THE FACTORS CONTRIBUTING TO ENERGY CONSERVATION POLICY EFFICIENCY AND EFFECTIVENESS IN CENTRAL THAILAND: A FOCUS ON THE TEXTILE INDUSTRY

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This study has required answering two questions: 1) Are the textile factories achieving their objectives of energy conservations?, 2) What factors contribute to energy conservation policy efficiency and effectiveness in the textile industry? To answer the above questions, this research focused on three issues: 1) to identify the major factor affecting efficiency and effectiveness of the energy conservation policy of the textile industry in Thailand, 2) to find out whether industries with larger amounts of energy consumption tend to have higher participation, and 3) to find out the causal relationships between dependent variables (energy conservation implementation efficiency and effectiveness) and independent variables (leadership, implementer's capacity, attitude towards implementer, policy commitment and continuity, policy objectives, policy resources, policy incentives, policy monitoring and evaluation).

Drawing upon various sources in the literature, a conceptual model of energy conservation implementation efficiency and effectiveness was gradually constructed. In this conceptual model, three hypotheses were proposed: hypothesis 1: attitude, policy objective, policy commitment and continuity, policy resources, policy incentives, leadership, implementer’s capacity, policy monitoring and evaluation are positively related to policy implementation efficiency and effectiveness; hypothesis 2: attitude, policy objective, policy commitment and continuity are positively related to leadership; and hypothesis 3: attitude, policy objective, policy commitment and continuity, policy resources, policy incentives, policy monitoring and evaluation are positively related to implementer’s capacity.
Textile factories, the sample for the study, were chosen by considering the type of business by the Department of Industrial Works. A thousand questionnaires were distributed to textile factories from November 2005 to March 2006 and 485 usable questionnaires were used for data analysis. The Percentage and Path analysis technique with stepwise regression was the statistical technique employed for data analysis.

The research results responding to the above objectives reveal that: 1) there are six independent variables (attitude towards energy conservation, leadership, policy incentives, policy objectives, implementer’s capacity, policy monitoring and evaluation) directly effecting on energy conservation implementation efficiency and effectiveness. However, there are two variables (policy commitment and continuity, policy resources) affecting indirectly through energy conservation policy implementation; 2) only three percent of textile factories have already processing energy conservation activities following the ECP Act. Though three-fourth of them have not participated in all functions of the energy conservation program, the study found that most them participated in non-monetary energy conservation activities. Moreover, the study also confirms that most of large enterprises participate more in energy conservation policies than small and medium enterprises; 3) regarding the third objective, three hypotheses were tested by employing the Path analysis. The result indicates that hypothesis 1 is accepted while hypothesis 2 and hypothesis 3 are rejected. Among independent variables, attitude towards energy conservation is recognized as having the highest degree effect on energy conservation policy followed by policy objectives, policy monitoring and evaluation, policy incentives, leadership, implementer’s capacity, policy resources, and policy commitment and continuity.

The study suggests that in order to accomplish energy conservation policy efficiency and effectiveness, the government should revise its policy incentive conditions and make them suitable for business. In addition, the government should provide samples of factories which are successful in implementing energy conservation policy in order to create confidence on the part of others. In order to accelerate energy conservation implementation in the industry, the study also suggests systematically implementing the energy conservation policy model, which will assist factories in understanding the overall function of performing energy conservation activities in their factories.

Finally, the research proposes recommendations, which include policy implications, management options, and directions of future research.
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