Journal of Social Sciences and Management Studies
https://doi.org/10.56556/jssms.v5i2.1486
ISSN: 2957-8795

RESEARCH ARTICLE

Opportunity Windows, Cross-border M&A, and Latecomer Leapfrogging: A Longitudinal Case Study of Geely

Renjian Hu[1], Hongmin Liu[1*], Fenghua Dun[1], Yingchen Liu[2]

[1]School of Management, Zhejiang University of Science and Technology, Hangzhou, China
[2]Bureau of Commerce of Hangzhou Hi-tech Industry Development Zone, Binjiang District, Hangzhou, China

Corresponding Author: Hongmin Liu. Email: hmliu@zust.edu.cn
Received: 03 May, 2026, Accepted: 24 October, 2026, Published: 16 November, 2026

Abstract

Against global industrial transformation and China's automotive upgrading, latecomer emerging-economy firms seek leapfrog development through cross-border M&A, yet identifying multidimensional opportunity windows remains a practical puzzle. Taking Zhejiang Geely Holding Group as a single longitudinal case (1986–2024), this paper classifies opportunity windows into technological, demand-based, and institutional types, and measures catch-up performance across financial, market, and innovation dimensions. During the catch-up phase (2006–2016), Geely's joint venture with Manganese Bronze Holdings (2006), its full acquisition of LTC (2013), and full-equity acquisitions of DSI and Volvo reflected a "market-for-technology" strategy, responding to low-end positioning, technological gaps, and rising demand. During the integration-and-transcendence phase (2017–2024), partial equity acquisitions of Proton, Daimler, and Renault adopted a "technology-for-market" approach to domestic saturation and new-energy-policy windows, achieving mutual market and technology gains. The paper builds a "opportunity window–cross-border M&A–latecomer leapfrogging" chain; latecomers should diagnose weaknesses beforehand and prioritize post-acquisition integration. and should prioritize post-acquisition integration to convert acquired resources into catch-up performance.

Keywords: opportunity window; cross-border mergers and acquisitions; leapfrogging; latecomer enterprise; Geely

1 . Introduction

The theory of latecomer catch-up argues that, When a technological opportunity window emerges due to the advent of new technologies or shifts in technological paradigms, or the emergence of new market demand or untapped market opportunities, presenting a window of opportunity, for latecomers, this presents a rare strategic opportunity to leapfrog competitors (Xu et al., 2014; Wu et al., 2019; Xu et al., 2020; Peng and Zhu, 2022; Bao

et al., 2023). Current academic research on latecomer firms' catch-up has established a theoretical framework (Figueiredo et al., 2021), with researchers reaching a general consensus that such catch-up exhibits incremental leapfrog growth. The catch-up process typically follows a spiral evolution pattern of "process innovation → product innovation → core technology innovation" (Kim, 1999). Late-entrant companies typically face the dual challenges of critical core technology bottlenecks and market passivity at the outset (Huo et al., 2023). By pursuing cross-border mergers and acquisitions, enterprises can enhance their independent innovation capabilities, it is possible to overcome both technological and market disadvantages and achieve leapfrog development (Zheng and Liu, 2023; Zang and Jin, 2023). Cross-border mergers and acquisitions refer to the act of a company acquiring all assets or shares of a foreign enterprise through payment means to achieve specific objectives, thereby gaining control over the management and operations of the acquired company (Wang, 2014). Through mergers and acquisitions of foreign enterprises, companies can not only leverage technological complementarities with the acquired firm to enhance the acquiring party's multinational technological innovation capabilities (Zhao and Chen, 2019), thereby addressing uncertainties within potential opportunity windows, but also capitalize on the acquired firm's brand influence to boost consumer purchasing intent and expand into overseas markets (Zhang and Jiang, 2015).

Existing research on how enterprises achieve catch-up development through identifying opportunity windows and implementing cross-border mergers and acquisitions remains inadequate. On the one hand, enterprises encounter distinct opportunity windows during their developmental stages, each carrying uncertainties in different directions. The mechanism for conducting cross-border mergers and acquisitions based on the nature of these opportunity windows remains unexplored. On the other hand, there is a scarcity of case studies examining how enterprises identify opportunity windows and adopt strategies to achieve catch-up growth from a cross-border M&A perspective, Most domestic scholars' theoretical research on cross-border M&A and the opportunity window, or on latecomer catch-up, has been limited to either monotonous studies of a single aspect or combined investigations of two aspects. For instance, they have explored the impact of cross-border M&A on latecomer catch-up, or the influence of the opportunity window on latecomer catch-up.

Therefore, the research question of this paper is: How can late-entrant firms achieve technological catch-up and market expansion through cross-border mergers and acquisitions when faced with opportunity windows at different times, thereby realizing their late-mover advantage? The case study selected for this paper focuses on Zhejiang Geely Holding Group Co., Ltd. By examining Zhejiang Geely Holding Group Co., Ltd.'s catch-up journey from 1986 to 2024 through a cross-temporal lens, this study explores how latecomers identify the distinctive characteristics of opportunity windows at different stages of their catch-up process and leverage cross-border M&A to achieve latecomer catch-up.

By explicitly linking opportunity-window identification to the choice of cross-border M&A mode, this study aims to extend, challenge, and refine existing knowledge on how latecomer firms achieve leapfrog catch-up, positioning its findings against recent Chinese latecomer case studies (Wu et al., 2019; Peng and Zhu, 2022; Du et al., 2019).

The remainder of this paper is organized as follows. Section 1 reviews the relevant literature on opportunity windows and cross-border M&A and identifies the research gap. Section 2 describes the research design, including the single-case method, case selection, data sources, and construct measurement. Section 3 presents the results and discussion of Geely's two-phase catch-up. Section 4 concludes with findings, contributions, implications, and limitations.

2 . Literature Review

2.1 Opportunity Window and Latecomer Advantage

Perez and Soete, who proposed the concept of the opportunity window, described the role of emerging technological economic paradigms in the catch-up process of late-entrant firms, which can leverage technological paradigm shifts to achieve convergence (Perez and Soete, 1988).Lee and Malerba subsequently expanded the concept of opportunity windows, linking it to the construction of a sectoral system and proposing three categories of opportunity windows: technological, demand, and institutional opportunity windows (Lee and Malerba, 2017).Technology windows represent opportunities presented by new technologies or radical innovations, as well as opportunities created by users or consumers generating new demands; A demand window refers to opportunities arising from substantial shifts in demand conditions, such as the emergence of new demand, rapid growth in domestic demand, or abrupt changes in the business cycle. Institutional windows emerge through government intervention in industries or systemic changes in institutional conditions. Opportunity windows integrate multi-level contextual factors such as technology, demand, and institutions, forming a crucial theoretical foundation for explaining the successful catch-up of latecomer firms (Perez and Soete, 1988; Lee and Malerba, 2017).

Existing research has primarily examined the opportunity window from the perspective of opportunity sources to explore firms' strategies for implementing catch-up development. Weidner N points out that under different resource allocation and behavioral patterns, firms' absorptive capacity models will also exhibit distinct characteristics (Weidner et al., 2023).Kwak's analysis of South Korea's latecomer strategy in the nuclear energy sector reveals that the declining legitimacy of leading firms within an industry creates a critical window of opportunity for latecomers to acquire core technologies. By leveraging their technological innovation systems, these latecomers internalize this opportunity window, ultimately transforming from turnkey importers into global exporters (Kwak and Yoon, 2020).Taking HTC Corporation, led by Xu Yusen, as an example, this study examines the innovation catch-up process based on opportunity windows in rapidly changing market environments, as well as the requirements for internal capabilities at different stages of catch-up (Xu et al., 2014).Wu Xiaobo et al. conducted a longitudinal comparative analysis of two late-entrant Chinese security companies' catch-up processes, exploring how the alignment between opportunity windows and corporate innovation strategies influences the performance of late-entrant firms in their catch-up efforts: It has been found

that during the catch-up and leapfrog stages, only when the three distinct types of opportunity windows—technological, demand-driven, and institutional—are aligned with a firm's specific innovation strategy can they effectively drive sustained improvement in the firm's catch-up performance (Wu et al., 2019).Xu Jianxin et al. found that the emergence of one opportunity window can trigger the appearance of others. Latecomers can respond to the opening of opportunity windows by implementing a composite strategy, thereby enhancing internal capabilities to achieve catch-up growth (Xu et al., 2020). Peng Xinmin et al.'s longitudinal case study of Sunny Optical focuses on alliance portfolios. The research reveals that when faced with opportunity windows at different junctures, latecomers overcome market and technological disadvantages through market-oriented alliances and technology-oriented alliances, thereby achieving catch-up growth (Peng and Zhu, 2022).Based on dual market and technological opportunity windows, Zhou Jianghua et al. found that creative cognitive patterns fostered by research-based technical expertise drive enterprises to pursue structural innovation along disruptive technology trajectories. Moreover, innovation-based catch-up performance achieved by enterprises on disruptive technology trajectories outperforms that on traditional technology trajectories (Zhou et al., 2022).Li Jianan argues that during the dual window of opportunity created by shifts in industrial technology paradigms and the restructuring of market demands, late-entering firms possess greater potential to break through technological monopoly barriers and market access restrictions, thereby achieving leapfrog development and even surpassing competitors (Li, 2022).

In current research on latecomers achieving catch-up development, the opportunity window is widely recognized as a crucial window for enterprises to realize catch-up growth.

2.2 Cross-border Mergers and Acquisitions

Throughout the full lifecycle of development for Chinese enterprises—from entrepreneurial incubation and establishing a dominant position in the domestic market to penetrating international markets and pursuing a globalized footprint—their technological innovation systems have undergone a profound transformation from factor-driven to innovation-driven models. The enterprise has transcended the initial stage of conventional technology development and assembly manufacturing. Leveraging the gradual accumulation of technical capabilities and the systematic integration of innovation resources, it has progressively established a technological development paradigm centered on complex R&D and cutting-edge product innovation (Wang et al., 2017). To bridge technological gaps and expand into international markets, China's late-entrant enterprises are accelerating their shift from resource- and market-driven M&A models toward technology-seeking approaches. The wave of industrial globalization has created conditions for enterprises to acquire key technologies. By integrating global innovation resources through cross-border mergers and acquisitions, companies have found a crucial pathway to achieve technological catch-up and advance toward the high-end of the value chain (Wu and Su, 2014).

Yang Xingrui conducted an empirical analysis of cross-border M&A cases involving late-entrant Chinese enterprises to investigate the impact of cross-border M&A on value creation for these companies, Research has found that late-entrant Chinese enterprises acquire strategic assets such as core patents and brands through cross-border mergers and acquisitions. By integrating resources and internalizing knowledge, they achieve technological upgrading and value creation (Yang, 2014).CHEN et al. examined the restructuring of external and internal knowledge networks following corporate overseas acquisitions, analyzing the impact of cross-border mergers and acquisitions on industrial innovation. They concluded that both internal and external knowledge networks serve as effective means for enterprises to transform and absorb overseas acquisitions (Chen et al., 2023).Xia Yun employs the dual-capability theory to examine the performance relationship of Chinese technology firms engaging in cross-border mergers and acquisitions, arguing that such acquisitions provide a practical and effective pathway for these companies to catch up technologically. However, most Chinese technology companies currently remain at the stage of converting and absorbing generic technological knowledge. Their capabilities in seeking out and exploring external technological knowledge appear relatively weak, exhibiting a pronounced tendency to "prioritize utilization over exploration (Xia, 2017)." Teng Ziyuan et al. studied Chinese enterprises' cross-border M&A activities from 2008 to 2017, concluding that these acquisitions exerted distinctly different impacts on China's catch-up industries and leading industries in technological innovation. This occurred through their effects on the innovation incentive mechanisms and innovation efficiency of the acquired companies (Teng and Hu, 2019).Based on secondary innovation theory, Du Jian et al. conducted a single-case longitudinal study of Geely Group. Their findings revealed that through three rounds of cross-border acquisitions targeting complementary assets, Geely leveraged both internal and external organizational legitimacy to safeguard and enhance post-acquisition learning efficiency. This enabled the company to successfully transition from a latecomer to a challenger and ultimately an industry leader (Du et al., 2019).Sun Yue et al. analyzed the integration practices of Shenyang Machine Tool's acquisition of Germany's Hisse, concluding that mergers and acquisitions do not directly lead to technological advancement. Only through the effective internalization of acquired resources can late-entrant enterprises achieve a leap in technological capabilities (Sun and Hong, 2024). Through a longitudinal case study of Cixing from 2010 to 2022, Chen Yuxin et al. found that when latecomers pursue catch-up and leapfrog development through cross-border M&A, resource dependency shifts from the latecomer relying on the acquired firm to the acquired firm relying on the latecomer. This reveals the technological learning process following reverse cross-border M&A by latecomers (Chen and Han, 2024).

Current research on latecomers achieving catch-up and leapfrogging generally holds that pursuing cross-border mergers and acquisitions enables these firms to integrate global innovation chain resources through M&A. This facilitates a transition from technological imitation to technological innovation, thereby enabling technological leapfrogging and enhancing market position.

Despite these advances, the specific mechanism linking the identification of opportunity windows to the choice of cross-border M&A mode—and to the resulting leapfrog performance—remains insufficiently articulated. In

particular, although Du et al. (2019) examined Geely's cross-border M&A through the lens of secondary innovation using largely the same acquisitions (Manganese Bronze, DSI, and Volvo), they did not explicitly relate the nature of opportunity windows to the equity mode (full versus partial) of acquisitions. By extending the timeline to 2024 and adding the Proton, Daimler, and Renault deals, this study advances the discussion by proposing an integrated "opportunity window–cross-border M&A–leapfrog development" framework that explains how latecomers align their M&A modes with the characteristics of opportunity windows at different stages.

3 . Research Design

3.1 Research Methods

This study employs a single-case longitudinal research approach for the following reasons: It seeks to examine the role of identifying opportunity windows in cross-border M&A for latecomer firms pursuing catch-up and leapfrog development. Additionally, it investigates why Geely Group—a leading private automaker—adopted differing cross-border M&A strategies when confronting distinct external environments across various periods.This is a study of "how" and "why," and case studies are particularly well-suited for answering explanatory and exploratory questions such as 'how' or "why." To further enhance the credibility and reproducibility of the analysis, the study draws on multiple data sources (semi-structured interviews, annual reports, official announcements, and media coverage), applies independent double-coding with consensus resolution and triangulation, and verifies key events and figures with informants and secondary sources, as detailed in Sections 2.2–2.3 and Section 5.

3.2 Case Selection and Data Sources

This paper selects Zhejiang Geely Holding Group Co., Ltd. (hereinafter referred to as "Geely") from the automotive industry as a case study. The selection of this case primarily adheres to the following criteria:
Principle of Typicality: Geely Group stands out as a prominent example in the field of cross-border mergers and acquisitions. Through a series of successful cross-border acquisitions, such as Volvo, DSI, and British Manganese Bronze, it has transformed from a latecomer in the domestic automotive industry into an automotive group with international influence. Its M&A activities involve integrating enterprises across different countries and cultural contexts, facing numerous challenges in technology absorption, brand management, and market expansion while achieving remarkable results. These efforts exemplify the diverse issues and corresponding strategies encountered in corporate cross-border mergers and acquisitions.

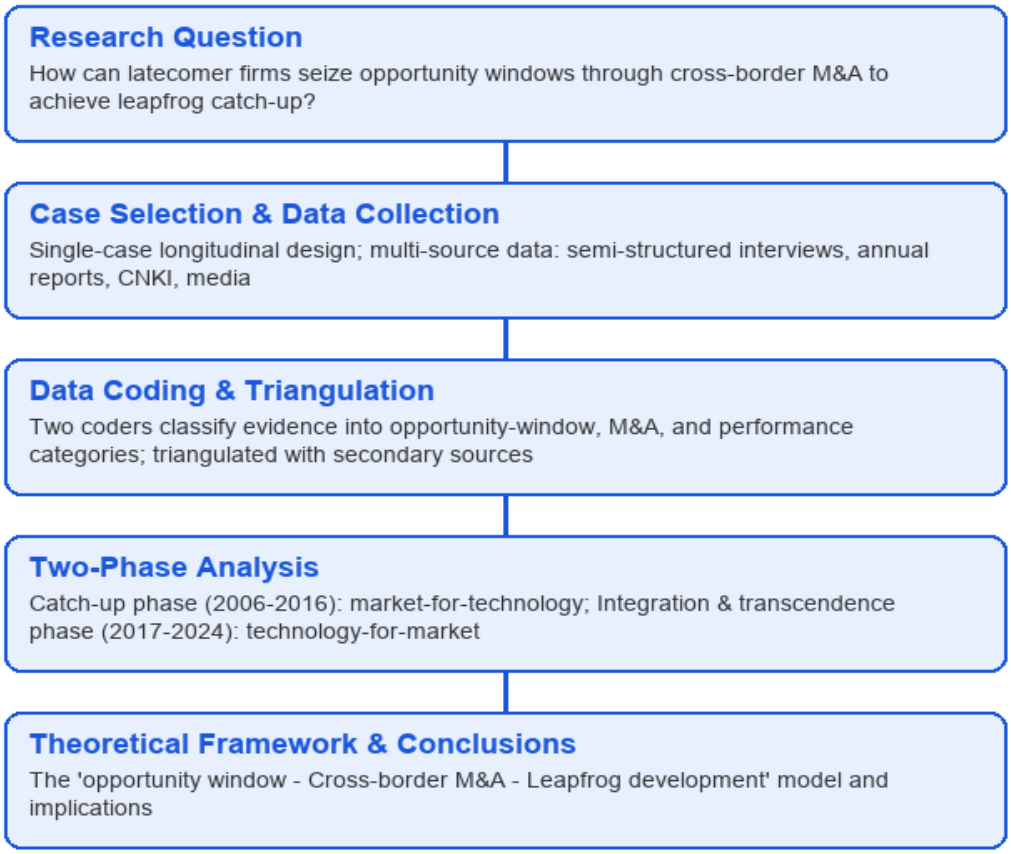


Figure 1: Research Design and Analytical Process

Principle of Uniqueness: Geely Group's development journey and acquisition model are unique. During the M&A process, it not only focuses on acquiring the target company's tangible assets such as technology and brand, but also excels at identifying and leveraging intangible resources like corporate culture and management expertise. Meanwhile, during the post-acquisition integration process, Geely Group implemented a series of distinctive integration strategies, such as the “letting the tiger return to the mountain” management approach. This model granted acquired companies a degree of operational autonomy, enabling complementary strengths and synergistic development between both parties. This unique acquisition model offers valuable lessons for other enterprises.

Principle of Data Accessibility: As a large publicly listed company, Geely Group's operational data, financial information, and merger and acquisition-related materials are relatively open and readily accessible. Whether it be its officially released annual reports and announcements, media coverage of its M&A activities, or analyses from industry research institutions, all provide researchers with a wealth of data sources. This enables the case study of Geely Group to be grounded in comprehensive data, ensuring the scientific rigor and reliability of the

research.

Principle of Inspiration: The case of Geely Group is highly instructive. Its successful experience can provide valuable insights for other enterprises in areas such as cross-border mergers and acquisitions, technological innovation, and brand building. For instance, Geely Group's path of technological catch-up and leapfrogging through mergers and acquisitions provides a reference for companies seeking to enhance their competitiveness through overseas acquisitions.

To meet the requirement for diverse data sources in this case study, a multi-channel data collection approach was adopted. First, primary data were obtained through semi-structured interviews with Geely personnel, supported by information from Geely's official website, IPO prospectus, and annual reports; the interview protocol, sample details, and triangulation procedure are described in Section 5. Second, academic literature related to the automotive industry, Geely Group, opportunity windows, and cross-border M&A was retrieved from databases such as CNKI. Third, information on automotive industry trends and news reports was gathered using search engines such as Baidu and Quark. Multiple data sources complement and validate each other, effectively enhancing the reliability and validity of the research. The basic information of the case companies is shown in Table 1.

Table 1: Basic Information of Case Companies

Time in the automotive industry	1997
Listing Date	In May 2005, the company was listed on the Main Board of the Hong Kong Stock Exchange. In September 2020, the company completed its initial public offering on the STAR Market of the Shanghai Stock Exchange.
Operating Revenue	240.2 billion yuan
Research and Development Expenditures	15.9 billion yuan
Number of granted invention patents	3,178 items
Annual domestic sales	3.337 million vehicles
Global Sales of New Energy Vehicles	1.488 million vehicles
Headquarters	Hangzhou, Zhejiang Province, China
Primary Business	Traditional fuel-powered vehicles and new energy vehicles
Primary Markets	Domestic and International Markets in China

Note: Operating revenue, R&D revenue, number of granted invention patents, annual domestic sales volume, and global sales volume of new energy vehicles are all data as of the end of 2024.

3.3 Variable Measure

Opportunity Window

The Opportunity Window Theory constructs a crucial theoretical framework for explaining how latecomer enterprises break through catch-up dilemmas and achieve leapfrog development by systematically integrating multi-level contextual factors such as technological paradigm shifts, market demand evolution, and institutional policy adjustments. Drawing on the perspectives of scholars including Wu Xiaobo et al. (Wu et al., 2019), this paper categorizes opportunity windows into technological opportunity windows, demand opportunity windows, and institutional opportunity windows.

Cross-border Mergers and Acquisitions

The wave of industrial globalization has created conditions for enterprises to acquire key technologies. By integrating global innovation resources through cross-border mergers and acquisitions, companies have found a crucial pathway to achieve technological catch-up and advance toward the high-end of the value chain (Kwak and Yoon, 2020).This paper examines Geely Group's cross-border M&A cases to explore how the company accurately identifies types of opportunity windows and leverages cross-border M&A strategies to achieve technological leaps and market expansion through window opportunities.

Leapfrog Performance

This paper primarily measures the outcomes of leapfrogging over catch-up from financial, market, and technological innovation perspectives (Lee and Lim, 2001), relying primarily on factual data supplemented by objective metrics.Financial performance will be measured based on the company's operating revenue, net profit margin, and other metrics at each stage. Market performance will be categorized into three tiers—domestic top tier, domestic leader, and international top tier—based on textual materials and market share data (Wu et al., 2019).According to the U-C dynamic model (Utterback and Abernathy, 1975), corporate technological innovation performance is categorized into process innovation and product innovation. Process innovation reflects a company's capability to create manufacturing processes for automobiles, manifested in the quantity and quality of patents. Product innovation, meanwhile, reflects a company's ability to commercialize research outcomes, demonstrated by the number and speed of new product launches.

In terms of construct measurement, this paper focuses on measuring three key constructs: opportunity windows, cross-border mergers and acquisitions, and technological catch-up.

Regarding the coding procedure, the documentary evidence presented in Tables 3 and 4 was classified independently by two researchers. Each piece of evidence was first coded into one of the three opportunity-window subtypes (technological, demand, or institutional), or into a cross-border M&A category (merger mode or functional process), and then into a performance category (financial, market, or

technological-innovation). Disagreements were resolved through discussion until consensus was reached, and the resulting classification was triangulated against secondary sources such as annual reports, official announcements, and media coverage to ensure reliability.

Table 2: Constructs, Measure Variables, and Feature Expressions

Construct	Measurement variable	Feature Expression
Opportunity window	Technical Opportunity Window	Opportunities presented by new technologies or radical innovations, as well as opportunities created by users or consumers generating new demands
	Demand Opportunity Window	Opportunities arising from substantive changes in demand conditions
	Institutional Opportunity Window	Systemic changes in government intervention or institutional conditions within the industry
Cross-border M&A	Functional Process	The technological and R&D enhancements brought by mergers and acquisitions, along with their impact on market position
	Merger and acquisition methods	All equity acquisitions or investments to obtain the necessary technology or market access
Performance catch-up	Financial Performance	Operating Revenue, Net Profit Margin
	Market Performance	China's top domestic, top in the country, and among the world's leading
	Technology Innovation Performance	Patent Quantity and Quality, R&D Achievement Commercialization

4 Results and Discussion

4.1 Case Study

On November 6, 1986, Li Shufu embarked on Geely's entrepreneurial journey, starting with refrigerator part.In April 1994, the company entered the motorcycle industry and produced China's first luxury scooter that same

year.



Figure 2: Geely Milestones

In 1997, it entered the automotive industry, becoming China's first privately owned passenger car manufacturer.

On March 24, 2003, Zhejiang Geely Holding Group Co., Ltd., primarily engaged in the automotive industry, was established. In August of the same year, the first batch of Geely sedans were exported overseas, marking Geely's breakthrough in achieving its first-ever sedan exports. In May 2005, Geely successfully listed on the Hong Kong Stock Exchange (0175.HK), marking a significant step forward in its internationalization journey and signaling the company's entry into a new phase of development. Tracing Geely's development trajectory, we summarize key milestones in its growth journey, as shown in Figure 2.

Geely Group's strategy of pursuing cross-border mergers and acquisitions to bridge capability gaps after identifying opportunity windows and recognizing capability deficiencies, thereby enabling a latecomer to achieve leapfrog development, can be divided into three phases:1986–2005 marked the initial phase, 2006–2016 the catch-up phase, and 2017–2024 the integration and surpassing phase.

(1) Catch-up Phase (2006–2016)

When Li Shufu founded Geely Automobile, he stated: “Geely's mission is to build quality cars that ordinary people can afford, and to take Geely cars to the world”. Entering the market with low-cost vehicles was the strategy Geely adopted when it first entered the automotive industry, but this has also left Geely Automobile facing the challenge of its products being perceived as low-end. As China's economy continues to develop, consumers are increasingly demanding higher value and higher quality in their automotive purchases. Geely identified this phenomenon and viewed it as a window of opportunity, strategically pursuing a cross-border acquisition of British Manganese Bronze. In 2006, Geely Automobile, Shanghai Huapu, and Britain's Manganese Bronze Holdings established the joint venture Anglo-Chinese to jointly produce the TX4 model, thereby shedding Geely's image as a maker of budget vehicles.

Geely has independently developed CVVT engines, a highly advanced engine technology. However, due to the domestic market's preference for foreign automobiles at the time and Geely's own weak brand recognition, the company failed to gain consumer trust in China. At the same time, Geely remains behind in other automotive component sectors, lacking transmissions capable of handling large displacement and high torque. Seizing the technological opportunity window of this period, Geely targeted DSI, a company teetering on the brink of bankruptcy at the same time, and swiftly acquired DSI to address its shortcomings in the high-end transmission sector.

By 2010, two years into its post-financial crisis recovery, China's automotive market was experiencing rapid growth. Consumer demand for vehicles continued to rise, with a particular increase in demand for mid-to-high-end automobiles. However, Geely lacked world-leading technological reserves and faced insufficient momentum for product innovation, so it set its sights on the persistently loss-making Volvo. The Volvo brand is Geely's most valuable asset. By acquiring Volvo, Geely aims to transition from a low-end brand to a premium brand, thereby capturing the Chinese market where consumer purchasing power continues to rise. At the same time, it should be noted that Volvo brings more than just technology and brand to Geely—it also

brings Volvo's established sales channels in international markets. By leveraging Volvo Cars' sales network, Geely can accelerate its “going global” strategy.

Geely acquired British Manganese Bronze, DSI, and Volvo.In 2012, Geely made its debut on the Fortune Global 500 list with operating revenue of $23.3557 billion, ranking 475th. This achievement marked the recognition of its standing among global enterprises. Geely entered the automotive industry in 1997 and within just 15 years made it onto the Fortune Global 500 list, achieving a remarkable catch-up for a privately-owned Chinese automaker. Subsequently, Geely integrated the innovative resources gained through its acquisitions of DSI and Volvo. On December 15, 2014, it unveiled the Geely Borui globally, ushering in a new era for Chinese brands in the B-segment market and marking Geely's entry into a new brand era of “crafting premium vehicles for everyone. “In 2016, Geely Group achieved operating revenue of RMB 53.721 billion, with a net profit of RMB 5.17 billion, resulting in a profit margin of 9.6%.In the same year, Geely launched its new energy brand Lynk & Co. In terms of sales revenue within China's automotive industry, the company surged from 17th place in 2006 to 6th place in 2016, demonstrating the significant impact of pursuing latecomer catch-up through cross-border mergers and acquisitions.

Table 3: Geely Group's Catch-Up Phase

Time range	Typical documentary evidence	Core Categories	Primary Category
2006-2016	Geely has encountered the challenge of its brand perception shifting toward lower-end positioning. Due to the perception of Geely vehicles as low-cost and budget-friendly, the brand is no longer the top choice for consumers purchasing their first car.	Demand Opportunity Window	Opportunity Window Identification
	Geely's independently developed CVVT engine, though a highly advanced engine technology, still faces skepticism from consumers due to the primacy effect.	Demand Opportunity Window	
	Geely had established a foundation in small-displacement, low-torque transmissions at the time, but lacked the technology for high-end transmissions designed for large-displacement, high-torque applications.	Technical Opportunity Window	
	The Chinese automotive market is experiencing rapid growth, with consumer demand for vehicles steadily increasing, particularly for mid-to-high-end models.	Demand Opportunity Window	

Table 3 continued . . . .

Geely lacks world-leading technological reserves and suffers from insufficient momentum in product innovation.	Technical Opportunity Window	
The 《Automotive Industry Development Policy 》adheres to the principle of combining technology introduction with independent development. It involves tracking and researching cutting-edge international technologies, actively pursuing international cooperation, and developing advanced and applicable technologies with independent intellectual property rights.	Institutional Opportunity Window	
《 Automotive Trade Policy 》encourages the development of foreign trade in automobiles and related goods. It guides qualified automotive suppliers to optimize the structure of export commodities and intensify efforts to expand into international markets.	Institutional Opportunity Window	
Acquired a 22.69% stake in British Manganese Bronze Holdings.	Merger and acquisition methods	
Acquired 100% of the shares of Australian company DSI.	Merger and acquisition methods	
Acquire 100% ownership of Volvo, a subsidiary of Ford Motor Company.	Merger and acquisition methods	Cross-border M&A
Geely Auto, Shanghai Huapu, and UK-based Manganese Bronze Holdings established the joint venture Anglo-Chinese Auto to jointly produce the TX4 model, thereby shedding the image of being solely a maker of budget vehicles.	Functional Process	
By introducing the world's most advanced DSI automatic transmission, we aim to dispel domestic skepticism and criticism, thereby gaining	Functional Process	

recognition in the domestic market.		
Lacking transmissions with high displacement and torque, Geely acquired DSI to address its shortcomings in the high-end transmission sector.	Functional Process	
The Volvo brand is Geely's most valuable asset. By acquiring Volvo, Geely aims to transition from a low-end brand to a premium brand, thereby capturing the Chinese market where consumer purchasing power continues to rise.	Functional Process	
Through the acquisition of Volvo, Geely gained 10,936 patents and proprietary intellectual property rights covering engines, vehicle platforms, mold safety technology, and electric vehicle technology, thereby enhancing its product innovation capabilities.	Functional Process	
Volvo brings Geely not only technology and brand recognition, but also its extensive network of 2,325 sales outlets across more than 100 countries, a comprehensive service system, and international installment financing solutions. By leveraging Volvo's sales channels, Geely can accelerate its expansion into global markets.	Functional Process	
In 2012, Geely made its debut on the Fortune Global 500 list with operating revenue of $23.3557 billion, ranking 475th. This achievement signified recognition of its standing among global enterprises and elevated the brand's international visibility and influence.	Market Performance	
In 2013, Geely undertook a strategic realignment, refocusing on a single brand and launching its “Premium Cars for Everyone” initiative. That year, the automaker sold a total of 549,400 vehicles, ranking second among domestic automakers in sales volume.	Market Performance	Performance catch-up
On December 15, 2014, Geely unveiled its groundbreaking first mid-to-high-end sedan, the	Technology Innovation	

Geely Borui, to the world. This launch reshaped the landscape for Chinese brands in the B-segment market and marked Geely Auto's entry into a new era defined by its brand promise: "Crafting Premium Cars for Everyone."	Performance
2016 Annual Performance Report: The company achieved operating revenue of RMB 53.721 billion, with net profit reaching RMB 5.17 billion and a profit margin of 9.6%.	Financial Performance

(2) Integration and Transcendence Phase (2017–2024)

Following Geely's early cross-border acquisitions of British Manganese Bronze, DSI, and Volvo, the automaker has addressed its technological and brand-related shortcomings.However, on September 28, 2017, five government departments—the Ministry of Industry and Information Technology, the Ministry of Finance, the Ministry of Commerce, the General Administration of Customs, and the General Administration of Quality Supervision, Inspection and Quarantine—jointly issued the "Administrative Measures for the Parallel Management of Average Fuel Consumption of Passenger Vehicle Manufacturers and New Energy Vehicle Credits" policy (the "Dual Credit" policy).The traditional gasoline vehicle market is shrinking, and major domestic automakers are experiencing declining sales. Geely urgently needs to find new avenues for growth.

According to the analysis in Table 3: All three major cross-border M&A cases undertaken by Geely during its catch-up phase ultimately involved 100% equity acquisitions (the Manganese Bronze/London Taxi Company deal was achieved in two steps, moving from a joint venture established in 2006 to a full equity acquisition in 2013). In the early stages of this phase, Geely was at a disadvantage in terms of brand influence as well as technologies related to vehicle manufacturing and automotive components. Therefore, Geely opted for 100% equity acquisitions, leveraging different opportunity windows to achieve comprehensive enhancements in technology, brand, market presence, and profitability through cross-border M&A.Entering the stage of integration and transcendence, Geely has completed its technological foundation during the catch-up phase. Consequently, the company is now setting its sights on a broader vision: expanding its presence in international markets and focusing on its brand strategy.

Geely sets its sights on the Southeast Asian market: By acquiring a 49.9% stake in Proton, leveraging Proton's brand influence in Malaysia, absorbing Proton's right-hand-drive vehicle manufacturing technology, and utilizing Proton's established local procurement, production, and distribution networks alongside its established brand presence, Geely can accelerate its expansion into Southeast Asia, South Asia, and Australia.On December 12, 2018, the Proton SUV X70—Geely's first model launched following its acquisition of Proton—was officially unveiled in Kuala Lumpur.The Proton X70 has received 32,000 orders and delivered over 15,000 units in its first

six months on the market, retaining its position as Malaysia's best-selling SUV. Proton's market share has grown from 9% in 2017 to 22.7% in 2023. Leveraging Proton's established presence in Southeast Asia, Geely continues to expand its market influence across the region.

Table 4: Geely Group's Integration and Surpass Stage

Time range	Typical documentary evidence	Core Categories	Primary Category
2017-2024	Geely enjoys strong sales in the domestic auto market, but its competitiveness remains limited internationally. With China's domestic auto market nearing saturation, accelerating expansion into overseas markets represents a prudent choice for Geely as it advances technologically.	Demand Opportunity Window	Opportunity Window Identification
	Proton possesses unique expertise and technology in manufacturing right-hand drive vehicles. Geely, however, lacks the necessary experience and technology required for producing right-hand drive vehicles for the Southeast Asian market.	Technical Opportunity Window	
	On September 28, 2017, five government departments—the Ministry of Industry and Information Technology, the Ministry of Finance, the Ministry of Commerce, the General Administration of Customs, and the General Administration of Quality Supervision, Inspection and Quarantine—jointly issued the "Administrative Measures for the Parallel Management of Average Fuel Consumption of Passenger Vehicle Manufacturers and New Energy Vehicle Credits" policy (the "Dual Credit" policy). With the traditional fuel vehicle market shrinking and sales declining, new avenues must be explored.	Institutional Opportunity Window	
	Against the backdrop of rapid advancements in internet technology, consumers in the automotive market are increasingly demanding higher service quality. Geely is contemplating how to respond to these evolving market demands.	Demand Opportunity Window	

Table 4 continued . . . .

The domestic automotive industry developed relatively late, and issues such as relatively backward technological levels and a shortage of high-end talent have hindered Geely Group's development in the field of new energy vehicles.	Technical Opportunity Window	
The global automotive industry is undergoing constant transformation. Geely has adopted a counter-automation strategy, yet it still needs to integrate the world's most advanced hybrid powertrains and highly efficient gasoline powertrains.	Technical Opportunity Window	
Renault's influence in the international market, particularly in Europe, should not be underestimated. Leveraging Renault's standing in Europe can help Geely further expand its presence in the European market.	Demand Opportunity Window	
Acquired a 49.9% stake in Proton Automotive.	Merger and acquisition methods	
In February 2018, Geely acquired a 9.69% stake in Daimler, becoming its largest shareholder.	Merger and acquisition methods	
Through its subsidiary Centurion Industries Limited, it holds a 34.02% stake in Renault.	Merger and acquisition methods	
Leveraging Proton's brand influence in Malaysia, incorporating Proton's right-hand drive vehicle manufacturing technology, and utilizing Proton's established local procurement, production, and distribution networks alongside its established brand presence, Geely can accelerate its expansion into Southeast Asia, South Asia, and the Australian market.	Functional Process	Cross-border M&A
Leveraging Daimler's advanced electric vehicle	Functional	

technology, Geely can rapidly scale up its electric vehicle production capacity to meet new energy vehicle policy requirements. Simultaneously, as the automotive industry faces disruption from the internet, this collaboration will enable Geely to satisfy evolving consumer demands.	Process	
By acquiring a stake in Renault, Geely aims to complement its electrification strategy and integrate Renault's traditional automotive operations. This move seeks to leverage Renault's global influence to penetrate the hybrid vehicle markets in Europe and the Americas. Simultaneously, it aims to create synergies with Renault by transferring its accumulated electrification technologies, thereby offsetting R&D expenses.	Functional Process	
On December 12, 2018, Proton's SUV X70—the first model launched by Proton following its acquisition by Geely—officially debuted in Kuala Lumpur. Within six months of its launch, the Proton X70 received 32,000 orders and delivered over 15,000 units, securing its position as Malaysia's top-selling SUV. Proton's market share surged from 9% in 2017 to 22.7% in 2023. Leveraging Proton's established presence in Southeast Asia, Geely continues to expand its market influence across the region.	Market Performance	Performance catch-up
Following the acquisition, Geely enhanced its R&D capabilities by integrating Daimler's technological resources, accelerating product upgrades. In 2022, it launched the smart Spark 1, followed by the smart Spark 5 in 2023.	Technology Innovation Performance	
Geely and Daimler's premium mobility initiative has launched in multiple Chinese cities including Hangzhou, Guangzhou, and Chengdu, providing high-quality transportation services for business	Market Performance	

travelers and other customers, achieving high levels of customer satisfaction.	
In 2022, Geely launched the first nine satellites of its Future Mobility Constellation. This marks Geely as China's first automotive company to independently develop and execute satellite launches.	Technology Innovation Performance
On May 31, 2024, Geely and Renault established HORSE Powertrain Limited, a powertrain technology company. HORSE Powertrain Limited is projected to achieve annual revenue of approximately €15 billion and an annual production capacity of around 5 million powertrain units.	Technology Innovation Performance
In 2024, Geely established a comprehensive brand matrix covering premium, mainstream, and global markets through cross-border acquisitions of foreign automakers and strategic resource integration. This initiative propelled annual revenue to exceed 240.2 billion yuan, with net profit surging by 213% and new energy vehicles accounting for over 40% of total sales.	Financial Performance
In the 2024 global automotive sales rankings, Geely secured the 10th position with sales of 3.337 million vehicles. In terms of passenger vehicle retail sales, Geely Automobile achieved annual retail sales of 1.773 million units in 2024, ranking second in China.	Market Performance
By the end of 2024, Geely Holding Group held over 20,000 globally authorized valid patents. It has led or participated in the formulation of 682 standards at international, national, industry, local, and group levels, and has completed the publication of 436 standards.	Technology Innovation Performance

The domestic automotive industry developed relatively late, and issues such as relatively backward technological levels and a shortage of high-end talent have hindered Geely Group's development in the field of new energy vehicles. To address technological shortcomings in new energy vehicles, Geely acquired a 9.69% stake in Daimler in February 2018, becoming its largest shareholder. Leveraging Daimler's advanced electric vehicle technology, Geely has rapidly scaled up its electric vehicle production capacity to meet the requirements of new energy vehicle policies. Following the acquisition, Geely enhanced its R&D capabilities by integrating Daimler's technological resources, accelerating product upgrades. In 2022, it launched the smart Spark 1, followed by the smart Spark 5 in 2023.

As the global automotive industry undergoes continuous transformation, shifting focus to new energy vehicles and exploring automotive automation, Geely has made a bold decision: to pursue a counter-automation strategy. Geely has set its sights on Renault, which possesses the world's most advanced hybrid powertrains and highly efficient gasoline powertrains. Through its subsidiary Centurion Industries Limited, it holds a 34.02% stake in Renault. Through this cross-border acquisition, Geely aims to complement its electrification strategy by integrating Renault's traditional automotive operations. The move seeks to leverage Renault's global influence to penetrate the hybrid vehicle markets in Europe and the Americas, while simultaneously creating synergies with Renault. Geely will transfer its accumulated electrification technologies to Renault, thereby offsetting its R&D expenditures. On May 31, 2024, Geely and Renault established HORSE Powertrain Limited, a powertrain technology company. Annual revenue is projected to reach approximately €15 billion, with an annual production capacity of around 5 million powertrains. In 2024, Geely established a comprehensive brand matrix covering premium, mainstream, and global markets through cross-border acquisitions of foreign automakers and resource integration. This strategy propelled annual revenue to exceed 240.2 billion yuan, with net profit surging by 213% and new energy vehicles accounting for over 40% of total sales. In the 2024 global automotive sales rankings, Geely secured the 10th position with sales of 3.337 million vehicles. In terms of passenger vehicle retail sales, Geely Automobile achieved annual retail sales of 1.773 million units in 2024, ranking second domestically. By the end of 2024, Geely Holding Group held over 20,000 globally authorized valid patents. It has led or participated in the formulation of 682 standards at international, national, industry, local, and group levels, and has completed the publication of 436 standards.

4.2 Discussion

（1）Catch-up Phase

During its catch-up phase, Geely identified three key opportunity windows—technological, demand-driven, and institutional—and executed a core strategy of cross-border acquisitions with 100% equity stakes. This approach enabled the company to achieve a leap in technological capabilities and elevate its market position.From the perspective of identifying opportunity windows, Geely faces multiple opportunities and challenges during this

phase: On the demand side, domestic consumers' upgrading demands for automotive quality and brand value constrain market expansion due to low-end product positioning. On the technology front, insufficient recognition of in-house R&D capabilities and shortcomings in core components like high-end transmissions persist. Institutionally, national policies encouraging technology introduction and international cooperation within the automotive sector provide support for cross-border mergers and acquisitions. In its M&A strategy, Geely has implemented targeted acquisitions to capitalize on these window opportunities: acquiring Manganese Bronze to break free from its low-end brand positioning, leveraging its technology and brand image to launch premium models; purchasing Australian DSI to fill the gap in high-end transmission technology and enhance its core component system; and acquiring Volvo in full to gain 10,936 patents and a global marketing network, achieving dual breakthroughs in technological reserves and international market channels. In terms of performance catch-up, Geely achieved remarkable growth during this phase: it first entered the Fortune Global 500 list in 2012, and by 2016, its operating revenue reached RMB 53.721 billion, climbing from 17th to 6th place in the domestic industry rankings. The launch of models like the Borui signaled enhanced technological conversion capabilities, establishing a “market-for-technology” catch-up strategy that laid the foundation for subsequent development.

（2）Integration and Transcendence Stage

Geely achieved synergistic development in technology export and global market expansion during its integration and advancement phase by identifying new opportunity window characteristics and adopting partial equity acquisitions as its core strategy. From the perspective of identifying opportunity windows, the core opportunities and challenges in this phase have shifted toward globalization and technological transformation: On the demand side, the domestic automotive market has reached saturation, with overseas markets such as Southeast Asia and Europe emerging as new growth spaces. On the technological front, demand for new energy vehicle technologies has become prominent, requiring core technologies like hybrid powertrains to support counter-electrification strategies. At the institutional level, the “dual credit” policy is driving traditional automakers toward new energy transformation, providing policy guidance for technological cooperation. In its M&A strategy, Geely adopts a differentiated equity acquisition model: acquiring Proton with a 49.9% stake to leverage its right-hand drive vehicle technology and Southeast Asian distribution channels for rapid regional market expansion; purchasing a 9.69% stake in Daimler to integrate its electric vehicle technology and meet new energy policy requirements; and holding a 34.02% stake in Renault to address its shortcomings in conventional powertrain technology while tapping into Renault's European market resources. In terms of performance catch-up, Geely achieved a win-win in both market share and technological advancement during this phase: Geely Group's 2024 revenue exceeded 240.2 billion yuan, ranking 10th globally in vehicle sales; its powertrain joint venture with Renault is projected to reach an annual production capacity of 5 million units; and with over 20,000 patents secured, the company has

forged a path of “exchanging technology for market share,” completing its transformation from a technology follower to a global player.

It should also be acknowledged that Geely's financial and market gains over this period coincided with the broad expansion of the Chinese domestic automobile market, national industrial-policy support for the sector, and firm-specific factors such as organic R&D and the launches of the Lynk & Co and Zeekr brands. Accordingly, these gains cannot be attributed to cross-border M&A alone. Consistent with the documentary evidence, anonymized informant accounts from Geely's mid- and senior-level managers corroborated the strategic rationales underlying each acquisition: the 2006–2013 entry into Manganese Bronze/LTC was characterized as a deliberate move to escape low-end positioning while securing an internationally recognized brand; the full acquisition of Volvo was described as a channel to obtain world-class technology and global distribution; and the partial stakes in Proton, Daimler, and Renault were framed as a technology-export strategy enabled by Geely's accumulated capabilities. These accounts help substantiate the “why” behind the firm's M&A choices rather than relying solely on retrospective reconstruction.

Critically engaging with the literature, our findings confirm the central premise of opportunity-window theory that latecomer firms must align their strategies with the nature of technological, demand, and institutional windows to catch up (Lee and Malerba, 2017; Wu et al., 2019). They extend prior case-based work by explicitly linking the equity mode of cross-border M&A (full versus partial) to the characteristics of opportunity windows across phases, thereby refining the firm-level catch-up mechanism identified by Wu et al. (2019) and Peng and Zhu (2022). At the same time, they nuance the secondary-innovation account of Geely's acquisitions in Du et al. (2019): whereas that study emphasizes post-acquisition learning, we show that the choice of M&A mode itself is shaped by stage-specific opportunity windows, which explains why Geely moved from full acquisitions (market-for-technology) to partial stakes (technology-for-market) over time. In this sense, the findings extend the opportunity-window literature and refine existing interpretations of Geely's transnational catch-up.

5 Conclusion

First, while reviewing Geely Group's development journey, the team identified the core logic established by Geely to achieve leapfrog development: “opportunity window - cross-border M&A - leapfrog development,” as illustrated in Figure 3.Through identifying and assessing demand, technological, and institutional windows of opportunity during its developmental stages, Geely recognized its inherent disadvantages, including technological backwardness, insufficient brand competitiveness, and low market share.Under this theoretical framework, the identification and assessment of opportunity windows provide a theoretical basis for latecomers to evaluate their own weaknesses.On the other hand, Geely has adopted cross-border mergers and acquisitions as a means to seize strategic opportunities, acquiring foreign automotive brands through various M&A approaches to achieve its goal of latecomer catch-up and surpassing. Geely's success story offers a referenceable pathway for latecomer enterprises seeking to achieve catch-up growth.

Second, Geely's objectives for pursuing cross-border mergers and acquisitions at different stages of development to seize opportunity windows can be categorized into two phases: “exchanging market access for technology” and “exchanging technology for market access.”During its catch-up phase, Geely identified its inherent weaknesses and recognized the opportunity windows in its development. By pursuing 100% equity acquisitions, it introduced brands and technologies into the Chinese market, thereby achieving a technological leap forward for itself and increasing its market share in China. During the integration and transcendence phase, Geely faced market saturation in China's automotive sector and the widespread adoption of new energy vehicles. The company decided to export its technology by acquiring stakes in foreign automakers, thereby achieving mutual benefits in both market access and technological advancement. These two approaches demonstrate how Geely pursued transnational mergers and acquisitions with distinct objectives during different phases to capitalize on emerging opportunities, providing a case study for latecomers seeking to achieve leapfrog development through cross-border M&A.

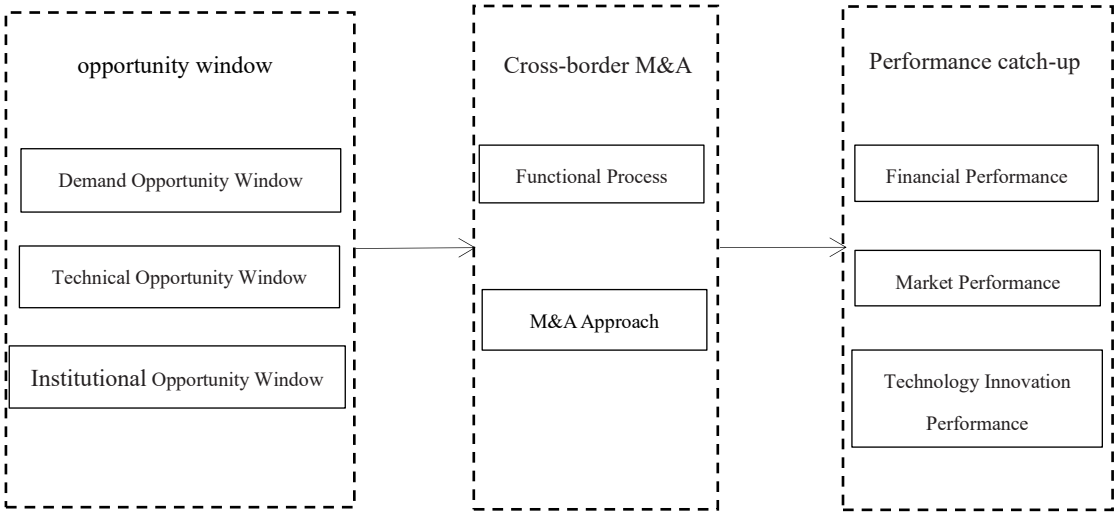


Figure 3: Construction of the Theoretical Framework

The theoretical contributions of this paper are twofold. First, it examines cross-border mergers and acquisitions from the perspective of opportunity windows. Previous studies have rarely linked opportunity windows to cross-border mergers and acquisitions (M&As). This paper treats opportunity windows as a precursor and cross-border M&As as a corporate strategy to respond to such windows. Using two representative cross-border M&As from distinct phases of Geely's development as case studies, it examines how Geely employed cross-border M&A strategies to capitalize on opportunity windows identified during its growth process. Second is research on the leapfrog catching-up of late-entrant firms. Previous studies have primarily examined the impact of other factors on late-entrant firms achieving catch-up. This paper links opportunity windows, cross-border M&A, and the leapfrog catching-up of late-entrant firms, aiming to explore the role of identifying

opportunity windows within the context of cross-border M&A in the process of late-entrant firms achieving leapfrog catching-up.

The findings of this study hold practical significance for identifying opportunity windows through cross-border mergers and acquisitions, enabling late-entrant firms to achieve leapfrog development. First, enterprises encounter diverse contextual factors—including technological, demand-related, and institutional elements—at multiple levels during their development. Before pursuing cross-border mergers and acquisitions, companies must clearly define their own needs, thoroughly examine political, social, and economic conditions, technological landscapes, market demands, and policy directions, and identify the opportunity windows available to them. Simultaneously seize market opportunities by evaluating the target company's technological and market strengths against your own requirements, thereby laying the groundwork for post-acquisition integration. Second, late-entrant companies must prioritize post-merger integration in cross-border acquisitions, such as absorbing and adapting the acquired company's technology, cultivating local innovative talent, and improving product conversion rates. During the integration process, the target strategy should focus on identifying opportunity windows, leveraging cross-border M&A to achieve catch-up performance that enables the company to surpass competitors, and enhancing the company's own dynamic innovation capabilities.

This study has several limitations. First, as a single-case longitudinal study, the findings have limited generalizability to other industries, ownership structures, or institutional contexts; the specificities of a Chinese, privately owned, and state-supported automaker may not transfer directly to other latecomer firms. Second, interview-based accounts may be subject to retrospective or hindsight bias, and reliance on company-favorable sources such as annual reports and Geely's own communications could introduce a positive bias. Third, the classification of documentary evidence into opportunity-window and performance categories necessarily involves a degree of researcher judgment, although we sought to mitigate this through independent double-coding and triangulation. Future research could extend this framework to multiple cases across industries and ownership types, and could complement qualitative analysis with quantitative approaches to better isolate the causal effects of cross-border M&A on latecomer performance.

6 Reflections on Research and Case Study Writing

This research team secured support from mid- to senior-level managers at Geely Holding Group. Over several rounds, we conducted semi-structured interviews with managers, technical personnel, and frontline employees across the group's R&D, manufacturing, marketing, and strategy departments, and made multiple visits to Geely's production facilities to observe the company's cutting-edge developments. To enhance rigor and reproducibility, an interview protocol guided each session, and interviews were conducted iteratively so that emerging findings could be verified in subsequent rounds. All informants were anonymized in line with the ethical-approval and informed-consent agreements for this study. During the research process, we systematically traced Geely's developmental trajectory from latecomer to integrator and leader, focusing on the underlying logic

of its strategic acquisitions during different phases. After preliminarily defining the research question, the team conducted iterative interviews and data verification to refine the analytical framework, producing multidimensional materials on strategic decision-making, M&A integration, and performance. The documentary evidence was double-coded and triangulated against annual reports, official announcements, and media coverage. Subsequently, the research team solicited feedback from mid- and senior-level managers and management scholars, refining the details of Geely's landmark acquisitions—including Manganese Bronze, Volvo, Proton, and Daimler—and ultimately producing a systematic and comprehensive case study.

Declaration

Acknowledgment: N/A

Funding: The Major Teaching Research and Reform Project of ZUST (2024-jg02); Project of Center for German-speaking Country Studies of ZUST(2025DEGB002).

Conflict of interest: The author declares no conflict of interest.

Ethics approval/declaration: The study is in line with ethical standards.

Consent to participate: All participants provided informed consent to participate in this study.

Consent for publication: Yes, the author consents to the publication of this work.

Data availability: Public

Authors contribution: All authors contributed immensely and equally in this study.

AI Generative text statement: This manuscript only uses AI in non-core auxiliary links such as language polishing and format proofreading, with all AI-assisted content reviewed and confirmed by the authors.

References

Bao X N, Zhang S C, Ren S M, Li M L, 2023. The impact of technological windows of opportunity and debt financing decisions on latecomer firms' innovation: An exploratory case study based on Hikvision[J]. Journal of Management Case Studies, 16(05): 567-581.

CHEN F Q, GE Y H, Liu H Q, 2023. Overseas M&A integration and industrial innovation: A study based on intenal and extenal knowledge network reconfiguration[J]. Technology Analysis & Strategie

Management, 35(5): 573-585.

Chen Y X, Han W Z, 2024. Reverse cross-border M&A, technological learning and latecomer firms' technological self-reliance and self-improvement[J]. Productivity Research, (02): 119-124.

Du J, Ding S S, Wu X B, 2019. A case study of Geely's cross-border M&A based on the theory of secondary innovation[J]. Science Research Management, 40(06): 130-143.

Figueiredo P N, Cabral B P, Silva F Q, 2021. Intricacies of firm-level innovation performance: An empirical analysis of latecomer process industries[J]. Technovation, 105: 102302.

Huo Y, Jiang X L, Sun H, 2023. Research on breakthrough innovation of latecomer firms based on key core technology breakthrough[J]. Forum on Science and Technology in China, (02): 60-70+92.

Kim L, 1999. Building technological capability for industrialization: analytical frameworks and Korea's experience[J]. Industrial and corporate change, 8(1): 111-136.

Kwak K，Yoon H.D., 2020. Unpacking Transnational Industry Legitimacy Dynamics，Windows of Opportunity，and Latecomers' Catch-up in Complex Product Systems [J/OL].Research Policy，49（4）.

Lee, K., Lim, C., 2001. Technological Regimes, Catching-up and Leap-dfrogging: Findings from the Korean Industries. Research Policy, 30(3): 459-483.

Lee, K.，Malerba, F., 2017. Catch-up Cycles and Changes in Industrial Leadership: Windows of Opportunity and Responses of Firms and Countries in the Evolution of Sectoral Systems. Research Policy, 46(2): 338-351.

Li J N, 2022. Windows of opportunity, technological innovation and latecomer firms' surpassing catch-up[J]. Productivity Research, (11): 103-107.

Peng X M, Zhu X W, 2022. Windows of opportunity, alliance portfolio and latecomer firms' technological catch-up: A longitudinal case study of Sunny Optical from 1984 to 2018[J]. Nankai Business Review, 25(04): 70-78+130+79-80.

Perez, C., Soete, L., 1988. Catching up in Technology: Entry Barriers and Windows of Opportunity. In Technical Change and Economic Theory. London: Pinter: 458-479.

Sun Y, Hong Y, 2024. Technological catch-up mechanism based on intellectual capital integration in M&A context: A case study of Shenyang Machine Tool's acquisition of Schiess Germany[J]. Journal of Technology Economics, 43(02): 68-78.

Teng Z Y, Hu Y, 2019. Performance, influencing factors and strategies of cross-border M&A promoting technological innovation[J]. International Trade, (02): 11-17.

Utterback, J. M., Abernathy, W. J., 1975. A Dynamic Model of Process and Product Innovation. Omega, 3(6): 639-656.

Wang C, Hu M H, Zhou W H, 2017. Research on the evolution of corporate headquarters role in technology-seeking cross-border M&A: A longitudinal case study based on CRRC Times Electric[J]. Science of Science and Management of S.& T., 38(03): 56-69.

Wang Y Y, 2014. Research on financial risks and prevention of cross-border M&A based on Geely's acquisition

of Volvo[J]. Friends of Accounting, (14): 74-76.

Weidner N, Som O, Horvat D, 2023. An integrated conceptual framework for analysing heterogeneous configurations of absorptive capacity in manufacturing firms with the DUI innovation mode[J]. Technovation, 121: 102635.

Wu X B, Fu Y N, Wu D, Lei L N, 2019. How can latecomer firms catch up and surpass? A longitudinal comparative analysis of two cases from the perspective of windows of opportunity[J]. Management World, 35(02): 151-167+200.

Wu X M, Su Z W, 2014. Using cross-border M&A as a lever for technological catch-up: A dynamic capabilities perspective[J]. Management World, (04): 146-164.

Xia Y, 2017. Research on the relationship between firms' ambidextrous capabilities, M&A strategy and cross-border M&A performance[D]. University of International Business and Economics.

Xu J X, Zhang H D, Xu Q, 2020. Windows of opportunity, hybrid strategy and latecomer firms' catch-up: A longitudinal case study based on Dahua Technology[J]. Science & Technology Progress and Policy, 37(23): 81-90.

Xu Y S, Lu Y D, Xu N N, 2014. Research on innovation catch-up based on windows of opportunity in a rapidly changing market environment: A case study of HTC[J]. Studies in Science of Science, 32(06): 927-936.

Yang X R, 2014. Research on the value creation mechanism of cross-border M&A of Chinese enterprises[D]. Wuhan University.

Zang P H, Jin B, 2023. Cross-border M&A and independent innovation: Theoretical mechanism and strategic choice to get rid of the dilemma of low innovation[J]. Shanghai Journal of Economics, (11): 55-70.

Zhang X Y, Jiang L J, 2015. The impact of national image on consumers' purchase intention after cross-border M&A: A case study of Geely's acquisition of Volvo[J]. Foreign Economic Relations & Trade, (11): 32-36.

Zhao L M, Chen Y Q, 2019. Innovation stock, technology complementarity and technological innovation performance of cross-border M&A[J]. Science of Science and Management of S.& T., 40(02): 68-83.

Zheng B T, Liu D G, 2023. Research on the integration mechanism of reverse cross-border M&A of latecomer firms[J]. Journal of Science and Technology Management, 25(04): 11-21.

Zhou J H, Li J Z, Liu Z X, 2022. Managerial cognitive modes and innovation catch-up path selection under dual windows of opportunity: A case study of latecomer firms in China's wind power industry[J]. China Industrial Economics, (03): 171-188.

Copyright: © 2026 by the author(s). Published by Global Scientific Research. This work is distributed under Creative Commons Attribution License (CC BY 4.0). visit https://creativecommons.org/licenses/by/4.0/.

How to cite this article:

Renjian Hu, Liu, H., Fenghua Dun, & Yingchen Liu. (2026). Opportunity Windows, Cross-Border M&A, and Latecomer Leapfrogging: A Longitudinal Case Study of Geely. Journal of Social Sciences and Management Studies, 5(2), 40-68. https://doi.org/10.56556/jssms.v5i2.1486