BUSINESS MODEL INNOVATION IN DYNAMIC CAPABILITIES FOR TEA ENTERPRISE COMPETITIVENESS IN SICHUAN, CHINA

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A dissertation submitted in partial fulfillment of the requirements for the degree of

Doctor of Philosophy in Management

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DECLARATION

I, Jian Kerong (Student ID# 6319200007), hereby certify that the work embodied in this dissertation entitled "Business Model Innovation in Dynamic Capabilities for Tea Enterprises Competitiveness in Sichuan, China" is result of original research and has not been submitted for a higher degree to any other university or institution.

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ABSTRACT

Title : Business Model Innovation in Dynamic Capabilities for Tea Enterprises Competitiveness in Sichuan, China

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From the perspective of global economic integration and a complex market landscape, Sichuan tea companies are encountering heightened competitive pressures. This research aims to investigate the relationship between business model innovation and the competitiveness of these enterprises, framed by the concept of dynamic capabilities. The study will also explore and identify effective strategies to enhance the competitiveness of Sichuan tea enterprises through business model innovation. The results will provide substantial theoretical backing and practical advice for enhancing the global competitiveness of Sichuan tea.

This research employs a mixed-methods strategy that combines both quantitative and qualitative analyses to thoroughly and accurately investigate the relationships between key research variables. In the quantitative phase, data were gathered from ten representative tea companies in Sichuan Province. This data was processed with SPSS software for cleaning, descriptive statistical analysis, and correlation testing, aiming to initially explore the relationships among dynamic capabilities, business model innovation, and enterprise competitiveness. Following these findings, Structural Equation Modeling (SEM) was performed using AMOS to evaluate theoretical hypotheses and identify the

causal relationships between the variables. For qualitative analysis, NVivo software was employed to code and perform thematic analysis on the data obtained from in-depth interviews, further confirming relevant hypotheses.

The research findings reveal that the dynamic capability of enterprises directly impacts the competitiveness of Sichuan tea companies and exhibits a significant positive relationship with business model innovation. This innovation is crucial and actively contributes to boosting the competitiveness of these enterprises. Based on these findings, the study has effectively developed a model that combines dynamic capability, business model innovation, and enterprise competitiveness.

This study's model successfully integrates the intricate relationships between dynamic capabilities, business model innovation, and enterprise competitiveness. It offers a solid theoretical framework and practical guide for Sichuan tea enterprises to develop effective and scientifically grounded strategies. Enterprises can intentionally cultivate and enhance their dynamic capabilities, aligning them with their specific circumstances and actively driving business model innovation. This enables them to effectively identify development opportunities in a complex and rapidly changing market, thereby improving the competitiveness of tea enterprises.

Keyword: Sichuan tea enterprises, dynamic capabilities, business model innovation, enterprise competitiveness

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CHAPTER 1
INTRODUCTION

1.1 Background of the Problem

Since ancient times, tea has been essential in foreign trade and remains one of the most significant commodities. As a leading tea-producing country, China boasts a long history of tea culture, with the tea industry occupying a key position in the national economy. This sector is not only a major contributor to China's GDP but is also recognized as one of the country's vital industries (Guan, 2022). Tea's importance as an export commodity began as early as the Tang and Song dynasties, when it was traded along the famous Silk Road and later via maritime routes to the Middle East, Europe, and other parts of the world (Benn, 2015). Over centuries, tea cultivation and processing technologies have continually improved, enhancing the quality and variety of teas produced. As a result, China has gradually emerged as one of the world's largest producers and exporters of tea, with millions of tons produced annually. According to recent data, tea exports account for a significant portion of China's agricultural exports, with major markets including countries in Asia, Europe, and, increasingly, North America.

Tea's role in international trade goes beyond its economic value - it has also become a cultural symbol. In trade relations, tea fosters cross-cultural exchanges and cooperation between countries. For example, Chinese tea culture, including elaborate tea ceremonies, emphasizes hospitality, respect, and social harmony. As tea spread to the West and other parts of the world, it inspired unique cultural practices, such as the British afternoon tea or Japan's Zen-inspired tea ceremonies (Heiss & Heiss, 2007). Today, tea is not just a beverage but a bridge that connects diverse cultures, facilitating dialogue and mutual understanding.

In addition to its rich cultural significance, the global tea market has seen evolving trends. The demand for specialty teas, organic products, and environmentally sustainable tea-growing practices has surged recently. These modern trends reflect changing consumer preferences, particularly in Western markets, where health-conscious and ethically-minded consumers increasingly influence global tea trade

patterns. Thus, tea continues to be a valuable commodity and a potent cultural force, intertwining the economies and traditions of nations worldwide.

Over the past decade, China's tea industry has witnessed rapid growth, with several economic indicators, including total production, total output value, sales volume, and sales revenue, achieving historic breakthroughs (Tea Industry Committee of China Association for the Promotion of International Agricultural Cooperation, 2022). From 2013 to 2022, the area of tea plantations in China increased from 260,6733.33 hectares to 3330,266.67 hectares, the total output increased from 1.90 million tons to 3.18 million tons, and the total output value increased from RMB 113,304,000,000 yuan to RMB 318,068,000,000 yuan. Additionally, the total export volume from 325,800 tons reached 375,200 tons, and the export value from $ US$ 1,247,000,000 to 2,083,000,000, as shown in Table 1.1.

Table 1.1

Main Economic Indicators of Chinese Tea in China

Year	Area（Ha)	Yield（10 KT）	Output value（RMB: 100 million yuan）	Export volume	Export（US$:100 million）
2013	2,606,733.33	189.69	1,133.04	32.58	12.47
2014	2,741,933.33	209.19	1,349.06	30.15	12.73
2015	2,892,440.00	227.76	1,519.12	32.49	13.82
2016	2,969,426.67	244	1,681.98	32.87	14.85
2017	3,059,133.33	260.9	1,907.60	35.53	16.1
2018	2,930,400.00	261.6	2,157.35	36.47	17.78
2019	3,065,246.67	279.34	2,396.00	36.68	20.2
2020	3,165,126.67	298.6	2,626.58	34.88	20.38
2021	3,264,060.00	306.32	2,928.14	36.94	22.99
2022	**3,330,266.67**	**318.1**	**3,180.68**	**37.52**	**20.83**
Growth rate	**27.75%**	**67.69%**	**180.72%**	**15.16%**	**20.83%**

Source: China Association for The Promotion of International Agricultural Cooperation & China Tea Marketing Association (2022)

However, despite the massive scale of China's tea industry, Chinese tea companies face fierce competition in the international market. Compared with well-known international tea brands, Chinese enterprises still have a particular gap in brand influence, product-added value, market share, and other aspects (Zheng et al., 2022). The China Tea Circulation Association indicated that China, the birthplace of tea, has a

profound historical background and a broad consumer base for the tea industry domestically. However, as pointed out in the "Analysis of the Current Situation of China's Tea Industry Development", during its rapid development process, it also confronts numerous challenges, such as intensified market competition, serious product homogeneity, and insufficient brand building, among others (Baijin & zhuo, 2017).

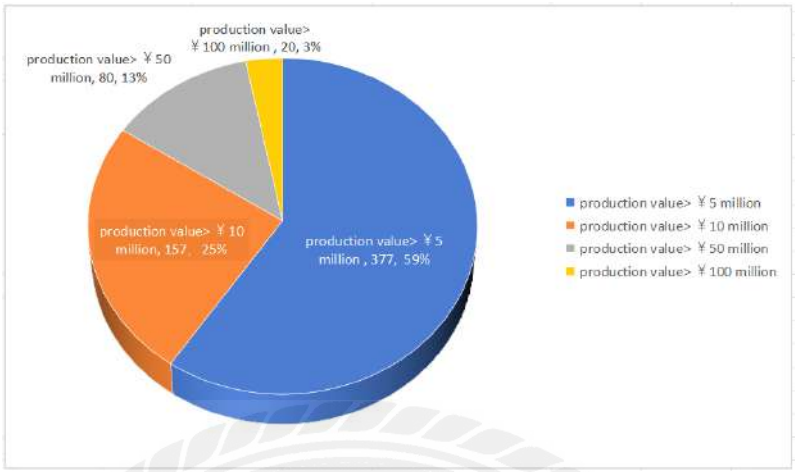
Sichuan is located in southwest China and occupies an important position in Chinese tea; its tea industry has a long history, a wide variety, and good quality (Han, 2007; Ono, 2021). Sichuan is the first place in the world to grow professional tea. In the long development process, many well-known tea varieties have been cultivated, such as green teas like Mengding Ganlu, Zhuyeqing, and Emei Xueya, as well as black tea like Sichuan Hong gongfu. These teas enjoy a relatively high reputation in domestic and foreign markets with their unique taste, aroma, and quality.

The tea industry in Sichuan plays an essential role in local economic development. On the one hand, tea planting and production have driven many farmers to be employed and promoted the development of a rural economy. On the other hand, developing tea processing, sales, and cultural tourism industries related to tea has also injected new vitality into the local economy. In recent years, Sichuan has continuously increased its support for the tea industry, strengthened the promotion and training of tea planting technology, and improved its production quality and efficiency.

By 2017, tea was produced in 130 counties in Sichuan Province, accounting for 71.04 percent of the province's 183 counties, and Sichuan Province has more than 5,000 tea enterprises and 6,000 tea workshops (Xu et al., 2021). There are more than 1,750 tea processing enterprises in Sichuan province with an output value of more than 1 million yuan, and there are 634 tea enterprises above the scale. Among them, there are 377 tea enterprises with an output value of more than 5 million, 157 tea enterprises with an output value of more than RMB 10 million, 80 tea enterprises with an output value of more than RMB 50 million, and 20 tea enterprises with an output value of more than 100 million. The distribution of tea enterprises above the designated size in Sichuan Province is shown in Figure 1.1.

Figure 1.1

Distribution of tea enterprises above the designated size in Sichuan Province



Source: Cai et al. (2020)

In terms of market sales, Sichuan tea is loved by consumers because of its excellent quality and rich varieties. With people's pursuit of a healthy life, the tea consumption market is constantly expanding, and the market share of Sichuan tea is also gradually increasing. Sichuan tea is sold in traditional channels such as tea specialty stores and supermarkets, and it actively expands e-commerce platforms and market coverage through online sales. At the same time, Sichuan tea has also achieved specific results in the international market. In 2023, its export volume and value ranked seventh and tenth in the country, respectively, with a relatively sizeable year-on-year increase. The broad market and diversified sales channels provide development space for Sichuan tea enterprises.

Regarding brand building, Sichuan attaches great importance and has achieved specific results. Provincial public brands such as "Tianfu Longya" and regional public brands such as Mengdingshan Tea, Emeishan Tea, Micangshan Tea, Yibin Zaocha， and Sichuan Honggongfu Black Tea have emerged. Among them, the brand value of "Tianfu Longya" reaches 4.321 billion yuan, and regional public brands such as "Mengdingshan Tea" and "Emeishan Tea" are also among the best. These well-known brands help to enhance the market awareness of Sichuan tea enterprises, the added value of products, and the competitiveness of enterprises.

Regarding industrial integration, the tea industry in Sichuan actively explores deep integration with sectors such as tourism and culture. Many tea gardens have

developed tourism projects such as sightseeing, tea-picking experiences, and tea culture research, which attract tourists, promote tea sales, and enrich tourism products. For example, in some areas, fully functional tea-tourism integration theme scenic spots and theme tea cities have been built, and some areas encourage the development of family tea houses and leisure tea houses with distinct themes. This trend of industrial integration expands the business scope of tea enterprises and enhances their comprehensive competitiveness.

In terms of enterprise development, although some leading enterprises are driving industrial development, the scale and strength of enterprises are uneven. Some enterprises still need to improve in processing level, technological innovation, and business model to better meet market competition and industrial development. At the same time, in terms of dynamic capabilities, the performance of enterprises in adapting to market changes, integrating resources, and innovating business models is also different. Some enterprises can keenly capture market opportunities and enhance competitiveness through innovation, while others are relatively backward.

To improve the competitiveness of Sichuan tea enterprises, the Sichuan provincial government attaches great importance to developing the tea industry and has introduced a series of policy measures. For example, to increase the development of the tea industry in major tea-producing areas such as Ya'an, Leshan, Yibin, Guangyuan, and Bazhong (Proposal of the Sichuan Provincial Committee of the Communist Party of China on the formulation of the 14th Five-Year Plan for Sichuan's national economic and social development and the long-term goals in 2035). The Opinions of the General Office of the Sichuan Provincial People's Government on Promoting High-quality Development of Fine Sichuan Tea Industry and enhancing People's Income (Sichuan Provincial Office, 2022) proposes that by 2025, the tea planting area in Sichuan Province, China, will remain stable and the yield per mu will continue to increase. Among them, the output value of wool tea reached 40 billion yuan, and the comprehensive output value exceeded 130 billion yuan. By 2030, the output value of original tea will reach 60 billion yuan, and the comprehensive output value will exceed 200 billion yuan, making Sichuan province a strong province in the modern tea industry.

However, in today's rapidly developing economic environment, the survival and development of enterprises are faced with many challenges and opportunities. In 2023, the World Tea Organization released a report stating that the tea market has become

diversified and highly competitive with the advancement of global economic integration. According to the survey report “Global Consumption Trends and Tea Market Outlook” (2023), consumers now have higher demands for tea’s quality, variety, and cultural connotation. Simultaneously, the rise of emerging markets and the changes in traditional ones have compelled tea enterprises to keep innovating to adapt to the fluctuations in global demand.

Competitiveness is a common concern for many countries and regions (Casadesus‐Masanell & Ricart, 2010). With the globalization of the economy, enterprises face a more complex market environment, and more and more entrepreneurs are beginning to recognize this problem. Managers and entrepreneurs of enterprises are increasingly using the business model concept to understand and rethink novel ways to achieve their company's goals(Laudien & Daxböck, 2017). The Business Model Innovation (BMI) is considered a source of competitive advantage (Casadesus-Masanell & Zhu, 2013; Demil & Lecocq, 2010; Teece, 2010).

Peter F. Drucker once said, “The competition among enterprises today is not between products, but business models.” (Drucker, 2012a). The business model has become increasingly critical in the current market competition. Maintaining continuous change and innovation by introducing new business models is essential for enterprises to survive and develop in a rapidly changing business environment. Companies such as Walmart, Amazon, ZARA, Netflix, and Alibaba have all risen to prominence because of their unique and competitive business models, becoming leaders in their highly competitive industries (Wang & Li, 2016).

In this context, enterprises must have strong adaptability and innovation ability to be invincible in the fierce market competition (Teece et al., 1997). Business model innovation, as one of the important means to enhance the competitiveness of enterprises, has been paid more and more attention by academic and practical circles (Geissdoerfer et al., 2020). Through innovative business models, enterprises can redeploy resources, optimize operational processes, and expand market channels, thereby creating new value growth points and enhancing market competitiveness (Gerdoçi et al., 2018).

In such a complex and changeable environment, dynamic capability has become the core ability of Sichuan tea enterprises to deal with uncertainties and obtain competitive advantages (Liu, 2004). It can help enterprises perceive market changes

acutely, integrate resources quickly, and make effective decisions. Business model innovation, as a bridge connecting enterprise resources and market demands, provides a new way to improve enterprise competitiveness by optimizing the way of value creation, transmission, and acquisition (Yuan, 2008). Dynamic capability refers to an enterprise's ability to integrate, build, and reconfigure internal and external resources and capabilities to adapt to a rapidly changing environment (Pisano & Teece, 1994). According to the dynamic capability theory, the acquisition and effective use of dynamic capability is crucial for enterprises to improve performance and create a sustainable competitive advantage. Existing studies have shown that dynamic capability helps enterprises quickly integrate and reconstruct internal and external resources to adapt to the dynamic environment, make the enterprise resource base match the dynamic market environment, explore new market opportunities, and enhance the competitiveness of enterprises by quickly acquiring information about changes in the market environment and giving full play to the synergistic effect of enterprise resources and capabilities (Teece et al., 1997). For tea enterprises in Sichuan, China, cultivating and enhancing dynamic ability is the key to coping with market changes and maintaining competitiveness.

The advantages of the business model innovation (BMI) involve facilitating enterprises to acquire value from innovation initiatives (Euchner & Ganguly, 2014), assisting them in retaining competitive superiority and enhancing business performance within a fluctuating environment (Hamel, 1998). Nevertheless, business model innovation (BMI) is accompanied by certain drawbacks. The principal reason for its escalating attention is attributed to the substantial returns obtained by companies adopting new business models (Euchner, 2016b). This behavior might give rise to issues such as an excessive focus on pecuniary gains rather than a comprehensive and integrated assessment. Consequently, comprehending these problems within the framework of the issue's significance is of utmost importance and necessitates more profound and extensive exploration.

However, once implemented, the new business model became transparent and easy to imitate, unable to maintain the competitive advantage of business model innovation (BMI) (Teece, 2010). Combining business model innovation (BMI) and enhancing hard-to-replicate capabilities or processes can form an imitative isolation mechanism. In contrast, the knowledge and skills underlying dynamic capabilities are

not quickly learned and replicated (Teece et al., 1997). Therefore, enterprises must constantly innovate their business models to improve market competitiveness and performance. In the current competitive and turbulent environment, it is difficult for enterprises to rely on only one competitive advantage for a long time. Enterprises can gain and maintain benefits in the fierce market competition only with solid dynamic capabilities to improve the company's competitiveness.

In a word, companies are operating in a constantly changing environment (Christopher & Holweg, 2011), dynamic capabilities and business model innovation as a source of motivation to cope with these changes, not only in high-tech industries but also in traditional industries such as tea (Y. Sun et al., 2021). Sichuan Province has a unique geographical advantage in tea plantations and has become one of the largest tea-producing provinces in China (Cai et al., 2020). However, the size and strength of the Sichuan Tea enterprises are uneven; some enterprises need to improve their processing level, technological innovation, and business model to meet market competition and industrial development needs. Maintaining and enhancing the competitiveness of Sichuan tea enterprises in China during the turbulent changes is a problem that needs to be studied.

Despite the extensive research on dynamic capabilities (DC), business model innovation (BMI), and enterprise competitiveness (EC), significant gaps remain, particularly in the context of traditional industries such as tea production. While prior studies have demonstrated the role of dynamic capabilities in enhancing firm performance and sustaining competitive advantages (Ferreira et al., 2018; Pundziene et al., 2022), most have focused on technology-intensive sectors or multinational corporations. The applicability of these theories to regional tea enterprises, which face unique market challenges, remains underexplored.

Furthermore, while research highlights that business model innovation can drive competitiveness, the mechanisms through which BMI mediates the impact of DC on EC are still unclear. Existing literature suggests that firms with high dynamic capabilities can sense market changes, seize opportunities, and transform their business models (Teece et al., 1997). Yet, few studies have empirically tested these relationships in the context of the agricultural and tea industry. Given the increasing market volatility, shifting consumer preferences, and digital transformation trends, understanding how Sichuan tea enterprises leverage BMI to translate DC into EC is crucial.

This study addresses these gaps by empirically examining the mediating role of business model innovation between dynamic capabilities and competitiveness in Sichuan's tea industry. It extends the dynamic capabilities framework by integrating insights from traditional sectors, thus contributing to the broader strategic management and business model innovation discourse. Additionally, it provides practical implications for tea enterprises seeking to maintain sustainable competitive advantages amidst market uncertainties.

1.2 Significance of the Study

Resource constraints challenge enterprises to fully develop strategic capabilities to establish sustainable competitive advantages in the rapidly evolving competitive environment. Business model innovation (BMI) is increasingly recognized as crucial in achieving competitiveness (Ho et al., 2011). Scholars argue that dynamic capabilities and business model innovation emerge in response to market uncertainties, necessitating continuous adaptation and renewal of competitive strategies (Najmaei, 2011). In the agri-food sector, research highlights that firms must transition from a producer-centric model to an entrepreneurial perspective, focusing on innovative business strategies to remain competitive (Sivertsson & Tell, 2015). This study extends these insights to Sichuan tea enterprises, exploring how dynamic capabilities and business model innovation interact to shape competitiveness.

Theoretical Contributions

Deepening the Theoretical Integration of Business Model Innovation and Dynamic Capabilities. Previous research has demonstrated that strategy and business model innovation are interrelated yet distinct concepts. However, most existing studies have focused on business model innovation in technology-driven or large-scale enterprises. This study fills the research gap in traditional industries such as tea production. It delves deep into the internal relationship between dynamic capabilities and business model innovation. It empirically tests the mediating role of business model innovation in the impact of dynamic capabilities on competitiveness, providing significant evidence for applying this theory in less-explored industries (Roaldsen, 2014).

Expanding the Boundaries of Strategic Management and Agricultural Innovation Research. Sichuan tea has a long-standing history. Nevertheless, fragmented branding, outdated management models, and low production efficiency severely restrict its competitiveness. Previous research on agricultural enterprise innovation has concentrated chiefly on high-value crops or supply chain optimization, with few studies on business model innovation in traditional tea enterprises (Bingru & Revenko, 2024). This study contributes to a deeper understanding of how tea enterprises can transform their business strategies to optimize value creation, marketing, and sustainable development, thus expanding a new perspective for applying strategic management theory in agriculture.

Practical Contributions

Facilitating the Optimization of Strategic Decision-Making for Sichuan Tea Enterprises. Sichuan tea enterprises face market fragmentation, low production efficiency, weak brand influence, and an urgent need for business model innovation. This study provides practical strategic suggestions: enhance dynamic capabilities to enable enterprises to keenly perceive market trends, efficiently allocate resources, and flexibly respond to industry changes (Ho et al., 2011); promote digital transformation, integrate e-commerce platforms, utilize blockchain technology to enhance supply chain transparency and expand value-added services (Nandamuri et al., 2018); optimize brand building and market expansion, shifting from a commodity-focused approach to premiumization and cultural marketing.

Providing References for Policy-Making and Industrial Development. From a policy perspective, this study offers the following insights to government agencies and industry associations: increase investment in innovation hubs that support agricultural enterprises; establish knowledge-sharing platforms to promote cooperation among tea producers, researchers, and policymakers (Rosado Salgado & Osorio Londono, 2020); enhance international market access by certifying Sichuan tea to meet global trade standards and enhancing cross - border e-commerce capabilities.

Promoting Sustainable Development and Competitiveness Enhancement. Sichuan tea enterprises face environmental challenges such as climate change and resource constraints. Business model innovation can prompt enterprises to adopt eco-friendly processing methods to ensure sustainable production, integrate tea production

with cultural tourism to create new revenue streams and enhance brand stickiness (Fernqvist et al., 2022).

In sum, this study organically combines strategic management theory with practical applications, filling the key gaps in the research on dynamic capabilities, business model innovation, and the competitiveness of the tea industry. Constructing a comprehensive research framework provides strong support for academics, industry practitioners, and policymakers, contributing to the sustainable development of Sichuan tea enterprises in the global competitive market.

1.3 Research Questions

This study aims to investigate the influence of Sichuan tea dynamic capabilities on the competitiveness of tea enterprises and the path analysis.

1. What are the factors affecting the competitiveness of Sichuan tea enterprises?
2. What are the key factors that promote business model innovation and enhance the competitiveness of Sichuan tea enterprises?
3. How do dynamic capabilities and business model innovation enhance the competitiveness of Sichuan tea enterprises?

1.4 Research Objectives

1. To explore what elements of dynamic capabilities and business model innovation contribute to the competitiveness of tea enterprises and how they influence the competitiveness of tea enterprises.

2. To determine how business model innovation plays a mediating role in the influence of dynamic capabilities on the competitive strength of tea enterprises.

3. To develop a model of tea enterprises' competitiveness in Sichuan to provide suggestions for tea enterprises, industry, and government in Sichuan.

1.5 Scopes of the Study

In this study, the scope would be classified as follows:

1) Scope of area

This study is limited to the tea industry in Sichuan, China.

2) Scope of population

The units will be ten representative tea enterprises in Sichuan for quantitative research. Each business's sales manager will distribute the questionnaire to gather more information. The study plans to send 500 questionnaires to employees of 10 tea companies.

For qualitative research, the researcher will interview 20 participants, including 10 senior management staff, up to the CEO, four marketing experts, and six consumers.

3) Scope of content

This study will mainly study the parameters that can directly or indirectly affect the competitiveness (EC) of Sichuan tea enterprises, including dynamic capability (DC) and business model innovation (BMI).

4) Limitation of time

This research will begin in August 2023 and finish in January 2025.

1.6 Expected Benefit

1. The research releases a new management model to help Sichuan tea enterprises improve their competitiveness.
2. The other tea enterprises can adopt dynamic capabilities and business model innovation (BMI) to enhance their competitiveness.
3. To guide the Sichuan government in developing the Sichuan tea industry.
4. The results from this research can act as a model for future research.

1.7 Definitions

In this paper, the dynamic capability, business model innovation, and tea enterprise competitiveness are defined as follows.

Dynamic Capabilities mean the ability of an enterprise to timely understand market dynamics, discover market opportunities, obtain and interpret information about market and technological changes in the internal and external environment of the organization, and use resources and capabilities to change or maintain competitive advantages, especially the ability of an enterprise to adapt to changes in the market environment and constantly realize the innovative development of products and services.

Innovation means the tea enterprises through the introduction of new thinking, new technologies, new methods or new strategies, tea products, production processes, marketing methods, management services, and other aspects of creative improvement or innovation to improve product quality, enhance market competitiveness, meet consumer demand, and promote the sustainable development of tea enterprises process.

Business Model Innovation means enterprises are a strategic change aimed at the operational mode and profit model, aiming to cope with market competition and improve the competitiveness of enterprises.

Tea Enterprise Competitiveness means the ability of a tea enterprise to provide products and services to the market more effectively than other enterprises in a competitive market environment and to obtain long-term development, profit, and reputation.

CHAPTER 2
LITERATURE REVIEW

This chapter reviews the literature, concepts, and theories related to the study's principal topic: "Business Model Innovation in Dynamic Capabilities for Tea Enterprises Competitiveness in Sichuan, China." A summary of studies relevant to the subject, as well as a conceptual framework, will also be presented in this chapter.

This chapter is divided into five parts:

2.1 The Dynamic Capabilities (DC) Theory

2.2 Business Model Innovation (BMI)

2.3 Enterprise Competitiveness Theory

2.4 Conceptual Framework, Operational Definition, Hypothesis, and Explanation of Hypothesis

2.5 An Analytical Model

2.1 The Dynamic Capabilities (DC) Theory

Dynamic capabilities theory provides an essential perspective for studying strategic change in organizations. Dynamic capability theory is a theoretical extension of the resource-based view, which explains how enterprises maintain long-term competitive advantages in a turbulent environment (Ambrosini & Bowman, 2009). Dynamic capability theory believes that the success of an organization depends on the availability and coordination of valuable, rare, inimitable, and irreplaceable resources, which enables the organization to implement the value creation strategy (Ambrosini & Bowman, 2009). The only competitive advantage that can be sustained over time is the ability to develop, reconfigure, and divest organizational benefits more effectively than competitors (Teece, 2007).

2.1.1 The Definition of the Dynamic Capabilities

The Dynamic Capability Theory emerged in response to the rapidly evolving market environment of the 1990s. It conceptualizes dynamic capabilities as specialized integration mechanisms that firms must develop to sustain a competitive advantage. Specifically, dynamic capabilities refer to an enterprise’s ability to sense and adapt to

changes, coordinate production processes, and effectively implement strategies by leveraging its technological knowledge and internal resources (Teece et al., 1997).

The research results on dynamic capability are abundant, but the scholars' perspectives differ.

Firstly, the definition of dynamic capability is from the perspective of resource integration. Before Teece and Pisano explicitly put forward the concept of dynamic capability, it was considered to be specific integration capabilities that an enterprise should have, specifically the ability to connect change, production, and implementation based on the enterprise's technical knowledge and enterprise resources(Iansiti & Clark, 1994). In subsequent studies, dynamic capability is regarded as the ability of an enterprise to cope with drastic changes in the market environment and effectively integrate, reconfigure, and even construct its internal and external resources to obtain sustainable competitive advantages. Following this definition, some scholars put forward the concept of the global dynamic capability of enterprises from a more macro level, believing that the global dynamic capability of enterprises is the ability to integrate enterprise resources and create proprietary resource portfolios based on the market (Griffith & Harvey, 2001). From the micro level of the regional market, dynamic capacity building aims to answer how enterprises can gain and maintain this competitive advantage when operating in a rapidly changing environment (Peteraf et al., 2013). It emphasizes that enterprises reallocate resources and form competitiveness to meet market customer demand and gain advantages (Galvin et al., 2014). It also emphasizes that it is a process of co-integration of resources and capabilities. Dynamic capabilities cannot consciously improve enterprise resources and capabilities; they require enterprise resources. It includes managers' awareness, perception, and cooperation (Ambrosini & Bowman, 2009). Dynamic capabilities can identify opportunities and threats in the market environment, make strategic decisions immediately, and implement them effectively, thus forming potential system problem-solving capabilities (Li & Liu, 2014). Therefore, dynamic capabilities include physical and mental activities through the reconfiguration of perceptual and cognitive capabilities and the resulting heterogeneity in response to changes in the external environment faced by the firm (Helfat & Peteraf, 2015).

Secondly, from the perspective of convention, the definition of dynamic capability refers to the ability of an enterprise to perceive, seize, and reconfigure internal

and external resources and capabilities in a rapidly changing environment so that it can adapt to market changes, create new competitive advantages, and achieve sustainable development. Dynamic capability is the decision-making and implementation process of reorganization, actual utilization, or abandonment of resources to adapt to the environment and respond when the market changes. It is a standard mode for enterprises to use knowledge resources to produce knowledge and adapt to environmental changes. Its evolution process is the usual process of knowledge accumulation to change and the process of an organization's ability to use internal and external knowledge resources creatively. It demonstrates the corporate model of collective learning activities through which organizations systematically generate, change, and revise their business processes (Subba Narasimha, 2001). The ability to perform this process is dynamic and has a systematic structure (Zollo & Winter, 2002). At the same time, some scholars also emphasized that dynamic capability is the inertial behavior of an enterprise's reorganization, renewal, and creation of its resources and capabilities to adapt to environmental changes, especially the reorganization and optimization of its core capabilities (Helfat & Martin, 2015; Wang & Ahmed, 2007). Therefore, enterprise decision-makers have targeted the resettlement and integration of enterprise resources to obtain a sustainable inertial competitive advantage.

Lastly, from the managerial capability perspective, dynamic capabilities refer to the patterns of organizational behavior required to create and support resource-based advantages. From this perspective, dynamic capabilities are closely related to entrepreneurs' thinking, feelings, and behavior (Huy & Zott, 2019). Dynamic capabilities include the ability to sense, capture, and transform the design and operation of business models, which can contribute to the improvement of general capabilities, which requires the development and coordination of the organization and the full utilization of the organization's resources to respond to and even shape changes in the market or market environment more generally (Teece, 2018). Dynamic capabilities are the capabilities that enable a business to create, expand, and change the way it makes money, including by changing its tangible and intangible resources, operating capabilities, business size and scope, products, customers, ecosystems, and other characteristics of the external environment (Helfat & Raubitschek, 2018).

The existing research does not agree on the connotation of enterprise dynamic capability. Still, there are the following common points: They all believe that enterprise

dynamic capability is the reorganization and integration of internal and external resources of the enterprise, which can generate new resources and capabilities that can adapt to the rapid change of the external environment and maintain the competitive advantage of the enterprise. Whether it is the process of perception, cognition, and even screening of internal and external resources or the process of integrating internal and external resources to generate new resources, it is the behavioral process of personalized disposal of resources, which depends on the differences in their own needs, cognition, and creativity. Such heterogeneity among enterprises is the source of sustainable competitiveness; previous studies largely followed a homogeneous experience-led logic but ignored the influence of heterogeneous cognitive logic, thus limiting the in-depth understanding of enterprise dynamic capabilities. Therefore, the definition of dynamic capability must consider the scientific cognitive process of enterprise behavior to understand the change profoundly and comprehensively.

2.1.2 The Dimensions of the Dynamic Capabilities

Dynamic capabilities are essential for organizations to integrate, build, and reconfigure internal and external resources, particularly in dynamic and competitive environments (Teece et al., 1997). Before formally conceptualizing dynamic capabilities, research suggested that firms must develop specific integration mechanisms to align market changes, production, and resource allocation with their technical knowledge and competencies (Iansiti & Clark, 1994). This perspective evolved with recognizing that organizations need to sense, seize, and transform opportunities in response to external shifts, forming the foundation of dynamic capability theory (Teece et al., 1997).

Building upon this foundation, scholars have refined the classification of dynamic capabilities. For instance, organizations must cultivate sensing, learning, and integrating capabilities to maintain strategic agility in evolving markets (Mikalef & Pateli, 2017). Similarly, firms with superior learning capabilities can adapt, ensuring sustained competitiveness through continuous knowledge acquisition and innovation (Ambrosini and Altintas, 2019). Additionally, firms operating in highly volatile environments must develop systematic sensing mechanisms to anticipate industry trends and technological disruptions (Sheng, 2017).

At the organizational level, integrating capabilities is crucial for ensuring that acquired knowledge and market insights translate into practical strategic actions. Resource integration significantly influences organizational performance by facilitating cross-functional collaboration and optimizing internal processes (Chen & Zheng, 2022). Further, firms with strong integrating capabilities can efficiently reconfigure their resource base, aligning internal competencies with emerging market opportunities (Kareem & Alameer, 2019). Similarly, the effectiveness of dynamic capabilities is contingent upon an organization's ability to coordinate and deploy its assets efficiently in response to market demands (Lin & Wu, 2014).

Beyond resource allocation, the strategic management of dynamic capabilities requires managerial awareness and cognitive adaptability. Firms must develop capabilities in sensing and integrating and ensure that managerial cognition supports rapid decision-making in complex environments (Maijanen & Jantunen, 2016). This view aligns with Gao and Zhu (2015), who emphasized that dynamic capabilities should be viewed as an iterative learning process that enhances firms' responsiveness to external shocks and competitive pressures. Additionally, firms with well-developed learning capabilities are better positioned to foster innovation, as they can rapidly assimilate and apply new knowledge to evolving business contexts (Garrido et al., 2020).

In summary, dynamic capabilities are a fundamental mechanism through which firms navigate uncertainty and sustain competitive advantage. Organizations can enhance adaptability, optimize resource reallocation, and drive long-term performance by strategically integrating sensing, learning, and decision-making capabilities. The integration of these dimensions enables firms to respond effectively to market changes and fosters continuous innovation and strategic renewal. According to the above literature, the dimensions of the dynamic ability are shown in Table 2.1 and Figure 2.1.

Table 2.1

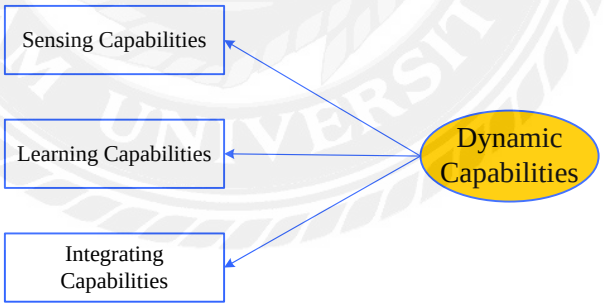
Dimensional Division of Dynamic Capabilities and Scholars

variables	Chen and Zheng (2022)	Karman and Savanevičienė (2021)	(Garrido et al., 2020)	Kareem and Alameer (2019)	Ambrosini and Altintas (2019)	Sheng (2017)	Mikalef and Pateli (2017)	Maijanen and Jantunen (2016)	Gao and Zhu (2015)	Lin and Wu (2014)
Sensing Capabilities	-	√	√	√	√	-	√	√	-	-
Learning Capabilities	-	-	√	√	-	-	√	√	√	√
Integrating Capabilities	√	√	√	√	√	√	√	√	-	√

Source: Researcher collation (2023)

Figure 2.1

Exogenous variable: Dynamic Capabilities



Source： Researcher (2023)

2.2 Business Model Innovation (BMI)

2.2.1 Business Model (BM)

Bellman et al. (1957) first proposed the concept of a business model, which was defined by Konczal (1975) as a "management tool" containing management-related guidance and knowledge (Qu et al., 2022). With the rise of Internet startups, more and

more scholars began to study business models in the 1990s (Massa et al., 2017; Zott et al., 2011). Academia has researched the business model's concept, elements, and value-creation process, but regarding the business model, there is no unified definition between academia and the corporate world (Bashir & Farooq, 2019). In the existing research on business models, scholars mainly focus on system theory and stakeholders; business models are defined from the perspectives of business operation, value creation, and resource integration. Research on business models has also evolved from the initial finance and internal operations to strategy and value networks (Fehrer et al., 2018).

Different scholars have interpreted the concept of a business model in various ways. A business model is fundamentally about the logic of how enterprises create value, deliver products and services to customers, and generate profits within a specific value chain or network (Timmers, 1998). This perspective is further elaborated by defining a business model as the rationale behind how an organization creates, delivers, and captures value (Osterwalder & Pigneur, 2010). Additionally, the idea of a business model as a feedback loop is introduced, where value is designed for customers, captured by companies, and eventually returned to nature, emphasizing a cyclical process of value creation and sustainability (Abdelkafi & Täuscher, 2016). These perspectives highlight the evolving understanding of business models, from a linear process of value delivery to a more dynamic and integrated system that considers broader environmental and sustainability factors.

Generally speaking, the business model has three components: A value network and its products and services， the relationship between the enterprises and the internal business (how to create value), and a value proposition that defines how products and services are presented to consumers in exchange for income (i.e., how to capture value); Supervision, incentive, price, government policy, et al.(that is, how to locate the value in a broader socio-economic framework) (Wells & Seitz, 2005). It is a conceptual tool containing a set of elements and their relationships, reflecting the business logic of a particular company. It describes the value a company provides to one or more customer groups, its architecture, and the network of partners that create, sell, and deliver this value and relational capital and ultimately achieve a profitable and sustainable source of income (Osterwalder et al., 2005).

Table 2.2

The Definitions of the Business Model

Authors	Definition
Dahan et al. (2010)	An enterprise's core logic and strategic choice to create and obtain value in the value network.
Casadesus-Masanell and Ricart (2010)	The logic of how the company operates and how to create value for stakeholders.
Sinfield et al. (2011)	All aspects of developing profitable products and delivering them to target customers.
Boons and Lüdeke-Freund (2013)	A plan to obtain profits through value proposition, supply chain, customer management, and financial models (costs and benefits).
Lund and Nielsen (2014)	A platform for connecting resources, processes, and service supply
Reim et al. (2015)	The design or architecture of value creation, delivery, and capture mechanisms.
Upward and Jones (2016)	Describes how an enterprise defines and achieves success.
Teece (2020)	Illustrating the logic, data, and other underpinnings of customer value propositions and the revenue and cost structures generated to deliver that value. It describes the interests of the enterprise in providing customers, how to organize to provide benefits, and how to obtain valuable benefits.

Source: Researcher collation (2023)

Based on the above definitions of business models, scholars disagree on the components of business models. The business model of enterprises from the perspective of value creation is often regarded as the behavior of enterprises to create value in the market (Chesbrough & Rosenbloom, 2002). The combination of tangible and intangible assets creates value for the enterprise and describes the enterprise's economic logic, operational structure, and strategic direction (Boulton et al., 2000). Enterprises increase, decrease, integrate, or innovate a link of the industrial value chain through their key capital sources and capabilities to realize value creation, transmission, acquisition, and distribution. A customer value proposition is the logical starting point for constructing a value-creation business model (Winterhalter et al., 2017). Value creation is the foundation and key for enterprises to build business models rather than value acquisition (Beltramello et al., 2013; Chesbrough, 2003).

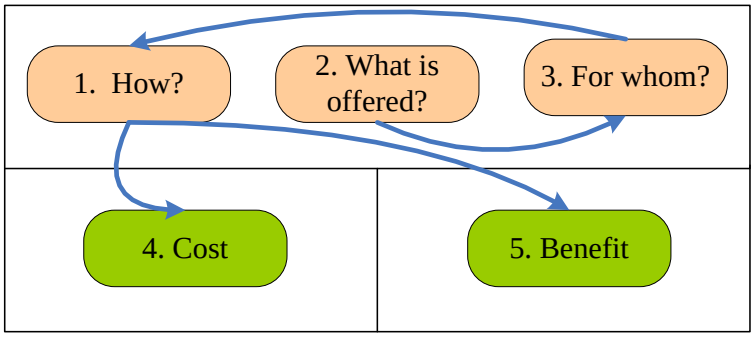
Furthermore, the business model comprises a service concept, technical structure, organizational arrangement, and financial arrangement (Osterwalder et al., 2005). Among them, the service concept can be refined into the value manager and target customers, and the technical design includes the service and business system provided by the enterprise, the organizational arrangement consists of the network decision and role allocation, and the financial performance is the income source of the enterprise (Dubosson - Torbay et al., 2002). In general, the components of a business model can be summarized as follows: value proposition (Gordijn & Akkermans, 2003), customer market and customer relationship (Hamel, 2001), partnership (Abdelkafi & Täuscher, 2016), and profit model (Afuah & Tucci, 2003).

2.2.2 Business Model Canvas (BMC)

Business Model Canvas (BMC) is a visual chart that describes the company's "offerings (products or services), infrastructure, customers, and financial services." It helps the company to adjust its business activities by explaining the underlying transactions (Barquet et al., 2011). The BMC has been applied and tested in many organizations, such as IBM, Ericsson, and many others. These organizations have successfully described and controlled the commercial model by painting the cloth and creating new proxy strategies. The BMC has to examine the whole framework of business operations from 5 sections: how, what is offered, for whom, cost, and benefit (shown in Figure 2.2).

Figure 2.2

Five Perspectives of Business Model Canvas

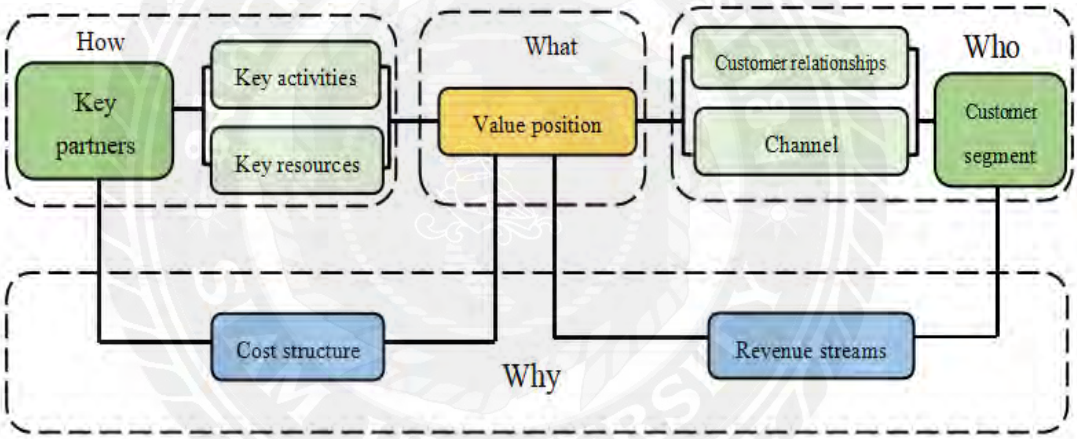


Source: Osterwalder and Pigneur (2010)

The Business Model Canvas (BMC) was first introduced in the doctoral dissertation of Alexander Osterwalder (Sparviero, 2019). Later, Osterwalder and Pigneur (2010) formalized the BMC framework, which outlines nine interrelated components that define the logic of value creation and revenue generation within an enterprise. These components include value proposition, customer segments, customer relationships, channels, revenue streams, cost structure, key resources, key activities, and key partners. The framework categorizes these elements into four overarching dimensions: customers, products or services, infrastructure, and financial viability. By integrating these factors, BMC provides a comprehensive analytical tool for assessing and optimizing an organization's business model. The original and standardized BMC frameworks, illustrating these nine components, are presented in Figure 2.3.

Figure 2.3

Original BMC Model



Source: Osterwalder and Pigneur (2010)

The specific meanings of the four factors (What, Who, How, Why) and nine factors of the standard commercial canvas mode are as follows (Osterwalder, 2004; Osterwalder & Pigneur, 2010):

(1) **What**? The "What" in a business model refers to the products and services offered to meet customer needs, commonly known as the Value Proposition (VP).

Value Proposition (VP)

The value proposition defines the unique value a business delivers to its customers and includes key considerations such as:

What value is delivered to customers?

Which customer problems are being addressed?

What customer needs are being satisfied?

What bundles of products and services are offered to each customer segment?

A well-defined value proposition helps businesses differentiate themselves and effectively communicate their unique benefits to target customers. The value proposition can be categorized into several dimensions: getting the job done, design, brand, price, cost reduction, risk reduction, accessibility, and convenience (Osterwalder & Pigneur, 2010). Measuring an enterprise's value proposition can be approached using quantitative metrics (e.g., price, efficiency) or qualitative factors (e.g., customer experience, brand perception).

(2) **Who**? Who is the customer? The Business Model Canvas (BMC) defines customer-related elements through three key components: Customer Segments (CS), Channels (CH), and Customer Relationships (CR). These elements are crucial in shaping how enterprises create, deliver, and capture value.

Customers Segments (CS)

Customers are the foundation of any business model, as no enterprise can sustain itself without a customer base. Businesses categorize customers into distinct segments based on shared characteristics, preferences, or behaviors to effectively meet customer needs. This segmentation allows enterprises to design and deliver tailored products and services.

Key questions in defining customer segments include:

For whom is value being created?

Who are the most important customers?

According to Osterwalder and Pigneur (2010), customer segments are classified into:

1. Mass Market. A broad, undifferentiated customer base with similar needs.

2. Niche Market. A specialized, well-defined customer segment with specific requirements.

3. Segmented Market. Different customer groups have distinct needs and characteristics.

4. Multilateral Platforms. Business models serving multiple interdependent customer groups.

Channels (CH)

Channels refer to how an enterprise communicates with and delivers its Value Proposition (VP) to customer segments. These channels serve as a critical link between the company and its customers, encompassing communication, distribution, and sales strategies.

Osterwalder and Pigneur (2010) identify key questions for defining channels:

Through which channels do customers prefer to be reached?

How are they being reached currently?

Which channels are most effective and cost-efficient?

How are channels integrated with customer interactions?

An enterprise can utilize its channels, partner channels, or a combination of both to ensure efficient value delivery.

Customer Relationships (CR)

Customer relationships describe an enterprise that establishes and maintains interactions with different customer segments. This process spans from customer acquisition to retention and sales promotion.

To develop strong customer relationships, it is essential to consider:

What type of relationship does each customer segment expect?

What relationships have already been established?

What are the costs associated with maintaining these relationships?

How do customer relationships align with the overall business model?

Osterwalder and Pigneur (2010) categorize customer relationships into several types: personal assistance, dedicated personal assistance, self-service, automated services, communities, and co-creation. By implementing suitable customer relationship strategies, enterprises can enhance customer loyalty and long-term engagement.

(3) **How**? To effectively realize an enterprise's Value Proposition (VP), three fundamental components must be considered: Key Activities (KA), Key Resources (KR), and Key Partnerships (KP)(Osterwalder & Pigneur, 2010).

Key Activities (KA)

Key activities encompass the essential operations required to deliver the Value Proposition, maintain distribution channels, establish customer relationships, and generate revenue. These activities represent the core business functions necessary for sustaining competitive advantage. The types of key activities typically include:

Production – The manufacturing and development of products or services.

Problem-Solving – Offering customized solutions to meet customer needs.

Platform/Network Building – Developing and maintaining digital or physical platforms facilitating stakeholder interactions.

Key Resources (KR)

Key resources represent the critical assets that enable a business model to function. These resources are fundamental to creating and delivering value, reaching target markets, maintaining customer relationships, and generating revenue. The nature and type of key resources vary depending on the business model. Key resources can be grouped into four broad categories (Osterwalder & Pigneur, 2010):

Physical Resources – Tangible assets such as production facilities, buildings, equipment, and distribution networks.

Intellectual Resources – Intangible assets include brand reputation, proprietary knowledge, patents, copyrights, and customer databases.

Human Resources – Skilled personnel, expertise, and leadership are essential for business operations.

Financial Resources – Capital investments, revenue streams, and financial stability are necessary to support business activities.

Key Partnerships

Key partnerships refer to the network of suppliers and strategic alliances that facilitate business operations. Establishing effective partnerships is crucial for reducing

risk, optimizing resources, and enhancing operational efficiency. Osterwalder and Pigneur (2010) identify four types of partnerships:

Strategic Alliances – Collaborations between non-competing firms to create mutual benefits.

Competition (Cooperative Competition) – Partnerships between competitors to achieve shared objectives.

Joint Ventures – Collaborative efforts to develop new businesses or enter new markets.

Buyer-Supplier Relationships – Long-term agreements to ensure reliable supply chains and procurement efficiency.

The Key Partnerships component primarily addresses critical strategic questions, such as:

- Who are the key partners and suppliers?

- What key resources are acquired from these partners?

- What key activities do partners perform?

Enterprises can successfully implement their value proposition and achieve long-term sustainability by managing key activities, resources, and partnerships—strategic Alliances – Collaborations between non-competing firms to create mutual benefits.

(4) **Why?**

The final component of the Business Model Canvas (BMC) pertains to financial elements, specifically Cost Structure and Revenue Streams (RS). These financial components are essential for ensuring business sustainability and profitability.

Cost Structure

The Cost Structure encompasses all expenses incurred in operating a business model. Every business activity generates costs, making it critical to evaluate financial efficiency. Key considerations include:

- What are the most significant costs within the business model?

- Which key resources incur the highest costs?

- Which key activities require the most significant financial investment?

Osterwalder and Pigneur (2010) categorize cost structures into two primary types:

1. Cost-driven – Businesses that focus on minimizing costs and maximizing efficiency.

2. Value-driven – Enterprises that prioritize value creation, often incurring higher costs to enhance quality, customer experience, or innovation.

The Cost Structure exhibits four primary characteristics:

- Fixed Costs – Expenses that remain constant regardless of production volume (e.g., rent, salaries).

- Variable Costs – Costs that fluctuate depending on business activity levels (e.g., raw materials, production costs).

- Economies of Scale – Cost advantages that arise as production volume increases.

- Economies of Scope – Cost efficiencies achieved by leveraging shared resources across multiple products or services.

Revenue Streams (RS)

Revenue Streams represent how a company generates income from each customer segment. Managers must assess:

- What value are customers willing to pay for?

- How do customers currently make payments?

- What payment methods do customers prefer?

- What is the contribution of each revenue stream to overall revenue?

Osterwalder and Pigneur (2010) outline several revenue generation models, including:

- Asset Sales – Selling ownership rights to a product (e.g., physical goods, property).

- Usage Fees – Charging customers based on their consumption levels (e.g., utilities, cloud storage).

- Subscription Fees – Recurring payments for continuous access to a service (e.g., streaming platforms, software as a service).

- Lending, Renting, and Leasing – Temporary access to assets for a fee (e.g., equipment leasing, car rentals).

- Licensing– Permitting customers to use proprietary content or intellectual property (e.g., patents, franchising).

By effectively managing cost structures and optimizing revenue streams, enterprises can enhance financial sustainability, improve operational efficiency, and maintain a competitive advantage in the marketplace.

2.2.3 Business Model Innovation (BMI)

2.2.3.1 The Definition of Business Model Innovation

Master Drucker once said that competition between business models is essential to today's enterprise competition. Business models have become the focus of scholars' research. With the increasingly dynamic market environment, the original business model can no longer help enterprises create and maintain sustainable competitive advantages (Drucker, 2012b). Scholars' research on business models has gradually shifted from the study of construction elements and their classification to the in-depth discussion on business model innovation.

Business model innovation complements product or process innovation by restructuring an organization's resources and capabilities to enhance value creation and capture (Amit & Zott, 2010). It involves developing new frameworks and strategic approaches to generate and sustain competitive advantages (Casadesus-Masanell & Zhu, 2013). Linder and Cantrell (2000) analyzed how enterprises change their business models and proposed transformation models to coordinate and guide enterprises to change their business models. According to the degree of transformation, they are divided into four main types: implementation, innovation, expansion, and travel models. Implementation models are only subtle changes to existing business models. The renewal mode has little effect on the qualitative change; The expansion model promotes the qualitative change of the business model. The travel model is the direct transfer of the organization into a new business model.

Today, one of the most essential forms of business model innovation is the shift from selling products to selling results-based services. And construct a new logic for value creation and acquisition (Casadesus-Masanell & Zhu, 2013). Markides (2006) thinks that business model innovation is discovering a completely different business model in an existing business. In the structural system of business model, enterprises realize the innovation of business model through the elements of value proposition, value creation, core competence, marketing channel, stakeholder relationship, income structure et al., based on the creation of new corporate value, rather than the simple innovation of existing products or services (Osterwalder, 2007). Johnson et al. (2008) define Business Model Innovation as repositioning the customer value proposition, including redesigning profit formulas and identifying key resources and processes. Amit and Zott (2010) believe the business model is the system of activities describing how a company "does business" with its customers, partners, and suppliers. And define Business Model Innovation as a set of specific actions that are carried out to meet the perceived needs of the market, including the specification of the parties that carry out those activities and how those activities relate to each other."

Some scholars define business model innovation as a new way to create and obtain value by changing one or more components of a business model (Chasin et al., 2020); its purpose is to create value for enterprises, customers, and society (Osterwalder & Pigneur, 2010). Business model innovation is about doing three things: Challenging conventional wisdom, building the right partnerships, and experimenting (Yunus et al., 2010), exploring new possibilities for value creation, distribution, and acquisition for customers, suppliers, and partners (Gambardella & McGahan, 2010).

With multiple developments such as technological progress, globalization, changes in the competitive landscape, and customer needs, business model innovation has become an urgent problem for enterprises seeking to maintain and improve their market position. From the traditional perspective, the business model focuses on value creation and capture at the enterprise level. In contrast, business model innovation brings about the novelty of customer value proposition and the reconstruction of enterprise logic and structure (Narayan et al., 2021). Business model innovation is more systematic than product and process innovation because it implies a reconfiguration of the components that make up the existing business model.

As a complementary form of product (service) and process innovation, business model innovation relies on the optimized combination and reconfiguration of existing resources and capabilities of enterprises (Amit & Zott, 2010). Based on the above research, this paper refers to the views of Teece (2018). This dissertation defines the business model innovation of tea enterprises as a strategic change aimed at the operational mode and profit model of tea enterprises, aiming to cope with market competition and improve the competitiveness of enterprises.

2.2.3.2 The Dimensions of the BMI

Business model innovation (BMI) measurement has evolved significantly, with scholars identifying varying dimensions to conceptualize this construct. Early research suggests that BMI measurement dimensions range between four and eight (Morris et al., 2005). However, more recent frameworks have streamlined this classification, typically identifying three to five core dimensions (Johnson et al., 2008).

A growing body of literature supports the view that BMI is crucial to business success, particularly in digital entrepreneurship. For instance, research on Chinese digital startups indicates value proposition innovation is vital in enhancing digital entrepreneurial performance (Guo et al., 2022). Similarly, a study involving Jordanian dairy companies confirms that BMI significantly impacts firm performance when categorized into value creation, value proposition, and value capture innovation (Khaddam et al., 2021).

Several empirical studies have further refined the conceptualization of BMI. Research on European SMEs suggests that BMI's direct effect on firm performance is relatively weak; however, its impact is fully mediated by efficiency growth, organizational capability, and revenue growth (Latifi et al., 2021). Additionally, in the food industry, systematic literature reviews highlight that successful BMI strategies revolve around innovations in value proposition, value creation, and value delivery processes (Nosratabadi et al., 2020). These findings emphasize the necessity of a holistic approach to BMI, where value creation and capture are integrated into business model transformation (Sjödin et al., 2020).

Furthermore, studies focusing on small- and medium-sized manufacturing enterprises (SMEs) affirm that BMI fosters business growth by enabling firms to overcome resource constraints and enhance competitive advantage (Chen et al., 2020).

The role of digitalization in BMI is also noteworthy, as it influences value creation and acquisition while posing new challenges related to organizational and employee capabilities (Rachinger et al., 2019). The need for standardized measurement tools in BMI research has been addressed through hierarchical models, such as a three-stage scale assessing value creation, value proposition, and value acquisition innovation (Clauss, 2017).

Some scholars propose a four-dimensional structure of BMI, incorporating value proposition, value creation, value delivery, and value acquisition, particularly in the context of digital business model innovation (Still et al., 2017). A broader theoretical framework suggests that BMI should be understood through an integrated perspective, encompassing key elements and their interrelationships (Wirtz & Daiser, 2017). Additionally, business model innovation frameworks provide valuable insights for management by examining how changes in value-based components influence market outcomes (Rayna & Striukova, 2016).

Overall, the study of BMI has progressed toward a more structured and integrated understanding, with most contemporary models emphasizing three to four core dimensions. This evolution underscores the importance of aligning value proposition, creation, and capture to ensure sustainable business growth and innovation. The dimension division of business model innovation (BMI) is shown in Table 2.3 and Figure 2.4.

Table 2.3

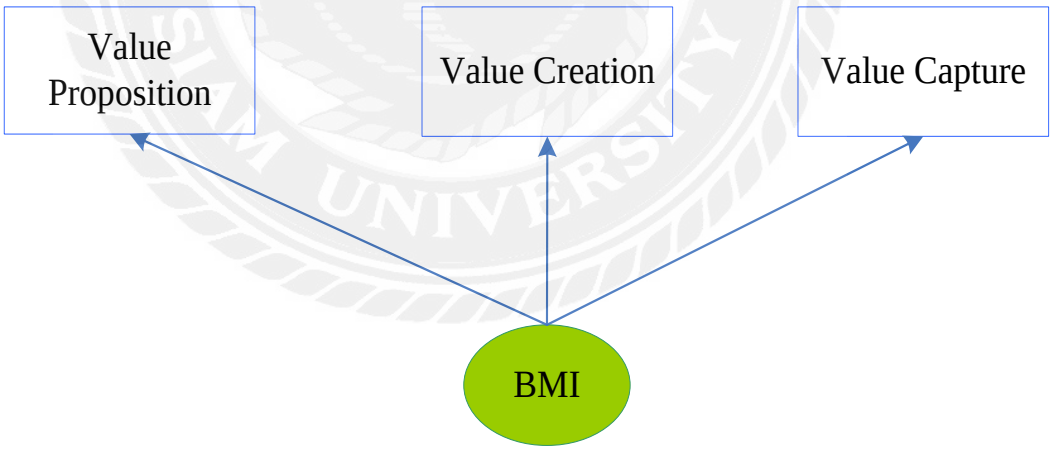
Dimensional division of BMI and scholars

variables	Ramdani et al. (2019)	Still et al. (2017)	Guo et al., 2022)	loss (2017)	Wirtz and Daiser	Sjödin et al. (2020)	Tell et al. (2016)	Nosratabadi et al.	Khaddam et al. (2021)	Caputo et al. (2016)
Value Proposition	√	√	√	√	-	-	√	√	√	-
Value Creation	√	√	√	√	√	√	√	√	√	√
Value Capture	√	√	√	√	√	√	√	-	√	√

Source: Researcher collation (2023)

Figure 2.4

Endogenous Variables: Business Model Innovation (BMI)



Source: Researcher (2023)

2.3 Enterprise Competitiveness Theory

2.3.1 The Definition of Enterprise Competitiveness

Enterprise competitiveness is a multidimensional and relative notion without a universally approved definition (Sieradzka & Luft, 2015), and different scholars have given different meanings. Porter defines enterprise competitiveness as the firm's ability to gain a competitive edge, reflected in its dominant position within the industry and its long-term potential for profitability and market position. Enterprises deliver more value to their customers than they cost to produce. (Porter, 1985). Subsequently, Porter (1990) and others defined enterprise competitiveness as the ability of enterprises to acquire and utilize resources.

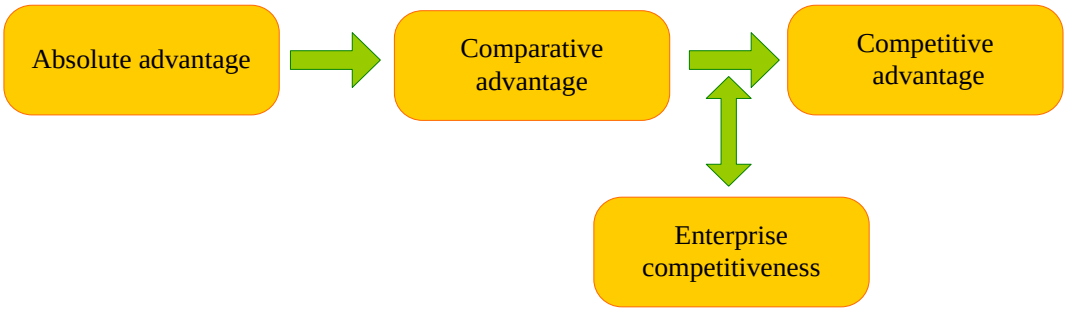
The U.S. Presidential Committee on Industrial Competitiveness and others defined the competitiveness of enterprises as a kind of quality or ability that enterprises can form the products or services needed by the market for a long time and effectively in an appropriate competitive market environment. Resources are valuable and win profits and development (Halilem et al., 2012). Spence and Hazard (2002) defined enterprise competitiveness as the tradable ability of enterprises in the international market (Fagerberg, 1988).

2.3.2 The Development of the Enterprise Competitiveness

Competitiveness has been the focus of widespread attention for a long time (Schwab & Zahidi, 2020).In 1776, Adam Smith put forward the theory of absolute advantage, which laid the foundation for developing competitiveness theory (Smith, 1937). In 1817, David Ricardo developed the theory of comparative advantage based on Adam Smith (Ricardo, 2005). In 1960, Stephen Hymer first mentioned enterprise competitiveness in his doctoral dissertation (Hymer, 1960). In the 1980s, Professor Porter made a relatively comprehensive exposition on the competitive advantage from the macro, meso, and micro levels, which laid a solid foundation for the determination and development of the theory of enterprise competitiveness and established a relatively complete analytical framework (Porter, 1985). Figure 2.4 shows the development process of enterprise competitiveness.

Figure 2.5

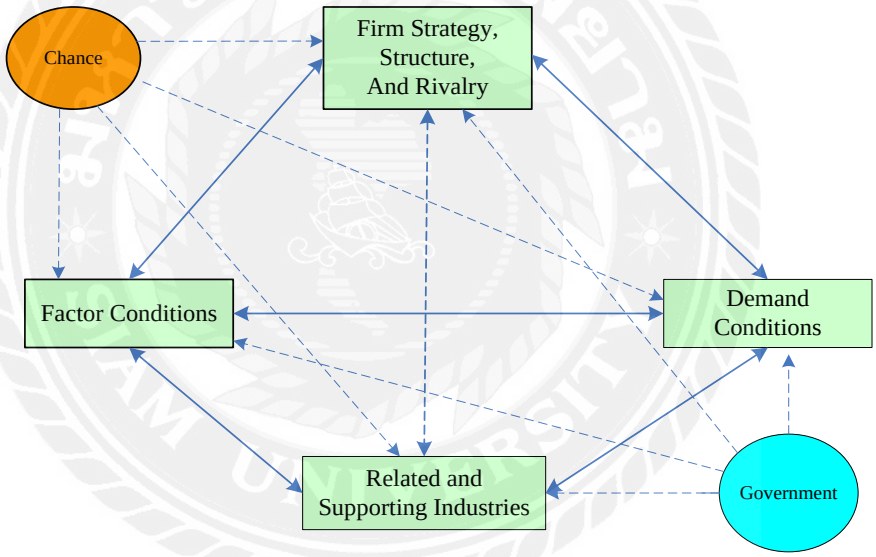
The Development Process of Enterprise Competitiveness



Source: Porter (1985)

Figure 2.6

Determinants of National Competitive Advantage



Source: Porter (1985)

2.3.3 The Source of the Enterprise Competitiveness

Enterprise competitiveness is the all-around performance of enterprises to cope with the internal and external environment in the market. However, there are significant differences in the competition results of different enterprises in the market. Scholars have continuously explored the source of the competitive advantage of enterprises and have gradually formed two schools of exogenous theory and endogenous theory. Among them, the exogenous theory mainly emphasizes that the external environment

determines the competitive advantage of enterprises. In contrast, the endogenous theory aims to explain why enterprises have profit differences in real life.

2.3.3.1 Exogenous Theory of the Source of Enterprise Competitiveness

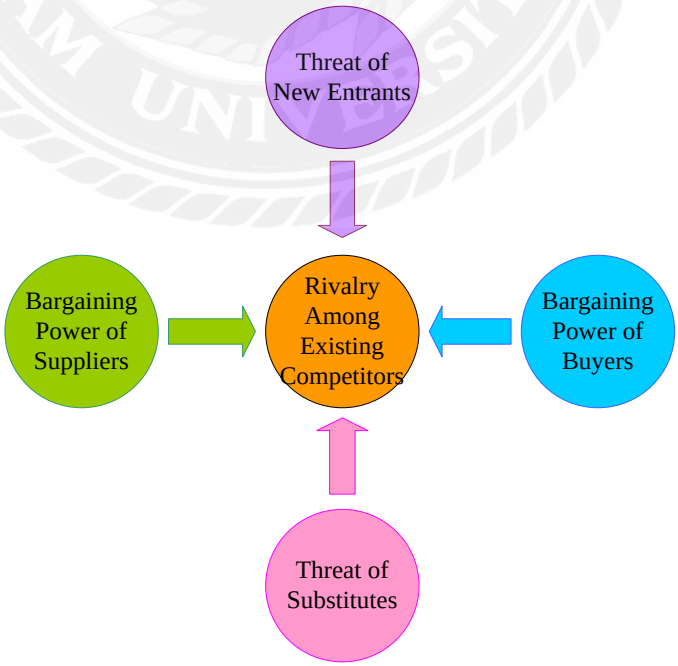
The premise of the exogenous theory is that enterprises are homogeneous. Competitive advantage depends on external factors such as the external market environment, peer competitors, buyers, market structure, and market demand.

Mason (1939) and Bain (1956), based on Marshall's total competition theory (Giddings, 1890) and Chamberlain's monopoly competition theory (Edwards, 1933), put forward the Structure-Conduct-Performance Model (S-C-P) (Bain, 1956).

In the 1980s, Porter introduced the Harvard S-C-P analysis paradigm of industrial organization theory into the analysis of enterprise competition and believed that industrial attraction or long-term profitability was the most fundamental determinant of competitive enterprise advantage. In any industry, any market, regardless of industry, competition rules are mainly reflected in suppliers, buyers, industry competitors, potential entrants, and substitutes (Porter, 1980). Michael Porter's Five Forces Model and three basic strategies are shown in Figures 2.7 and 2.8.

Figure 2.7

Michael Porter's Five Forces Model



Source: Porter (1980)

Figure 2.8

Porter's Three Basic Strategies

Source: Porter (1980)

2.3.3.2 Endogenous Theory of the Source of Enterprise Competitiveness

Since exogenous theory mainly emphasizes the influence of external environmental factors on the competitiveness of enterprises, the fluctuation range of industrial profit rate in a specific period is much more extensive than inter-industry profit (Rumelt, 1982). Because of this, the competitiveness of enterprises not only comes from outside the organization but also has a great relationship with the enterprise. Since the 1980s, people have gradually shifted their focus from the external to the internal resources, capabilities, knowledge, et al., thus producing the internal resources-based view (J Barney, 1991; Peteraf, 1993), capability view (Prahalad & Hamel; Teece et al., 1997), knowledge view (Crossan, 1996; Grant, 1996), and other theories.

Resource-Based View (RBV)

Penrose (1959) first mentioned the Resource-Based View (RBV) on the source of enterprise competitiveness in his Theory of Enterprise Growth. On this basis, Wernerfelt (1984) put forward the RBV more clearly, and this theory means that the problem of unique resource differences within the enterprise is the root of the formation of enterprise competitiveness.

The basic assumption of RBV lies in tangible and intangible resources, including brand, technology, equipment, and capital. The resources between enterprises are immovable, and it is challenging to imitate competitors. The competitiveness difference between enterprises depends on the resource difference, and the competitiveness of enterprises also comes from the accumulation of various resources. In fact, in a perfectly

competitive market, most of an enterprise's resources can be obtained through market exchange, which indicates that not all of an enterprise's resources can be regarded as a source of competitive advantage or competitiveness. Therefore, it further causes people to think about the ability to develop and use resources behind enterprise resources.

Ability View

The earliest competency-based view holds that a firm's competitiveness stems from its unique competencies and organizational capabilities, distinguishing it from its competitors and consolidating its strategic advantages. (Selznick, 1957). This capability mainly includes three aspects: core competence (Leonard-Barton, 1992; Prahalad & Hamel, 1990), organizational competence (Sanchez & Heene, 1997), and dynamic competence (Teece et al., 1997).

According to this theory, the competitiveness of enterprises comes from the organic integration of various skills formed by the development, utilization, and allocation of resources within enterprises. By accumulating different capabilities of enterprises, resources for obtaining competitive advantages will be gradually generated, thus forming the competitiveness of enterprises.

Knowledge View

Hayek proposed the theory of firm knowledge in 1937, believing that knowledge would play an essential role in human society (Von Hayek, 1937). According to the knowledge view of the source of enterprise competitiveness, the difference in knowledge absorption and accumulation in the production process is the decisive factor for the difference between enterprises and their competitiveness, and the knowledge level (quantity and quality of knowledge) of different enterprises is quite different (Kang, 1997).

2.3.4 The Value Chain Theory

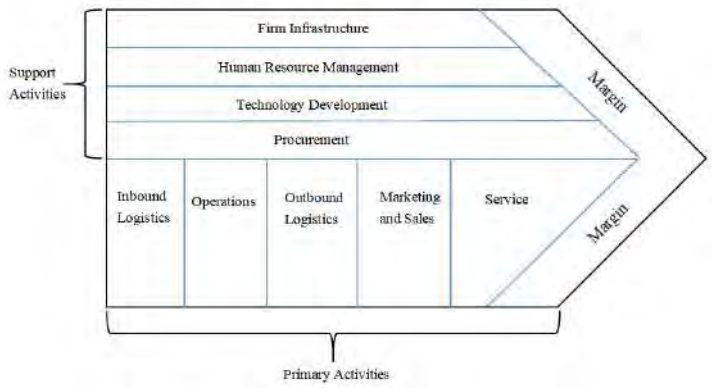
2.3.4.1 Porter’s Value Chain Theory

The value chain is the primary tool to analyze the competitive advantage of enterprises. It developed from the theory of strategic enterprise management, and it is a collection of value-added activities enterprises carry out to realize value creation (Porter, 1985).

In the business activities of creating value, enterprises do not form advantages by value-added but have strategic links to gain competitive advantages, which is the embodiment of the core competitiveness of enterprises (Porter, 1985). Porter's value chain analysis must start from the internal and external value chains. The internal value chain analysis is intended to identify management priorities, optimize business processes, and coordinate internal production and operation activities, thereby improving production and operation efficiency and helping enterprises build a value chain structure with competitive advantages. External value chain analysis can locate and analyze the critical value activities of upstream and downstream industries and competitors to help enterprises form an accurate market positioning, understand the horizontal and vertical industry market situation, and achieve coordinated development inside and outside. Internal value chain analysis includes support activities and primary activities. The horizontal value chain analysis in the external value chain is called the industry value chain analysis. It mainly focuses on the value chain relationship formed by the activities between the enterprise and the upstream and downstream suppliers or distributors. The horizontal value chain serves as a strategic tool for clarifying the development trajectory of enterprises' industries. In contrast, vertical value chain analysis within the external value chain focuses on examining firms engaged in competitive relationships involving homogeneous products with similar attributes. By comparing competitors' advantages and disadvantages, enterprises can formulate corresponding development strategies, thus reducing the risk of profit decline caused by competition, as shown in Figure 2.9.

Figure 2.9

Porter's Value Chain



Source: Porter (1985)

Table 2.4

The Essential Content of the Porter Value Chain

Type	Activity segmentation	Activity content
Primary Activity	Inbound Logistics	It is the activities related to receiving, storing, and distributing product inputs, including material handling, warehousing, inventory control, vehicle scheduling, and supplier returns.
	Operations	It is an activity that transforms input factors into final products, including manufacturing, packaging, assembly, equipment maintenance, testing, printing, and facility operation.
	Outbound Logistics	It is an activity related to product collection, storage, and physical distribution to buyers, including finished product warehousing, material handling, payment vehicle operations, order processing, and scheduling arrangements.
	Marketing and Sales	It is an activity related to creating conditions for the buyer to purchase products, including advertising, promotions, sales teams, quotes, channel selection, channel relationships, and pricing.
	Service	It is to improve or maintain the product's value by providing services, including installation, maintenance, training, spare parts, and product commissioning.
Support Activity	Firm Infrastructure	It includes general management, planning, financial, legal, government affairs, and quality management. As with other ancillary activities, infrastructure usually supports the entire value chain rather than individual actions.
	Human Resource Management	It includes recruitment, employment, training, talent development, and various personnel remuneration work to support independent primary and ancillary activities related to the entire value chain. Human resource management determines the level of labor skills and employee motivation.
	Technology Development	It refers to the fact that every value activity contains a technical component, whether

Type	Activity segmentation	Activity content
		know-how, procedures, or technology embodied in the process equipment.
	Procurement	It refers to the function of the input elements required by the value chain of the purchasing enterprise rather than the elements of the purchase itself.

Source: Porter (1985)

Porter's value chain shows that the competition among enterprises is the competition of the whole value chain, not just the competition in the specific value chain links. The comprehensive competitiveness of the entire value chain ultimately determines the competitiveness of enterprises. It seems that the value chain theory is an effective tool for analyzing the competitive advantages of enterprises and enhancing their core competitiveness.

Limited by the historical characteristics of the enterprise operating environment, Porter's value chain is based on a relatively stable technology and market environment, and his competition concept is the product as the core, emphasizing competition rather than cooperation. Therefore, environmental and technological changes provide space and scope for future scholars and managers to develop value chain ideas.

2.3.4.2 Other Scholars' Definition of the Value Chain Theory

The allocation of each segment within a value chain across different countries and regions is influenced by their respective comparative advantages. At the same time, the competitiveness of enterprises in these locations determines which specific links should be prioritized for development (Kogut, 1985). The value chain has been conceptualized as encompassing the entire sequence of activities within a business process, from the procurement of raw materials through production and the sale of final products to customer delivery, forming a comprehensive structure that defines enterprise operations. Recent studies emphasize the increasing complexity of value chain management due to technological advancements and global market dynamics, highlighting the need for firms to optimize operations through digital transformation and data-driven decision-making (Marín et al., 2023).

An alternative perspective defines the value chain as "the transport line integrating the value of materials," emphasizing the integration of raw materials and

customers within the value chain. This approach considers customer demand as the ultimate goal of the production process, with profit being a secondary outcome of fulfilling this demand (Hines, 1993). More recent studies highlight the importance of sustainability within value chains, emphasizing that firms must integrate environmentally friendly practices to enhance efficiency and reduce waste. Expanding on this framework, the Porterian value chain model has been extended to account for inter-firm linkages, incorporating inter-industry and intra-industry value chains, where variations in value creation processes arise depending on industry-specific characteristics (Kaplinsky, 2000). Moreover, artificial intelligence (AI) has been increasingly employed to enhance value chain efficiency by optimizing logistics, demand forecasting, and production planning (Dash et al., 2019).

Further refinement of value chain theory distinguishes between simple and extended value chains. The former encompasses all activities required to transform an initial concept into a final product or service, including production, distribution, and post-consumption disposal. In contrast, real-world value chains exhibit higher complexity, with additional linkages forming an extended value chain that accommodates the intricate interactions between economic agents (Kaplinsky & Morris, 2000). This complexity has been further exacerbated by global trade policy changes and financial shocks, necessitating greater adaptability in global value chains (Gereffi et al., 2021). Furthermore, the integration of blockchain technology has emerged as a critical development in modern supply chains, providing increased transparency, traceability, and security within value chain processes (Dutta et al., 2020).

2.3.5 VRIO (Value, Rarity, Inimitability, Organization) Model

The VRIO model, introduced by Jay B. Barney in 1991, is an analytical tool that delves deeper into a company's internal capabilities concerning SWOT analysis. The model effectively identifies an enterprise's strengths and weaknesses by assessing value, rarity, imitability, and organization. This proprietary approach offers a systematic framework for evaluating a company's potential competitive advantage, thus enabling effective strategic planning (Jay Barney, 1991).

The VRIO model serves as a means of applying RBV (Resource-Based View). This model comprises four dimensions of relevance to resources achieving real sustainable advantages: “Value, Rarity, Imitation, and Implementation in the

Organization"(Barney et al., 2007; Barney & Wright, 1998; Lopes et al., 2018). If a firm's capabilities do not have these effects, they cannot be a source of competitive parity (Barney & Mackey, 2016; Lopes et al., 2018).

In the VRIO model analysis, the resource must be valuable, rare, and difficult to imitate for the competitive advantage to be long-lasting. A resource is imperfectly imitable if other organizations cannot replicate it. It can be costly and complex for a competitor to copy the resource due to reasons connected to unique historical conditions, causal ambiguity, social complexity, and imperfect substitutability (Simão, 2010).

People use the VRIO model to understand what resources are valuable to a company, what makes them so, how vulnerable they are to imitation, and how the firm can exploit and manage them sustainably. It is a mechanism that integrates two existing theoretical frameworks: the positioning perspective and the resource-based view. It is the primary tool for accomplishing internal analysis. (Hesterly & Barney, 2014). From the resource-based literature, the Value-Rarity-Imitability-Organization (VRIO) technique (Barney, 1997) has become widely advocated for assessing the extent to which a firm's resources meet the criteria for sustained competitive advantage (Johnson et al., 2020).

The VRIO framework aims to measure whether organizational resources have value, are mature, are not easy to imitate, and are easy to manage, which is directed at sources of competitive advantage. Four dimensions comprise the framework of VRIO: Value, Rarity, Imitability, and Organization. First and foremost, resources must be valuable. Resources are useful when they enable the firm to achieve a sustainable competitive advantage. Secondly, resources must be rare. Those resources are rare if only a few companies can acquire some Advances in Social Science, Education, and Humanities Research. Valuable and scarce resources help companies execute strategies that others cannot. However, this is not a guarantee for long-term competitive advantage. Resources are said to be difficult to imitate if they are challenging to obtain and expensive to imitate (Astawa, 2022).

In summary, the VRIO model is a tool used to analyze its own core resources and core capabilities.

V: Value. It refers to the resources and ability owned by an enterprise to quickly and effectively respond when it encounters external dangers or opportunities. If an

enterprise wants to gain a competitive advantage, it must have the resources and capabilities to seize opportunities and avoid threats.

R: Rarity. Only with unique resources can enterprises form competitive advantages.

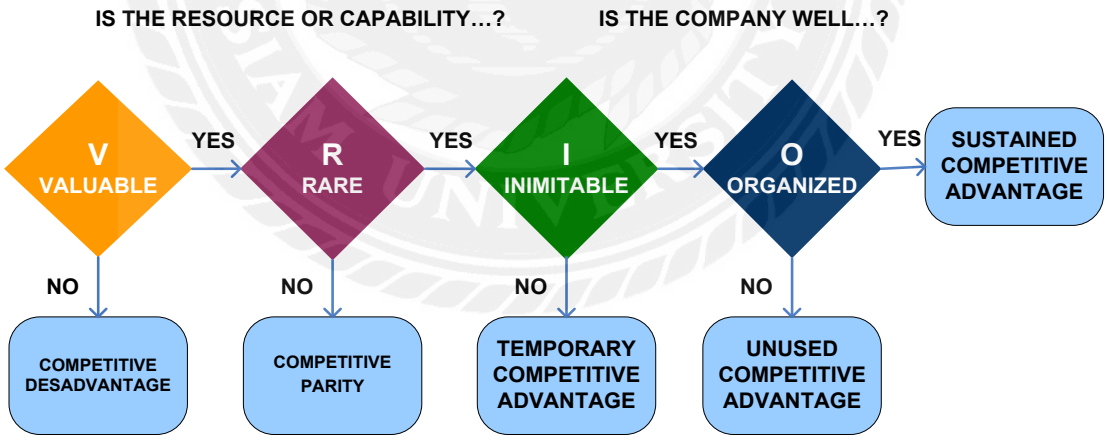
I: Inimitability. The core capabilities and resources owned by enterprises are not replicable. It is easy to learn if it is replicable, and this competitive advantage is short-lived.

O: Organization. Organizational capability is the key to playing enterprises' core resources and capabilities, which can only be transformed into competitive advantages through the organization.

The framework is easy to understand and use and provides enormous value to organizations looking to stay ahead of competitors. This reason has made the VRIO model the choice for many companies looking to analyze their internal environment. Now, this VRIO model is becoming very popular (Astawa, 2022).

Figure 2.10

The VRIO Model



Source: Barney (1997)

2.3.6 Measurement of Enterprise Competitiveness

Some scholars reviewed the competitiveness literature from 2009 to 2018, analyzing organizational competitiveness's conceptual and structural evolution. The findings suggest that organizational competitiveness remains a complex and controversial structure, with persistent theoretical and empirical ambiguities,

particularly regarding its measurement (Zuñiga-Collazos et al., 2019). Some scholars define it as a one-dimensional structure composed of various indicators, while others argue that it is multidimensional, consisting of multiple interrelated analytical dimensions.

Three representative dimensions were identified and extracted based on a comprehensive literature review concerning competitiveness evaluation index systems to construct a competitiveness evaluation index system tailored explicitly for tea enterprises. Despite extensive research, a unified framework has yet to be established, mainly due to differences in industry characteristics, regional economic conditions, and methodological approaches. Nevertheless, common themes have emerged across the literature, allowing for the identification of core dimensions such as market competitiveness, profit capability, and enterprise growth capacity.

Market competitiveness is widely acknowledged as a foundational component of enterprise competitiveness, typically evaluated through indicators such as market share, customer satisfaction, delivery timeliness, and product quality. It is a critical factor in assessing competitive advantage, as demonstrated in analyzing university competitiveness through quantifiable indicators in Bulgaria (Dimitrova & Dimitrova, 2017). A dynamic perspective on market competitiveness suggests that firms must fulfill market expectations in price and quality and adapt effectively to environmental changes over time (Falciola et al., 2020). This adaptability is further supported by studies of high-growth Chinese enterprises integrating market responsiveness alongside innovation and operational efficiency within a multidimensional competitiveness framework (Zhang et al., 2023). In the telecom sector, competitive advantage has been linked to service quality, customer satisfaction, and loyalty, reflecting the relevance of consumer-focused metrics to market competitiveness (Nekmahmud & Rahman, 2018).

Profitability is another essential dimension of competitiveness, reflecting a firm's capacity to maintain financial sustainability while meeting market needs. It has been conceptualized as the core of enterprise competitiveness, grounded in the view that firms achieve competitive status only when they can consistently generate profits while satisfying demand (Reisinger, 2023). This perspective has been operationalized by developing the Enterprise Competitiveness Index (FCI), which incorporates profitability indicators such as return on sales and market share to measure competitive advantage within Hungarian manufacturing firms (Chikán et al., 2022). Cross-national research

further underscores the significance of profitability, highlighting how dimensions like productivity, survival, and growth vary in importance depending on economic and industrial contexts (Csapi & Balogh, 2020).

Enterprise growth capacity captures the firm's potential for sustained development and long-term viability, often tied to innovation, strategic flexibility, and responsiveness to changing market dynamics. Empirical studies demonstrate that business model innovation—mainly when facilitated by strong social network connections—can significantly enhance growth trajectories in small and medium-sized enterprises (Wang et al., 2022). Strategic choices—such as optimiszing product line strategies in terms of cost, delivery, and differentiation—have also been shown to positively influence growth and competitive positioning, as demonstrated in Nigeria's food and beverage sector (Tambade et al., 2019). Additionally, sustainable innovation practices have been associated with enhanced competitiveness through increased value creation and the ability to attract intangible resources, thereby supporting longer-term growth potential (Hermundsdottir & Aspelund, 2021).

Table 2.5

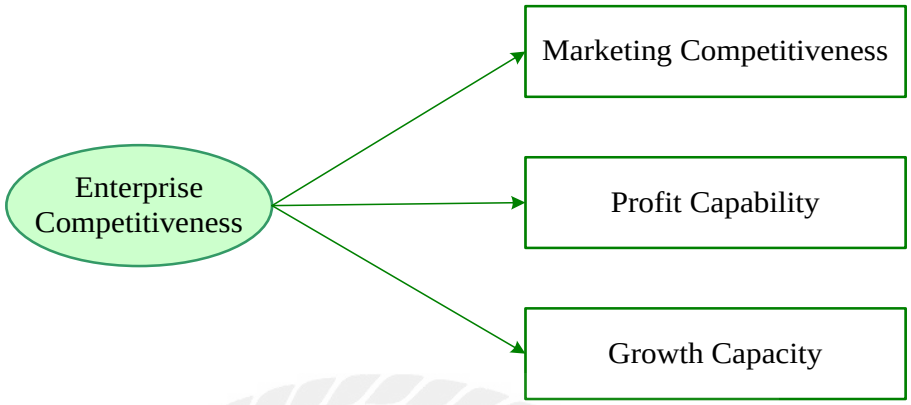
Dimension Division of Enterprise Competitiveness (EC) and Scholars

Variables	Zhang et al. (2023)	Reisinger (2023)	Chikán et al. (2022)	Wang et al. (2022)	Hermundsdottir and Aspelund (2021)	Falciola et al. (2020)	Csapi and Balogh (2020)	Tambade et al. (2019)	Nekmahmud and Rahman (2018)	Dimitrova and Dimitrova (2017)
Marketing Competitiveness	√	√	√	-	-	√	√	√	√	√
Profitability	√	√	√	-	√	-	√	√	-	-
Growth ability	√	-	-	√	√	√	√	-	-	-

Source: Researcher (2023)

Figure 2.11

Endogenous Variables: Enterprise Capabilities (EC)



Source: Researcher (2023)

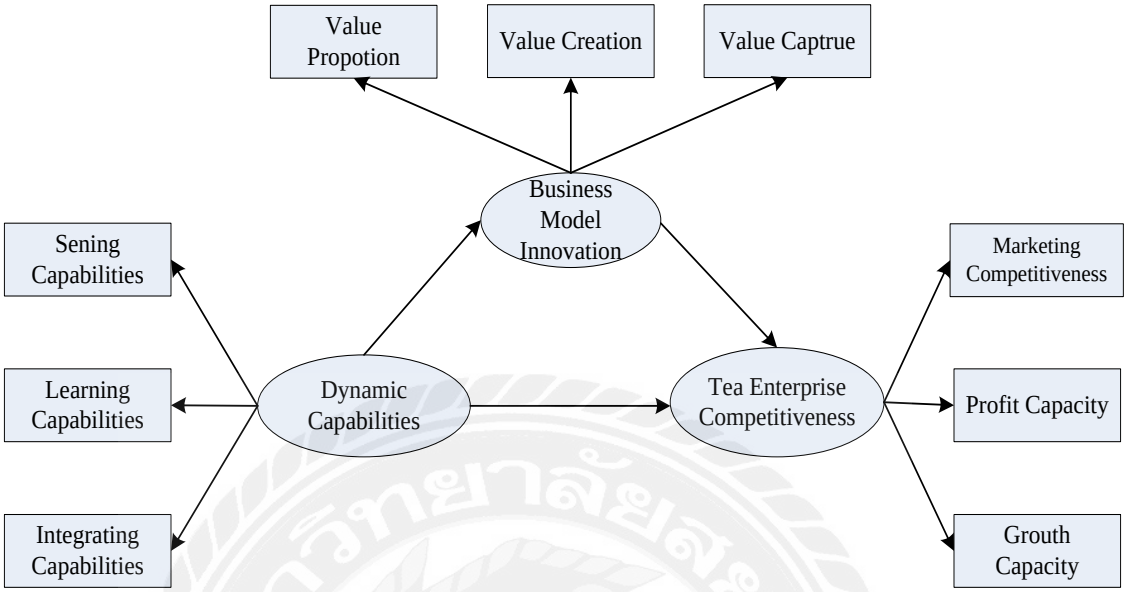
2.4 Conceptual Framework, Operational Definition, Hypothesis, and Explanation of Hypothesis

2.4.1 Conceptual Framework

To sum up, business model innovation is an essential factor affecting the competitiveness of enterprises. Based on the dynamic capability theory, the paper discusses the internal relationship between Dynamic Capability, Business Model Innovation, and enterprise competitiveness. This dissertation constructs the conceptual framework accordingly based on the above theoretical analysis. The conceptual framework is shown in Figure 2.12:

Figure 2.12

The Conceptual Framework



Source: Researcher (2023)

2.4.2 Operational Definition

2.4.2.1 Dynamic Capabilities

Among Sichuan tea companies, dynamic capability means responding flexibly to market changes. It includes perceptual ability, learning ability, and resource integration ability. The perceptual ability refers to the company's acute capture and insight into market information. On the one hand, it is reflected in the tea company's perception of changes in consumer demand. On the other hand, it is the perception of the market competition situation. The learning ability refers to the company's ability to absorb knowledge and experience from the internal and external environment and continuously improve itself. The resource integration ability refers to the tea company's overall planning and optimal allocation of various internal and external resources.

2.4.2.1.1 Sensing Capabilities

Sensing Capabilities means being highly sensitive to market and environmental changes, seeking new opportunities, timely detecting changes in customer demands, accurately grasping the current situation and development trend of the industry, and

frequently discussing and communicating about the changes in the external environment of the enterprise.

2.4.2.1.2 Learning Capabilities

Learning capabilities refer to individuals' or organizations' abilities in a series of processes, such as knowledge acquisition, understanding, integration, application, and innovation. Enterprises can learn and master various kinds of information. Enterprises can quickly grasp new information and knowledge in time and combine new technologies with others. Different departments in an enterprise communicate with each other about discoveries and problems, and they can solve problems across departments.

2.4.2.1.3 Integrating Capabilities

Integration capabilities mean the organic combination of multiple abilities. It is key for enterprises or organizations to achieve efficient operation and sustainable development in a complex environment. Each department and team within the enterprise has established an efficient and smooth communication mechanism. They can adjust strategies continuously, reallocate resources according to environmental changes, integrate and share new information and knowledge within the enterprise, continuously optimize core resources, and highlight competitive advantages.

2.4.2.2 Business Model Innovation

Business model innovation refers to the creative transformation and recombination of each link in the tea industry chain, bringing new value and competitive advantages to the enterprise and opening up new market space and profit-making channels. Business model innovation encompasses three dimensions: value proposition, value creation, and value capture. The value proposition clarifies the enterprise's unique value to the customer, so it conveys it to consumers for tea purchasing. Value creation is the process by which an enterprise converts resources into valuable products or services through activities. Value capture is how an enterprise converts resources into valuable products or services through activities.

2.4.2.2.1 Value Proposition

The value proposition is the core value information of the products or services provided by the enterprise, which is conveyed to the target customers. It answers the key question of why customers should choose our products or services. The value

proposition includes providing customers with high-quality products, focusing on the flexibility of service delivery as a key point, regularly evaluating customers' perceived value, and supporting customer value creation as an essential part.

2.4.2.2.2 Value creation

Value creation is the process in which tea enterprises integrate various resources and conduct business activities to transform the input resources into valuable products, services, or customer experiences, thereby realizing added value. During this process, the company attaches importance to the simplicity of transactions to reduce errors, and customers are relatively familiar with the company's transaction methods. Meanwhile, the company can provide effective and efficient quotations and has valuable resources that can meet customer needs at a reasonable cost, which satisfies customers with the value provided by the company.

2.4.2.2.3 Value capture

Value capture refers to the process by which an enterprise obtains corresponding economic returns from the created value through strategies, methods, and mechanisms after creating value for customers. During this process, product quality is a key factor for the enterprise to capture value in the production process, and the continuously growing market share can increase the enterprise's value. Moreover, the company can increase revenue or reduce business costs in new ways.

2.4.2.3 Tea Enterprise Competitiveness

The competitiveness of tea enterprises refers to the comprehensive capabilities that tea enterprises possess in market competition. This ability enables them to continuously provide products or services to the market more effectively than their rivals among other tea enterprises or enterprises of related substitute products and achieve an advantageous position of self-development and profitability. It encompasses three dimensions: market competitiveness, profitability, and the growth ability of the enterprise. Market competitiveness refers to the ability of tea enterprises to compete with other competitors in the market for consumers and market share. Profitability refers to the ability of tea enterprises to obtain profits during the operation process. The growth ability of the enterprise refers to the ability of tea enterprises to achieve continuous development through continuous business expansion, scale enlargement, and competitiveness enhancement during the long-term operation process.

2.4.2.3.1 Marketing Competitiveness

Market competitiveness refers to the ability of an enterprise in the market to meet consumer demands and attract customers to purchase its products or services more effectively than its competitors, obtain market share, achieve profit, and realize sustainable development. For example, an enterprise's market share is growing rapidly, customer loyalty is extremely high, the products occupy a high market share in the target market, and the company can also flexibly adapt to the rapidly changing market and respond more quickly.

2.4.2.3.2 Profit Capacity

Profit capacity refers to an enterprise's ability to obtain profit within a specific period. It is an essential manifestation of the enterprise's business performance and efficiency, reflecting the comprehensive effect of the enterprise's resource utilization. Besides being reflected in productivity and return on investment, it can also provide products or services to customers at a relatively low cost, and the sales volume is growing rapidly.

2.4.2.3.3 Growth ability

Growth ability refers to the enterprise's ability to expand in scale, improve performance, and enhance comprehensive strength during continuous operation through its own resource accumulation, business expansion, innovative development, and other means. These manifestations of growth ability are reflected in the enterprise's capacity to improve customer satisfaction and attract new customers, adopt employees' suggestions, increase the senior management team's satisfaction with performance, and boost the average productivity of employees.

2.4.3 Hypothesis and Explanation of Hypothesis

Hypothesis 1: There is a positive relationship between dynamic capabilities and business model innovation

In today’s fast-paced and highly competitive business environment, the interplay between dynamic capabilities and business model innovation has garnered growing scholarly interest. Dynamic capabilities are broadly understood as a firm’s capacity to integrate, develop, and reconfigure internal and external resources in response to rapidly changing conditions, enabling continuous adaptability and renewal. Meanwhile,

Business model innovation involves reconfiguring a firm's value proposition, operational structure, and revenue mechanisms to enhance value creation and capture. Research conducted on German small and medium-sized enterprises (SMEs) has demonstrated that each element of business model innovation, such as changes in product delivery, customer interaction, and revenue streams, relies on particular types of dynamic capabilities, including sensing, seizing, and transforming competencies (Heider et al., 2021). The absorptive capacity of firms, or their ability to acquire and assimilate new knowledge and complementary assets, further plays a critical role in renewing their knowledge base and resource structure, facilitating innovation in business models (Grégoire et al., 2011).

Integrating digital technologies into business models has been a focal point in digital transformation, particularly during disruptive periods such as the COVID-19 pandemic. An investigation into ample food retail companies, including Walmart and Carrefour, found that the application of digital solutions enhanced firms' ability to innovate their value creation and value capture mechanisms—key components of business model innovation—thereby reflecting the activation of dynamic capabilities in real-time strategic adaptation (Mancuso et al., 2023). Similar patterns were identified in China's online literature platforms, where empirical analysis revealed that business model innovation significantly strengthened aspects of dynamic capabilities, such as market sensing, technological development, and platform responsiveness. These findings suggest a reciprocal relationship in which business model innovation shapes and enhances dynamic capabilities (Sun, 2023).

Further theoretical contributions emphasize that firms must continuously scan their environments, identify opportunities and threats, and reconfigure their resource base to maintain competitiveness. This process is conceptualized in the dynamic capability framework, which provides a foundation for understanding the mechanisms through which dynamic capabilities enable business model transformation (Teece, 2010). From a value-based perspective, business model innovation can also be seen as a strategic approach to constructing new value propositions, value networks, and revenue logic, all of which require robust dynamic capabilities to execute successfully (Zott & Amit, 2008).

In sum, different dimensions of dynamic capabilities, such as learning ability, perception ability, and the ability to reconfigure resources, contribute to various aspects

of business model innovation, including value proposition, value creation, and value capture.

Hypothesis 2: There is a positive relationship between business model innovation and Enterprise Competitiveness

In the era of economic globalization, enterprises are confronted with a more intricate market environment (Yang et al., 2019). To maintain their competitive edge and enhance business performance, they must continuously adapt to changes and innovate their business models (Hamel, 1998). Business Model Innovation (BMI) enables organizations to derive value from innovation endeavors (Euchner & Ganguly, 2014). It has drawn increasing attention due to the substantial returns reaped by companies adopting new business models (Euchner, 2016a). Business model innovation is a crucial way to improve the competitiveness of enterprises (Mancuso et al., 2023). Today, enterprise managers and entrepreneurs increasingly leverage the business model concept to explore novel approaches to achieve corporate goals (Laudien & Daxböck, 2017; Massa et al., 2017). Business Model Innovation spans various economic disciplines, such as technology and innovation management (Massa & Tucci, 2013; Tripsas & Gavetti, 2017), strategy (Casadesus-Masanell & Zhu, 2013; Suh et al., 2020; Teece, 2010), and sustainability (França et al., 2017; Klein et al., 2021; Snihur, 2016), and is recognized as a source of competitive advantage (Casadesus-Masanell & Zhu, 2013; Demil & Lecocq, 2010; Teece, 2010).

A substantial body of research in economics and management has examined the relationship between business model innovation (BMI) and enterprise competitiveness from multiple theoretical and empirical angles. Evidence from European and American startups suggests that business models centered on innovation exert a more substantial influence on early-stage firm performance than those focused solely on efficiency, which yields only partial benefits (Zott & Amit, 2008). In a quantitative study of 289 food enterprises in Russia, researchers confirmed the existence of a significant association between seven distinct forms of BMI and firm performance (Morris et al., 2013). Similarly, BMI has been proposed as a robust explanatory factor for variations in firm performance across different contexts (Afuah & Tucci, 2003). When effectively designed, BMI is capable of generating substantial value for firms by enabling the commercialization of new ideas and technologies and ensuring that these are profitably delivered to customers (Chesbrough, 2010; Morris et al., 2005)

From a conceptual perspective, scholars have increasingly acknowledged the central role of value creation in business model theory. BMI is viewed as a strategic process aimed at discovering new methods of generating and capturing value (Clausen & Rasmussen, 2013). A widely accepted framework defines the business model through three interrelated components: value proposition, value creation, and value acquisition, with the latter often seen as the core of the model's economic rationale (Bocken et al., 2014). Strategic innovation in these elements is thought to provide first-mover advantages, allowing firms to differentiate themselves and establish a competitive lead in the market.

Empirical studies further affirm the impact of BMI on enterprise competitiveness. Research indicates that BMI is foundational in enhancing competitiveness, particularly for emerging firms seeking market entry advantages (Zott & Amit, 2007). A study on Ghanaian micro, small, and medium-sized enterprises found that implementing BMI significantly boosted firm performance (Osei et al., 2015). Similar outcomes were observed in Pakistan's emerging markets, where BMI positively influenced both competitive advantage and SME performance (Anwar, 2018). An analysis of 2,970 annual reports from Chinese firms confirmed the positive correlation between BMI and competitiveness, with specific case studies—such as that of S Company—offering further validation (Yu & Wang, 2023).

Hypothesis 3: There is a positive relationship between Dynamic Capabilities and the Tea Enterprise Competitiveness in Sichuan, China

Dynamic capability is an ability that enables an enterprise's ordinary capabilities to maintain a competitive edge. The dynamic and complex nature of the external environment necessitates utilizing dynamic capabilities, compelling enterprises to build and cultivate a higher level of such capabilities for effective response. Moreover, the formation and development of enterprise capabilities are often intertwined with organizational learning and practice activities. Enterprises leverage specific activity platforms to integrate internal resources and modify, expand, or adjust existing resources, processes, and values, thereby constructing dynamic capabilities.

Rooted in the dynamic capability theory, enterprises can promptly and effectively explore and seize market opportunities. They can integrate and reconfigure internal and external organizational resources to adapt to dynamic and complex

environmental changes (Zahra et al., 2006) and create corporate value amidst a turbulent and intricate market landscape. Dynamic capabilities are crucial for organizations to develop sustainable competitiveness (Teece, 2007). By optimizing and repositioning internal and external resources to adapt to environmental shifts, they also facilitate the creation and maintenance of competitive advantages (Teece et al., 1997). These capabilities empower enterprises to rapidly gather information about market changes, make informed decisions ahead of competitors, and create first-mover advantages (Justin Tan & Litsschert, 1994). They enable enterprises to efficiently respond to environmental changes (Drnevich & Kriauciunas, 2011), transform the current strategic resource base, and form a new routine process, thus enhancing enterprise efficiency (Garvin, 1988). Dynamic capabilities contribute to enterprises' sustainable survival and development by perceiving changes, exploring new market opportunities, reconstructing internal and external organizational resources, and providing new strategic options (Eisenhardt & Martin, 2000). Zahra and Hayton (2008) confirmed through empirical research on 218 companies that an organization's absorptive capacity can positively impact corporate performance.

Dynamic capabilities are understood as mechanisms through which firms develop novel product-service strategies and reconfigure their underlying business logic, thereby improving their adaptability and responsiveness to market changes (Sanchez, 1995). Internal innovation activities within organizations further reinforce their coordination and flexibility, enabling them to respond effectively to evolving competitive environments. Empirical analysis based on data from 301 U.S. firms has shown that dynamic capabilities strengthen a firm's competitive edge and significantly enhance its innovation outcomes (Makkonen et al., 2014). Supporting this view, a study of 113 high-technology small and medium-sized enterprises in the United Kingdom confirmed the positive effect of dynamic capabilities on innovation performance. Moreover, this study found that forward-looking firms—those that proactively seek new opportunities—benefit more from dynamic capabilities than defensive firms that primarily focus on protecting existing positions (Wang et al., 2015).

From a resource-based perspective, dynamic capabilities involve continuously developing new organizational resources and reconfiguring existing internal and external resource portfolios to elevate a firm’s overall resource endowment (Helfat & Peteraf, 2015). Unlike operational or ordinary capabilities, which yield value through

the direct use of current assets, dynamic capabilities enable firms to secure more advantageous resources, thus fostering long-term value creation and sustainable competitive advantage.

Hypothesis 4: The mediating role of business model innovation between dynamic capability and the tea enterprise competitiveness in Sichuan, China

Business model design and operation are inherently intertwined with a firm's capabilities. Dynamic capabilities, a crucial concept in business strategy, refer to a firm's capacity to integrate, develop, and reconfigure its internal capabilities. The creation, refinement, execution, and transformation of business models manifest high-order capabilities (Salvato, 2003; Teece, 2018).

In an ever-changing business landscape, firms often rely on their dynamic capabilities to respond to environmental shifts (Teece, 2007, 2018; Teece et al., 1997). These capabilities empower enterprises to navigate uncertainties by continuously evolving their business models, staying updated with market information, and effectively integrating internal and external resources. By doing so, they can build and strengthen their core competitiveness, thereby ensuring the long-term sustenance and sustainable development of their competitive advantage (Wang, 2019).

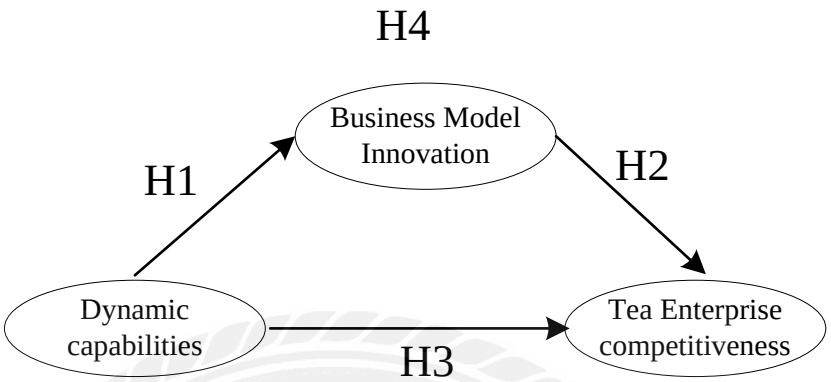
For established enterprises, the ability to adapt is not a luxury but a necessity. They must be vigilant and proactive in adjusting their business models to keep pace with market dynamics, seize emerging opportunities, and not only adapt to environmental changes but potentially lead the way in shaping them. In pursuing enhanced competitiveness, the strength of a firm's dynamic capabilities plays a pivotal role in its long-term profitability， which includes the proficiency to design innovative business models and the agility to adjust them as the situation demands (Teece, 2018).

2.5 An Analytical Model

Based on dynamic capability, this paper establishes a relationship model between dynamic capability, business model innovation, and the competitiveness of Sichuan tea enterprises. According to these hypotheses, an analytical model is shown in Figure 2.13.

Figure 2.13

An Analytical Model



Source: Researcher (2023)

CHAPTER 3
RESEARCH METHODOLOGY

This chapter discusses the method used, the population and sampling methods, data collection, the operationalization of variables, the questionnaire pretest, research hypotheses, the analytical model, and the statistical analysis method.

This chapter is divided into four parts:

3.1 Research Design
3.2 Quantitative Research
    3.2.1 Population and Sampling Methods
    3.2.2 Research Instrument and Construction
    3.2.3 Questionnaire Design
    3.2.4 Quality of Research Instrument
    3.2.5 Data Collection
    3.2.6 Statistical Method of Analysis
3.3 Qualitative Research
    3.3.1 Interview Design
    3.3.2 Sample / Key Informants
    3.3.3 Research Instrument
    3.3.4 Date Gathering
    3.3.5 Data Sorting
    3.3.5 Content Analysis
3.4 Development of a Tea Enterprises Competitiveness Model
3.5 Dissertation Structure

3.1 Research Design

This research primarily employs quantitative methods**,** with qualitative research used to support the quantitative findings**.** The research process follows these steps:

Step 1: Research objective and research questions. Clarify the objective and primary questions of the research.

Step 2: Literature review. Literature in related fields is reviewed to understand the existing research on the relationship between dynamic capability, business model innovation, and firm competitiveness. Then, the theoretical framework and research hypotheses will be determined.

Step 3: Creation of measurement forms. This dissertation, mainly aimed at the enterprise level, assesses the impact of dynamic capabilities and business model innovation (BMI) on the competitiveness of the tea enterprise.

The researcher created measurement forms, including questionnaires and predefined interview questions, to improve the enterprise competition using the dynamic capabilities, business model innovation, and firm competitiveness relationship models.

Step 4: Content validity and Reliability Testing. Using the evaluation forms, the researcher sent the questionnaire to experts to evaluate content validity, including clearness, coverage, and language accuracy.

Step 5: Improve the questionnaire. The researcher will refine the question based on the results of the expert feedback and form the final questionnaire.

Step 6: Data collection. In this research project, quantitative research generated questionnaire links and QR codes through the Questionnaire Star platform and distributed questionnaires through key contacts of tea companies. Respondents were asked to complete the questionnaire within four weeks.

Qualitative analysis focuses on an in-depth understanding of the reasons behind respondents' opinions, attitudes, and behaviors and obtains rich qualitative data through in-depth interviews.

Step 7: Data processing and analysis. The researcher collected data from the population and samples and used SPSS software for statistical analysis and structural equation modeling to determine the final results for the quantitative analysis.

For qualitative analysis, the data obtained from the semi-structured interviews are converted into text and stored in a database along with other information provided by the interviewees for further analysis using NVivo software.

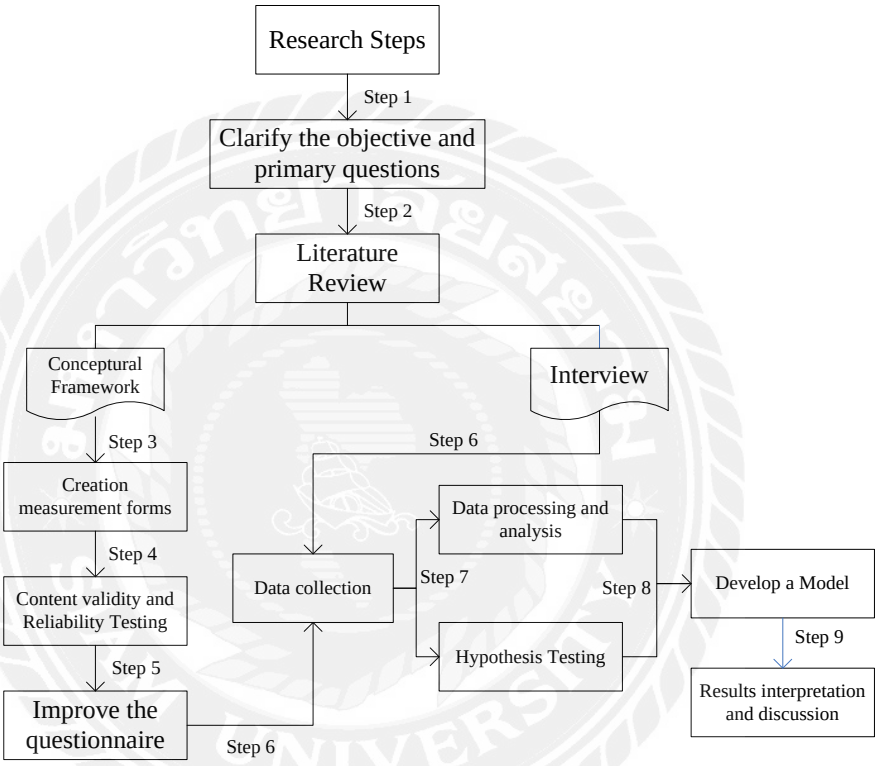
Step 8: Develop a model. Drawing on both quantitative and qualitative findings, a comprehensive model has been developed to strengthen the competitiveness of tea enterprises in Sichuan, China.

Step 9: Results interpretation and discussion. According to the results of the analysis, the research hypotheses are compared and discussed, and relevant suggestions are put forward for government departments, tea enterprises, tea shops, and government departments. Further research directions are proposed.

The research design steps of this study are shown below (shown in Figure 3.1):

Figure 3.1

The Research-Designed Steps



Source: Researcher (2023)

The research process has two phases.

The first stage is quantitative methods. The first part is a literature review, including dynamic capability, business model innovation, and enterprise competitiveness, and then a conceptual framework for this study is developed. The questionnaire used a 5-point Likert scale (Likert, 1932). Subsequently, the questionnaire was tested for reliability, validity, and correlation of the research scope, and finally, data collection and statistical analysis were carried out. The data will be further analyzed using descriptive statistics and Structural Equation Models.

The second stage is to conduct in-depth interviews with senior management, tea industry experts, and consumers through face-to-face interviews. The comments and suggestions collected will be analyzed using NVivo software to interpret this study in the best way.

3.2 Quantitative Research

3.2.1 Population and Sample Methods

This study focuses on tea enterprises in Sichuan Province, China. The target population comprises established and active tea companies operating within this province. A purposive sampling approach was adopted to ensure relevance and representation, combining expert judgment (Delphi method) and objective performance criteria.

First, a preliminary pool of over 50 potential tea enterprises was compiled from the Sichuan Tea Industry Association database, industry reports, and online business directories. A Delphi panel of 15 experts, including professors of agricultural economics and business management, senior executives from leading tea enterprises, and industry analysts, was assembled to evaluate and select the final sample.

In the first Delphi round, experts assessed companies based on four key dimensions: market share, business model characteristics, innovation capability, and market influence. Enterprises frequently recommended by the panel advanced to the next stage. In the second round, experts conducted a more detailed evaluation, considering recent innovation practices, product launches, and marketing strategies. Through this two-step consensus-building process, 10 representative tea enterprises were selected. These companies range from large-scale enterprises with broad market reach to small and medium-sized businesses with unique market positioning, ensuring a balanced representation of the diverse Sichuan tea industry landscape.

These selected enterprises have demonstrated consistent growth, diversified product portfolios, and strong brand reputations. They also hold multiple certifications and have actively participated in industry initiatives, making them ideal subjects for exploring the interaction between dynamic capabilities, business model innovation, and enterprise competitiveness.

A stratified purposive sampling strategy was used to collect empirical data to select respondents from within the 10 enterprises. Participants included senior executives, middle management, and frontline employees, ensuring a multi-perspective understanding of organizational strategy, innovation practices, and operational realities.

This study follows established methodological conventions regarding sample size adequacy for quantitative analysis by employing structural equation modeling (Barney et al.). Specifically, a minimum ratio of 5:1 between the number of observations and estimated parameters is considered sufficient for generating reliable parameter estimates. In contrast, a ratio of 10:1 is recommended to ensure the robustness of significance testing (Bentler & Chou, 1987). Additionally, for SEM models utilizing the maximum likelihood estimation method under continuous and normally distributed data assumptions, a more conservative ratio of up to 20:1 is suggested to enhance estimation accuracy and model stability (Jackson, 2003). Given that this study's model includes nine latent variables and 40 observed variables, a sample size between 400 and 800 was determined to be adequate and optimal for the complexity of the analysis. A larger sample size enhances the reliability and validity of parameter estimates in SEM.

Overall, this carefully designed sampling process ensures representativeness and depth, laying a solid empirical foundation for investigating the relationships between dynamic capabilities, business model innovation, and the competitiveness of Sichuan tea enterprises.

3.2.2 Research Instrument and Construction

The instrument for the quantitative study is a questionnaire that will be used to collect data from the members of 10 representative tea enterprises in Sichuan Province. It is linked to enterprise competitiveness (EC), dynamic capability (DC), and business model innovation (BMI). The questionnaire includes basic information, a Likert 5 subscale, and recommendations.

Part 1: Personal information. Personal information collected from respondents includes gender, age, education level, years of work experience, and current position. Specific numerical requirements were established for the number of respondents from each enterprise in the questionnaire to ensure a structured and representative statistical sampling process.

Part 2: Likert 5 subscale. It is composed of key contributions that would gather the opinions of respondents or key informants related to enterprise competitiveness (EC), dynamic capability (DC), and business model innovation (BMI), which would indicate the best fit of the enterprise competitiveness model to targeted users in this study.

Part 3: Recommendation.

The questionnaire form is estimated using a 5-level Likert Scale (Likert, 1932). The scale employs a five-point system: 5 points indicate strong agreement, 4 points reflect agreement, 3 points suggest a neutral stance (neither agreement nor disagreement), 2 points indicate disagreement, and 1 point signifies strong disagreement. These scoring thresholds are significant as they are tied to pivotal parameters that significantly influence the competitive position of enterprises.

3.2.3 Questionnaire Design

3.2.3.1 Independent Variables

The independent variables were Dynamic capability. According to the literature review in Chapter 2, dynamic ability is divided into three dimensions, namely perception ability (SC), learning ability (LC), and integration ability (IC). They represent three capabilities of enterprises: Environmental Awareness Capability, Learning Absorptive Capacity, and Resource Integration Capability.

According to Jaworski and Kohli (1993), Pavlou and El Sawy (2006), Zahra and George (2002), and Jiang et al. (2008), referring to the questionnaire design of Chen (2011) in studying the relationship between relationship learning, dynamic ability, and technological innovation, obtained the following measurement scale of dynamic ability with a total of 15 items after improvement. The complete scale is shown in Table 3.1.

Table 3.1

Dynamic Capability Measurement Scales

Dimensions	Items	Authors
Sensing Capabilities	Q1. Businesses can quickly scan the environment for new opportunities.	Jaworski and Kohli (1993), Pavlou and El Sawy (2006), Zahra and George (2002),
	Q2. Companies are quick to detect changes in customer preferences and needs.	
	Q3. Companies are quick to react to competitors' moves.	

Dimensions	Items	Authors
	Q4. Enterprises have a more accurate understanding of the industry's current situation and development trends.	Chen (2011), Li (2015)
	Q5. Managers often discuss and communicate about changes in the external environment of the enterprise	
Learning Capabilities	Q6. Enterprises can timely understand and master all kinds of information obtained	Jaworski and Kohli (1993) , Pavlou and El Sawy (2006) , Zahra and George (2002) , Chen (2011), Flatten et al. (2011)
	Q7. Enterprises can timely identify the changes caused by new information and new knowledge.	
	Q8. Companies can integrate new technologies they already know with other technologies.	
	Q9. Our management demands periodical cross-departmental meetings to exchange new developments, problems, and achievements.	
	Q10. Our management emphasizes cross-departmental support to solve problems.	
Integration Capability	Q11. There is a high degree of coordination between different departments and teams in the enterprise	Jaworski and Kohli (1993), Pavlou and El Sawy (2006), Zahra and George (2002), Chen (2011), Teece (2007)
	Q12. Enterprises can adjust their strategies according to environmental changes.	
	Q13. Enterprises can constantly adjust resource allocation according to environmental changes.	
	Q14. Enterprises can quickly integrate and share new information and knowledge within the enterprise.	
	Q15. The company constantly optimizes core resources to highlight competitive advantages.	

Source: Adopted from Jaworski and Kohli (1993), Pavlou and El Sawy (2006), Zahra and George (2002), Chen (2011), Li (2015), Flatten et al. (2011) & Teece (2007)

The modified scale increased from three original items to five per dimension. The scale mainly questions the company's ability to obtain, integrate, allocate, and use resources. Environmental Awareness Capability was evaluated through five items, including quickly scan the environment for new opportunities, quick to detect changes in customer preferences and needs, quick to react, understanding of the current situation and development trend of the industry, and discuss and communicate about changes in the external environment of the enterprise (Chen, 2011; Jaworski & Kohli, 1993; Li,

2015; Pavlou & El Sawy, 2006; Zahra & George, 2002); Learning Absorptive Capacity was measured by five items, including timely understand and master all kinds of information obtained, timely identify the changes caused by new information and new knowledge, integrate new technologies they already know with other technologies, periodical cross-departmental meetings to interchange new developments, problems, and achievements，emphasizes cross-departmental support to solve problems (Chen, 2011; Flatten et al., 2011; Jaworski & Kohli, 1993; Pavlou & El Sawy, 2006; Zahra & George, 2002); Resource Integration Capability was evaluated through five items, including coordination between different departments and teams, adjust their strategies or resource allocation according to environmental changes, integrate and share new information and knowledge, and optimize core resources (Chen, 2011; Jaworski & Kohli, 1993; Pavlou & El Sawy, 2006; Teece, 2007; Zahra & George, 2002).

3.2.3.2 Mediating Variable

Business model innovation (BMI) is the mediating variable in this study. Drawing upon the conceptual framework developed in Chapter Two, BMI is categorized into three dimensions: value proposition, value creation, and value capture. Following three iterations of scale refinement, 15 measurement items were finalized, with each dimension comprising five questions. The complete measurement scale is presented in Table 3.2:

According to Khaddam et al. (2021), they evaluated the value proposition through five items, including high-quality products, service, flexibility, employee performance, customer perceived value, and customer value creation (Chesbrough & Rosenbloom, 2002; Lindič & Da Silva, 2011; Skålén et al., 2015). Researchers measured Value creation through five items: transaction simplicity, transaction familiarity, market provision, valuable resources used to meet customer needs, and customer satisfaction with value creation (Amit & Zott, 2001; Bowman & Ambrosini, 2000; Matzler et al., 2013); Some scholars evaluated Value capture through five items: innovative use of resources, customers' willingness to pay, market share expansion and product quality, increase their revenue and reduce business costs through new ways (Bowman & Ambrosini, 2000; Hall & Roelich, 2016; Osterwalder et al., 2005; Spieth & Schneider, 2016; Yang et al., 2017).

Table 3.2

The Business Model Innovation Measurement Scale

Dimensions	Items	Authors
Value Proposition	Q16. Our company provides customers with high-quality products.	Chesbrough and Rosenbloom (2002), Skålén et al. (2015)
	Q17. Flexibility in providing our service is a key priority.	
	Q18. The performance of our employees is good.	
	Q19. We assess our customers' perceived value periodically.	
	Q20.A significant part of our value proposition is to support customer value creation.	
Value Creation	Q21. The company emphasizes transaction simplicity to reduce mistakes.	Amit and Zott (2001), Bowman and Ambrosini (2000), Matzler et al. (2013)
	Q22. Our customers are familiar with our transactions.	
	Q23. The company delivers effective and efficient offers.	
	Q24. We possess valuable resources that meet customer needs at reasonable costs.	
	Q25. Our customers are satisfied with the value we provide.	
Value Capture	Q26. We make our resources profitable in innovative ways.	Bowman and Ambrosini (2000), Hall and Roelich (2016), Osterwalder et al. (2005), Spieth and Schneider (2016), (Yang et al., 2017)
	Q27. Our product's value is adequate for customers' willingness to pay.	
	Q28. Product quality is a critical factor in our production process to capture value.	
	Q29. Our expanding market share increases our value capture.	
	Q30. The companies can increase their revenue or reduce business costs in new ways.	

Source: Researcher (2024)

3.2.3.3 Dependent Variable

The dependent variable was enterprise competitiveness. The research on enterprise competitiveness is relatively mature, and many empirical studies use measurement indicators and corresponding operational indicators. Based on the measurement indicators used in the current influential empirical research on corporate competitiveness, this paper divides corporate competitiveness into three dimensions and

13 items: market competitiveness, profitability power, and growth power (Du, 2009). The complete scale is shown in Table 3.6.

Table 3.3

Enterprise Competitiveness Measurement Scale

Dimensions	Items	Authors
Market Competitiveness	Q31. Firms' market share is growing faster.	Nekmahmud and Rahman (2018), Swink et al. (2007), Du (2009), Wang et al. (2015)
	Q32. The company's customer satisfaction and loyalty are very high.	
	Q33. The company's products have a high market share in the target market.	
	Q34. Companies have the flexibility to adapt to rapidly changing markets and respond more quickly.	
Profit Capability	Q35. The production efficiency of the company is very high.	Guenzi and Troilo (2007), Neill and Rose (2006), Seggie et al. (2006)
	Q36. The company has a high return on investment	
	Q37. Enterprises can compare and provide products or services to customers cheaply.	
	Q38. The company's sales are growing fast.	
Growth Capacity	Q39. Enterprises are better able to improve customer satisfaction	Lunnan and Haugland (2008), Richard et al. (2007), Newbert (2008)
	Q40. Businesses are better able to attract new customers.	
	Q41. Companies were able to implement more employee suggestions than last year.	
	Q42. The top management team of the enterprise is relatively satisfied with the performance	
	Q43. The average productivity of employees is higher than that of competitors.	

Source: Nekmahmud and Rahman (2018), Swink et al. (2007), Du (2009), Swink et al. (2007), Guenzi and Troilo (2007), Neill and Rose (2006), Seggie et al. (2006), Lunnan and Haugland (2008), Richard et al. (2007) & Newbert (2008)

According to Du (2009) and other scholars, Marketing competitiveness is evaluated from four aspects: market share, customer satisfaction, and responsiveness to market changes (Du, 2009; Swink et al., 2007; Wang et al., 2006); Earning power is evaluated through four aspects: production efficiency, investment return, cost, and sales (Guenzi & Troilo, 2007; Neill & Rose, 2006; Pan & Lu, 2005; Seggie et al., 2006); The growth power is evaluated through 3 aspects: implement employee suggestions,

company's performance, the average productivity of employees (Lunnan & Haugland, 2008; Newbert, 2008; Richard et al., 2007).

The 43 questions measuring four constructed variables in this study are shown in the following table;

Table 3.4

Relevant Questions that Link with the Variable in the Questionnaire

Constructed	Number of Questions
Dynamic Capability (DC)	15
Business Model Innovation (BMI)	15
Enterprise Competitiveness (EC)	13
Total	43

Source: Researcher (2023)

3.2.4 Quality of Research Instrument

To assess the quality of the research instrument, the researcher will conduct content validity testing, reliability testing, and exploratory factor analysis on the questionnaire.

3.2.4.1 Content Validity

Content Validity is employed to scrutinize the content and construct validity of every item to ensure its appropriateness and whether it accurately covers the parameters relevant to the study. A research consultant will oversee the initial round of revisions. Academician experts will then review the revised questionnaire for their insights and feedback and to confirm the consistency of each question with the evaluation criteria. Afterwards, the questionnaire will be analyzed to compute the Index of Objective Congruence (IOC) (Rovinelli & Hambleton, 1976). The index comprises three types of scores: +1, 0, and -1, each with its distinct meaning as detailed below;

+1 means "the measurement item is congruent with the study objective."

0 means "the measurement item is undecided with the study objective."

-1 means "the measurement item is inconsistent with the study objective."

$$IOC = \frac{\sum R}{n}$$

where IOC= Index of item-objective congruence value

R = Score from experts

$\sum R$= Total score from all experts

n = number of experts

The questionnaire does not include items with an Index of Objectives Congruence (IOC) score between 0.00 and 0.49. Conversely, questions above 0.50 on the IOC are deemed valid (content validation) items. This approach ensures that only the most appropriate and relevant questions are included in the assessment tool, thereby enhancing its content validity (Rovinelli & Hambleton, 1976).

In this study, the IOC will be used to test the content validity, and the following five experts were asked for their opinions: Assoc. Prof. Dr. Zhu Xiaoqin (management), Assoc. Prof. Dr. Ling Feng (Marketing), Assoc. Prof. Xu Rui (Statistic), Mr. Chen Kaiyi (Tea industry expert), and Mr. Liu Yonggui (Tea industry expert).

Based on expert advice, the study deleted three questions with an IOC score lower than 0.6, which are Q18, Q26, and Q27, and finally retained 40 questions. According to expert opinions, some items are modified to make them easier to read and understand. The evaluation results of the IOC are meticulously presented in Appendix A, offering a comprehensive overview of the index's performance and integrity.

3.2.4.2 Reliability Test

Reliability analysis is one of the key steps used in psychological research to assess the quality of measurement tools. It measures the reliability and stability of a questionnaire, scale, or any other measurement method. The primary purpose of reliability analysis is to determine the consistency and reproducibility of the measurement results to ensure that similar results can be obtained when the measurement is repeated. If the exact measurement results for the same population are consistent, the measurement tool is reliable. The accepted value is 0.70 or higher (DeVillis, 1991; Kline, 2023; Nunnally, 1994).

We will test the questionnaire with 40 small samples and check its reliability. The formula of Cronbach's alpha coefficient is:

$$a = k/(k-1)(1-(\sum S_i^2)/S_t^2)$$

where a = Cronbach's alpha coefficient

k = the total number of items in the scale

S_i^2 = the variance of the scores of the i^{th} item

S_t^2 = the variance of the total scores of all items

The test results of Cronbach's Alpha coefficient of 40 small samples are shown in Table 3.5.

Table 3.5

Cronbach's Alpha Coefficient Test Result (n=40)

Latent	Observed Variable	N of Items	Cronbach's Alpha
Dynamic Capability	Sensing Capability	5	0.817
	Learning Capability	5	0.843
	Integrating Capability	5	0.846
Business Model Innovation	Value Proposition	4	0.848
	Value Creation	5	0.909
	Value Capture	3	0.912
Enterprise Competitiveness	Marketing Competitiveness	4	0.820
	Profit Capability	4	0.859
	Growth Capacity	5	0.823

Reliability testing indicated that Cronbach's Alpha coefficient for each observed variable exceeded 0.8, surpassing the commonly accepted threshold of 0.7. These results suggest the questionnaire demonstrates strong internal consistency, implying that its items effectively measure the same or closely related constructs.

3.2.5 Data Collection

This dissertation, mainly aimed at the enterprise level, assesses the impact of Dynamic Capabilities and Business Model Innovation (BMI) on the enterprise competitiveness of the tea enterprise. The questionnaire was the primary tool for collecting data from the unit of analysis.

In this research project, the questionnaires were sent to sales managers of tea enterprises through the Internet then to 450 respondents across the 10 tea enterprises. The respondents were requested to return the questionnaire within 4 weeks.

3.2.6 Statistical Method of Analysis

Data collected from the questionnaires were analyzed using SPSS version 27.0. After coding and tabulation, the data were examined to test the proposed research hypotheses. Subsequently, AMOS version 27.0 was employed to explore the interrelationships among multiple variables. The statistical techniques applied include:

1. Descriptive statistics. Describe the characteristics of the samples, including frequency, percentages, mean, minimum, maximum, and standard deviation.

2. Confirmatory factor analysis (CFA). Confirmatory factor analysis of variables evaluates the relationship between measured variables and underlying constructs, assuming their accuracy. The researcher usually uses structural equation modeling to perform this.

Structural Equation Model is a comprehensive set of statistical techniques that examines relationships between independent variables, continuous or discrete, and one or more dependent variables, either constant or discrete. Both independent and dependent variables can be factors or measured variables. SEM is also known by various names, such as causal model, causal analysis, simultaneous equation model, analysis of covariance structures, path analysis, or confirmatory factor analysis (Ullman & Bentler, 2012).

This dissertation employed AMOS 27.0 software to conduct a Structural Equation Modeling analysis.

1. Hypothesis testing. The significance test, the most frequently employed method in hypothesis testing and the fundamental form of statistical inference operates on the principle of formulating initial hypotheses about population characteristics, followed by sampling research to conclude whether these hypotheses are rejectable or not through statistical inference. Some commonly applied hypothesis testing methods include the Z-test, T-test, Chi-square, and F-test.

Furthermore, Structural Equation Modeling analysis is a statistical technique used to examine the variables' relationships, focusing on the covariance matrix. It can elucidate the connections between independent variables and one or more dependent variables, with its most crucial function being the confirmatory function. Researchers utilize specific statistical methods to process intricate theoretical models and assess their adequacy by comparing the outcomes of the estimation software with predefined evaluation indices. This process is crucial for confirming or refuting the theoretical model researchers have posited.

Applying Structural Equation Modeling (SEM) comprises four principal stages: model specification, estimation, evaluation, and refinement. Model specification involves developing a theoretical framework based on existing literature and practical

insights. Model estimation aligns collected data with the proposed structure, facilitating parameter estimation. Model evaluation assesses the model's goodness of fit, determining how well the hypothesized relationships align with the data. Model refinement involves modifying parameters—deletion, addition, or adjustment—based on statistical output to improve model fit. This study utilized AMOS 27.0 for SEM analysis. The evaluation criteria for overall model fit are presented in Table 3.6.

Table 3.6

Evaluation Criteria for the Overall Model Fitness of SEM

Fitting Index	Standard or Critical Value
x^2	Significance probability value p > 0.05
x2/df	Between 1 and 3
GFI	> 0.90 or above
AGFI	> 0.90 or above
RMSEA	< 0.50
NFI	> 0.90 or above
IFI	> 0.90 or above
CFI	> 0.90 or above

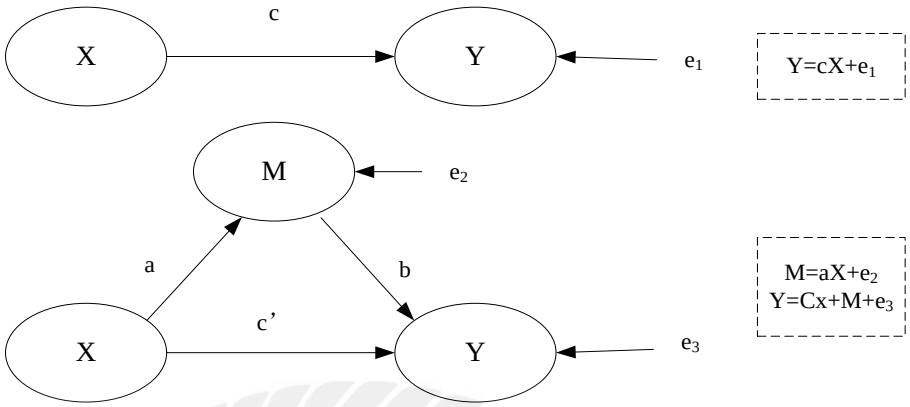
Source: Abd-El-Fattah (2010), Hair et al. (2010) & Kline (2023)

2. Validation analysis of mediating variables

The mediator variable is the substantial and internal reason for the effect of the independent variable on the dependent variable (Baron & Kenny, 1986). If a variable is inserted to help explain the relationship between the independent and dependent variables, the variable may be a mediating variable. The influence of independent variable X on dependent variable Y is realized through variable M, and then M is the intermediary variable. As shown in Figure 3.2:

Figure 3.2

Schematic Diagram of Mediating Variables



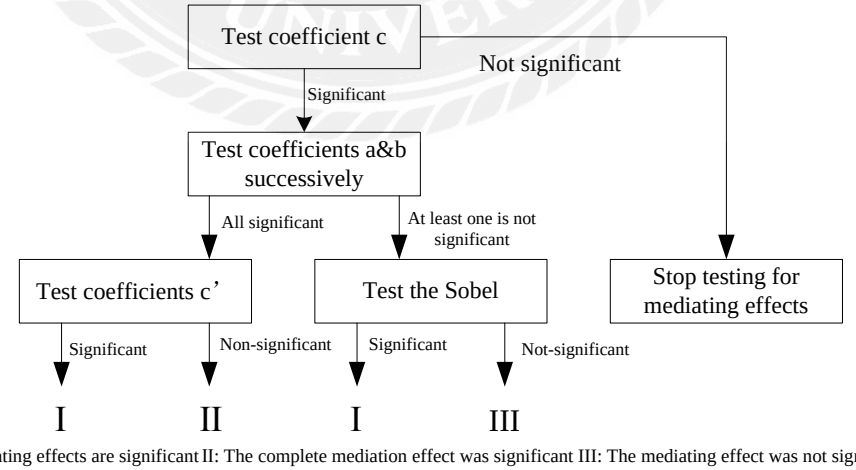
Source: Cheng et al. (2021)

In Figure 3.2, X means the independent variable, Y means the dependent variable, and M means the intermediate variable. It should be noted that all the variables in the system are the variables after they have been centralized (that is, the mean is zero). The c means the total effect, a and b mean the intermediate impact, that is, the indirect effect, and c ' means the direct effect.

The testing procedure of the mediating effect is shown in Figure 3.3:

Figure 3.3

Mediating Effect Test Method



I: Some mediating effects are significant II: The complete mediation effect was significant III: The mediating effect was not significant

Source: Cheng et al. (2021)

As shown in Figures 3.3 and 3.4, the procedure for testing the mediating effect is as follows:

Step 1: Test the regression coefficient c, and if it is significant, proceed to step 2 below. Otherwise, stop the analysis.

Step 2: A Partial intermediate test is performed. The significance levels of coefficients a and b are tested successively. If coefficients a and b are both significant, the third step is taken; if at least one is not substantial, the fourth step is taken.

Step 3: The complete mediation test is performed, and the test coefficient is *c′*. If *c′* is not significant, it indicates that it is a wholly mediated process; if *c′* is substantial, it suggests that it is a partially mediated process.

3.3 Qualitative Research

The qualitative analysis method, also known as the non-quantitative analysis method, is a subjective analysis method that mainly relies on the rich practical experience of forecasters and personal judgment and analysis ability to infer the nature and development trend of things and belongs to a primary method of prediction analysis. This study primarily collects and analyzes data through interviews, observations, and archiving processes, storing such data in a database alongside other information provided by respondents.

3.3.1 Interview Design

Interviews are an effective way to collect rich empirical data, mainly when the phenomena being studied are accidental and uncommon, and these phenomena are stored by default in the interviewees' minds. The method will include the following details.

3.3.2 Sample / Key Informants

In this qualitative study, the sample that will be selected as the key respondents or whistleblowers is the senior management, up to the CEO, marketing experts, and consumers of the companies in Tea. Senior management, up to the CEO, directly influences the company's decisions. In qualitative research, many factors must be considered when determining the sample size. The quality of the sample is more important than the quantity. It also mentions that in some cases, 30 people is an

appropriate number to conduct a complete assessment, while some studies may only need 10 people to be successful. While Marketing Experts can provide professional market insights, consumers represent the end users of a product or service, and their opinions are crucial to evaluating a company's market performance and product quality. The total number of samples for this qualitative study was 20. The details are shown in Table 3.7.

Table 3.7

The Number of Purposive Selection for Qualitative Research

Key Informants	Number of Participants
Senior Management up to the CEO	10
Marketing Experts	4
Consumer	6
Total	20

Source: Research (2023)

3.3.3 Research Instrument

This qualitative research employs semi-structured interviews to obtain rich, in-depth information to investigate the research topic thoroughly. Using carefully developed interview outlines, participants are engaged in person or through online platforms, allowing open expression of opinions, personal experience sharing, and interactive dialogue centered on specified themes. Predefined questions are aligned with the research objectives and concentrate on the firm competitiveness model formulated in this study. The combined application of these research tools facilitates data collection and analysis from diverse perspectives, thereby supporting the development of more comprehensive, accurate, and insightful research findings.

3.3.4 Data Gathering

3.3.4.1 In-depth interview

Researchers engage in in-depth one-on-one communication with subjects to obtain detailed and personalized information about perspectives, experiences, attitudes, and motivations. Interviews can be conducted in person, over the phone, or via video call.

3.3.5 Data Sorting

In qualitative analysis, data collation is a crucial and meticulous process. Firstly, a thorough review and familiarity with the raw data collected through in-depth interviews, observations, and more, including listening carefully to taped interviews and reading field notes and observation notes to get an initial sense of the overall data (Huberman, 2014; Silverman, 2016). Subsequently, the data are classified and encoded. Similar ideas, topics, and behavior patterns are tagged as specific codes based on research questions and issues (Corbin & Strauss, 2014; Huberman, 2014). Next, the encoded data is summarized and sorted out. You can use charts, matrices, or tables to categorize different codes and topics to clearly show the distribution and relationships of the data (Huberman, 2014; Patton, 2014). Finally, the sorted data are checked and verified repeatedly to ensure the accuracy and integrity of the data. Any errors or omissions should be corrected and supplemented on time to ensure the reliability and validity of subsequent analyses (Corbin & Strauss, 2014; Huberman, 2014; Silverman, 2016).

3.3.6 Content Analysis

NVivo software was employed to systematically examine and interpret the qualitative data from in-depth interviews and perform a structured content analysis following the grounded theory methodology. This analytical process unfolded in three key stages: open coding, selective coding, and axial coding, with each phase progressively contributing to the development of conceptual insights and theoretical integration.

In the open coding stage, interview transcripts were examined line by line to identify discrete concepts, patterns, and themes emerging from the data. Initial codes were assigned to meaningful text segments, such as phrases, sentences, or paragraphs, focusing on capturing participants' perceptions, experiences, and behaviors related to enterprise competitiveness, innovation activities, and strategic decision-making. This coding phase generated many initial codes, which were later grouped into broader categories based on similarity and frequency.

The selective coding phase involved identifying and refining the most relevant and frequently occurring categories that significantly impacted enterprise competitiveness. This stage aimed to uncover latent patterns and relationships by linking codes to higher-

level themes such as dynamic capabilities, business model innovation, and tea enterprise competitiveness. Particular attention was given to the mediating role of business model innovation (BMI), allowing for the exploration of how elements like value proposition, value creation, and value capture are operationalized in different organizational contexts.

The relationships between core categories were further explored and integrated in the axial coding stage. This process focused on identifying causal conditions, contextual factors, intervening conditions, and outcomes related to business model innovation and dynamic capabilities. By constructing a coding paradigm, the analysis highlighted how internal resources and capabilities interact with external environmental pressures to influence strategic adaptability and long-term competitiveness. The axial coding also allowed for refining key success factors, enabling a more nuanced understanding of how enterprises leverage dynamic capabilities to reconfigure business models and gain sustainable advantages.

This multi-level content analysis contributes to the theoretical enrichment of the research by identifying the foundational elements of enterprise competitiveness and the mechanisms through which BMI acts as a dynamic mediator. The findings offer deep insights into the interplay between dynamic capabilities, business model innovation, and tea enterprises' competitiveness in Sichuan, China, thereby enhancing the understanding of how tea enterprises build and sustain competitive advantages in dynamic environments.

3.4 Develop a Tea Enterprises Competitiveness Model

Based on the literature review in Chapter 2, this study developed a competitiveness model for Sichuan tea enterprises, integrating dynamic capabilities and business model innovation, and proposed corresponding hypotheses. In Chapter 4, structural equation modeling was applied for hypothesis testing and path analysis. Subsequently, in-depth interviews were conducted with senior executives, industry experts, and consumers, and NVivo software was used for qualitative content analysis.

The qualitative analysis followed the grounded theory approach, beginning with open coding of the interview content, followed by selective coding to identify potential factors influencing enterprise competitiveness across multiple dimensions. Finally, axial coding was applied to refine and integrate key concepts.

Drawing on insights from both quantitative and qualitative analyses, this study further identified and defined the fundamental concepts and variables closely related to enhancing the competitiveness of Sichuan tea enterprises. These rigorously screened and precisely defined elements constitute the core components of the proposed model. This model provides strategic guidance for improving the competitiveness of Sichuan tea enterprises and supports the development of scientifically grounded and effective strategies in an increasingly complex and dynamic market environment.

3.5 Dissertation Structure

This dissertation has five chapters.

Chapter 1 introduces the background study, the significance of the study, the research objective, the research question, the scope of the study, the methodology introduction, expected results, the benefit of the study, and the definition of critical terms.

Chapter 2 includes all review literature on related definitions, concepts, theories, and conceptual frameworks.

Chapter 3 introduces the research methods, including study design, questionnaire details, hypotheses, select variables, and in-depth interviews with key informants.

Chapter 4 introduces descriptive analysis, structural equation modeling, other statistical techniques, and hypothesis testing to guide tea enterprises in enhancing their competitiveness.

Chapter 5, the conclusive part of this paper, comprehensively deliberates on the study's outcomes. It not only presents well-considered suggestions aimed at enhancing the competitiveness of Sichuan tea enterprises but also meticulously identifies the limitations of the current research and delineates the prospective directions for future investigation.

CHAPTER 4
RESEARCH RESULT

This chapter adopts mixed research methods. Quantitative research uses a questionnaire as a research tool, combined with SPSS 27 software and a structural equation model, to analyze the relationship and influence path between dynamic capability, business model innovation, and enterprise competitiveness. The qualitative research uses NVivo 14 software to analyze in-depth interview materials of senior executives, experts, and consumers. Based on theory, the interview content, relationship, and emotion analysis are used to identify the influence of the relationship between categories. Finally, a theoretical model is proposed to enhance the competitiveness of Sichuan tea enterprises. The structure of this chapter is as follows:

4.1 Quantitative Analysis
- 4.1.1 Sample characteristic description
- 4.1.2 Reliability Analysis
- 4.1.3 Validity Analysis
- 4.1.4 Hypothesis Testing

4.2 Qualitative Analysis
- 4.2.1 Content Analysis
- 4.2.2 Relationship Analysis

4.3 Conclusion

Table 4.1

Symbols Representing Variables

Endogenous variables	Observed variables
Dynamic Capability (DC)	Sensing Capability (SC)
	Learning Capability (LC)
	Integration Capability (IC)
Business Model Innovation (BMI)	Value Proposition (VPR)
	Value Creation (VCR)
	Value Capture (VCA)
Enterprise Competitiveness (EC)	Marketing Competitiveness (MC)
	Profit Capability (PC)
	Growth Capability (GC)

Source: Researcher (2024)

4.1 Quantitative Analysis

4.1.1 Sample Characteristic Description

4.1.1.1 Enterprise Information

A multi-channel approach was adopted in the distribution and collection of questionnaires. Initially, the link to the questionnaire was sent via email or WeChat to pre-determined respondents within each company. This approach ensures broad and fast coverage, allowing respondents to complete the survey conveniently at their own pace. In addition, for some companies where face-to-face communication is more feasible, fill in the field visit.

The assignment process spanned eight weeks to ensure respondents had enough time to participate. Regularly send reminder emails or messages to those who have not responded to improve response rates.

Five hundred questionnaires were issued to 10 tea enterprises in this survey; 470 were recovered, of which 451 were valid, with a recovery rate of 90.2%. This sample size and response rate are sufficient for a comprehensive and reliable analysis of the study objectives. The basic information of these ten tea enterprises and the number of questionnaires collected are shown in Table 4.2.

Table 4.2

Enterprise Basic Information

No.	Company	Employee	Percent (%)
1	Emeishan Zhuyeqing Tea	84	18.63
2	Emei Snow Bud Tea	26	5.76
3	Mengding Mountain Tea	12	2.66
4	Sichuan Tea Group	21	4.66
5	Bashanqueshe Tea	3	0.67
6	Zao baijian Tea	158	35.03
7	Micangshan Tea	7	1.55
8	Wenjun Tea	12	2.66
9	Yacha Group	120	26.61
10	Yuehua Tea	8	1.77
	Total	451	100

Source: Researcher (2024)

4.1.1.2 Population Information

Gender, age, education level, years of service, and respondents' position were classified and counted in the recovered questionnaires, as shown in Table 4.3.

Table 4.3

Population Basic Information

Variable	Options	Frequency (n=451)	Percent (%)
Gender	Male	233	51.66
	Female	218	48.34
Age	Under 25	59	13.08
	26-30	122	27.05
	31-40	150	33.26
	41-50	90	19.96
	More than 50	30	6.65
Education	Bachelor's degree	387	85.81
	Master degree	36	7.98
	Doctor degree	28	6.21
	Other	0	0
Service year	Less than 3	99	21.95
	3-5	82	18.18
	6-10	94	20.84
	11-20	121	26.83
	More than 20	55	12.20
Position	Ordinary employees	163	36.14
	Junior managers	125	27.72
	Middle managers	126	27.94
	Senior managers	37	8.20

Source: Researcher (2024)

Statistics reveal that among the 451 individuals, there are 233 males, constituting 51.66%, while the number of females is 218, accounting for 48.34%. The number of males is slightly higher than that of females. Regarding age distribution, 59 people are under the age of 25, 122 people fall between 26 and 30, 150 people range from 31 to 40, 90 people are between 41 and 50, and 30 people are over 50, representing 13.08%, 27.05%, 33.26%, 19.96%, and 6.65% respectively. The most significant proportion of the population is between 31 and 40. Regarding education level, the population with a bachelor's degree is the largest, with 387 people, accounting for 85.81%; 36 people with a master's degree, accounting for 7.98%, and 28 people with a doctorate's degree, accounting for 6.21%. From the perspective of the time of employees entering the company, 99 employees have less than 3 years of work, 82 employees have worked for 3 to 5 years, 94 employees have worked for 6 to 10 years, 121 employees have worked

for 11 to 20 years, 55 employees have worked for more than 20 years, accounting for 21.95%, 18.18%, 20.84%, 26.83%, 12.20% respectively. From the perspective of the position distribution of the employees, the number of ordinary employees is the largest, with 163 people, accounting for 36.14%, more than one-third of the total population. Followed by middle managers with 126 people and junior managers with 125 people, accounting for 27.94% and 27.72%, respectively. There are 37 senior managers, 8.2% of the total population.

4.1.1.3 Questionnaire Information Statistics

4.1.1.3.1 Dynamic Capability (DC)

About the dynamic capability of the enterprise, there are three dimensions, namely Sensing Capabilities (SC), Learning Capabilities (LC), and Integration Capabilities, a total of 15 items. The collected questionnaires were re-coded according to the categories in Table 4.1, and the statistical results are shown in Table 4.4.

Table 4.4

Percentage Distribution of Enterprise Dynamic Capabilities (n=451)

Statement		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
SC	SC1	4.43	20.62	25.28	30.16	19.51
	SC2	3.77	22.62	23.50	29.49	20.62
	SC3	4.21	23.50	19.07	31.04	22.17
	SC4	2.00	26.16	17.29	30.6	23.95
	SC5	4.21	22.84	19.96	30.38	22.62
LC	LC1	3.33	23.50	23.06	27.49	22.62
	LC2	4.43	22.62	23.50	29.05	20.40
	LC3	4.66	21.95	21.06	29.05	23.28
	LC4	4.43	23.50	19.51	32.37	20.18
	LC5	4.66	24.17	20.18	27.94	23.06
IC	IC1	4.21	21.95	21.95	21.95	21.06
	IC2	3.10	19.96	19.96	19.96	21.06
	IC3	4.66	22.62	22.62	22.62	22.84
	IC4	3.77	20.18	20.18	20.18	23.06
	IC5	3.55	21.95	21.95	21.95	22.84

Source: Researcher (2024)

According to the statistical results in Table 4.4, Sensing Capabilities (SC) has five items. There is 49.67% (30.16 and 19.51) of respondents agree or strongly agree "Businesses can quickly scan the environment for new opportunities"; 50.11%(29.49 and 20.62) of respondents agreed or strongly agreed "Companies are quick to detect

changes in customer preferences and needs"; 53.21%(31.04 and 22.17) of respondents agreed or strongly agreed "Companies are quick to react to competitors' moves"; 54.19%(30.6 and 23.59) of respondents agreed or strongly agreed "Enterprises have a more accurate understanding of the industry's current situation and development trends"; 53.00% (30.38 and 22.62) of respondents agreed or strongly agreed "Managers often discuss and communicate about changes in the external environment of the enterprise".

Learning Capabilities (LC) consist of 5 items. Among these respondents, 50.11% (27.49 and 22.62) agreed or strongly agreed that "Enterprises can timely understand and master all kinds of information obtained". 49.45% (29.05 and 29.05) agreed or strongly agreed that "Enterprises can timely identify the changes caused by new information and knowledge." 53.33% (29.05 and 23.28) agree or strongly agree that "Companies can integrate new technologies they already know with other technologies." Agree or strongly agree that "Our management demands periodical cross-departmental meetings to interchange new developments, problems, and achievements" accounted for a total of 52.55% (32.37 and 20.18). 51.00% (27.94 and 23.06) agreed or strongly agreed with the statement, "Our management emphasizes cross-departmental support to solve problems."

There are five items within Integration Capabilities (IC). The five items are there is a high degree of coordination between different departments and teams in the enterprise; Enterprises can adjust their strategies according to environmental changes; Enterprises can constantly adjust resource allocation according to environmental changes; Enterprises can quickly integrate and share new information and knowledge within the enterprise; The company continually optimizes core resources to highlight competitive advantages. For these five items, the respondents who agreed or strongly agreed with these views accounted for 43.01% (21.95 and 21.06), 41.02% (19.96 and 21.06), 45.46% (22.62 and 22.84), 43.24% (20.18 and 23.06), and 44.79% (21.95 and 22.84), respectively.

4.1.1.3.2 Business Model Innovation (BMI)

Business Model Innovation (BMI) is divided into three dimensions: Value Proposition (VPR), Value Creation (VCR), and Value Capture (VCA), with a total of 12 items. The statistical results of the collected questionnaires are shown in Table 4.5.

Table 4.5

Percentage Distribution of Business Model Innovation (n=451)

Statement		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
VPR	VPR1	3.55	23.06	22.39	29.93	21.06
	VPR2	2.66	24.61	19.96	31.71	21.06
	VPR3	4.66	23.28	19.96	31.71	20.4
	VPR4	3.55	22.62	18.85	31.26	23.73
VCR	VCR1	4.88	24.83	17.52	27.72	25.06
	VCR2	3.77	22.62	22.17	27.72	23.73
	VCR3	4.66	21.06	22.17	26.83	25.28
	VCR4	3.33	22.17	23.28	26.39	24.83
	VCR5	4.43	25.28	17.96	29.27	23.06
VCA	VCA1	4.66	21.29	17.52	31.93	24.61
	VCA2	3.77	22.62	20.4	30.38	22.84
	VCA3	3.77	22.62	19.96	29.05	24.61

Source: Researcher (2024)

There are four items on the Value Proposition (VPR). 50.99% (29.93 and 21.06) of the respondents agree or strongly agree that our company provides customers with high-quality products. 52.77% (31.71 and 21.06) of the respondents agree or strongly agree that flexibility in providing our service is a key priority. 52.11% (31.71 and 20.4) of the respondents agree or strongly agree that indicated periodic assessment of customers' perceived value. 54.99% (31.26 and 23.73) of the respondents agree or strongly agree that supporting customer value creation is a significant part of our value proposition.

There are five items on Value Creation (VCR). 52.78% (27.72 and 25.06) of the respondents agree or strongly agree that the company delivers effective and efficient offers. 51.45% (27.72 and 23.73) of the respondents agree or strongly agree that they possess valuable resources that meet customer needs at reasonable costs. 52.11% (26.83 and 25.28) of the respondents agree or strongly agree that customers are satisfied with enterprises' value. 51.22% (26.39 and 24.83) of the respondents agree or strongly agree to use innovative resources to generate profit. 52.33% (29.27 and 23.06) of the respondents agree or strongly agree that the product's value is adequate for customer willingness to pay.

There are three items on Value Capture (VCA). Among them, 56.54% (31.93 and 24.61) of respondents agree or strongly agree that firms' market share is growing

faster. 53.22% (30.38 and 22.84) of respondents agree or strongly agree that the company's customer loyalty is very high. 53.66% (29.05 and 24.61) of respondents agreed or strongly agreed that the company's products have a high market share in the target market.

4.1.1.3.3 Enterprise Competitiveness (EC)

Three dimensions exist in Enterprise Competitiveness (EC), namely Market Competitiveness (MC), Profit Capability, and Growth Capacity (Wang et al.), with a total of 13 items. The statistical results of the collected questionnaires are shown in Table 4.6.

Table 4.6

Percentage Distribution of Enterprise Competitiveness (n=451)

Statement		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
MC	MC1	6.65	26.61	20.62	23.28	22.84
	MC2	5.1	22.62	21.06	27.49	23.73
	MC3	5.99	23.73	21.06	25.94	23.28
	MC4	4.66	24.83	23.5	26.16	20.84
PC	PR1	4.66	25.72	20.84	30.16	18.63
	PR2	4.21	20.84	23.95	30.38	20.62
	PR3	3.77	24.39	24.17	27.05	20.62
	PR4	3.55	21.95	21.95	31.93	20.62
GC	GC1	3.77	21.51	21.29	31.71	21.73
	GC2	3.99	20.84	19.51	33.04	22.62
	GC3	3.33	23.5	16.85	34.59	21.73
	GC4	3.33	20.84	22.39	31.49	21.95
	GC5	3.55	21.29	21.95	34.59	18.63

Source: Researcher (2024)

There are five items within Market Competitiveness (MC). Among all the respondents, 46.12% (23.28 and 22.84) agreed or strongly agreed that firms' market share is growing faster. 51.22% (27.49 and 23.73) agreed or strongly agreed that the company's customer loyalty is very high. 49.22% (25.94 and 23.28) of respondents agreed or strongly agreed that the company's products have a high market share in the target market. 47.00% (26.16 and 20.84) of respondents agreed or strongly agreed that companies have the flexibility to adapt to rapidly changing markets and respond more quickly.

The Profit Capacity (PC) has four items. 48.79% (30.16 and 18.63) of respondents agreed or strongly agreed that the company's production efficiency is very high. 51.00% (30.38 and 20.62) of the respondents agreed or strongly agreed that the company has a high return on investment. 47.67% (27.05 and 20.62) of respondents agreed or strongly agreed that Enterprises provide products or services to customers at a low cost. 52.55% (31.93 and 20.62) of the respondents agreed or strongly agreed that the company's sales are growing fast.

Growth Capacity (GC) contains five items. Of those, 53.44% (31.71 and 21.73) agreed or strongly agreed that enterprises can improve customer satisfaction. 55.66% (33.04 and 22.62) of respondents agreed or strongly agreed that Businesses are better able to attract new customers. 56.32% (34.59 and 21.73) of respondents agreed or strongly agreed that companies could implement more employee suggestions than last year. 53.44% (31.59 and 21.95) of respondents agreed or strongly agreed that the top management team of the enterprise is relatively satisfied with the performance. 53.22% (34.59 and 18.63) of respondents agreed or strongly agreed that the average productivity of employees is higher than that of competitors.

4.1.1.4 Descriptive Statistics

This research, SPSS 27.0 software was used to process the data and analyze measurement items' standard deviation, skewness, and kurtosis in an extensive sample questionnaire. The test results are shown in Appendix F. Kline (1998) proposed that when the absolute value of skewness is less than 3, and the absolute value of kurtosis is less than 10, the Sample follows a normal distribution. The statistical results show that the absolute values of skewness and kurtosis of measurement items in the questionnaire are all less than 1, and the absolute values of kurtosis are all less than 2, indicating that the values of each measurement item follow a normal distribution and can be used for confirmatory factor analysis.

4.1.2 Reliability Analysis

Before the validity analysis, the researcher conducted the overall reliability analysis of the Sample, scored the reliability of each latent variable and observed variable, and observed its reliability coefficient according to the measurement results. If the reliability coefficient is more significant than 0.7 and the combined reliability is greater than 0.6, it indicates that the scale has good reliability. According to the

measurement results, the overall Cronbach's Alpha of the scale is 0.945. For each latent variable, the highest Cronbach's Alpha value is 0.920, and the lowest combined reliability of observed variables is 0.833, which meets the requirements of a reliability coefficient greater than 0.7 and combined reliability greater than 0.6, indicating that the scale has good reliability. The summary table of the overall reliability of the scale, the reliability values of each latent variable, and the observed variable are shown in Table 4.7 and Table 4.8 (the details shown in Appendix G).

Table 4.7

Results of the Sample Population Reliability Analysis (n=451)

Cronbach's Alpha (> 0.7)	N of Items
0.945	40

Table 4.8

Analysis Results of Latent Variables and Observed Variables in the Model (n=451)

Latent	Observed Variable	N of Items	Reliability Coefficient
DC	Total	15	0.920
	Sensing Capability	5	0.884
	Learning Capability	5	0.886
	Integrating Capability	5	0.881
BMI	Total	12	0.908
	Value Proposition	4	0.859
	Value Creation	5	0.893
	Value Capture	3	0.833
EC	Total	13	0.904
	Marketing Competitiveness	4	0.870
	Profit Capability	4	0.848
	Growth Capacity	5	0.871

Source: Researcher (2024)

4.1.3 Validity Analysis

The recovered questionnaires were evaluated using convergence validity and discriminant validity. Confirmatory factor analysis is employed to assess convergence validity, and the discriminative validity between factors is determined by calculating the square root of the mean-variance extract value and the Pearson correlation coefficient.

4.1.3.1 Convergence Factor Analysis (CFA)

In this section, confirmatory factor analysis (CFA) is used to test the degree of fit between the investigator's preset factor structure and the actual observed data,

assisting the researcher in determining whether the observed variable effectively reflects the underlying construct or factor. First, the latent variables are examined. The internal consistency of an indicator is measured by Composite Reliability, which represents the degree to which a set of measurement indicators agree on the underlying variability. In general, if CR>0.7, the measurement is considered highly reliable (Hair et al., 2010). AVE (Average Variance Extracted) is used to assess the convergence validity of latent variables, the extent to which a measure can explain the variance of the latent variables. Generally, if the AVE value is more significant than 0.5, the underlying variable has good convergent validity (Fornell & Larcker, 1981). Since the second-order structural equation model was adopted in this study, the researcher observed the fitting of latent variables and observed variables in each dimension. The evaluation criteria are shown in Table 4.9.

Table 4.9

SEM Goodness-of-Fit Evaluation Standards

Fit Index	The standard or critical value
Absolute Fit Index	
x^2/df (Chi-square)	Between 1 and 3
RMSEA	<0.5
Relative Fit Index	
GFI (Goodness-of-Fit Index)	>0.9
NFI (Normed Fit Index)	>0.9
RFI (Relative Fit Index)	>0.9
IFI (Incremental Fit Index)	>0.9
TLI (Tucker-Lewis Index)	>0.9
CFI (Comparative Fit Index)	>0.9

Source: Mw (1993), Hu and Bentler (1999), Jöreskog (1993) & Bentler (1990)

4.1.3.1.1 Confirmatory Factor Analysis of Dynamic Capability (DC)

As can be seen from the above discussion, dynamic ability is divided into three dimensions: Sensing Capability (SC) contains five items, Learning Capability (LC) includes five items, and Integration Capability (IC) comprises five items—corresponding to SC1-SC5, LC1-LC5, and IC1-IC5 in the scale, respectively. Through the structural equation model software Amos 27.0, the three dimensions of Dynamic Capability were calculated in the first order, and the corresponding parameter estimation and fitting indexes were obtained.

Table 4.10

Results of Parameter Estimation for the Dynamic Capability Scale

Path Relationship			Estimate	Cronbach's Alpha	CR	AVE
SC1	<---	Sensing Capability	0.774	0.884	0.883	0.603
SC2	<---	Sensing Capability	0.767			
SC3	<---	Sensing Capability	0.786			
SC4	<---	Sensing Capability	0.779			
SC5	<---	Sensing Capability	0.775			
LC1	<---	Learning Capability	0.782	0.886	0.886	0.608
LC2	<---	Learning Capability	0.756			
LC3	<---	Learning Capability	0.797			
LC4	<---	Learning Capability	0.770			
LC5	<---	Learning Capability	0.793			
IC1	<---	Integration Capability	0.731	0.881	0.882	0.599
IC2	<---	Integration Capability	0.767			
IC3	<---	Integration Capability	0.821			
IC4	<---	Integration Capability	0.756			
IC5	<---	Integration Capability	0.792			

Source: Researcher (2024)

As shown in Table 4.10, in the confirmatory factor analysis of dynamic capability, the path coefficients of the three dimensions of dynamic capability are estimated to be between 0.731 and 0.821. It suggests a significant and relatively strong direct relationship between the three dimensions and dynamic capability. Changes or improvements in each dimension will considerably impact the enterprise's dynamic capabilities. Cronbach's sensing, learning, and integration capability values were 0.884, 0.886, and 0.881, respectively, all higher than the minimum requirement of 0.7. Through the calculations, the composite reliability of Sensing Capability, Learning Capability, and Integration Capability was found to be 0.883, 0.886, and 0.882, respectively, all exceeding the threshold of 0.7. Additionally, the Average Variance Extracted (Tripsas & Gavetti) values for these capabilities were 0.603, 0.608, and 0.599, respectively, all exceeding the threshold of 0.5. These results indicate that the dynamic capability scale demonstrates good reliability and convergence.

Table 4.11

Dynamic Capability Scale Model Fitting Results

	x^2/df	RMSEA	GFI	NFI	RFI	IFI	TLI	CFI
	1.879	0.044	0.948	0.958	0.949	0.980	0.975	0. 980
Acceptable fit	<8	<.05	>.90	>.90	>.90	>.90	>.90	>.90

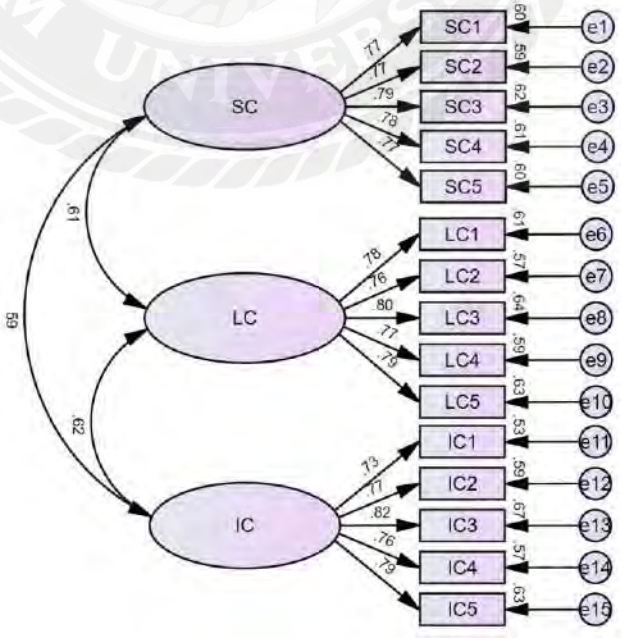
Source: Researcher (2024)

According to the model fitting (Table 4.11), the x2/df value is less than 2, the GFI value is more than 0.9, the NFI value, CFI value, RFI value, IFI value, TLI value, and CFI value are all greater than 0.9, and RMSEA value is less than 0.05. The overall model fits the scale well. Based on the comprehensive analysis presented above, it can be concluded that the scale possesses good construct validity. Consequently, the model fulfills the criteria for a structural equation model.

After running the first-order structural equation model, the correlation coefficients of the three dimensions of dynamic capability are 0.61, 0.62, and 0.59, respectively, and the correlation coefficients are between 0.5 and 0.8, indicating that they have a reasonable correlation, as shown in Figure 4.1. The second-order structural equation model of dynamic capability established on this basis is shown in Figure 4.2.

Figure 4.1

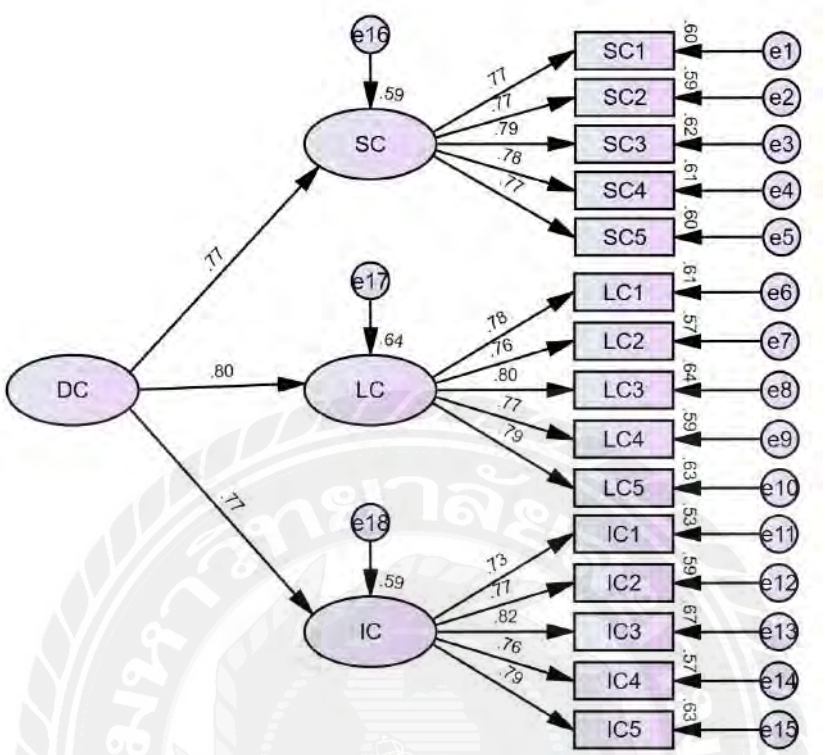
Dynamic Capability Confirmatory Factor Analysis Results



Source: Researcher (2024)

Figure 4. 2

Dynamic Capability Second-Order Structural Equation Model



Source: Researcher (2024)

Table 4.12

Estimation Results of Second-Order Parameters of the DC Scale

Path Relationship			Estimate
Sensing Capability	<---	Dynamic Capability	0.766
Learning Capability	<---	Dynamic Capability	0.802
Integration Capability	<---	Dynamic Capability	0.771

Source: Researcher (2024)

The results show that the correlation coefficients among the three dimensions of dynamic capabilities reach a significant level. Learning Capability (LC) had the highest factor loading at 0.802, followed by Integration Capability (IC) at a loading of 0.771 and Sensing Capability (SC) at a factor loading of 0.766; all factors loading is more significant than 0.7, indicating a substantial degree of aggregation among the dimensions when measuring the construct of dynamic capabilities.

4.1.3.1.2 Confirmatory Factor Analysis of Business Model Innovation (BMI)

Business model innovation (BMI) is divided into three dimensions. Value Proposition (VPR) contains four measurement items, Value Creation (VCR) includes five items, and Value Capture (VCA) contains three items. These measurement items in VPR, VCR, and VCA correspond to VPR1 - VPR4, VCR1 - VCR5, and VCA1 - VCA3 on the scale. Amos 27.0 was used to calculate the three dimensions of business model innovation in the first order, and the corresponding parameter estimation and fitting indexes were obtained.

Table 4.13

Results of Parameter Estimation for the BMI Scale

Path Relationship			Estimate	Cronbach's Alpha	CR	AVE
VPR1	<---	Value Proposition	0.771	0.859	0.860	0.605
VPR2	<---	Value Proposition	0.783			
VPR3	<---	Value Proposition	0.808			
VPR4	<---	Value Proposition	0.748			
VCR1	<---	Value Creation	0.830	0.893	0.893	0.625
VCR2	<---	Value Creation	0.768			
VCR3	<---	Value Creation	0.779			
VCR4	<---	Value Creation	0.782			
VCR5	<---	Value Creation	0.793			
VCA1	<---	Value Capture	0.801	0.833	0.833	0.624
VCA2	<---	Value Capture	0.783			
VCA3	<---	Value Capture	0.786			

Source: Researcher (2024)

As presented in Table 4.13, in the confirmatory factor analysis of business model innovation, the path coefficients of the three dimensions of business model innovation are estimated to range from 0.748 to 0.808. It suggests that these three dimensions have a relatively strong direct influence on business model innovation. The Cronbach's α values of value proposition, value creation, and value capture were 0.859, 0.893, and 0.833, respectively, all surpassing the minimum requirement of 0.7. Through the calculations, the Composite Reliability values for value proposition, value creation, and value capture were determined to be 0.860, 0.893, and 0.833, respectively, all exceeding the threshold of 0.7. The AVE (Average Variance Extracted) values are 0.605, 0.625, and 0.624, respectively, exceeding 0.5. The results demonstrate the business model innovation scale's reliability and convergence.

Table 4.14

BMI Scale Model Fitting Result

	x^2/df	RMSEA	GFI	NFI	RFI	IFI	TLI	CFI
	1.692	0.039	0.967	0.971	0.962	0.988	0.984	0.988
Acceptable fit	<8	<.05	>.90	>.90	>.90	>.90	>.90	>.90

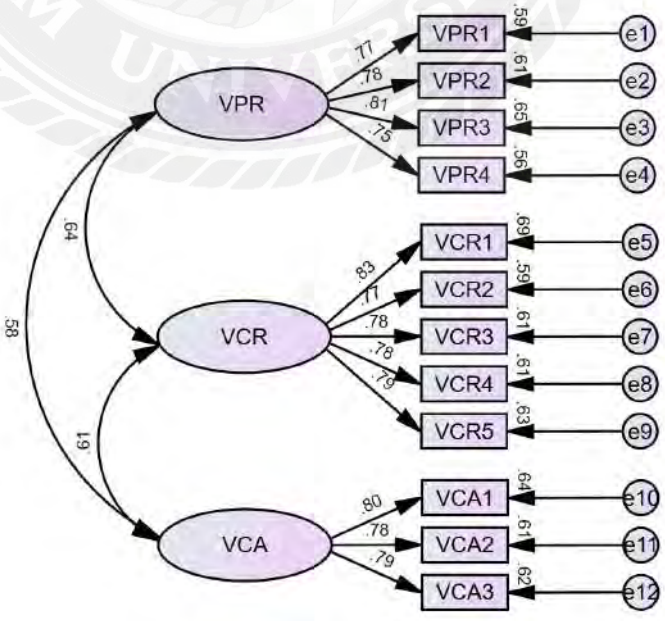
Source: Researcher (2024)

According to the model fitting (Table 4.14), the *x2/df* value is 1.692, less than 2, the GFI value is greater than 0.9, the NFI value, CFI value, RFI value, IFI value, TLI value, and CFI value are all above 0.9, and the RMSEA value is 0.039, less than 0.05. The overall model fits the scale well. Based on the above comprehensive analyses, it can be concluded that the scale has relatively good construct validity. Therefore, the model conforms to the standard of structural equation modeling.

After the first-order Structural Equation Model, the correlation coefficients of the three dimensions of business model innovation are calculated as 0.64, 0.61, and 0.58, respectively, and the correlation coefficients are between 0.5 and 0.8, indicating that they have a reasonable correlation, as shown in Figure 4.3. The second-order structural equation model of business model innovation built on this basis is shown in Figure 4.4.

Figure 4.3

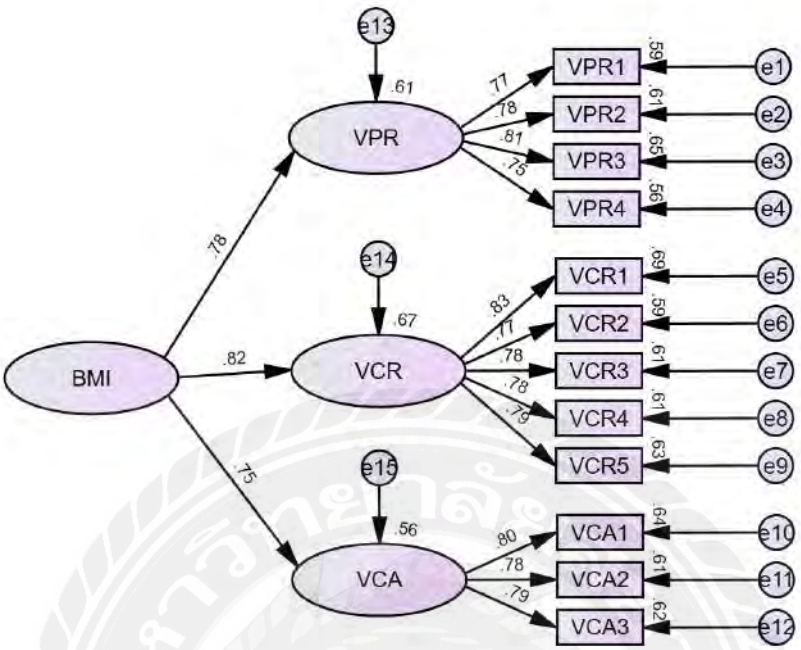
BMI Factor Analysis Results



Source: Researcher (2024)

Figure 4.4

BMI Second-Order Structural Equation Model



Source: Researcher (2024)

Table 4.15

Estimation Results of Second-Order Parameters of BMI Scale

Path Relationship			Estimate
Value Proposition	<---	Business Model Innovation	0.782
Value Creation	<---	Business Model Innovation	0.821
Value Capture	<---	Business Model Innovation	0.746

Source: Researcher (2024)

The results show that the correlation coefficients among the three dimensions of Business Model Innovation (BMI) reach a significant level. Value Creation (VCR) had the highest factor loading at 0.821, followed by Value Proposition （VPR） at a loading of 0.782, and Value Capture (VCA) at a factor loading of 0.746, all factors loading are more significant than 0.7, indicating a substantial degree of aggregation among the dimensions when measuring the construct of Business Model Innovation (BMI).

4.1.3.1.3 Confirmatory factor analysis of Enterprise competitiveness (EC)

Enterprise competitiveness is divided into three dimensions. There are four measurement items in Marketing Competitiveness (MC), four measurement items in

Profit Capability (PC), and five measurement items in Growth Capacity (Wang et al.). Corresponding to MC1-MC4, PC1-PC4, and GC1-GC5 in the scale, respectively. After the first-order calculation of the three dimensions of enterprise competitiveness by the structural equation model software Amos 27.0, the corresponding parameter estimates and fitting indicators are summarized in Tables 4.16 and 4.17, and the confirmatory factor analysis model is shown in Figure 4.5.

Table 4.16

Results of Parameter Estimation for the EC Scale

Path Relationship			Estimate	Cronbach's alpha	CR	AVE
MC1	<---	Marketing Competitiveness	0.816	0.870	0.870	0.627
MC2	<---	Marketing Competitiveness	0.776			
MC3	<---	Marketing Competitiveness	0.793			
MC4	<---	Marketing Competitiveness	0.781			
PC1	<---	Profit Capability	0.796	0.848	0.848	0.582
PC2	<---	Profit Capability	0.749			
PC3	<---	Profit Capability	0.762			
PC4	<---	Profit Capability	0.744			
GC1	<---	Growth Capacity	0.767	0.871	0.871	0.574
GC2	<---	Growth Capacity	0.754			
GC3	<---	Growth Capacity	0.760			
GC4	<---	Growth Capacity	0.755			
GC5	<---	Growth Capacity	0.753			

Source: Researcher (2024)

It can be learned from Table 4.16 that in the confirmatory factor analysis for enterprise competitiveness, the estimated values of the path coefficients of the three dimensions of enterprise competitiveness range from 0.744 to 0.816. The fact that the estimated values of these path coefficients fall within this range indicates a robust direct correlation between these three dimensions and enterprise competitiveness. The Cronbach's α values of Marketing Competitiveness, Profit Capability, and Growth Capacity are 0.870, 0.848, and 0.871, respectively, all exceeding the minimum requirement of 0.7. Through calculation, it is found that the composite reliabilities of Marketing Competitiveness, Profit Capability, and Growth Capacity are 0.870, 0.848, and 0.871, respectively, all greater than 0.7. The AVE (Average Variance Extraction) is

0.627, 0.582, and 0.574, respectively, exceeding 0.5. The results indicate that the measurement scale of enterprise competitiveness has good reliability and convergence.

Table 4.17

EC Scale Model Fitting Result

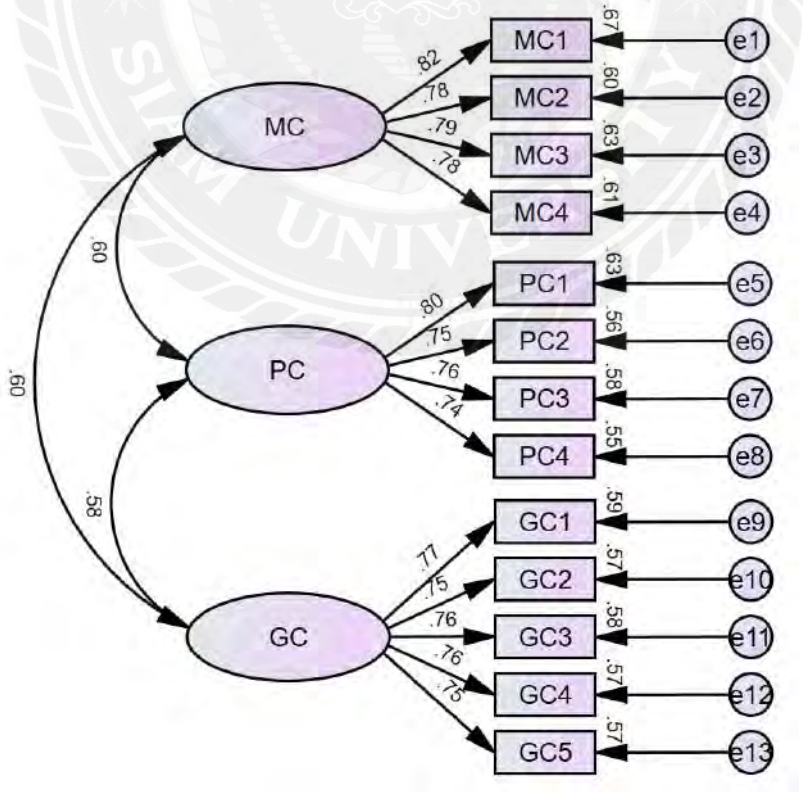
	x^2/df	RMSEA	GFI	NFI	RFI	IFI	TLI	CFI
	1.782	0.042	0.961	0.963	0.954	0.984	0.979	0. 984
Acceptable fit	<8	<.05	>.90	>.90	>.90	>.90	>.90	>.90

Source: Researcher (2024)

According to the fitting of enterprise competitiveness model (Table 4.17), x^2/df value is 1.782, less than 2, GFI value is 0.961, greater than 0.9, NFI value, CFI value, RFI value, IFI value, TLI value and CFI value are respectively: 0.961, 0.963, 0.954, 0.984, 0.979, 0.984 are all greater than 0.9, and the RMSEA value is 0.042, less than 0.05. The overall model and scale fit well. Based on the above analysis, this scale has good construct validity.

Figure 4.5

EC Factor Analysis Results

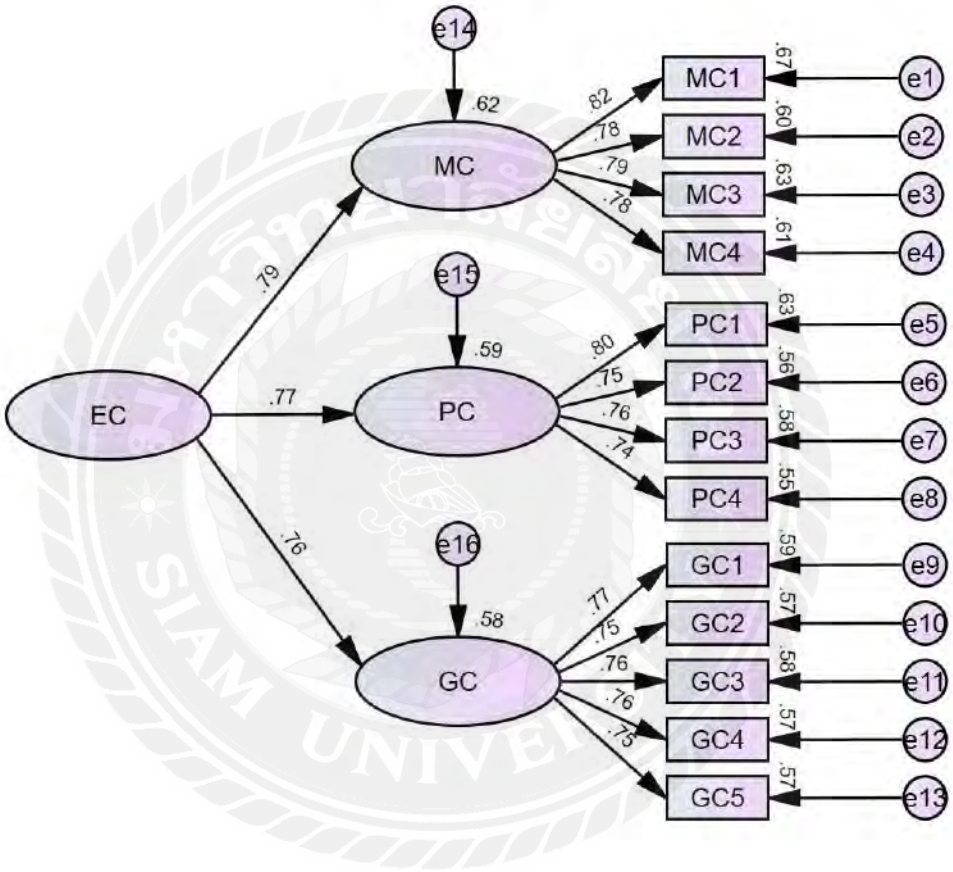


Source: Researcher (2024)

As shown in Figure 4.5, the correlation coefficients among the three dimensions of enterprise competitiveness are 0.60, 0.58, and 0.60, respectively, and correlation coefficients between 0.5 and 0.6 show a moderate positive correlation between these three dimensions. The second-order structural equation model of business model innovation constructed on this basis is shown in Figure 4.6.

Figure 4. 6

DC Second-Order Structural Equation Model



Source: Researcher (2024)

Table 4.18

Estimation Results of Second-Order Parameters of EC Scale

Path Relationship			Estimate
Marketing Competitiveness	<---	Enterprise Competitiveness	0.788
Profit Capability	<---	Enterprise Competitiveness	0.765
Growth Capacity	<---	Enterprise Competitiveness	0.760

Source: Researcher (2024)

The results show that the correlation coefficients among the three dimensions of EC reach a significant level. Marketing Competitiveness (MC) had the highest factor

loading at 0.788, followed by Profit Capability （PC） at a loading of 0.765 and Growth Capacity (Wang et al.) at a factor loading of 0.760, all factors loading greater than 0.7, indicating a substantial degree of aggregation among the dimensions when measuring the construct of EC.

4.1.3.2 Discriminant Validity Analysis

Discriminative validity is primarily used to assess whether the measurement tool can clearly distinguish between different potential constructs or variables, ensuring that each factor represents an independent and distinct construct. In this study, Pearson correlation analysis was used to analyze the dimensionality of each variable. The discriminant validity between the factors is determined by calculating the square root of the mean Average Variance Extracted and the Pearson correlation coefficient. To assess discriminative validity, a comparison is made between the square root of the Average Variance Extracted (Tripsas & Gavetti) for each factor and the magnitude of the correlation coefficients among the factors. If the square root of a factor AVE is greater than the coefficient of correlation between the solid and other factors, it has discriminative validity (Fornell & Larcker, 1981). The Pearson correlation analysis results of each dimension are shown in Table 4.19.

Table 4.19

Results of Pearson's Correlation Analysis for Each Dimension

	AVE	SC	LC	IC	VPR	VCR	VCA	MC	PC	GC
SC	0.603	0.777								
LC	0.608	.545**	0.780							
IC	0.599	.521**	.549**	0.774						
VPR	0.605	.320**	.343**	.398**	0.778					
VCR	0.625	.346**	.318**	.393**	.564**	0.790				
VCA	0.624	.278**	.372**	.321**	.495**	.528**	0.790			
MC	0.627	.322**	.376**	.330**	.372**	.364**	.365**	0.792		
PC	0.582	.331**	.393**	.348**	.329**	.392**	.314**	.516**	0.763	
GC	0.574	.303**	.344**	.314**	.306**	.322**	.308**	.521**	.498**	0.758

* p<0.05 ** p<0.01 *** p<0.001

Source: Researcher (2024)

Pearson's correlation analysis in Table 4.19 reveals significant relationships between dynamic capabilities (SC, LC, IC), business model innovation (VPR, VCR, VCA), and enterprise competitiveness (MC, PC, GC) among Sichuan tea enterprises. The results show that dynamic capabilities are positively correlated with business model

innovation, with learning capabilities and integrating capabilities (IC) exhibiting the strongest associations with value proposition (VPR) and value creation (VCR) (r=0.343–0.398, p<0.01). Additionally, business model innovation dimensions significantly correlate with enterprise competitiveness, particularly value creation (VCR) and market competitiveness (MC) (r = 0.364, p < 0.01), indicating that effective business model transformation enhances competitive advantage. Furthermore, enterprise competitiveness indicators (MC, PC, GC) show strong interrelations, reinforcing that market competitiveness can sustain growth. These findings align with dynamic capability theory, highlighting that enhancing sensing, learning, and integrating capabilities fosters business model innovation, strengthening enterprise competitiveness.

4.1.4 Hypothesis Testing

4.1.4.1 Direct effect test

Based on the analysis above, it is deemed that the scale measuring dynamic capability, mediated by business model innovation, on the competitiveness of Sichuan tea enterprises, satisfies the prerequisites for structural equation modeling. Following the hypotheses and analytical model outlined in Chapter 3, a structural equation model was constructed, and preliminary model fit was assessed using AMOS 27.0 software. The fitting parameters obtained are presented in Table 4.20.

Table 4.20

SEM Model Fitting Results (n = 451)

fit index	The standard or critical value	Observed value
Absolute fit index		
x^2/df (Chi-square)	Between 1 and 3	1.257
RMSEA	<0.5	0.024
Relative fit index		
GFI (Goodness-of-Fit Index)	>0.9	0.907
NFI (Normed Fit Index)	>0.9	0.915
RFI (Relative Fit Index)	>0.9	0.909
IFI (Incremental Fit Index)	>0.9	0.981
TLI (Tucker-Lewis Index)	>0.9	0.980
CFI (Comparative Fit Index)	>0.9	0.981

Source: Researcher (2024)

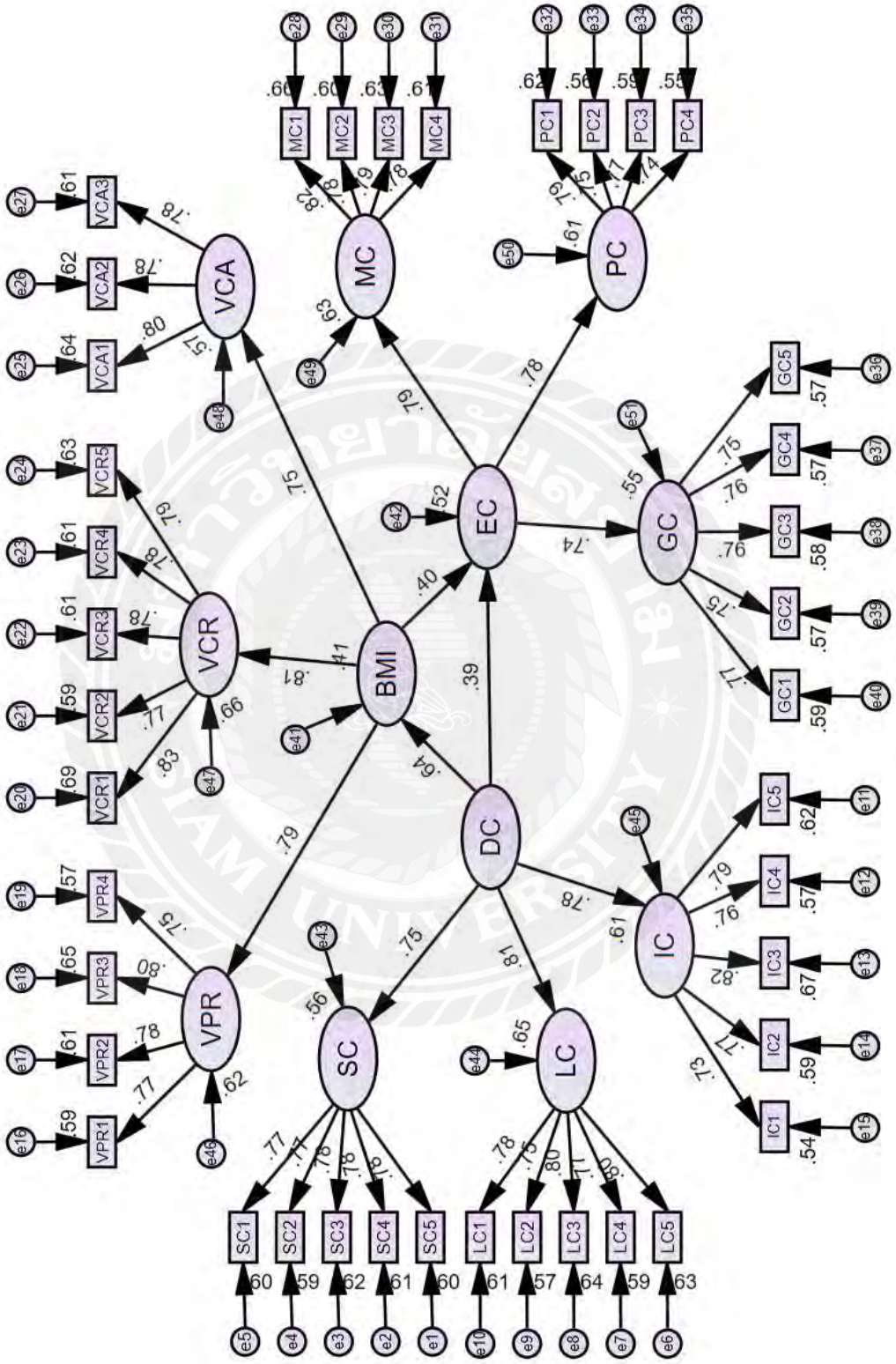
Table 4.20 shows that in terms of the absolute fit index, the chi-square degree of freedom ratio (x^2/df) is 1.257, which is between 1 and 3, indicating that the model's fit

in this aspect is relatively ideal. The root mean square error of approximation (RMSEA) is 0.024, less than 0.5, indicating that the model has a small approximation error and a good fit. Regarding the relative fit index, the goodness-of-fit index (GFI) is 0.907, more significant than the standard of 0.9, showing that the model fits well. The normed fit index is 0.915, more critical than 0.9, indicating that the model fits well. The relative fit index (RFI) is 0.909, which is greater than 0.9, supporting the model's fit effect. The incremental fit index is 0.981, more significant than 0.9, indicating that the model has a high degree of fit. The Tucker-Lewis index (TLI) is 0.980, more critical than 0.9, reflecting that the model has a good fit. The comparative fit index (CFI) is 0.981, more significant than 0.9, indicating that the model's fit is excellent.

Overall, the observed values of each fit index meet or approach the corresponding standards or critical values. Overall, this model fits well and can explain the observed data well. Figure 4.7 shows the structural equation of the influence of enterprise dynamic capability with business model innovation as the intermediary variable on the competitiveness of Sichuan tea enterprises.

Figure 4.7

Standardized Structural Equation Model



Source: Researcher (2024)

The structural equation model output presents the path relationship between three variables (DC, BMI, EC), including the path relationship, standard error (SE), Critical Ratio (CR), Probability (P), and standardized regression weight. The Structural equation model path results are shown in Table 4.21.

Table 4.21

S*tructural Equation Model Path Results (n = 451)*

Path Relationship			**Estimate**	**SE.**	**CR.**	**P**	**Standardized Regression Weights**
BMI	<---	DC	0.135	0.014	9.322	***	0.642
EC	<---	BMI	0.436	0.086	5.073	***	0.406
EC	<---	DC	0.088	0.018	4.883	***	0.390

* p<0.05 ** p<0.01 *** p<0.001

Source: Researcher (2024)

The estimated path coefficient from dynamic capability (DC) to business model innovation (BMI) is 0.135, which indicates that DC has a positive effect on Business Model Innovation (BMI). The right of return estimate's standard error (SE) is 0.014. When the significance level P < 0.001, the critical ratio (CR) reaches 9.322, and its absolute value exceeds the necessary threshold of 3.29. When the significance level is 0.001, it can be estimated that the parameter is significantly non-zero, which means that the relationship between DC and Business Model Innovation (BMI) is statistically significant. For every 1 unit increase in DC, Business Model Innovation (BMI) increased by an average of 0.135 units. The estimated value of the standardized regression weight is 0.642, indicating that DC can explain Business Model Innovation (BMI). In conclusion, dynamic capability (DC) significantly positively affects business model innovation (BMI). The hypothesis of a positive relationship between dynamic capabilities and business model innovation has been verified, and hypothesis 1 is accepted.

The estimated path coefficient from business model innovation (BMI) to enterprise competitiveness (EC) is 0.436, which shows that business model innovation has a positive role in promoting the competitiveness of enterprises. With the innovation of business models, the competitiveness of enterprises has demonstrated a trend of improvement. The right of return estimate's standard error (SE) is 0.086. When the significance level P < 0.001, the critical ratio (CR) reaches 5.073, and its absolute value

exceeds the necessary threshold of 3.29. When the significance level is 0.001, it can be estimated that the parameter is significantly non-zero, which means that the relationship between Business Model Innovation (BMI) and EC is statistically significant. For every 1 unit increase in Business Model Innovation (BMI), EC increased by an average of 0.436 units. The estimated value of the standardized regression weight is 0.406, indicating that Business Model Innovation (BMI) can explain EC. In conclusion, business model innovation (BMI) significantly positively affects enterprise competitiveness (EC). The hypothesis of a positive relationship between business model innovation (BMI) and enterprise competitiveness (EC) has been verified, and hypothesis 2 is accepted.

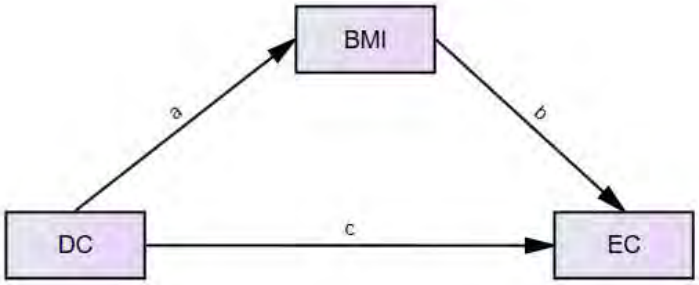
The estimated path coefficient from dynamic capability (DC) to enterprise competitiveness (EC) is 0.088, which indicates that dynamic capability (DC) plays a positive role in promoting enterprise competitiveness (EC). However, compared with the path coefficient of dynamic capability on business model innovation mentioned above (0.135) and the path coefficient of business model innovation (BMI) on enterprise competitiveness (0.436), this coefficient value is small, indicating that dynamic capability has a relatively weak role in improving enterprise competitiveness. The right of return estimate's standard error (SE) is 0.018. When the significance level $P < 0.001$, the critical ratio (CR) reaches 4.883, and its absolute value exceeds the necessary threshold of 3.29. When the significance level is 0.001, it can be estimated that the parameter is significantly non-zero, which means that the relationship between DC and EC is statistically significant. For every 1 unit increase in DC, EC increased by an average of 0.088 units. The estimated value of the standardized regression weight is 0.390, indicating that DC can explain EC. To sum up, dynamic capability has a positive impact on enterprise competitiveness. The hypothesis of a positive correlation between dynamic capability and enterprise competitiveness is verified, and hypothesis 3 is accepted.

4.1.4.2 Mediating Effect Testing

Utilizing the mediation effect test method detailed in Chapter 3, a model was developed to examine the impact of dynamic capability (DC) on enterprise competitiveness (EC), with business model innovation (BMI) serving as the intermediary variable. This model is depicted in Figure 4.8.

Figure 4. 8

Mediating Effect Diagram of Business Model Innovation



Source: Researcher (2024)

After taking the average of the three latent variables, namely dynamic capability (DC), business model innovation (BMI), and enterprise competitiveness, the number of bootstrap samples was tested using the bootstrap method in the structural equation model. With a BC confidence level of 95%, the results of the mediation effect test are presented in Table 4.22 and Figure 4.9.

Table 4.22

The results of the mediating effect test of business model innovation

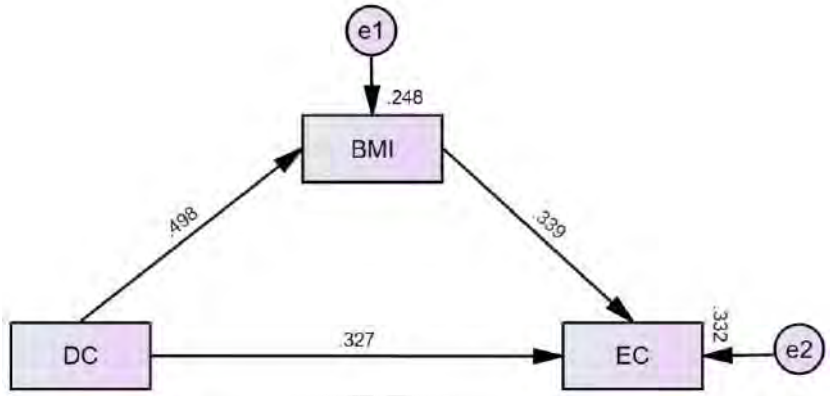
Path			Estimate	SE.	CR.	P	Label	Standardized Direct Effects
BMI	<---	DC	0.515	0.042	12.171	***	a	0.498
EC	<---	BMI	0.306	0.040	7.63	***	b	0.339
EC	<---	DC	0.306	0.042	7.36	***	c	0.327

* p<0.05 ** p<0.01 *** p<0.001

Source: Researcher (2024)

Figure 4. 9

Results of the Mediating Effect Test of Business Model Innovation



Source: Researcher (2024)

The results of the mediation effect test show that the estimated direct impact of dynamic capability (DC) on business model innovation (BMI) is 0.515, the standard error (SE) is 0.42, and the Critical Ratio (CR) is 12.171, which is much higher than 1.96. The direct effect of dynamic capability (DC) on business model innovation (BMI) after standardization is 0.498.

The estimated direct impact of business model innovation (BMI) on enterprise competitiveness (EC) is 0.306, the standard error (SE) is 0.40, and the Critical Ratio (CR) is 7.63, which is much higher than 1.96. The direct effect of business model innovation (BMI) on enterprise competitiveness (EC) after standardization is 0.339.

The estimated direct impact of dynamic capability (DC) on enterprise competitiveness (EC) is 0.306, the standard error (SE) is 0.42, the Critical Ratio (CR) is 7.36, which is much higher than 1.96, and the direct effect of dynamic capability (DC) on enterprise competitiveness (EC) after standardization is 0.327. The test results of the mediating effect and total effect are shown in Table 4.23.

Table 4.23

Mediating Effect Results of Business Model Innovation

Path	Estimate	Lower	Upper	P
DC-BMI-EC Mediating effect	0.158	0.114	0.209	0.00
DC-EC Total Effect	0.464	0.391	0.531	0.00
Ratio	0.34	0.24	0.465	0.00

Source: Researcher (2024)

As can be seen from Table 4.19, the mediating effect of dynamic capability (DC) on enterprise competitiveness (EC) through business model innovation is 0.158, the total effect value of dynamic capability (DC) on enterprise competitiveness (EC) is 0.464, and the effect value is within 95% confidence interval, excluding 0. The mediating effect accounts for 34% of the total effect. Therefore, business model innovation (BMI) has a significant partial mediating effect on the impact of dynamic capability (DC) on firm competitiveness (EC), and hypothesis 4 is supported.

4.1.5 Hypothesis Explanation.

Through the analysis of the influence of dynamic capability (DC) on enterprise competitiveness (EC) with business model innovation (BMI) serving as the intermediary variable, conclusions can be drawn.

H1: There is a positive relationship between dynamic capabilities and business model innovation (Accepted hypothesis).

This hypothesis can be explained by the fact that the dynamic capability of Sichuan tea enterprises positively impacts business model innovation. As seen from the analysis of Table 4.17, for every 1-unit increase in dynamic capability, there is an average increase of 0.135 units in business model innovation. Therefore, when the enterprise's perception ability, learning ability, and resource integration ability play a role, the enterprise's business model innovation will occur. Therefore, there is a positive correlation between dynamic capability and business model innovation.

H2: There is a positive relationship between Business Model Innovation and Tea Enterprise Competitiveness in Sichuan, China (Accepted hypothesis).

This hypothesis can explain the positive impact of business model innovation on the competitiveness of tea enterprises in Sichuan Province. As evident from the analysis presented in Table 4.17, there is an average increase of 0.436 units in enterprise competitiveness for every unit increase in business model innovation. Therefore, when enterprises implement business model innovation, their market competitiveness, profit rate, and growth ability will be improved accordingly. This hypothesis thoroughly explains the importance of business model innovation in enhancing the competitiveness of enterprises.

H3: There is a positive relationship between Dynamic Capabilities and Tea Enterprise Competitiveness in Sichuan, China (Accepted hypothesis).

This hypothesis can be explained in the tea enterprises in Sichuan Province, China, which indicates that dynamic capability has a positive promoting effect on the competitiveness of enterprises. The improvement of enterprise perception ability, learning ability, and resource integration ability can correspondingly enhance the competitiveness of enterprises in terms of market, profit, and growth. Table 4.17 shows that when dynamic capability increases by 1 unit, the competitiveness of enterprises increases by 0.088 units on average. Compared with business model innovation, the effect of business model innovation on enhancing the competitiveness of enterprises is relatively weak, but it has specific explanatory ability. Therefore, a positive relationship exists between Dynamic Capabilities and Tea Enterprise Competitiveness in Sichuan, China.

H4: Business Model Innovation mediates the relationship between Dynamic Capabilities and Tea Enterprise Competitiveness in Sichuan, China (Accepted hypothesis).

This hypothesis can be explained by the fact that business model innovation is an intermediary between tea enterprises' dynamic capability and competitiveness in Sichuan. It means that dynamic capability affects the competitiveness of enterprises by influencing their business model innovation. Therefore, to improve enterprise competitiveness, it is crucial to focus not solely on the dynamic capability of enterprises or a singular aspect of business model innovation. Instead, attention should be given to improving the dynamic capability of enterprises in a manner that fosters innovation in their business models, ultimately leading to an improvement in their competitiveness.

Table 4.24

Hypothesis Test Results

Order	Hypothesis	Result
1	There is a positive relationship between dynamic capabilities and business model innovation.	Accepted
2	There is a positive relationship between Business Model Innovation and Tea Enterprise Competitiveness in Sichuan, China.	Accepted
3	There is a positive relationship between Dynamic Capabilities and Tea Enterprise Competitiveness in Sichuan, China.	Accepted

Order	Hypothesis	Result
4	Business Model Innovation mediates the relationship between Dynamic Capabilities and Tea Enterprise Competitiveness in Sichuan, China.	Accepted

Source: Researcher (2024)

4.2 Qualitative Analysis

The theoretical framework proposed in Chapter 2 has been verified through an in-depth analysis of the collected questionnaires. To ascertain whether these companies are genuinely dynamic and capable of utilizing dynamic capabilities to enhance business model innovation and corporate competitiveness, participation in the survey was sought from 10 senior executives (including a CEO), four marketing experts, and six consumers. Qualitative research must consider various factors when determining the appropriate sample size. In some cases, 30 people are suitable for a complete assessment, while some studies may only need 10 people to be successful (Yin, 2009). Therefore, the focus of qualitative research is on the richness of information, not on non-numerical representation. A small, carefully selected sample can give executives, marketing experts, and specific consumers deeper insights.

In this qualitative study, the Sample that will be selected as the key respondents or whistleblowers is the senior management, up to the CEO, marketing experts, and consumers of the companies in the tea industry. Senior Management, up to the CEO, directly influences the company's decisions. While marketing experts offer professional market insights, consumers, as the end users of a product or service, provide essential perspectives for evaluating a company's market performance and product quality.

Due to time and geographical limitations, data was collected in both structured and semi-structured formats, with some interviews conducted face-to-face and others online. Following the interviews, the gathered data were organized and compiled. The compiled data is presented in Table 4.25.

Table 4.25

Summary of Interview Respondents

Method	Key Informant	Frequency	Percent
In-Depth Interview	CEO	1	5%
	Top management	9	45%
	Expert representative	4	20%
	Consumer representative	6	30%
Total		20	100%

Source: Researcher (2024)

4.2.1 Content Analysis

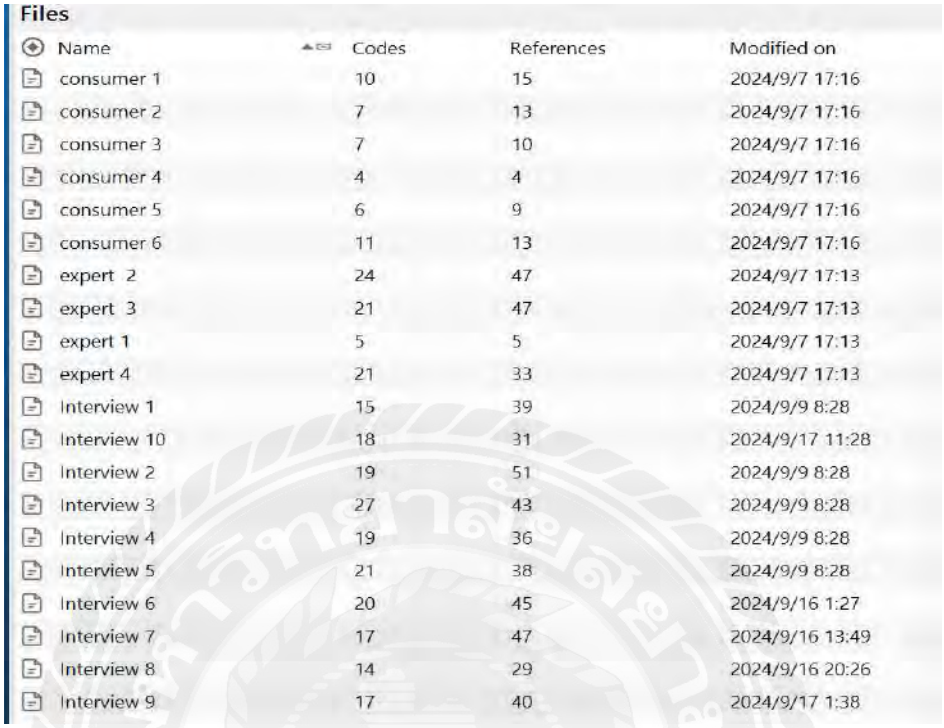
To extract key insights from the interview data, NVivo 14 software will be utilized for qualitative analysis. QSR (Qualitative Solutions and Research) International developed NVivo as an advanced qualitative and mixed-method research tool. Its robust features enable comprehensive data analysis, systematic coding, and precise keyword frequency assessment across diverse textual datasets, facilitating a deeper understanding of the interview content.

NVivo 14 software was employed to analyze textual data from 20 interview forms. The system's coding functionality categorized respondents' statements into distinct nodes. To differentiate interviewees, interviews No.1 to No.10 were assigned to 10 enterprise managers, experts No.1 to No.4 labeled the responses of 4 industry experts, and customers No.1 to No.6 identified the interview records of 6 consumers.

The coding process initiates with the importation of interview documents, subsequently employing grounded theory to conduct an exhaustive interview content analysis. Initially, open coding is executed, which entails meticulously dismantling the interview content to extract preliminary concepts and categories. This is followed by selective coding, where the core elements and themes from the numerous initial concepts are compared and correlated. Ultimately, these core elements are further integrated and refined during the spindle coding phase to forge a conceptual framework possessing internal logical coherence. This sequential coding methodology guarantees a profound comprehension and systematic induction of the interview content, as illustrated in Figure 4.10 and Figure 4.11.

Figure 4.10

Import the Files



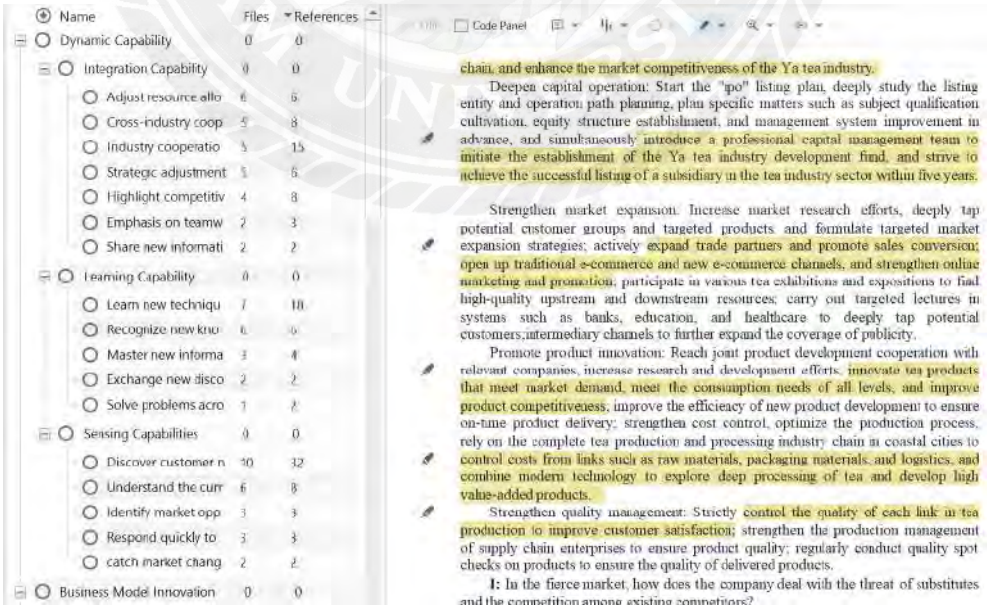
Files

Name	Codes	References	Modified on
consumer 1	10	15	2024/9/7 17:16
consumer 2	7	13	2024/9/7 17:16
consumer 3	7	10	2024/9/7 17:16
consumer 4	4	4	2024/9/7 17:16
consumer 5	6	9	2024/9/7 17:16
consumer 6	11	13	2024/9/7 17:16
expert 2	24	47	2024/9/7 17:13
expert 3	21	47	2024/9/7 17:13
expert 1	5	5	2024/9/7 17:13
expert 4	21	33	2024/9/7 17:13
Interview 1	15	39	2024/9/9 8:28
Interview 10	18	31	2024/9/17 11:28
Interview 2	19	51	2024/9/9 8:28
Interview 3	27	43	2024/9/9 8:28
Interview 4	19	36	2024/9/9 8:28
Interview 5	21	38	2024/9/9 8:28
Interview 6	20	45	2024/9/16 1:27
Interview 7	17	47	2024/9/16 13:49
Interview 8	14	29	2024/9/16 20:26
Interview 9	17	40	2024/9/17 1:38

Source: Researcher (2024)

Figure 4.11

Encoding the Interview Content



Source: Researcher (2024)

The researcher reached the following conclusions through an in-depth interview analysis of 10 business executives.

4.2.1.1 Opinion on Dynamic Capabilities

The interview results show that all interviewees believe that sensing, learning, and integration capabilities are essential manifestations of corporate dynamic capabilities, consistent with the questionnaire survey results. Expert 3 said that enterprises should pay close attention to the dynamics of competitors, analyze their strengths and weaknesses, and adjust their strategies in time.

Sensing Capabilities

All interviewees agreed that sensing capabilities are an essential aspect of dynamic capabilities. This is in line with interviewer No. 2's statement: "Enterprises should pay more attention to industry dynamics, consumer trends, and sensitivity to market changes, and timely discover the changes of competitors, to formulate corresponding marketing strategies." Interviewer No.1 also emphasized, "Enterprises should keenly perceive market demand. In-depth study of young consumers' demand for new beverages, the launch of simple, fashionable, convenient, and fast, using the original bud and leaf of the 'second half dark tea' to cater to the tastes and consumption habits of the young market, to improve the market share and competitiveness of the product." This idea was supported by the overall agreement among interviewees on the importance of market awareness in developing competitive strategies.

Learning Capabilities

All interviewees agreed that learning capabilities are an essential aspect of dynamic capabilities. This is in line with interviewee No. 1's statement: "Tea enterprises need to learn modern technological means to improve production processes, efficiency, and quality stability." Interviewee No.2 also emphasized, "Employees should learn to analyze and utilize data. Collecting and analyzing market and consumer behavior data provides an in-depth understanding of market demand and trends and provides a decision-making basis for business model innovation."

Integration Capabilities

All interviewees agreed that integration capabilities are essential to dynamic capabilities. This is in line with interviewee No. 9's statement: "Enterprises should strengthen the integration of cultural and tourism resources. The development of the tea tourism integration project, especially combined with the local natural scenery and tea culture, can create tourism products such as tea garden sightseeing, tea culture experiences, tea picking, and tea making to attract tourists and increase sources of income." Interviewee No.10 added, "Tea enterprises should combine the local cultural connotation, excavate the local culture, such as the southern Silk Road culture and Wenjun culture, and integrate tea culture with other commodities to explore the development path of tea merchants, culture, and tourism."

4.2.1.2 Opinion on Business Model Innovation

The interview results show that all respondents believe value proposition, value creation, and value capture are essential manifestations of business model innovation, consistent with the questionnaire survey results.

Value Proposition

All interviewees agreed that the value proposition is essential to business model innovation. This is in line with interviewee No. 7's statement: "Enterprises must continuously improve tea quality by strictly controlling the tea planting, production, processing, and other links. They should also use new technologies to enhance and innovate production processes to improve product quality further and ensure stability and superiority." Interviewee No.1 further stated, "The enterprise has established a monitoring and traceability system covering the entire process from the tea garden to the tea cup, ensuring product safety, health, and nutrition. The company has also obtained ISO9001, ISO22000, ISO14000, Good Agricultural Practices (GAP), and organic tea certifications.".

Value Creation

All interviewees agreed that value creation is essential to business model innovation. This is in line with interviewee No. 1's statement: "The company controls costs at various stages, including raw materials, packaging, and logistics. By integrating modern technology, it also explores deep tea processing and develops high-value-added products." Interviewee No.5 added, "The company is committed to providing quality

customer service to ensure consumers have a positive experience when purchasing and using products, thereby improving customer satisfaction and word-of-mouth."

Value Capture

All interviewees agreed that value capture is essential to business model innovation. This is in line with interviewee No. 2's statement: "To ensure the consistent quality and taste of its products, the company has always prioritized quality as its core competitiveness." Interviewee No.5 elaborated, "The company adheres to a high-quality, safety, and ecological standards policy. It has formulated and improved procedures for every stage, from tea garden planting and picking to processing, packaging, storage, and logistics. Investments have also been made in tea garden renovation, plant cleanliness, and production automation to maintain the health, cleanliness, and safety of raw materials for food production".

4.2.1.3 Opinion on Enterprise Competitiveness

The interview results show that all respondents believe that market competitiveness, profit capability, and growth capacity are essential to enterprise competitiveness, which is consistent with the survey results of the questionnaire.

Market Competitiveness

All interviewees agreed that market competitiveness is an essential aspect of enterprise competitiveness. This is in line with interviewee No. 3's statement: "By strengthening customer relationship management, the company enhances customer satisfaction and loyalty by understanding their needs, providing timely feedback, and meeting expectations. Establishing a membership or loyalty program offers exclusive services to returning customers, increasing engagement and market competitiveness." Interviewee No.4 added, "To improve competitiveness, the company not only utilizes traditional wholesale and retail channels but also explores emerging platforms such as e-commerce and live-streamed product sales to expand market coverage and increase market share."

Profit Capability

All interviewees agreed that profit capability is essential to enterprise competitiveness. This is in line with interviewee No. 10's statement: "To enhance competitiveness, the company has improved production efficiency, reduced costs, and

increased profitability through digital transformation and the introduction of automated production equipment." Interviewee No.5 reinforced this by stating, "By implementing an ERP system, improving the traceability system, and adopting other digital technologies, the company has enhanced production efficiency, operational effectiveness, management precision, reduced costs, and increased profitability."

Growth Capacity

All interviewees agreed that growth capacity is essential to enterprise competitiveness. This is in line with interviewee No. 2's statement: "The company encourages employee participation and innovation in business development. Employees are often invited to propose improvements in tea planting, production, processing, and marketing, leading to continuous enhancements in product quality and brand influence. For example, innovative employee suggestions in the tea picking and processing stages have improved production efficiency and product quality." Interviewee No.6 added, "By strengthening brand promotion, building industrial Internet platforms, and hosting tea competitions and cultural events, the company has enhanced the visibility and influence of its tea brands, attracting more consumers."

Based on the root theory, the concept is formed by open coding, while the category is formed by spindle coding, and finally, the main category is formed by selective coding. The results are shown in Table 4.26.

Table 4.26

A Categorization System for the Analysis of Interview Texts

Select Coding	Axial Coding	Open Coding	Category description	Related document	Reference Code Point
Dynamic Capabilities	Sensing Capability	Understand the current situation of the industry	Industry trends and policy changes recognize the importance of digital transformation, gain insight into changes in consumer demand, and grasp market trends.	6	8
		Identify market opportunities	Grasp the market development trend and seize the opportunity at the critical moment.	3	3
		Catch market changes	The company pays attention to industry dynamics and changes in consumer trends and shows sensitivity to market changes.	2	2
		Discover customer needs	Develop new products according to market demand to meet the diversified needs of consumers.	10	32
		Respond quickly to competitors	Keep abreast of competitors' trends and quickly make adjustments and coping strategies.	3	3
	Learning Capabilities	Learn new techniques	Examine the development measures and application of new technologies by enterprises.	7	18
		Recognize new knowledge	Examine employees' learning of new knowledge and skills.	6	6

Select Coding	Axial Coding	Open Coding	Category description	Related document	Reference Code Point
Dynamic Capabilities	Learning Capabilities	Master new information	Examine the extent to which companies and employees capture market and consumer information.	3	4
		Exchange discoveries	Review the communication process between employees.	2	2
		Solve problems across	Measure the degree of teamwork among employees.	1	2
	Integration Capabilities	Strategic adjustment	Examine whether enterprises can adjust their strategies quickly in the face of market changes.	5	6
		Adjust resource allocation capabilities	Evaluate the enterprise's ability to integrate enterprise resources.	6	6
		Highlight competitive advantage	Assess how companies use their resources to improve competitiveness.	4	8
		Cross-industry cooperation	The tea industry, catering, culture, tourism, and other integrated developments are often used.	5	8
		Industry cooperation	Establish tea industry associations, strengthen cooperation and common development between tea enterprises, and strengthen regional brands.	5	15

Select Coding	Axial Coding	Open Coding	Category description	Related document	Reference Code Point
Dynamic Capabilities	Integration Capabilities	Emphasis on teamwork	Create an efficient organizational structure and strengthen inter-departmental cooperation and exchanges.	2	3
		Share new information and knowledge	Organize regular internal training and exchange activities.	2	2
Business Model Innovation	Value Proposition	Provide high-quality products	Consumers pay attention to the quality of tea, and enterprises control the quality of tea.	10	44
		Flexible service	Provide more product information and purchase channels.	10	18
		Support customer value	Meet the individual needs of customers and provide a quality service experience.	6	7
		Evaluate customer-perceived value	Old customers taste new products and collect consumer feedback according to consumer consumption trends.	3	4
	Value Capture	Improve product quality	High-quality raw materials, development of industry standards, innovative technology, improved product quality, and so on.	10	40
		Expand market share	Develop online and offline sales channels and expand the international market.	9	18

Select Coding	Axial Coding	Open Coding	Category description	Related document	Reference Code Point
Business Model Innovation	Value Capture	New way of selling	Our company focuses on e-commerce platforms, live delivery, social e-commerce, and other emerging channels to strengthen network marketing promotion.	7	25
	Value Creation	Customer satisfaction	Provide high-quality products, enhance customer experience, convenient purchase channels, quality service attitude, customer loyalty, respect, and so on.	10	20
		Cost control	Improve production efficiency and adopt new models to reduce product costs.	5	7
		Customer familiarity with transactions	The transaction procedure is simple, and the purchase channel is convenient.	4	6
		Reasonable price	The company will provide reasonable prices to meet the needs of different levels of consumers.	2	2
		Simple transaction	The shopping method is simple and convenient, and consumers can accurately grasp the product information.	2	2
Enterprise Competitiveness	Market Competitiveness	Customer loyalty	Long-term purchases enhance brand awareness and influence through activities, quality service, and consumer experience.	10	20
		High market share	Expand sales channels and strengthen strategic cooperation and alliances.	10	23

Select Coding	Axial Coding	Open Coding	Category description	Related document	Reference Code Point
Enterprise Competitiveness	Enterprise Competitiveness	Market share growth rate	Increase sales and sales volume, product differentiation, reduce production costs, expand emerging markets, quickly launch new products, adjust marketing strategies, meet customer needs, and many more items.	9	15
		Adaptability to the market	Meet the diversified needs of the market and respond quickly to market changes.	4	7
		Marketing strategy	Innovative marketing strategies.	1	1
	Profit Capability	Production efficiency	Focus on staff training and skill improvement, quality and cost control, research on new products, and many more items.	9	16
		Reduce cost	Improve production efficiency and adopt a cooperative model.	7	11
		Return on investment	Improve production efficiency and operational efficiency, and reduce costs.	6	6
	Growth Capacity	Increase customer satisfaction	The company has good product quality, variety, and after-sales service, which helps provide a good shopping experience.	10	20
		Attract new customers	Develop new products, market and promote, construct products, and provide physical services.	10	18

Select Coding	Axial Coding	Open Coding	Category description	Related document	Reference Code Point
Enterprise Competitiveness	Growth Capacity	Manager satisfaction	The company is satisfactory in terms of cost control, rapid growth of market share, stable quality, and employee productivity		
		Employee productivity	Technological innovation and cost control.		
		Take employee suggestions	Companies often take suggestions from their employees.		

Source: The Researcher (2024)

To augment the thematic coding of interview data, a word frequency analysis was conducted utilizing NVivo software to identify the most frequently used terms. As shown in Figure 4.10, terms such as "brand", "quality", and "innovation" often appeared, suggesting a strong emphasis on these aspects within the participants' discourse. This aligns with our qualitative findings that highlight branding and quality improvement as central concerns for interviewees. Furthermore, the high frequency of "customer" and "sales" supports the theme of market-driven strategies in our study. Using NVivo for word frequency analysis enhances the robustness of our qualitative interpretations by providing quantitative backing to the prominence of these themes.

Figure 4.12

Word Count Test

Source: The Researcher (2024)

4.2.2 Relationship Analysis

4.2.2.1 Top Management Perspective Relationship Analysis

The results of interviews with enterprise managers show that all the interviewees believe that dynamic capability positively impacts enterprises' competitiveness in the tea industry. On the one hand, enterprises can enhance their competitiveness by perceiving the market, improving employees' learning ability, and integrating resources. On the other hand, enterprises can also promote business model innovation through dynamic capabilities to enhance their competitiveness. The central performance is that through the ability to perceive, enterprises can quickly discover changes in consumer demand and make strategic adjustments and product innovations to enhance their competitiveness.

This result is in line with Interviewer No. 1's statement: "In the face of market changes, the company actively innovates the tea garden management model and diversified development model, utilizing scene marketing, O2O marketing, app marketing, live marketing, we-media marketing, WeChat business distribution, and other methods to enhance the coverage, accuracy, and influence of tea sales, thereby driving sales transformation and improving enterprise competitiveness."

This result is also supported by Interviewer No.2: "The company leverages digital tools for store management, implementing an all-channel, multi-touch innovative management model. Through digital platforms and tools, various business operations are seamlessly connected, improving the efficiency of shopping guides and providing personalized services for consumers. Utilizing the Cloud Mall as a bridge facilitates incremental operations in offline stores, enhances customer retention, and stimulates omnichannel sales."

4.2.2.2 Consumer Perspective Relationship Analysis

The researcher imported the six consumer interview datasets into NVivo 14 for qualitative analysis. Based on the coded text analysis, three key relationships were identified: (1) the relationship between dynamic capabilities and business model innovation, (2) the relationship between business model innovation and enterprise competitiveness, and (3) the relationship between dynamic capabilities and the competitiveness of tea enterprises.

The analysis revealed that five out of six consumers expect tea enterprises to leverage dynamic capabilities to drive business model innovation. Additionally, four consumers believe that the services provided by tea enterprises—such as customized packaging, educational sessions, and expert recommendations—should incorporate learning and sensing capabilities to enhance consumer satisfaction, ultimately strengthening the enterprises' competitiveness.

Most consumers acknowledged the positive influence of dynamic capabilities on business model innovation. Among the six respondents, two prioritized business model innovation, two focused primarily on tea quality, and two were indifferent to business model innovation but valued the enhanced shopping experience it provided.

This aligns with the statement provided by Consumer No. 1, which indicates that during the selection of tea, taste, aroma, and brand reputation are prioritized. In contrast, business model innovation is considered of secondary importance. This perspective is further reinforced by Consumer No.2, who emphasized that tea quality is their primary concern, regardless of business model innovation. Similarly, Consumer No.6 strongly preferred the enhanced shopping experience enabled by business model innovation, stating their willingness to explore new purchasing methods and actively engage with brand marketing efforts.

Therefore, business model innovation will promote the competitiveness of enterprises, but not all business model innovation will play a role in promoting it. The relationship between dynamic capability, business model innovation, and enterprise competitiveness from the consumers' perspective is shown in Table 4.27.

Table 4.27

Results of the Consumer Perspective Relationship Analysis

Relationship	**Sentiment analysis**	**Related document**	**Reference node**
The relationship between dynamic capability and business model innovation	Positive influence	5	6
	Positive influence	2	15

Relationship	Sentiment analysis	Related document	Reference node
The relationship between business model innovation and enterprise competitiveness	Negative influence	4	4
The relationship between dynamic capability and enterprise competitiveness	Positive influence	4	4

Source: The Researcher (2024)

4.2.2.3 Expert Perspective Relationship Analysis

Interviews with industry experts indicate a unanimous agreement that business model innovation positively influences the competitiveness of tea enterprises. Experts also emphasize that dynamic capabilities not only directly impact the competitiveness of the tea industry but also serve as a catalyst for business model innovation, which in turn strengthens enterprise competitiveness.

This is in line with Expert No. 1's statement that "Dynamic capabilities positively influence business model innovation, which in turn significantly enhances the competitiveness of Sichuan's tea enterprises. This relationship is evident in how tea enterprises with strong dynamic capabilities can swiftly respond to market fluctuations and adjust their corporate strategies accordingly. Business model innovation enhances consumer experience and loyalty, expands market share, and improves enterprise competitiveness."

Similarly, Expert No.2 highlighted that "Dynamic capabilities and business model innovation play a crucial role in strengthening enterprise competitiveness. Tea enterprises should actively monitor industry trends and policy shifts, allowing them to adjust corporate strategies promptly to maintain their competitive edge. When new consumer demands arise, businesses with strong dynamic capabilities can quickly refine their product offerings and marketing strategies to align with market needs."

The relationship between dynamic capability, business model innovation, and enterprise competitiveness from the perspective of experts is shown in Table 4.28.

Table 4.28

Expert Perspective Relationship Analysis Results

Relationship	Sentiment analysis	Related document	Reference node
The relationship between dynamic capabilities and business model innovation	Positive influence	4	14
The relationship between business model innovation and enterprise competitiveness	Positive influence	4	12
The relationship between dynamic capability and enterprise competitiveness	Positive influence	4	8

Source: Researcher (2024)

4.3 Combination of Quantitative and Qualitative

To improve the depth and credibility of the research, in this chapter, the researcher comprehensively and profoundly explores the relationship between the dynamic ability and enterprise competitiveness of Sichuan tea enterprises by combining quantitative and qualitative methods. Through quantitative research, it is revealed that the dynamic capability of Sichuan tea enterprises not only has a positive direct impact on the competitiveness of Sichuan tea enterprises but also can improve the business model innovation of Sichuan tea enterprises, thereby enhancing the competitiveness of Sichuan tea enterprises. However, although a single quantitative study reveals the relationship between dynamic capability, business model innovation, and the competitiveness of tea enterprises, it cannot deeply explore the reasons and significance behind it. Through interviews with enterprise managers, consumers, and experts, the qualitative research further explains different subjects' understanding of the dynamic capability and business model innovation of tea enterprises and how it affects the competitiveness of tea enterprises.

Relationship Between Dynamic Capabilities (DC) and Business Model Innovation (BMI)

The results from the structural equation model (Barney et al.) analysis reveal a positive relationship between Dynamic Capabilities (DC) and Business Model Innovation

(BMI). Specifically, BMI increases by an average of 0.135 units for every one-unit increase in DC.

This result is in line with Interviewee No.1, who emphasized that "enterprises must actively perceive market trends and leverage new technologies to transform their business models, ensuring sustainable growth." Similarly, Interviewee No.5 noted that "business model innovation is the key to maintaining a competitive edge, and companies with strong dynamic capabilities can better integrate new strategies into their business models."

These qualitative insights align with the statistical results, reinforcing that enterprises with enhanced sensing, learning, and integrating capabilities are more likely to innovate their business models effectively.

Relationship Between Business Model Innovation (BMI) and Tea Enterprises' Competitiveness

Business Model Innovation (BMI) plays a crucial role in shaping the competitiveness of tea enterprises. Tea enterprises must continuously innovate their business models in an increasingly dynamic market environment to adapt to consumer preferences, technological advancements, and competitive pressures. BMI enables enterprises to restructure their value proposition, optimize resource allocation, and implement innovative marketing strategies, enhancing their overall market position.

The quantitative analysis in this study supports the strong relationship between BMI and tea enterprise competitiveness. The structural equation modeling (Barney et al.) results indicate a significant positive correlation, demonstrating that for every 1-unit increase in BMI, enterprise competitiveness increases by an average of 0.436 units. This finding suggests that BMI is a key driver of sustainable competitive advantage by enabling tea enterprises to enhance operational efficiency, improve consumer engagement, and expand their market reach.

This is in line with the qualitative findings from expert and consumer interviews. Expert No.1 emphasized that "business model innovation enhances the consumer experience and loyalty, expands market share and ultimately improves enterprise competitiveness." Similarly, Expert No.2 stated that "when new consumer demands

emerge, enterprises that can innovate their business models swiftly are more likely to maintain their competitive edge."

In conclusion, both empirical data and qualitative insights affirm the critical role of BMI in driving the competitiveness of tea enterprises. By continuously innovating their business models, tea enterprises can adapt to market changes, improve customer engagement, and strengthen their competitive positioning in the highly dynamic tea industry.

Relationship Between Dynamic Capabilities (DC) and Tea Enterprises' Competitiveness (EC)

Enterprises must continuously adapt to external changes in a constantly evolving market environment. Dynamic capabilities (DC) empower tea companies to sense market shifts, seize emerging opportunities, and reconfigure internal resources, enhancing their competitive advantage. Businesses with strong DC can effectively respond to industry disruptions, integrate innovative business practices, and sustain long-term growth.

The quantitative analysis in this study reveals a significant positive correlation between DC and the competitiveness of tea enterprises. Structural equation modeling (Barney et al.) results indicate that for every 1-unit increase in DC, enterprise competitiveness (EC) increases by an average of 0.088 units. This finding suggests that dynamic capabilities are fundamental to maintaining strategic flexibility, improving operational efficiency, and driving sustainable competitive advantage.

This result is consistent with qualitative insights obtained from expert and consumer interviews. Expert No.1 emphasized that "dynamic capabilities enable tea companies to adapt to market fluctuations quickly, adjust corporate strategies, and integrate innovative solutions to enhance competitiveness." Similarly, Expert No.2 highlighted that "businesses that actively monitor industry trends, embrace technological advancements, and leverage market intelligence are more likely to maintain a competitive edge and sustain business growth."

From a consumer perspective, Consumer No.3 stressed the importance of agility in responding to customer needs, stating that "tea companies that continuously improve their products and innovate their service models are more likely to build strong customer loyalty

and brand recognition." This result supports the notion that dynamic capabilities enhance operational adaptability and foster deeper consumer engagement and trust.

In summary, empirical evidence and qualitative research confirm that DC is a critical driver of the competitiveness of the tea enterprise. By strengthening their ability to sense, seize, and transform opportunities, tea companies can enhance market responsiveness, optimize resource utilization, and achieve sustainable competitive advantages in an increasingly complex and dynamic industry.

The mediating role of business model innovation

Business Model Innovation (BMI) serves as a crucial mediating factor in the relationship between Dynamic Capabilities (DC) and Enterprise Competitiveness (EC). As shown in Table 4.23 and Table 4.27, the mediation analysis results provide empirical support for this mediating effect.

Dynamic capabilities enable tea enterprises to sense market trends, seize emerging opportunities, and reconfigure internal resources to maintain their competitive edge. However, the effectiveness of these capabilities in enhancing enterprise competitiveness is significantly influenced by the degree to which they drive business model innovation. By fostering innovative business models, tea enterprises can translate their dynamic capabilities into improved market positioning, operational efficiency, and customer engagement, ultimately strengthening their competitiveness.

The results indicate that the indirect effect of DC on EC through BMI is 0.158 (95% CI: 0.114–0.209, $p = 0.00$), suggesting a statistically significant mediating role of BMI. Furthermore, the total effect of DC on EC is 0.464 (95% CI: 0.391–0.531, $p = 0.00$), demonstrating that while DC has a direct influence on EC, a substantial portion of this effect is mediated by BMI.

The mediation ratio of 0.34 (95% CI: 0.24–0.465, $p = 0.00$) suggests that 34% of the total effect of DC on EC operates through BMI. This highlights the importance of business model innovation as a transformative mechanism that enhances the competitiveness of tea enterprises by leveraging their dynamic capabilities.

Moreover, expert and consumer insights further reinforce this relationship. Experts emphasize that businesses that actively monitor industry trends, embrace technological advancements, and innovate their business models are more likely to sustain growth and market leadership. From a consumer perspective, tea enterprises that integrate innovative business models, such as digital marketing and omnichannel retailing, tend to foster stronger customer relationships and brand loyalty.

Therefore, dynamic capabilities directly contribute to enterprise competitiveness, while their impact is significantly amplified when channeled through business model innovation. By continuously refining their business models, tea enterprises can enhance their ability to adapt to market changes, optimize resource allocation, and maintain a sustainable competitive advantage in an increasingly dynamic industry.

4.4 The Development of the Tea Enterprise Competitiveness Model in Sichuan, China

This chapter makes a quantitative analysis of the collected questionnaires. Firstly, the collected samples are described and analyzed, and then the reliability and validity of the scale are tested by confirmatory factor analysis. The results show that the measurement scale of each variable is reliable and valid. Finally, the theoretical hypothesis of this study is tested by the result equation model. The test results are shown in Table 4.20.

Through quantitative analysis, the hypothesis mentioned above was further corroborated. It was discovered that, beyond the integration of internal resources, enterprises' integration capabilities have expanded to encompass the integration of resources across enterprises and diverse industries. This aspect had not been previously considered.

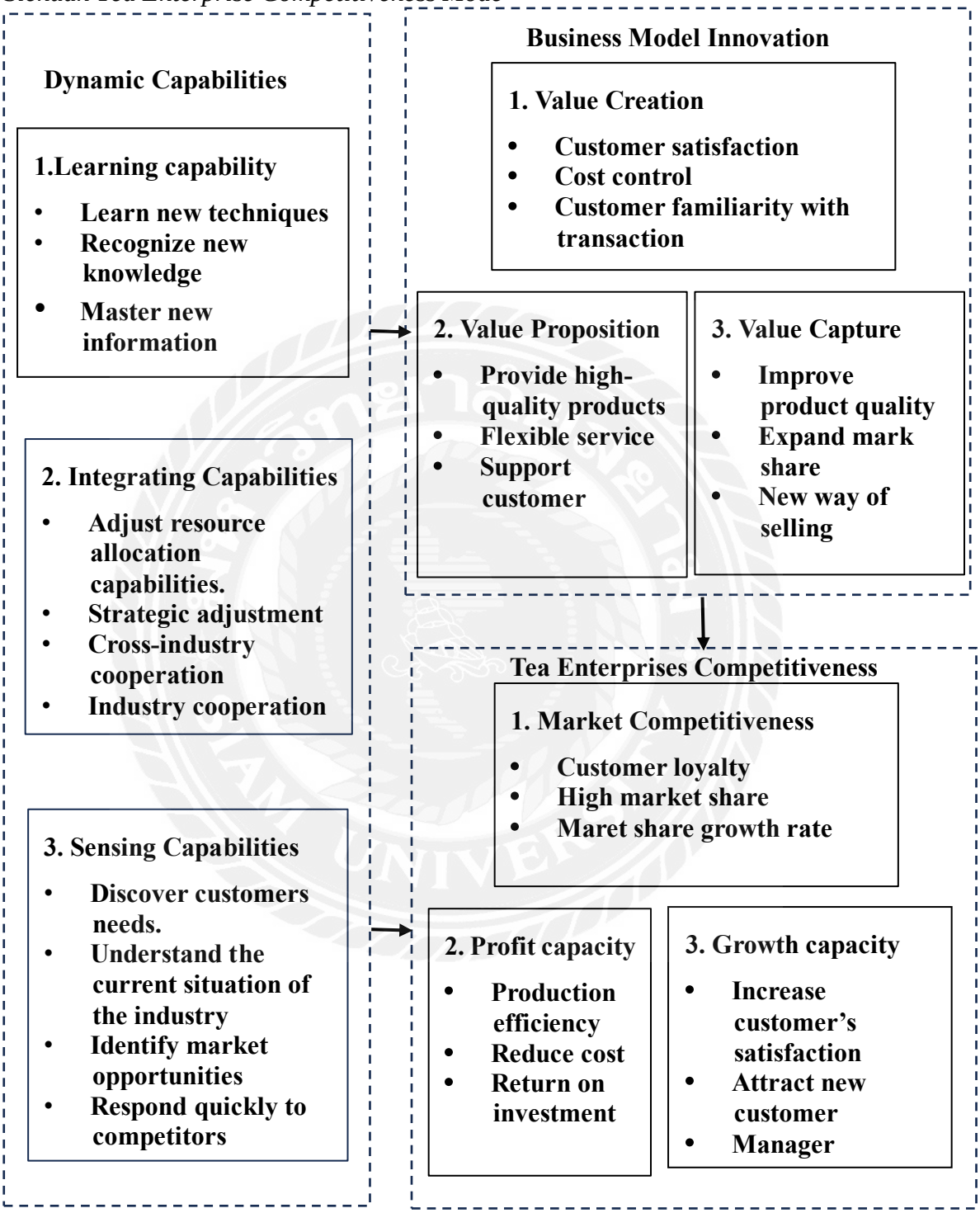
The competitiveness model of Sichuan tea enterprises is obtained through the combination of quantitative and qualitative analysis. As a comprehensive framework, it summarizes many factors that affect the industry's competitive advantage. The model combines the quantitative analysis of the relationship between the variables and the in-depth insights of the qualitative analysis.

Qualitative, in-depth interviews were conducted with major stakeholders and tea experts of Sichuan tea enterprises. Qualitative data show that improving product quality, discovering consumer needs, innovating sales methods, and learning new technologies can improve customer satisfaction and loyalty. These dimensions play a key role in enhancing the competitiveness of tea enterprises and contribute to improving their overall competitiveness.

Through quantitative and qualitative analysis, the competitiveness model for Sichuan tea enterprises is illustrated in Figure 4.11. This model functions as a strategic aid for Sichuan tea enterprises, allowing for assessing strengths and weaknesses based on the model's components. Subsequently, strategies more conducive to their growth in a market undergoing rapid changes can be formulated.

Figure 4. 13

Sichuan Tea Enterprise Competitiveness Mode



Source: Researcher (2024)

Dynamic Capabilities

1. Learning capability - the most crucial factor

Learning capability is the most critical factor in dynamic ability, which promotes the business model innovation and competitiveness of tea enterprises. The key practices include:

Learn new techniques. Learning new techniques is vital for Sichuan tea companies. It allows them to optimize tea-making processes, produce higher-quality products, and enhance customer satisfaction and loyalty. Mastering new techniques also helps open new product lines, expand market share, and boost growth potential.

Recognize new knowledge. New knowledge from consumption trends and agricultural research helps tea companies anticipate dynamic market changes. For instance, understanding organic tea demand enables production adjustments. This item leads to greater market share, a better brand image, and cross-industry cooperation opportunities.

Acquiring new information is crucial. Understanding tea processing technologies and global consumption trends provides invaluable insights. This knowledge enables enterprises to make well-informed decisions in marketing, product development, and resource allocation, reinforcing their market position.

2. Integrating Capabilities - the second important factor

Resource integration capability is the second important factor in the dynamic ability of tea enterprises, enabling them to combine the new information-driven insights into production, marketing, and resource allocation, and thus achieve seamless cooperation among different departments and better utilization of various resources, which is crucial for the sustainable growth and expansion of Sichuan tea enterprises in the complex and competitive market environment. The key practices include:

Adjust resource allocation capabilities. Regularly assessing internal resources like labor, capital, and raw materials is essential for the sustainable development of Sichuan tea enterprises. Quick resource reallocation during supply chain disruptions can prevent production halts, ensuring efficient usage and helping enterprises adapt to market conditions.

Strategic adjustment. Sichuan tea enterprises must make timely strategic shifts based on new information. When market demands change, such as a decline in traditional tea demand and a rise in organic tea popularity, pivoting production strategies can keep them competitive in the evolving global market.

Cross-industry cooperation. Cross-industry cooperation offers growth opportunities for Sichuan tea enterprises. Collaborating with the food, beverage, and tourism sectors can create new products and experiences, diversify portfolios, attract new customers, and enhance brand visibility and cultural influence.

Industry cooperation. Industry cooperation benefits Sichuan tea enterprises. Pooling resources and expertise with other tea-related enterprises, establishing unified quality standards, and sharing market intelligence and distribution channels can expand market reach and enhance collective competitiveness.

3. Sensing Capabilities

Sensing capability is the third key factor in tea enterprises' dynamic ability. It helps them detect trends, enabling timely new product development to meet customer needs, maintaining market leadership, and ensuring long-term sustainability. The key practices include:

Discover customer needs. Tea enterprises conduct in-depth market research, analyze feedback from surveys and interviews to uncover hidden needs, and innovate packaging and products to boost satisfaction and loyalty.

Understand the current industry situation. Tea enterprises monitor production volumes, quality standards, and new marketing and distribution channels in different tea-growing regions to make informed decisions on production, positioning, and marketing.

Identify market opportunities. Tea enterprises explore untapped consumer segments, target new market segments, expand their customer base, and drive business growth.

Respond quickly to competitors. Tea enterprises with strong sensing capabilities analyze competitors' new offerings, identify strengths and weaknesses, and develop counter-strategies to maintain market share and competitiveness.

Business Model Innovation

1. Value Creation - the most critical factor

Value creation is the most critical factor in business model innovation. Through continuous value creation, tea companies can build a strong foundation for sustainable growth and profitability in the ever-changing tea industry. The key practices include:

Customer satisfaction. Customer satisfaction holds paramount importance for tea enterprises. They must prioritize all facets of the customer experience and provide exemplary after-sales service, such as prompt responses to inquiries and hassle-free return processes. Content customers are more inclined to make repeat purchases and provide recommendations, pivotal for sustained long-term success.

Cost control. Cost control is vital for tea enterprises' profitability. Optimize procurement with long-term supplier partnerships for better tea prices. Using advanced tech to boost production efficiency reduces labor costs and waste, enabling competitive pricing without sacrificing quality.

Customer familiarity with transactions. For smooth operations, tea enterprises should ensure customers are familiar with transactions. Simplify online ordering with clear product descriptions, straightforward pricing, and payment options. Offer purchase tutorials and order tracking to boost customer confidence and repeat purchases.

1. Value Proposition - the second important factor

Value proposition is the second most significant factor in tea enterprises' business model innovation spectrum. As a pivotal determinant, it defines how these enterprises communicate the unique value they offer to customers. This exceptional value, in turn, plays a critical role in differentiating them from competitors, attracting target consumer segments, and fostering sustained business growth. Key practices in this area include:

Provide high-quality products. High-quality products are fundamental to a tea enterprise's success. To ensure this, tea enterprises should cooperate directly with high-quality tea gardens, monitor tea-growing processes, and enforce strict quality control from picking to processing. Such products meet consumer demands and enhance the enterprise's brand image, laying a foundation for long-term development.

Flexible service. Flexible service is crucial for enhancing customer satisfaction and loyalty. Tea enterprises can offer diverse service options, such as different package sizes, multiple payment and delivery methods (express, local pick-up, subscription-based delivery), and customized tea gifts for corporate customers. These measures can better meet customer needs and improve the overall experience.

Support customer value creation. Supporting customer value creation is a strategic way to build long-term customer relationships. Tea enterprises can offer professional tea-related knowledge and training, like tea-tasting seminars and online courses. Additionally, these enterprises should solicit input from customers regarding product enhancements. Tea enterprises can co-create value with consumers through these efforts, fostering reciprocal development.

2. Value Capture

Value capture constitutes the third pivotal component of business model innovation, facilitating tea enterprises to convert the value generated into concrete financial gains and secure market ascendancy, ultimately achieving sustained competitive advantage. The key practices include:

Improve product quality. Tea enterprises should invest in advanced quality-control systems, from sourcing high-grade tea leaves to refining processing techniques. Rigorous quality inspection at each production stage ensures products meet high standards, enhancing brand reputation and consumer trust.

Expand market share. Market segmentation and targeted marketing are key. Identifying niche consumer groups, such as health-conscious or young consumers, and tailoring products and promotions can help tea enterprises penetrate new markets and increase their market share.

The new way of selling. Using digital transformation, tea enterprises can leverage e-commerce platforms and live-streaming sales. These new selling methods broaden the customer reach and provide interactive shopping experiences, driving sales growth.

Tea Enterprises Competitiveness

1. Market Competitiveness - the most critical factor

Customer loyalty. Tea enterprises can cultivate customer loyalty through loyalty programs offering purchase points. Exceptional pre- and post-sales service, like in-depth tea consultations and rapid issue resolution, also encourages customers to stay loyal.

High market share. Tea enterprises should actively expand into online sales platforms and collaborate with large-scale distributors. Strengthening strategic alliances with other tea-related brands can also create a more comprehensive product offering and broader market coverage.

Market share growth rate. Diversifying products to meet various consumer demands. Reducing production costs and promptly launching new products in emerging markets while adjusting marketing strategies according to customer feedback.

2. Profit Capability - the second important factor

Production efficiency. By leveraging the insights from market trend sensing, tea enterprises can streamline production processes, boost production efficiency, and meet the market's growing needs.

Reduce cost： Awareness of market trends allows tea companies to source raw materials strategically. Long-term partnerships with reliable suppliers and lean production methods help reduce costs. Minimizing waste in tea leaf procurement and production reduces unnecessary expenses, improving cost-effectiveness.

Return on investment： With a sharp sense of market trends, tea enterprises can invest in R&D that aligns with consumer demands. Investing in developing new tea products with health-promoting ingredients, as per market preference, can attract more consumers, leading to higher sales and a better return on investment.

3. Growth Capacity

Increase customer satisfaction： By comprehensively analyzing multi-dimensional data, including historical consumption records, online reviews, and social media discussions related to tea, enterprises can precisely capture the unique preferences of different customer groups. This customer-centric customization strategy effectively heightens customer satisfaction and nurtures long-term loyalty.

Attract new customers： Tea enterprises can identify emerging consumer segments through trend sensing. Launching innovative tea products like tea-based energy drinks targeting young consumers can attract new customers and expand the customer base.

Manager satisfaction： Accurate market trend sensing allows managers to make informed decisions. When managers can use the insights to allocate resources effectively, optimize production, and achieve business goals, it improves manager satisfaction and confidence in the enterprise's development.

CHAPTER 5
RESEARCH CONCLUSION, DISCUSSION, AND RECOMMENDATION

This chapter explains and analyzes the results of qualitative and quantitative analysis in Chapter 4. According to the research results, policy recommendations and future research trends are put forward. This chapter is divided into the following five parts.

5.1 Research Conclusion

5.2 Discussion

5.3 Recommendation

5.1 Research Conclusion

To explore how to improve the competitiveness of Sichuan tea enterprises, the researcher studies the relationship between the dynamic ability, business model, and competitiveness of Sichuan tea enterprises. Three questions are raised in this study: 1) What are the factors affecting the competitiveness of Sichuan tea enterprises? 2) What are the key factors that promote business model innovation and enhance the competitiveness of Sichuan tea enterprises? 3) How do dynamic capabilities and business model innovation enhance the competitiveness of Sichuan tea enterprises? This study establishes a relationship model based on dynamic capability, business model innovation, and competitiveness of Sichuan tea enterprises. The objectives of this study are as follows: 1) To explore what elements of dynamic capabilities and business model innovation contribute to the competitiveness of tea enterprises, and how they affect the competitiveness of tea enterprises. 2) To determine how business model innovation plays a mediating role in the influence of dynamic capabilities on the competitive strength of tea enterprises. 3) To develop a model of tea enterprises' competitiveness in Sichuan to provide suggestions for tea enterprises, industry, and government in Sichuan.

The research process began with the relevant literature and literature review to study the variables affecting the competitiveness of Sichuan tea enterprises, establish a conceptual framework, and define the terms of the appropriate variables. A questionnaire with a 5-level rating scale was then created. The questionnaire adopted ICO technology and invited five experts to score the questionnaire. The questionnaire retains entries with an IOC value of >0.6, and some entries have been modified based on expert advice to make them easier to read and understand. Finally, the reliability and validity of 40 small samples were checked by SPSS 27 software. The reliability test results indicate that the Cronbach's Alpha for all observed variables is greater than 0.7, confirming that the observed variables demonstrate adequate internal consistency and reliability.

The sample of this study is 10 representative tea enterprises in Sichuan. The questionnaire in this study was designed based on references, which included three variables, nine dimensions, and 40 questions, and the structural equations model was used to test the hypotheses. In this study, 500 questionnaires were distributed to 10 tea companies in Sichuan Province, and 451 were effectively recovered, with an effective recovery rate of 90.2%. This study uses quantitative and qualitative methods to explore a model suitable for improving Sichuan tea enterprises' competitiveness. The Research is divided into two stages: the first is quantitative analysis, using a questionnaire as a research tool; The second is qualitative analysis, focusing on in-depth interviews with key informants and using NVivo 14 qualitative analysis software to conduct content analysis on the collected data. Finally, the quantitative and qualitative data are combined to explain the research results.

The researcher used percentage, frequency, mean value, standard deviation, variance, bias, kurtosis, skewness, and confirmatory factor analysis for the collected 451 questionnaires and finally conducted hypothesis testing and path analysis using the Structural Equation Model. The results answer three questions.

1. What are the factors affecting the competitiveness of Sichuan tea enterprises?

The structural equation model results indicate significant positive relationships among dynamic capabilities, business model innovation, and enterprise competitiveness. The confirmatory factor analysis shows that each dimension strongly correlates with overall dynamic capabilities, which are divided into sensing, learning, and integration capabilities.

For example, the path coefficients of sensing, learning, and integration capabilities range from 0.731 to 0.821, and their Cronbach's alpha values are all higher than 0.7, demonstrating good reliability and convergent validity. Sensing capabilities enable enterprises to perceive market dynamics keenly. In the questionnaire data, a relatively high proportion of respondents agreed or strongly agreed that enterprises can quickly scan the environment for new opportunities (49.67% for the related item in sensing capabilities), detect changes in customer preferences and needs (50.11%), and so on. These results indicate that enterprises with strong sensing capabilities are more sensitive to market changes, which is conducive to seizing market opportunities on time. Learning capabilities help enterprises absorb knowledge and experience. The fact that 50.11% of respondents agreed or strongly agreed that enterprises can timely understand and master various information obtained reflects the importance of this dimension. Integration capabilities, such as high-degree coordination between departments and effective resource allocation, are crucial in enhancing enterprise competitiveness.

Business model innovation, composed of value proposition, value creation, and value capture, also positively impacts enterprise competitiveness. The confirmatory factor analysis of business model innovation reveals that the path coefficients of its three dimensions range from 0.748 to 0.808, and the Cronbach's alpha values of each dimension exceed 0.7, indicating good reliability and validity. Regarding value proposition, 50.99% of respondents agreed or strongly agreed that the company provides customers with high-quality products. Value creation is reflected in aspects such as the company delivering effective and efficient offers (52.78% agreement), and value capture is demonstrated by factors like the growing market share increasing the company's value (56.54% agreement). These data show that business model innovation can effectively enhance the competitiveness of Sichuan tea enterprises.

Qualitative analysis further validates these findings. Through in-depth interviews with 10 senior executives, four marketing experts, and six consumers, it was found that all interviewees recognized the importance of dynamic capabilities, business model innovation, and enterprise competitiveness. Regarding dynamic capabilities, senior executives emphasized the importance of sensing capabilities in identifying market opportunities. For example, one interviewee stated that enterprises should pay close attention to industry

dynamics and consumer trends to formulate corresponding marketing strategies. Regarding business model innovation, interviewees agreed that the value proposition is essential. Enterprises must continuously improve tea quality and use new technologies to enhance and innovate production processes.

In conclusion, dynamic capabilities and business model innovation are the main factors affecting the competitiveness of Sichuan tea enterprises. Dynamic capabilities endow enterprises with the ability to adapt to market changes. At the same time, business model innovation helps enterprises create and capture value, and the two interact to promote the improvement of enterprise competitiveness jointly.

2. What are the key factors that promote business model innovation and enhance the competitiveness of Sichuan tea enterprises?

Dynamic capabilities stand out as a fundamental factor， comprising sensing, learning, and integration capabilities, and dynamic capabilities exert a multi-faceted influence.

Sensing capabilities are essential for enterprises to keep a pulse on market dynamics. In the quantitative analysis, items related to sensing capabilities, such as the ability to quickly scan the environment for new opportunities and detect changes in customer preferences, received relatively high levels of agreement from respondents. This indicates that enterprises with sharp sensing capabilities can preemptively identify emerging trends in the tea market, such as the rising demand for healthy and personalized tea products. By leveraging this awareness, they can adjust their value propositions in business model innovation accordingly, for example, by emphasizing the health-promoting attributes of their tea products or offering customized packaging options.

Learning capabilities play a significant role in enabling enterprises to absorb advanced knowledge and experiences. The qualitative analysis revealed that interviewees recognized the importance of learning modern technological means to improve production processes. In quantitative terms, the learning capabilities dimension showed good reliability and validity in the confirmatory factor analysis. Enterprises can learn from other industries' successful marketing models, like adopting e-commerce live-streaming sales strategies,

which enrich their business models' value-creation activities. These technologies improve product quality and enhance the enterprise's overall competitiveness.

Integration capabilities are vital for optimizing resource allocation. The quantitative data demonstrated that aspects of integration capabilities, such as coordinating different departments and adjusting resource allocation according to environmental changes, positively correlate with enterprise performance. Qualitative interviews further supported this, with examples of enterprises integrating cultural and tourism resources to develop tea-tourism integration projects. Integration capabilities better use internal and external resources and ensure the coordinated operation of various elements in the business model, thereby enhancing competitiveness.

Business model innovation is also a key factor, with its components of value proposition, value creation, and value capture being interrelated and mutually reinforcing. In value proposition, Sichuan tea enterprises can differentiate themselves by highlighting unique features like the geographical origin of their tea, traditional production techniques, and cultural heritage. The qualitative data showed that interviewees emphasized improving tea quality and establishing traceability systems to enhance the value proposition. In value creation, enterprises can invest in technological innovation, improve production processes, and strengthen quality control. The quantitative analysis indicated that items related to value creation, such as providing effective and efficient offers and having valuable resources to meet customer needs, were positively associated with enterprise competitiveness. Value capture is achieved through strategies like optimizing pricing, expanding market share, and exploring new revenue models. For instance, enterprises can segment the market and adopt differential pricing strategies based on product quality and customer demand, which was also reflected in the data analysis and interviewees' opinions.

In conclusion, dynamic capabilities and the components of business model innovation are the key factors for promoting business model innovation and enhancing the competitiveness of Sichuan tea enterprises. By strengthening dynamic capabilities and continuously innovating business models, Sichuan tea enterprises can better adapt to the complex and changing market environment, improve their market position, and achieve sustainable development.

3. How do dynamic capabilities and business model innovation enhance the competitiveness of Sichuan tea enterprises?

The results indicate that dynamic capabilities enhance enterprise competitiveness by enabling the perception of market changes, acquiring new knowledge and skills, facilitating technological improvements, and optimizing resource allocation.

1) The Role of Dynamic Capabilities

Sensing Capabilities: Anticipating Market Shifts. In the quantitative analysis of 451 valid questionnaires from 10 representative Sichuan tea enterprises, a notable percentage of respondents affirmed the significance of sensing capabilities. For instance, 49.67% agreed or strongly agreed that enterprises can quickly scan the environment for new opportunities, and 50.11% held the same view regarding the ability to detect changes in customer preferences and needs. These responses indicate that a substantial portion of the surveyed enterprises recognize the importance of being sensitive to market dynamics. Qualitative interviews with senior executives and marketing experts echo these findings. One executive emphasized the need to monitor industry trends and consumer behavior closely. By doing so, enterprises can identify emerging market demands, such as the growing preference for organic or specialty teas. This early detection allows Sichuan tea enterprises to proactively adjust their product lines, develop new tea products, and target specific customer segments. For example, some enterprises may notice a trend towards single-origin teas and can source and market teas from particular regions, capitalizing on the unique flavors and characteristics associated with those areas.

Learning Capabilities: Facilitating Continuous Improvement. The quantitative data shows that learning capabilities are also highly regarded. 50.11% of respondents agreed or strongly agreed that enterprises can timely understand and master various information obtained, and 53.33% believed that companies can integrate new technologies. These results suggest that learning is an essential aspect of enterprise operations. Through qualitative interviews, it became evident that learning modern technological means is a key driver of improvement. Enterprises constantly seek to enhance their production processes, and learning from other industries provides valuable insights. For example, by adopting automated production lines and intelligent baking equipment used in the food industry, tea

enterprises can improve the quality and efficiency of tea production. Learning about new marketing strategies, such as social media marketing and e-commerce live-streaming sales, helps enterprises expand their customer base and increase market share.

Integration Capabilities: Optimizing Resource Allocation. The confirmatory factor analysis in the quantitative study demonstrated that integration capabilities, including high-degree coordination between departments and effective resource allocation according to environmental changes, positively correlate with enterprise performance. Items related to integration capabilities, such as enterprises being able to adjust resource allocation according to environmental changes (45.46% agreement), reflect the importance of this dimension. Qualitative interviews provided practical examples of how integration capabilities are applied. Many enterprises are integrating cultural and tourism resources to develop tea-tourism projects. By combining tea plantations with local cultural attractions, such as historical tea-making villages or scenic landscapes, they create unique tourism experiences. This diversifies revenue streams and promotes tea sales, as tourists are more likely to purchase tea products during their visit. Moreover, integration within the enterprise, such as improving communication and cooperation between departments, ensures seamless operation and better utilization of resources.

2) Business Model Innovation: Creating and Capturing Value

Value Proposition: The quantitative assessment showed respondents highly regarded value-related factors in the value proposition. A significant 50.99% agreed or strongly agreed that the company provides customers with high-quality products. This underlines the importance of product quality in shaping the value proposition. Qualitative interviews revealed that Sichuan tea enterprises could differentiate themselves by emphasizing unique aspects of their value proposition. Highlighting the geographical origin of tea, such as the unique terroir of Sichuan's mountainous regions, and traditional production techniques like hand-rolling can create a distinct brand identity. These unique selling points appeal to customers who value authenticity and quality, enabling enterprises to command higher prices and build a loyal customer base.

Value Creation: Items related to value creation, such as the company delivering effective and efficient offers (52.78% agreement) and having valuable resources to meet

customer needs at reasonable costs (51.45% agreement), were positively associated with competitiveness in the quantitative study. Qualitative data indicated that enterprises create value through various means. Technological innovation plays a crucial role. For example, investing in advanced tea-processing equipment can improve the quality and consistency of tea products. Moreover, providing excellent customer service, such as offering personalized tea-tasting sessions and expert advice on brewing methods, adds value to the customer experience. These service-oriented innovations foster increased customer satisfaction and loyalty, ultimately reinforcing the enterprise's long-term competitiveness.

Value Capture: The quantitative analysis showed that value-capture factors, such as an expanding market share and an increase in the company's value (56.54% agreement), are vital for enterprise success. Qualitative interviews suggested enterprises optimize value capture through brand building and customer relationship management. By investing in brand promotion, enterprises can increase brand awareness and reputation. For example, participating in international tea exhibitions and winning awards can enhance the brand's image. Additionally, implementing a customer loyalty program can encourage repeat purchases and increase customer lifetime value.

3) The Mediating Role of Business Model Innovation

The quantitative mediation analysis demonstrated a significant mediating effect of business model innovation between dynamic capabilities and enterprise competitiveness. The indirect impact of dynamic capabilities on enterprise competitiveness through business model innovation was 0.158, accounting for 34% of the total effect. These results indicate that dynamic capabilities primarily drive competitiveness by promoting business model innovation, which includes opportunities for adjusting the value proposition within the business model. Qualitative interviews with experts and managers supported this finding. They explained that dynamic capabilities enable enterprises to adapt and innovate their business models. When enterprises sense market changes, they can use their learning and integration capabilities to modify different business model elements.

In summary, dynamic capabilities and business model innovation work in tandem to enhance the competitiveness of Sichuan tea enterprises. Dynamic capabilities provide the ability to sense, learn, and integrate, enabling enterprises to adapt to market changes.

Business model innovation, through value proposition, value creation, and value capture, helps enterprises create and capture value. The mediating role of business model innovation further emphasizes the need for enterprises to align their dynamic capabilities with business model adjustments.

5.2 Discussion

1. Relationship between Dynamic Capabilities and Business Model Innovation

Numerous studies show a strong link between dynamic capabilities and innovation in business models in different industry sectors. By continuously improving dynamic capabilities such as technology research and development and market response, technology enterprises can effectively promote business model innovation and transform from a traditional product sales model to a platform-based service model (Chesbrough, 2007). Heider et al. (2021) used the evidence of German SMEs to verify the role of dynamic capability in promoting business model innovation. The results of this study are consistent with the fact that, in Sichuan tea enterprises, dynamic capability also plays a positive role in promoting business model innovation. Tea enterprises have realized the business model innovation by sensing changes in market trends, such as consumers' demand for healthy tea drinks and personalized packaging, and using their resource integration capabilities to develop new product series and expand sales channels (such as e-commerce live delivery).

However, some studies have pointed out that in the traditional manufacturing industry, due to the characteristics of significant fixed asset investment and complex production processes, dynamic capability has a relatively weak role in promoting business model innovation. It is different from the situation of Sichuan tea enterprises. Compared with the traditional manufacturing industry, the asset flexibility of Sichuan tea enterprises is higher, the production process is relatively flexible, and it is easier to adjust the business model according to the dynamic capacity to adapt to market changes.

2. The Relationship between Business Model Innovation and Competitiveness of Sichuan Tea Enterprises

The existing literature shows that business model innovation has a positive impact on the competitiveness of enterprises. Innovation is a key driver of business success and

competitive advantage (Bajwa, 2025). Ola Cabs has gained a competitive advantage in the emerging Indian market by developing an innovative business model featuring personalized customer service, asset sharing, usage-based pricing, a collaborative ecosystem, an agile and adaptive organization, and a successful expansion strategy (Saqib & Satar, 2021). BMI based on new technologies positively impacts a company's competitive advantage, and the more BMI technology is used, the greater the company's competitive advantage (Dymitrowski & Mielcarek, 2021). In this study, Sichuan tea enterprises enhance products' added value, brand awareness, and competitiveness by carrying out business model innovations such as tea culture tourism and customized tea gift boxes, consistent with the existing research results.

However, the difference is that tea enterprises in some areas mainly enhance their competitiveness through brand building and business model innovation of single e-commerce platform sales. In contrast, besides brand building and e-commerce sales, Sichuan tea enterprises deeply integrate local tourism resources to create characteristic tea culture tourism routes. This diversified business model innovation path is a unique way for Sichuan tea enterprises to enhance their competitiveness.

3. The Relationship between the Dynamic Capability and Competitiveness of Sichuan Tea Enterprises

Managers can develop and implement effective strategic plans to adapt to changes that weaken the company's competitiveness in the marketplace (Christensen, 1997). Dynamic capabilities such as the rapid launch of new products and adaptation to changes in market demand can significantly improve the competitiveness of enterprises in the market (Eisenhardt & Martin, 2000; Hitt et al., 2012; Teece et al., 1997). This study also draws a similar conclusion in Sichuan tea enterprises. Tea enterprises can better meet consumer demand and enhance their competitiveness by timely adjusting product types and optimizing production processes and other dynamic capabilities.

However, in some mature industries with relatively stable market competition patterns, the effect of dynamic capability on enterprise competitiveness is not significant (Ringov, 2017; Schilke, 2014; Teece et al., 1997). In contrast, the Sichuan tea enterprise is still developing, and the market potential is significant. The competitive pattern has not

been fully solidified, and the dynamic ability of enterprises can be more effectively transformed into a competitive advantage, enabling enterprises to stand out in the market.

4. The Mediating Role of Business Model Innovation

Teece (2010) found that business model innovation intermediates enterprises' dynamic capability and competitiveness. In recent years, more and more scholars have proved this view. Business model innovation can serve as a bridge between dynamic capabilities (such as entrepreneurial orientation) and corporate competitiveness (such as new product development performance) and promote the improvement of competitive advantages of enterprises (Ferreras-Méndez et al., 2021; Pang et al., 2023). This study confirms that business model innovation is an intermediary between dynamic capability and competitiveness in Sichuan tea enterprises, which enriches the research results in this field.

There is little research on the tea industry, especially Sichuan tea enterprises in this field. This study provides a new empirical basis for this field. It highlights the key role of business model innovation in the dynamic capability process affecting Sichuan tea enterprises' competitiveness. The consistency between the results of this study and the existing literature further validates the theoretical view of the relationship between dynamic capability, business model innovation, and enterprise competitiveness, indicating that these relationships have a certain universality in different industries and regions and providing more empirical support for the further improvement of relevant theories.

The difference in research results highlights the critical impact of Sichuan tea industry characteristics, regional culture, and market environment on the development of enterprises. For example, Sichuan tea enterprises' regional cultural characteristics and profound tea culture provide rich materials for their business model innovation, which further affects the relationship between dynamic capability and competitiveness. This difference analysis points out the direction for the subsequent Research, helps to explore further the regulating effect of different situational factors on the relationship between various aspects of enterprise development, and promotes the deepening and expansion of enterprise development theory in subdivided industries and specific regions.

5.3 Recommendation

5.3.1 Recommendation for Tea Enterprise

The environment in which enterprises operate is complex and changeable. Therefore, based on the analysis and discussion, combined with the interview results of experts and consumers, the following suggestions are put forward to improve the competitiveness of Sichuan tea enterprises.

5.3.1.1 Cultivate and Strengthen Dynamic Capability

1. Improve the sensing capability of Sichuan tea enterprises.

1) Sichuan tea enterprises must improve their perception and ability to seize opportunities in the competitive market. Establish a professional market research team with advanced data collection and analysis tools to monitor market trends continuously. Pay close attention to the changes in consumer demand through questionnaires, focus group interviews, social media monitoring, and other means, as well as an in-depth understanding of consumers' needs and expectations on tea quality, taste, packaging, price, and many other items. At the same time, pay attention to the application of new technologies in the industry, such as intelligent production equipment, blockchain technology in tea traceability, etc., and assess the potential impact of these new technologies on the development of enterprises.

2) Establish an effective market monitoring mechanism, including regularly releasing market dynamics reports and establishing early warning indicators. For example, when new competitors are in the market, significant changes in consumer demand, or breakthroughs in industry technology, timely warnings are issued so companies can react quickly. In addition, enterprises can also cooperate with professional market research agencies to obtain more comprehensive and accurate market information.

2. Strengthen the learning capability of Sichuan tea enterprises.

1) To continuously improve the competitiveness of enterprises, Sichuan tea enterprises should vigorously strengthen their learning ability. Encourage employees to participate in various training and learning exchange activities, including internal training courses, industry seminars, academic lectures, etc. Establish a training and reward system

to commend and reward employees who actively participate in training to achieve excellent results and stimulate their enthusiasm for learning.

2) Establish close cooperative relations with universities and scientific research institutions to conduct industry-university-research projects jointly. Through cooperation, enterprises can introduce advanced production technology and management concepts to improve product quality and efficiency. For example, I worked with food science departments in universities to develop new tea processing technologies to improve the quality and taste of tea. I also cooperated with the School of Management to learn advanced business management methods and optimize enterprises' organizational structure and management process.

3. Optimize resource integration capabilities.

1) Sichuan tea enterprises should continuously optimize their resource integration ability to achieve efficient utilization of resources and sustainable development of enterprises. Integrate the upstream and downstream resources of the industrial chain, establish long-term cooperative relations with high-quality tea planting bases, and ensure the stable supply and quality of raw materials. Cooperate with processing enterprises to develop new production processes to improve product quality and efficiency. Cooperate with logistics enterprises to optimize logistics distribution solutions to ensure products can be delivered to consumers.

2) Establish long-term and stable cooperative relations with suppliers and dealers to cope with market risks jointly by signing long-term cooperation agreements, establishing strategic partnerships, and other ways to strengthen communication and cooperation between the two sides. For example, work with suppliers to develop raw material procurement plans to reduce procurement costs and jointly carry out marketing activities with distributors to improve the market share of products. At the same time, enterprises can also optimize the production process and improve resource utilization efficiency by integrating internal resources and, for example, upgrading production equipment to enhance the automation of equipment, optimizing the allocation of human resources, and improving employees' work efficiency.

3) Continuous efforts are made to strengthen collaboration within and across different sectors. Regarding industry cooperation, active participation is taken in various activities organized by industry associations, where discussions on industry development trends, technological innovation directions, and market expansion strategies are conducted with fellow tea enterprises within the province. Through information sharing and experience exchange, enterprises can keep abreast of industry dynamics and avoid repeated investment and blind competition. For example, jointly carry out tea planting technology training, jointly promote the concept of green planting, and improve the quality and safety of tea raw materials. At the same time, enterprises can cooperate in product research and development, brand promotion, and other aspects, integrate resources, form a joint force, and enhance the competitiveness of Sichuan tea in the domestic and international markets.

In terms of cross-industry cooperation, there is an active pursuit of expanding cooperation areas, with in-depth collaborations undertaken with industries such as tourism, culture, catering, etc. Cooperate with the tourism industry to develop tea culture tourism routes and combine tea garden sightseeing, tea picking, tea making experience, and other activities with tourist attractions to attract more tourists to understand Sichuan tea culture and promote tea sales. Cooperate with the cultural industry to hold tea culture festivals, tea art performances, tea painting and calligraphy exhibitions, and other activities to enrich the connotation of tea culture and enhance the brand's cultural value. Cooperate with the catering industry to launch innovative products such as tea and meal pairing and tea drinks to meet the diversified needs of consumers.

In short, through continuous strengthening of the same industry and cross-industry cooperation, resource sharing, complementary advantages, and typical development can be achieved to enhance the competitiveness of the Sichuan tea industry.

5.3.1.2 Innovative Business Model

1. In terms of value proposition

1) Sichuan tea enterprises should fully tap their characteristics and advantages to create a differentiated brand image. It highlights the unique geographical environment of Sichuan tea, such as the characteristics of high altitude, clouds, and fog in famous tea areas such as Emei Mountain and Mengding Mountain. It emphasizes the ecological, green, and

pollution-free nature of tea. Publicize the traditional production techniques of Sichuan tea, such as manual roasting, charcoal roasting, etc., to reflect tea's traditional charm and cultural connotation.

2) Through brand building, the characteristics and advantages of Sichuan tea are passed on to consumers: design a brand logo, packaging, and advertising language with Sichuan characteristics to improve brand recognition and reputation. For example, it can take the Sichuan giant panda, Sichuan opera facial makeup, and other elements as design inspiration to create a tea brand image with Sichuan characteristics. At the same time, through participating in tea exhibitions at home and abroad, cultural exchange activities, and other ways, we can improve brand awareness and influence.

2. Value creation link

1) In the value creation link, Sichuan tea enterprises should increase their investment in technological innovation, improve the production process, and improve product quality and production efficiency. Introducing advanced tea processing equipment, such as automated production lines, intelligent baking equipment, etc., enhances the degree of automation and standardization of production. Research and development of new tea processing technology, such as fermentation, extraction, etc., to develop tea products with unique flavors and functions.

2) Focus on product quality control and establish a strict quality testing system to ensure that products meet national standards and consumer needs. Strengthen cooperation with scientific research institutions, carry out tea quality and safety research, and improve the quality and safety of tea. At the same time, enterprises can also enhance the added value of products and market competitiveness by carrying out green production and promoting organic planting and ecological breeding.

3. Recommendation on value capture

1) Sichuan tea enterprises should optimize the pricing strategy and increase the added value of products. A reasonable price system must be formulated according to the quality of products, market demand, and competition. For high-end products, a price

strategy can be adopted to highlight the quality and scarcity of products. For low-end products, a low-price strategy can be adopted to improve the market share of products.

2) Enhance customer loyalty and profitability through brand building and customer relationship management. Strengthen brand publicity and promotion, improve brand awareness and reputation. Establish a customer relationship management system, classify customers, and provide personalized services and preferential activities. For example, for loyal customers, you can provide points exchange and exclusive membership services; for new customers, you can provide coupons, gifts, and other activities to attract them to buy products. At the same time, enterprises can also enhance the stickiness and loyalty of customers by carrying out tea culture experience activities and tea-tasting meetings.

4. Expand sales channels

1) To meet the needs of different consumers, Sichuan tea enterprises should expand sales channels by combining online and offline sales models. Offline, strengthen the construction of traditional sales channels, such as opening stores, counters, franchise stores, etc., to improve the market coverage of products. Concurrently, active participation is taken in various tea fairs, agricultural products exhibitions, and other related events to showcase the company's products and brand image, thereby expanding customer resources.

2) Use e-commerce platforms, social media, and other online sales and marketing channels. Establish corporate official websites, WeChat public accounts, micro-blogs, and other self-media platforms to release product information, brand stories, tea culture knowledge, and other content to attract consumers' attention and purchase. Develop new marketing models like live streaming and social marketing to increase product sales and market share. At the same time, enterprises can cooperate with e-commerce platforms to carry out customized production, personalized services, and other activities to meet the customized needs of consumers.

5.3.1.3 Attach importance to the mediating role of business model innovation

1. Enterprises should be deeply aware of the crucial mediating role of business model innovation between dynamic capability and competitiveness. Business model innovation is the key for enterprises to achieve sustainable development in a dynamic

market environment. Through continuous innovation of business models, enterprises can better play the role of dynamic capabilities and improve their competitiveness. At the same time, business model innovation can help enterprises adapt to market changes and meet consumer needs. When the market demand changes, enterprises can introduce products and services that meet the needs of consumers through innovative value propositions. When technology advances, enterprises can improve production efficiency and product quality through innovative value-creation processes. When the resource integration situation changes, enterprises can improve their profitability by optimizing the value capture strategy.

2. Adapt the tea enterprise business model to leverage dynamic capabilities for sustained competitiveness. 1) When a new market opportunity is perceived, the company should quickly innovate the value proposition. For example, when it is found that consumers' demand for health products is increasing, enterprises can launch tea products with health functions, such as green tea with high tea polyphenol content and black tea with cholesterol-lowering effects. Through innovative value propositions, enterprises can attract more consumers and increase the market share of their products. 2) Enterprises can improve value creation by learning new technologies and management methods. For example, learn advanced production technology to improve product quality and production efficiency, and learn advanced management methods to optimize the enterprise's organizational structure and management process. By improving the value creation process, enterprises can reduce costs, increase the added value of products, and enhance their competitiveness. 3) Resource integration allows enterprises to optimize the value capture strategy. For example, when a long-term and stable cooperative relationship is established with suppliers, enterprises can reduce procurement costs and improve the price competitiveness of products. When cooperating with distributors to carry out marketing activities, enterprises can increase the sales volume of products and their income. By optimizing the value capture strategy, enterprises can improve their profitability and achieve sustainable development.

5.3.2 Recommendation for the Tea Industry Organization

1. Build a communication platform for tea enterprises: Organize enterprises in the industry to carry out experience exchange activities, seminars, and forums to promote

information sharing and cooperation between enterprises. To provide enterprises with learning and communication opportunities to promote the overall level of the industry.

2. Formulate industry standards for Sichuan tea: Formulate quality standards, production norms, and service standards for the Sichuan tea industry, standardize the production and operation behaviors of enterprises, and improve the overall quality level of the industry. Strengthen industry self-discipline, crack down on fake and shoddy products, and maintain a good image of the industry.

3. Promoting the industrial upgrading of Sichuan tea enterprises: The tea industry organization should guide enterprises to increase investment in technological innovation and business model innovation, and promote the development of the tea industry in the direction of high-end, intelligent, and green. Integrate industrial chain resources to facilitate the coordinated development of tea planting, processing, sales, and other links.

5.3.3 Recommendation for Government

1. The government should provide policy support for the development of tea enterprises in Sichuan: Formulate and introduce policies and measures to support the development of Sichuan tea enterprises, such as tax incentives, financial subsidies, financing support, etc. Encourage enterprises to innovate technologically and business models to enhance their competitiveness.

2. The government should formulate the industrial development plan for the leaf industry in Sichuan: To formulate the development plan for the Sichuan tea industry and clarify the direction and key tasks of industrial development. Increase investment in the tea industry, strengthen infrastructure construction, and improve the scale and intensification level of the tea industry.

3. The government should enhance the brand-building of Sichuan tea enterprises: The government leads the brand-building activities of Sichuan tea and improves its popularity and reputation by holding tea fairs, cultural festivals, and other activities. Support enterprises in brand promotion and marketing activities, and build several Sichuan tea brands with international influence.

5.4 Limitations of the Study

5.4.1 Data Collection

1. The data mainly come from interviews and questionnaires of Sichuan tea enterprises, which may have sample bias. The surveyed enterprises may not fully represent the overall situation of Sichuan tea enterprises, and there may be subjective bias in answering questions, affecting the accuracy and reliability.

2. The time range of data collection is limited, which may not fully reflect the dynamic changes of Sichuan tea enterprises in the long-term development process. Especially considering the long-term impact of dynamic capability and business model innovation on enterprise competitiveness, this study may find it challenging to conduct an in-depth analysis due to insufficient data.

5.4.2 External Environmental Factors to Consider

This study mainly focuses on enterprises' internal dynamic capability and business model innovation, and considers external environmental factors relatively little. However, external environmental factors such as the macroeconomic situation, policy changes, and market competition also impact the competitiveness of Sichuan tea enterprises, so the analysis in this study may not be comprehensive enough.

5.5 Further Study

Based on existing studies, this study proposed a theoretical framework for improving the competitiveness of Sichuan tea enterprises. It adopted a mature scale for variable measurement to enhance the competitiveness of Sichuan tea enterprises. Although specific results have been achieved, there are still certain limitations. Future studies can consider the following aspects.

5.5.1 Detailed Research on Dynamic Capability

In future studies, the specific impact of different market signals on perceptual ability can be deeply studied, and which signals are most likely to prompt effective responses, as well as other learning mechanisms and learning channels, can improve the learning ability

of enterprises more effectively. It can also analyze the different performance of resource integration ability of enterprises of various sizes and optimize the strategy.

5.5.2 Research on the Expansion of Business Model Innovation

Further explore the changes and adaptability of value proposition, value creation, and value capture in different market environments. For example, in emerging markets, how to adjust the value proposition to attract new customer groups; In the highly competitive market, how to highlight the advantages of enterprises through innovative value creation methods; How to optimize value capture strategies to ensure profitability in times of economic volatility. In addition to the dynamic capability-based business model innovation mentioned in this paper, business model innovation under other driving factors, such as technological innovation and market demand change, can also be compared and analyzed to provide enterprises with more innovative ideas.

5.5.3 Consideration of Industry-Specific Factors

According to the characteristics of Sichuan tea enterprises, the influence of regional culture, climatic conditions, policy environment, and other factors on enterprise dynamic ability and business model innovation can be deeply studied in the future. For example, how is the tea culture of Sichuan integrated into the value proposition of enterprises to enhance brand competitiveness? How do local agricultural policies affect resource integration and business model selection?

5.5.4 Cross-Regional Comparative Study

The differences and advantages of Sichuan tea enterprises in dynamic capability and business model innovation are analyzed by comparing them with those in other regions. Through comparison, the successful experience from different areas can be used as a reference for developing Sichuan tea enterprises.

BIBLIOGRAPHY

Abd-El-Fattah, S. M. (2010). Structural equation modeling with AMOS: Basic concepts, applications and programming. *Journal of Applied Quantitative Methods*, *5*(2), 365-368. https://www.researchgate.net/publication/361909378_Structural_Equation_Modeling_With_AMOS

Abdelkafi, N., & Täuscher, K. (2016). Business models for sustainability from a system dynamics perspective. *Organization & Environment*, *29*(1), 74-96. https://doi.org/10.1177/1086026615592930

Afuah, A., & Tucci, C. L. (2003). *Internet business models and strategies: Text and cases* (Vol. 2). McGraw-Hill.

Aldabbas, H., & Oberholzer, N. (2024). The influence of transformational and learning through R&D capabilities on the competitive advantage of firms. *Arab Gulf Journal of Scientific Research*, *42*(1), 85-102. https://doi.org/10.1108/AGJSR-08-2022-0141

Alshanty, A. M., & Emeagwali, O. L. (2019). Market-sensing capability, knowledge creation and innovation: The moderating role of entrepreneurial-orientation. *Journal of Innovation & Knowledge*, *4*(3), 171-178. https://doi.org/10.1016/j.jik.2019.02.002

Ambrosini, V., & Altintas, G. (2019). Dynamic managerial capabilities. In *Oxford Research Encyclopedia of Business and Management*. Oxford University Press. https://doi.org/10.1093/acrefore/9780190224851.013.20

Ambrosini, V., & Bowman, C. (2009). What are dynamic capabilities and are they a useful construct in strategic management?. *International Journal of Janagement Reviews*, *11*(1), 29-49. https://doi.org/10.1111/j.1468-2370.2008.00251.x

Amit, R., & Zott, C. (2001). Value creation in e-business. *Strategic Management Journal*, *22*(6-7), 493-520. https://doi.org/10.1002/smj.187

Amit, R., & Zott, C. (2010). Business model innovation: Creating value in times of change. *IESE Business School Working Paper, 870*, 1-15. https://doi.org/10.2139/ssrn.1701660

Anwar, M. (2018). Business model innovation and SMEs performance—does competitive advantage mediate?. *International Journal of Innovation Management*, *22*(07),

1850057. https://doi.org/10.1142/S1363919618500573

Astawa, I. P. M. (2022). VRIO model as a framework for developing tourism competitiveness. In *International Conference on Applied Science and Technology on Social Science 2021 (iCAST-SS 2021) "Advances in Social Science, Education and Humanities Research" (Vol. 647)* (pp. 173-178). Atlantis Press. https://www.atlantis-press.com/proceedings/icast-ss-21/125971060

Baijin, L., & zhuo, C. (2017). Research on tea brand construction based on tea culture —— taking mengding camellia of sichuan as an example. *Shanxi Agricultural Science*, *45*(5), 851-854

Bain, J. S. (1956). *Barriers to new competition: Their character and consequences in manufacturing industries*. Harvard University Press. https://doi.org/10.4159/harvard.9780674188037

Bajwa, A. A. (2025). Incremental innovation: Only survival of the entrepreneurs in the competitive age. In *Improving Entrepreneurial Processes Through Advanced AI* (pp. 129-136). IGI Global. https://doi.org/10.4018/979-8-3693-1495-1.ch006

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99-120. https://doi.org/10.1177/014920639101700108

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*. https://doi.org/10.1016/S0742-3322(00)17018-4

Barney, J.B. (2000). Firm resources and sustained competitive advantage. In Baum, J.A.C. and Dobbin, F. (Ed.). In *Economics meets sociology in strategic management "Advances in strategic management"* (Vol. 17) (pp. 203-227). Emerald Group Publishing Limited. https://doi.org/10.1016/S0742-3322(00)17018-4

Barney, J. B. (1997). *Gaining and sustaining competitive advantage*. Prentice Hall.

Barney, J. B., Hesterly, W. S., & Rosemberg, M. (2007). *Administração estratégica e vantagem competitiva*. Pearson Educación.

Barney, J. B., & Mackey, A. (2016). Text and metatext in the resource-based view. *Human Resource Management Journal*, *26*(4), 369-378. https://doi.org/10.1111/1748-8583.12123

Barney, J. B., & Wright, P. M. (1998). On becoming a strategic partner: The role of human resources in gaining competitive advantage. *Human Resource Management, 37*(1), 31-46. https://doi.org/10.1002/(sici)1099-050x(199821)37:1<31:aid-hrm4>3.0.co;2-w

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173. https://doi.org/10.1037/0022-3514.51.6.1173

Barquet, A. P. B., Cunha, V. P., Oliveira, M. G., & Rozenfeld, H. (2011). Business model elements for product-service system. In *Functional Thinking for Value Creation: Proceedings of the 3rd CIRP International Conference on Industrial Product Service Systems* (pp 332-337). Springer. https://doi.org/10.1007/978-3-642-19689-8_58

Bashir, M., & Farooq, R. (2019). The synergetic effect of knowledge management and business model innovation on firm competence: A systematic review. *International Journal of Innovation Science*, *11*(3), 362-387. https://doi.org/10.1108/IJIS-10-2018-0103

Bellman, R., Clark, C. E., Malcolm, D. G., Craft, C. J., & Ricciardi, F. M. (1957). On the construction of a multi-stage, multi-person business game. *Operations research*, *5*(4), 469-503. https://doi.org/10.1287/opre.5.4.469

Beltramello, A., Haie-Fayle, L., & Pilat, D. (2013). *Why new business models matter for green growth*. OECD Green Growth Papers.

Benn, J. A. (2015). *Tea in China: A religious and cultural history*. University of Hawaii Press. https://doi.org/www.jstor.org/stable/45411091

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, *107*(2), 238-246. https://doi.org/10.1037/0033-2909.107.2.238

Bentler, P. M., & Chou, C.-P. (1987). Practical issues in structural modeling. *Sociological Methods & Research*, *16*(1), 78-117. https://doi.org/10.1177/0049124187016001004

Bingru, H., & Revenko, O. (2024). Innovative business models in the agricultural sector: International experience and adaptation opportunities in Ukraine. *Scientific Horizons, 27*(1), 3-11. https://doi.org/10.48077/scihor.27(1).2024.3-11

Bocken, N. M., Short, S. W., Rana, P., & Evans, S. (2014). A literature and practice review to develop sustainable business model archetypes. *Journal of Cleaner Production*, *65*, 42-56. https://doi.org/10.1016/j.jclepro.2013.11.039

Boons, F., & Lüdeke-Freund, F. (2013). Business models for sustainable innovation: State-of-the-art and steps towards a research agenda. *Journal of Cleaner Production*, *45*, 9-19. https://doi.org/10.1016/j.jclepro.2012.07.007

Boulton, R. E., Libert, B. D., & Samek, S. M. (2000). A business model for the new economy. *The Journal of Business Strategy*, *21*(4), 29-35.

Bowman, C., & Ambrosini, V. (2000). Value creation versus value capture: Towards a coherent definition of value in strategy. *British Journal of Management*, *11*(1), 1-15. https://doi.org/10.1111/1467-8551.00147

Cai, C., Wang, Y., He, X., & He, C. (2020). Analysis and countermeasures on the competitiveness of the Sichuan tea industry. *Sichuan Agricultural Science and Technology, 2020*(04), 71-74.

Casadesus-Masanell, R., & Ricart, J. E. (2010). Competitiveness: Business model reconfiguration for innovation and internationalization. *Management Research: Journal of the Iberoamerican Academy of Management*, *8*(2), 123-149. https://doi.org/10.1108/1536-541011066470

Casadesus-Masanell, R., & Zhu, F. (2013). Business model innovation and competitive imitation: The case of sponsor-based business models. *Strategic Management Journal*, *34*(4), 464-482. https://doi.org/10.1002/smj.2022

Chasin, F., Paukstadt, U., Gollhardt, T., & Becker, J. (2020). Smart energy driven business model innovation: An analysis of existing business models and implications for business model change in the energy sector. *Journal of Cleaner Production*, *269*, 122083. https://doi.org/10.1016/j.jclepro.2020.122083

Chen, J., Liu, L., & Wang, Y. (2020). Business model innovation and growth of manufacturing SMEs: A social exchange perspective. *Journal of Manufacturing Technology Management*, *32*(2), 290-312. https://doi.org/10.1108/JMTM-03-2020-0089

Chen, S., & Zheng, J. (2022). Influence of organizational learning and dynamic capability on organizational performance of human resource service enterprises: Moderation effect of technology environment and market environment. *Frontiers in Psychology*, *13*, 889327. https://doi.org/10.3389/fpsyg.2022.889327

Chen, Y. (2011). Research on the influence of relational learning and dynamic capability on enterprise technological innovation (Dissertation). Zhejiang University.

Cheng, T., Lin, Q., & Fu, H. (2021). Love forgiveness and subjective well-being in Chinese college students: The mediating role of interpersonal relationships.

Frontiers in Psychology, *12*, 634910. https://doi.org/10.3389/fpsyg.2021.634910

Chesbrough, H. (2003). The logic of open innovation: Managing intellectual property. *California Management Review*, *45*(3), 33-58. https://doi.org/10.1177/000812560304500301

Chesbrough, H. (2007). Business model innovation: It's not just about technology anymore. *Strategy & Leadership*, *35*(6), 12-17. https://doi.org/10.1108/10878570710833714

Chesbrough, H. (2010). Business model innovation: Opportunities and barriers. *Long Range Planning*, *43*(2-3), 354-363. https://doi.org/10.1016/j.lrp.2009.07.010

Chesbrough, H., & Rosenbloom, R. S. (2002). The role of the business model in capturing value from innovation: Evidence from Xerox corporation's technology spin-off companies. *Industrial and Corporate Change*, *11*(3), 529-555. https://doi.org/10.1093/icc/11.3.529

Chikán, A., Czakó, E., Kiss-Dobronyi, B., & Losonci, D. (2022). Firm competitiveness: A general model and a manufacturing application. *International Journal of Production Economics*, *243*, 108316. https://doi.org/10.1016/j.ijpe.2021.108316

Christensen, C. M. (1997). Marketing strategy: Learning by doing. *Harvard Business Review*, *75*(6), 141-151. https://doi.org/link.gale.com/apps/doc/ A20158673/AONE?u=anon~e0d2e608&sid=googleScholar&xid=5093b97c

Christopher, M., & Holweg, M. (2011). Supply chain 2.0: Managing supply chains in the era of turbulence. *International Journal of Physical Distribution & Logistics Management*, *41*(1), 63-82. https://doi.org/10.1108/09600031111101439

Clausen, T. H., & Rasmussen, E. (2013). Parallel business models and the innovativeness of research-based spin-off ventures. *The Journal of Technology Transfer*, *38*, 836-849. https://doi.org/10.1007/s10961-012-9294-3

Clauss, T. (2017). Measuring business model innovation: Conceptualization, scale development, and proof of performance. *R&D Management*, *47*(3), 385-403. https://doi.org/doi.org/10.1111/radm.12186

Collis, D. J. (1991). A resource-based analysis of global competition: The case of the bearings industry. *Strategic Management Journal*, *12*(S1), 49-68. https://doi.org/10.1002/smj.4250120906

Corbin, J., & Strauss, A. (2014). *Basics of qualitative research: Techniques and procedures for developing grounded theory.* Sage Publications.

Csapi, V., & Balogh, V. (2020). A financial performance-based assessment of SMEs' competitiveness–An analysis of Hungarian and US small businesses. *Problems and Perspectives in Management*, *18*(3), 452-464. https://doi.org/ 10.21511/ppm.18(3).2020.37

Dahan, N. M., Doh, J. P., Oetzel, J., & Yaziji, M. (2010). Corporate-NGO collaboration: Co-creating new business models for developing markets. *Long Range Planning*, *43*(2-3), 326-342. https://doi.org/ 10.1016/j.lrp.2009.11.003

Dash, R., McMurtrey, M., Rebman, C., & Kar, U. K. (2019). Application of artificial intelligence in automation of supply chain management. *Journal of Strategic Innovation and Sustainability*, *14*(3), 43-53.

Day, G. S. (1994). The capabilities of market-driven organizations. *Journal of Marketing*, *58*(4), 37-52.

Demil, B., & Lecocq, X. (2010). Business model evolution: In search of dynamic consistency. *Long Range Planning*, *43*(2-3), 227-246. https://doi.org10.1016/ j.lrp.2010.02.004

DeVillis, R. F. (1991). *Scale development: Theory and applications*. Sage Publishing.

Dimitrova, G., & Dimitrova, T. (2017). Competitiveness of the universities: Measurement capabilities. *Trakia Journal of Sciences*, *15*(1), 311-316. https://doi.org/10.15547/ tjs.2017.s.01.055

Drnevich, P. L., & Kriauciunas, A. P. (2011). Clarifying the conditions and limits of the contributions of ordinary and dynamic capabilities to relative firm performance. *Strategic Management Journal*, *32*(3), 254-279. https://doi.org/10.1002/smj.882

Drucker, P. (2012). *Management challenges for the 21st century.* Routledge.

Drucker, P. (2012). *The Practice of Management*. Routledge.

Dubosson-Torbay, M., Osterwalder, A., & Pigneur, Y. (2002). E-business model design, classification, and measurements. *Thunderbird International Business Review*, *44*(1), 5-23. https://doi.org/10.1002/tie.1036

Dutta, P., Choi, T.-M., Somani, S., & Butala, R. (2020). Blockchain technology in supply chain operations: Applications, challenges and research opportunities. *Transportation Research Part E: Logistics and Transportation Review*, *142*, 102067.

Dymitrowski, A., & Mielcarek, P. (2021). Business model innovation based on new technologies and its influence on a company's competitive advantage. *Journal of*

Theoretical and Applied Electronic Commerce Research, *16*(6), 2110-2128. https://doi.org10.3390/jtaer16060118

Edwards, C. D. (1933). *The theory of monopolistic competition*. Oxford University Press.

Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they?. *Strategic Management Journal*, *21*(10-11), 1105-1121. https://doi.org<1105::AID-SMJ133>3.0.CO;2-E

Euchner, J. (2016). *Business model innovation* (Vol. 59, pp. 10-11). Taylor & Francis.

Euchner, J. (2016). Emerging models for corporate innovation: Insights from the IRI 2015 strategy forum. *Research-Technology Management*, *59*(1), 56-60. https://doi.org/10.1080/08956308.2016.1117336

Euchner, J., & Ganguly, A. (2014). Business model innovation in practice. *Research-Technology Management*, *57*(6), 33-39. https://doi.org/10.5437/08956308X5706013

Fagerberg, J. (1988). International competitiveness. *The Economic Journal*, *98*(391), 355-374. https://doi.org/10.2307/2233372

Falciola, J., Jansen, M., & Rollo, V. (2020). Defining firm competitiveness: A multidimensional framework. *World Development*, *129*, 104857. https://doi.org/10.1016/j.worlddev.2019.104857

Fehrer, J. A., Woratschek, H., & Brodie, R. J. (2018). A systemic logic for platform business models. *Journal of Service Management*, *29*(4), 546-568. https://doi.org/10.1108/josm-02-2017-0036

Fernqvist, F., Sadovska, V., & Langendahl, P.-A. (2022). Sustainable value creation–a farm case on business model innovation. *International Food and Agribusiness Management Review*, *25*(4), 543-554.

Ferreira, J., Cardim, S., & Branco, F. (2018). Dynamic capabilities, marketing and innovation capabilities and their impact on competitive advantage and firm performance. In *2018 13th Iberian Conference on Information Systems and Technologies (CISTI)*. IEEE. DOI:10.23919/CISTI.2018.8399271

Ferreras-Méndez, J. L., Olmos-Penuela, J., Salas-Vallina, A., & Alegre, J. (2021). Entrepreneurial orientation and new product development performance in SMEs: The mediating role of business model innovation. *Technovation*, *108*, 102325. https://doi.org/10.1016/j.technovation.2021.102325

Flatten, T. C., Engelen, A., Zahra, S. A., & Brettel, M. (2011). A measure of absorptive capacity: Scale development and validation. *European Management Journal*, *29*(2), 98-116. https://doi.org/10.1016/j.emj.2010.11.002

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39-50. https://doi.org/10.1177/002224378101800104

França, C. L., Broman, G., Robert, K.-H., Basile, G., & Trygg, L. (2017). An approach to business model innovation and design for strategic sustainable development. *Journal of Cleaner Production*, *140*, 155-166. https://doi.org/10.1016 /j.jclepro.2016.06.124

Galvin, P., Rice, J., & Liao, T.-S. (2014). Applying a darwinian model to the dynamic capabilities view: Insights and issues 1. *Journal of Management & Organization*, *20*(2), 250-263. https://doi.org/10.1017/jmo.2014.34

Gambardella, A., & McGahan, A. M. (2010). Business-model innovation: General purpose technologies and their implications for industry structure. *Long Range Planning*, *43*(2-3), 262-271. https://doi.org/ 10.1016/j.lrp.2009.07.009

Gao, Y., & Zhu, Y. (2015). Research on dynamic capabilities and innovation performance in the Chinese context: A theory model-knowledge based view. *Open Journal of Business and Management*, *3*(4), 364-370. DOI:10.4236/ojbm.2015.34035

Garrido, I. L., Kretschmer, C., Vasconcellos, S. L. d., & Gonçalo, C. R. (2020). Dynamic capabilities: A measurement proposal and its relationship with performance. *Brazilian Business Review*, *17*, 46-65.

Garvin, D. A. (1988). Managing quality: The strategic and competitive edge. The Free Press.

Geissdoerfer, M., Pieroni, M. P., Pigosso, D. C., & Soufani, K. (2020). Circular business models: A review. *Journal of Cleaner Production*, *277*, 123741. https://doi.org/ 10.1016/j.jclepro.2020.123741

Gerdoçi, B., Bortoluzzi, G., & Dibra, S. (2018). Business model design and firm performance: Evidence of interactive effects from a developing economy. *European Journal of Innovation Management*, *21*(2), 315-333.

Gereffi, G., Lim, H.-C., & Lee, J. (2021). Trade policies, firm strategies, and adaptive reconfigurations of global value chains. *Journal of International Business Policy*, *4*(4), 506-522. DOI:10.1057/s42214-021-00102-z

Giddings, F. H. (1890). Principles of economics. *The ANNALS of the American Academy of Political Science*, *1*(2), 754. https://doi.org/10.1177/000271629000100217

Gordijn, J., & Akkermans, J. (2003). Value-based requirements engineering: Exploring innovative e-commerce ideas. *Requirements Engineering*, *8*, 114-134. https://doi.org/10.1007/s00766-003-0169-x

Grant, R. M. (1991). The resource-based theory of competitive advantage: Implications for strategy formulation. *California Management Review*, *33*(3), 114-135. https://doi.org/10.2307/41166664

Grant, R. M. (1996). Toward a knowledge‐based theory of the firm. *Strategic Management Journal*, *17*(S2), 109-122. https://doi.org/10.1002/smj.4250171110

Grégoire, D. A., Corbett, A. C., & McMullen, J. S. (2011). The cognitive perspective in entrepreneurship: An agenda for future research. *Journal of Management Studies*, *48*(6), 1443-1477. https://doi.org/10.1111/j.1467-6486.2010.00922.x

Griffith, D. A., & Harvey, M. G. (2001). A resource perspective of global dynamic capabilities. *Journal of International Business Studies*, *32*, 597-606. https://doi.org/10.1057/palgrave.jibs.8490987

Guan, J. (2022). The tea industry in modern China and public demand for tea. In *Making Food in Local and Global Contexts: Anthropological Perspectives* (pp. 173-185). Springer. https://doi.org/10.1007/978-981-19-1048-7_11

Guenzi, P., & Troilo, G. (2007). The joint contribution of marketing and sales to the creation of superior customer value. *Journal of Business Research*, *60*(2), 98-107. https://doi.org/10.1016/j.jbusres.2006.10.007

Guo, H., Guo, A., & Ma, H. (2022). Inside the black box: How business model innovation contributes to digital start-up performance. *Journal of Innovation & Knowledge*, *7*(2), 100188. https://doi.org/10.1016/j.jik.2022.100188

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2010). *Multivariate data analysis*. Pearson.

Halilem, N., Bertrand, C., Cloutier, J. S., Landry, R., & Amara, N. (2012). The knowledge value chain as an SME innovation policy instrument framework: An analytical exploration of SMEs public innovation support in OECD countries. *International Journal of Technology Management, 58*(3/4), 236-260. https://doi.org/10.1504/ijtm.2012.046617

Hall, S., & Roelich, K. (2016). Business model innovation in electricity supply markets: The role of complex value in the United Kingdom. *Energy Policy*, *92*, 286-298. https://doi.org/10.1016/j.enpol.2016.02.019

Hamel, G. (1998). The challenge today: Changing the rules of the game. *Business Strategy Review*, *9*(2), 19-26. https://doi.org/10.1111/1467-8616.00062

Hamel, G. (2001). Leading the revolution: An interview with Gary Hamel. *Strategy & Leadership*, *29*(1), 4-10. https ://doi.org/10.1108/10878570110367141

Heider, A., Gerken, M., van Dinther, N., & Hülsbeck, M. (2021). Business model innovation through dynamic capabilities in small and medium enterprises– Evidence from the German Mittelstand. *Journal of Business Research*, *130*, 635-645. https://doi.org/10.1016/j.jbusres.2020.04.051

Heiss, M. L., & Heiss, R. J. (2007). *The story of tea: A cultural history and drinking guide*. Ten Speed Press.

Helfat, C. E., & Martin, J. A. (2015). Dynamic managerial capabilities: Review and assessment of managerial impact on strategic change. *Journal of Management*, *41*(5), 1281-1312. https://doi.org/ 10.1177/0149206314561301

Helfat, C. E., & Peteraf, M. A. (2015). Managerial cognitive capabilities and the microfoundations of dynamic capabilities. *Strategic Management Journal*, *36*(6), 831-850. https://doi.org/10.1002/smj.2247

Helfat, C. E., & Raubitschek, R. S. (2018). Dynamic and integrative capabilities for profiting from innovation in digital platform-based ecosystems. *Research Policy*, *47*(8), 1391-1399.

Hermundsdottir, F., & Aspelund, A. (2021). Sustainability innovations and firm competitiveness: A review. *Journal of Cleaner Production*, *280*, 124715. https://doi.org/10.1016/j.jclepro.2020.124715

Hesterly, W., & Barney, J. (2014). *Strategic management and competitive advantage*. Pearson.

Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. (2012). *Strategic management: Concepts and cases: Competitiveness and globalization*. Cengage Learning.

Ho, Y., Fang, H., & Hsieh, M. (2011). The relationship between business-model innovation and firm value: A dynamic perspective. *World Academy of Science, Engineering and Technology*, *77*(5), 599-607.

Hu, L. t., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1-55. https://doi.org/10.1080/10705519909540118

Huberman, A. (2014). *Qualitative data analysis a methods sourcebook.* Sage Publishing.

Huy, Q., & Zott, C. (2019). Exploring the affective underpinnings of dynamic managerial capabilities: How managers' emotion regulation behaviors mobilize resources for their firms. *Strategic Management Journal*, *40*(1), 28-54. https://doi.org/10.1002/smj.2971

Hymer, S. H. (1960). *The international operations of national firms, a study of direct foreign investment.* Massachusetts Institute of Technology Press.

Iansiti, M., & Clark, K. B. (1994). Integration and dynamic capability: Evidence from product development in automobiles and mainframe computers. *Industrial and Corporate Change*, *3*(3), 557-605. https://doi.org10.1093/icc/3.3.557

Ikujiro, N., & Hirotaka, T. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation.* Oxford Academic.

Jackson, D. L. (2003). Revisiting sample size and number of parameter estimates: Some support for the N: q hypothesis. *Structural Equation Modeling*, *10*(1), 128-141. https://doi.org/10.1207/S15328007SEM1001_6

Jaworski, B. J., & Kohli, A. K. (1993). Market orientation: Antecedents and consequences. *Journal of Marketing*, *57*(3), 53-70. https://doi.org/10.1177/002224299305700304

Jiang, Q., Tian, X., & Wang, C. (2008). An empirical study on the measurement of enterprise dynamic capability: A case study of 270 incubators. *Scientific Research*, *26*(3), 604-611.

Johnson, G., Whittington, R., Regnér, P., Angwin, D., & Scholes, K. (2020). *Exploring strategy*. Pearson UK.

Johnson, M. W., Christensen, C. M., & Kagermann, H. (2008). Reinventing your business model. *Harvard Business Review*, *86*(12), 50-59.

Jöreskog, K. G., & Sörbom, D. (1993). *LISREL 8: Structural equation modeling with the SIMPLIS command language.* Lawrence Erlbaum Associates Inc.

Justin Tan, J., & Litsschert, R. J. (1994). Environment-strategy relationship and its performance implications: An empirical study of the Chinese electronics industry. *Strategic Management Journal*, *15*(1), 1-20. https://doi.org/10.1002/smj.

4250150102

Kang, G. N. (1997). A new development of the modern enterprise theory: Enterprise knowledge theory. *Economics Development, 11*, 55-58.

Kaplinsky, R. (2000). Globalisation and unequalisation: What can be learned from value chain analysis?. *Journal of Development Studies*, *37*(2), 117-146. https://doi.org/10.1080/713600071

Kaplinsky, R., & Morris, M. (2000). *A handbook for value chain research* (Vol. 113). University of Sussex, Institute of Development Studies Brighton.

Kareem, M. A., & Alameer, A. A. A. (2019). The impact of dynamic capabilities on organizational effectiveness. *Management & Marketing*, *14*(4), 402-418. DOI:10.2478/mmcks-2019-0028

Khaddam, A., Irtaimeh, H., Al-Batayneh, A., & Al-Batayneh, S. (2021). The effect of business model innovation on organization performance. *Management Science Letters*, *11*(5), 1481-1488. https://doi.org/10.5267/j.msl.2020.12.026

Klein, S., Schneider, S., & Spieth, P. (2021). How to stay on the road? A business model perspective on mission drift in social purpose organizations. *Journal of Business Research*, *125*, 658-671. https://doi.org/10.1016/j.jbusres.2020.01.053

Kline, R. B. (1998). Software review: Software programs for structural equation modeling: Amos, EQS, and LISREL. *Journal of Psychoeducational Assessment*, *16*(4), 343-364. https://doi.org/10.1177/073428299801600407

Kline, R. B. (2023). *Principles and practice of structural equation modeling*. Guilford Publications.

Kogut, B. (1985). Designing global strategies: Comparative and competitive value-added chains. *Sloan Management Review (pre-1986)*, *26*(4), 15-26.

Konczal, E. (1975). Computer models are for managers, not mathematicians. *Management Review*, *64*(4), 46-58.

Latifi, M.-A., Nikou, S., & Bouwman, H. (2021). Business model innovation and firm performance: Exploring causal mechanisms in SMEs. *Technovation*, *107*, 102274. https://doi.org/doi.org/10.1016/j.technovation.2021.102274

Laudien, S. M., & Daxböck, B. (2017). Understanding the lifecycle of service firm business models: A qualitative-empirical analysis. *R&D Management*, *47*(3), 473-483. https://doi.org/10.1111/radm.12273

Leonard‐Barton, D. (1992). Core capabilities and core rigidities: A paradox in managing new product development. *Strategic Management Journal*, *13*(S1), 111-125. https://doi.org/10.1016/0024-6301(93)90313-5

Li, D.-y., & Liu, J. (2014). Dynamic capabilities, environmental dynamism, and competitive advantage: Evidence from China. *Journal of Business Research*, *67*(1), 2793-2799. https://doi.org/doi.org/10.1016/j.jbusres.2012.08.007

Li, W. (2015). Marketing dynamic capability concept and scale development. *Business Economics and Management, 2*, 68-77.

Li, X., Sanaeifar, A., Zhang, S., Zhan, Z., He, Y. (2025). Recent technological advances in tea quality and safety. In Mérillon, JM., Rivière, C., Lefèvre, G. (eds). *Natural products in beverages* (pp.83-127). Springer. https://doi.org/10.1007/978-3-031-38663-3_35

Likert, R. (1932). *A technique for the measurement of attitudes*. Archives of Psychology.

Lin, Y., & Wu, L.-Y. (2014). Exploring the role of dynamic capabilities in firm performance under the resource-based view framework. *Journal of Business Research*, *67*(3), 407-413. https://doi.org/10.1016/j.jbusres.2012.12.019

Linder, J. C., & Cantrell, S. (2000). *Changing business models: Surveying the landscape*. Institute for Strategic Change.

Lindič, J., & Da Silva, C. M. (2011). Value proposition as a catalyst for a customer focused innovation. *Management Decision*, *49*(10), 1694-1708. https://doi.org/10.1108/00251741111183834

Liu, M. (2004). Dynamic capability research: Review, comparison and prospect. *Research on Productivity, 10*, 188-191.

Lopes, J., Farinha, L., Ferreira, J. J., & Silveira, P. (2018). Does regional VRIO model help policy-makers to assess the resources of a region? A stakeholder perception approach. *Land Use Policy*, *79*, 659-670. https://doi.org/10.1016/j.landusepol.2018.07.040

Lund, M., & Nielsen, C. (2014). The evolution of network-based business models illustrated through the case study of an entrepreneurship project. *Journal of Business Models*, *2*(1), 105-121. https://doi.org/10.5278/ojs.jbm.v2i1.720

Lunnan, R., & Haugland, S. A. (2008). Predicting and measuring alliance performance: A multidimensional analysis. *Strategic Management Journal*, *29*(5), 545-556. https://doi.org/doi.org/10.1002/smj.660

Maijanen, P., & Jantunen, A. (2016). Dynamics of dynamic capabilities-the case of public broadcasting. *International Journal of Business Excellence*, *9*(2), 135-155. https://doi.org/10.1504/IJBEX.2016.074850

Makkonen, H., Pohjola, M., Olkkonen, R., & Koponen, A. (2014). Dynamic capabilities and firm performance in a financial crisis. *Journal of Business Research*, *67*(1), 2707-2719. https://doi.org/10.1016/j.jbusres.2013.03.020

Mancuso, I., Petruzzelli, A. M., & Panniello, U. (2023). Innovating agri-food business models after the Covid-19 pandemic: The impact of digital technologies on the value creation and value capture mechanisms. *Technological Forecasting and Social Change*, *190*, 122404. DOI:10.1016/j.techfore.2023.122404

Marín, R., Santos-Arteaga, F. J., Tavana, M., & Di Caprio, D. (2023). Value chain digitalization and technological development as innovation catalysts in small and medium-sized enterprises. *Journal of Innovation & Knowledge*, *8*(4), 100454. https://doi.org/10.1016/j.jik.2023.100454

Markides, C. (2006). Disruptive innovation: In need of better theory. *Journal of Product Innovation Management*, *23*(1), 19-25.

Massa, L., & Tucci, C. L. (2013). Business model innovation. *The Oxford Handbook of Innovation Management*, *20*(18), 420-441. https://doi.org/10.1108/sd-01-2023-0007

Massa, L., Tucci, C. L., & Afuah, A. (2017). A critical assessment of business model research. *Academy of Management Annals*, *11*(1), 73-104. https://doi.org/10.5465/annals.2014.0072

Matzler, K., Bailom, F., von den Eichen, S. F., & Kohler, T. (2013). Business model innovation: Coffee triumphs for nespresso. *Journal of Business Strategy*, *34*(2), 30-37. https://doi.org/10.1108/02756661311310431

Michael, W. B., & Robert C. (1992). Alternative ways of assessing model fit. *Sage Journals, 21*(2). https://doi.org/10.1177/0049124192021002005

Mikalef, P., & Pateli, A. (2017). Information technology-enabled dynamic capabilities and their indirect effect on competitive performance: Findings from PLS-SEM and fsQCA. *Journal of Business Research*, *70*, 1-16. https://doi.org/10.1016/j.jbusres.2016.09.004

Morris, M., Schindehutte, M., & Allen, J. (2005). The entrepreneur's business model: Toward a unified perspective. *Journal of Business Research*, *58*(6), 726-735. https://doi.org/doi.org/10.1016/j.jbusres.2003.11.001

Morris, M. H., Shirokova, G., & Shatalov, A. (2013). The business model and firm performance: The case of Russian food service ventures. *Journal of Small Business Management*, *51*(1), 46-65. https://doi.org/10.1111/j.1540-627X.2012.00377.x

Najmaei, A. (2011). Dynamic business model innovation: An analytical archetype. *International Proceedings of Economics Development and Research*, *12*, 165-171.

Nandamuri, P. P., Rao, K. V. G., & Mishra, M. K. (2018). Sustainable competitive advantage through business model innovation: The Indian perspective. In *Enhancing competitive advantage with dynamic management and engineering* (pp. 217-246). IGI Global. DOI: 10.4018/978-1-5225-9273-0.ch010

Narayan, S., Sidhu, J. S., & Volberda, H. W. (2021). From attention to action: The influence of cognitive and ideological diversity in top management teams on business model innovation. *Journal of Management Studies*, *58*(8), 2082-2110. https://doi.org/10.1111/joms.12668

Neill, S., & Rose, G. M. (2006). The effect of strategic complexity on marketing strategy and organizational performance. *Journal of Business Research*, *59*(1), 1-10. https://doi.org/10.1016/j.jbusres.2004.12.001

Nekmahmud, M., & Rahman, S. (2018). Measuring the competitiveness factors in telecommunication markets. In *Competitiveness in Emerging Markets* (pp.339-372). Springer. DOI:10.1007/978-3-319-71722-7_18

Newbert, S. L. (2008). Value, rareness, competitive advantage, and performance: A conceptual-level empirical investigation of the resource-based view of the firm. *Strategic Management Journal*, *29*(7), 745-768. https://doi.org/ 10.1002/smj.686

Nosratabadi, S., Mosavi, A., & Lakner, Z. (2020). Food supply chain and business model innovation. *Foods*, *9*(2), 132. https://doi.org/10.3390/foods9020132

Ordonez De Pablos, P. (2006). Transnational corporations and strategic challenges: An analysis of knowledge flows and competitive advantage. *The Learning Organization*, *13*(6), 544-559. https://doi.org/10.1108/09696470610705433

Osei, A., Ackah, O., & John, A. O. (2015). Assessing the impact of business model innovation on micro, small and medium firm performance. *European Journal of Business & Management*, 7(8), 201-205.

Osterwalder, A. (2004). *The business model ontology a proposition in a design science approach* (Dissertation). Université De Lausanne.

Osterwalder, A., & Pigneur, Y. (2010). *Business model generation: A handbook for visionaries, game changers, and challengers (Vol. 1)*. John Wiley & Sons.

Osterwalder, A., Pigneur, Y., & Tucci, C. L. (2005). Clarifying business models: Origins, present, and future of the concept. *Communications of the Association for Information Systems*, *16*(1), 1-7. https://doi.org/10.17705/1CAIS.01601

Pan, Z., & Lu, M. (2005). Determinants of SME performance an empirical study of 426 firms. *Nankai Management Review*, *8*(3), 54-59.

Pang, C., Wang, Q., & Wu, S. (2023). Influence of dynamic capabilities on novelty-centered business model design: A moderated mediating effect analysis. *European Journal of Innovation Management*, *26*(5), 1421-1443.

Patton, M. Q. (2014). *Qualitative research & evaluation methods: Integrating theory and practice.* Sage Publications.

Pavlou, P. A., & El Sawy, O. A. (2006). From IT leveraging competence to competitive advantage in turbulent environments: The case of new product development. *Information Systems Research*, *17*(3), 198-227. https://doi.org/10.1287/isre. 1060. 0094

Penrose, R. (1959). *The apparent shape of a relativistically moving sphere*. Mathematical Proceedings of the Cambridge Philosophical Society,

Peteraf, M., Di Stefano, G., & Verona, G. (2013). The elephant in the room of dynamic capabilities: Bringing two diverging conversations together. *Strategic Management Journal*, *34*(12), 1389-1410. https://doi.org/doi.org/10.1002/smj. 2078

Peteraf, M. A. (1993). The cornerstones of competitive advantage: A resource‐based view. *Strategic Management Journal*, *14*(3), 179-191. https://doi.org/10.1002/smj. 4250140303

Pisano, G., & Teece, D. (1994). The dynamic capabilities of firms: An introduction. *Industrial and Corporate Change*, *3*(3), 537-556. https://doi.org/10.1093/icc/ 3.3.537-a

Porter, M. E. (1980). *Competitive strategy: Techniques for analyzing industries and competitors*. Free Press.

Porter, M. E. (1985). Technology and competitive advantage. *Journal of Business Strategy*, *5*(3), 60-78. https://doi.org/doi.org/10.1108/eb039075

Porter, M. E. (1990). *The competitive advantage of nations*. Harvard University Press.

Prahalad, C., & Hamel, G. (1990). The core competence of the corporation. *Harvard Business Review*, *68*(3), 79-91.

Pundziene, A., Nikou, S., & Bouwman, H. (2022). The nexus between dynamic capabilities and competitive firm performance: The mediating role of open innovation. *European Journal of Innovation Management*, *25*(6), 152-177. https://doi.org/10.1108/EJIM-09-2020-0356

Qu, G., Wang, L., & Chen, J. (2022). Toward a knowledge-based view of a business model: A multi-level framework and dynamic perspective. In *The Routledge Companion to Knowledge Management* (pp.304-319). Routledge.

Quark, A., Hopewell, K., & Alsbergas, E. (2022). Inter-state competition and transnational capitalists across the north-south divide: Different strategies, new configurations of power. *Social Problems*, *69*(2), 418-435. https://doi.org/ 10.1108/ 09696470610705433

Rachinger, M., Rauter, R., Müller, C., Vorraber, W., & Schirgi, E. (2018). Digitalization and its influence on business model innovation. *Journal of Manufacturing Technology Management*, *30*(3), 1140-1160. DOI:10.1108/JMTM-01-2018-0020

Rayna, T., & Striukova, L. (2016). 360 Business model innovation: Toward an integrated view of business model innovation: An integrated, value-based view of a business model can provide insight into potential areas for business model innovation. *Research-Technology Management*, *59*(3), 21-28. https://doi.org/ 10.1080/ 08956308.2016.1161401

Reim, W., Parida, V., & Örtqvist, D. (2015). Product–service systems (PSS) business models and tactics–a systematic literature review. *Journal of Cleaner Production*, *97*, 61-75. https://doi.org/ 10.1016/j.jclepro.2014.07.003

Reisinger, A. (2023). Challenges in the CSR-competitiveness relationship based on the literature. *Financial and Economic Review*, *22*(1), 104-125. https://doi.org/ 10.33893/fer.22.1.104

Richard, O. C., Murthi, B. S., & Ismail, K. (2007). The impact of racial diversity on intermediate and long‐term performance: The moderating role of environmental context. *Strategic Management Journal*, *28*(12), 1213-1233. https://doi.org/ 10.1002/smj.633

Richard, O. C., Murthi, B. S., & Ismail, K. (2007). The impact of racial diversity on intermediate and long‐term performance: The moderating role of environmental

context. *Strategic Management Journal*, *28*(12), 1213-1233. https://doi.org/10.1002/smj.633

Ringov, D. (2017). Dynamic capabilities and firm performance. *Long Range Planning*, *50*(5), 653-664.

Roaldsen, I. (2014). Dynamic capabilities as drivers of business model innovation–from the perspective of SMEs in mature industries. *International Journal of Entrepreneurship and Innovation Management*, *18*(4), 349-364. https://doi.org/10.1504/IJEIM.2014.064212

Rosado Salgado, L. A., & Osorio Londono, A. A. (2020). El impacto del modelo de negocios en las capacidades dinámicas. *Revista De Economía Del Caribe, 25*, 66-81. https://doi.org/10.14482/ecoca.25.362.1

Rovinelli, R. J., & Hambleton, R. K. (1976). On the use of content specialists in the assessment of criterion-referenced test item validity. *Tijdschrift voor Onderwijsresearch, 2*(2), 49-60.

Rumelt, R. P. (1982). Diversification strategy and profitability. *Strategic Management Journal*, *3*(4), 359-369. https://doi.org/10.1002/smj.4250030407

Salvato, C. (2003). The role of micro‐strategies in the engineering of firm evolution. *Journal of Management Studies*, *40*(1), 83-108. https://doi.org/10.1111/1467-6486.t01-2-00005

Sanchez, R. (1995). Strategic flexibility in product competition. *Strategic Management Journal*, *16*(S1), 135-159. https://doi.org/10.1016/0024-6301(95)99971-2

Sanchez, R., & Heene, A. (1997). Reinventing strategic management: New theory and practice for competence-based competition. *European Management Journal*, *15*(3), 303-317. https://doi.org/10.1016/s0263-2373(97)00010-8

Saqib, N., & Satar, M. S. (2021). Exploring business model innovation for competitive advantage: A lesson from an emerging market. *International Journal of Innovation Science*, *13*(4), 477-491. https://doi.org/10.1108/IJIS-05-2020-0072

Schilke, O. (2014). On the contingent value of dynamic capabilities for competitive advantage: The nonlinear moderating effect of environmental dynamism. *Strategic Management Journal*, *35*(2), 179-203. https://doi.org/10.1002/smj.2099

Schwab, K., & Zahidi, S. (2020). *Global competitiveness report: Special edition 2020*. The Word Economic Forum.

Seggie, S. H., Kim, D., & Cavusgil, S. T. (2006). Do supply chain IT alignment and supply chain interfirm system integration impact upon brand equity and firm performance?. *Journal of Business Research*, *59*(8), 887-895. https://doi.org/10.1016/j.jbusres. 2006.03.005

Selznick, P. (1957). *Leadership in administration*. University of Califormia Press.

Sheng, M. L. (2017). A dynamic capabilities-based framework of organizational sensemaking through combinative capabilities towards exploratory and exploitative product innovation in turbulent environments. *Industrial Marketing Management*, *65*, 28-38. https://doi.org/10.1016/j.indmarman.2017.06.001

Shu, R., Xiao, J., & Su, Z. (2023). Spatiotemporal trends and factors influencing online attention for China's tea industry. *Frontiers in Environmental Science*, *11*, 1206705. https://doi.org/10.3389/fenvs.2023.1250384

Sieradzka, K., & Luft, R. (2015). Theoretical aspects of enterprise competitiveness. *Central European Review of Economics & Finance*, *10*(4), 133-141.

Silverman, D. (2016). Introducing qualitative research. *Qualitative Research*, *3*(3), 14-25.

Simão, J. (2010). An extended VRIO model as a framework for sustainable tourism planning. *Sustainable Tourism IV*, *139*, 87-97.

Sinfield, J. V., Calder, E., McConnell, B., & Colson, S. (2011). *How to identify new business models*. MIT Sloan Management Review. https://sloanreview.mit.edu/article/how-to-identify-new-business-models/

Sivertsson, O., & Tell, J. (2015). Barriers to business model innovation in Swedish agriculture. *Sustainability*, *7*(2), 1957-1969.

Sjödin, D., Parida, V., Jovanovic, M., & Visnjic, I. (2020). Value creation and value capture alignment in business model innovation: A process view on outcome‐based business models. *Journal of Product Innovation Management*, *37*(2), 158-183. https://doi.org/10.1111/jpim.12516

Skålén, P., Gummerus, J., Von Koskull, C., & Magnusson, P. R. (2015). Exploring value propositions and service innovation: A service-dominant logic study. *Journal of the Academy of Marketing Science*, *43*, 137-158. https://doi.org/10.1007/s11747-013-0365-2

Slater, S. F., & Narver, J. C. (1995). Market orientation and the learning organization. *Journal of Marketing*, *59*(3), 63-74. https://doi.org/10.1177/002224299505900306

Snihur, Y. (2019). Developing optimal distinctiveness: Organizational identity processes in new ventures engaged in business model innovation. In *Entrepreneurial Identity and Identity Work.* Routledge.

Sparviero, S. (2019). The case for a socially oriented business model canvas: The social enterprise model canvas. *Journal of Social Entrepreneurship*, *10*(2), 232-251. https://doi.org/10.1080/19420676.2018.1541011

Spieth, P., & Schneider, S. (2016). Business model innovativeness: Designing a formative measure for business model innovation. *Journal of Business Economics*, *86*, 671-696. https://doi.org/10.1007/s11573-015-0794-0

Still, K., Seppänen, M., Korhonen, H., Valkokari, K., Suominen, A., & Kumpulainen, M. (2017). Business model innovation of startups developing multisided digital platforms. In *2017 IEEE 19th Conference on Business Informatics (CBI)*. IEEE. DOI: 10.1109/CBI.2017.86

Subba Narasimha, P. (2001). Strategy in turbulent environments: The role of dynamic competence. *Managerial and Decision Economics*, *22*(4-5), 201-212. https://doi.org/10.1002/mde.1017

Suh, T., Khan, O. J., Schnellbächer, B., & Heidenreich, S. (2020). Strategic accord and tension for business model innovation: Examining different tacit knowledge types and open action strategies. *International Journal of Innovation Management*, *24*(04), 2050039. https://doi.org/10.1142/S1363919620500395

Sun, Q. (2023). *The impact of business model innovation on the dynamic capabilities of online literature reading platforms.* Artículo De Reflexión. https://doi.org/10.14482/ecoca.25.362.1

Sun, W., Wang, Y., & Zhang, Y. (2021). Research on the construction of tea marketing information service platform under the background of "internet +". In *2021 21st International Conference on Control, Automation and Systems (ICCAS)*. IEEE. DOI: 10.23919/ICCAS52745.2021.9649742

Sun, Y., Gong, Y., Zhang, Y., Jia, F., & Shi, Y. (2021). User-driven supply chain business model innovation: The role of dynamic capabilities. *Corporate Social Responsibility and Environmental Management*, *28*(4), 1157-1170. https://doi.org/10.1002/csr.2128

Swink, M., Narasimhan, R., & Wang, C. (2007). Managing beyond the factory walls: Effects of four types of strategic integration on manufacturing plant performance. *Journal of Operations Management*, *25*(1), 148-164. https://doi.org/10.1016/j.jom.2006.02.006

Takano, R., & Kanama, D. (2019). The growth of the Japanese black tea market: How technological innovation affects the development of a new market. *Journal of Economic Structures*, *8*, 1-13. https://doi.org/10.1186/s40008-019-0143-5

Takata, H. (2016). Effects of industry forces, market orientation, and marketing capabilities on business performance: An empirical analysis of Japanese manufacturers from 2009 to 2011. *Journal of Business Research*, *69*(12), 5611-5619. https://doi.org/10.1016/j.jbusres.2016.03.068

Tambade, H., Singh, R. K., & Modgil, S. (2019). Identification and evaluation of determinants of competitiveness in the Indian auto-component industry. *Benchmarking: An International Journal*, *26*(3), 922-950. https://doi.org/10.1108/BIJ-09-2017-0260

Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, *28*(13), 1319-1350. https://doi.org/doi.org/10.1002/smj.640

Teece, D. J. (2010). Business models, business strategy and innovation. *Long Range Planning*, *43*(2-3), 172-194. https://doi.org/10.1016/j.Irp.2009.07.003

Teece, D. J. (2018). Business models and dynamic capabilities. *Long Range Planning*, *51*(1), 40-49. https://doi.org/ 10.1016/j.lrp.2017.06.007

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, *18*(7), 509-533. https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z

Timmers, P. (1998). Business models for electronic markets. *Electronic Markets*, *8*(2), 3-8. https://doi.org/ 10.1080/10196789800000016

Tripsas, M., & Gavetti, G. (2017). Capabilities, cognition, and inertia: Evidence from digital imaging. In *The SMS Blackwell Handbook of Organizational Capabilities*, (pp. 393-412). Wiley. https://doi.org/10.1002/9781405164054.ch23

Ullman, J. B., & Bentler, P. M. (2012). Chapter 23 structural equation modeling. In *Handbook of Psychology* (pp. 661-690). Wiley. https://doi.org/10.1002/9781118133880.hop202023

Upward, A., & Jones, P. (2016). An ontology for strongly sustainable business models: Defining an enterprise framework compatible with natural and social science. *Organization & Environment*, *29*(1), 97-123. https://doi.org/10.1177/1086026615592933

Von Hayek, F. A. (1937). Economics and knowledge. *Economica*, *4*(13), 33-54. https://doi.org/10.2307/2548786

Wang, C. L., & Ahmed, P. K. (2007). Dynamic capabilities: A review and research agenda. *International Journal of Management Reviews*, *9*(1), 31-51. https://doi.org/10.1111/j.1468-2370.2007.00201.x

Wang, C. L., Senaratne, C., & Rafiq, M. (2015). Success traps, dynamic capabilities and firm performance. *British Journal of Management*, *26*(1), 26-44. https://doi.org/10.1111/1467-8551.12066

Wang, F. (2019). *Research on the relationship among dynamic capabilities, business model* innovation, and enterprise performance southwestern university of finance and *economics.* China National Knowledge Infrastructure.

Wang, H., Qi, R., & Xu, S. (2006). The leadership behavior of ceos in Chinese enterprises and its impact on business performance. *Management World, 4*, 87-96.

Wang, M. (2024). Study on the competitiveness and regional layout of the tea industry in Sichuan province. In *3rd International Conference on Economic Management and Big Data Application* (pp. 98-104). World Scientific Publishing. https://doi.org/10.1142/9789811270277_0009

Wang, M., Zheng, K., & Dong, Y. (2024). The impact paths of BMI on growth stage enterprises in Sichuan China: A perspective of environment-strategy synergy. *Technology Analysis & Strategic Management*, *36*(10), 2803-2816. https://doi.org/10.1080/09537325.2022.2163888

Wang, N., Zhang, S. J., & Wang, W. (2022). Impact of environmental innovation strategy on green competitiveness: Evidence from China. *International Journal of Environmental Research and Public Health*, *19*(10), 5879. https://doi.org/10.3390/ijerph19105879

Wang, Y., & Li, C. H. (2016). Development status of the tea industry in Sichuan and thinking on its future development. *Tea Processing in China, 3*, 33-38.

Wei, Y., Pang, Y., Ma, P., Miao, S., Xu, J., Wei, K., Wang, Y., & Wei, X. (2024). Green preparation, safety control and intelligent processing of high-quality tea extract. *Critical Reviews in Food Science and Nutrition*, *64*(31), 11468-11492. https://doi.org/10.1080/10408398.2023.2239348

Wells, P., & Seitz, M. (2005). Business models and closed-loop supply chains: A typology. *Supply Chain Management: An International Journal*, *10*(4), 249-251. https://doi.org/10.1108/13598540510612712

Wernerfelt, B. (1984). A resource‐based view of the firm. *Strategic Management Journal*, *5*(2), 171-180. https://doi.org/10.1002/smj.4250050207

Winterhalter, S., Zeschky, M. B., Neumann, L., & Gassmann, O. (2017). Business models for frugal innovation in emerging markets: The case of the medical device and laboratory equipment industry. *Technovation*, *66*, 3-13. https://doi.org/10.1016/j.technovation.2017.07.002

Wirtz, B., & Daiser, P. (2017). Business model innovation: An integrative conceptual framework. *Journal of Business Models*, *5*(1). https://doi.org/10.5278/ojs.jbm.v5i1.1923

Xie, L., & Nallaluthan, K. (2024). Integration and innovation: An overview of the development status and trends of Chinese tea e-commerce live streaming. *International Journal of Global Economics and Management*, *4*(1), 121-126. https://doi.org/10.62051/ijgem.v4n1.18

Xu, Y. S., Wang, Y., & Li, X. (2021). Market competitiveness analysis and development countermeasure research of Sichuan tea industry. *Chinese Food and Nutrition*, *27*(01), 14-20. https://doi.org/10.19870/j.cnki.11-3716/ts.2021.01.004

Yang, M., Evans, S., Vladimirova, D., & Rana, P. (2017). Value uncaptured perspective for sustainable business model innovation. *Journal of Cleaner Production*, *140*, 1794-1804. https://doi.org/10.1016/j.jclepro.2016.07.102

Yang, X., Liu, C., & He, Y. (2019). Research on the effect mechanism of business model innovation on enterprise performance from the perspective of dynamic capability: A case study of listed manufacturing companies. *Industrial Technical Economics*, *38*(2), 120-128.

Yin, R. K. (2009). *Case study research: Design and methods* (Vol. 5). Sage Publications.

Yu, F., & Wang, G. (2023). Assessing the impact of business model innovation on firm performance: Insights from the China growth enterprise market. *International Business Research*, *16*(4), 1-51. https://doi.org/10.5539/ibr.v16n4p 51

Yuan, L. (2008). Research on the classification of business models. *Soft Science in China, 5*, 35-44.

Yunus, M., Moingeon, B., & Lehmann-Ortega, L. (2010). Building social business models: Lessons from the Grameen experience. *Long Range Planning*, *43*(2-3), 308-325. https://doi.org/10.1016/j.lrp.2009.12.005

Zahra, S. A., & George, G. (2002). The net-enabled business innovation cycle and the evolution of dynamic capabilities. *Information Systems Research*, *13*(2), 147-150. https://doi.org/10.1287/isre.13.2.147.90

Zahra, S. A., & Hayton, J. C. (2008). The effect of international venturing on firm performance: The moderating influence of absorptive capacity. *Journal of Business Venturing*, *23*(2), 195-220. https://doi.org/10.1016/j.jbusvent. 2007. 01.001

Zahra, S. A., Sapienza, H. J., & Davidsson, P. (2006). Entrepreneurship and dynamic capabilities: A review, model and research agenda. *Journal of Management Studies*, *43*(4), 917-955. https://doi.org/10.1111/j.1467-6486.2006.00616.x

Zhang, W., Li, S., Li, Z., & Feng, H. (2023). Assessing the competitiveness of listed Chinese high-growth companies in the STAR market. *Heliyon*, *9*(5), e15735. https://www.cell.com/heliyon/fulltext/S2405-8440(23)02942-0

Zheng, N., Chen, R., & Zhuang, P. (2022). Comparative analysis of tea international competitiveness between China and the major tea exporting countries along the belt and road routes. *Taiwan Agricultural Research, 44*(4), 1-9. DOI: 10.16006/j.cnki.twnt.2022.04.001

Zollo, M., & Winter, S. G. (2002). Deliberate learning and the evolution of dynamic capabilities. *Organization Science*, *13*(3), 339-351. https://doi.org/doi.org/ 10.1287/orsc.13.3.339.2780

Zott, C., & Amit, R. (2007). Business model design and the performance of entrepreneurial firms. *Organization Science*, *18*(2), 181-199. https://doi.org/doi.org /10.1287/ orsc.1060.0232

Zott, C., & Amit, R. (2008). The fit between product market strategy and business model: Implications for firm performance. *Strategic Management Journal*, *29*(1), 1-26. https://doi.org/doi.org/10.1002/smj.642

Zott, C., & Amit, R. (2010). Business model design: An activity system perspective. *Long Range Planning, 43*(2-3), 216-226. https://doi.org/10.1016/j.lrp.2009.07.004

Zott, C., Amit, R., & Massa, L. (2011). The business model: Recent developments and future research. *Journal of Management*, *37*(4), 1019-1042. https://doi.org/ 10.1177/0149206311406265

Zuñiga-Collazos, A., Castillo-Palacio, M., & Padilla-Delgado, L. M. (2019). Organizational competitiveness: The conceptualization and its evolution. *Journal of Tourism and Hospitality Management*, *7*(1), 195-211.

APPENDIX

Appendix A

The evaluation results of the Index of Objective Consistency (IOC)

NO.	items	Score					
		1	2	3	4	5	Avg.
Dynamic Capability							
Sensing Capability							
Q1	Businesses can quickly scan the environment for new opportunities.	1	0	1	1	0	0.6
Q2	Companies are quick to detect changes in customer preferences and needs.	1	1	1	1	1	1
Q3	Companies are quick to react to competitors' moves.	1	1	1	1	1	1
Q4	Enterprises have a more accurate understanding of the industry's current situation and development trends.	1	1	1	1	1	1
Q5	Managers often discuss and communicate about changes in the external environment of the enterprise.	0	1	1	0	1	0.6
Learning Capacity							
Q6	Enterprises can timely understand and master all kinds of information obtained.	1	1	1	1	1	1
Q7	Enterprises can timely identify the changes caused by new information and new knowledge.	1	1	1	1	1	1
Q8	Companies can integrate new technologies they already know with other technologies.	1	0	1	1	1	0.8
Q9	Our management demands periodical cross-departmental meetings to interchange new developments, problems, and achievements.	1	1	1	1	1	1
Q10	Our management emphasizes cross-departmental support to solve problems.	1	0	1	1	0	0.6
Q11	There is a high degree of coordination between different departments and teams in the enterprise.	1	0	1	1	1	0.8
NO.	**Items**	**Score**					
		1	**2**	**3**	**4**	**5**	**Avg.**

Integration Capability							
Q12	Enterprises can adjust their strategies according to environmental changes.	0	0	1	1	1	0.6
Q13	Enterprises can constantly adjust resource allocation according to environmental changes.	1	1	1	1	1	1
Q14	Enterprises can quickly integrate and share new information and knowledge within the enterprise.	1	1	1	1	1	1
Q15	The company constantly optimizes core resources to highlight competitive advantages.	1	1	1	1	1	1
Business Model Innovation							
Value Proposition							
Q16	Our company provides customers with high-quality products.	1	1	1	1	1	1
Q17	Flexibility in providing our service is a key priority.	1	1	0	1	0	0.6
Q18	The performance of our employees is good.	0	0	0	0	0	0
Q19	We assess our customers' perceived value periodically.	1	1	1	1	1	1
Q20	A significant part of our value proposition is to support customer value creation.	0	1	1	1	1	0.8
Value Creation							
Q21	The company emphasizes transaction simplicity to reduce mistakes.	0	1	1	1	0	0.6
Q22	Our customers are familiar with our transactions.	1	1	1	1	0	0.8
Q23	The company delivers effective and efficient offers.	1	0	1	1	1	0.8
Q24	We possess valuable resources that meet customer needs at reasonable costs.	1	1	1	1	1	1
Q25	Our customers are satisfied with the value we provide.	1	1	1	1	0	0.8
NO.	**Items**	**Score**					
		1	**1**	**1**	**1**	**1**	**1**

Value Capture							
Q26	We make our resources profitable in innovative ways.	1	-1	0	0	0	0
Q27	Our product's value is adequate for the customer's willingness to pay.	-1	-1	1	0	0	-0.2
Q28	Product quality is a critical factor in our production process to capture value.	1	0	1	1	1	0.8
Q29	Our expanding market share increases our value capture.	1	0	1	1	1	0.8
Enterprise Competitiveness							
Marketing Competitiveness							
Q30	The companies can increase their revenue or reduce business costs in new ways.	1	0	1	1	1	0.8
Q31	Firms' market share is growing faster.	1	1	1	1	1	1
Q32	The company's customer loyalty is very high.	0	1	1	1	1	0.8
Q33	The company's products have a high market share in the target market.	1	1	1	1	1	1
Q34	Companies have the flexibility to adapt to rapidly changing markets and respond more quickly.	1	1	1	1	1	1
Profit Capability							
Q35	The production efficiency of the company is very high.	1	0	1	1	1	0.8
Q36	The company has a high return on investment.	1	1	0	1	0	0.6
Q37	Enterprises provide products or services to customers at a low cost.	1	0	0	1	1	0.6
Q38	The company's sales are growing fast.	0	1	1	1	1	0.8
Growth Capacity							
Q39	Enterprises are better able to improve customer satisfaction.	1	1	1	1	1	1
Q40	Businesses are better able to attract new customers.	1	1	1	1	1	1
NO.	**Items**	**Score**					

		1	**1**	**1**	**1**	**1**	**1**
Q41	Companies were able to implement more employee suggestions than last year.	1	0	1	0	1	0.6
Q42	The top management team of the enterprise is relatively satisfied with the performance.	1	0	1	1	0	0.6
Q43	The average productivity of employees is higher than that of competitors.	1	0	1	1	0	0.6

Appendix B

Normal distribution test results of small sample data

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
A1	40	1	5	3.38	1.192	-0.118	0.374	-0.922	0.733
A2	40	1	5	3.65	1.027	-0.427	0.374	-0.25	0.733
A3	40	1	5	3.63	1.079	-0.47	0.374	-0.524	0.733
A4	40	2	5	3.67	1.118	-0.349	0.374	-1.216	0.733
A5	40	1	5	3.48	1.132	-0.158	0.374	-0.96	0.733
B1	40	1	5	3.62	1.148	-0.591	0.374	-0.363	0.733
B2	40	1	5	3.28	1.176	0.027	0.374	-0.896	0.733
B3	40	1	5	3.43	1.152	-0.178	0.374	-0.688	0.733
B4	40	1	5	3.25	1.214	0.034	0.374	-1.099	0.733
B5	40	1	5	3.38	1.17	0.115	0.374	-1.091	0.733
C1	40	1	5	3.18	1.196	0.024	0.374	-0.823	0.733
C2	40	1	5	3.55	1.131	-0.466	0.374	-0.418	0.733
C3	40	1	5	3.25	1.193	-0.227	0.374	-0.893	0.733
C4	40	1	5	3.55	1.176	-0.624	0.374	-0.251	0.733
C5	40	1	5	3.48	1.24	-0.577	0.374	-0.473	0.733
D1	40	2	5	3.55	1.085	-0.135	0.374	-1.235	0.733
D2	40	2	5	3.58	0.903	-0.125	0.374	-0.657	0.733
D3	40	1	5	3.5	1.177	-0.199	0.374	-0.742	0.733
D4	40	1	5	3.6	1.194	-0.582	0.374	-0.643	0.733
E1	40	1	5	3.77	1.31	-0.64	0.374	-0.928	0.733
E2	40	1	5	3.55	1.28	-0.31	0.374	-1.136	0.733
E3	40	2	5	3.85	1.122	-0.492	0.374	-1.134	0.733
E4	40	1	5	3.5	1.155	-0.473	0.374	-0.629	0.733
E5	40	1	5	3.58	1.259	-0.422	0.374	-1.007	0.733
F1	40	1	5	3.7	1.203	-0.685	0.374	-0.496	0.733
F2	40	1	5	3.68	1.248	-0.421	0.374	-1.194	0.733
F3	40	1	5	3.77	1.097	-0.63	0.374	-0.382	0.733
G1	40	1	5	3.45	1.413	-0.352	0.374	-1.297	0.733
G2	40	1	5	3.25	1.193	-0.036	0.374	-0.716	0.733
G3	40	1	5	3.63	1.234	-0.432	0.374	-0.859	0.733
G4	40	1	5	2.98	0.974	0.052	0.374	-0.416	0.733
H1	40	1	5	3.42	1.059	-0.27	0.374	-0.718	0.733
H2	40	1	5	3.4	1.008	-0.266	0.374	-0.487	0.733
H3	40	1	5	3.35	1.167	-0.127	0.374	-0.844	0.733
H4	40	2	5	3.62	1.102	-0.274	0.374	-1.222	0.733
I1	40	1	5	3.4	1.15	-0.115	0.374	-1.096	0.733
I2	40	1	5	3.35	1.075	-0.24	0.374	-0.925	0.733
I3	40	1	5	3.45	1.154	-0.241	0.374	-1.084	0.733
I4	40	1	5	3.68	1.163	-0.449	0.374	-0.876	0.733
I5	40	1	5	3.45	1.061	-0.201	0.374	-0.671	0.733
Valid N (listwise)	40								

Appendix C

Questionnaire

BUSINESS MODEL INNOVATION IN DYNAMIC CAPABILITIES FOR TEA ENTERPRISE COMPETITIVENESS IN SICHUAN, CHINA

Researcher Mrs. Jian Kerong

Curriculum Doctor of Philosophy in Management, Siam University

Dear Madam/Sir，

I am a Ph.D. candidate in the field of management at Siam University. Currently, I am exploring the influence of Dynamic Capabilities, facilitated through Business Model Innovation, on the Competitive Positioning of Tea Industry Enterprises in China. This investigation is integral to my requirements for fulfilling the Ph.D. program in Philosophy of Management.

To proceed with this research, we kindly request your assistance completing the attached questionnaire. Today's insights shared with the researcher are intended solely for this study and academic research. We implore you to select the most fitting option that aligns with the actual circumstances of your organization. The completion of the questionnaire is expected to take approximately 15-20 minutes.

Because of the necessity to ensure the scientific rigor and reliability of our findings, we ask you to peruse each question thoughtfully. Your valuable contribution is instrumental to the success of this study. Your cooperation and input are highly appreciated. I want to thank you for your response! Your information will be kept secret. Without your permission, your identity, any related persons, and organization names will remain anonymous. Should

you have any questions or suggestions, please get in touch with me at the following addresses and numbers: *Siam University, 38 Phetkasem Road, Phasicharoen, Bangkok, 10160 Thailand; Tel 664- 284-0472 or my Email: 100001660@siam.edu.*

Mrs. Jian Kerong, Ph.D. student

Siam University

PART 1 PERSONAL INFORMATION

1. Demographic information

Please mark the appropriate box for the following questions.

1. What is your gender?

☐ 1) Male ☐ 2) Female

2. What is your age in years? (years old)

☐ 1) 20-30 ☐ 2) 31-40

☐ 3) 41-50 ☐ 4) More than 50

3. What is your educational background?

☐ 1) Bachelor Degree ☐ 2) Master Degree

☐ 3) Postgraduate ☐ 4) Other…… (Specify)

4. What is your tenure in your current position (year)

☐ 1) Less than or equal to 5 ☐ 2) 6 -10

☐ 3) 10 -20 ☐ 4) More than 20

5. What is your current position in your organization?

☐ 1) Less than or equal to 5 ☐ 2) 6 -10

☐ 3) 10 -20 ☐ 4) More than 20

PART II Relational Factors

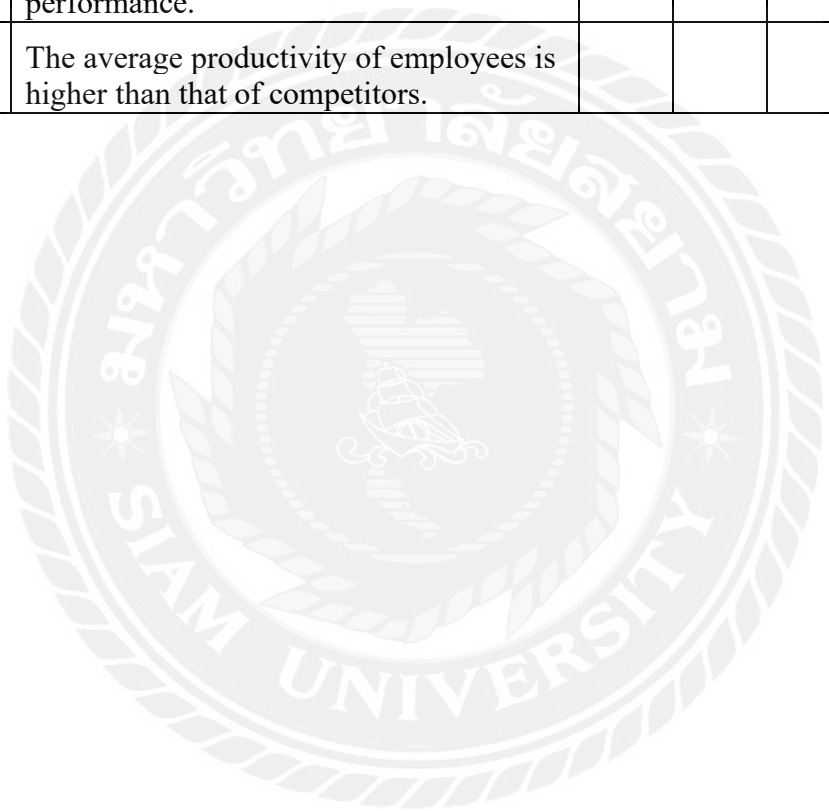
The questionnaire used a Likert scale, ranging from 1 to 5, in which 1 - Strongly Disagree, 2- Disagree, 3-Neutral/Not sure, 4- Agree, 5-Strongly Agree.

Order	Items	1	2	3	4	5
Dynamic capability						
Sensing Capabilities						
SC1	Businesses can quickly scan the environment for new opportunities.					
SC2	Companies can quickly detect changes in customer preferences and needs.					
SC3	Companies are quick to react to competitors' moves.					
SC4	Enterprises have a more accurate understanding of the industry's current situation and development trends.					
SC5	Managers often discuss and communicate changes in the enterprise's external environment.					
Learning Capabilities						
LC1	Enterprises can understand and master all kinds of information on time.					
LC2	Enterprises can timely identify the changes caused by new information and knowledge.					
LC3	Companies can integrate new technologies they already know with other technologies.					
LC4	Our management demands periodical cross-departmental meetings to exchange new developments, problems, and achievements.					
LC5	Our management emphasizes cross-departmental support to solve problems.					

Order	Items	1	2	3	4	5
Integrating Capabilities						
IC1	There is a high degree of coordination between different departments and teams in the enterprise.					
IC2	Enterprises can adjust their strategies according to environmental changes.					
IC3	Enterprises can constantly adjust resource allocation according to environmental changes.					
IC4	Enterprises can quickly integrate and share new information and knowledge within the enterprise.					
IC5	The company constantly optimizes core resources to highlight competitive advantages.					
Business Model Innovation						
Value Proposition						
VPR1	Our company provides customers with high-quality products.					
VPR2	Flexibility in service delivery is a key priority for us.					
VPR3	We regularly assess the perceived value of our customers.					
VPR4	Supporting customer value creation is a major part of our value proposition.					
Value Creation						
VCR1	The company emphasizes the simplicity of transactions to reduce errors.					
VCR2	Our clients are familiar with our working process.					
VCR3	The company provides effective and efficient quotes.					

Order	Items	1	2	3	4	5
VCR4	We have valuable resources to meet the needs of our customers at a reasonable cost.					
VCR5	Our customers are satisfied with the value we provide.					
Value Capture						
VCA1	The quality of our products is a key factor in obtaining value in the production process.					
VCA2	Our growing market share has increased our value.					
VCA3	Companies can increase revenue or reduce business costs in new ways.					
Enterprise Competitiveness						
Marketing Competitiveness						
MC1	The company's market share is growing rapidly.					
MC2	The company's customer loyalty is very high.					
MC3	The company's products have a high market share in the target market.					
MC4	Companies have the flexibility to adapt to rapidly changing markets and respond more quickly.					
Profit Capability						
PC1	The productivity of the company is very high.					
PC2	The company's return on investment is high.					
PC3	Enterprises provide products or services to customers at a lower cost.					
PC4	The company's sales are growing rapidly.					
Growth Capability						

Order	Items	1	2	3	4	5
GC1	Enterprises are better able to improve customer satisfaction.					
GC2	Businesses are better able to attract new customers.					
GC 3	Companies were able to implement more employee suggestions than last year.					
GC 4	The top management team of the enterprise is relatively satisfied with the performance.					
GC 5	The average productivity of employees is higher than that of competitors.					



PART III Recommendation

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Appendix D

Interview

BUSINESS MODEL INNOVATION IN DYNAMIC CAPABILITIES FOR TEA ENTERPRISE COMPETITIVENESS IN SICHUAN, CHINA

Researcher Mrs. Jian Kerong

Curriculum Doctor of Philosophy in Management, Siam University

Instruction:

1. Interviewees are senior managers and CEOs, expert representatives, and consumer representatives in representative tea enterprises in Sichuan.
2. All participants will be requested to sign the consent form.
3. The purpose and nature of the study will be explained to participants prior to do the interview and participants has opportunity to ask questions about the study.
4. All participants rights for the interview will be listed in the consent form.
5. Your information will be kept secret. Without your permission, your identity, any related persons, and organization names will remain anonymous.
6. All senior managers and CEOs, expert representatives and consumer representatives in representative questions will be asked to collect information from participants.
7. The interview will be most benefit to the research. Therefore, participation of all participants will be highly appreciated.

Consent Form

Business Model Innovation in Dynamic Capabilities for Tea Enterprise Competitiveness in Sichuan, China

I, ……., voluntarily agree to participate in this research study.

- I understand that all information I provide for this study will be treated confidentially.
- I agree to my interview being audio-recorded.
- I understand that even if I agree to participate now, I can withdraw at any time or refuse to answer any question without any consequences of any kind.
- I understand that I can withdraw permission to use data from my interview within two weeks after the interview, in which case the material will be deleted.
- I understand that participation involves of the dynamic capabilities, business model innovation and competitiveness of my tea enterprise.
- I have had the purpose and nature of the study explained to me in writing and I have had the opportunity to ask questions about the study.
- I understand that I will not benefit directly from participating in this research.
- I understand that in any report on the results of this research my identity will remain anonymous. This will be done by changing my name and disguising any details of my interview which may reveal my identity or the identity of people I speak about.
- I understand that disguised extracts from my interview may be quoted in dissertation, conference presentation, and published papers.
- I understand that if I inform the researcher that myself or someone else is at risk of harm, they may have to report this to the relevant authorities - they will discuss this with me first but may be required to report with or without my permission.
- I understand that signed consent forms and original audio recordings will be retained in Siam University, Thailand by the researcher until the exam board confirms the results of the researcher's dissertation.

Researcher name: Mrs. Jian Kerong

Degrees: Doctor of Philosophy in Management

Address: Siam University 38 Petkasem Road, Phasicharoen, Bangkok, 10160 Thailand; Tel: 064-284-0472, Email: 6319200007@siam.edu

Signature of research participant

---------- ----------

Signature of participant Date

Signature of researcher

I believe the participant is giving informed consent to participate in this study.

---------- ----------

Signature of researcher Date

Date of interview:_____Time: _____

Part I: Personal Information

1. Organization name _____

2. Participant name _____

3. Contact address _____

_____

4. Organization information

4.1 Number of employees_____

4.2 Production rate _____

5. Participant information

5.1 What is your gender? ☐ 1) Male ☐ 2) Female ☐

5.2 What is your age? _____

5.3 What is your educational degree?_____

5.4 Number of years working with the organization _____

Part II: Opinion on the Relationship of the Dynamic Capabilities, Business Model Innovation, and the Tea Enterprise Competitiveness

1. What is the core competitiveness of your company in the fierce market competition?

……

……

……

……

2. Do you think your company has made any business model innovations in the face of market changes? Do you think they have worked effectively and in what ways?

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3. Do you think the company is perceptive? Do you think the employees' learning ability is good? Do you think the company can integrate resources to support business model innovation?

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……

4. What are the most serious problems facing the tea industry in Sichuan, China?

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5. In the face of fierce market competition, what effective strategies has the company adopted to enhance its current market competitiveness?

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6. How does the company cope with the threat of substitutes and the competition among existing competitors in the fierce market environment?

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7. Do you think there are any other valuable ideas on improving the competitiveness of Chinese tea enterprises?

……

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……

……

Part III**: Recommendation**

Is there anything else you want to add that you have not shared yet?

Anything I should know to expand my knowledge on this industry?

Any improvement you can recommend to make my research more complete?

Appendix E

Normal distribution test results of extensive sample data

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
SC1	451	1	5	3.4	1.145	-0.214	0.115	-0.902	0.229
SC2	451	1	5	3.41	1.155	-0.177	0.115	-1.013	0.229
SC3	451	1	5	3.43	1.19	-0.246	0.115	-1.07	0.229
SC4	451	1	5	3.48	1.172	-0.188	0.115	-1.234	0.229
SC5	451	1	5	3.44	1.188	-0.248	0.115	-1.054	0.229
LC1	451	1	5	3.43	1.17	-0.15	0.115	-1.098	0.229
LC2	451	1	5	3.38	1.169	-0.179	0.115	-1.006	0.229
LC3	451	1	5	3.44	1.198	-0.252	0.115	-1.037	0.229
LC4	451	1	5	3.4	1.176	-0.241	0.115	-1.031	0.229
LC5	451	1	5	3.41	1.212	-0.193	0.115	-1.12	0.229
IC1	451	1	5	3.41	1.165	-0.195	0.115	-0.995	0.229
IC2	451	1	5	3.49	1.122	-0.277	0.115	-0.904	0.229
IC3	451	1	5	3.43	1.199	-0.244	0.115	-1.053	0.229
IC4	451	1	5	3.51	1.159	-0.328	0.115	-0.934	0.229
IC5	451	1	5	3.47	1.167	-0.248	0.115	-1.028	0.229
VPR1	451	1	5	3.42	1.158	-0.186	0.115	-1.042	0.229
VPR2	451	1	5	3.44	1.15	-0.185	0.115	-1.111	0.229
VPR3	451	1	5	3.4	1.181	-0.237	0.115	-1.028	0.229
VPR4	451	1	5	3.49	1.18	-0.282	0.115	-1.06	0.229
VCR1	451	1	5	3.43	1.241	-0.227	0.115	-1.177	0.229
VCR2	451	1	5	3.45	1.185	-0.203	0.115	-1.081	0.229
VCR3	451	1	5	3.47	1.208	-0.257	0.115	-1.046	0.229
VCR4	451	1	5	3.47	1.18	-0.19	0.115	-1.097	0.229
VCR5	451	1	5	3.41	1.216	-0.205	0.115	-1.155	0.229
VCA1	451	1	5	3.51	1.204	-0.358	0.115	-0.999	0.229
VCA2	451	1	5	3.46	1.178	-0.246	0.115	-1.052	0.229
VCA3	451	1	5	3.48	1.193	-0.255	0.115	-1.086	0.229
MC1	451	1	5	3.29	1.264	-0.076	0.115	-1.198	0.229
MC2	451	1	5	3.42	1.217	-0.225	0.115	-1.078	0.229
MC3	451	1	5	3.37	1.239	-0.178	0.115	-1.12	0.229
MC4	451	1	5	3.34	1.191	-0.097	0.115	-1.089	0.229
PC1	451	1	5	3.32	1.178	-0.134	0.115	-1.079	0.229
PC2	451	1	5	3.42	1.153	-0.232	0.115	-0.936	0.229
PC3	451	1	5	3.36	1.167	-0.098	0.115	-1.075	0.229
PC4	451	1	5	3.44	1.146	-0.238	0.115	-0.982	0.229
GC1	451	1	5	3.46	1.159	-0.267	0.115	-0.981	0.229
GC2	451	1	5	3.49	1.167	-0.332	0.115	-0.949	0.229
GC3	451	1	5	3.48	1.165	-0.301	0.115	-1.046	0.229
GC4	451	1	5	3.48	1.144	-0.261	0.115	-0.964	0.229
GC5	451	1	5	3.43	1.122	-0.272	0.115	-0.901	0.229
Valid N (listwise)	451								

Appendix F

Reliability data of each question for the competitiveness model (n=451)

Latent	Observed Variable	Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's alpha
DC	SC	SC1	0.719	0.859	0.884
		SC2	0.717	0.859	
		SC3	0.724	0.857	
		SC4	0.719	0.859	
		SC5	0.717	0.859	
	LC	LC1	0.722	0.861	0.886
		LC2	0.697	0.867	
		LC3	0.742	0.857	
		LC4	0.715	0.863	
		LC5	0.739	0.857	
	IC	IC1	0.678	0.865	0.881
		IC2	0.712	0.857	
		IC3	0.754	0.847	
		IC4	0.709	0.858	
		IC5	0.726	0.854	
BMI	VPR	VPR1	0.698	0.698	0.859
		VPR2	0.714	0.714	
		VPR3	0.731	0.731	
		VPR4	0.674	0.674	
	VCR	VCR1	0.768	0.768	0.893
		VCR2	0.722	0.722	
		VCR3	0.725	0.725	
		VCR4	0.724	0.724	
		VCR5	0.747	0.747	
	VCA	VCA1	0.702	0.76	0.833
		VCA2	0.687	0.774	
		VCA3	0.689	0.772	
EC	MC	MC1	0.732	0.831	0.870
		MC2	0.715	0.838	
		MC3	0.727	0.833	
		MC4	0.72	0.836	
	PC	PC1	0.709	0.796	0.848
		PC2	0.681	0.809	
		PC3	0.674	0.812	
		PC4	0.678	0.81	
	GC	GC1	0.704	0.842	0.871
		GC2	0.688	0.846	
		GC3	0.701	0.842	
		GC4	0.694	0.844	
		GC5	0.693	0.845	

AUTHOR'S BIOGRAPHY

Name and Surname : Jian Kerong

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Work Position : Accountant

Workplace : Liuzhou

Education

Bachelor's Degree

Degree	B.B.A.
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Institution	Xihua University
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Year	1999-2003

Master's Degree

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Major	Business Administration
Institution	Guilin University of Technology
Country	China
Year	2013-2016

Publishing Research :

Kerong Jian, Chalermkiat Wongvanichtawee, Burin Santisarn, Karnjira Limsiritong (2025). Business Model Innovation in Dynamic Capabilities for Tea Enterprises Competitiveness in Sichuan, China. *Journal of Posthumanism.* *5*(6), 167-187. （Scopus, Q1）

บันทึกข้อความ

ส่วนงาน บัณฑิตวิทยาลัย สาขาการจัดการ (โทร. 5311)

ที่ มส 0210.7/69 **วันที่** 11 มิถุนายน 2568

เรื่อง ขออนุมัติสำเร็จการศึกษาของ Mrs. Jian Kerong

เรียน อธิการบดี

ที่มาของเรื่อง ด้วย Mrs. Jian Kerong เลขทะเบียน 6319200007 ได้ดำเนินการจัดทำดุษฎีนิพนธ์เรื่อง "Business Model Innovation in Dynamic Capabilities for Tea Enterprise Competitiveness in Sichuan, China" นั้น

ข้อเท็จจริง บัดนี้ Mrs. Jian Kerong ได้ดำเนินการตามเงื่อนไขการสำเร็จการศึกษาของหลักสูตรปริญญาปรัชญาดุษฎีบัณฑิต สาขาวิชาการจัดการ หลักสูตรปรับปรุง พ.ศ. 2561 มีรายการดังต่อไปนี้

1) ศึกษาครบตามจำนวนหน่วยกิตที่กำหนด และผ่านการสอบวัดคุณสมบัติ (Qualifying Exam) เรียบร้อยแล้ว รวมทั้งผ่านการสอบป้องกันดุษฎีนิพนธ์เรียบร้อยแล้ว (ตามเอกสารแนบที่ 1)

2) จากผลการสอบป้องกันดุษฎีนิพนธ์ ผลปรากฏว่า ผ่าน แบบมีเงื่อนไข โดยให้ปรับปรุงให้ได้มาตรฐาน ซึ่งได้ดำเนินการตามที่คณะกรรมการกำหนด และคณะกรรมการสอบดุษฎีนิพนธ์อนุมัติดุษฎีนิพนธ์เป็นที่เรียบร้อย (ตามเอกสารแนบที่ 2)

3) ตีพิมพ์บทความวิจัยลงวารสารที่อยู่ในฐานข้อมูล SCOPUS (Q1) ชื่อวารสาร Journal of Posthumanism ปีที่ 5 ฉบับที่ 6 (พฤษภาคม 2568) หน้า 167-187. (ตามเอกสารแนบที่ 3)

Jian, K., Wongvanichtawee, C., Santisarn, B., & Limsiritong, K. (2025). Business Model Innovation in Dynamic Capabilities for Tea Enterprises Competitiveness in Sichuan, China. *Journal of Posthumanism, 5*(6), 167-187. https://doi.org/10.63332/joph.v5i6.1971

4) ผ่านการสอบภาษาอังกฤษ Oxford Placement Test (เกณฑ์ผ่านที่ 55 คะแนน) ได้ 71 คะแนน (ตามเอกสารแนบที่ 4)

Approved
9 July 2025

5) ผ่านการตรวจความซ้ำซ้อนและลอกเลียนวรรณกรรมของผลงานวิจัยด้วยโปรแกรม Grammarly มีค่าระดับคะแนนอยู่ในเกณฑ์มาตรฐาน (ตามเอกสารแนบที่ 5)

ข้อเสนอ จึงเรียนมาเพื่อโปรดพิจารณาอนุมัติให้ Mrs. Jian Kerong สำเร็จการศึกษาในภาคการศึกษาที่ 3 ปีการศึกษา 2567 และดำเนินการตามระเบียบของมหาวิทยาลัยต่อไป

(รองศาสตราจารย์ ดร.ไชยนันท์ ปัญญาศิริ)
คณบดีบัณฑิตวิทยาลัย สาขาการจัดการ

สำนักงานอธิการบดี
เอกสารฉบับนี้สามารถอัปโหลดเข้าฐานข้อมูลได้
ลงชื่อ
วันที่ 15/9/68

ตรวจสอบแล้วถูกต้อง ...
15 ก.ย. 68

มีรายละเอียดการตรวจสอบอยู่ด้านหลัง