

CITY UNIVERSITY OF HONG KONG
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**Factors Influencing an Entrepreneur's
Motivation to Develop Alternative Fuel
Vehicles: Evidence from China**
影響企業家開發新能源汽車的主要因素：
以中國為例

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Abstract

Because of a combination of reasons, such as environmental concerns and high oil prices, the development of cleaner alternative fuel and advanced power vehicles has become a high priority for many governments and vehicle manufacturers around the world. The focus of the automobile industry is shifting to the research and industrialized development of alternative fuel vehicles (AFVs).

Developing and producing AFV are actions of innovation that face great uncertainties. In a company or organization, it is the entrepreneur who constantly makes strategic decisions of bringing innovations to the entity. The development of new products, such as AFV, needs the entrepreneur's motivation. How the entrepreneur shapes his decision-making is determined by many factors. Therefore, it is worth investigating the factors that influence an entrepreneur's motivation to develop AFVs.

Many governments have introduced a wide array of incentives to support the development and deployment of alternatives to conventional fuels and engines in transportation. China has participated in this competition. After the financial crisis of 2007–2008, China exceeded the U.S. to become the world's largest auto-market. In the aspects of comprehensive technologies, commercialization and industrialization, the gap between auto makers in China and developed countries is narrower for alternative fuel vehicles than for traditional gasoline vehicles.

This thesis investigates the main factors influencing an entrepreneur's motivation to develop AFVs on the basis of China's rising automobile industry. Both qualitative and quantitative studies have been carried out in this study. The dependent variable, an entrepreneur's motivation to develop AFVs includes three aspects: using

environment-friendly materials, adopting technologies with low emissions and importing business models facilitating company activities with deep commitment of environmental protection. The independent variables include an enterprise's market position, the entrepreneur's leadership style, risk attitude and professional knowledge bias. Market uncertainty and policy uncertainty are considered as moderating variables in the research model.

The thesis has integrated analysis of qualitative and quantitative research methods. The qualitative study mainly takes Ankai Automobile Ltd and Zhuhai Yintong New Energy Bus Company as case studies to intuitively observe entrepreneurs' motivation. The quantitative results indicate that all the explaining variables considered by the study are significantly correlated with an entrepreneur's motivation to develop AFVs. An enterprise taking: a more challenging market position, a more risk-taking entrepreneur and a more management knowledge biased entrepreneurship are more likely to develop AFVs. The autocratic degree of the leadership is negatively correlated with an entrepreneur's motivation to develop AFVs. In general, the analysis results are in line with the theories and general logics. Under most conditions, both policy and market uncertainties are able to moderate the enterprise and entrepreneur himself to influence his motivation to develop AFVs. Certainty is preferred more than uncertainties, most of the time. A democratic entrepreneur is more prone to develop AFVs when there are more uncertainties with the policy and market.

This study is innovative in exploring people's influence on a new business. It also fills the gap by conducting experiments recently conducted in an emerging market, China. This research will provide a good reference for both practitioners and researchers. The first-hand study based on China's automobile industry will be useful

to business leaders and policy making officials. Business leaders will be able to better understand market and policy environments. Policymakers will improve existing policies and create new ones to further promote technological innovation. This study has not only integrated theories and methodologies from diverse fields, especially making a contribution to the leadership theory, but has also constructed a multi-dimensional system comprised of technological, economic and environmental factors to conclude the role which leadership plays in the AFV development. This will enrich the content of leadership.

Key Words: *Entrepreneur, Alternative Fuel Vehicle, Motivation, Leadership, Institutional Theory, Innovation*