

# Chapter 3

## Market Trajectory: A Suggested Interpretation of Innovation Opportunities for Latecomer Firms

**Hongru Xiong**

*State Power Economics Research Institute & Research Center for Technological Innovation, Tsinghua University, China*

**Guisheng Wu**

*Tsinghua University, China*

### **ABSTRACT**

*It is widely accepted that technological trajectory theory provides great implications of opening “windows of opportunity.” However, a person can merely find limited innovation opportunities for those latecomer firms from developing economies since he or she has to overcome many barriers during catching-up process. The authors put forward traditional trajectory theory and construct a new theoretical framework to explore the evolutionary rule of innovation itself, focusing on market perspective. The authors suggest that there exist market innovation and market trajectory. Not only presenting theoretical deduction for introducing this new framework, the authors also conduct several brief case studies to interpret innovation opportunities derived from market trajectory. The authors’ proposed model offers some new theoretical contributions and also important implications for barrier breakthrough and exploring innovation opportunities. Latecomer firms could utilize market trajectory to greatly broaden “windows of opportunities” and catch up, mainly through seizing low-end markets, or exploiting latent segmentation, or finding “blue ocean.”*

DOI: 10.4018/978-1-4666-4769-5.ch003

## INTRODUCTION

The fundamental question for innovation research is of course to explain how innovations occur (Fagerberg et al., 2005). Most relevant literatures regard the technical change and technological commercialization as the main research target. Based on the concepts of natural trajectory (Nelson & Winter, 1982) and scientific paradigms (Kuhn, 1962), Dosi (1982) used technological paradigms and technological trajectory to explain the regularities in the process of technical progress, which brought about a series of crucial arguments on innovation barriers and opportunities for late-comers based on the technological trajectory theory. There is a prevalent view that late-comers do have lower entry barrier and more catching-up opportunities when new technological trajectory emerges, which means ‘windows of opportunity’ open at that time (Perez & Soete, 1988; Lee & Lim, 2001; Liu, 2008). Importantly, this proposition on innovation opportunities is mostly concluded with a technological perspective as ‘technological trajectory’ itself mainly addresses and explains the evolution of technical change in different industries, especially in science-based sectors.

However, two streams of new evidences from emerging economies in recent decades begin to challenge the traditional viewpoints. Firstly, new technological trajectories become much scarce, especially in mature industry (Utterback, 1994). Even when it does emerge, late-comers still find much difficult to catch that opportunity as restricted by weak technical accumulateness, market disadvantage, unsound organizational foundation, inefficient learning capability, lack of complementary assets, institutional or policy environment and so on (Hobday, 1995; Gao, 2003; Amsden, 1989; Teece, 1986; Kim, 1997; Cusumano, 1985). The second challenge mainly appears as more and more latecomer firms emerged in the past several decades have made great success of catching-up and leapfrogging, with adopting various new ways of innovation

other than technological catching-up. Abundant evidences show that developing countries are not constrained to choose only one way of catching-up, either technological catching-up or market catching-up (Li, 2007). New catching-up ways do exist and attract many research focus, such as disruptive innovation (Christensen, 1997).

Therefore, we can merely find limited innovation opportunities to catch up particularly for those latecomer firms from developing economies, based on traditional technological trajectory theory, since they have to overcome many barriers during catching-up and industrial upgrading process. Thereby, if following technological trajectory theory, we may miss some other kinds of catching-up opportunities. Since innovation itself is much more extensive than technological innovation (Schumpeter, 1934), we firmly suppose that there are some similar trajectories besides technological perspective.

The background section of this paper will attempt a brief critical literature review on traditional technological trajectory and catching-up opportunities derived accordingly. By analyzing some major limitations of existing theoretical propositions on innovation opportunities based on technological trajectory, we try to show that traditional view presents a rather incomplete interpretation of innovation activities, especially catching-up opportunities for latecomer firms. Moreover, it contradicts empirical evidence with a large number of catching-up cases. In fact, the richness of new innovation ways provides us a much broader view on innovation activities. Making great use of market power and leveraging market resource shall bring forward some distinguished new propositions on the evolution of innovation and strategies of catching-up in most emerging economies. Hence we propose to put forward the traditional trajectory theory with transferring from technological perspective to market perspective, as well as from technology-based to market-based innovation paradigm.

17 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/market-trajectory/96647](http://www.igi-global.com/chapter/market-trajectory/96647)

## Related Content

---

### Balancing Individual Strategies and Cultures

(2021). *Relating Information Culture to Information Policies and Management Strategies* (pp. 235-266).

[www.irma-international.org/chapter/balancing-individual-strategies-and-cultures/256370](http://www.irma-international.org/chapter/balancing-individual-strategies-and-cultures/256370)

### Quality Improves the Value of Patent Information to Promote Innovation

Sérgio Maravilhas (2014). *Rethinking the Conceptual Base for New Practical Applications in Information Value and Quality* (pp. 61-82).

[www.irma-international.org/chapter/quality-improves-the-value-of-patent-information-to-promote-innovation/84213](http://www.irma-international.org/chapter/quality-improves-the-value-of-patent-information-to-promote-innovation/84213)

### Digital Archiving to Spearhead Access to Heritage Information for All Interested Clients in Africa

(2022). *Library and Media Roles in Information Hygiene and Managing Information* (pp. 81-101).

[www.irma-international.org/chapter/digital-archiving-to-spearhead-access-to-heritage-information-for-all-interested-clients-in-africa/308023](http://www.irma-international.org/chapter/digital-archiving-to-spearhead-access-to-heritage-information-for-all-interested-clients-in-africa/308023)

### Market-Segmentation Based on Level of Reduction of Risk of Misinforming via Adjusting Information

(2024). *Quantitative Measures and Warranty Coverage of the Risk of Misinforming* (pp. 167-181).

[www.irma-international.org/chapter/market-segmentation-based-on-level-of-reduction-of-risk-of-misinforming-via-adjusting-information/338748](http://www.irma-international.org/chapter/market-segmentation-based-on-level-of-reduction-of-risk-of-misinforming-via-adjusting-information/338748)

### Connections in the Sky

(2014). *Infonomics and the Business of Free: Modern Value Creation for Information Services* (pp. 150-165).

[www.irma-international.org/chapter/connections-sky/78227](http://www.irma-international.org/chapter/connections-sky/78227)