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## **ECOLABEL STRATEGY OF THE MANUFACTURER UNDER ENVIRONMENTAL PREFERENCE AND SKEPTICISM BEHAVIORS**

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### **Abstract**

Ecolabel has become an important tool for the manufacturer to disclose green quality information of their products, such as the European “Blue Angel”, the US “Energy Star”. Environmental preference enables consumers willing to buy ecolabel products. However, consumer skepticism behavior cuts down the consumer utility of purchasing ecolabel products. Considering the differences of governmental and industrial ecolabels and employing game models, we study which ecolabel should be selected by the manufacturer. After the ecolabel initiators set the ecolabel standard, the manufacturer and the retailer make their decisions subsequently. By using backward induction method, we obtain the following results: (i) the optimal green quality standards, wholesale/retail prices, and sales effort under governmental ecolabel is higher than that under industrial ecolabel. Manufacturer may not actively choose governmental ecolabel. However, with the increase of consumer skepticism, the manufacturer’s preference to industrial ecolabel decreases gradually. (ii) The retailer has first-mover advantage. Differently, when consumer skepticism is low sufficiently, the manufacturer under industrial ecolabel has first-mover disadvantage. When consumer skepticism degree increases, the impact of ecolabel on the retailer’s profit decreases gradually. (iii) Consumer skepticism is not always detrimental to all stakeholders. The manufacturer and the supply chain may benefit from the consumer skepticism. However, consumer environmental preference is beneficial for both the manufacturer and the retailer.

*Key words:* ecolabel strategy, environmental preference, game, skeptical behavior, supply chain

*Received: September, 2023; Revised final: September, 2024; Accepted: September, 2024; Published in final edited form: March, 2025*

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