

H-1 International Comparative study on Asian consumers and its transition (Abstract of the Final Report)

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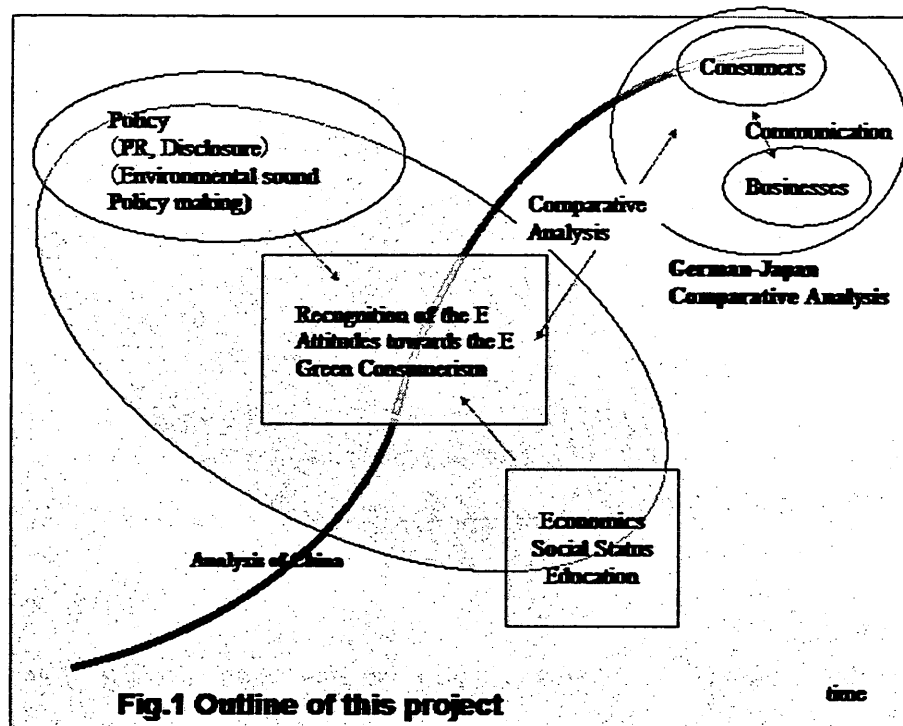
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environmental communication, Environmental value.**

1. Introduction

Environmental Issues are caused by various human activities. People change their way of living, natural environment would be affected, for example, people use cars instead of trains, carbon dioxide, nitrogen dioxide, etc., in atmosphere will increase. Also, car makers will produce more cars, so makers will have to consume more energy to do so. One of our research target is people's consumption level and another is environmental degradation and business-people interactive communication. Both targets are related to economic activities and environmental damage.

2. Research Objective

The purpose of this study is to clarify Asian consumer behavior, not only consumers but also citizens, and interactions between consumers and industries. To do so, we investigated in two surveys, one of which is Chinese and Japanese Consumer survey, with Research Center for Contemporary China, University of Peking, China and NRI Research Institute, Japan, another is the Corporations' environmental communication survey in Germany with comparison of Japanese done with Sumitomo Life Research Institute. The outline of this project is as follows.



As showed in fig.1, our project consists of two parts, one is the analysis of China and Comparative analysis of Japan-China consumers, and another is the German-Japan comparative analysis of environmental communication between consumers and businesses. The aim of this study is to clarify environmental communication among stakeholders, especially businesses and other sectors to establish "Sustainable Society." In developed countries, sustainable society often means partnership-society, every stakeholders make up partnership and work together for building sustainable society. To do so, the communication is the key for it. From the result of our previous project aimed the mutual influence between consumers and businesses, we reached the conclusion that communication is the key for building society, especially information from businesses, as they supply goods and services to consumers, they have more information than consumers, their activities are big enough to destroy people's everyday life and efforts.

3. Chinese citizen survey, and the comparative study of China-Japan consumers

We carried out three surveys to conduct China-Japan consumer study. The first is Hubei Province, the next is Jiangsu, the third is Japan. Those Chinese two provinces surveys are the first social survey results applied PPS(Population Probabilistic Sampling) into province-wide. This method enable us to use statistical analysis method. Actually our counterpart, Peking University, did nation-wide PPS sampling study, but its dataset is not available outside China. So our study is the first one that researchers can

analyze Chinese citizen's environmental attitudes, values, and behaviors.

Those surveys are done as the part of GOES project. So, basically we used the same questionnaire as GOES done in the Netherlands(1997), and Japan(1997). But we added some questionnaires in China studies from SEPA(State environmental protection agency study(1997)) done by Peking University, Research center for contemporary China), and we deleted some questionnaires in Japanese study as we did not have enough budget for conducting full GOES questionnaire.

1) Sampling

The first survey was done in Hubei Province, in December, 1501 men and women from 18 to 65 years old. The effective response rate was 72.3%, we obtain 1085 samples. The second was done in May 2001, in Jiangsu Province, 1,503 men and women from 18 to 65 years old. The effective response rate was about 74%(1,108 respondents) . Both surveys were done by Research Center for Contemporary China, Peking University. Respondents were sampled by the Proportional Probabilistic Sampling method from whole are from the Province.

2)Results

Table 1 shows one of our results of those surveys. This table is the result of factor analysis of general value (The importance of Principles of everyday life) questionnaires. The structure of Chinese general value in this table is more similar to those of the Netherlands or the U.S.A than to those of Japanese. Factor 1 explains *Biospheric-altruistic* ,as it includes three environmental items-respecting the nature, protecting the environment, and unity with the nature. Factor 2 explains Conservation (*Traditional*) ,as it includes traditional view of honoring the elders and parents and family security. Factor 3 explains *Egoistic* ,as it includes wealth, authority, and influence. Those grouping of the items are not exactly same with the Netherlands or the United States, but up to the environment items, those three items were grouped into one factor of biospheric-altruistic, grouping with altruistic items. But in Japan, environment items are separated into two factors, two with traditional, one with altruistic.

3)Japanese survey

Japanese survey was done in December 2002, sample size was 2000, response rate was 67.5%(completed sample size was 1350). We compare this result with Chinese result shown above and Japanese 1997 survey done under also Global Environmental Research project.

First, we asked about the most important things in the world, nation, and neighborhood. The most interesting point is that decreasing answers of “the environmental issues in Japan” from 1997(2nd) to 2002 (9th). Instead “Economic crisis” was getting more attention. In China, “the environmental issues in China” was 5th(Hubei,2000), and 3rd (Jiangsu, 2001). When seeing individual items, Global

Table 1. Results of factor analysis of Schwartz's value items: Japan, the Netherlands, and China						
Japan Item	Loading	Netherlands Item	Loading	China Item	Loading	Stern cluster*: (United States)Item
Factor 1: Biospheric-traditional						
A world at peace	0.787	Factor 1: Biospheric-altruistic		Factor 1: Biospheric-altruistic		Factor 1: Biospheric-altruistic
Family security	0.765	Respecting the earth	0.723	Unity with nature	.733	Unity with nature
Respecting the earth	0.648	Unity with nature	0.702	Self discipline	.688	Respecting the earth
		Protecting the environment	0.629	Respecting the earth	.664	Protecting the environment
Protecting the environment	0.610	Social justice	0.525	Protecting the environment	.631	A world at peace
Honoring parents and elders	0.453	A world at peace	0.523	Social justice	.422	Equality
		Equality	0.478	Equality	.405	Social justice
Eigen value	3.308	Eigen value	3.038	Eigen value	2.386	
Factor 2: Altruistic						
		Factor 2: Egoistic		Factor 2: Conservation (Traditional)		Factor 2: Egoistic
Influence	0.622	Authority	0.788	Family security	.731	Authority
Equality	0.581	Influence	0.763	Honoring parents and elders	.631	Wealth
Self-discipline	0.576	Self-discipline	0.300	A world at peace	.629	Influence
Social justice	0.562					
Unity with nature	0.520					
Eigen value	1.342	Eigen value	1.452	Eigen value	1.741	
Factor 3: Egoistic						
		Factor 3: Conservation (Traditional)		Factor 3: Egoistic		Factor 4: Conservation (Traditional)
Wealth	0.789	Family security	0.716	Authority	.786	Honoring parents and elders
Authority	0.780	Wealth	0.664	Influence	.677	Family security
		Honoring parents and elders	0.522	Wealth	.597	Self discipline
Eigen value	1.097	Eigen value	1.151	Eigen value	1.529	
Total variance explained (%)	48%		47%		47%	

* "Stern cluster" defined in Stern, Dietz, and Guagnano (1995). Items that were not used in our analysis are not listed here. This table (except China part) is cited from Midori Aoyagi-Utsui, Henk Vinken, Atsuko Kuribayashi (forthcoming) "Proenvironmental attitudes and behaviors of the Japanese mass public: A comparative survey", Human Ecology Review

Warming are getting more attention from 9.6%(1997) to 34.4%(2002), when we summed up "the most serious" and "serious".

Attitudes towards Science and Technology differs broadly among Chinese people and Japanese people. In China, "Science and Technology will solve environmental issues" are supported by more than 80%, but less than 40% in Japan(figures are sum of "Strong agree" and "Agree").

4.The Environmental Communication Study

We investigated three hundred German environmental conscious companies that publish environmental report, or certificated EMAS, and analyzed with Japanese companies. Figure 2. is one of our results. This figure clearly shows that the majority of Japanese environmental conscious companies expect "Mutual understanding with stakeholders" for environmental communication. Contrast to this, German companies raised "planning

management strategies”, “Improving products/services” for environmental communication. From this result, Japanese companies do not link environmental communication with their companies strategies or developing/improving their services or products. But German companies are using communication for developing or improving their products or services, but they do not intend to communicate with their stakeholders. Taking this result from inside the company, Japanese companies do not see their markets when developing environmentally friendly activities, but taking this results from outside, Japanese see information disclosure important.

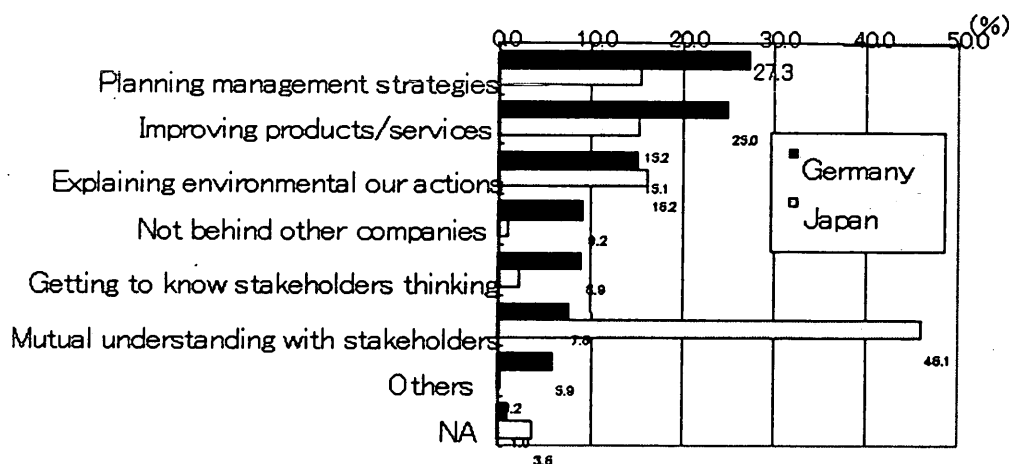


Fig.2 Expectation for Environmental communication

4. Conclusion

We investigated two provinces, and one nation, for consumer survey and two nations for industry survey. In German environmental conscious company’s survey, we found that German companies are using environmental communication for developing their products or services or planning their management strategies, so they are using communication “within company” strategies. But in Japan, companies are using environmental communication for mutual understanding with stakeholders, so they are using communication “outside company” strategies.

As for the Chinese citizen survey, we found that Chinese general value structure has more common with Western people than Japanese people, which suggest that Japanese value structure might be unique in the world.

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