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*Agile Business Development, Chinese Style: An Exploration of the Low-Speed Electric Vehicle Industry in Shandong Province, China**

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Abstract

During the last decade Shandong experienced a phenomenal boom in the production of low-speed electrical vehicles (LSEVs), but few scholars have paid attention to its emergence and success. This article proposes an agile production innovation (API) framework for understanding how various factors shape the market order and technological trajectories in the industry. The API can avoid the boom peak in the regular innovation cycle and pursue a market position via an alternative

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pace. It identifies elements including agility in products, openness, targeting marginal markets, and flexible regulations that determine how the LSEV firms strategically and responsively react to the dynamics of technological and market changes. This proposed framework sheds light on China's specific business and industrial development paradigm in the emerging fields that lack formal rules and regulations.

The present study explores the recent emergence and dynamic development of the low-speed electric vehicle (LSEV) industry in China's Shandong province. The genesis, successful rise, and further evolution of this LSEV industry in Shandong has come highly unexpectedly, as the region has hardly any automotive industry legacy. At the turn of the century, the province seemed to lack all the basic preconditions for the successful launch of such an industry. As such the incumbent automotive industry leaders as well as academic observers have been taken unawares by this development. And still, the key success factors and driving forces of the Shandong LSEV phenomenon are shrouded in mystery. This article proposes to study these developments in a dynamic framework. In order to understand the genesis and first development stages of the LSEV industry in Shandong, we suggest applying an agile product development framework. With the increasing maturity of the industry, however, this concept appears to lose its explanatory power and it becomes expedient to focus on more traditional approaches to innovation and industry development to understand the driving forces of LSEV industry development in Shandong.

At the core of this proposition lies the assessment that the emergence and evolution of the LSEV industry cannot be explained by a standard product life cycle approach as usually employed in a developed country environment. We rather suggest that latecomer economies, in particular Shandong province, as highlighted in this article, explore alternative ways to generate viable business models and integrate into the (global) division of labor and its increasingly complex value chains. In recent years, a resurging interest in the emergence process of new products and industries has led to a substantial body of literature. Sectors addressed include for instance semiconductors and computers,[1] information technology,[2] and video games.[3] These studies have highlighted the significance of factors such as public demand, experimental users, user–producer interactions, collaboration between firms, and so on.[4] However, those