

Special Research Project Title	Comparative Study of Hybrid Electric Vehicle and Eco Car Diffusion in Thailand
Special Research Project Credit	6
Candidate	Mr. Panudech Karnsakulthorn
Special Research Project Advisors	Asst. Prof. Dr. Tippawan Pinvanichkul Assoc. Prof. Dr. Suvit Tia
Program	Master of Business Administration
Field of Study	Entrepreneurship Management
Faculty	Graduate School of Management and Innovation
B.E.	2555

Abstract

This research studies about diffusion patterns of hybrid electric vehicle (HEV) and eco car in Thailand by analyzing the data of new registered vehicles during 2007 – 2012 as proxies of sales. The fundamental analysis shows that there are three factors related to pattern of HEV and eco car adoptions including new product launch, changes of oil price and government incentives.

The Bass model is another method used to find the diffusion of both types of vehicle. The result shows that the coefficient of imitation (q) is greater than the coefficient of innovation (p) in both cases. That means the majority of adopters of HEV and eco car are influenced by their peers' behavior and the number of people who are already adopted a new technology.

However, although p_{HEV} (0.00225) is greater than $p_{Eco Car}$ (0.00061), the number of innovators of eco car is greater than HEV because the total potential adopters of eco car (~1,137,361) are significantly greater than which of HEV (~62,683). While $q_{Eco Car}$ (0.44017) is about two time higher than q_{HEV} (0.24856) This make the number of eco car adopters reaches its saturation level faster than which of HEV.

All aforementioned consequences reflect that the encourage policies in using of eco cars are more necessary than stimulating HEVs' policy.

Keywords : Diffusion of Innovation / Bass Model / Hybrid / Eco Car