

POLICY EVALUATION OF TOP RUNNER APPROACH

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1. BACK GROUND AND OBJECTIVE

Japan started energy conservation at first oil crisis. *Energy Conservation Law* was established at 1979. For about 20 years, while energy consumption of industry sector was stable, energy consumption of private sector was increasing. In 1997, Japan signed Kyoto protocol. Japan adopted Top-Runner approach to reduce energy consumption of private sector.

For 10 years since Top Runner Approach was adopted, firms have achieved its strict standards with their efforts and energy conservation of electric home appliances developed. Government is pleased with the success.

On the other hand, there is a few research about Top Runner Approach, because minimum energy performance standard is major in the world.

In this thesis, I try to evaluate Top Runner Approach and recognize its effectiveness and limitation.

2. RESEARCH METHOD

There are three types of policy evaluation. I use an evaluation of the process.

Energy conservation policy is energy policy, but it has the aspect of environmental law because electric energy causes CO₂. Major environmental policy is direct regulation. But recently innovative environmental policies can be seen in western countries. These policies were researched by De Bruijn and Norberg-Bohm. They evaluate these policies. They defined innovative policies as voluntary, collaborative, information-based approach. I think Top Runner Approach has the characters of voluntary, collaborative, information-based approach. I evaluate it from 6 view points of preceding study. 6 view points are create new relationship developing environmental capacities in industry creating first mover as the reasons of effectiveness failure to change the competitive environment of firms complex implementation process misfit with the environmental policy as the limitation.

3. RESULTS AND DISCUSSION

First, Top-runner approach which was established not as the environmental policy but as the energy policy has the characteristics of a voluntary, collaborative, information-based approach. As a result of the analysis, Top-runner approach is effective from , , , and viewpoints. On the other hand, firms seem to have low incentive to become a first mover. And the competitive circumstance in the industry didn't change much because it is difficult to change consumer behavior. However energy conservation of electric appliances developed in this decade. What stimulated technological innovation?

As a result of analysis with 6 dimensions which stimulate innovation in the fields of policy science, economics, management, and organization (Hofman & Schrama 2005) , Top-runner approach creates strict but achievable standards. But there is no explanation that technological innovation continues beyond the standards.

From the interview, it was found that the technical competition within firms stimulates innovation not to meet the standards, but to achieve brand loyalty.