

The Importance of an Environmental Sensitive Society **----- An Alert to the Public lack of knowledge of the Ocean**

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November 2, 2006

In their remarkable reports released recently, both US Ocean Committee and Pew Committee highlighted the importance of a well informed public. The ignorance of people toward the ocean partly contributes to the trouble today. So why do we need an environmental alert public, especially from the economic point of view? Many economists believe it is the consumers' willingness to pay environmental premium that makes the environmental friendly products with higher cost profitable¹. By accommodating consumers' WTP, manufactures can gain greater market share², at least in the second stage.³ By improving the quality standard as a whole (and environmental quality in particular in this paper), both the consumers and manufactures will better off, in other words, the society will better off⁴. While these statements general fit for the common observation, it is not without problem. First, the contingent valuation (CV), the method of measuring the WTP, has some drawbacks.⁵ More importantly, how can manufacturers persuade consumers that they are producing environmental friendly products remains a problem. In such a case, econ-labeling is a solution, but two questions remain. Who will issue the certification and how can manufactures determine the WTP. The first questions draw intensive attentions. One thing for sure, the government, which is endowed with the issuing authority in many countries, is sometimes more influenced by lobbies than by the real public interests, and thus is distrusted by many respondents in EU countries.⁶ In contrast, however fewer papers have been done in the second question. A more fundamental question is why manufactures' voluntary choice to produce the so called green products matters. Not only, as many economists argue, may the government agents bend to some interests groups or have their own pursuit⁷; the cost of supervision is also huge. If manufactures act according to the consumption changes of consumers, the Pareto improvement will be made. In the oceanic field, if consumers can change their view about the ocean and become more conscientious on it, if manufactures know this change and follow with it, we can expect a healthier ocean. But, again, the path for manufactures to determine the WTP must be identified, which is one of tasks of this paper.

This paper is constructed as follows. In the first section, I explain some changes in determining the utility of consumers, and design a conceptual model for manufactures to identify the consumers' WTP. Manufactures need to determine the WTP via test-marketing. This WTP, which is the possibility in manufactures' belief, tend to be the same as the real WTP when there are infinite market tests. After that, in the second section, I analyze what will happen if manufactures are divided into the large ones and small ones. In traditional game theory, the large ones will act first and the small ones will follow them. In the game model of this paper, this sequence will lead to the result that both of them will act according to the consumers' types. In the third steps I analyze specifically the action of large manufactures, and reveal that if there are infinite large

manufactures, and consumers are environmental sensitive, the market will be taken up by green products. In the fourth section, I compare the theoretical models with the real world, where the public seems to have relatively poor knowledge on the ocean, and suggest the government should take some measures to educate the public and improve the awareness on the ocean. By this way, the Hicks/Kaldor criteria will be met. The fifth part is some conclusions.

This is a primary research. There are many fascinating papers from psychological and economic point of view to illustrate the consumers' behaviors⁸⁹. In fact, a well-informed consumer may not change his/her consumption habit. Even he/she switches to be more environmental concerned, it is still hard to determine the WTP. Further, revealing information needs cost, society may worse off if the benefits from revealing information cannot compensate the cost. But let me first focus on the ideal world.

¹ Folmer, H., & Gable, H. (2000). *Principles of Environmental and Resource Economics: A Guide for Students and Decision-makers* Cheltenham: Edward Elgar

² Porter Michael E. & Linde Claas van der (1995). "Towards a New Conception of the Environmental-Competitiveness Relationship", *Journal of Economic Perspectives*, vol. 9, 97-118.

³ Barla, P., & Constantatos, C., & Herrmann M, (2006) "Environmental Regulation as a Coordination Device for the Introduction of a Green Product: The Porter's Hypothesis Revisited." *Environmental and Resource Economists 3rd World Congress Kyoto*

⁴ Ronnen, U. (1991). "Minimum Quality Standards, Fixed Costs, and Competition." *RAND Journal of Economics*, 22(4), 490-504

⁵ Macmillan, D., & Lienhoop, N., & Polts, J., & Philip, L., (2005) *New Approaches to Valuing Environmental Benefits using Contingent Valuation. Environment, Information and Consumer Behavior* Northampton: Edward Elgar Publishing Limited

⁶ Beckmann, S., (2005) "Information, Consumer perceptions and Regulations: The Case of Organic Salmon." *Environment, Information and Consumer Behavior* Northampton: Edward Elgar Publishing Limited

⁷ Hannesson (2004) "The Privatization of the Ocean" Cambridge: The MIT Press

⁸ Biel, A., & Bahlstrand, U., "Values and Habits a Dual Process Model" (2005) *Environment, Information and Consumer Behavior* Northampton: Edward Elgar Publishing Limited

⁹ Crespi, J., & Marette (2005) "Econ-Labeling" *Economics: Is Public involvement necessary?* *Environment, Information and Consumer Behavior* Northampton: Edward Elgar Publishing Limited