



The Gap between the consumers' willingness  
to Pay for Green Products and Their Premium  
in Chinese Representative Cities

**Li Yan, Lu Yi, Liu Leping, Zhang Xiyue**  
**Renmin University of China**

# Contents

1

Background

2

Methodology

3

Discussion

4

Conclusion

# Background

## Green Product:

Usually green products are beneficial to environment and ecology in all or more than one stage of their life cycles, and green products means limiting negative environmental and social externalities.

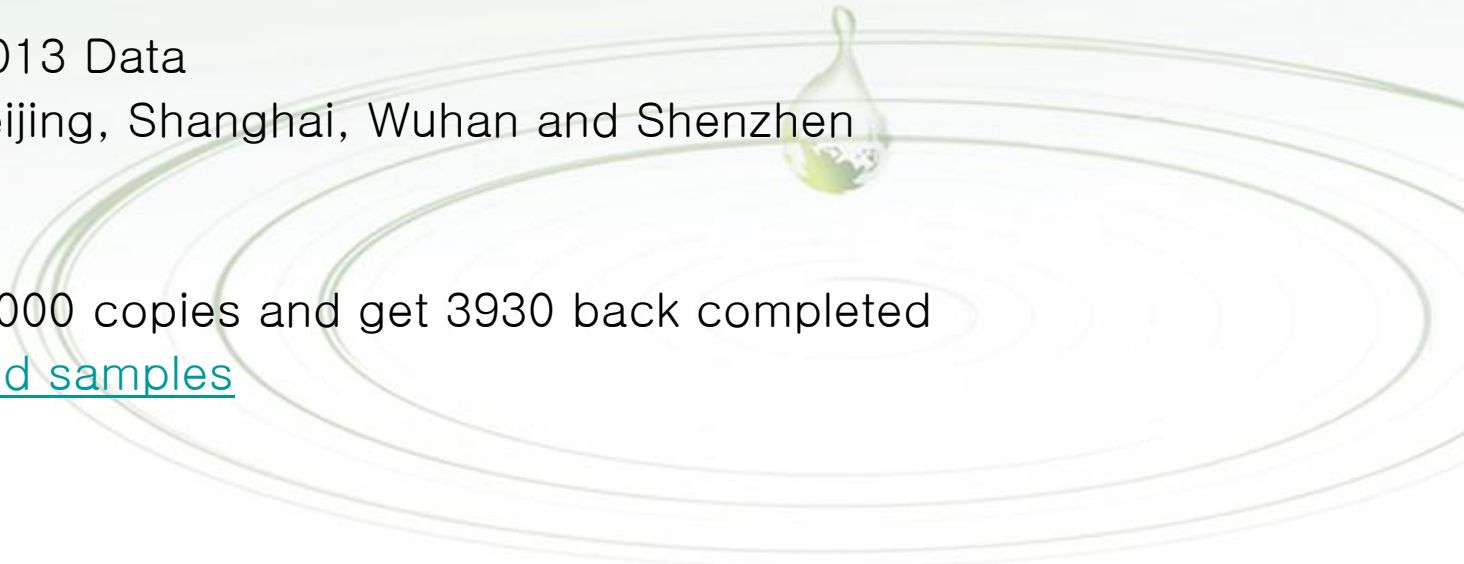
## Green Product Paradox :

- weigh and balance among various properties of them including the environmental quality (Olive 2011; Schultz,2001; Schultz , 1999)
- demographics (age, gender, income and education etc) (Laroche, 2001; Diamantopoulos, 2003), consumer's individual properties such as environment-related knowledge (Chan,2001), attitudes toward environment, personal value orientation(Ramayah, 2010)etc influence sustainable consumption
- the expectation of green consumption willingness is lowered by the hitch-hikers among those consumers (EK, 2005)
- contemporary research indicates that a striking gap between one's willingness and actual consumption behavior (Carrington, 2014; Kollmuss, 2002; Daziano, 2014)

# Background

**From 2009 to 2013, China Chain Store & Franchise Association(CCFA) and School of Environment and Natural Resources of Renmin University of China issued questionnaires**

- Complete questionnaires
- enlarge the scope
- Select 2013 Data
- Cities:Beijing, Shanghai, Wuhan and Shenzhen
- Issued 5000 copies and get 3930 back completed
- [2965 valid samples](#)



# Multivariate logistic regression

## Discrete Choice Model

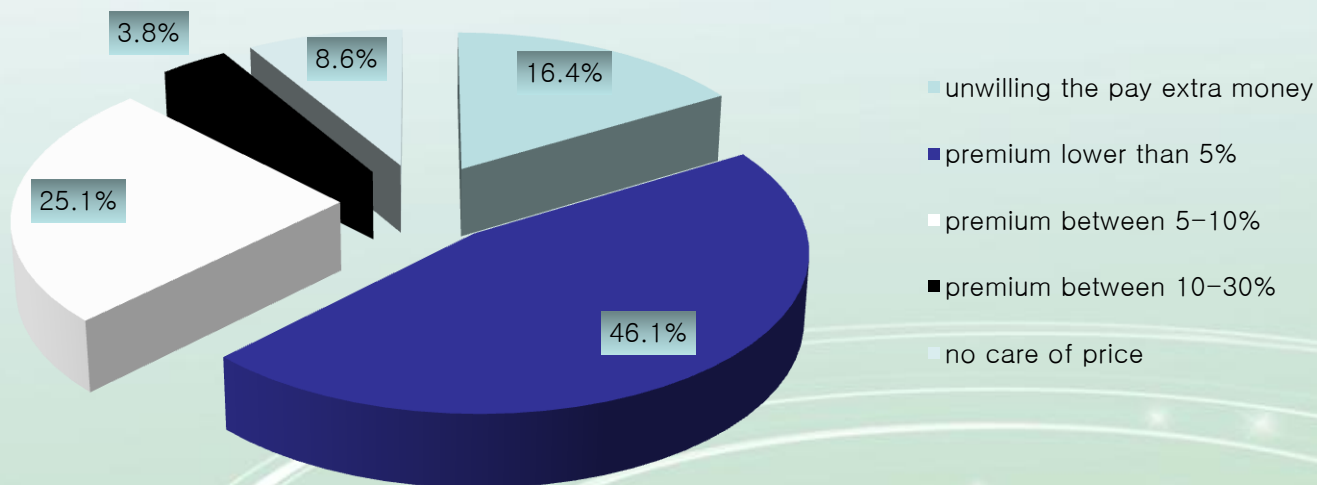
$$\ln \left[ \frac{P(y = j | x)}{P(y = J | x)} \right] = \alpha_j + \sum_{k=1}^K \beta_{jk} x_k$$

**dependent variables y** represents WTP for Green Products, j means WTP level of green products, For “unwilling the pay extra money” , “premium lower than 5%” , “premium between 5 – 10%” , “premium between 10 – 30%” , and “no care of price” these five options, give them value from 1-5 accordingly

**independent variables x** represents any factors which effect WTP for Green Products'

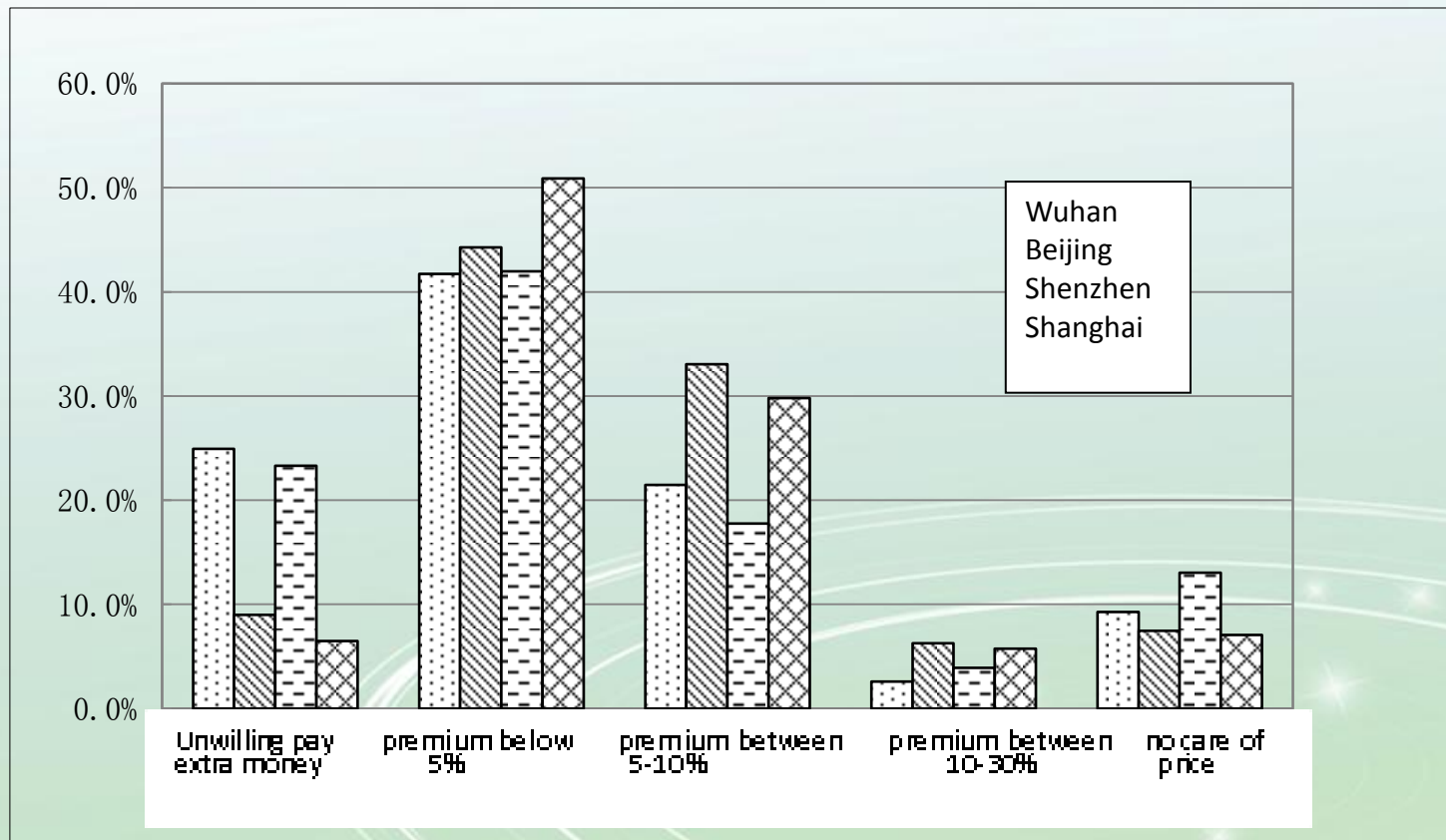


# Willing to Pay for Green Products

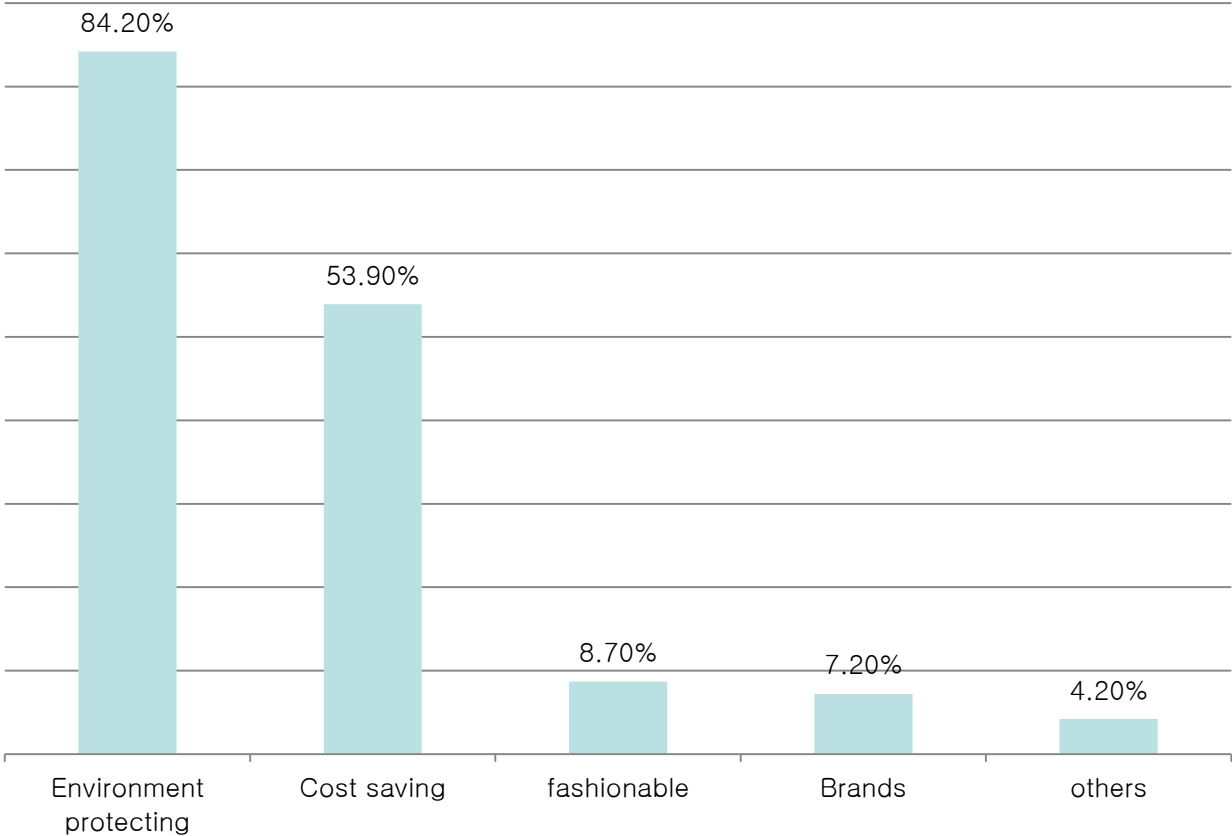




# Willing to Pay for Green Products

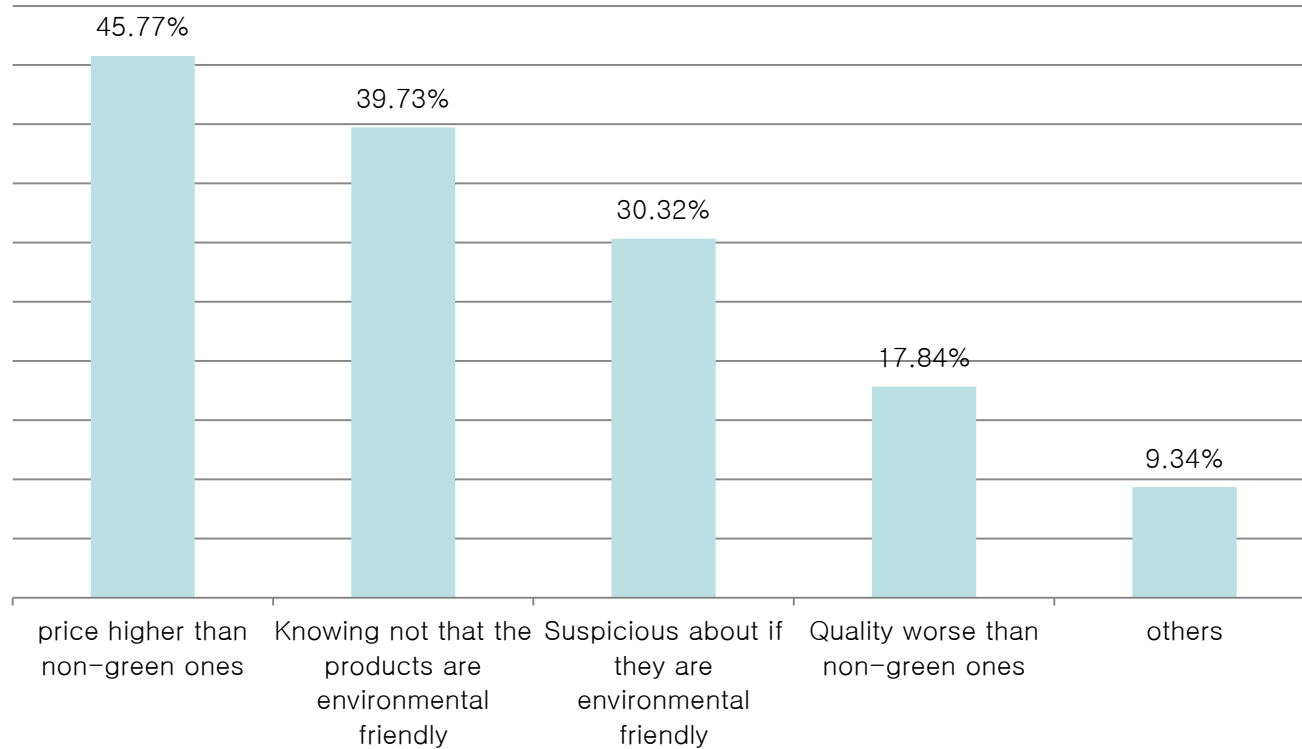


# Reasons why choosing green products



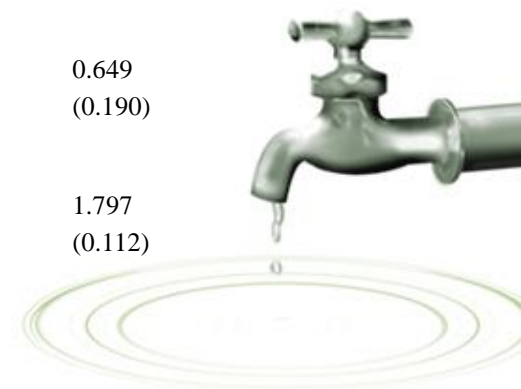


## Reasons why not choosing green products



Individual Characters

Independent Variable	P(Y=2)/P(Y=1) Exp(B)	P(Y=3)/P(Y=2) Exp(B)	P(Y=4)/P(Y=3) Exp(B)	P(Y=5)/P(Y=4) Exp(B)
Age: under 25 <sup>a</sup>	1.953** (0.018)	1.133 (0.675)	0.917 (0.885)	1.055 (0.934)
25-29 <sup>a</sup>	1.944** (0.019)	1.236 (0.480)	0.479 (0.239)	0.982 (0.979)
30-39 <sup>a</sup>	1.822 ** (0.033)	1.306 (0.373)	1.017 (0.977)	0.572 (0.391)
40-55 <sup>a</sup>	1.860 ** (0.037)	1.519 (0.178)	1.174 (0.792)	0.648 (0.515)
City: Wuhan <sup>b</sup>	0.275 *** (0.000)	1.081 (0.571)	0.754 (0.380)	2.152** (0.034)
Beijing <sup>b</sup>	1.031 (0.878)	1.610*** (0.000131)	1.050 (0.859)	0.649 (0.190)
Shenzhen <sup>b</sup>	0.323 *** (0.000)	0.947 (0.728)	1.318 (0.409)	1.797 (0.112)



Various Media Advertisement	0.815 * (0.094)	1.079 (0.466)	1.336 (0.185)	0.563** (0.021)
Brand	1.020 (0.886)	0.747*** (0.007)	1.761* (0.025)	0.549** (0.032)
Friends Recommendation	1.131 (0.430)	0.976 (0.861)	0.634* (0.085)	0.865 (0.617)
Diversity in Selling	0.300 ** (0.014)	2.414* (0.056)		
Green products counter in stores	0.229 *** (0.003)	1.826 (0.197)		
Green products exclusive shops	0.294 ** (0.015)	1.938 (0.157)		
Buy from retailers' websites	0.333 ** (0.031)	2.193* (0.097)		
Issue green products brochures by stores and put on special selling in holidays and festivals	0.433 * (0.093)	1.910 (0.167)		
Attach distinct labels on green products packages with products' advantages, for example energy saving, non-phosphorous printed on them	0.275 *** (0.010)	2.019 (0.131)		



Subjects Cognition

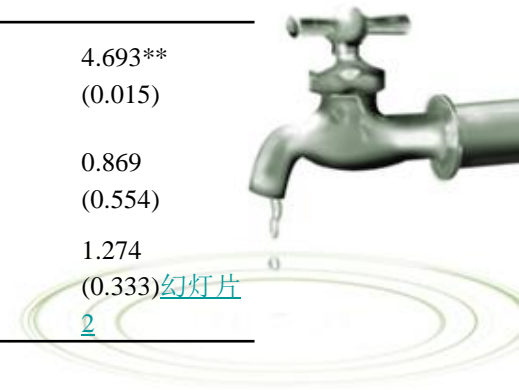
Cost saving	1.154 (0.233)	1.480*** (0.000082)	0.817 (0.355)	1.187 (0.486)
Environmental friendly	0.685 ** (0.012)	1.231 (0.132)	0.680 (0.229)	1.096 (0.798)
Quality worse than non-green ones	1.200 (0.205)	0.857 (0.218)	0.527*** (0.006)	2.368*** (0.002)
Not aware of environmental friendly	1.237 (0.274)	1.339 (0.141)	0.532* (0.084)	0.853 (0.676)

Waste Disposal Methods

Old for new	0.905 (0.452)	1.511*** (0.00017)	1.390 (0.139)	1.015 (0.953)
-------------	------------------	-----------------------	------------------	------------------

External Guidance

Guidance from retailing companies	0.420 *** (0.000043)	0.822 (0.410)	0.581 (0.386)	4.693** (0.015)
Government institutions	1.008 (0.948)	1.386*** (0.001)	0.836 (0.486)	0.869 (0.554)
Academic institutions	0.646 *** (0.001)	0.785** (0.017)	1.014 (0.950)	1.274 (0.333)



### **Unwilling to pay extra money**

Various media advertisement  
Selling Diversity  
Special selling in holidays  
Labelling  
Guidance from retailing companies

### **General Consumers**

Brand  
Selling on web  
Cost saving  
Old for new  
Government and Academic Institution  
Guidance

## **Enhance**

**WTP**

### **Core Consumers**

Quality of Green Products  
Brand  
Various Media Advertisement

### **Government and Retail**

Improve Quality of Products  
Lower Prices  
Subsidy

**Sustainable Consumption**



**Thanks**

**Only One Earth**

**Green Live**

