

Barriers to the Implementation of Enterprise Strategic Transformation Based on Path Dependence Theory: The Case of Jiangsu High Hope Group

LU Yibin

Thesis submitted as partial requirement for the conferral of the degree of

Doctor of Management

Supervisor:

Prof. Alvaro Rosa, Assistant Professor, ISCTE University Institute of Lisbon

Co-supervisor:

Prof. Li Yao, Associate Professor, University of Electronic Science and Technology of China



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Submission of Doctoral Thesis

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Abstract

With the deepening of economic globalization and the improvement of the trade

structure mode, China has gradually become a global trade power, enjoying increasing space

for the development of its foreign trade enterprises. However, under the comprehensive

influences by external factors, China's foreign trade enterprises are faced with huge pressure

to survive. Foreign trade enterprises in the new situation must continue to carry out strategic

transformation in order to survive and develop. However, in the dynamic environment, the

traditional enterprise strategic transformation is faced with serious path dependence, which

leads to obvious inertia, which seriously hinders enterprise strategic transformation

implementation and even leads to transformation failure.

Existing studies only focus on enterprise strategic transformation, whereas this thesis

discusses the inertial factors that hinder enterprise strategic transformation implementation

from the perspective of path dependence. In other words, this thesis incorporates the theory of

path dependence into the theory of strategic transformation, and probes into enterprise

strategic transformation from the perspective of path dependence.

Proceeding from theory and demonstration and with Jiangsu High Hope Group as the

research object, this thesis studies the path dependence factors that hinder Jiangsu High Hope

Group's strategic transformation implementation. Relevant suggestions on addressing path

dependence barriers to the case company's strategic transformation are put forward from five

aspects, namely, enterprise structure, enterprise employees, enterprise core competencies,

enterprise culture and external environment, in view of the fact that the case company's path

dependence hinders its strategic transformation implementation.

Keywords: Path Dependence; Strategic Transformation; Barriers; Case Company

JEL: M16; D23

Resumo

Com o aprofundamento da globalização económica e a melhoria do modo de estrutura

comercial, gradualmente, a China tornou-se em uma potência comercial no mundo,

desfrutando de um espaço cada vez maior para o desenvolvimento de empresas de comércio

exterior (ECE). No entanto, sob as influências abrangentes de fatores externos, as ECE da

China enfrentam uma pressão enorme para sobreviver. Na situação nova, as ECE devem

continuar a realizar a transformação estratégica (TE) para sobreviver e se desenvolver.

Entretanto, no ambiente dinâmico, a TE da empresa tradicional é confrontada com uma séria

dependência de trajetória (DT), o que leva à inércia óbvia, o que prejudica seriamente a

implementação da TE da empresa, até leva ao fracasso da transformação.

Os estudos existentes concentram-se apenas na TE da empresa, enquanto esta tese

discute os fatores de inércia que impedem a implementação da TE na empresa a partir da

perspetiva da DT, ou seja, esta tese incorpora a teoria da DT na teoria da TE e investiga a TE

da empresa a partir da perspetiva da DT.

Partindo da teoria e da investigação empírica e tendo como objeto de pesquisa o Grupo

Jiangsu High Hope, esta tese estuda os fatores de DT que impedem a implementação da TE

do Grupo. As conclusões mais relevantes sobre como lidar com barreiras de DT para a TE da

empresa em causa são apresentadas em cinco vertentes, nomeadamente, a estrutura

empresarial, os colaboradores de topo de empresa, competências essenciais da empresa,

cultura empresarial e o ambiente externo. Este caso lustra bem em como a DT da empresa

constitui dificuldade de implementação da TE.

Palavras-chave: Dependência de Trajetória; Transformação Estratégica; Barreiras; Empresa

Exemplar

JEL: M16; D23

摘要

随着经济全球化的不断深化和贸易结构方式的改善,外贸企业在新形势下必须不断

进行战略转型,以应对外部环境变化。然而,传统企业战略转型面临严重的路径依赖,

严重阻碍企业战略转型的实施。

本文从路径依赖的视角探讨阻碍企业战略转型实施的惯性因素,不但丰富了战略转

型理论,也为路径依赖研究提供了新的延伸思路。本文从理论和实证两方面入手,以A

集团作为研究对象,研究了路径依赖阻碍其战略转型实施的因素。提出了从企业结构、

企业员工、企业核心能力、企业文化和外部环境这五个方面解决路径依赖阻碍案例公司

战略转型实施的相关建议。

关键词:路径依赖;战略转型;阻力因素;案例公司

JEL: M16; D23

Acknowledgments

I am very fond of the lines by the great Portuguese poet Luís de Camões: "Where the land ends and the sea begins."

My feelings upon completion of this thesis are identical to the feelings of overlooking the Atlantic Ocean and reciting this poem while standing on Cabo da Roca.

First of all, I would like to thank all the members of ISCTE and the IDMgt program. This program is a result of their great vision. And their systematic efforts have enabled us students to learn and absorb advanced management knowledge and culture from the West, which can contribute to China's future in light of the reality of Chinese enterprises and culture.

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List of Abbreviations

DEA: Data Envelopment Analysis

OEM: Original equipment manufacturing

R&D: Research and development

SOE: State-owned enterprise

CPC: Communist Party of China

CSRC: China Securities Regulatory Commission

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Chapter 1: Introduction

1.1 Research backgrounds and research significance

1.1.1 Research background

Since the Reform and Opening-up, especially after China's accession to the World Trade Organization, China's foreign trade has gained unprecedented development. The total import and export volume of China's goods increased from USD 620.77 billion in 2002 to USD 4.104504 trillion in 2017. In the meantime, due to the continuous optimization of the structure of import and export commodities, the ways and structure of trading have continued to improve, and the trade pattern has become increasingly rational, making China a major trade power in the world and creating continuous room for development for foreign trade enterprises. However, with the increasing exchange rate of RMB, the adjustment of export rebate rate, the increasing cost of raw materials and labor year by year, and the liberalization of foreign trade management rights, foreign trade industry has transformed from a monopoly industry to a general competitive industry. The persistence of consumption weakness caused by the global financial crisis, the deepening of trade protectionism characterized by "anti-dumping and anti-subsidy investigations" against "made-in-China" products, the wide application of e-commerce transaction model and the emergency of online shopping, the extrusion by the "re-industrialization" of developed countries, and the intensification of the trade war between China and the U. S. have resulted in dramatic changes in the external living environment faced by China's foreign trade enterprises, which has exerted tremendous pressure on the survival and development of foreign trade enterprises, and put forward severe tests.

Due to the comprehensive influences of the above-mentioned unfavorable external factors, the competitive advantages and profits of China's foreign trade enterprises have been declining. Therefore, in order to survive and develop, it has become an inevitable trend for foreign trade enterprises to carry out strategic transformation in the new situation. However, in the dynamic environment, the strategic transformation of traditional enterprises is faced with path dependence, which leads to obvious inertia among China's foreign trade enterprises during the said process. The main reason is that the rigidity of enterprises' core competence

has caused certain path dependence to and restricted the dynamic response ability of enterprise strategic adjustment (Chen, 2002a). First, due to the path dependence on technological innovation, China's OEM-based foreign trade enterprises embedded in the global value chain are locked in the low value-added links (Huang, He, & Nie, 2006). They generally exhibit the bad behavior characteristics of "technology - copycatting - arbitrage low - cost competition" (Lai, 2012). Foreign trade exports are low in technological content and value-added ratio. Second, due to the path dependence on production factors and resources, China's foreign trade has a "high carbon lock-in" phenomenon (Zhang, Lu, & Zhang, 2013). Its exports are mainly labor-intensive and resource-intensive. Most are primary products, mainly energy products and agricultural products, as well as manufactured goods, mainly electromechanical products and textile products (Bu, 2014). Third, due to the path dependence on the traditional business model, most foreign trade enterprises only act as agents for import and export products of domestic customers as well as domestic purchasers and sales representatives of foreign customers. They earn commissions and price differences instead of owning production resources or having their own markets and customers. They often compete with foreign trade enterprises that provide homogeneous services through price wars. As a result, they have not developed their own core competitiveness (Liu, 2009). The path dependence characteristics of strategic evolution often cause enterprises to fail in industrial transformation (Wang & Zhang, 2008). Due to the existence of path dependence in enterprises, it is difficult for foreign trade enterprises to change their current extensive mode of foreign trade development, which hinders their strategic transformation in the new situation.

Due to the comprehensive influences caused by changes in the external environment and enterprises' path dependence on various internal aspects, China's foreign trade enterprises are faced with all kinds of uncertainties in the course of strategic transformation. As mentioned by Tushman and O' Reilly (1996), when the external environment undergoes major changes, the inertia and sluggishness generated in the successful business process in the past may lead to business failure. Besides, strategic transformation is a complex and systematic project (Albert, Kreutzer, & Lechner, 2015), and few enterprises can sustain successful transformation. After implementing strategic transformation, over half of the enterprises find themselves faced with worse performance than before. As a result, these enterprises fail in the process of strategic transformation and are finally replaced by competitors. The most typical examples include the mobile phone manufacturer Nokia and the camera manufacturer Kodak.

Both used to be giants in their respective fields, with numerous patents and talents. However, in the process of transformation, Nokia and Kodak both suffered heavy losses and fell into organizational decline. Their decline is by no means a result of inadequate capacity. Instead, it was caused by the obstacles to the self-renewal mechanism. The failure of large enterprise to transform is often a result of the blind spot caused by inertia, and then the failure of decision-making mechanism leads to organizational decline (Liu, 2014).

As a typical foreign trade company, Jiangsu High Hope Group is confronted with both external adverse factors and internal path dependence during its implementation of strategic transformation, which has brought unprecedented impacts and challenges to its production and operation. Its management has gradually realized that only by getting rid of the path dependence on the traditional business model, readjusting its business strategy and realizing enterprise transformation and upgrading can it fundamentally cope with the development crisis the group is facing and achieve strategic transformation.

Therefore, this thesis takes Jiangsu High Hope Group as the research object to comprehensively explore the barriers existing in its implementation of strategic transformation from the perspective of path dependence, determine its strategic choices and positioning in the current situation, and accordingly put forward corresponding scientific and practical system solutions so as to remove the barriers to its strategic transformation.

1.1.2 Research significance

1.1.2.1 Practical significance

Under the new economic background characterized by economic transition and social transformation, the business environment of China's foreign trade enterprises has undergone tremendous changes. Enterprises' business environment is getting more and more complex and dynamic. Traditional foreign trade enterprises that mainly profit from price differences are faced with double threats from the downward trend of domestic and foreign macroeconomic situation. This objectively requires enterprises to implement strategic transformation in order to adapt to the complex and changeable external environment. However, due to the influence of path dependence, these enterprises are confronted with many difficulties and obstacles in the course of strategic transformation. Therefore, this thesis takes Jiangsu High Hope Group as the research object and studies the barriers to its strategic transformation from the perspective of path dependence. This has important practical significance for both Chinn's foreign trade enterprises and Jiangsu High Hope Group. Such

significance is reflected in the following three aspects:

First, it helps Jiangsu High Hope Group to identify future development direction, enhance profitability and realize sustainable development. In order to implement strategic transformation, Jiangsu High Hope Group must have a clear top-level design and strategic positioning, guide the development direction of its key business with strategic positioning, optimize its business portfolio and business model innovation, abandon homogeneous competition, constantly enhance its core competitiveness, and increase its power and vitality in market operation, so as to improve the future profitability of the group on the basis of stable and sound development.

Second, it can provide Jiangsu High Hope Group with operable guiding suggestions for the implementation of strategic transformation and help it get rid of the constraints of path dependence. On the basis of identifying the future strategic positioning and development direction of Jiangsu High Hope Group, this thesis clarifies the risks and barriers it faces during strategic transformation through the study of its path dependence. Then targeted strategies and guarantee measures to overcome path dependence in the implementation of strategic transformation are put forward to help it improve organizational performance and avoid strategic transformation risks, thus achieving transformation success.

Third, it provides a reference for the strategic transformation of other foreign trade enterprises. Traditional foreign trade enterprises played an important role in the import and export trade in the past. However, due to the impacts of such factors as the downward domestic and foreign economy, greater trade barriers and domestic cost increase, traditional circulation-oriented foreign trade enterprises have been relying on the simple intermediary business model (reselling), with no additional production operations or technological development in the value chain. Such means of operation based on earning circulation price differences (the difference between the purchase price and the sales price) can hardly form the core competitiveness of foreign trade enterprises or obtain comprehensive economic benefits in the new environment. Therefore, a large number of foreign trade enterprises have been eliminated by the society, and the remaining ones are still struggling in the difficult situation and calling for implementing strategic transformation. Based on the analysis of the macro and micro environments of Jiangsu High Hope Group as well as its own characteristics, this thesis systematically explores the impact of path dependence on enterprises' implementation of strategic transformation. A comprehensive theoretical analysis framework is then put forward, which can serve as a useful reference for other similar enterprises to shake off the constraints

of path dependence and achieve strategic transformation.

1.1.2.2 Theoretical significance

Theoretically, this thesis helps to enrich and develop path dependence theory and strategic transformation theory. This study will explore the inertia factors hindering the implementation of strategic transformation of foreign trade enterprises from the perspective of path dependence, and further put forward the path dependence management mechanism and transformation countermeasures to facilitate the case company's implementation of strategic transformation. This not only enriches the enterprise transformation theory but also provides new thoughts for extending the path dependence research. Therefore, the theoretical significance of this study is embodied in the following three aspects:

Firstly, it broadens the theoretical research scope of enterprise transformation and its research horizon. The present thesis systematically analyses the whole process of the implementation of enterprise strategic transformation. At present, researchers tend to focus on the unilateral research on the motivation, mode, process, influencing factors and risks of the implementation of transformation. Little attention is paid to how all links are related during enterprise strategic transformation and development. And seldom are they systematically analyzed. This thesis establishes a theoretical model that includes all aspects of enterprise strategic transformation, in order to explore the barriers to the implementation of enterprise strategic transformation. This not only enriches relevant theoretical literature on enterprise strategic transformation but also helps to further explore the deeper connotation of strategic transformation. It may also reveal the internal mechanism of strategic transformation.

Secondly, from the perspective of path dependence, this thesis uses empirical methods to verify the barriers to the implementation of the case company's transformation caused by path dependence. At present, most of the studies on path dependence are focused on discussions. Few proceed from empirical research. As a result, most studies lack strong data. Therefore, based on the questionnaire survey data and through literature collation, this thesis constructs the scale of enterprise path dependence, quantifies the extracted influencing factors and conducts empirical research on path dependence. The combination of path dependence theory and strategic transformation theory not only enriches the empirical research literature on path dependence but also increases the methods and ideas for the cross-study of path dependence and strategic transformation.

Thirdly, it enriches the connotation and extension of path dependence theory. The present

study on path dependence theory explores the operation law of enterprises' internal path dependence from the perspective of enterprise strategic transformation. It also refines and summarizes the formation and mechanism of action of enterprise path dependence. This study, as a useful supplement to the existing path dependence theory and strategic transformation theory, bears certain theoretical significance.

1.2 Research contents and methods

1.2.1 Research content

Based on the perspective of path dependence, this thesis studies the barriers faced by China's foreign trade enterprises during the implementation of strategic transformation and conducts an empirical test on the path dependence barriers confronting the case company Jiangsu High Hope Group during the implementation of strategic transformation. The research framework of this thesis is shown in Figure 1-1. And the thesis is divided into the following six parts. The details are as follows:

Chapter 1: Introduction. This chapter mainly elaborates on the research background and research significance and introduces the research content, research purpose and research methods. As an elaboration of the basic issues of this thesis as well as a general outline of this study, this chapter paves the way for the discussions in the following chapters.

Chapter 2: Literature Review. This chapter systematically reviews the literature on strategic transformation and path dependence. First, the concepts and measurement methods of strategic transformation and path dependence are introduced; second, the motivation, mode, process, content, influencing factors and risks of the implementation of enterprise strategic transformation are respectively discussed; third, the path dependence theory is synergized and analyzed from different perspectives, including technological change, institutional change, organizational structure, national level, regional level and corporate level; at last, it combs through the relevant literature on path dependence affecting the implementation of enterprise strategic transformation.

Chapter 3: Model Establishment. Based on the previous literature and the research content of this study, this chapter first establishes the theoretical framework of the full text, which is a theoretical model that includes both enterprise strategic transformation and various types of path dependence. And it serves as a theoretical framework for the study of barriers to the implementation of enterprise strategic transformation under the path dependence theory.

Then, under this theoretical framework, the research hypothesis of this study is put forward, namely, the factors of path dependence that hinder the implementation of enterprise strategic transformation.

Chapter 4: Research Methods and Date. This chapter first establishes the measurement scale of strategic transformation and path dependence; it then designs the questionnaire according to the established scale as well as distributes and recovers the questionnaires among the employees of the case company; finally, it makes a statistical description of the questionnaire samples.

Chapter 5: Case Company Analysis. This chapter is the focus of this study. First, it analyzes the strategic transformation of China's foreign trade groups; second, it gives a detailed description of the case company; finally, based on the data collected from questionnaires, it makes an empirical analysis of the barriers path dependence causes to the implementation of the case company's strategic transformation.

Chapter 6: Conclusion. Based on the above-mentioned analysis of the path dependence barriers to the implementation of the case company's strategic transformation, this chapter puts forward, in a targeted manner, the countermeasures to eliminate the barriers of path dependence, so as to serve as a reference for the implementation of enterprise strategic transformation; after that, it summarizes the full text and puts forward the suggestions for future research.

1.2.2 Research purpose

The purpose of this thesis is to establish a theoretical model where path dependence affects the implementation of enterprise strategic transformation based on the analysis of enterprise strategic transformation and path dependence through the combination of theoretical analysis, empirical analysis and case analysis. Taking Jiangsu High Hope Group as the research object, it conducts questionnaire survey and empirical analysis, verifies the hypothesis of the model, and identifies the path dependence barriers to the implementation of strategic transformation so as to provide a direct basis for the implementation of the case company's strategic transformation. Besides, it also tries to put forward relevant countermeasures and suggestions to overcome path dependence and provide a reference for the strategic transformation of China's foreign trade enterprises. Specifically, this thesis has the following three main objectives:

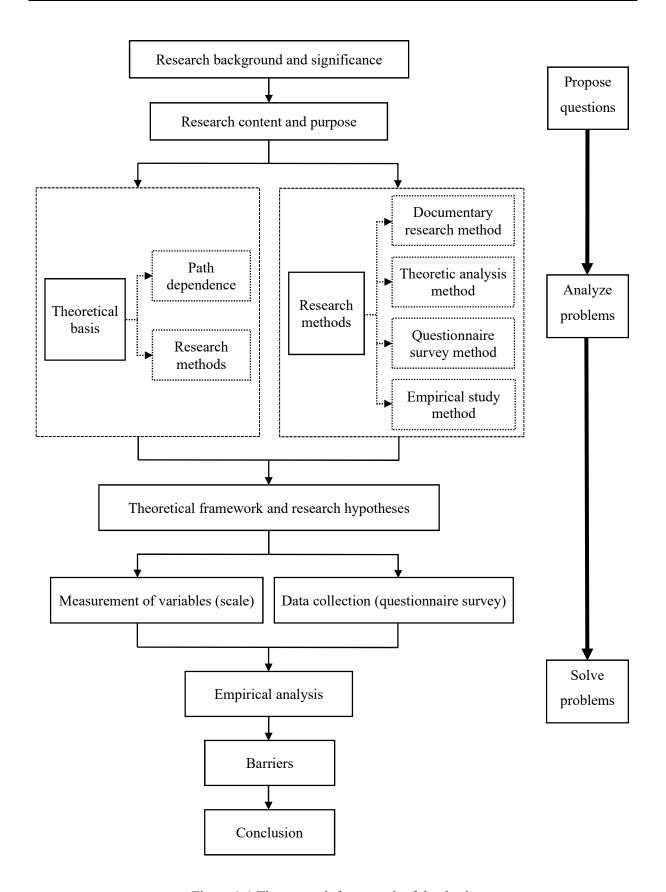


Figure 1-1 The research framework of the thesis

- (1) By combing through the literature at home and abroad, this thesis chooses the factors that influence the implementation of enterprise strategic transformation by path dependence and explores the impact of path dependence on the implementation of enterprise strategic transformation, so as to establish the theoretical model.
- (2) Taking Jiangsu High Hope Group as an empirical object, this thesis validates the theoretical model through the processing of questionnaire data and the use of econometric analysis. Then it explores the key factors that hinder the implementation of enterprise strategic transformation by path dependence.
- (3) Based on the results of the study, the case of Jiangsu High Hope Group is carried out to identify the barriers to the implementation of the case company's strategic transformation. It also puts forward the mechanism and measures for coordinating path dependence in the light of its dual nature in an effort to provide reference for the implementation of enterprise strategic transformation.

1.2.3 Research methods

Adopting an analytical method characterized by the combination of literature induction and theoretical analysis as well as questionnaire survey and empirical analysis, this study integrates path dependence theory into the analysis framework of the whole system of enterprise strategic transformation, studies the path dependence barriers to the implementation process of enterprise strategic transformation, and carries out a questionnaire survey of the case company. The collected data are used for empirical analysis to verify the hypothesis of the model. Then policy suggestions for breaking through path dependence in the implementation of the case company's strategic transformation are put forward.

- (1) Literature induction. Literature induction is an important and basic method of this study. Through online resources and library looks, the author looks up relevant literature works on this research field. After analysis, organization and summary of these literature works, the author gains an understanding of the research status of this field and puts forward the preliminary ideas of this study, confirms the research topics and ideas.
- (2) Theoretical analysis. This thesis comprehensively combs through and summarizes relevant literature about strategic transformation theory and path dependence theory, and analyses the motivation, mode, process, content, influencing factors and risks of the implementation of enterprise transformation to provide a reference and basis for relevant content of this study. On this basis, priority is given to the path dependence barriers to the

implementation of strategic transformation, the theoretical model of this study established, and the hypothesis of this study put forward.

- (3) Questionnaire survey. Questionnaire survey is a commonly used quantitative research method in management research. Compared to other means of data collection, questionnaire survey has the characteristics of low cost, high efficiency and convenience, and high acceptance of subjects. This thesis obtains the first-hand information through questionnaires among the staff of Jiangsu High Hope Group and qualitatively analyses the barriers caused by path dependence in the implementation of the case company's strategic transformation. On the basis of literature review, this thesis establishes a theoretical model. Richter's Magnitude Scale is used in the scale design. In order to ensure the reliability, validity and recognition of the questionnaire, the variables involved in this thesis are all based on relevant maturity scales at home and abroad. The questionnaire focuses on three aspects: Basic information of the respondents; information on strategic transformation implementation; and path dependence information.
- (4) Empirical research. On the basis of the theoretical analysis, this study understands the previous research results on enterprise strategic transformation and path dependence, and then puts forward the research framework and hypothesis. It analyses the factors of path dependence that impede enterprise strategic transformation from five aspects, namely, enterprise structure, employees, core competitiveness, corporate culture and external environment. Besides, empirical research is carried out on the basis of the data obtained from the questionnaire survey. Then SPSS software are employed to carry out a statistical analysis of the recovered data, so as to verify the research hypothesis.

1.3 Summary

This chapter mainly elaborates on the research background and research significance of the present thesis. It introduces its research content, purpose and methods, serving as an elaboration of its basic issues.

Chapter 2: Literature Review

2.1 Category definition

2.1.1 Strategic transformation

2.1.1.1 The connotations of strategic transformation

Since strategic transformation started to gain attention from people, it has always been a popular topic for discussions among the business community and academia. Domestic and foreign scholars have never ceased to study strategic transformation and have thus achieved a large number of research results. The studies on strategic management and its related areas by developed Western countries are relatively mature. They have formed many theoretical systems with the studies done from different perspectives. However, it is precisely because domestic and foreign scholars conduct research from different perspectives that scholars have varied opinions on the interpretation of the connotations of strategic transformation, which has no uniform definition (Hu, 2018).

First, from the perspective of organizational elements, enterprise strategic transformation is a strategic behavior where the strategic positioning of the enterprise or the process of strategic formulation gets changed through systematic adjustments of the characteristics or structure of the established strategic components with a view to seeking a reasonable match among the internal organizational elements as well as that with the business environment (Miller & Friesen, 1978; Xue, Zhou, & Chu, 2012). Therefore, strategic transformation is not only about changes in strategic contents, but also includes changes in other organizational elements that form the corporate strategy. Besides, it also includes adjustments in the number of businesses (Goodstein, Gautam, & Boeker, 1994; Yokota & Mitsuhashi, 2008), adjustments of the types of competition strategies (Boeker, 1989), as well as changes in such aspects as corporate culture, organizational structure, and management processes (Greiner & Bhambri, 1989). In a word, the process of promoting strategic transformation by enterprises is actually the process of restructuring the original strategic elements into structural and systematic reorganization to match various elements of the organization. In other words, it is a "re-system composition" of the various organizational elements that constitute the corporate strategy.

Second, from the perspective of dynamic capabilities theory, strategic transformation is a

complex and systematic project. It involves not only such static elements as organizational resources and core competencies, but also such dynamic elements as organizational cognitive adjustment and organizational action implementation. Its essence is the process where enterprise goals and behaviors undergo strategic adjustments and organizational capacity re-structuring (Agarwal & Helfat, 2009). In order to achieve the competitive advantages for future survival and development, enterprises undergoing strategic transformation must constantly adapt to the complex dynamic environment changes in the course of growth and development, in order to achieve the goal and process where the strategic goals, content, and form undergo fundamental changes in the state. They should also carry out constant adjustments according to their internal resource advantages and ability level (Tang & Wang, 2008). The abilities of an enterprise include its ability to integrate, construct and reallocate its internal and external resources to cope with the dynamic changes in the external environment (Teece, Pisano, & Shuen, 1997). In comparison, the dynamic capabilities focus on the dynamic use of resources. Eisenhardt & Martin (2000) see dynamic capabilities as a process of using resources to adapt to and even create market changes, especially the processes of integrating, reallocating, acquiring and releasing resources. In other words, with the emergence, conflict, division, evolution and death of the emerging markets, organizations use dynamic capabilities to rearrange the organization of resources and strategic practices. Hou (2008) divides the dynamic capabilities of enterprises into market-oriented sensing capabilities, organizational learning & absorption capabilities, social networking capabilities, as well as communication and coordination integration capabilities. Deng, Jiao, and Feng (2011) divide dynamic capabilities into environmental insights, learning and absorption capabilities, change and renewal capabilities, as well as integration and reengineering capabilities. Tang, Liu, and Xiao (2015) divide dynamic capabilities into environmental insights, planning and design capabilities, organizational learning capabilities and change leadership. Environmental insights serve the strategic transformation mechanism. Its purpose is to identify the challenges enterprises face and the opportunities in transformation to ensure the formation of the enterprise transformation direction; Planning and design capabilities form the transformation ideas, goals and implementation paths according to the transformation direction, as well as effectively integrate, optimize and allocate the enterprise internal and external resources; organizational learning & absorption capabilities mainly acquire, share and create knowledge for enterprises; change leadership makes decisions, promotes implementation and integrates restructuring for enterprise strategic transformation.

Third, from the business operation perspective, the strategic positioning that does not match the operational objectives of an enterprise will inhibit the growth of its corporate performance. However, in order to survive, the enterprise can only improve its performance through strategic adjustments, so as to initiate major changes in such aspects as the organizational mission and objectives, structure, as well as corporate culture (Levy, 1986). Wang, Feng, and Li (2006) believe that the root cause for an enterprise to make the strategic decision of transformation is that the enterprise is obliged to increase its competencies in the industry through organizational transformation due to its lowered competitiveness and declined competitive advantages in the industry. Another reason may be that due to industry recession, the dim prospects for enterprise development leave the enterprise no choice but to actively or passively adopt industry transfer strategy so as to seek new economic growth points to gain new vitality. Therefore, this kind of inter-industry transfer may cause enterprises to implement the diversification strategy while retaining the business of the original industry. It may also cause enterprises to completely withdraw from the original industry and completely enter a new industry. Jiang and Xiu (2007) believe that enterprise strategic transformation refers to a process where an enterprise, in light of its external environment as well as internal resources and capabilities, redesign its development goals as well as the ways and means to achieve the goals as well as re-adjust and re-select its key technologies, product structure, target markets and business model so as to overcome the various difficulties it faces in the original operation structure and gain new competitive advantages. Therefore, the process of strategic transformation can be seen as an ongoing dialogue between an enterprise and the changing environment. When the business environment undergoes major changes, the original strategic concepts, organizational structure, human resources, operation mode and corporate culture of an enterprise all need to undergo fundamental changes to gain the core competitive advantages needed for business operations (Ming, Hu, & Zhang, 2005).

Concepts similar to enterprise strategic transformation include strategic change, strategic adjustment, and strategic reform. Different from the general strategic change, strategic transformation lays more emphasis on the systematic changes in the multiple organizational elements that form the strategy. It includes changes in both strategic contents and the strategic decision-making process. Besides, within the strategic contents dimension, changes in the strategic contents of the three levels, namely, corporate level, management level and functional level, support and constrain each other, thereby enabling the entire enterprise

strategy to undergo systematic change.

- (1) Strategic change refers to the small adjustment in a company's strategic contents. It refers more to the changes in the strategy at the operational or functional levels within the strategic contents dimension. There are no major changes at the corporate level or even in the entire corporate strategic system. It is the difference in the consistency with its environment an enterprise manifests in form, connotations and state as time goes by. Strategic change can present itself in diverse forms. It can either occur by chance or in a frequent or progressive way. Besides, the environment strategic change faces can be either complex or simple.
- (2) Strategic adjustment refers to the revision or reformulation of an enterprise's original strategy when the actual results of the strategy deviate from the expected targets due to changes in the internal and external environments of the enterprise in the course of enterprise strategy implementation. Strategic adjustments do not change an enterprise's original objectives.
- (3) Strategic reform refers to strategy changes at the corporate level within the strategic contents dimension, including changes in the enterprise strategic resource allocation model, changes in products, the scope of market operation and business areas, adjustments in strategic direction and logic, as well as changes in organizational mission or business philosophy. It is a systematic and in-depth strategic adjustment (Wang & Lu, 2004). The essential difference between strategic reform and strategic transformation is that strategic transformation is a multi-dimensional and multi-level systemic change of the whole enterprise strategy, whereas strategic reform includes changes in strategies at a single level within the strategic contents dimension, usually the corporate level.

It can be seen from above that enterprise strategic transformation is the highest form of enterprise strategic change, adjustment, reform and management process as well as the most dramatic strategic change. Strategic transformation can be either gradual or abrupt, either partial or whole. It involves a major adjustment or a complete transformation of the enterprise's original strategic direction (Jiang & Xiu, 2007). Strategic transformation is neither a partial adjustment of strategies nor a single change of organizational elements, but directional and systematic changes at each strategic level. Strategic transformation is the holistic, multi-level, non-continuous and comprehensive transformation of enterprise strategy, organizational structure and management system (Trout, Rivkin, & Gouillart, 1996). Therefore, the difference in the form, connotations and state of the consistency between an enterprise and its environment during strategic transformation can affect the survival and

sustainable development of the enterprise.

2.1.1.2 The measurement of strategic transformation

Because the existing studies have not uniformly defined the basic concepts and connotations of strategic transformation, the measurement of enterprise strategic transformation is also diversified.

Most foreign scholars use objective data at the enterprise level, together with corresponding methods, to construct the index of corporate strategic transformation so as to measure enterprise strategic transformation. Jacquemin and Berry (1979) used the entropy method and the Herfindahl-Hirschman Index to measure enterprise strategic transformation through the degree of change in enterprise products and market diversification level; using a Multivariate Point-Process Model and Maximum-Likelihood Method, Kelly and Amburgey (1991) measured enterprise strategic transformation by adopting enterprise product matrix or increase/decrease of enterprise structure as well as changes in the business composition; Haynes and Hillman (2010) established enterprise strategic transformation indices according to the degree of change in such financial indicators that reflect an enterprise's key resources as corporate advertising intensity, investment in product research and development, non-productive expenditure, inventory level and financial leverage of 250 large listed companies in the United States from 1998 to 2002. Quigley and Hambrick (2010) used Generalized Estimating Equations to measure and study the strategic transformation at an enterprise's business level from the perspective of changes in the allocation of the enterprise's internal functional resources based on the sum of changes in product development cost, advertising intensity and overheads; using Heckman Selection Model, Nakauchi and Wiersema (2015) captured the enterprise's strategic transformation scope according to the final change in the proportion of the largest scale of business in the Japanese sample company three years before and after the base year.

Domestic scholars often use questionnaire survey to collect data on enterprise strategic transformation by designing a strategic transformation measurement scale. Liu and Qu (2011) measured enterprise strategic transformation through the necessity of strategic transformation to the supply chain. Li, Chen and Sun (2012) and Wang (2017) used open financial data to measure enterprise strategy. In other words, they measured by the ratio of the enterprise's market-oriented strategic expenditure against the sum of its market-oriented strategic expenditure is indicated by the sum of the enterprise's annual research and development expenses and sales

expenses, whereas the relational strategic expenditure is measured by the company-paid consumption of the senior executives. The company-paid consumption of senior executives includes their administrative expenses, travel expenses, business hospitality expenses, communication fees, overseas training fees, board fees, car fares and meeting/conference fees. These expenses, to some extent, reflect the cost an enterprise pays in order to maintain a sound relationship with the government. In his survey questionnaire, Kong (2012) measured transformation from seven aspects, namely, whether the enterprise has undergone cross-industry transformation, whether it has upgraded its products, whether it has carried out enterprise type transformation involving ownership or governance structure, whether it has realized business model transformation, whether it has entered into new markets, whether it carries out internal management model transformation and whether it has completed the modern enterprise system transformation. On this basis, he further divided these seven aspects into twenty-seven items. Drawing on the strategic transformation measurement scale of Jia and Zhang (2013), Zhang, Zhao, and Zheng (2017) measured strategic transformation from six aspects, namely, the enterprise can accurately identify the transformation environment, the enterprise can establish the correct transformation positioning, the enterprise can grasp the transformation opportunity in time, the enterprise's relative investment in some target market resources has undergone significant changes, the proportion of resource allocation between the enterprise's different products has undergone significant changes, and the enterprise's relative input in some business resources has changed significantly. Su, Li, and Ma (2014) took a different approach. They used the inductive vertical single case study method to measure enterprise strategic transformation based on the materials collected from three aspects, namely, the formal report of the single case company (company annual report, analyst report, industry report, business plan, patent database), enterprise image reports (news, high-level interviews, conference speeches, company website information) and relevant research materials (journal literature and books).

2.1.2 Path dependence

2.1.2.1 The connotation of path dependence

The standard distance between every two tracks of the modern railway is four feet and eight point five inches. This is because the early railway was designed by the tram builders, and the four feet and eight point five inches was exactly the track standard used for trams. Besides, as the earliest people who built trams used to build horse-drawn carriages, the

standard of trams was also the wheel distance standard of horse-drawn carriages; the reason that this wheel distance standard was used by horse-drawn carriages is that the width of ancient Roman army chariots was four feet and eight point five inches, and this width was also the crupper width of the two horses pulling a chariot.

In 1936, after more than 10 years of research, the American inventor Dr. Dvorak invented a new keyboard, which was named ASK Keyboard (American simplified keyboard, later known as DSK keyboard), which was claimed to be more efficient than the now universal QWERTY keyboard designed by the American typewriter inventor Sholes in 1870. However, the ASK keyboard did not sustain as expected. Instead, it gradually disappeared, whereas QWERTY still dominates the keyboard market. The reason that the QWERTY keyboard can dominate the market is not that it is the best, but that it is the earliest.

The above two examples explain in a nutshell what path dependence is. Path dependence originates from the field of natural sciences. Waddington (1957) found while studying the classification evolution and development level in the evolution of species that the evolution of species is not only determined by the hierarchical sequence of the genes themselves but also influenced by the random evolution of genes and the external environment. The American paleontologists Eldredge and Gould (1972) found that species evolution often takes place in a leapfrog rather than gradual manner. Accidental random factors initiate sequence control mechanisms, which lead to vastly different paths of species evolution. Based on this, they put forward the concept of path dependence for the first time.

For the first time, the American economist David (1985) introduced path dependence theory into the field of social science to study economic issues and explain problems in technological change. In other words, the technical economic system has the characteristics of dynamism and irregularity. Technological change has the characteristics of self-reinforcement and path dependence. The system is affected by the initial conditions and evolves along a certain path. After the self-reinforcement process, it is difficult for the form to change automatically. Later, North (1993) extended the "path dependence" theory to the field of social institutional change, thus establishing the path dependence theory in institutional change.

The path dependence concept describes the impact of past choices on the present and the future, similar to "inertia" in Physics, where once objects enter a path, they will continue to develop along the path and be locked on the path (Meng, 2007; Shi, Geng, & Li, 2014). Path dependence was first used to explain the evolution of technology. Its core idea is that once a

technology is adopted due to the influence of accidental events or slightly dominate in competition, it will eventually occupy the market and drive other even better technologies out of the market. North divides path dependence into two types, namely, North's Path Dependence I and North's Path Dependence II.

North's Path Dependence I refers to the fact that once a unique development trajectory is established, a series of externalities, organizational learning processes and subjective models will all reinforce this trajectory. An adaptive and effective institutional evolution trajectory will allow the selection of the maximized goal under environmental uncertainty, allowing organizations to conduct various experiments and protect the ownership of the organization, thereby leading to long-term economic growth.

North's Path Dependence II refers to the fact that once the system of increasing returns brought about in the initial stage hinders the development of production activities under the situation of incomplete market and inefficient organization, and will generate organizations and interest groups that coexist and co-prosper with the existing system, then these organizations and interest groups will not invest further, but will only strengthen the existing system, thereby creating a political organization that maintains the existing system, which leads to the continued existence of the trajectory of this ineffective institutional change. Such a system can only encourage simple redistribution of wealth, but it will bring less compensation to production activities and will not encourage the increase and diffusion of special knowledge about production activities. As a result, not only will there be poor growth performance, but it will continue.

Seen from the effects on economic development, North's Path Dependence I is a virtuous path dependence, which boosts economic development; North's Path Dependence II is a vicious path dependence where the society will fall into an invalid system and enter into the "locked" state. Therefore, the impact of path dependence is two-sided, namely, positive path dependence and negative path dependence.

Negative path dependence will cause the market to be locked on the path of inefficient technology development, resulting in low competitiveness, lack of innovation (innovation trap or core rigidity), and the inability to market or apply the new and more effective technologies (Xiangli & Li, 2009), hindering social progress to a certain extent; positive path dependence can ensure that technology is on a path of high efficiency and produces positive effects on the development of human society. Path dependence is reflected in the fact that an innovation is often caused by other innovation activities around it. Due to the interdependence between the

innovation subjects, the innovation activities under certain conditions must be concentrated in a certain area. This kind of spatial aggregation not only makes mutual learning and knowledge sharing between enterprises more convenient but can also reduce the transaction cost of knowledge and information exchange, which is conducive to mutual understanding and trust. And this understanding and trust tis indispensable to knowledge exchanges (especially tacit knowledge) (Doloreux, 2002).

The academia has different research fields on path dependence theory, and the research entry points are also different. Despite this, scholars have reached three consensuses on path dependence theory: (1) Path dependence contains two layers of meaning. Path dependence is a state. It is also a process. It is a state because path dependence is not just the simple description of the state at a certain stage but should be grasped from the overall development trajectory. The trajectory of a certain thing may be an efficient upward curve or an inefficient or low-efficient "lock"; process refers to the nonergodic stochastic dynamic process things exhibit in the course of overall development. It depends strictly on historical small events. Besides, it is also non-linear, with multiple possibilities. (2) Path dependence emphasizes the time factor in system changes. Path dependence is a process of historical development, while emphasizing the lagging nature of historical role at the same time. This "lagging" effect may be caused by historical events (in this sense, the formation of path dependence is result-oriented and traceable), or by the inherent rules and order of history itself (such as the replacement of the old social system by the new social system and the replacement of the old production relations by the new production relations). Early accidental historical events have a certain influence on the trajectory of system development. Path dependence emphasizes the sensitivity to initial conditions and is affected by random processes. The development trajectory is triggered by small events or accidental factors. Small differences will eventually be magnified through the self-enhancement mechanism. (3) Path dependence and independence are not contradictory. Independence is the characteristic of each historical event. Everyone is a product formed under unique historical conditions. No matter how many possibilities and accidental factors exist in the process of formation, the final result is unique and irreversible; path dependence means potential multiple equilibrium results, and which equilibrium state will become the final equilibrium result is determined by special historical events. Path dependence not only studies result. But more importantly, it studies the formation process. Once an accident occurs, the order of path dependence would present a relatively decisive causal pattern, which can be called "inertia" (Wang, 2011).

2.1.2.2 The measurement of path dependence

At present, domestic and foreign scholars have done relatively few studies on path dependence measurement. These metrics are mainly based on existing macro or micro level data, and some indicators are selected as the proxy variables of path dependence for measurement.

Teece, Pisano, and Shuen (1997), Karim and Mitchell (2000), and Wu (2006) used two indicators to measure path dependence, namely, the influence of past R&D results on R&D expenditure ratio and the influence of past experience on the current implementation strategy.

Wang, Liu, and Zhao (2011) measured the path dependence of high-tech enterprises through three aspects, namely, organizational structure dependence, core competitiveness dependence and corporate culture dependence. Organizational structure dependence is measured by three indicators, namely, the influence of existing experience on the current organizational structure, the enterprise's dependence on its existing organizational structure and processes, and the influence of existing experience on the enterprises' organizational learning ability; core competitiveness dependence is measured by three indicators, namely, the resource input required for cultivating core competitiveness, the cognitive inertia of enterprise management and the high correlation between a company's new technologies/products and its existing technologies/products; corporate culture dependence is measured by the following three indicators, a company mostly follows its previous habits and is unwilling to change much, employees are willing to follow the values and codes of conduct recognized by the company, and the company usually pays attention to its familiar phenomena and things.

Using 2000-2011 Chinese customs product data and binary Logit model, Qi and Feng (2014) checked whether path dependence exists in the expansion of China's export market from three aspects, namely, the geographical proximity, cultural similarity and economic similarity between the target market and the export market.

Chen and Dou (2018) selected data from China's wine industry from 1998 to 2014 as a sample and used the Malmquist index of Data Envelopment Analysis (DEA) to measure the path dependence and locking status of China's wine industry technologies.

Mi, Zhou, Zhu, and Zeng (2018) measured the structural similarity of ecological civilization development from the nine aspects in the established evaluation index system of ecological civilization development. They then used the Pearson correlation index to measure the degree of fitting between the data in two periods of a certain region used the result as the

evaluation basis for regional path dependence.

2.2 Review and comment of the strategic transformation theory

Strategic transformation is a popular topic in the academia and business world in recent years. As discussed in the previous sections, domestic and foreign scholars still lack a unified understanding of the specific concepts and connotations of strategic transformation, and the measurement and definition of strategic transformation are out of touch. Besides, because the theoretical perspective of strategic transformation is single and mostly concentrated on the perspectives of resources and factors, the process of strategic transformation is often regarded as a "black box". These issues not only constrain the perception and understanding of strategic transformation, but also limit the integration between different studies.

The success of enterprise strategic transformation begins with an in-depth understanding of the motivations of transformation; strategic transformation processes and factors are the key to transformation results; the influences of different dimensions in the process mechanism model are the way to achieve strategic transformation (Tang, Liu, & Xiao, 2015). Therefore, while clearly defining the connotations and measurement methods of strategic transformation, efforts should also be made to clarify the drivers, model, path and influencing factors of enterprise strategic transformation implementation, so as to systematically review relevant studies on strategic transformation, integrate and establish a relatively complete research framework.

2.2.1 The motivation for the implementation of enterprise strategic transformation

The success of enterprise strategic transformation begins with an in-depth understanding of the transformation motivations (Tang, Liu, & Xiao, 2015). Strategic transformation starts from the transformation motivation, whereas the transformation motivations are the booster of strategic transformation. To transform, an enterprise must first consider its transformation motivation (Schendel, Patton, & Riggs, 1976). There are two kinds of relative forces in organization development. Any change in the organization comes from the imbalance of power in the position of the organization. Organizational transformation, as an organizational change, comes from the imbalance between the external forces and internal forces of the organization. Strategic transformation requires not only that the strategies of an enterprise adapt to its internal and external environments, but also that the strategies adapt to the

enterprise's own characteristics (Jiang & Xiu, 2007). Therefore, most scholars study the motivations of enterprise organizational transformation from the external and internal perspectives, and thus classify the motivations of enterprise strategic transformation into internal motivations and external motivations (Wang, Feng, & Li, 2006; Mintzberg & Westley, 1992; Xiang, 2001).

- (1) Internal motivations are caused by an enterprise's own problems, such as lack of resources, low production and management capacity, which reduce its competitiveness in the industry. The transformation within the organization is aimed at adapting to the needs of environmental changes. But it is self-directed in nature. The internal dynamic mechanism of organizational transformation or reform is often established from interests & values, power dependence and disposing capacity (Greenwood & Hinings, 1996). Greiner (1997) studied 25 stagnant or failing U.K. companies and found that they would transform when there was a large gap between corporate performance and the expected goals. Internal motivations are numerous and complex. Enterprise strategic transformations caused by internal factors often focus on the internals of enterprises and enhance their own competitiveness through transformation in such aspects as enterprise resources and capabilities, human resource management, senior management, corporate culture, enterprise lifecycle stages, corporate performance, and enterprise production model. On this basis, they would improve the relative competitiveness of enterprises in the industry. And the enterprises at this time have not withdrawn or entered other industries.
- (2) External motivations refer to the entry of enterprise growth into recession due to changes in an enterprise's external environment and changes in its status within the industry. The external environment mostly brings pressure for organizational transformation. And strategic transformation at this time is caused by changes in the business environment, which cause problems to business operations. And in order to survive, the enterprise makes major changes in such aspects as its organizational mission & objectives, structure, and corporate culture with a view to adapting to the environment (Levy & Merry, 1986; Mintzberg & Westley, 1992; Qian & Cao, 2011). Factors such as law, the public, institutional norms, market demand, industry competition environment, timing, technological innovation and economic integration are all the main external drivers of strategic transformation (Erakovic & Wilson, 2005; Rindova & Kotha, 2001; Kotter & Heskett, 1992). When the industry competitiveness of the enterprise reduces (Wang, Feng, & Li, 2006), or the enterprise is in an increasingly mature and declining sunset industry, it cannot seek new development room in

the industry even if it has undergone changes. In order to gain the ability to continuously grow, the strategic transformation of the enterprise at this time will focus more on the new areas outside the industry to seek new economic growth points. And the enterprise at this time may completely withdraw from the existing industry and enter new industry fields.

Although internal factors and external factors both drive enterprise strategic transformation, the impacts of the two differ. Boyle and Desai (1991) found through literature analysis that although there are in total 24 internal and external factors that promote organizational transformation, internal business environment changes have a greater impact on enterprise performance than the external business environment. Tang, Wang, and Zhou (2008) believe that compared to the internal environment, the external environment has a greater impact on enterprise strategic transformation. Therefore, while distinguishing the internal motivations and external motivations of enterprise strategic transformation, we must also pay attention to the differences in the impacts on driving enterprise strategic transformation by internal motivations and external motivations.

2.2.2 The model of the implementation of enterprise strategic transformation

The classification of enterprise strategic transformation has undergone long-term update, supplement and improvement. And each scholar has put forward unique insights in their respective fields.

From the perspective of organizational implementation, the strategic transformation of enterprises can be divided into "top-down" and "bottom-up" implementation paths: (1) In an organization, when the power and influence of senior management are highly concentrated and the senior management has the power to dominate decision-making and has control over the ownership structure, the enterprise strategic transformation will be controlled by the senior management and implemented in a top-down manner (Yokota & Mitsuhashi, 2008). This means that the "top-down" implementation path emphasizes the leading role of the top management in the process of strategic transformation. Therefore, the "top-down" implementation path has an impact on the enterprise's business scope and will also affect the enterprise's long-term strategic goals and values. (2) On the contrary, if the main driving force of strategic transformation and the promoters are middle and low-level managers and employees, then a "bottom-up" strategic transformation path is formed (Buss & Kuyvenhoven, 2011). In view of the competition within the enterprise, although the strategic consensus is initiated from the top, the specific implementation relies more on the joint role of the different

interest communities in the organization, and the goal of spreading the strategic consensus is achieved through interactions between the internal interest communities. The "bottom-up" strategic transformation path is more focused on the transformation of the business at the functional level to the corporate level. In this process, employees at the functional level play a key role, relying on their advantages such as unique resources and skills to effectively accelerate the implementation of strategic transformation.

On this basis, Xue (2012) divides the model of strategic transformation into four types, namely, radical strategic transformation, gradual strategic transformation, erosive strategic transformation and structural strategic transformation: (1) radical strategic transformation refers to the significant reallocation of enterprise internal strategic elements caused by huge changes in the external environment with a view to accommodating the changing needs of the external environment. The process of radical strategic transformation is discontinuous. In most cases, an enterprise continuously abandons its core competencies to drive its practices to deviate from the past track, thus causing fundamental changes in the organization's strategy (Damanpour & Evan, 1984). In this process, most members will feel a sense of crisis and show strong uncertainty about future development. The adoption of the radical strategic transformation model requires the guidance of top management as this model is more suitable for the top-down implementation path. (2) The gradual strategic transformation model is very different from the radical strategic transformation model. Under the gradual strategic transformation model, the degree of reallocation of strategic resources is very small, and changes in the strategic direction are also small (March & Simon, 1958). This model advocates operation diversification to moderately reduce the enterprise's operation risks or obtain greater benefits. However, relevant diversification is still carried out around its core competencies. This type is more focused on the cumulative nature of the strategy formation process, and the process is often spontaneously initiated by other interest groups excluding the senior management. It is a bottom-up process. (3) The erosive strategic transformation is similar to the gradual strategic model because they both have a very small degree of reallocation of the enterprise's strategic resources. Yet the former differentiates from the latter in that the erosive strategic transformation dramatically and revolutionarily changes the enterprise's strategic direction. In the process of minor, the continuous and sequential changes as well as continuous match of the relationship between the enterprise and its strategies, an enterprise is constantly eroding the original strategy and gradually forming new core resources and capabilities with stronger competitiveness to formulate new strategic

positioning and goals. The top-down approach is an important path to implement the erosive strategic transformation. Nevertheless, excessive control can cause employees to lose the flexibility of individual behaviors, thus making the organization lose the ability to identify risks and respond quickly according to environmental changes (Preble, 1992). (4) The biggest characteristic of the structural strategic transformation model is that it does not significantly change an enterprise's strategic direction, but the degree of strategic transformation is huge. In other words, the structural strategic transformation model changes the strategic elements within an enterprise and the coordination between them in a leapfrog and creative way, so as to achieve the purpose of rapidly forming a new strategic orientation and direction. But this change does not completely deviate from the original track. Instead, it is only a subtle change. The structural strategic transformation has strong planning and a strong purpose. And there is no coherence in policies. The implementation path of planned strategic transformation requires not only top-down guidance and control but also bottom-up diffusion, which means that this model is a mixed path using the two paths (Xue, 2012).

According to the different time phase of transformation, enterprise strategic transformation can be divided into "pre-transformation" and "post-transformation": (1) "Pre-transformation" refers to strategic behaviors that require an enterprise to initiate in advance, namely, the proactive transformation adjustments made by the enterprise upon realizing that potential crises will happen as a result of environmental changes. (2) Compared to the initiative of "pre-transformation", "post-transformation" is passive. It refers to situations where an enterprise has no choice but to adjust its strategic direction in the face of various operation crises, such as drops in business indicators or even occurrence of losses. Studies have found that most of the existing enterprise cases belong to passive crisis-driven transformations. This is because "pre-transformation" is dominated by leaders and relies on their forward-thinking and experience, which tends to be the greatest barrier to "pre-transformation" (Tushman & Romanelli, 1985).

Most scholars classify organizational strategic transformation from different perspectives by targeting at a specific problem. Amsden (1989) believes that for companies in emerging industrial countries or regions, the path to realize upgrading and independent innovation is to transform from simple original equipment manufacturing (OEM) to R&D and design, until finally establishing a self-owned brand. But each individual enterprise will adopt different operation strategies according to their specific conditions in the process of actual innovation and upgrading.

Zhu, Chen, and Jiang (2006) believe that there are three ways to upgrade OEM enterprises: First, take the technical route, which means to transform from OEM to R&D and design; second, take the brand route, which means to transform from the combination of OEM, R&D and design to the establishment of independent brands, or directly from OEM to the establishment of independent brands; third, enter another industry with more value-added potential based on the OEM diversification with technical relevance. Mao and Wu (2009) summarized five paths of enterprise transformation and upgrading: Replacing the products of multinational companies and enhancing the technical strength of the enterprise; directly entering advanced technology fields through technological leap; realizing the intersection of product functions and technologies by grafting across multiple technical fields; a combination of multiple ways from OEM to R&D and design, and then to the establishment of independent brands; facilitating enterprise upgrading with industrial clusters and parks as carriers.

Wang and Wang (2005) divided strategic transformation into three levels according to the multi-level nature of strategic management: Strategic transformation at the corporate level, strategic transformation at the business unit level, and strategic transformation at the functional level. Strategic management at the corporate level is the highest level of strategic management, including the choice of the company's business unit and scope and the distribution of resources among business units. Strategic management at the business level is the strategic management at the company's business unit level, which is about how to establish and strengthen the competitive advantages against competitors in the selected business areas. Strategic management at the functional level is a strategy with operational orientation and operability at all levels of the enterprise. Corporate strategies and business strategies emphasize "doing the right thing", whereas functional strategies emphasize "how to get things done well".

2.2.3 The process and content of the implementation of enterprise strategic transformation

The research on the connotations, motivations and mode of strategic transformation has not touched upon how strategic transformation is driven, and instead considers the process and contents of strategic transformation as a "black box". For the better implementation of transformation, it is therefore necessary to define the transformation process, identify key factors in the process and open the "black box" of strategic transformation.

Strategic transformation is generally regarded as a special form of strategic change,

which is defined by Lewin (1947) as a continuous process of unfreezing, moving and refreezing. With China Minmetals Corporation as the research object, Zhou (2005) summarizes the process of strategic change into six stages: Preparation, launch, analysis, decision-making implementation and improvement.

Tang, Liu, and Xiao (2015) divide transformation into three closely connected processes: Transformation preparation, transformation implementation and transformation integration. (1) The focus of transformation preparation is to form the direction and objectives of transformation, which is reflected in the planning and design of transformation. By analyzing the internal and external environments of enterprises, identifying the opportunities and threats of transformation, formulating the tentative thoughts, implementation path and action plan of transformation, the direction of strategic transformation is thus formed. (2) Transformation implementation, which is the core of strategic transformation, emphasizes the re-integration of organizational elements to support the realization of new strategies. In the process of transformation implementation, the philosophy and culture of an organization serve as the basis of transformation. Without changing the philosophy and culture, strategic transformation is often not thorough enough. The inherent philosophy and culture of the organization are also one of the biggest obstacles in strategic transformation. Business and service are the core of transformation, and the essence of transformation is to remodel the company's business model or profit model. Organization and human resources, support and guarantee help ensure the success of strategic transformation, which will inevitably bring about organizational and resource allocation changes. Similarly, without such support and guarantee as management and operation, system construction and resource allocation, strategic transformation is bound to fail. (3) Transformation integration is the key to the success of transformation that runs through the whole process of transformation. It integrates and improves organizational resources and elements around the new strategy, playing a leading role in strategic transformation.

Wang and Wang (2005) believe that the process of strategic transformation follows the general process of strategic management. Strategic management, in a broad sense, refers to the use of strategic management thinking for the management of the entire enterprise. Strategic management in its narrow sense is about managing the formulation, implementation and control of corporate strategies. It's a general strategic management process that includes three basic stages: Strategy formulation, strategy implementation and strategic control. a. The management of strategy formulation focuses on organizing the forces to formulate the

strategy according to the necessary procedures and methods. b. The management of strategy implementation is primarily concerned with carrying out the strategy through the organizational system and translating it into the actions of all staff. c. The management of strategic control mainly refers to the evaluation of the result in strategy implementation, so as to urge the staff to correctly implement the established strategy or to revise the strategic plan in time based on the actual situation. Therefore, the general process of strategic transformation is comprised of "internal and external environment analysis, strategy formulation, strategy implementation and strategy evaluation".

Meanwhile, the contents of strategic transformation can be divided into the following six aspects according to the principles of strategic management:

- (1) Propose corporate mission, objectives and strategies, or evaluate the current corporate mission, objectives, strategies, policies and performance. Corporate mission consists of corporate philosophy and purpose. Corporate philosophy refers to the values, attitudes, beliefs and codes of conduct that an enterprise has identified for the way in which it operates. It is an abstract reflection of what role an enterprise plays or how it plays this role in social business activities. The purpose of an enterprise specifies what kind of business activities it should be engaged in and the nature or type of organization it should be at present and in the future. The strategic goal of an enterprise is what it expects to achieve in carrying out its mission within a certain period of time.
- (2) Analyze the external environment to identify strategic opportunities or threats. The external environment of an enterprise can be divided into macro-environment and micro-environment. Macro-environment covers political factors, economic factors, infrastructure factors, legal factors, socio-cultural factors, natural geographical factors and other events as well as their changing trends, while micro-environment refers to shareholders, customers, suppliers, competitors, local communities, government departments, financial institutions and other elements in general.
- (3) Analyze the internal environment to identify strategic strengths and weaknesses. An enterprise's internal environment, also known as its internal operating conditions, comprises of variables and elements existing in the organization that can have a significant impact on its operating activities. Specifically speaking, it includes the organizational structure, culture and resources of the enterprise. The organizational structure refers to the information communication, power relationship and the configuration and connection methods of the product or service flow within the enterprise. The inherent values, way of thinking, behavioral

habits, psychological expectation and belief system accepted and shared by members of the enterprise constitute culture, which influences and determines the behavior norms accepted by all enterprise members. Resources generally refer to capabilities and conditions in terms of manpower, finance, material, technology and information required of an enterprise to engage in investment activities or provide services. The internal environment of an enterprise involves a multitude of elements in such functional fields as management, marketing, financial management and human resources.

- (4) Analyze the risks and costs of enterprise strategic transformation and put forward the corresponding countermeasures.
- (5) Formulate a number of new alternative strategic plans based on the above analysis and select a strategic plan to put into practice.
- (6) Implement the strategic plan and establish an information feedback system and a control and correction system for evaluation and control.

2.2.4 Factors influencing the implementation of enterprise strategic transformation

Faced with a constantly changing market, enterprises are increasingly taking the initiative or forced to utilize strategic transformation as a strategic means to achieve sustainable growth. However, substantial differences exist between enterprises in terms of the success rate of their strategic transformation. To deeply understand enterprise strategic transformation, therefore, we must probe into its influencing factors.

As expounded by Rui, Hu, and Zhang (2005), enterprise strategic transformation is essentially a process of specific knowledge innovation, the purpose of which is to avoid a survival crisis caused by inconsistencies between the specific knowledge possessed by the enterprise and its external business environment. Hence, the key to successful strategic transformation of an enterprise is to ensure that the specific knowledge possessed by the enterprise can match its operating environment with strategic flexibility. In other words, internal influencing factors should be consistent with external influencing factors. Therefore, factors influencing the implementation of enterprise strategic transformation have been categorized by Chinese and foreign scholars into external factors and internal factors (Chen, 2005).

2.2.4.1 External factors

The growth of an enterprise is a dynamic process of making decisions in response to

changes in the external environment (Wang & Tang, 2008). Meanwhile, the external environment, with its complexities and dynamic changes, is one of the major factors leading enterprises to choose strategic transformation so as to cope with the great challenges of survival and development (Zhu & Ye, 2004). External factors refer to the external environment faced by enterprises, including technological environment, market environment and policy environment.

1. Technological environment

- (1) The environment of technological innovation. The speed of technological innovation and its impact of "creative destruction" on enterprise operation and management are unexpected, as evidenced by several major technological revolutions in history. The discontinuity of technological changes in particular is the reason why it is inevitably difficult for strategic leaders of an enterprise to accurately predict technological changes (Chen, 2005). Moreover, each link in the formation of enterprise value chain is related to technological innovation. Corporate activities such as product design, technological process, equipment configuration, production control, market development and sales service should be coordinated with technological innovation. It is precisely because of technological innovation activities that the resources of the enterprise can be effectively allocated, and the best results achieved, forming a favorable operating mechanism within the enterprise and enhancing the ability of the enterprise to continuously develop, regenerate and adapt to the environment. Enterprise strategic transformation, which manifests as the ability of the enterprise to adapt to the environment and create competitive advantages, is often induced and driven by technological innovation.
- (2) External technological resources. Enterprises have been embedded in an increasingly complex network of technologies, which greatly reduces the opportunities for a single enterprise to fully control any new technology. It is unnecessary and impossible for an enterprise to master all the domain knowledge of product development and production, which requires the enterprise to make good use of external technological resources (Wang & Zhang, 2006). In the process of technological capability reengineering, external knowledge acquisition of enterprises in transition is affected by external technology supply. Diversified technology sources will lead to a wider range of choices for enterprises, facilitating their acquisition of external technological resources. In addition, the diversification of technology sources will also help enterprises maintain the independence and autonomy of technological capability reengineering, which means they can selectively utilize external technology sources

in accordance with their independent product concepts. The strategic transformation of enterprises will benefit from the diversified supply of external technologies, as technological capability reengineering can happen in the form of technology integration or introduction.

(3) Technological correlation. When an enterprise is transitioning from the original industry to a new industry, the technological correlation between the two industries will directly affect the utilization of existing technologies. A high degree of correlation indicates that the original industry and the new industry have relatively great commonality in terms of product development or production process, which means the knowledge accumulated and technological capability formed in the original industry are still of great value in the new industry. By learning the technology in the new industry and combining it with the original technological capability, enterprises will be able to quickly reengineer their technological capability. A high degree of technological correlation is also conducive to the success of enterprise strategic transformation. This statement is supported by Pehrsson's (2006) study, which suggests that the technological correlation between the original industry and the new industry is positively correlated with enterprise performance.

2. Market environment

- (1) Customer environment. The customer environment here is a broad concept, including not only customers in a narrow sense, but also suppliers, distributors, partners and even competitors, who are all regarded as stakeholders. The expectations of these stakeholders vary, with customers expecting market performance (customer demand, reputation among customers, supplier system), shareholders seeking financial outcome (profit) and competitors anticipating industry development and initiative. What these expectations have in common is their rapid change, especially in the case of customer expectations. Should the strategic transformation of an enterprise fail to meet the expectations and requirements of these stakeholders, the enterprise will lose the basic support for its survival and development, as they are interest subjects inseparable from the business performance of the enterprise (Chen, 2005).
- (2) Information revolution. The advent of the information revolution is bringing people closer to each other, enabling simpler and more convenient communication and blurring industry boundaries. As a result, the consumption concepts and values of customers are constantly changing, making it impossible for enterprises to gain a competitive edge solely by implementing a certain strategy. The widespread use of the Internet, for example, has shortened the distance between businesses and markets all over the world, altering the

production and sales models of enterprises.

3. Policy environment

Enterprise strategic transformation should also take into consideration the influence of the policy environment. Policies (supporting services, infrastructure, tax preferences, property protection, talent training, funds and financial support, systems of innovation incentives and subsidies) may vary in different regions at the same time or in the same region in different periods. They can bring opportunities to enterprises or cost them their opportunities. Economic development faces two major historical propositions: Structural transformation, which is to elevate the level of industrial structure, and system transformation, which refers to the improvement of the allocation of resources and related behavior norms. Thus, economic transformation is oriented toward the upgrading of industrial structure and the transition of economic system and centered around the transformation of enterprise activities. Driven by the changes in the type of enterprise development, the industrial upgrading mechanism will be based on the enterprise's independent structural adjustments. In other words, it will rely on the autonomous behavior of the enterprise. In market competition, the enterprise must find its own position and space for development, adapt the production structure to the changing structure of market demand and achieve industrial upgrading and structural transition in the race against other companies. Therefore, economic transformation and industrial restructuring will serve to push forward the strategic transformation of enterprises.

2.2.4.2 Internal factors

External factors, including macro and micro environmental factors, and internal factors, such as industrial resources, capabilities, knowledge, characteristics of and corporate executives, together promote or hinder the strategic transformation of enterprises (Chen, 2017). It is a proven fact that the competitive advantage of an enterprise increasingly depends on its ability to achieve more success in strategic transformation than its competitors (Ginsberg, 1988), which means the internal environment of an enterprise plays a decisive role in its strategic transformation. Systems and mechanisms, human resources, market adaptability, corporate culture, management models (Li, You, & Cong, 2012) and other traditional internal factors will undoubtedly affect the strategic transformation of enterprises. In the meantime, though, unconventional internal factors such as the current stage in the enterprise lifecycle, enterprise competence and entrepreneurial ability will also have an impact on enterprise strategic transformation.

1. Current stage in the enterprise life cycle

There is an inevitable connection between the current stage in the enterprise lifecycle and whether or not strategic transformation is necessary for this enterprise. The growth and development process of an enterprise can be compared to that of an organism, which consists of four stages: Birth, growth, maturity and decline (Wang, 2011). This process is described by scholars as the "enterprise lifecycle" in which the enterprise is seen as an organism that follows the laws of biological growth. There are four periods of stable ascent in the growth and development process of an enterprise: Resources accumulation and step-by-step expansion; gradually-rationalized allocation of enterprise resources following the centralization of the functional structure; gradual diversification of enterprise management; greater breakthroughs in new products and markets with the help of relevant enterprise resources. With the constant expansion of enterprise scale and continuous increase of the number of employees, enterprises will inevitably encounter major survival and operation crises in this process. Each crisis has made it necessary for enterprises to consider whether there is a need for transformation to address the current crisis. Therefore, whenever an enterprise enters a new stage of growth, the need for strategic transformation is bound to arise so as to help the enterprise adapt to the new life cycle stage. Hu and Huang (2016) discussed the factors influencing enterprise strategic transformation by dividing the development and growth of enterprises into three phases: Startup, growth and maturity.

2. Enterprise competence

According to the traditional competence theory, "the strategy of an enterprise is determined by its competence", which means the resources and capabilities possessed by an enterprise can exert great influences on its strategic transformation (Andrews, 1971). Such resources and capabilities include enterprise resources, enterprise innovation capability, capability of enterprise strategic transformation, enterprise performance, organizational cognition and organizational learning and organizational ambidexterity.

(1) Enterprise resources. Enterprise resources refer to the intangible and tangible materials owned by an enterprise at present that play a decisive role in the survival and development of the enterprise. They lay the foundation for the survival and development of an enterprise and provide a powerful guarantee for the formulation and implementation of enterprise strategies. In fact, changes in enterprise resources are one important reason for an enterprise to undergo strategic transformation. The unbalanced nature of various resources, however, tends to throw the original strategy out of balance. The allocation, utilization and

innovation models of enterprise resources are determined by enterprise strategies. In an increasingly complex and dynamic environment, more and more entrepreneurs and scholars realize that the time in which an enterprise maintains its competitive advantages supported by the current resources is constantly shrinking, which makes it necessary for the enterprise to carry out strategic transformation.

- (2) Enterprise innovation capability. The innovation capability of an enterprise helps guide it toward entrepreneurial transformation (Xu, 2010). Given the critical influence that enterprise innovation capability has over transformation and upgrading, most scholars regard the factors influencing the technological innovation of enterprises as the factors that indirectly affect their transformation and upgrading. From the perspective of the subject of enterprise innovation, Leonard-Barton (1992) considers innovation capability as a combination of various elements including the skills, technological system capabilities, management competencies and values of technical personnel and senior technicians.
- (3) Capability of enterprise strategic transformation (dynamic capabilities). The key to the success of strategic transformation lies in the acquisition and development of "enterprises' ability to accurately grasp the external environment" and "the matching of key resources with the external environment" (Rui, Hu, & Zhang, 2005). Having dynamic capabilities that match with environmental changes is the prerequisite for and key to the successful implementation of strategic transformation. Feng (2006), on the other hand, regards dynamic capabilities as the antecedent of enterprise strategic transformation or change that promote and ensure the success of enterprise strategic transformation. While Wang and Tang (2008) sum up the capability of enterprise strategic transformation into four categories: Environmental identification, resource integration, management and control and continuous innovation, Deng, Jiao, and Feng (2011) divide it into environmental insight, learning capacity, the ability to change and update and the ability to integrate and reconstruct. They analyze the capability of enterprise strategic transformation from four aspects: The sensitivity to and ability to recognize changing environments, the ability to acquire, digest and use existing knowledge to generate new knowledge, the ability to innovate and change and the ability to integrate and restructure resources so as to adapt to the transformation. These dynamic capabilities help enable a successful transformation by influencing the four key elements of enterprise strategic transformation, which are the accurate grasp of the direction and timing of the transformation, successful transformation strategy and its effective implementation, organizational and cultural changes that adapt to the transformation and adequate resources and their effective

allocation. The prerequisite for and key to the successful implementation of strategic transformation lie in enterprises' dynamic capabilities that are in accordance with environmental changes. By influencing the key factors of strategic transformation, dynamic capabilities determine to a large extent the effect of transformation. Moreover, the impact of dynamic capabilities on strategic transformation is an ongoing process of continuous improvement. Only by constantly fostering and enhancing its dynamic capabilities can an enterprise achieve smooth transformation.

- (4) Enterprise performance. The effect of the business performance of an enterprise should never be ignored. Enterprise strategies, after a corresponding period of implementation, will produce a comprehensive impact on corporate performance, resulting in a "performance gap" between the expected performance and actual performance. The bigger the gap, the more necessary it will be to adjust enterprise strategies (Chen, 2005). Nelson and Winter (1985) argue that the past performance of an enterprise is an important factor influencing strategic transformation. They believe that when the current performance of an enterprise shows improvement compared with the past, strategic transformation is generally not necessary. Otherwise, the possibility of strategic transformation is relatively high. Poor performance of an enterprise arises from the inconsistencies between enterprise strategies and the environment. The purpose of strategic transformation, therefore, is to constantly readjust enterprise strategies to adapt to the environment. In a word, enterprise strategic transformation is closely related to the current enterprise performance, which acts as another major influential factor in the process of transformation.
- (5) Organizational cognition and organizational learning. Organizational learning covers individual learning (changes of strategic concepts), team learning (changes in how teams operate) and organizational learning (flexibility of organizational structure, reengineering of corporate vision) (Feng, 2006). Enterprise strategic transformation is essentially a process of specific knowledge innovation, the purpose of which is to avoid a survival crisis caused by inconsistencies between the specific knowledge possessed by the enterprise and its external business environment. Hence, the key to successful strategic transformation of an enterprise is to ensure that the specific knowledge possessed by the enterprise can match its operating environment with strategic flexibility. Based on existing cognition of the internal and external environment, the organization anticipates strategies for a new development path, thus prompting enterprise strategic transformation. As one of the primary means to acquire new knowledge, organizational learning aims to continuously acquire enterprise specific

knowledge and knowledge of market changes and customer demands, and to influence the strategic transformation of enterprises through the transition of essential factors in China (Rui, Hu, & Zhang, 2005). Strategy formulation relies on continuous learning as the organizational environment is complex and unpredictable. Whether or not an organization can adapt to the new environment and achieve successful transformation is largely determined by organizational cognition, while the ability of the organization to acquire the new knowledge needed for and adaptable to transformation hinges on organizational learning. In conclusion, strategic transformation depends on both organizational cognition (Kaplan, 2011) and organizational learning (Ouyang, Zeng, Cui, & Zhai, 2016).

(6) Organizational ambidexterity. In the course of strategic transformation, enterprises are faced with various dilemmas. Organizational ambidexterity is thus needed to resolve the contradictions that arise in strategic transformation. One of such contradictions is the strategic dilemma between the "exploitative innovation" that develops and utilizes existing capabilities to improve current operational efficiency and the "exploratory innovation" that builds new capabilities to adapt to future development (Ouyang, Cui, Zhang, Zeng, & Hu, 2016). As enterprises face a more and more complex and changeable environment, it becomes increasingly important to balance these contradictory goals. Ambidextrous enterprises with the ability to use both exploration and exploitation techniques are more likely to achieve sustainable development (Jiao, 2011; Tushman & O'Reilly, 1996) and realize strategic transformation goals (O'Reilly & Tushman, 2004) than those with only one of the capabilities. In other words, enterprises need to strive to find a balance and intersection between fully exploiting original advantages to improve operational efficiency and exploring and innovating to adapt to the sustainable development of new products in the process of transformation, which means they have to strive to foster organizational ambidexterity, the ability to both explore and exploit. As pointed out by Smith and Lewis (2011) and O'Reilly and Tushman (2013), organizational ambidexterity is the key impetus for the strategic transformation of enterprises.

3. Entrepreneurial ability

When it comes to entrepreneurial ability, two things must be made clear: First of all, it is not just one kind of ability, but a collection of various capabilities. In other words, entrepreneurial ability is actually a capability set; secondly, entrepreneurial ability changes dynamically, which means in reality, different entrepreneurs may be equipped with different entrepreneurial abilities, and the same entrepreneur may master different entrepreneurial

abilities in different periods. Whether an enterprise can undertake a strategic transformation, what time it will be conducted and who will implement it is a decision made by the executive management of the enterprise. In addition, personnel changes in executive management will enhance the willingness to make strategic changes and bring new business philosophies and ways of thinking to the enterprise, directly or indirectly affecting corporate strategies and causing fundamental changes in the enterprise structure, system or culture (Hu, 2018).

(1) Board of directors. The board of directors, which plays an important role in making strategic decisions, is generally regarded as an important driving force behind strategic transformation. As indicated by Haynes and Hillman (2010), it is difficult to promote the implementation of strategic transformation with the social capital formed by the board of directors when the board wields inadequate power. Reaching a strategic consensus is the key to the implementation of strategies. Since strategic transformation usually leads to the redistribution of interests and status within an organization, each member of the strategic decision-making team (board of directors) will prefer specific transformation goals and paths based on their own interests and advantages. When power is distributed relatively dispersedly within the decision-making team, each member will exert influence on other members using their own power to achieve their preferred results, thus creating "tension" within the team, inhibiting the achievement of a strategic consensus and ultimately hindering the translation of strategic transformation tendency into strategic transformation action. Whereas, centralized power is more conducive to consistent behaviors that give impetus to strategic transformation (Gagnon, Jansen, & Michael, 2008). To implement a strategic transformation, the original strategic model needs to be broken and a new strategic model formed through the introduction of core elements such as new knowledge and new resources. Compared with the implementation of existing strategies, the decision-making and executing process of strategic transformation requires a broader system of information and knowledge. Therefore, the cooperation mechanism between decision-making teams is an important driving force for realizing strategic innovation and implementing strategic transformation (Peterson, Smith, Martorana, & Pamela, 2003). According to the study conducted by Zhou and Xue (2013), the characteristics of board power allocation are important variables affecting the strategic transformation decisions of enterprises. As different types of power subjects in the board of directors have different behavioral preferences, the concentration of power in the hands of different power subjects will have different influences on the strategic transformation of enterprises. Among them, the centralization of power among subjects of position and

knowledge power which is mainly manifested in political behaviors will promote the implementation of strategic transformation, while the subjects of equity and prestige power tend to display cooperative behaviors and power concentrated among them will curb the implementation of strategic transformation. Furthermore, different power subjects will select the transformation model that works in concert with their own interests and resources: the subjects of position power prefer strategic transformation oriented by "geographic expansion"; knowledge and equity power subjects prefer strategic transformation oriented by "management remodeling" and "value chain extension"; prestige power subjects prefer strategic transformation oriented by "non-related product market entry" and "management remodeling".

(2) Senior executives. First of all, senior executives should have a full understanding of the necessity of task differentiation and integration. They need to be aware of necessity to balance and combine the two mechanisms of differentiating and integrating contradictory tasks. If they fail to be cognizant of or focus on this, too much emphasis will be placed on one side, making it difficult to effectively adapt to the high demand of balancing a variety of strategic conflicts and complex task in the process of enterprise transformation. Second, it is an important prerequisite that the executive management team should effectively distinguish and integrate cognitive tasks. The first step is to distinguish cognitive tasks within the team: some members should be responsible for exploratory business areas that foster future profitability, while others will be put in charge of exploitative business areas that make good use of current profitability. Key managers of the executive management team (the CEO, for instance) should have the knowledge and ability to effectively integrate these differentiated cognitive tasks. Last but not least, the cognition of senior executives influences their judgment and selection of the object, timing and method of task differentiation and integration. Senior executives' perception of the ability of a particular business unit or team (to whom it is more appropriate to assign a task), their judgment of the timing of differentiation and integration (when to assign and when to integrate) and their understanding based on the management context and task characteristics (how to choose the appropriate assignment and integration approach) will largely determine the selection of the object, timing and method of task differentiation and integration, and ultimately affecting the outcome of ambidextrous development in enterprise transformation (Deng & Rui, 2013).

2.2.5 Risks in the implementation of enterprise strategic transformation

Strategic transformation is a difficult task in the medium and long term and cannot be achieved in the short term. As enterprises face too much uncertainty in the process of transformation and upgrading, they may lose competitiveness or even close down in the exploration of transformation and upgrading (Hu, 2009). Therefore, we must correctly understand the risks and obstacles in the implementation of enterprise strategic transformation and take risk prevention measures in advance.

Environmental uncertainty and enterprise competencies directly determine the risks of strategic transformation implementation (Mark, 2009). Environmental uncertainty is an external driver of strategic risks. The higher the environmental uncertainty, the greater the potential risks, and the greater the probability and possibility of strategic risks (Zhao & Wang, 2012). Certainly, the external drivers of environmental change are just an incentive of potential strategic risks. Only when the enterprise competencies cannot meet the needs of environmental changes after the implementation of the strategic transformation will the strategic risks of an enterprise be formed. If the environmental uncertainty after the implementation of enterprise strategic transformation is small and the enterprise competencies can meet the development needs after the implementation of strategic transformation, its strategic risks will be low or nonexistent; if the environmental uncertainty after the implementation of enterprise strategic transformation is high and the enterprise is able to timely adjust the use of resources and adapt to the development needs after the implementation of strategic transformation, there will be no major strategic risks; however, if the environmental uncertainty after the implementation of enterprise strategic transformation is high and the enterprise's resources and competencies are so rigid as to prevent the organization from adapting to environmental changes, the enterprise will face relatively huge strategic risks.

The environmental uncertainty after the implementation of strategic transformation is manifested as environmental pressure, and the rigidness of organizational resources and competencies is manifested as structural inertia. In the case of environmental changes, the existence of structural inertia causes the enterprise resources and competences to have a lagging effect. As a result, the enterprise and the environment do not suit or match each other, resulting in strategic deviation or decreased operational efficiency, which ultimately leads to strategic risks (Liu, 2004). First, the uncertainty of the strategic transformation implementation environment may have two external risks: market risks and technology risks,

which are external factors of strategic risks. However, the uncertainty environment will make the enterprise decision-making within a limited set of choices, often forming suboptimal rather than optimal solutions. In the case of relatively insufficient resources and capabilities, such external risks will induce strategic risks. Secondly, the ability of an enterprises to resist the pressure and impacts of the uncertainty of the strategic transformation implementation environment is an internal factor that determines the degree of strategic risks of strategic transformation. The reason for the risk of enterprise capability is that the rigidity of the enterprise's ability leads to "the structural inertia of the organization". This inertia makes it difficult for companies to respond quickly to environmental changes. Strategic decision makers may not be able to act quickly. As a result, corporate strategic changes fail to respond timely to environmental changes. When this affects the realization of organizational strategic objectives, we believe that the enterprise is facing internal risks of organizational resilience, which directly lead to strategic risks. Jia & Zhang (2012) divided the possible risks in the process of enterprise strategic transformation into three types: The risk of abandoning resources due to the failed matching relationship between an enterprise's original resources and its old strategies; the risks of for an enterprise to acquire new resources in order to adapt to the new strategies; and the risk for an enterprise to establish a matching relationship between its resources, new strategies and the original resources.

The risk of abandoning resources. When the enterprise environment changes, enterprises have to make adaptive strategic changes, and the "core competencies" that once brought competitiveness to the organization may become "core rigidity" (Chen & Liu, 2005). With the change of corporate strategy, the enterprises have turned their target to other products, business models and even other industries. The heterogeneity of resources that once brought core competitiveness to enterprises will gradually be corroded, and enterprises have to choose to abandon them. We call this process the "resource abandonment process" (Jia & Zhang, 2013). However, it is not easy for enterprises to successfully abandon these failed resources. The commitment of enterprise resources to the original strategy will very likely become a hindrance to enterprise strategic transformation, resulting in resource inertia. Resource inertia refers to the rigid resources resulting from the resource commitment between resources and the current strategies as well as specific applications for a long time. It is the result of long-term resource accumulation. In the process of resource abandonment in enterprise strategic transformation, the uncertainty in the process of resource change mainly comes from resource inertia. It determines whether a transformational company can successfully abandon

resources that do not match the current new strategies. This transformational risk caused due to resource inertia can be defined as "resource inertia risk". Once an enterprise chooses another sector or industry as its development objective and chooses to produce different products, the machines and equipment it purchased before will no longer be useful in new production. Therefore, resource inertia risk will produce negative impacts on the decision-making and implementation of enterprise strategic transformation.

The risk of acquiring resources. The acquisition of resources is a necessary step for enterprises to seek survival and development. How to acquire resources, what resources to acquire and whether they can successfully obtain the needed resources will play a vital role in the successful implementation of strategic transformation. Due to such factors as market uncertainty and information asymmetry, enterprises face enormous difficulties in acquiring resources (Birley, 1985). This mainly includes the following four aspects: First, whether enterprises can correctly identify the resources they need; second, whether enterprises have sufficient funds to purchase their needed resources; third, in addition to the explicit resources that can be purchased, how can enterprise acquire hidden resources; fourth, whether enterprises can build new network links at the initial stage of strategic transformation or whether the enterprise network just established can remain stable.

The risk of integrating resources. After enterprises obtain resources through various channels, they must go through the "resource integration process" in order to effectively utilize resources and ultimately gain competitive advantages (Hitt, Biermant, Shimizu, & Kochhar, 2001). The "resource integration process" refers to the process by which an enterprise creates a new commitment to its corporate strategy through the activation and organic integration of its owned resources. Its role is characterized as follows: First, realize the integration of resources acquired by an enterprise from external sources and the internal resources of the enterprise, and activate the internal and external resources of the enterprise; second, integrate the new resources with the traditional resources to eliminate the rejection reaction between them while improving the utilization efficiency and efficacy of the enterprise resources; third, help the new resources of the enterprise to better establish a new commitment to the new strategy of enterprise transformation, namely, to match the resources with the strategy.

Xiang, Chen, & Li (2012) believe that the operator's human factor risks are one of the major risks of continuous innovation. The operator's human factor risks refer to the possibility for an enterprise to suffer losses due to the target deviation caused by the operator's personal

reasons in the process of continuous innovation. Such risks mainly include the moral hazard and ability risk of the operator (Xiang, Wu, & Yang, 2010). In the process of continuous enterprise innovation, the morality and ability of the operator will undoubtedly have an important impact on the formulation and implementation of strategies as well as the implementation and control of major projects. Once the operator's human factor risks break out, significant losses must be caused to the enterprise's continuous innovation, and continuous innovation might even be terminated as a result.

Jia and Zhang (2013) believe that there are different forms of redundant resources within enterprises, and the redundant resources are different, which also play a different role in the strategic transformation of manufacturing enterprises. The more the dedicated redundant resources, the higher the possibility and success rate of the strategic transformation of manufacturing enterprises. However, there is a positive U-shaped relationship between general redundant resources and the strategic transformation of manufacturing enterprises. A small number of general redundant resources can be regarded as a buffer to deal with external environmental uncertainty, which helps enterprises maintain their current operational status and inhibits the willingness of enterprise strategic change to a certain extent; however, when the general redundant resources accumulate to a certain extent, they will play a positive support role in the decision-making and implementation of the strategic transformation of manufacturing enterprises.

Tu and Huang (2008) summarized the risks and obstacles in enterprise strategic transformation into four aspects: Organizational inertia, sunk cost, entrepreneurs' balance of interests and attitudes toward risks. a) Organizational inertia. Organizational inertia can influence enterprise strategic transformation from Organizational structure, management style and corporate culture three aspects. b) Sunk costs. The existence of sunk costs will form a barrier to enterprise strategic transformation, preventing enterprises from smoothly entering or exiting the market or industry. c) Entrepreneurs' balance of interests. As to entrepreneurs' balance of interests and bounded rationality in practice, when enterprises make strategic transformation, most senior managers will inevitably weigh between their own interests. If changes will cause harm to their personal assets or positions, they may strongly resist such changes. d) Attitudes toward risks. Decision makers differ in risk appetite. Some decision makers are willing to take risks, while others are conservative and evasive. Enterprise senior executives tend to continue using previously successful and enhanced behavioral models, including models that enhance individuals' promotion, prestige and interests, rather than

risking implementing new strategies that appear to be more beneficial to the business. Because if the new strategies turn out to be unsuccessful, they will be responsible for the loss. In order to avoid risks, managers may resist high-cost and high-risk actions.

2.3 Review and comment of path dependence theory research

The research on path dependence is still a frontier field at home and abroad. Starting from explaining the technological changes in economic activities and the long-term changes in the social macro-institutional structure, path dependence is widely used in different fields of social sciences, becoming one of the tools for explaining new economic phenomena. At present, studies on path dependence involve multiple disciplines, multiple fields and multiple levels. Scholars have expounded path dependence from such perspectives as technological innovation, institutional evolution, national strategy, regional industrial development, enterprise transformation and corporate governance.

2.3.1 Path dependence in technological change

Path dependence theory was first introduced into the field of economics to explain problems in technological change (David, 1985). In other words, technological change has the characteristics of self-reinforcement and path dependence. Influenced by initial conditions, a system evolves along a certain path until its form is difficult to change automatically after the self-reinforcement process. According to path dependence theory, a new technology that developed first will usually be able to achieve a virtuous cycle of increasing returns with its first-mover advantage as a result of the self-accumulation and self-enhancement nature of technological change, the decrease of unit cost due to the large scale, the learning effect and coordination effect caused by universal popularity, and people's expectation for its further popularity (Zhou & Wang, 2006). On the contrary, a technology with better quality than others may be stuck in a vicious circle due to the lack of enough followers caused by its late entry or even be locked in a certain passive state and unable to get out (Wang & Xi, 2007). Due to the irreversibility of technology investment and the existence of technology conversion costs, technological change has path dependence. Technologies are sometimes determined by incremental rewards and accidental events rather than just efficiency-based choices. Therefore, popular technologies may be inefficient. The path dependence in technological change often has the following three typical characteristics (Du, Gao, & Zhao, 2004).

- (1) Uncertainty. Technology development "depends on the initial conditions" and is determined by external contingency events. It is not possible to determine which technology to choose in advance from the original multiple competitive technologies. For example, in the early 1980s, personal computer operating systems included CP/M, DOS and Apple's Mac system. CP/M first entered the market. In comparison, the Mac system entered later, but it was very easy to use. And DOS was the operating system Microsoft decided to provide for IBM personal computers in 1980. It was impossible to predict which operating system would be popular beforehand.
- (2) Technology "lock-in". Once a certain technology gains an advantage in the market, it will continue to reinforce and improve itself, until dominating the market, when the initial multi-selectivity and uncertainty will disappear, making the direction of technological development "locked". As the number of DOS/IBM users continued to increase, such well-known software developers like Lotus were willing to write programs for DOS. The popularity of DOS contributed to its further success. As a result, its position in the market was further strengthened and its technology was thus developed and became the dominant technology, while other operating systems could hardly shake its leading position.
- (3) Non-optimality. A technology is "locked" due to an initial contingency, and this technology is not necessarily optimal among the competitive technologies. The DOS system "locked" by the market has been ridiculed by professionals and evaluated as the least promising technology.

Li and Cao (2009) believe that the evolution of complex technology systems has path dependence. Complex technologies refer to technologies that cannot be understood by individuals. No matter how professional the individuals are, no single individual can fully understand the details of the technology. If the degree of complexity is so high that it is impossible to deconstruct it, there will be strong path dependence. The innovation of complex technology systems is a process of continuously breaking through path dependence and creating new paths, in which different organizational learning strategies are involved. Progressive innovation is a pulling innovation model, which means under the pull of the market demand side, to explore the potential of existing designs and make minor or simple improvements to existing products, the result of which tends to be the consolidation of the market position of existing enterprises. Under the progressive innovation model, organizational learning focuses only on the issues that need to be addressed in the next step. Therefore, the learning strategy tends to be a kind of "local search", or in other words,

searching for schemes in the neighborhood of the current field or the knowledge range, which invisibly cultivates the path and convention of searching and learning in the organization. And "conventions will drive away thinking". As time goes by, the practice of relying on local search strategies to make incremental innovation will inevitably limit an organization's technological development to a certain track, hinder innovation, and ultimately lead to path dependence.

Xu, Li, and Shi (2017) found that before 2000, the overall technical strength of China's wind power industry was very weak. Due to the constraints of its own innovation resources, the late-stage enterprises as followers were subject to many constraints posed by leading companies in technology and market, trapped into the path dependence and innovation catch-up trap characterized by "introduction –lagging behind-re-introduction –lagging behind again".

Chen and Dou (2018) found that in the context of globalization, China's wine industry has formed technological dependence and self-reinforcing inertia, resulting in the loss of technical efficiency in industrial development and the slow pace of technology development to the best production boundary. The locking effect of technological efficiency in China's wine industry is obvious, the locking effect of total factor productivity is weak, and the low-level human capital becomes the main influence channel of opening (import) to technological efficiency and total factor productivity.

Yang (2008) believes that path dependence makes technological innovation develop along a certain path, which is to the advantage of the development of existing technologies, yet to the disadvantage of the emergence and growth of other technologies. As a result, the strong grow even stronger and the weak become even weaker. Therefore, the existence of path dependence tends to put latecomers in a more disadvantageous position in technological innovation. Under the existing path, the first-mover enterprises occupy a dominant position, with relatively strong technical strength, rich knowledge accumulation and innovation experience, and a relatively stable market position, making latecomers unable to compete with them in these aspects. Therefore, in the period of stable development of the existing path, it is difficult for the late-coming enterprises to gain an advantage in innovation.

2.3.2 Path dependence in institutional change

Institutional economics considers institutions to be important. In other words, it emphasizes the importance of institutions to efficiency and different systems correspond to

different efficiencies. Therefore, institutional changes can lead to changes in efficiency. Institutional change refers to the process of "replacement, transformation and transaction of institutions, usually a transition from a relatively inefficient institutional arrangement to another relatively efficient institutional arrangement" (Lu, 2000). North (1990) argues that the process of institutional change is much more complicated than the process of technological change due to economic, political, and cultural factors. An economic system is formed by the occurrence of certain historical events. In the process of system formation, high costs are often paid. Even if other economic systems are more economically rational or more efficient, it is very difficult to choose another new economic system by abolishing this economic system formed by the advancement of historical events. In other words, institutions have the characteristics that hinder arbitrary structural changes (Selznick, 1957). The formation and development of economic systems often have the characteristics of path dependence (Jiang & Chen, 2005).

Path dependence refers to "a self-reinforcing mechanism of a system. In other words, once a system is selected, the system itself will produce a mechanism of self-defense and reinforcement, so that the cost for reversing and withdrawing from the system gets higher and higher as time goes by" (He, 2004). The path dependence characteristics of institutional change shapes the path dependence trajectory for the long-term economic development. It reveals to us the fact that history is crucial, and past historical behaviors will have an impact on the current choices. Our past institutional choices are related to today's institutions. They collectively limit and determine possible future options. Path dependence is not so much an inertia as it is a constraint to the current set of choices imposed by past historical experience.

In the course of institutional change, there are also mechanisms of incremental returns and self-reinforcement (scale effect, learning effect, coordination effect, adaptive expectation effect). Once this mechanism makes the institutional change embark on a certain path, its intended direction will be self-reinforced in later development. In other words, the choices people make in the past determine their possible choices at present. There are two outcomes to this choice:

First, along the established path, changes in economic and political systems may enter a virtuous cycle and be rapidly optimized. On this basis, various factors (externality, organizational learning process, subjective imitation) are interdependent and mutually reinforcing. Organizations should be allowed to choose the maximized goal under uncertain environmental conditions. They should also be allowed to conduct various experiments,

establish effective feedback mechanisms, identify and eliminate relatively ineffective choices, and protect organizational property rights so as to create long-term economic growth.

Second, when the increase in returns cannot occur universally, institutional changes will move toward the direction of non-performance and hinder the development of production activities. There will also emerge some political organizations that maintain the existing system as well as some organizations and interest groups that coexist with the existing system. This trend will continue until the whole eventually gets locked in an inefficient state and demonstrate the "Matthew effect". Once path dependence is formed, institutional changes may produce the effect of "tunnel vision". It is very difficult to get away from it. At this time, it is often necessary to use external effects to introduce exogenous variables such as induced or mandatory institutional changes to overcome this path dependence.

Zhang (2015) believes that the transformation of China's local government functions is not complete despite the long process. This is exactly caused by the path dependence of institutional changes during the transformation of local government functions. a) Residues of traditional systems. The transformation of China's local government functions is actually in an institutional environment characterized by the mix of some systems under the old-fashioned planning system and some systems under the immature market system. The scale of government organization and the pressure of administrative affairs are heavy. The influences of the planned economic system have not been completely divested, including influences from such informal systems as conventions and customs, as well as the power-based thinking under the traditional concept. b) Restraints by the rigid system structure. The top-down vertical government hierarchy leads to a mismatch between power of office and power of finance as well as constraints on the official promotion mechanism and the government accountability system. c) Obstruction by the solid power structure. The hierarchical government follows the rules of top-down power distribution and being responsible for leaders. d) Obstruction from the powerful interest group. After a system is formed, a pressure group with vested interests in the existing system will also be formed. They seek to consolidate existing systems and hinder further reforms, even if the new system is more efficient than the existing one.

Zhou and Wang (2006) believe that path dependence affects the development of Chinese private enterprises from four aspects: a) The initial property rights system arrangement. Under the premise of diversified investment entities, the ownership, management rights and control power of private enterprises are still highly concentrated in the hands of the family, and the

property rights relations can hardly get rid of the intervention of family blood relations. Personal property ownership is often not distinguished from corporate legal person ownership. The corporate legal person ownership is deeply interfered and controlled by private ownership. The enterprise does not operate effectively in accordance with the standard corporate entity. b) Defects of the governance mechanism. The main investors and main managers of private enterprises still overlap, and family management is prevalent. Bounded personal rationality increases the risk of business operations. Due to family relations, decision-making cannot be optimal, which seriously restricts enterprise transition from the entrepreneurial stage to the mature stage, bringing great uncertainty to enterprise future operations. c) Constraints by the social environment. The market access treatment of private enterprises is still low and unfair, and constraints are the most. There are many project approval steps, complicated procedures, and many checkpoints, making the whole process time-consuming. This tends to put private enterprises in a disadvantaged position in terms of competition qualifications, competition conditions and competition opportunities when competing with foreign-funded enterprises and state-owned enterprises. d) The constraints of cultural traditions. Negative phenomena such as strict hierarchy, arbitrariness, ties, and backdoor operations in traditional culture have seriously hindered the development of private enterprises.

Jiang and Chen (2005) believe that from the perspective of the government, the path dependence of the economic recession in the three northeastern provinces of China includes the following four aspects: a) The government thinking is lagging and the ideological transformation is rigid; b) The existing cost-sharing mechanism makes the government continue path dependence and lack institutional innovation; c) The long-term operation of the traditional system has created the vested interest groups of the existing system; d) Marginal cost and risk increase exist in government system innovation.

2.3.3 Path dependence in organizational structure

Many studies related to organizational inertia and historical imprint use path dependence to study organizational rigidity, organizational coherence, and organizational inertia (Li & Lin, 2012). According to the theory of evolutionary economics, path dependence is a necessary condition for an organization to survive and accumulate resources. The organizational structure system endogenously contains the characteristics of path dependence. The path dependence of organizational structure is a "double-edged sword" that can produce both positive and negative effects.

- (1) Path dependence helps to improve organizational operation efficiency. The effective operation of an organization relies on a set of rules and norms that serve as the most basic coordination tool within the organization. A stable organizational structure is conducive to the survival and development of the organization. When an organization can operate reliably and its behavioral activities are explicable, organizations with certain inertia can survive fierce competition. This is because the reliability and accountability of the organization guarantees a high degree of reproducibility of the organizational structure and contributes to an institutionalized, standard and stable organizational structure (Hannan & Freeman, 1984).
- (2) Path dependence causes an organization to be slow in response to environmental changes. Path dependence cause inertia in an organization, making the organization slow in reacting to changes in the external environment. It will also become a fetter of organizational structure changes that resists the pressure of organizational structure changes. Besides, due to the impact of the lock-in effect, organizational managers and employees follow the usual behavioral patterns that are continuously replicated and solidified within the organization (Lin & Li, 2012). When managers and employees accumulate skills in a certain activity and have formed habits, the cognitive inertia in the mind or action inertia will produce an effect. As a result, they will tend to choose those faster and more reliable solutions with lower risks, as well as leverage and develop known knowledge and experience to complete similar organizational activities (March, 1996), thereby making the organization fall in the familiarity trap, the maturity trap, and the propinquity trap (Ahuja & Lampert, 2001).

Jian and Yi (2001) as well as Zhao, Liu, and Tan (2009) classify enterprise inertia into two categories, namely, organizational internal inertia and competition inertia (inertia at the organizational strategy level): a) Organizational internal inertia refers to the inertia an organization has in structure, policy and management philosophy. b) Competition inertia refers to the level of activities exhibited by an enterprise in changing its competitive situation. It reflects the degree of changes in the market orientation that an enterprise makes in an effort to attract customers and surpass competitors. For competitors of similar scales, those that make fewer changes in practice have higher inertia.

Wang, Li, and Wang (2004) divide the specific origin of organizational inertia into four sources, namely, organizational resources, organizational structure, enterprise employees and corporate culture. a) Organizational resources. Enterprises create values and foster sustainable competitive advantages through some rare resources and the resources that can hardly be imitated by competitors. b) Organizational structure. It includes the inertia of enterprise

institutionalization and standardization, the inertia caused by vertical hierarchy, and the inertia caused by the coupling relationship between horizontal organizational departments. c) Enterprise employees. For managers, the bounded rationality of cognition is the main reason for inertia; for employees, the conversion cost of new skills and anxiety are the important reasons for inertia. d) Corporate culture. Organizational culture must be "strong" and have stable, strong, and widely-accepted, coherent, unified, and clear features. In the case of stable business, this culture helps to strengthen the role of the management control system, thus more effectively maintaining the internal consistency of the organization and coordinating the behaviors of the organization members; but when the external environment changes greatly, the consistency of employees' cognition and behaviors formed under this strong culture will seriously hinder employees' acceptance and recognition of new things and new ideas, thus hindering the implementation of organizational changes.

2.3.4 Path dependence on the national level

The application of path dependence on the national level is often about explaining the reform of the government's economic system and state-owned institutions.

Meng (2007) summarized the current path dependence problems in China's economic development into the following six main aspects: a) Growth model. China has been following the extensive development path, relying on fixed asset investment to stimulate economic growth; b) Fragmented economy. The fragmented economy characterized by different provinces has had its drawbacks for a long time where local governments protect local enterprises; c) Assessment system. Leaders and cadres mainly look at GDP when making assessment; d) Mutual comparison. The current system encourages different localities to compete for champions. Whoever wins the competition will have the say; e) Government functions still bear the traces of the planned economy period; f) The price system. Factor prices are seriously distorted. In the planned economy period, in order to adapt to the development of the heavy industry, the government usually lowered factor prices, leading to the profit illusion where there are substantial resources and capital input with low efficiency.

Xiang (2017) believes that "path dependence" hinders the reform process and is one of the reasons for the formation of national paradox. A state does not always promote development or maintain the positive factors of national welfare. Sometimes it may be the root cause of development stagnation or even recession. Inefficient economy and bad government may exist. The existence of state is the key to economic growth. Yet state is the

root cause of man-made economic recession. One of the important contents of the adjustment of the food safety management system is the integration of inspection capabilities. However, there are no successful case of complete integration across the country. All departments prefer to maintain low levels of duplication, narrow coverage, insufficient capacity, insufficient early warning, and lack of talents rather than being willing or courageous to form an alliance or delegate power to market-oriented third parties. In countless departments and work links, the establishment of systems was originally meant to help the administrative departments better serve the people. However, the idea of putting department interests first and lowering personal risks to the minimum has made many departments and staff members mistakenly regard the already backward system as the goal of work, while forgetting or ignoring the initial purpose when the system clearly no longer suits the service needs.

The development of China's high-tech zones has serious path dependence, which severely constrains the transformation of innovation methods and the improvement of independent innovation capabilities (Liu & Zheng, 2016). Introducing high and new technologies and making use of the scale effect of industries to form the manufacturing capacity and scale of high-tech industries is one of the two preset development paths in the early stage of the development of high-tech zones in China. Practices show that, due to the limited technologies and resource endowment at that time, this path is an effective way to promote the rapid development of China's high-tech zones in the early stage of entrepreneurship. However, in the long run, this way has defects and risks. As technology importers, China's high-tech zone enterprises are in a naturally weak position. Due to the lack of core technologies and intellectual property rights, they long remain at the low end of the industrial chain. In particular, with the shortening of the lifecycle of science and technology, domestic high-tech zone enterprises continue to strengthen their path dependence of technology introduction. At present, some enterprises in China's high-tech zones are locked in a way of innovation: "Introduction of technologies → locked in the low end of the value chain → insufficient R&D investment → insufficient independent innovation → re-introduction of technologies." The reason mainly includes three aspects: First, China's high-tech zones adopt a vertical governance model characterized by the combination of "catalog management" by the Central Government and "localized management" by local authorities. The two sides differ in goals and motivations; second, assets specificity leads to high adjustment cost and high conversion cost, which constrain the realization of innovation; third, a true and complete regional innovation culture has not yet been formed. The current culture does not match the

innovation method.

Guo and Ren (2013) explored the multiple path dependence and locking effect of China's economic development mode. Due to the existence of the positive feedback mechanism, China's economic development mode has multiple path dependence during transformation, thus locking China's economic development mode into the pattern of "high investment, high consumption, high pollution and low benefits", which has further formed the basic characteristic of the coexistence of high speed and low quality in China's economic growth. These characteristics are mainly manifested in the dependence of economic growth on high investment, external demand, cheap labor, real estate and resource environment. The root cause of this multiple path dependence is the constraints by institutions and mechanisms, including factor pricing mechanism, market operation mechanism, government performance appraisal mechanism as well as fiscal and tax incentive mechanism.

Tang and Qi (2018) and Liu and Xi (2018) focused on research from the perspective of state-owned enterprise reform. They believe that state-owned enterprises have accumulated unique institutional characteristics in their historical development, and these institutional characteristics will form an inherent institutional path out of inertia. Due to the trouble and influences caused by such issues as market failure, conversion cost, the vested interests of interest groups, self-reinforcing mechanism, informal system, current status deviation, endowment effect, entrustment-agent, soft budget constraint, diversification of enterprise objectives and weakening of the incentive and restraint mechanisms, inertia has led to the inefficient institutional characteristics of state-owned enterprises, and the ownership structure of state-owned enterprises is still "locked" in an inefficient or sub-optimal state. The roots of these inefficient institutional characteristic are mainly reflected in the incentive distortion of state-owned enterprise leaders under the mix of the government and enterprise functions, including the serious administrative management caused by the mix of the government and enterprise functions, low resource allocation efficiency caused by the blind pursuit of business scale, and insufficient motivation for entrepreneurs.

Liu, Zheng, and Hu (2016) explored the path dependence of China's OEM enterprises. China's OEM enterprises have achieved rapid revenue growth through the introduction and study of foreign technologies. However, for a long time, Chinese enterprises have been subjectively focused on technology introduction, while neglecting digestion and absorption, resulting in repeated introductions and continued dependence on foreign technologies (Tao & Li, 2008). As OEM and homogenous competition intensified, functional upgrades involving

design and marketing were likely to infringe on the core competencies of multinational buyers. Buyers would suppress and hinder, often causing China's OEM enterprises to be locked in the low-value manufacturing links (Huang, He, & Nie, 2006). OEM enterprises generally exhibit the path characteristics of "technological imitation-arbitrage-low-cost competition" (Lai, 2012). If Chinese companies are only satisfied with the production of simple labor-intensive products without the initiative to acquire or master core technologies, they are likely to form technological path dependence, which will inevitably limit future upgrading capabilities. For OEM enterprises, the biggest challenge is to avoid falling into core rigidity or capacity traps in order to avoid losing sustainable competitive advantages.

2.3.5 Path dependence on the regional level

Path dependence is an important concept for understanding the evolution of economic and social systems. It also has obvious geographical implications. Economic geographers have long recognized the "path dependence" of economic geography. Grabher (1993) explicitly introduced path dependence into economic geography for the first time and analyzed the reasons for Ruhr Industrial Base to be "locked". Since then, path dependence has been widely applied to the analysis of major issues in economic geography and regional economics such as unbalanced regional economic development, industrial space evolution, the decline and recovery of old industrial areas, urban growth, regional competitiveness and the formation of high-tech industrial clusters.

In economic geography, a distinguishing feature of path dependence is "place dependence" (Martin & Sunley, 2007). Massey (1995) pointed out that the imbalanced regional economic development is formed in the long course of history. He believes that the historical heritage formed by the economic space development process will affect the development of the present and the future, which, nevertheless, does not mean that a country or region can always maintain absolute competitive advantages. Yin, Liu, and Liu (2012) believe that there are two path dependence effects in the course of local economic development: One is the positive path dependence effect driven by enterprise spin-off and agglomeration economy, which leads to the continuously increased degree of specialization and gradual increase in returns. And as a result, competitive regions become more and more competitive, while rich countries and regions richer and richer; the other is the negative path dependence effect caused by over-specialization and the neglect of external connections. This tends to make the interests of national and regional economic development entities bundled in

some specific industries, thus ignoring the cultivation and development of other new industries. In addition to serious neglect of the external market and technological changes, these countries and regions may finally be trapped in a "vicious cycle of poverty" and decline.

He (2018) believes that industrial agglomeration is one of the manifestations of path dependence at the regional level. The reason for the formation of industrial clusters is the entry of enterprises. The more local enterprises there are, the more new enterprises will enter. The high entry rate of enterprises has a demonstration effect, guiding potential entrepreneurs to start businesses there. The spin-offs inherit superior capabilities from their parent companies and will become more competitive than other entrants. Through enterprise spin-off, clusters will form. Therefore, industrial clusters are a result of enterprise spin-off. Evolutionary economic geography also explores the lifecycle of clusters, especially the endogenous processes of how successful clusters decline. When an industrial cluster is formed, the heterogeneity of enterprise capabilities will increase before decrease, because enterprise capabilities will converge as enterprises participate in competition, learn from each other and build exchange networks. If this trend of convergence continues, the cluster vitality will decline. Enterprises gather in industrial clusters because of the "charm of geography". Some industrial clusters have a very good reputation because successful enterprises are attractive to other companies and being with successful enterprises will increase their visibility and "legitimacy" of location choices. An exploration of the factors influencing China's regional industrial evolution through the established measurement model found that both regional transformation industries and new industries have a significant correlation to the existing industrial structure, which verifies the spin-off process of regional industries. In other words, regions tend to develop industries that have a strong correlation to the original industries, which shows that China's regional industry evolution has path dependence.

Fu (2018) explored the path dependence of local industry development. Under the background of gradual reform, China's development strategy and initial structure in the early stage of the Reform and Opening-up will form further constraints on the subsequent reforms. Path dependence is contextual and local, and the degree of path dependence actually depends on previous reform strategies and the local rooting characteristics they lead to (Martin & Sunley, 2006). In China, the way of economic organization of cities with weak industrialization base in the early stage of the Reform and Opening-up will develop into the key groups of local production and form specific enterprise practices. The conflicts between the interests of these group and the reform goals will inevitably increase the complexity of

reform and slow down the reform process. In particular, when these groups have strong local roots in history, they will form systematic resistance to reform. Besides, studies on old industrial areas indicate that local industrial entities dominated by large enterprises tend to cause political lock-in, leading to excessive government support for inefficient industrial enterprises (Granovetter, 1992). The way local governments participated in industrialization in the early stage of China's Reform and Opening-up determines the differences in background, knowledge and capabilities between entrepreneurs, and will also influence local development paths by influencing enterprise practices. Due to the existence of path dependence, once a region's economic development is locked in a specific industrial structure, this region will gradually lack innovation capability (Han, 2010).

Miao, Hu, Geng, and Miao (2018) used 116 resource-based cities in China as the analysis objects of an empirical study, which found that: The path dependence level of China's resource-based cities is higher in the north, and the evolutionary path of resource-based cities can be divided into three types, namely, trend lock-in, trend unlock and random change. Besides, under different macroeconomic conditions, path dependence plays different roles in the economic growth and transformation of resource-based cities. In the period of rapid macroeconomic expansion, the influence of path dependence is not obvious; entering the economic new normal stage, the hindrance effect of path dependence on growth manifests itself. Finally, path dependence is strongly influenced by the size of population and the proportion of state-owned enterprises. Cities in the north and the inland as well as coal-based cities are more likely to form high path dependence.

By collecting the panel data of 108 prefecture-level cities in the Yangtze River Economic Belt from 2003 to 2015 and using Pearson correlation coefficient and regression analysis, Mi et al. (2018) described the path dependence pattern and evolution of the ecological civilization development of the Yangtze River Economic Belt. The research results suggest that there is strong path dependence in the ecological civilization development in the short term. Therefore, cities should recognize that the ecological civilization development is a gradual process and that it is extremely difficult to realize the ecological civilization development in the short term. Besides, regions that cannot establish a new kind of benign interactive relationship of ecological civilization are more likely to fall into the relationship lock-in of their original development paths. Moreover, the regions with more economic and social system foundations in the Yangtze River Economic Belt are less inclined to change their development paths.

2.3.6 Path dependence on the corporate level

Either the economic development of a country or a region or the growth and expansion of an enterprise is, in essence, a process of technological evolution and institutional change (Song & Liu, 2006). Since technological evolution and institutional change have the characteristics of path dependence, the choice of initial technologies and institutions are of great importance. It will make technological evolution and institutional change embark on a specific path. And regardless of its performance, there will be dependence on the path (Han, 2010). In the late 1990s, some scholars began to examine the evolution of corporate governance from the perspective of path dependence. Path dependence theory gained further development in the field of corporate governance.

In a world where time is irreversible, the growth of an enterprise is intrinsically tied to history, and path dependence exists in the course of enterprise development (Zhou, 2005). An enterprise's stock of knowledge at any time comes from its continuous accumulation of new knowledge in the past learning process and its rejection of the old knowledge that has lost value. Such knowledge determines the enterprise's abilities, development direction and "institutional" framework, so that the enterprise's way of thinking, style of work, as well as the identification of new issues and the choice of solutions all bear obvious historical continuity characteristics. Enterprises and organizations just operate according to conventions, and conventional operations involve a comprehensive truce of internal conflicts within the organization. An enterprise's convention involves multiple levels, such as role positioning, responsibility determination and interest coordination among various members. These conventions represent the valuable experience of an enterprise's successful response to environmental changes and achievement of satisfactory returns in the past. In order to guarantee their vested interests and out of the fear for the chaos after the truce, members of an organization resist various changes. Organizational inertia originates from organizational resources, organizational structure, enterprise employees and corporate culture (Wang, Li, & Wang, 2004).

An enterprise's business growth process also bears the characteristics of path dependence. Such characteristics are manifested in that the main factors influencing enterprise growth bear the characteristics of path dependence (Song, Xu, & Gao, 2004). The growth of an enterprise is inseparable from technological evolution and institutional change, while technological evolution and institutional change have the characteristics of path dependence. Besides, the growth of an enterprise is also influenced by entrepreneurial behaviors, core competences,

entrepreneurial organization structure, entrepreneurial strategies and entrepreneurial resources, and these influencing factors also bear the characteristics of path dependence. As a result, the growth of an enterprise bears the characteristics of path dependence.

The choice of an enterprise's growth strategy presents the characteristics of path dependence because it depends, to a large extent, on the resources within the enterprise (Pan & Lu, 2003). The results of a questionnaire survey among 324 small and medium-sized industrial enterprises and interviews with key enterprises indicate that the profitability and financial resources, product quality, human resources, self-research and development capabilities, public bargaining power and other resource factors will have an important impact on the enterprise's choice of growth strategies. Besides, the degree of influence of external environmental factors on strategic choices decreases with the accumulation of heterogeneous resources owned by enterprises.

The organizational structure model has certain continuity, namely, path dependence (Xu, 2013). In the process of enterprise or organization change, "history always plays a role". The successful reform experience in the past will affect an organization's decision-making in future changes, making organizational change present a form of path dependence. There are many reasons for the formation of a path, involving political, economic, social, psychological, cultural, historical and other disciplines, as well as technological, institutional, organizational and other different levels. For organizational change to break through path dependence, the resources, capabilities, knowledge and culture owned by the enterprise must be taken into consideration, together with external changes; implementing organizational change requires not only the determination of the behavioral subjects, but also the awareness, understanding and joint efforts of the internal members of the organization so as to eliminate interest groups' boycott and form shared beliefs and values; the dependence, interruption, breakthrough and creation of the path of enterprise strategic management change are a continuum, and the entire activity process continuously repeats itself.

The formation process of an enterprise's core competencies also has the characteristics of path dependence (Pi, Cheng, & Ding, 2002). These core competencies include value superiority, heterogeneity, inimitability and irreversibility of investment. Under the global value chain-based production system, manufacturing enterprises in developing countries mainly participate in international division of labor by means of OEM. OEM has become a model for the survival of large and medium-sized manufacturing enterprises in China's economically developed coastal areas (Lin, Ren, Dong, & Su, 2014). However, it is precisely

because of enterprises' dependence on OEM that the path dependence of technological innovation was formed and enterprises fell into the competence trap, resulting in the weak ability to cope with dynamic environmental changes. More and more people believe that in order to reduce the path dependence of technological innovation, OEM enterprises need to actively engage in new knowledge utilization and product development in new technology fields.

The decision-making of an enterprise's new product positioning demonstrates the characteristics of path dependence (Wang, 2016). An analysis of the decision-making of new car model positioning based on the information collected from 530 car models produced by Chinese car companies from 1998 to 2013 and the product space constructed with the attribute price model suggests, the decision-making of new product positioning of car enterprises exhibit the characteristics of "path dependence". In other words, new models are close to the existing models of the enterprise; enterprise resources have a regulating effect on the "path dependence" characteristics; local enterprise and foreign-funded enterprises have no difference in "path dependence".

2.4 Influences of path dependence on the implementation of enterprise strategic transformation

Changes in the business environment can quickly change the competitive position and strategic position of an enterprise. A core issue of strategic management is to study the adaptability of enterprises and respond to competition and market changes. A large number of facts show that when strategic transformation becomes necessary, enterprises must overcome organizational inertia and maintain the existing management logic with internal consistency (Jian, 2001). Therefore, in the process of implementing enterprise strategic transformation, there seems to be a contradiction between core competitiveness and path dependence that is hard to reconcile (Huang & Xu, 2014). On the one hand, enterprises need to use transformation to cultivate and enhance their core competitiveness and develop competitive advantages hard for others to imitate. So, in the process of development, they must focus on the accumulation of knowledge, experience and abilities, especially the tacit knowledge that is difficult to transmit and imitate. It is an important source of enterprise competitiveness. And the enterprise's sustainable development strongly depends on it; on the other hand, the accumulation of various factors will form path dependence, and existing experience may also

form a mindset that will hinder strategic transformation while becoming an enterprise's valuable assets. The sustainable development of an enterprise must rely on its original knowledge, experience and capabilities, but it may also be subject to these elements. In practice, a large number of enterprises split the relationship between existing abilities and the expected abilities due to their inability to handle this contradiction. They want to bypass path dependence and enter a field that is not related to the existing main business. They attempt to form a new system out of thin air, which results in transformation failure. Practice has proven that path dependence objectively exists in the process of traditional enterprise strategic transformation. Transcending rather than avoiding path dependence is the key to successful strategic transformation.

If we want to avoid the negative effects of path dependence, we must overcome or eliminate various factors that lead to them (Weng, 2008). Every enterprise must face new strategic choices. The result of strategic choices will largely determine the development and destiny of the enterprise, and the strategic choice of an enterprise, to a large extent, has path dependence. Past strategies, operators' behavior characteristics, corporate culture, mindset, innovation rigidity, core competencies and other aspects all affect the adjustment of corporate strategy (Chen, 2002a; Chen, 2002b; Liu, 2014; Huang & Xu, 2014). And these factors clearly show the characteristics of path dependence.

- (1) Dependence on an enterprise's past strategy. The new strategies of an enterprise are dependent on its past strategies. The new strategies are often based on the past ones. An enterprise's past strategies become the starting point of its new strategic choice. The newly considered strategic plans are mostly subject to the past strategies. The current strategies evolve from the strategies formulated by authoritative leaders in the past (Chen, 2002a). These unique and tightly integrated strategies are a major factor influencing subsequent strategic choices. When a strategy is established, it must be implemented. The decision makers implement the strategy, whereas the lower managers move forward according to the strategy. When a decision-maker puts a lot of resources into the past strategies, he takes personal responsibility for the consequences of the strategies. If the consequences are not good, he always increases rather than reduces new investment. This phenomenon often causes decision makers to be bogged down deeper and deeper in the originally implemented strategy. Therefore, when an enterprise needs to change its strategies and implement new ones, it often needs to replace senior managers as new managers are less dependent on past strategies.
 - (2) The behavior choices of enterprise decision makers are constrained by past

experience. Corporate behavior choices are the direct result of entrepreneurs' behavior choices, and enterprise strategic choices are determined by entrepreneurs. Enterprise strategic choices must be based on the characteristics of the changed external environment and the available operational resources within the enterprise. However, what affect the enterprise operations are never the objective environment or resources, but the environment and resources that people recognize. Enterprise decision makers formulate and compare different decision-making programs based on their understanding of environmental characteristics and their changes as well as their understanding of the quality and quantity of business resources owned by the enterprise. First, enterprise strategic choices may be achieved through fine-tuning in the implementation of the original decision-making process (Weng, 2008). Such fine-tuning is often caused by dealing with some emergencies, and the time sensitivity for solving emergencies is usually very high. The more pressing the time requirements for decision-making is, the more people will rely on their intuition to make judgments and choices during decision-making. The intuition of enterprise decision makers is largely influenced by their functional background and experience background. Second, even if an enterprise has enough time to analyze and make strategic decisions, as the functional background and past experience affect the value judgment of the entrepreneur, this value judgment will play a very important role in program formulation and selection. Different programs can be evaluated from different angles and have different contributions in the realization of different goals. Therefore, the value preferences of enterprise decision makers influence their evaluation and choice of different programs.

(3) The continuity of corporate culture. Corporate culture is an organizational culture formed from organizations that actually engage in economic activities. The ideology and physical form it contains, such as values and codes of conduct, are recognized by members of the organization. Corporate culture, which is often implied in the assumptions of corporate members as their premise of thinking, has been unconsciously universally recognized by corporate members. Their behaviors are consciously and even unconsciously influenced by these values and codes of conduct. The corporate culture formed in history is a successful way of behaving as well as the codes of conduct and values it embodies that have been proven in practice in the business process. Therefore, using corporate culture to guide employees' behavior is actually using past experience to guide employees' actions today. As a one-dimensional corporate culture of organizational memory, it restricts employees' way of thinking, and restricts the behavior choices of employees and enterprises through influencing

employees' mode of thinking, thus restricting the adjustments of enterprise management strategy (Chen, 2002a).

- (4) The understanding of the nature of enterprise strategic transformation has the tendency of a fixed mindset. The fundamental purpose for an enterprise to carry out strategic transformation is to adapt to the changing environment and continuously enhance its competitiveness in a dynamic environment. Therefore, the enhancement of core competitiveness is the essence of strategic transformation. The reason for an enterprise to carry out strategic transformation is that its original knowledge, experience and abilities can no longer adapt to the needs of environmental changes. Therefore, some enterprises are eager to get rid of these constraints. Many enterprises try to achieve the so-called strategic transformation through investment in new industries. They mistakenly believe that entering new fields can generate new knowledge and capabilities "out of thin air". Yet in fact investment in new areas is mainly based on production capacity instead of competitiveness. The fixed mindset causes enterprises to significantly misunderstand the nature of strategic transformation. Many enterprises still stick to the "price-quantity" type of competition mode and diversification mode, entering unrelated industries without any technical accumulation. Logically, upgrading in a familiar and experienced field and improving core competitiveness is far more feasible than developing advantages in a new industry without any foundation. Those industry change behaviors characterized by diversification, especially irrelevant diversification, are no different from building a "castle in the air", making it difficult to achieve successful transformation (Huang & Xu, 2014).
- (5) The theoretical innovation of enterprise strategic transformation tends to be rigid. Insufficient theoretical innovation is an important reason for theories to lag behind practices (Huang & Xu, 2014). Yet the root of the lack of theoretical innovation lies in rigidity of thinking, which leads to a "blind zone" or "misunderstanding" in strategic transformation. Due to the general emphasis on exploring factors that influence successful transformation, competence is generally considered to be an important factor. But studies only focus on emphasizing the importance of capabilities, while seldom involving how to improve capabilities and how to achieve successful transformation under the constraints of existing resources and capabilities. Dealing with the accumulation and breakthrough in such aspects as knowledge, experience, and abilities is the key to transcending path dependence. However, the existing theories fail to effectively integrate the original strategic logic and the new strategic logic, the original knowledge and new knowledge, the original experience and the

new experience as well as the original ideas and the new ideas in a framework, thus splitting the two in practice. In terms of pattern of manifestation, some enterprises are stuck at the low end of the value chain. They have been doing OEM for a long time but unable to make breakthroughs despite rich OEM experience. This restricts their extension to the upstream of the industrial chain. When financial crises occur, most of these enterprises are unprepared; the rest blindly enter the so-called high-tech industries or the strategic emerging industries that the government encourages to develop. At first glance, they may look to aim high, but they do not have the foundation and conditions to enter these fields. And the entry cannot fundamentally enhance their competitiveness. It can be seen that the key problems in enterprise practices are that they cannot make breakthroughs on the basis of the accumulation of original knowledge and experience. They either are stuck despite accumulation or overemphasize new strategies or ideas while detaching from the original accumulation.

(6) The path dependence of enterprise core competencies. The uniqueness and non-imitation characteristics determine that the core competencies are mainly formed within an enterprise (Song, Xu, & Gao, 2004). In the meantime, the rigidity of the core competencies themselves are mainly affected by two types of factors, namely, the formation time of core competencies and the support range of core competencies to the enterprise management. The internal formation of core competencies always takes a certain amount of time. As with the business activities of an enterprise itself, the activities that shape the core competencies also show obvious learning effects. The longer the activity of shaping a certain core competence is, the more it shows the enhanced efficiency of this activity. However, the more obvious the learning effect is, the more difficult it is for enterprises to change their core competencies, the stronger the rigidity of core competencies is and the more difficult it is to adjust their strategic strategies. Core competencies can support the scope of business management from two dimensions, namely, vertical integration and horizontal diversification. The more links the vertical integration of enterprise operations involves, the greater barriers to exit will appear during enterprise strategic adjustment. The more links there are for enterprise core competencies to support the vertical integration business strategy, the higher degree of specialization of these competencies will be reflected, the more difficult it is to change, the stronger the degree of rigidity is and the more difficult it is to adjust enterprise strategies. On the contrary, if the core competencies can support an enterprise to operate in many different fields, the stronger the flexibility of the core competencies will be, the more available choices there will be for enterprise strategic adjustment, and the less obvious characteristics of path dependence there will be. This shows that the path dependence characteristics of enterprise strategic adjustment are directly proportional to the rigidity of the core competencies of an enterprise. The stronger the rigidity of the core competencies, the more obvious the path dependence characteristics of the strategic adjustment. On the contrary, the strategic adjustment is less affected by the past choices of the enterprise.

Using the path dependence analysis method, enterprises' "black box" in neoclassical economics is opened, revealing the heterogeneity and illiquidity of enterprise resources and answering the question why enterprises in the same industry differ in performance. Besides, the path dependence analysis method effectively illustrates the harm of organizational inertia and the necessity of strategic adjustment (Liu & Jie, 2016).

2.5 Summary

This chapter systematically combs through and reviews the relevant literature on strategic transformation and path dependence. First, the concepts and measurement methods of strategic transformation and path dependence are introduced; Second, the motivation, mode, process, content, influencing factors and risks of enterprise strategic transformation are respectively discussed; Third, the path dependence theory is combed through and analyzed based on different perspectives, inducing technological changes, institutional changes, organizational structure, national level, regional level and enterprise level; Finally, relevant literature about the influences of path dependence on the implementation of enterprise strategic transformation is reviewed.



Chapter 3: Model Building

3.1 Theoretical framework

As mentioned earlier, enterprise strategic transformation is a complex systematic process. Enterprise strategic transformation success begins with an in-depth understanding of the transformation motivations; the elements and process of strategic transformation are the key to the success of strategic transformation; the influence of different dimensions in the process mechanism model is the way to achieve strategic transformation; risk control is an important link for the successful implementation of enterprise strategic transformation. Therefore, only by identifying the driving factors, model, process and contents, influencing factors and risks of enterprise strategic transformation implementation can it be possible to gain a systematic and comprehensive understanding of enterprise strategic transformation, so as to build a relatively complete research framework for enterprise strategic transformation.

Besides, since path dependence describes the impact of past choices on the present and the future, it is a necessary condition for an organization to survive and accumulate resources. This means that in a world where time is irreversible, the growth of an enterprise cannot be cut off from the intrinsic links to history. All aspects of enterprise development bear the characteristics of path dependence. Both the technical and institutional levels of path dependence affect enterprise strategic transformation. In addition, path dependence at the national level, regional industrial level and an enterprise's internal level all affects enterprise strategic transformation.

Therefore, it is necessary to comprehensively analyze the path dependence of enterprise strategic transformation at all levels, in order to construct the structural framework for the research on the barriers to the implementation of enterprise strategic transformation based on path dependence. On the basis of synthesizing predecessors' research, this thesis first summarizes the driving factors, model, process and contents, influencing factors and risks of enterprise strategic transformation implementation so as to gain a systematic and comprehensive understanding of strategic transformation; then, this thesis analyzes the path dependence in various aspects of an enterprise in the process of strategic transformation implementation. Based on the analyses of these two aspects, this thesis constructs a theoretical model that includes both enterprise strategic transformation and various types of

path dependence (see Figure 3-1 for details), which is used as the theoretical framework for the research on the barriers to the implementation of enterprise strategic transformation under the path dependence theory.

1. Strategic transformation

Enterprise strategic transformation is aimed at seeking the reasonable coordination between various internal organizational elements as well as between these elements and the business environment. During such a process in which the internal and external resources match with the environment, attention must be paid to five aspects: motivations for the implementation of enterprise strategic transformation, factors influencing the implementation of enterprise strategic transformation, the model of the implementation of enterprise strategic transformation, the process and content of the implementation of enterprise strategic transformation, and the risks involved in the implementation of enterprise strategic transformation.

- (1) The motivations for enterprise strategic transformation can be classified into external motivations and internal motivations. Market demand, policy environment and the competitive environment faced by enterprises are three major external motivations, while internal motivations are represented by enterprise performance, enterprise lifecycle stage and enterprise capabilities. These external and internal motivations work together to drive the implementation of enterprise strategic transformation.
- (2) The implementation of enterprise strategic transformation is influenced by external factors—the technological environment, market environment and policy environment of enterprises—and internal factors, which mainly refer to the systems and mechanisms adopted by enterprises, its current stage in the enterprise lifecycle, enterprise capabilities, entrepreneurial ability and corporate culture.
- (3) There are three ways to categorize the implementation model of enterprise strategic transformation. From the perspective of organizational implementation, an enterprise can follow either a top-down implementation path or a bottom-up implementation path. The second classification includes radical strategic transformation, gradual strategic transformation, erosive strategic transformation and structural strategic transformation. Finally, there are pre-transformation and post-transformation models based on the different time phase of transformation. In the process of implementing strategic transformation, each individual enterprise will select an appropriate model in accordance with their own characteristics.

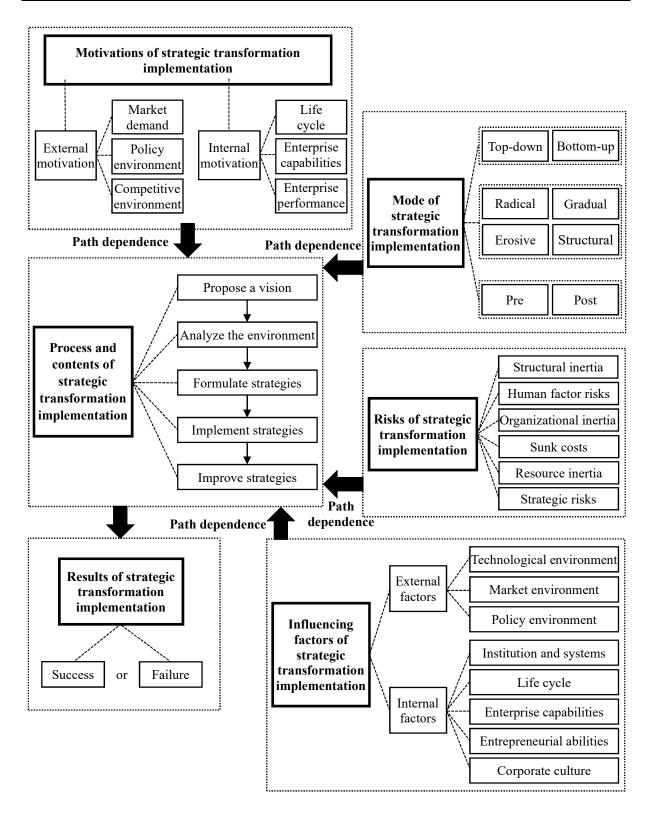


Figure 3-1 The structural chart of the implementation of enterprise strategic transformation under path dependence

(4) The process and content of enterprise strategic transformation can be divided into five stages: developing a vision, analyzing the environment, formulating strategies,

implementing the strategies and improving the strategies. Strategic transformation is a matter of survival for enterprises. Its success depends on the establishment of a stable and reasonable implementation process to visualize, standardize and institutionalize such transformation. Appropriate adjustments will be made by enterprises based on the above five stages in the process of implementing strategic transformation.

(5) The risks involved in the implementation of enterprise strategic transformation include structural risk, human factor risks, organizational inertia, sunk costs, resource inertia and strategic risk. In the process of strategic transformation, enterprises will inevitably encounter risks from these six aspects. Only by reducing these risks can they improve the probability of successful implementation of enterprise strategic transformation.

2. Path dependence in strategic transformation

The implementation of enterprise strategic transformation is related to all aspects of the enterprise, and path dependence, as a necessary condition for an enterprise to survive and accumulate resources, also affects the strategic transformation of the enterprise. As a result, distinct characteristics of path dependence can be found in the model, influencing factors and risks of the implementation of enterprise strategic transformation.

- (1) The implementation model of enterprise strategic transformation is path-dependent. Enterprises will choose a suitable implementation model of strategic transformation according to their own characteristics. Judging from the source of power or the subject exercising power within the internal organization of an enterprise, either a "top-down" (the decision-making power comes from senior management) implementation model or a "bottom-up" (the decision-making power lies in lower-level employees) implementation model can be adopted; Based on the source of power and the external environment, the enterprise can select from a radical model (sudden changes in the external environment and concentration of decision-making power), a gradual model (minimal reconfiguration), an erosive model (significant change in the strategic direction) or a structural model (intensive transformation but with little change in the strategic direction); According to the different time phase of transformation, the enterprise can choose to introduce a "pre-transformation" model (proactive transformation implemented when the enterprise anticipates a potential crisis) or a "post-transformation" model (forced and passive transformation in the face of crisis).
- (2) Path dependence exists in the factors influencing the implementation of enterprise strategic transformation. Such influence factors, which are all formed in the process of long-term production and operation, affect enterprises in a way that cannot be ignored or 68

changed in the short term. Enterprises will inevitably rely on these influence factors, thus showing path dependence on the same factors in the implementation process of enterprise strategic transformation.

(3) The risks of the implementation of enterprise strategic transformation exhibit path dependence. Enterprise strategic transformation is a process of altering the original system, links and strategy. Risks resulting from such changes, therefore, are bound to happen. Structural risks, human factor risks, organizational inertia, sunk costs, resource inertia and strategic risks are the six types of risk encountered by enterprises in the implementation of strategic transformation. Since the organizational structure, people, resources and strategies of an enterprise are relatively stable with little change, the risks caused by adjustments made in these aspects will also vary inconspicuously. As a result, the risks of the implementation of enterprise strategic transformation also take on the characteristics of path dependence.

Meanwhile, as discussed in the chapter of literature review, the path dependence of enterprise strategic transformation can be seen on all levels, including the technological level, institutional level, organizational level, national level, regional level and corporate level. Path dependence on the technological level refers to the dependence on the environment of technological innovation, external technological sources and the original industrial technologies; Path dependence on the institutional level include dependence on administrative constraints and property arrangements; Path dependence on the organizational level means relying on the organizational structure of an enterprise; Path dependence on the national level covers dependence on growth models, government functions and the global value chain; Path dependence on the regional level points to local industrial structure, industrial concentration, local economic foundation and advantageous resources; Path dependence on the corporate level involves organizational resources, organizational structure, employees and corporate culture, past strategies, corporate decision makers, mindset and core competencies (Wang & Xi, 2007; Zhang, 2015; He, 2018; Zhou, 2005). The path dependence of enterprises on different levels and at different links is mixed and intertwined, affecting the implementation of enterprise strategic transformation.

3.2 Research hypotheses

Path dependence affects the implementation of enterprise strategic transformation by affecting all aspects of an enterprise. As believed by Romanelli and Tushman (1986),

enterprise path dependence, which is deeply embedded in the process of enterprise strategic transformation implementation and organizational behavior, is one of the main barriers to strategic transformation. The existing literature has explored path dependence from multiple perspectives and found that many aspects of path dependence may affect the implementation of enterprise strategic transformation (Jia & Zhang, 2012; Wang, Liu, & Zhao, 2011). Based on the previous studies, this thesis divides the paths of path dependence that affects the implementation of enterprise strategic transformation into five aspects: Enterprise structure, enterprise employees, enterprise core competency, enterprise culture and external environments (See Figure 3-2 for details). Based on this structure, the research hypotheses of this study are proposed as a prerequisite for subsequent empirical research.

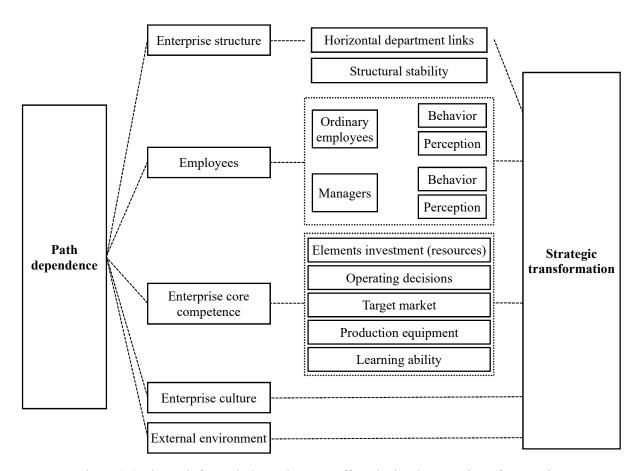


Figure 3-2 The path for path dependence to affect the implementation of enterprise

(1) Enterprise structure

Enterprise structure mainly affects the implementation of enterprise strategic transformation from three aspects, namely, vertical hierarchical structure, horizontal department links and enterprise structure stability. In general, a complex vertical enterprise structure is prone to bureaucratization, resulting in inefficient information communication

between different levels. The more complex the links between the horizontal departments, the more difficult to break the connection, the stronger the resistance during transition, and the stronger the structural path dependence. The long-term development of an enterprise requires a stable enterprise structure. However, greater stability means greater resistance to transformation and stronger path dependence. Therefore, this thesis proposes the following hypotheses:

- H1: The path dependence on enterprise structure hinders the implementation of enterprise strategic transformation.
- H1-1: The path dependence on enterprise vertical structure hinders the implementation of enterprise strategic transformation.
- H1-2: The path dependence on enterprise horizontal department links hinders the implementation of enterprise strategic transformation.
- H1-3: The path dependence on enterprise structure stability hinders the implementation of enterprise strategic transformation.

(2) Enterprise employees

Enterprise employees mainly consist of managers and ordinary employees, and their path dependence includes two aspects, namely, cognition and behavior. In terms of managers, the bounded rationality of cognition is the main reason for their path dependence. Many managers are over-dependent on past successful experience and lack innovation consciousness. Under such circumstances, influenced by the leaders' management style, the organization's ordinary employees will also rely on the ways of doing things in the past, tend to maintain the original behavior habits, and finally form path dependence. Enterprise employees tend to choose faster, more reliable, and low-risk solutions, adopt developmental learning rather than exploratory learning, as well as leverage and develop known knowledge and experience to accomplish similar organizational activities. This learning cognitive model may put the organization in the familiarity trap, the maturity trap and the propinquity trap. These traps make the organization's behavior locked in the context of historical experience and the existing success paradigm, while other better alternatives are excluded from the choice. In the long run, path dependence can prevent an organization from responding quickly to changes in its environment, make its operational procedures routine, and deprive its new and optimized operational procedures of the opportunity to experiment. Therefore, this thesis proposes the following hypotheses:

- H2: The path dependence on enterprise employees hinders the implementation of enterprise strategic transformation.
- H2-1: The path dependence on enterprise managers hinders the implementation of enterprise strategic transformation.
- H2-1-1: The path dependence on enterprise managers' perceptions hinders the implementation of enterprise strategic transformation.
- H2-1-2: The path dependence on enterprise managers' behaviors hinders the implementation of enterprise strategic transformation.
- H2-2: The path dependence on enterprise ordinary employees hinders the implementation of enterprise strategic transformation.
- H2-2-1: The path dependence on the cognition of enterprise ordinary employees hinders the implementation of enterprise strategic transformation.
- H2-2-2: Path dependence on the behaviors of enterprise ordinary employees hinders the implementation of enterprise strategic transformation.

(3) Enterprise core competence

An enterprise's core competence is also its core competitiveness. It is "the accumulative knowledge in the organization, especially the knowledge about how to coordinate different production skills and organically combine multiple streams of technologies". It is also the organic combination of the specific capabilities an enterprise owns that can bring it competitive advantages. Due to the incompleteness of the factor market, an enterprise's this unique ability that cannot be imitated or replicated is the source of its long-term competitive advantages. If an enterprise cannot imitate or replicate the source of the special abilities of successful enterprises, the state of efficiency difference between the enterprises will last forever. Core competitiveness is about establishing competitive advantages that others can hardly imitate. In the process of development, attention must be paid to the accumulation of knowledge, experience and abilities, especially the tacit knowledge that is difficult to pass on and imitate. It is an important source of enterprise competitiveness. The accumulation of various factors will form path dependence. And the existing experience may form a mindset while constituting an enterprise's valuable wealth, which will hinder strategic transformation. An enterprise's sustainable development must rely on its original knowledge, experience and abilities, but may also be subject to these elements. The core competence of an enterprise consists of such aspects as factor inputs (resources), business decisions, target markets,

production equipment and learning ability. Therefore, this thesis proposes the following hypotheses:

- H3: The path dependence on enterprise core competence hinders the implementation of enterprise strategic transformation.
- H3-1: The path dependence on enterprise factor inputs (resources) hinders the implementation of enterprise strategic transformation.
- H3-2: The path dependence on business decision-making hinders the implementation of enterprise strategic transformation.
- H3-3: The path dependence on an enterprise's target markets hinders the implementation of enterprise strategic transformation.
- H3-4: The path dependence on an enterprise's production equipment hinders the implementation of enterprise strategic transformation.
- H3-5: The path dependence on an enterprise's learning ability hinders the implementation of enterprise strategic transformation.

(4) Enterprise culture

Culture plays an important role in an enterprise's development. Enterprise culture refers to the common attitude and methods of doing things, values and beliefs, as well as feelings for the enterprise achieved by members during the growth of the enterprise. Enterprise culture must be "strong", while having stable, rich, in-depth, widely accepted, coherent, unified, and unambiguous features. In the case of stable business, this culture helps to strengthen the role of the management control system, more effectively maintain the internal consistency of the organization, and coordinate the behaviors of the organization's members, thus helping the enterprise develop steadily; yet when the external environment changes greatly, the consistency of employee cognition and behaviors formed under this strong culture will seriously hinder employees' acceptance and recognition of new things and new ideas, and ultimately hinder the implementation of enterprise strategic transformation. Therefore, this thesis proposes the following hypotheses:

H4: The path dependence on enterprise culture hinders the implementation of enterprise strategic transformation.

(5) External environments

The external environments mainly include political, economic, social and technological environments. China's economic development is characterized by multiple forms of path

dependence. The local economic development process also has two types of path dependence effects: One is positive path dependence effect driven by enterprise spin-off and agglomeration economy. The other is negative oath dependence effect caused by excessive specialization and neglect of external connections. This negative effect tends to cause the interests of national and regional economic development entities to be bundled in certain industries, thus ignoring the cultivation and development of other new industries. Therefore, this study believes that external environments will affect an enterprise' internal operation, and therefore proposes the following hypothesis:

H5: The path dependence on external environments hinders the implementation of enterprise strategic transformation.

3.3 Summary

Based on predecessors' literature and the research contents of this study, this chapter first constructs the theoretical framework of the whole thesis, namely, a theoretical model that includes both enterprise strategic transformation and various types of path dependence. The model is used as the theoretical framework of the study on the barriers to the implementation of enterprise strategic transformation under the path dependence theory. After that, under this theoretical framework, the research hypotheses are proposed, namely, the factors for path dependence to hinder the implementation of enterprise strategic transformation.

Chapter 4: Research Methods and Data

4.1 Measurement of variables

Scale is a measuring tool with structural strength order for subjective evaluation of social facts at the level of experience. It reflects a subjective evaluation and is mainly used for the measurement of attitudes. The index value of the indices listed in the scale must be expressed by the scores arranged in a certain order of intensity, which are the comprehensive indices to measure variables. The main function of scale is to measure the subjective attitudes of people that are difficult to be directly observed or objectively measured by indirect and quantitative methods, especially to measure the different degrees and differences of attitudes and concepts. This study adopts mostly the scales used in the existing literature to ensure the validity and reliability of variable measurement. For the measurement of enterprise strategic transformation, the scales of Jia and Zhang (2012) as well as Kong (2012) were used for reference, and the measurement was conducted from seven aspects (See Table 4-1 for details); the measurement of path dependence referred to the study of Wang, Liu, and Zhao (2011) as well as the studies of Zhang (2010) and Meng (2009). And the measurement was conducted from five aspects, namely, enterprise structure, enterprise personnel, enterprise core competence, enterprise culture and external environments (See Table 4-2 for details).

Likert scale, also known as the summated rating scale, was put forward and applied by Likert in 1932. It is the simplest and most widely used scale at present. Its main purpose is to measure people's views and attitudes towards a certain thing. Its main form is to ask respondents' judgment on a statement and choose answers in different order. The Likert scale can be divided into two types according to the number of available answers, namely, two-choice scale ("agree" or "disagree"; "yes" or "no") and multiple-choice scale ("strongly agree", "agree", "neither agree nor disagree", "disagree", "strongly disagree"). With the increase of answer types in multiple-choice scale, people's differences in attitude can be reflected more clearly. Therefore, all scales in this study were measured by 5-point Likert scale, with 1, 2, 3, 4 and 5 respectively indicating "strongly disagree", "disagree", "neither disagree nor agree", "agree" and "strongly agree".

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Table 4-1	The scale	' OI eni	ernrice c	araleoic	iransiorma	m

Variable	Measurement items				
	The enterprise has undergone significant changes in the relative resource				
	input in some target markets.				
	The enterprise's resource allocation between different products has				
	changed dramatically.				
~ .	The enterprise's relative input amount of some business resources has				
Strategic transformation	changed significantly.				
	The enterprise has undergone cross-industry transformation.				
	The enterprise has upgraded its products.				
	The enterprise has entered new markets.				
	The enterprise has carried out internal management mode				
	transformation.				

Table 4-2 Enterprise path dependence scale

Variable	Secondary variable	Hypothesis	Measurement question
Enterprise structure	Vertical hierarchical structure	1-1	The organization has too many vertical hierarchies.
	Links between horizontal departments	1-2	The links between the horizontal departments of the organization are complex and close.
	Structural stability	1-3	The current organizational structure is influenced by past and existing experience. The enterprise mostly uses the existing organizational structure and processes.
Enterprise employees	Perception of management	2-1-1	Enterprise managers lack the insight to timely detect changes in the external environment.
	Perception of ordinary employees	2-1-2	Employees are not willing to give up their existing knowledge and skills to learn new knowledge.
	Behavior of management	2-2-1	Enterprise managers emphasize following previous success stories. Enterprise managers lack innovation and rely on past experience to make decisions.

	D.1	2-2-2	When performing tasks, employees tend to act on their	
	Behavior of ordinary employees		past experience.	
			Employees tend to reject new things at work because	
			of their habits.	
		3-1	While updating technologies, enterprises adopt the	
	Factor input		strategy of technology upgrading instead of	
			introducing brand-new technologies.	
			The enterprise's technology investment cycle is long.	
			The enterprise relies on a certain resource element for	
			a long time.	
	Business		The enterprise prefers to build on existing products	
			rather than redesigning them.	
			The enterprise is slow in response to market changes,	
			and the speed of strategic change is relatively lagging	
	decision-making	3-2	behind.	
			Enterprise decisions are made mainly based on	
Enterprise core			experience and the current system and do not reflect	
competence			market changes.	
	Target markets		The enterprise always sells products to a fixed market.	
		3-3	The enterprise pays a lot of financial resources to	
			develop new markets every year.	
	Production equipment	3-4	The enterprise values short-term profits over long-term	
			investments.	
			For nearly three years, the company has been adding	
			equipment to produce existing products.	
			The enterprise has been providing stable types of	
	Learning ability	3-5	products to the market.	
			The renewal and upgrading speed of the enterprise	
			products is fast.	
Enterprise culture	Enterprise culture	4	The enterprise mostly sticks to old habits and is not	
			willing to change too much.	
			The enterprise has a stable organizational culture, and	
			the goal of the organization is to pursue stability.	
			You understand the organizational culture of your	
			enterprise, which hardly accepts new cultures.	
			The organizational culture of your enterprise is stable	
			5 same to same to	

			and will not change easily.
-			The enterprise development is influenced by the local
External	External	5	government development plan and policies.
environments	environments		Local government protects the development of the
		enterprise.	

4.1.1 Enterprise strategic transformation scale

Most scholars often use the form of questionnaire survey to collect the data of enterprise strategic transformation by designing the scale of strategic transformation measurement. Liu and Qu (2011) adopted the necessity of strategic transformation to supply chain to measure enterprise strategic transformation. Kong (2012) measured transformation from seven aspects, including whether the enterprise has undergone cross-industry transformation, whether the enterprise has upgraded its products, whether the enterprise has undergone transformations involving property rights or governance structure, whether the enterprise has realized business model transformation, whether the enterprise has entered new markets, whether the enterprise has carried out internal management mode transformation, and whether the enterprise has completed modern enterprise system transformation. And he further divided the questions of these seven aspects into 27 small items. Jia and Zhang (2013) as well as Zhang, Zhao, Zheng, and Wu (2017) established a strategic transformation measurement scale, which measures strategic transformation from six aspects, namely, the enterprise can accurately identify transformation environment, the enterprise can establish the correct transformation orientation, the enterprise can seize the transformation opportunity in a timely manner, the enterprise has undergone significant changes in the relative resource input in some target markets, the enterprise's resource allocation between different products has changed dramatically, and the enterprise's relative input amount of some business resources has changed significantly.

Through an analysis and synthesis of the research results at home and abroad, together with the characteristics of the case company in this study, the design and measurement bases of the measurement scale of strategic transformation in this study are shown in Table 4-1, including a total of seven measurement questions. First, the measurement of enterprise strategic transformation referred to the measurement system put forward by Zhang (2013). The semantic difference scale out of the three measurement items in his scale was chosen, measuring strategic transformation from three aspects: The enterprise has undergone significant changes in the relative resource input in some target markets, the enterprise's resource allocation between different products has changed dramatically, and the enterprise's

relative input amount of some business resources has changed significantly. The study by Zhang et al. (2017) proved the reliability of this scale. Second, some scales of Kong (2012) were also used as a reference to measure the transformation. To be specific, strategic transformation was measured from four aspects, namely, the enterprise's cross-industry transformation, product upgrading, entry into new markets and internal management mode transformation.

4.1.2 Enterprise path dependence scale

Although the scales of strategic transformation measurement in the academic circle are relatively mature at present and the literature actually applied in the questionnaire survey is also abundant, there are relatively few scales about the influence of path dependence on enterprise strategic transformation and the literature to be used for reference in all aspects of the measurement scales is quite dispersed.

Wang, Liu, and Zhao (2011) demonstrated the path dependence of high-tech enterprises from three aspects, namely, the dependence of organizational structure, the dependence of core competitiveness, and the dependence of enterprise culture. The dependence of organizational structure is measured by three questions: The current organizational structure is affected by existing experience, the enterprise mostly makes use of existing organizational structure and process, and the enterprise's organizational learning ability is affected by existing experience; the dependence of core competitiveness is measured by three items, namely, the resource input needed to cultivate core competitiveness, the cognitive inertia of enterprise management, and the high correlation between new technologies (products) and the existing technologies (products); the dependence of enterprise culture is measured by three questions: The enterprise mostly follows the habits of the past and is not willing to change too much, employees are willing to follow the values and codes of conduct that the company identifies with, and the company usually pays attention to known phenomena and things. Zhang (2010) designed the organizational inertia scale from three aspects, namely, organizational capacity extension, cognitive deviation and the restrictions of change, so as to measure the inertia of enterprises. Meng (2009) designed seven questions to measure the organizational inertia of enterprises, including organization members' exclusion of reform, reference to past experience and forms while performing tasks, the enterprise's reliance on other successful examples, confidence of executives, a very stable present environment that is unlikely to change dramatically, rejection of new things at work because of habit, and the

number of employees.

Through an analysis and synthesis of the above research results and a combination with the characteristics of the case company in this study, the design and measurement bases of the path dependence measurement scale in this study are shown in Table 4-2, including a total of 28 measurement questions. The enterprise structure consists of the vertical structure, the horizontal structure and the structural stability. Enterprise employees include the cognition and behavior of managers and ordinary employees respectively. Enterprise core competencies include factor input, business decision-making, target markets, production equipment and learning ability. Enterprise culture was not divided further, neither were external environments. Corresponding measurement questions were designed to measure these aspects.

4.2 Questionnaire survey

4.2.1 An introduction to High Hope Group

Jiangsu High Hope International Group Co., Ltd. was founded in 1996. It is a group company formed by the merger of several previous companies, including a grain and oil import and export company, a textile import and export company, a cotton knitwear import and export company, a light industrial products import and export company, a soil and animal livestock export company and an export base construction company. It was listed on the main board of Shanghai Stock Exchange (stock code: 600981) in 2015. Up to now, the company has developed into the largest provincial foreign trade enterprise in Jiangsu Province, as well as one of the top 500 enterprises and top 100 import and export enterprises in China.

Since its establishment, High Hope Group has not only developed its main business in both scale and strength, but also adhered to moderately diversified development, involving multiple fields, such as import and export trade, real estate, investment, manufacturing, logistics and services. The economic and trade relations it has established cover more than 160 countries and regions around the world, with such products as textile and garment, paper pulps and plates, marine electromechanical devices at the forefront of the industry. High Hope Group boasts more than 50 patents of proprietary intellectual property rights and 425 registered trademarks, among which the umbrella brand "High Hope" has been awarded the title of "Famous Trademark of China". As an active response to the growing trend of "Internet Plus" in the era of big data, High Hope has facilitated the development of "Smart High Hope",

strengthened system integration, and completed the establishment of the ERP system, the financial management system, the capital pool and the direct Bank-Enterprise connectivity system. Since the listing of the group, it has created positive effects for its corporate governance structure, refinancing capacity and market influence, and established the strategic goal of developing into a leading domestic modern service company of supply chain integration characterized by the "integration of industry and finance, transnational operation and high-quality development". In view of the diversified business structure, the company mainly adopts the strategic control mode and uses a series of policies, procedures and methods such as development strategic planning and internal control system to supervise and guide the strategies, operation and management of the subsidiaries, in order to achieve the company's overall strategic objectives. The parent company is the strategic management center and resource allocation center. Each business segment is operated by each subsidiary. At present, the group consists of 18 subsidiaries. The company's main business is divided into supply chain operation business, investment business and real estate business. And each business is operated and managed by the corresponding subsidiary.

1. Supply chain operation business

The company's supply chain business mainly includes two emerging industry segments, namely, cold-chain logistics and healthcare, as well as traditional dominant business segments such as fabrics & garments, paper pulps & plates, and marine equipment. a) Cold-chain logistics segment: By giving full play to its traffic advantages and relying on the completed multi-temperature storage, cold chain logistics fleet, trading display hall and customs national inspection platform, the cold-chain company focuses on the import of fresh products as its key business. It introduces the quality suppliers of origin from various countries through global investment to provide warehousing, logistics, display, processing, finance and trade services, so as to build a thorough cold-chain supply chain service brand. Besides, it also actively carries out international cooperation, establishes overseas warehouses, and expands overseas mergers and acquisitions. The grain and oil company mainly adopts the self-employment model, takes the agricultural products industrialization path and implements the industrialized management strategy. In this way, it has boosted the development of export-oriented agricultural economy and is on the development path of one-stop production & sales, company + base + production enterprises, as well as an integration of trade, industry and agriculture. The strategic development goals of the cold chain logistics segment are: to set up vertical channels of imported goods and provide integrated fresh e-commerce services by

building a cold chain logistics network; to establish a comprehensive service integration platform of cold chain logistics by facilitating the interactive development of cold chain logistics and other business segments and achieving profitability through synergies. The quantitative target is that by the end of 2020, the operating revenue of the cold chain logistics business segment will reach 5 billion yuan with the total profit of 80 million yuan. b) Health care segment: Pharmaceutical companies are not only engaged in such integration services and value-added services as pharmaceutical intermediates, medical dressings and medical equipment as well as generic drug consistency evaluation business, but also actively develops generic drug business and cooperates with other innovative drug research and development enterprise based on the integrated development of "research & development, production and sales". The strategic development goals of the health care segment are as follows: to complete the in-depth distribution system connecting medical retail enterprise, hospital pharmacies and individual consumers, establish an information and e-commerce platform for pharmaceutical circulation with the help of big data and Internet technologies, and open up online and offline distribution channels, so as to provide high-end personalized services such as direct delivery of high-end drugs and medical circulation information that focus on the actual needs of end consumers; and on the basis of this, to enhance the allocation capacity of global medical and health resources and strive for a strong position in the health care industry through the vertical merger and acquisition of advantageous resources related to high-end pharmaceutical manufacturing and other industrial chains as well as the strategic cooperation with them. The quantitative objective is to achieve an operating revenue of 5 billion yuan and total profit of 400 million yuan by the end of 2020. c) Textile & garment segment: The main business covers the self-support export and cooperative export of home textiles, knitted garments and woven clothing products, involving such industry chains as spinning & weaving, printing & dyeing, embroidery, finished products and accessories; besides, efforts are also made to promote the development of the Southeast Asian production base, increase the nurturing of independent brands, and actively explore e-commerce platforms to develop cross-border business, enhance online profitability, as well as adjust and enrich the product structure and market structure. The textile and garment segment is developing with the following strategic goals: to achieve the product upgrading of textile and garment import and export business and transition from low value-added business to high value-added business; to provide customers with a variety of supply chain integration services through the establishment of an e-commerce platform; to develop into a market leader in the industry of maternity, infant and child products in China, with the equity investment project of comprehensive operation

service of maternity, infant and child products as the starting point. Its quantitative goal is that the operating revenue will reach 20 billion yuan and the total profit will amount to 270 million yuan by the end of 2020. d) Paper pulps and plates segment: The main business is the import trade of paper pulps and the products are wood pulps used for papermaking. With the help of the information integrated service platform of paper pulp supply chain, increased efficiency of operational management has been achieved internally, and industrial information, logistics and financial resources are shared externally, providing customers with one-stop supply chain integration services, covering unified purchase, distribution and outsourcing of services, e-commerce services, visual tracking services of warehousing and logistics, supply chain financial services and industry information and data services. With these efforts, it strives to become a first-class comprehensive pulp paper supply chain supplier in China. In addition, the self-support and joint-venture wood building materials products mainly include the export of proprietary plywood as well as the import of proprietary and joint plates and wood beams. The strategic development goals of the paper pulps and plates segment are as follows: to open up supply chain integration services such as raw material procurement, logistics and distribution by embedding the import business with various value-added services including supply chain finance with pulp import trade as the core; to consolidate the existing market in East China and develop the markets in North China, Central China and South China; to facilitate the implementation of the equity investment project of the upgrading and transformation of O2O pulp and paper supply chain service, build an O2O integrated supply chain service platform for pulp and paper, so as to transform the paper pulps and plates business segment of High Hope Group into a top-ranking integrated supply chain service platform in China. The quantitative target of this segment is to bring in 15 billion yuan in terms of operating revenue and 100 million yuan in total profit by the end of 2020. e) Marine electromechanical devices segment: The main business covers trade of proprietary ships, supervision of shipbuilding and shipping management. Relying on a specialized engineering technology management team, it actively adjusts the product structure, gradually reduces the proportion of traditional ship type business, as well as undertakes high-tech and high value-added special ship types targeted at the market segment. Besides, a ship quality supervision system has been established to supervise the operation, management and maintenance of subsequent shipping vessels. In terms of its strategic objective, the marine electromechanical devices segment strives to develop into an internationally competitive business segment and secure a leading position in the global contracting industry of marine electromechanical devices through resource integration and service integration. In terms of

quantitative objective, it aims at an operating revenue of 5 billion yuan and total profit of 70 million yuan by the end of 2020.

Overall, a three-dimensional network has been formed in support of the efficient operation of cold chain logistics, health care, textile and garment, paper pulps and plates, and marine electromechanical devices by combining the online system, which includes a cloud-based supply-chain platform, a vertical e-commerce website, a foreign trade integrated service platform, and a trade and financial services platform, with the offline system that consists of the logistics infrastructure and the procurement and distribution service network, achieving a multi-win enterprise ecosystem composed of upstream and downstream enterprises and strategic partners along the supply chain.

2. Real estate business

Real estate business mainly acquires land use rights, entrusts planning and design, organizes development and sales, and provides property management service through bidding, auction and sales. Faced with the pressure of real estate regulation and control policy, the company adheres to develop sales as the core business and regards project construction as the guarantee, while doing capital return, cost control and team building well. As the development of the real estate industry is generally under the strong regulation of national macro policies, High Hope, as a large state-owned enterprise, will be prepared to adapt the development rhythm of this segment to specific national policies at any time.

3. Investment business

First, the company is mainly engaged in equity investment or equity-related debt investment business, enterprise-investment holding merger and acquisition business, the initiation and establishment of industry funds or other types of equity investment funds, as well as management and investment operation. With logistics supply chain, health care industry and other innovative industries as the main fields of investment, merger and acquisition, the company actively carries out PE/VC projects, invests in enterprises at the start-up or growing stages in the form of strategic share participation. Besides, the company is also engaged in such businesses as investment management and management consulting. The performance mainly comes from sales commission, dividends, management fees of some products and returns from the investment of self-owned funds. Moreover, the company also does assets management. It has developed such tools as quantitative multi-strategy, quantification + second level and FOF assets allocation parent fund. The qualitative investment business mainly covers many categories of major assets such as stocks, stock

index, commodity futures, options, commodities. It has formed a multi-strategy system with statistical arbitrage, market neutral, event-driven, day trading, managed futures and options. The efforts are aimed at developing a professional multi-strategic investment, research, incubation and management system as well as a resource collaborative allocation platform.

4.2.2 Questionnaire design

Questionnaire research method is a very common method used in empirical research, which collects research materials and data through written form and strictly designed measurement items. Before the questionnaire was designed, this study tried to use the research results by predecessors and referred to the relatively mature scales of enterprise strategic transformation and path dependence. In light of the needs of the research topic, the research models and scales of many scholars are used synthetically to make the questionnaire close to the research practice. The specific process of questionnaire design in this study is as follows:

- (1) Search and sort out relevant foreign research measurement scales. The measurement scales of enterprise path dependence and enterprise strategic transformation in this study were developed by foreign scholars, and these scales have good reliability and validity in domestic and foreign related studies. Based on the above discussions, this thesis sets the variables of enterprise strategic transformation and path dependence, and designs a questionnaire consisting of 35 measurement items.
- (2) Revise and improve the questionnaire. Efforts were made to make sure the questionnaire design meets the needs of research hypotheses, the specific questions are semantically clear and free from suggestions, and the respondents are able to understand the questionnaire before the survey questionnaire was formed. The questionnaire adopted the subjective perception method and used 5-point Likert scale to measure the variables. According to the differences in respondents' degree of identification with each item in the scale, the questionnaire is divided into five grades, namely, "strongly disagree", "disagree", "neither disagree nor agree", "agree" and "strongly agree".

The questionnaire is divided into three parts. The first part is the basic information of the respondents, consisting of four questions. The second part is the investigation of enterprise strategic transformation, including 7 questions. The third part is the survey of enterprise path dependence, consisting of 28 questions.

4.2.3 Questionnaire distribution and recovery

In order to explore the barriers to enterprise strategic transformation caused by path dependence, this study chooses Jiangsu High Hope Group as the research object and designs a questionnaire for empirical research. Therefore, the questionnaires of this study were distributed to the employees of Jiangsu High Hope Group. In order to ensure the rationality and accuracy of the collected data, the distribution and recovery of the questionnaires were divided into four stages:

In the first stage, one-on-one targeted interviews were conducted with some of the middle managers of the case company. The specific questions in the interviews were derived from the scales, and the results were then sorted out.

In the second stage, based on previous scales and results of the interviews with the middle management of the case company in the first stage, a preliminary questionnaire was designed for this study, removing questions that were irrelevant to the current study from the previous scales while adding questions related to the case company.

In the third stage, the first draft of the questionnaire was sent to a small number of employees to fill in and feedback was collected as to whether the questions were accurate, reasonable and clear.

In the fourth stage, the first draft of the questionnaire was revised to formulate the final version, which was then distributed to the case company in great numbers. The survey was conducted mainly in the form of paper questionnaires, which were filled out by the employees of the case company and collected on the spot, a method that ensured both random sampling and the efficiency of questionnaire collection.

In total, 160 questionnaires were distributed, of which 158 were recovered, with a recovery rate of 98.75%. There were 152 valid questionnaires, with a valid questionnaire rate of 95%. Those questionnaires with too casual answers or more than three blanks were regarded as invalid. Women accounted for 52.7% of the samples; the ages of the respondents range from 24 to 35; most respondents are junior colleges graduates or master's degree holders, among which those with a BA degree account for 82.3%. Job positions are mainly sales representatives and managers. Other positions include clerk, production operator and logistics operator; posts mainly include middle managers, junior managers and ordinary employees.

4.2.4 Sample description of the questionnaire survey

4.2.4.1 Descriptive statistics

Table 4-3 shows the descriptive statistics of the questionnaire survey results. A descriptive analysis of the path dependence of enterprise structure, enterprise employees, enterprise core competence, enterprise culture and external environments was carried out, with 152 valid questionnaires. It can be seen from Table 4-3 that the mean value of the five variables in this survey is all higher than 3, and the 1-5 point five-level scoring method is adopted in this evaluation. Therefore, the path dependence of enterprise structure, enterprise employees, enterprise core competence, enterprise culture and external environments is above the average level.

Minimal Maximal Average Standard Variable N value value value deviation Enterprise structure 152 3.00 5.00 3.77 0.531 Enterprise employees 152 1.33 5.00 3.40 0.729 Enterprise core competence 152 2.33 5.00 3.40 0.471 Enterprise culture 2.00 5.00 3.79 0.571 152 5.00 3.54 External environments 152 3.00 0.632

Table 4-3 Descriptive statistics

4.2.4.2 Reliability test

Reliability, also known as the degree of reliability, is used to analyze the consistency level of the results of a measurement method, and the degree of consistency is used as an index to assess the reliability of the scale and the measurement method. Cronbach's Alpha coefficient is mainly used to test the consistency of the subjects' answers to all questions in the same scale. In this thesis, Cronbach's Alpha coefficient was used to test the reliability of the questionnaire results, as shown in Table 4-4.

According to Table 4-4, the internal consistency coefficient of this questionnaire is higher than 0.7. From a statistical point of view, a reliability coefficient above 0.7 for any test or scale indicates good internal consistency for the test or scale. Therefore, the results in Table 4-4 show that the internal consistency of the questionnaire data is very good, and the questionnaire data have reliability.

Table 4-4 Reliability analysis results

	<u> </u>	
Variable	Cronbach's Alpha	Number of items
Enterprise structure	0.768	4
Enterprise employees	0.818	6
Enterprise core competence	0.799	12
Enterprise culture	0.719	5
External environments	0.745	2
Enterprise strategic transformation	0.897	7

4.2.4.2 Validity test

Content validity, also known as logical validity, refers to the appropriate degree of sampling of the content to be measured or the scope of behavior, namely, the suitability and consistency of the measured content. Content validity can be used to test the validity of each item through single and sum correlation analysis.

1. Enterprise structure validity test

The content validity of enterprise structure is verified by analyzing the correlation between each item and the total score of enterprise structure. The results in Table 4-5 show that there is a significant positive correlation between each item within the enterprise structure and the total score of the enterprise structure (p<0.05), indicating that the content validity of the enterprise structure is relatively good.

Table 4-5 Enterprise structure validity test

Measured item	Correlation coefficient	Significance	Sample size
The organization has too many vertical hierarchies.	0.768**	0.000	152
The links between the horizontal departments of the organization are complex and close.	0.769**	0.000	152
The current organizational structure is influenced by past and existing experience.	0.789**	0.000	152
The enterprise mostly uses the existing organizational structure and process.	0.746**	0.000	152

2. Enterprise employee validity test

The content validity of enterprise employees is verified by analyzing the correlation between each item and the total score of enterprise employees. The results in Table 4-6 show that there is a significant positive correlation between each item within the enterprise employees and the total score of enterprise employees (p<0.05), indicating that the content validity of enterprise employees is relatively good.

Table 4-6 Enterprise employee validity test

Measured item	Correlation coefficient	Significance	Sample size
The enterprise managers lack the insight to timely detect changes in the external environment.	0.695**	0.000	152
Employees are not willing to give up their existing knowledge and skills to learn new knowledge.	0.724**	0.000	152
Managers emphasize following previous success stories.	0.707**	0.000	152
Managers lack innovation and rely on past experience to make decisions.	0.760**	0.000	152
When performing tasks, employees tend to act on their past experience.	0.727**	0.000	152
Employees tend to reject new things at work because of their habits.	0.730**	0.000	152

3. Validity test of enterprise core competence

The content validity of enterprise core competence is verified by analyzing the correlation between each item of enterprise core competence and the total score of enterprise core competence. The results in Table 4-7 show that there is a significant positive correlation between each item within the enterprise core competence and the total score of enterprise core competence (p<0.05), indicating that the content validity of enterprise core competence is relatively good.

4. Validity test of enterprise culture

The content validity of enterprise culture is verified by analyzing the correlation between each item in enterprise culture and the total score of enterprise culture. The results in Table 4-8 show that there is a significant positive correlation between each item within the enterprise culture and the total score of enterprise culture (p<0.05), indicating that the content validity of enterprise culture is relatively good.

Table 4-7 Validity test of enterprise core competence

Table 4-/ Validity test of enterprise	e core compete	ence	
Measured item	Correlation	Significance	Sample
Measured item	coefficient	Significance	size
While updating technologies, enterprises adopt the			
strategy of technology upgrading instead of introducing	0.650**	0.000	152
brand-new technologies.			
The company's technology investment cycle is long.	0.618**	0.000	152
The enterprise relies on a certain resource element for a	0.485**	0.000	152
long time.	0.483	0.000	132
The enterprise prefers to build on existing products	0.601**	0.000	152
rather than redesigning them.	0.001	0.000	132
The enterprise is slow in response to market changes,			
and the speed of strategic change is relatively lagging	0.579**	0.000	152
behind.			
Enterprise decisions are made mainly based on			
experience and the current system and do not reflect	0.459**	0.000	152
market changes.			
The enterprise always sells products to a fixed market.	0.513**	0.000	152
The enterprise pays a lot of financial resources to	0.588**	0.000	152
develop new markets every year.	0.300	0.000	132
The enterprise values short-term profits over long-term	0.670**	0.670** 0.000	152
investments.	0.070	0.000	132
For nearly three years, the company has been adding	0.572**	0.000	152
equipment to produce existing products.	0.572	0.000	132
The enterprise has been providing stable types of	0.578**	0.000	152
products to the market.			152
The renewal and upgrading speed of the enterprise	0.397**	0.000	152
products is fast.	0.007	3.300	102

5. Validity test of external environments

The content validity of the external environments is verified by analyzing the correlation between each item in the external environments and the total score of the external environment. The results in Table 4-9 show that there is a significant positive correlation between each item in the external environment and the total score of the external environment (p<0.05), indicating that the content validity of the external environment is relatively good.

Table 4-8	Validity	test of ent	ernrise	culture
1 a b 1 C - T - O	vanunv	test of em	CHOH ISC	Cultuic

rable 1 6 validity test of ent	erprise cantare		
Measured item	Correlation	Significance	Sample
Measured item	coefficient	Significance	size
The enterprise mostly sticks to old habits and is not	0.740**	0.000	1.50
willing to change too much.	0.748**	0.000	152
The enterprise has a stable organizational culture, and	0.726**	0.000	152
the goal of the organization is to pursue stability.	0.720	0.000	132
You understand the organizational culture of your	0.733**	0.000	152
enterprise, which hardly accepts new cultures.	0.755	0.000	132
The organizational culture of your enterprise is stable	0.767**	0.000	152
and will not change easily.	0.707	0.000	132

Table 4-9 Validity test of external environments

Measured item	Correlation	Significance	Sample
Weastred Item	coefficient	Significance	size
The enterprise development is influenced by the	0.898**	0.000	152
local government development plan and policies.	0.070	0.000	132
Local government protects the development of the	0.887**	0.000	152
enterprise.	0.887	0.000	132

6. Validity test of enterprise strategic transformation

The content validity of enterprise strategic transformation is verified by analyzing the correlation between each internal item of enterprise strategic transformation and the total score of enterprise strategic transformation. The results in Table 4-10 show that there is a significant positive correlation between each item within the enterprise strategic transformation and the total score of the enterprise strategic transformation (p<0.05), indicating that the content validity of the enterprise strategic transformation is relatively good.

4.3 Summary

This chapter first constructs the measurement scales of strategic transformation and path dependence; it then designs a survey questionnaire according to the constructed scales. The questionnaires are distributed and collected within the case company; finally, the samples of the questionnaire survey are described statistically.

Barriers to the Implementation of Enterprise Strategic Transformation Based on Path Dependence Theory:
The Case of Jiangsu High Hope Group

Measured item	Correlation	Significance	Sample
Measured item	coefficient	Significance	size
The enterprise has undergone significant changes in the	0.653**	0.000	152
relative resource input in some target markets.	0.033	0.000	132
The enterprise's resource allocation between different	0.745**	0.000	152
products has changed dramatically.	0.743	0.000	132
The enterprise's relative input amount of some business	0.819**	0.000	152
resources has changed significantly.	0.017	0.000	132
The enterprise has undergone cross-industry	0.841**	0.000	152
transformation.	0.041	0.000	132
The enterprise has carried out product upgrading.	0.793**	0.000	152
The enterprise has entered new markets.	0.792**	0.000	152
The enterprise has carried out internal management	0.853**	0.000	152
model transformation.	0.033	0.000	132

Chapter 5: Case Company Analysis

5.1 An introduction to the case company's strategic transformation implementation

5.1.1 Motivation for High Hope Group's strategic transformation implementation

There is a big difference in procurement strategy and procurement process between food industry and other industries.

The strategic transformation of High Hope Group is determined by the internal and external environments and its own characteristics, which can be categorized into internal motivation and external motivation. On account of the different stages of industry development and its periodical variations, the company's industry status and the introduction of government support policies, High Hope Group needs to not only constantly readjust its strategy based on the changes of its own characteristics, but also implement strategic transformation to adapt to changes in the external environment.

1. A new round of SOEs reform launched

The Third Plenary Session of the 18th Central Committee of the Communist Party of China (CPC) adopted the Decision of the CPC Central Committee on Major Issues Concerning Comprehensively Deepening Reform, putting forward thoughts on a new round of state-owned enterprises (SOEs) reform and formulating strategic plans to accelerate the development of mixed ownership economy, mergers and acquisitions, restructuring and integration, capital management model, and other aspects. On May 26th, 2014, the Provincial Party Committee and Provincial Government of Jiangsu Province issued the Opinions on Comprehensively Deepening the Reform of the Management System for State-Owned Enterprises and State-Owned Assets, which proposed to "further the securitization of state-owned assets by setting the stage for SOEs to restructure themselves and go public and promote the listing of qualified enterprise groups as a whole or of its core business assets." On September 20th, 2014, the General Office of Jiangsu Provincial Government and the General Office of Jiangsu Provincial Party Committee jointly released the Specific Implementation rules for Deepening the Reform of Provincial Enterprises, stating that

"competitive enterprises shall comprehensively implement the reform of equity diversification and mixed ownership, with an emphasis on encouraging and providing support for provincial enterprises to realize mixed ownership through overall listing. Competitive enterprises that hold listed companies, for instance, can list its core businesses or high-quality assets by way of consolidation by merger, asset replacement and private placement of the listed companies, thus eventually achieving overall listing." The decisions and opinions of the central government and provincial party committee and provincial government have provided a good policy opportunity for High Hope Group to implement reform and restructuring.

2. Pressure from horizonal competition

High Hope Group, along with its subsidiaries and listed companies, is mainly engaged in the businesses of trade and real estate, where horizontal competition has formed and will continue to develop in the future within a certain scope. On January 3rd, 2014, the China Securities Regulatory Commission (CSRC) issued Guideline No. 4 for the Supervision of Listed Companies—Commitments and Fulfillment of Commitments of the Actual Controllers, Shareholders, Affiliates, and Acquirers of Listed Companies as Well as the Listed Companies, regulating the commitments and fulfillment of commitments: Unless the non-affiliated shareholders agree to the request of changing or waiving the commitment obligation put forward by the relevant parties to the commitment, the cases of those who fail to fulfill the commitment due to their own reasons will be treated as non-performance of the commitment, and strict regulatory measures have been formulated for the non-performance of the relevant parties to the commitment. After the implementation of the Guideline, any act of non-performance, including prudent review and even refusal to approve the application for administrative license submitted by relevant parties to the commitments, will be punished accordingly. Therefore, High Hope Group have to address the problem of horizontal competition within the commitment period.

3. Grave difficulties in the foreign trade market

Established through the merger and reorganization of many state-owned enterprises in the province after multiple administrative allocations, High Hope Group faces serious homogenization of competition among these companies. Meanwhile, affected by such factors as the global financial crisis starting from 2008, rising domestic production cost and market competition, the survival of its current business model based on traditional trade is now under threat; The real estate business, which is relatively modest in terms of overall scale, has yet to form a favorable brand effect. Meanwhile, subject to adjustment and control of national real

estate policies, its development has been restrained to a certain extent in recent years. On the whole, the current industry situation of all major business segments of High Hope has imposed immense pressure on the development of the group and its stock companies, making transformation and upgrading an inevitable option.

Therefore, it is necessary for High Hope group and its stock companies to integrate internal business segments through asset restructuring and the introduction of strategic investors, optimize the allocation of resources, and ultimately achieve industrial upgrading and transformation as well as enhanced sustainable business capacity. The primary objectives of the strategic transformation of High Hope include three aspects:

The first objective is to implement the policies of a new round of state-owned assets reform and realize the securitization of core business assets. Against the background of the new round of state-owned enterprise reform, High Hope will, through reform and restructuring, accomplish the securitization of its core business assets on the one hand, and promote the business integration, transformation and upgrading of the group on the other hand, so as to improve its sustainable profitability while preserving and increasing the value of state-owned assets.

Secondly, it seeks to address the issue of horizontal competition with listed companies and unlock their function as financing platforms. Through reform and restructuring, the horizontal competition faced by High Hope will be effectively managed, which not only conforms to the regulatory requirements of CSRC, but more importantly, gives play to the capital operation function of the listed companies.

Finally, High Hope aims to introduce strategic investors, optimize the governance structure and advance its transformation and upgrading. In the course of this reform and restructuring, strategic investors will be brought in through the listing of the group as a whole and the solicitation of supporting funds at the same time. After the completion of their restructuring, the listed companies will make full use of the excellent experience of the strategic investors in such aspects as industry development, capital operation, and business operation and management, with supply chain operation as the core and the establishment of a comprehensive operational model where trade service, modern logistics, supply chain finance and industrial investment work in coordination as the goal, thus facilitating the transformation and upgrading of High Hope Group as a whole.

Motivations from the above three aspects have made it imperative for the group to implement strategic transformation. Meanwhile, however, High Hope is involved in multiple

industries and segments, each of which is driven by different motivations.

a) Cold chain logistics. The cold chain industry is facing increasingly fierce competition as traditional logistics enterprises enter the market with a large-scale infrastructure network, equipment and facilities, capital and a large number of professional talents, dramatically affecting the future landscape of the cold chain market; the integration of online and offline businesses driven by new retail leads to the incremental market of cold chain, where such segments as logistics, information, procurement, sales and technology need to be reconstructed and service quality elevated, so as to boost the integrated development of the online and offline worlds, and the development of cold chain logistics enterprises must rely on e-commerce and new retail; the General Office of the State Council issued "Opinions on Accelerating the Development of Cold Chain Logistics to Ensure Food Safety and Promote Consumption Upgrading" and "Guiding Opinions on Vigorously Advancing the Innovation and Application of Supply Chains", both putting forward new requirements and provided new space for development for the cold chain logistics industry. b) Health care. The transformation of medical enterprises is a matter of great urgency as the competitive advantage of traditional foreign trade in the field of medicine continues to weaken and industrial and price competition remains intense. Meanwhile, with the successive implementation of such policies as the "One Belt and One Road" strategy, the "Opinions on Deepening the Reform of the Evaluation and Approval Systems and Encouraging Innovation on Drugs and Medical Devices" and the "Decision of the China Food and Drug Administration on Matters concerning Adjusting the Registration Administration of Imported Drugs" as well as increasingly obvious policy effects in the medical industry, new driving forces supporting the development of medical foreign trade is gathering momentum, with its quality and efficiency steadily improving. As a result, foreign trade in the field of medicine is developing in a healthy and stable direction. c) Textile and garment. The continuous improvement of household consumption level and the constant emergence of new retail formats brought about by technological innovation have set higher demands on the textile and garment industry. Mass-produced, homogeneous and low-quality products no longer conform to the mainstream consumption concept. The textile and garment industry is undergoing a period of transformation and readjustment, shifting focus to the development of fashionable designs, product quality and brand awareness. d) Pulp and paper. Paper making is a traditional manufacturing industry currently in the maturity stage of its development. There is, however, still room for industry concentration. It is affected by e-commerce packaging and logistics

development, population aging, two-child policy, high-tech material application and environmental protection policies, among others. Paper products are national consumer goods with strong consumption attributes. Wood pulp, as the raw material of paper making, is a staple commodity, but its cyclical characteristics are less obvious and its market situation subject to the supply-demand factors and the cost factors. e) Marine electromechanical equipment. With the deepening of the "Belt and Road" development in China and the powerful return of the manufacturing industry in Europe and the U.S., the global maritime trade volume keeps growing.

5.1.2 Model and process of High Hope Group's strategic transformation

In order to maintain its strategic focus, High Hope Group has worked out a transformation path that fits the changing environment and its strategic direction through gradual exploration. As a large provincial state-holding enterprise group, High Hope adopts a top-down strategic transformation model. Since its establishment, the group has undergone multiple mergers and reorganizations and has developed into the largest provincial foreign trade enterprise in Jiangsu Province. The power and influence are highly concentrated among its senior managers, who wield the power of decision-making. Therefore, the strategic transformation of High Hope Group is guided and controlled from top to bottom by senior managers, with the long-term strategic goals and values of the group formed and established at a very early stage.

The content and process of High Hope Group's strategic transformation include the following aspects:

(1) Reasonably perfecting and improving corporate governance structure. By establishing an organizational structure composed of the shareholders' meeting, the board of directors, the board of supervisors and senior management, High Hope Group has achieved checks and balances and effective collaboration among various organizations. The continual optimization of its organizational structure and management model, coupled with the effective integration of enterprise Party building into the governance structure, has led to the ever-increasing operational efficiency of the group. An investment holding listed company and professional subsidiaries at all levels constitute High Hope Group's organizational structure, which is conducive to building High Hope into a company where, guided by supply chain operation, each business segment relies on each other for coordinated, interconnected and integrated development, giving full play to the synergistic effect brought by internal and

external integration, so as to better promote the sustainable, healthy and long-term development of the company.

- (2) Continuously integrating resources and completing the supply chain system. High Hope Group is gradually transforming into an integrated supply chain operator that has comprehensively increased its market share and enhanced its market influence through accurate market positioning, reasonable product structuring and differentiated pricing. Meanwhile, it has achieved balanced development of various businesses by correctly assessing market trends, providing customized designs and services for customers and actively promoting technological innovation and product structure optimization and upgrading. As a group company listed as a whole, High Hope owns such capital operation platforms as private equity investment and assets & wealth management. With the above advantages, the company plans to promote and improve its capital expansion capacity, brand influence, business innovation ability and financial resource integration capability.
- (3) Enhancing the enterprise brand effect. High Hope Group attaches great importance to brand establishment and development. Through "branding", "professionalization", "specialization" and "internationalization", it has cultivated a group of product brands and service brands, which have become an example of business development and a powerful tool for value creation, laid a solid foundation for building the company's brand architecture and consolidated the company's brand advantages in the industry.
- (4) Focusing on risk control during the transformation process. High Hope Group establishes an information linkage mechanism within the risk control department, deepens the business philosophy with risk control compliance, and takes risk management and internal control as an important approach to ensure the healthy development of business and enhance competitiveness. In addition, the group continues to report and review major and serious trade risks, prevent the occurrence of major trade risk events, and effectively assess and manage various risks such as credit risk, market risk, operational risk, liquidity risk and reputation risk.

5.1.3 Factors influencing High Hope Group's strategic transformation implementation

High Hope Group involves multiple industries, multiple countries and multiple subsidiaries, and encompasses a wide range of businesses. As a result, its strategic transformation is affected by various factors, including external and internal factors.

1. External factors

High Hope Group's strategic transformation implementation is a dynamic process of constantly adapting to changes in the external environment to make decisions, faced with such external factors as the technological environment, market environment and policy environment. First of all, High Hope Group is affected by the technological environment. The supply chain operation business of the group has set higher technical requirements for cold chain logistics technology. The multi-temperature layer warehouses and the cold chain logistics fleet are the priorities of development in the supply chain operation business of the group, while the development of new cold chain technologies in the market affects its transformation. Secondly, High Hope Group is under the influence of the market environment. With the improvement of domestic household consumption level and the rise of online shopping, the domestic demand for imported fresh food is increasing year by year, which means High Hope Group must actively develop international collaboration, establish overseas warehouses, expand the global fresh food procurement business and strengthen its cooperation with e-commerce retailers. In the meantime, with the change of China's family planning policy, the demand for maternal and baby care products has been soaring. As a result, High Hope Group pays special attention to the comprehensive operation service project of maternal, baby and child care products, and, with the goal of "gathering global maternal and baby care products", establishes the core competitive advantage of ensuring the same quality and price for the same item at the same time in domestic and overseas markets. Thirdly, High Hope Group is impacted by the policy environment. The "Opinions of the General Office of the State Council on Accelerating the Development of Cold Chain Logistics to Ensure Food Safety and Promote Consumption Upgrading" (No. 29 [2017] of the General Office of the State Council) proposed to facilitate the development of cold chain logistics, promote consumption upgrading and drive the coordinated development of upstream and downstream industries. The "Opinions on the Implementation of Accelerating the Development of Cold Chain Logistics to Ensure Food Safety and Promote Consumption Upgrading" issued by the Ministry of Transport, based on the revitalization of the real economy, called for a focus on building an agricultural supply chain system, improving the organizational and scientific level of agricultural production, and promoting the integrated development of primary, secondary and tertiary industries in rural areas; In the field of medicine, the implementation of the "Opinions on Deepening the Reform of the Evaluation and Approval Systems and Encouraging Innovation on Drugs and Medical Devices", the "Decision of the China Food and Drug Administration on Matters concerning Adjusting the Registration Administration of Imported Drugs" and other policies contributes to High Hope Group's development of

medical foreign trade; The "Guiding Opinions of the Ministry of Industry and Information Technology, the Ministry of Commerce and the Ministry of Science and Technology on Accelerating the Development of the Renewable Resources Industry" provides new development ideas and opportunities for the renewable resources industry.

2. Internal factors

The strategic transformation of High Hope Group cannot be carried out without being influenced by internal factors, including the current stage in the enterprise life cycle, enterprise competence and entrepreneurial ability. First, the life cycle stage of High Hope Group affects its strategic transformation. Since it was founded in 1996, High Hope Group has experienced multiple mergers and reorganizations, conducting business in such areas as import and export trade, real estate, investment, manufacturing, logistics and services, and developing economic and trade relations in more than 160 countries and regions around the world. The enterprise has currently entered the mature and stable stage of development as it gradually rationalizes resource allocation and the centralization of its functional structure. At the same time, business operation is moving towards diversification, where High Hope Group seeks greater breakthroughs in new products and new markets in the process of strategic transformation with the help of relevant resources of the enterprise. For example, the cold chain logistics sector is shifting toward imported fresh goods; the renewable resources sector is venturing into the waste paper recycling industry; the health care sector is heading in the direction of the import and export of beauty instruments, consumables, maternal and baby care products, medical and sanitary products; the textile and garment sector is making a foray into cross-border e-commerce. Secondly, the enterprise competence of High Hope Group influences its strategic transformation. The company has reached relative maturity in such fields as cold chain logistics, health care, textile and garment, pulp and paper, marine electromechanical equipment, real estate and investment, and has laid a certain foundation in terms of resources, technical personnel, environmental identification, resource integration, management and control and continuous innovation in the corresponding fields, all of which contribute to the selection and implementation of its strategic transformation. Relying on its early accumulated advantages in the cold chain logistics industry and foreign trade experience in agricultural products, High Hope Group focuses on the development of warehousing, logistics and trade business, the construction of customs bonded warehouses, import and export food supervision sites and designated refrigerated warehouses for imported aquatic products and other facilities. It has developed into a provincial key logistics enterprise, a provincial leading agricultural enterprise and an enterprise that meets national "catering cold chain logistics service standards". Thirdly, the entrepreneurial ability of High Hope Group impacts its strategic transformation. The Party organization acts as the core of leadership and political nucleus for High Hope, a provincial state-owned enterprise, in the process of its enterprise operation. The company has not only defined and put into effect the legal status of the Party organization in the corporate governance structure, perfected the leadership system of "two-way entry and cross-appointment", and organically combined Party building with operation and management, but also attached importance to the education of Party members and the development of grassroots Party organizations, while including Party building in its comprehensive assessment and evaluation system. Moreover, it has strengthened the improvement of Party conduct as well as clean and honest administration, created a clean and upright atmosphere, and conducted targeted inspection of key projects, the board of directors and supervisors as well as bidding and tendering. Through the ideological construction, supervision and inspection of the company's leadership, High Hope Group has optimized the setting and personnel allocation of each position, and improved the positional awareness and performance ability of its leadership. The "talent-oriented" strategy has been established as one of its core strategies of enterprise development, which means the transformation and development of the enterprise are guided by highly competent talents.

5.1.4 The current situation of the strategic transformation implementation of High Hope Group

Guided by the principle of "promoting steady growth of existing goods and pursuing development through incremental breakthroughs", the strategic transformation of High Hope Group, a provincial state-owned enterprise in Jiangsu Province, follows the strategy of "transformation, upgrading and innovative development" and adheres to the general direction of "professional management, diversified equities, securitized assets and standardized governance". Through the development approach of "specialization with unique characteristics and branding with the international market in mind", High Hope actively explores the transformation and development of state-owned foreign trade enterprises by making overall planning and moving forward in a proper and orderly manner. With supply chain operation as the core, the group will build an innovation chain, extend the industry chain and move up the value chain around key industries and commodities through integration as well as merger and acquisition, establish a comprehensive operational model where trade service, modern logistics, supply chain finance and industrial investment work in

coordination, and create platforms for supply chain operation and capital operation, while nurturing and forming the two emerging industries of cold chain logistics and health care, and improving and optimizing such predominant businesses as textile and garment, paper pulps and plates, and marine electromechanical devices, all in an effort to promote the transformation of High Hope from a traditional trading enterprise to an integrated supply chain operation enterprise. Its strategic transformation focuses on the following five aspects.

- (1) Conform to the core thoughts of SOEs reform. According to the thoughts on the new round of SOEs reform provided by the Central Government, the Provincial Party Committee and Provincial Government of Jiangsu Province, High Hope will take full advantage of the existing capital operation platform to integrate its internal and external effective resources, enhance the securitization of core businesses and assets, so as to achieve the transformation and upgrading as well as the sustainable development of the group.
- (2) Set up a reasonable structure to address the issue of horizontal competition. Formed through multiple mergers and reorganizations, High Hope Group has accumulated a large number of non-operating assets and inefficient assets through its long course of history. In addition, there are also businesses and assets that are irrelevant to the primary businesses with weak profitability. Therefore, to resolve the issue of horizontal competition between the non-listed subsidiaries of the group and its stock companies once and for all, increase the sustainable profitability of the businesses and assets to be injected, and meet the requirements raised by the restructuring, High Hope will incorporate all non-listed subsidiaries that are engaged in such industries as trade and real estate into the restructuring asset package and identify specific solutions for those that cannot be incorporated.
- (3) Achieve the overall listing of the core businesses and assets. On the one hand, the core businesses and assets of the group should be covered by the restructuring; on the other hand, the interests of investors should be protected, which means the financial indicators such as the return on equity of the newly listed companies should be higher than the current level of High Hope, and the business structure should be optimized to ensure the continuous profitability of injected assets. In principle, all secondary companies engaged in trade or real estate or large-scale related-party transactions will be included in the assets to be injected into the listed companies, except the ones that suffer losses and will bring down the overall performance of assets to be injected, or face insurmountable regulatory hurdles; In principle, all subsidiaries of all secondary companies that are included in the injection will be brought into the pool of assets to be injected, except the ones that suffer losses and will bring down the

overall performance of assets to be injected, or face insurmountable regulatory hurdles.

- (4) Highlight business transformation. Centering on the future development strategy of High Hope Group, the overall arrangement of the allocation of resources to be injected into the listed company, the introduction of strategic investors and the restructuring of the organizational structure will be oriented by business transformation.
- (5) Reduce and standardize related-party transactions. To maintain the independence of the listed companies, the related parties with large amounts of related-party transactions and a large proportion will be included in the listing system, so as to reduce the number of related-party transactions. The related parties that are not listed shall minimize the number of related-party transactions and regulate their pricing so as to ensure fairness.

5.2 Influences of path dependence based on questionnaire survey results on High Hope Group's strategic transformation implementation

5.2.1 Correlation analysis

5.2.1.1 Correlation analysis of enterprise structure and enterprise strategic transformation

Correlation analysis is used to describe the relationship between two variables. The degree of correlation is expressed by the correlation coefficient. Generally speaking, the absolute value of the correlation coefficient is between 0 and 1.00, indicating different degrees of correlation. The closer the absolute value is to the end of 1.00, the higher the correlation degree is.

According to the Table 5-1 about correlation analysis of enterprise structure and enterprise strategic transformation, there is a significantly negative correlation between enterprise strategic transformation and the path dependence of enterprise structure (r = -0.839, p < 0.05), the path dependence of vertical hierarchical structure (r = -0.666, p < 0.05), the path dependence of horizontal departmental connection (r = -0.663, p < 0.05) and the path dependence of structural stability (r = -0.723, p < 0.05). In addition, the above correlation coefficients are all over -0.600, indicating a strong correlation between enterprise structure and enterprise strategic transformation.

Table 5-1 Correlation analysis of enterprise structure and enterprise strategic transformation

Enterprise structure	Enterprise strategic transformation	Significance
Enterprise structure	-0.839**	0.000
Vertical hierarchical structure	-0.666**	0.000
Horizontal departmental connection	-0.663**	0.000
Structural stability	-0.723**	0.000

5.2.1.2 Correlation analysis of enterprise employees and enterprise strategic transformation

From the Table 5-2 about correlation analysis of enterprise employees and enterprise strategic transformation, it can be seen that there is a significantly negative correlation between the strategic transformation of enterprises and the path dependence of enterprise employees (r = -0.862, p < 0.05), the path dependence of managers' cognition (r = -0.554, p < 0.05), the path dependence of the cognition of rank-and-file employees (r = -0.626, p < 0.05), the path dependence of managers' behavior (r = -0.795, p < 0.05) and the path dependence of the behavior of rank-and-file employees (r = -0.737, p < 0.05). The correlation coefficients are all above -0.500, showing a strong correlation between enterprise employees and enterprise strategic transformation.

Table 5-2 Correlation analysis of enterprise employees and enterprise strategic transformation

Enterprise employees	Enterprise strategic transformation	Significance
Enterprise employees	-0.862**	0.000
Managers' cognition	-0.554**	0.000
Cognition of rank-and-file employees	-0.626**	0.000
Managers' behavior	-0.795**	0.000
Behavior of rank-and-file employees	-0.737**	0.000

5.2.1.3 Correlation analysis of enterprise core competencies and enterprise strategic transformation

As can be seen from the Table 5-3 about correlation analysis of enterprise core competencies and enterprise strategic transformation, enterprise strategic transformation is significantly and negatively correlated to the path dependence of enterprise core competencies 104

(r = -0.818, p < 0.05), the path dependence of factor inputs (r = -0.643, p < 0.05), the path dependence of managerial decision-making (r = -0.637, p < 0.05), the path dependence of market targeting (r = -0.527, p < 0.05), the path dependence of manufacturing facilities (r = -0.566, p < 0.05) and the path dependence of its learning ability (r = -0.652, p < 0.05), with correlation coefficients all above -0.500, revealing a strong correlation between enterprise core competencies and enterprise strategic transformation.

Table 5-3 Correlation analysis of enterprise core competencies and enterprise strategic transformation

Enterprise core competencies	Enterprise strategic transformation	Significance
Enterprise core competencies	-0.818**	0.000
Factor inputs	-0.643**	0.000
Managerial decision-making	-0.637**	0.000
Market targeting	-0.527**	0.000
Manufacturing facilities	-0.566**	0.000
Learning ability	-0.652**	0.000

5.2.1.4 Correlation analysis of enterprise culture and enterprise strategic transformation

Based on the Table 5-4 about correlation analysis of enterprise culture and strategic transformation of enterprises, there is a significantly negative correlation between the path dependence of enterprise culture and enterprise strategic transformation (r = -0.840, p < 0.05) with a correlation coefficient of -0.769, indicating a strong correlation between enterprise culture and enterprise strategic transformation.

Table 5-4 Correlation analysis of enterprise culture and enterprise strategic transformation

Enterprise culture	Enterprise strategic transformation	Significance
Enterprise culture	-0.840**	0.000

5.2.1.5 Correlation analysis of the external environment and enterprise strategic transformation

The Table 5-5 about correlation analysis of the external environment and enterprise strategic transformation shows a significantly negative correlation between the path dependence of the external environment and enterprise strategic transformation (r = -0.769, p

< 0.05), and the correlation coefficient is -0.769, which means the external environment is highly correlated to enterprise strategic transformation.

Table 5-5 Correlation analysis of the external environment and enterprise strategic transformation

External environment	Enterprise strategic transformation	Significance	
External environment	-0.769**	0.000	

5.2.2 Regression analysis

5.2.2.1 Regression analysis of enterprise structure to enterprise strategic transformation

The total score of enterprise structure and its dimensions (vertical hierarchical structure, horizontal departmental connection, structural stability) are taken as the independent variables and enterprise strategic transformation as the dependent variable in the linear regression analysis, the results of Table 5-6 which show that: a) The path dependence of the vertical hierarchical structure will have a significantly negative impact on the strategic transformation of the enterprise, and the influence coefficient is -0.310 (p < 0.05), which means the path dependence of the vertical hierarchical structure of the enterprise will hinder the implementation of enterprise strategic transformation. b) The path dependence of the horizontal departmental connection will significantly and negatively affect the strategic transformation of the enterprise with an influence coefficient of -0.302 (p < 0.05). In other words, the path dependence of the horizontal departmental connection of the enterprise will become an obstacle to the implementation of enterprise strategic transformation. c) The strategic transformation of the enterprise will be significantly and negatively influenced by the path dependence of the structural stability, with an influence coefficient of -0.416 (p < 0.05), which suggests that the path dependence of the structural stability of the enterprise will hamper the implementation of enterprise strategic transformation. Consequently, d) the path dependence of the enterprise structure will hinder the implementation of enterprise strategic transformation. The results of Table 5-6 support the hypotheses H1.

Table 5-6 Regression analysis of the path dependence of enterprise structure to enterprise strategic transformation

Entomoiae etmotoree	Enterprise strategic transformation				
Enterprise structure	В	Beta	t	p	
Constant	5.336		28.671	0.000	
Vertical hierarchical structure	-0.259	-0.310	-5.718	0.000	
Horizontal departmental connection	-0.253	-0.302	-5.559	0.000	
Structural stability	-0.407	-0.416	-7.596	0.000	
F	119.091**				
\mathbb{R}^2	0.707				
Adjusted R ²	0.701				

5.2.2.2 Regression analysis of enterprise employees to enterprise strategic transformation

The linear regression analysis is conducted with the total score of enterprise employees and its dimensions (managers' cognition, cognition of rank-and-file employees, managers' behavior, behavior of rank-and-file employees) as the independent variables and enterprise strategic transformation as the dependent variable. The results of Table 5-7 which show: a) The path dependence of managers' cognition will have a significantly negative impact on the strategic transformation of enterprises with an influence coefficient of -0.119 (p < 0.05), which means the path dependence of managers' cognition will hinder the implementation of enterprise strategic transformation. b) The path dependence of managers' behavior will have a significantly negative impact on the strategic transformation of enterprises with an influence coefficient of -0.417 (p < 0.05), which means the path dependence of managers' behavior will hinder the implementation of enterprise strategic transformation. c) It can thus be inferred that the path dependence of enterprise managers will hinder the implementation of enterprise strategic transformation. d) The path dependence of the cognition of rank-and-file employees will have a significantly negative impact on the strategic transformation of enterprises with an influence coefficient of -0.204 (p < 0.05), which means the path dependence of the cognition of rank-and-file employees will hinder the implementation of enterprise strategic transformation. e) The path dependence of the behavior of rank-and-file employees will have a significantly negative impact on the strategic transformation of enterprises with an influence coefficient of -0.305 (p < 0.05), which means the path dependence of the behavior of rank-and-file employees will hinder the implementation of enterprise strategic transformation. f) This proves that the path dependence of rank-and-file employees will hinder the implementation of enterprise strategic transformation. g) Based on the above discoveries, we can conclude that the path dependence of enterprise employees will create obstacles to the implementation of enterprise strategic transformation. The results of Table 5-7 support the hypotheses H2.

Table 5-7 Regression analysis of the path dependence of enterprise employees to enterprise strategic transformation

Enterprise employees	Enterprise strategic transformation				
Enterprise employees	В	Beta	t	p	
Constant	4.217		36.799	0.000	
Managers' cognition	-0.067	-0.119	-2.392	0.018	
Managers' behavior	-0.295	-0.417	-6.726	0.000	
Cognition of rank-and-file employees	-0.114	-0.204	-4.039	0.000	
Behavior of rank-and-file employees	-0.210	-0.305	-5.347	0.000	
F	110.372**				
\mathbb{R}^2	0.750				
Adjusted R ²	0.743				

5.2.2.3 Regression analysis of enterprise core competencies to enterprise strategic transformation

The regression analysis is performed with the total score of enterprise core competencies and its various dimensions (factor inputs, managerial decision making, market targeting, manufacturing facilities, learning ability) as the independent variables and enterprise strategic transformation as the dependent variable, and the following results of Table 5-8 which shows: a) The strategic transformation of enterprises will be significantly and negatively affected by the path dependence of factor inputs, and the influence coefficient is -0.251 (p < 0.05), suggesting that the path dependence of factor inputs (resources) of enterprises will stand in the way of the implementation of enterprise strategic transformation. b) The strategic transformation of enterprises will be significantly and negatively affected by the path dependence of managerial decision making, and the influence coefficient is -0.357 (p < 0.05), suggesting that the path dependence of managerial decision making of enterprises will stand

in the way of the implementation of enterprise strategic transformation. c) The strategic transformation of enterprises will be significantly and negatively affected by the path dependence of market targeting, and the influence coefficient is -0.171 (p < 0.05), suggesting that the path dependence of market targeting of enterprises will stand in the way of enterprise strategic transformation implementation. d) Enterprise strategic transformation will be significantly and negatively affected by the path dependence of manufacturing facilities, and the influence coefficient is -0.153 (p < 0.05), suggesting that the path dependence of manufacturing facilities of enterprises will stand in the way of enterprise strategic transformation implementation. e) Enterprise strategic transformation will be significantly and negatively affected by the path dependence of its learning ability, and the influence coefficient is -0.184 (p < 0.05), suggesting that the path dependence of the learning ability of enterprises will stand in the way of enterprises strategic transformation implementation. f) Therefore, it can be seen that the path dependence of the core competencies of enterprises will inhibit enterprise strategic transformation implementation. The results of Table 5-8 support the hypotheses H3.

Table 5-8 Regression analysis of the path dependence of enterprise core competencies to enterprise strategic transformation

Enterprise core competencies	Enterprise strategic transformation				
	В	Beta	t	p	
Constant	5.222		27.253	0.000	
Factor inputs	-0.223	-0.251	-3.650	0.000	
Managerial decision making	-0.316	-0.357	-6.756	0.000	
Market targeting	-0.148	-0.171	-3.048	0.003	
Manufacturing facilities	-0.127	-0.153	-2.521	0.013	
Learning ability	-0.161	-0.184	-2.497	0.014	
F	63.634**				
\mathbb{R}^2	0.685				
Adjusted R ²	0.675				

5.2.2.4 Regression analysis of enterprise culture to enterprise strategic transformation

Taking enterprise culture as the independent variable and enterprise strategic transformation as the dependent variable, the linear regression analysis is conducted and the

results of Table 5-9 show that the path dependence of enterprise culture will have a significantly negative impact on enterprise strategic transformation with an influence coefficient of -0.840 (p < 0.05), which means the path dependence of enterprise culture will hinder enterprise strategic transformation implementation. The results of Table 5-9 support the hypotheses H4.

Table 5-9 Regression analysis of the path dependence of enterprise culture to enterprise strategic transformation

Enterprise culture -	Enterprise strategic transformation				
	В	Beta	t	p	
Constant	5.127		29.613	0.000	
Enterprise culture	-0.857	-0.840	-18.982	0.000	
F	360.305**				
\mathbb{R}^2	0.706				
Adjusted R ²	0.704				

5.2.2.5 Regression analysis of the external environment to enterprise strategic transformation

The Table 5-10 show that with the external environment as the independent variable and enterprise strategic transformation as the dependent variable, the linear regression analysis discovers that the path dependence of the external environment will produce a significant negative effect on enterprise strategic transformation, and the influence coefficient is -0.769 (p < 0.05). In other words, the path dependence of the external environment will impede enterprise strategic transformation implementation. The results of Table 5-10 support the hypotheses H5.

5.3 Path dependence barriers to High Hope Group's strategic transformation implementation

5.3.1 Enterprise structure

Path dependence on enterprise structure includes three aspects, namely, path dependence on vertical hierarchy, path dependence on horizontal sector linkage, and path dependence on organizational structure stability.

Table 5-10 Regression analysis of the path dependence of the external environment to enterprise strategic transformation

External environment _	Enterprise strategic transformation				
	В	Beta	t	p	
Constant	4.384		25.335	0.000	
External environment	-0.708	-0.769	-14.717	0.000	
F	216.579**				
\mathbb{R}^2	0.591				
Adjusted R ²	0.588				

First, path dependence on vertical hierarchy affects High Hope Group's strategic transformation. High Hope Group involves a number of industries and areas. Its head office, as the strategic management center and resource allocation center, makes integrated planning for all industries and areas of business. The policies it introduces are implemented by the corresponding subsidiaries, and the subsidiaries are responsible for the operation of each business sector. In the meantime, the subsidiaries of High Hope Group subdivide their businesses, which are managed by the subsidiaries of its subsidiaries, namely, the sub-subsidiaries of High Hope Group. Therefore, the vertical hierarchy of High Hope Group is clear and stable. However, there are still too many vertical levels. To be specific, the strategic transformation of High Hope Group needs to go through at least two or three vertical levels. In other words, the strategic transformation implementation of the enterprise is heavily dependent on the implementation efficiency of its existing vertical hierarchy.

Second, path dependence on horizontal sector linkage affects High Hope Group's strategic transformation. As the largest state-owned foreign trade enterprise in B Province, High Hope Group's development has undergone a transformation from monism to diversification as well as from administration to commercialization. Yet High Hope Group is still a traditional state-owned enterprise. There are many horizontal departments in the organization, the relationships between various departments are complicated, and the staffing ratio is disorderly. Therefore, this complicated horizontal relationship makes the implementation of a particular business or a specific decision subject to the common influences of various horizontal departments. As a result, if a problem occurs in one link, the whole business or decision-making will stagnate. In other words, the strategic transformation implementation of the enterprise is heavily dependent on the relationship between its existing

horizontal departments.

Third, path dependence on enterprise structure stability affects High Hope Group's strategic transformation. After more than 20 years of development, High Hope Group has formed a stable organizational structure. Its business process has been basically perfected and solidified. And it has also accumulated rich experience in relevant fields. Therefore, High Hope Group's strategic transformation is carried out under the influence of its existing and solidified structure and process. Its experience accumulated in the early stage is often the key basis of enterprise strategic decision, and few disruptive decisions of change are made. Therefore, the strategic transformation implementation of High Hope Group relies heavily on the stability of its existing enterprise structure.

5.3.2 Enterprise employees

Path dependence on enterprise employees can be subdivided into three types, namely, path dependence on managers' cognition, path dependence on ordinary employees' cognition and path dependence on managers' behaviors.

First, path dependence on managers' cognition affects High Hope Group's strategic transformation. As an established large state-owned enterprise, High Hope Group has a "top-down" representation in its decision-making and strategic transformation. In other words, the cognition and behaviors of the senior executives and managers play a vital role in the decision-making and strategic transformation of enterprises. If the senior executives and managers lack sufficient knowledge or keen insight, they will not be able to detect changes in the external environment in a timely and accurate manner. As a result, they will not be able to carry out effective and reasonable strategic transformation according to the changes and trends of the times. Therefore, the implementation of High Hope Group's strategic transformation relies heavily on the cognition of its current managers.

Second, path dependence on ordinary employees' cognition affects High Hope Group's strategic transformation. As a state-owned enterprise, High Hope Group needs to not only achieve the purpose of making profits, but also assume social responsibility, especially to solve local employment problems in order to maintain the stability of local society. Therefore, High Hope Group cannot assess employees solely based on their performance. Besides, due to the influence of bounded rationality, enterprise employees tend to carry out work according to their limited cognition. In addition, because of the conversion costs of learning new skills, or the anxiety of employees about using new skills, employees are reluctant to give up their

existing knowledge and skills and spend more time and energy to learn new knowledge. Employees' such behavior, in turn, will affect the development of High Hope Group. Therefore, the implementation of High Hope Group's strategic transformation relies heavily on the cognition of its existing ordinary employees.

Third, the path dependence on managers' behaviors affects High Hope Group's strategic transformation. As an established large-scale listed company, High Hope Group has formed its own paradigms for its business process and decision execution process. The same or similar businesses and decisions often follow the previous successful examples. Thus, in order to avoid risks, managers behave relatively cautiously. Most of them rely on past experience to make decisions, often ignoring the impact of the real new environment to adjust strategies. As a result, the behaviors of managers show a lack of innovation. Therefore, the implementation of High Hope Group's strategic transformation relies heavily on the behaviors of its current managers.

5.3.3 Enterprise core competencies

Path dependence on enterprise core competencies can be subdivided into five types, path dependence on factor input, path dependence on experiential decisions, path dependence on target market, path dependence on production equipment and path dependence on learning ability.

First, path dependence on factor input affects High Hope Group's strategic transformation. High Hope Group's business involves a variety of industries. Its cold chain logistics business, grain and oil business, textile and garment business and pulp paper plate business all belong to factor-intensive areas. Thus, the development of these businesses relies heavily on the input of elements. In particular, for the cold chain logistics business, construction of the cold chain logistics base and the acquisition of refrigeration equipment have become an important and long-term strategy of High Hope Group. In the meantime, because these operations are relatively narrow and targeted, they have a serious dependency on a particular type of element. Therefore, for High Hope Group whose most main businesses are in the factor-intensive areas, its strategic transformation implementation is heavily dependent on its input of elements.

Second, path dependence on experiential decisions affects High Hope Group's strategic transformation. High Hope Group, on the basis of its existing businesses and products, develops itself into a key enterprise, leading enterprises, benchmark enterprise in the industry,

while focusing on the cultivation and development of international well-known brands; due to its large size and complicated businesses, High Hope Group mainly adopts a progressive and robust strategy, to sustain the steady growth of its existing businesses; meanwhile, risk management and internal control mechanisms are established to prevent major credit risks, market risks, operational risks and liquidity risks in business decisions. Although these sound business decisions can ensure the smooth development of the enterprise, they reduce the response to the rapid changes in the market, causing High Hope Group's strategic transformation implementation to be heavily dependent on its historical business decisions.

Third, path dependence on the target market affects High Hope Group's strategic transformation. As a foreign trade service-oriented enterprise, High Hope Group regards cold chain logistics business and grain and oil business as its traditional and main businesses. The cold chain logistics business is about introducing high-quality suppliers of origin from different countries through global investment and providing warehousing, logistics, display, processing, finance and trade services for these suppliers; the grain and oil business mainly adopts proprietary mode, integrating the production link with the sales link, integrating the company, base and production enterprises, as well as integrating trade, industry and agriculture. Therefore, High Hope Group's procurement market and sales market are determined according to the advantages of regional products. Thus, its target market is relatively stable, which also makes High Hope Group's strategic transformation implementation to be heavily dependent on its existing target market.

Fourth, path dependence on production equipment affects High Hope Group's strategic transformation. High Hope Group has a serious dependence on cold chain logistics equipment, transportation equipment, cold chain warehousing equipment and garment processing equipment. Therefore, High Hope Group's strategic transformation implementation relies heavily on its existing production equipment.

Fifth, path dependence on learning ability affects High Hope Group's strategic transformation. Learning ability mainly refers to an enterprise's ability to manufacture new products and its speed of product renewal. High Hope Group, which has a variety of products and wide distribution, is often only able to develop and update new products in a few core areas. Meanwhile, as High Hope Group is foreign trade service-oriented enterprise, it mainly acts as a trade "intermediary", with a small proportion of manufacturing links. Thus, the products it provides are relatively stable. Therefore, High Hope Group's strategic transformation implementation is less dependent on learning ability.

5.3.4 Enterprise culture

The path dependence on the target market affects High Hope Group's strategic transformation. High Hope Group has been established for more than 20 years. As a state-owned large enterprise, it has a huge internal structure and complicated relationships, which makes the enterprise relatively stable. Besides, it has long formed its own unique enterprise culture and corporate atmosphere, which are accepted by most employees. Under the influence of this "strong" culture, the members of High Hope Group maintain a more coordinated consistency, and the consistency of employee cognition and behaviors formed under this "strong" culture will seriously hinder its employees' acceptance and recognition of new things and ideas. Therefore, High Hope Group's strategic transformation implementation relies heavily on its existing enterprise culture.

5.3.5 External environment

Path dependence on the external environment can be subdivided into two types, namely, path dependence on the local development model and path dependence on administrative constraints.

First, path dependence on the local development model affects High Hope Group's strategic transformation. There are many similarities and differences between Jiangsu Province, where High Hope Group is located, and its adjacent Zhejiang Province. Jiangsu Province and Zhejiang Province have the same geographical location. They are both China's eastern coastal cities. The superior geographical location for the two provinces provides a basis for the development of the trade industry. However, due to the influence of natural, historical, cultural, economic, institutional and other factors, the differences of regional economic development in Jiangsu Province are significantly higher than those of regional economic development in Zhejiang Province, which results in different economic driven modes of these two provinces. To be specific, Jiangsu Province is mainly dependent on the advantages of a small number of large state-owned enterprises to drive economic growth, while Zhejiang Province relies mainly on the advantages of a large number of small private enterprises to drive economic growth. The advantages of private foreign trade enterprises of Zhejiang Province make the private foreign trade enterprises of Jiangsu Province unable to compete with them in the international market. In order to reverse the disadvantages of foreign trade enterprises of Jiangsu Province in the international market, Jiangsu Province has adopted a local development model that centralizes resources and relies on scale advantages,

which has propelled the foreign trade enterprises in Jiangsu Province to develop towards the direction of large state-owned enterprises. And High Hope Group has developed exactly under such a background and trend. Therefore, High Hope Group's strategic transformation implementation relies heavily on the local development model.

Second, path dependence on administrative constraints affects High Hope Group's strategic transformation. As mentioned above, influenced by the local development model, High Hope Group has developed into a large provincial state-owned foreign trade enterprise in Jiangsu Province. Its nature as a provincial and state-owned enterprise makes High Hope Group able to rely on local policy support and preferential measures to develop, and fast in the response to the newly promulgated policies. Therefore, High Hope Group's strategic transformation implementation is dependent on administrative constraints.

5.4 Summary

This chapter makes an analysis with High Hope Group as the case company. First, the motivation, mode, process and influencing factors of High Hope Group's strategic transformation implementation are introduced in detail; second, the data based on the questionnaire of Chapter 4 empirically test the influence of High Hope Group's various types of path dependence on the implementation of its strategic transformation; finally, the barriers to High Hope Group's strategic transformation implementation by path dependence of five aspects, namely, enterprise structure, enterprise employees, enterprise core competence, enterprise culture and external environment are analyzed in detail.

Chapter 6: Case Company Analysis

6.1 Research conclusions

Nowadays, economic globalization has been deepening and the trade structure mode has been improving. In this context, China is gradually ascending into a major global trade power, enjoying increasing space for the development of its foreign trade enterprises. However, there are a lot of external factors at play, such as financial crisis, trade protectionism, e-commerce transaction mode and online procurement, "re-industrialization" wave in developed countries and the trade war between China and US. Due to their comprehensive influences, the competitive advantages and profits of Chinese foreign trade enterprises have been declining. Therefore, for the purpose of survival and development in the new situation, it has become an inevitable trend for foreign trade enterprises to carry out strategic transformation. However, in the dynamic environment, significant path dependence is standing in the way of traditional enterprise strategic transformation, causing the strategic transformation of Chinese foreign trade enterprises to exhibit obvious inertia. The existence of path dependence makes it difficult for foreign trade enterprises to change their current extensive mode of foreign trade development, which seriously hinders their strategic transformation in the new situation.

This thesis, proceeding from theory and demonstration, takes Jiangsu High Hope Group as the research object and studies the barriers of path dependence to its strategic transformation implementation. First, based on the previous literature and the research content of this study, a theoretical model encompassing both enterprise strategic transformation and various types of path dependence is constructed. And the model is used as the theoretical framework for the study of barriers to enterprise strategic transformation implementation under the theory of path dependence. Then, under the framework of this theory, the thesis puts forward the research hypothesis that the path dependence of five aspects hinders enterprise strategic transformation implementation. The five aspects are enterprise structure, enterprise employees, enterprise core competencies, enterprise culture and external environment. Second, the measurement scale of strategic transformation and path dependence is constructed. And a questionnaire is designed according to the constructed scale. And questionnaires are, distributed and recovered within the case company. After that, an empirical analysis of the data collected by the questionnaires is made to identify the barriers to the strategic transformation implementation of the case company.

Chapter 3, model building. Based on the literature review in Chapter 2, this chapter not only summarizes the driving factors of enterprise strategic transformation implementation, the mode of strategic transformation implementation, the process and content of strategic transformation implementation, the influencing factors of strategic transformation and the risks of strategic transformation, and makes a systematic and comprehensive understanding of enterprise strategic transformation, but also analyzes the path dependence in all aspects of an enterprise in the process of strategic transformation implementation. Based on the analysis of strategic transformation and path dependence, this thesis constructs a theoretical model which includes both enterprise strategic transformation and various types of path dependence. And the model is used as the theoretical framework for the study of barriers to enterprise strategic transformation implementation under the theory of path dependence. And under this theoretical framework, the research hypothesis that path dependence hinders enterprise strategic transformation implementation is put forward.

Chapter 4, Research Methods and Data. Based on the theoretical framework of Chapter 3 and the proposed research hypothesis, this chapter first introduces the background of the case company, constructs the measurement scales of strategic transformation and path dependence, and then designs the questionnaire according to the constructed scale. Afterwards, questionnaires are distributed, recovered and organized in the case company. Finally, the reliability and validity of the questionnaire data are tested.

Chapter 5, Case Company Analysis. First, based on the theoretical framework in Chapter 3, this chapter discusses in detail the strategic transformation implementation of the case company; Then, based on the research hypothesis proposed in Chapter 3 and the data collected in Chapter 4, it empirically tests the influences of the path dependence of each aspect on the case company's strategic transformation implementation. Finally, it analyzes in detail the barriers to the strategic transformation implementation of the case company in each aspect of path dependence.

6.2 Policy suggestions

With Jiangsu High Hope Group as the research object, this thesis studies the barriers to its strategic transformation from the perspective of path dependence. This can help Jiangsu High Hope group to identify the risks and barriers faced in the process of strategic transformation, get rid of the constraints of path dependence in the process of strategic

transformation implementation, avoid the risk of strategic transformation, and enable its successful transformation. It can also help other foreign trade enterprises to get rid of the constraints of path dependence to successfully achieve strategic transformation. Therefore, this thesis puts forward the following policy suggestions:

First, reasonably optimize enterprise organizational structure and improve the efficiency of collaboration between the vertical and horizontal departments to ensure the efficiency of enterprise strategic transformation implementation.

Second, strengthen the vocational training of enterprise employees and business managers, update their knowledge reserve and vocational skills and improve their ability to accept new things to promote enterprise strategic transformation implementation.

Third, expand the simplified enterprise production factors into diversified production factors, constantly adjust enterprise experiential decisions according to the dynamic changing environment, constantly broaden the enterprise's target market, increase updated and new equipment and make active efforts to promote new product development, so as to get rid of the dependence of enterprise strategic transformation implementation on the traditional path.

Fourth, take the initiative to foster an open, inclusive and dynamic new culture in the enterprise, enhance employees' acceptance and recognition of new things and ideas, so as to increase the vitality of enterprise strategic transformation implementation.

Fifth, enhance the enterprise's own core market competitiveness. Besides, actively and efficiently make use of policy factors to promote enterprise strategic transformation implementation.

6.3 Research prospects

This thesis, proceeding from theory and demonstration, takes Jiangsu High Hope Group as the research object and studies the barriers to its strategic transformation from the perspective of path dependence. To a certain extent, this thesis enriches relevant literature on path dependence and strategic transformation, and also provides some theoretical bases for foreign trade enterprises to get rid of the constraints of path dependence and successfully realize strategic transformation. However, due to the limitations of the author and the research conditions, this thesis still has some limitations and issues awaiting further study.

First, because questionnaire survey is targeted at a single case company, the data are not sufficient. Thus, the analysis cannot be expanded to a majority of foreign trade enterprises.

Therefore, future studies can expand the research objects to more foreign trade enterprises.

Second, this thesis only considers path dependence in five aspects, namely, enterprise structure, enterprise employees, enterprise core competencies, enterprise culture and external environment. However, enterprise path dependence not only exists in these five aspects. Therefore, future studies can further divide enterprise path dependence.

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Appendix

Questionnaire on Strategic Transformation and Path Dependence

Dear Sir/Madam, thanks very much for filling in this questionnaire!

This questionnaire aims to explore the barriers to enterprise strategic transformation caused by path dependence. The results of this survey are for academic research only. We promise to keep your information confidential. Please fill in according to the facts and your true feelings. All questions are single-choice questions. Please tick " $\sqrt{}$ " in the \square of the option that matches your reality most.

Part 1 Basic Information

1.	Your gender:							
	□Male	□Female						
2.	Your age:							
	□20-29 years old	□30-39 years old	□40-49 years old	□above 50 years old				
3.	S. Your academic attainment:							
	□High school grad	uate or below	□Junior college graduate					
	□College graduate		□Master degree holder or above					
4. Your position in this company: □Senior manager □Middle manager □Ordinary employee								

Part 2 Strategic Transformation

Item	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
The enterprise has undergone significant changes in					
the relative resource input in some target markets. The enterprise's resource allocation between					

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different products has changed dramatically.			
The enterprise's relative input amount of some			
business resources has changed significantly			
The enterprise has undergone cross-industry			
transformation.			
The enterprise has undergone product upgrading.			
The enterprise had entered new markets.			
The enterprise has undergone internal management			
mode transformation.			

Part 3 Path Dependence

Item	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
The enterprise has too many vertical hierarchies.					
The links between the horizontal departments of the					
enterprise are complex and close.					
The current enterprise structure is influenced by past and					
existing experience.					
The enterprise mostly uses the existing organizational					
structure and processes.					
Enterprise managers lack the insight to timely detect					
changes in the external environment.					
Employees are not willing to give up their existing					
knowledge and skills to learn new knowledge.					
Enterprise managers emphasize following previous success					
stories.					
Enterprise managers lack innovation and rely on past					
experience to make decisions.					
When performing tasks, employees tend to act on their past					
experience.					
Employees tend to reject new things at work because of					
their habits.					
While updating technologies, enterprises adopt the strategy					
of technology upgrading instead of introducing brand-new					
technologies.					

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The enterprise's technology investment cycle is long.		
The enterprise relies on a certain resource element for a		
long time.		
The enterprise prefers to build on existing products rather		
than redesigning them.		
The enterprise is slow in response to market changes, and		
the speed of strategic change is relatively lagging behind.		
Enterprise decisions are made mainly based on experience		
and the current system and do not reflect market changes.		
The enterprise always sells products to a fixed market.		
The enterprise pays a lot of financial resources to develop		
new markets every year.		
The enterprise values short-term profits over long-term		
investments.		
For nearly three years, the company has been adding		
equipment to produce existing products.		
The enterprise has been providing stable types of products		
to the market.		
The renewal and upgrading speed of the enterprise products		
is fast.		
The enterprise mostly sticks to old habits and is not willing		
to change too much.		
The enterprise has a stable organizational culture, and the		
goal of the organization is to pursue stability.		
You understand the organizational culture of your		
enterprise, which hardly accepts new cultures.		
The organizational culture of your enterprise is stable and		
will not change easily.		
The enterprise development is influenced by the local		
government development plan and policies.		
Local government protects the development of the		
enterprise.		

This is the end of the questionnaire survey. Thank you for your cooperation!