumer ethnocentrism	γ_{70}		-.14***	-.12***	-.10***
Involvement	γ_{80}		.24***	.22***	.22***
Regional wealth[d]	γ_{01}			.29***	.28***
Regional wealth × Confucian belief	γ_{61}				.07***
Regional wealth × Consumer ethnocentrism	γ_{71}				-.06***
Regional wealth × Involvement	γ_{81}				.05***

Note: † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.
R^2(*Y*: willingness to buy) = .16, R^2(β_0: intercept) = .79, R^2(β_6: Confucian belief) = .05; R^2(β_7: consumer ethnocentrism) = .32, R^2(β_8: involvement) = .25.

[a] Level 1: Willingness-to-buy = $\beta_0 + \beta_1 \times$ female + $\beta_2 \times$ age + $\beta_3 \times$ income + $\beta_4 \times$ education + $\beta_5 \times$ urban + $\beta_6 \times$ Confucian belief + $\beta_7 \times$ consumer ethnocentrism + $\beta_8 \times$ involvement + r

Level 2: $\beta_0 = \gamma_{00} + \gamma_{01} \times$ regional wealth + u_0.
$\beta_1 = \gamma_{10} + u_1$.
$\beta_2 = \gamma_{20} + u_2$.
$\beta_3 = \gamma_{30} + u_3$.
$\beta_4 = \gamma_{40} + u_4$.
$\beta_5 = \gamma_{50} + u_5$.
$\beta_6 = \gamma_{60} + \gamma_{61} \times$ regional wealth + u_6.
$\beta_7 = \gamma_{70} + \gamma_{71} \times$ regional wealth + u_7.
$\beta_8 = \gamma_{80} + \gamma_{81} \times$ regional wealth + u_8.

[c] Male = 1, female = 2
[c] Rural = 0, urban = 1
[d] Standard score

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