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Research on the Influencing Factors and Configuration Paths of High-Quality Development of "Specialization, Refinement, Differentiation, and Innovation" Enterprises

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Abstract

Against the backdrop of the current complex and ever-changing global economic situation, how to achieve high-quality development has become a key issue facing enterprises specializing in new products and technologies. The study uses the grounded theory approach to systematically analyze 29 listed "Specialization, Refinement, Differentiation, and Innovation" enterprises, identifying and refining eight core categories that affect the high-quality development of enterprises, namely, strategic planning, innovation-driven, resource endowments, corporate culture, green development, international development, social responsibility, and environmental protection. Furthermore, the research used configuration thinking and QCA methods to conduct a configuration analysis of the data of 165 listed SRDI enterprises. The research results show that strategic planning, innovation-driven development and resource endowments are necessary conditions for achieving high-quality development, forming three typical development paths, namely, a dual-driven model of resource endowments and green development under environmental protection, a dual-driven model of resource endowments and international development under environmental protection, and a coordinated development path of all factors. The types of industry and stages of development corresponding to different paths are also discussed. The innovation of this study lies in the micro perspective of exploring the high-quality development of SRDI enterprises. Combining the grounded theory approach with QCA, multiple paths of high-quality and non-high-quality development are identified and development bottlenecks are revealed. The study aims to provide theoretical basis and practical inspiration for SRDI enterprises to achieve high-quality development.

Keywords

"Specialization, Refinement, Differentiation, and Innovation" Enterprises, High Quality Development of Enterprises, Zhagen Paradigm, Qualitative Comparative Analysis

1. Introduction

The concept of "Specialization, Refinement, Differentiation, and Innovation" (SRDI) enterprises represents a unique framework developed within China's domestic context, emphasizing specialization, precision, uniqueness, and innovation. These enterprises can be benchmarked against similar international models, such as Germany's Hidden Champions, the United States' Niche Enterprises, Japan's High-Niche Enterprises, and South Korea's Core Enterprises. Specifically, Germany's Hidden Champions dominate niche markets, generate annual sales below $1 billion, and often operate under the public radar (Simon, 1992; Simon, 1996). These firms prioritize producing high-quality, precision-engineered products and building differentiated brand identities to meet the specific needs of downstream industries and end-users (Voudouris et al., 2000). In contrast, the United States' Niche Enterprises survive in competitive markets by focusing on narrowly defined market segments and providing tailored products or services (Olsen & Saetre, 2007). Japan's High-Niche Enterprises refer to companies whose "high-niche products" command over 50% of their respective market segments (Shi et al., 2021). Meanwhile, South Korea's Core Enterprises represent medium-sized firms transitioning between SMEs and large corporations, distinguished by their scale, innovation, and growth potential. These international experiences underscore the pivotal role of niche market penetration and technological innovation in fostering enterprise growth and mitigating market uncertainties.

Against the backdrop of globalization, high-quality development has emerged as a critical agenda item in the global economy. Accelerated globalization, coupled with a new wave of technological advancements and industrial transformations, presents enterprises with increasingly complex external environments and rapidly evolving market demands (Saxenian, 1995; Porter, 2008). Advanced economies have introduced diverse policies to support SME development: Germany's "Industry 4.0" initiative promotes intelligent manufacturing; the United States' Small Business Innovation Research (SBIR) program cultivates innovative enterprises; Japan's "Manufacturing White Paper" strengthens support for niche markets. Compared to the inefficiency of scattered resource allocation inherent in diversification strategies (Yang et al., 2017; Lamont & Polk, 2002), the "focus strategy" better aligns with the developmental logic of SRDI enterprises. This approach emphasizes technological innovation and niche market specialization, offering theoretical underpinnings and practical guidance for overcoming critical technological bottlenecks and achieving self-reliance in innovation (Kohtamäki et al., 2020;

Schenkenhofer, 2022). These policies and strategies provide valuable insights for fostering SME growth, deepening market engagement, and promoting sustainable development, thereby illuminating pathways for China's SRDI enterprises to navigate opportunities and challenges under the "dual circulation" economic framework.

Within the Chinese context, SRDI enterprises play a crucial role in strengthening the autonomy and control of industrial chains while enhancing the competitiveness of national manufacturing and driving high-quality economic development (Li et al., 2021). By focusing on specific domains of technological research and differentiated product development, these enterprises provide essential technological support to industrial chains, thereby addressing critical technological barriers and resolving "bottleneck" issues (Lee et al., 2021; Lei & Wu, 2020). The 20th National Congress of the Chinese Communist Party unequivocally established high-quality development as the primary task in building a modern socialist country, emphasizing strong support for SRDI enterprises. Underpinned by policy measures such as enhanced financial support (Huang, 2024), cultivation of leading industry firms (Li et al., 2024a), optimization of government subsidy mechanisms (Yang et al., 2024), and tailored talent policies (Sun & Bai, 2024), a robust ecosystem has emerged to facilitate the sustainable development of SRDI enterprises. However, challenges such as financing constraints and shortages of high-caliber talent persist as intrinsic bottlenecks, impeding their sustained growth potential. Consequently, identifying the critical factors influencing SRDI enterprises' high-quality development and constructing rational pathway combinations to stimulate their endogenous growth have become pressing theoretical and practical imperatives.

China's industrial and innovation policies have demonstrated remarkable effectiveness in fostering the growth of emerging industries (Mao et al., 2021). However, the implementation of the "Specialization, Refinement, Differentiation, and Innovation" (SRDI) enterprise policy exhibits notable regional variations in focus and emphasis (Fan et al., 2024). The impact of internationalization depth and big data knowledge ecosystems on the high-quality development of SRDI enterprises has also garnered significant attention. For instance, the internationalization depth of green innovation enterprises has been shown to substantially enhance innovation performance, which, in turn, indirectly promotes sustainable development (Liu et al., 2024). Research on high-quality urban development in China, viewed through the lens of big data knowledge ecosystems, reveals diverse pathways for resource integration and innovation capacity enhancement, providing critical support for SRDI enterprises (Li & Liu, 2023).On the external front, the digital economy has been proven to significantly enhance the cultivation of SRDI enterprises, spurring the emergence of many such firms (Li et al., 2024b). Internally, artificial intelligence technologies have been found to markedly boost productivity in SRDI small and medium-sized enterprises by optimizing workforce structures, stimulating endogenous innovation, and improving management efficiency (Zhang & Peng, 2024). Innovation outcomes among SRDI enterprises vary significantly under different technological strategies. Organizational

resilience is considered a pivotal factor driving innovation (Gao et al., 2024), while environmental protection taxes have been found to encourage green technological innovation in SRDI enterprises with moderate tax burdens (Li & Wang, 2024c). Furthermore, digital innovation, a critical enabler of organizational resilience, demonstrates significant advantages through synergies across research and development, production, and application scenarios (Wang & Sun, 2024). Leadership traits also play an indispensable role in the digital transformation of SRDI enterprises. Studies reveal that CEOs' overconfidence significantly accelerates digital transformation, with entrepreneurial orientation serving as a mediating factor to amplify this effect (Cui & Meng, 2024).

High-quality development, as a central theme in China's economic transformation and modernization, has predominantly been explored at the macroeconomic level. Micro-level studies on enterprise high-quality development remain relatively sparse, primarily focusing on traditional sectors such as manufacturing (Xue et al., 2024), private SMEs (Dai & Wang, 2019), logistics (Cao et al., 2019), and high-tech enterprises (Zhang et al., 2023a). Huang & Xiao (2018) conceptualized high-quality development as a dynamic process of creating high-level economic and social value. Measurements of enterprise high-quality development typically employ single or composite indicators, with studies frequently using metrics such as green total factor productivity (Wang & Shen, 2016; Xie et al., 2017), economic value added (Chen & Fu, 2019), and total factor productivity (Zhang & Xu, 2021). Various internal and external factors influence enterprise high-quality development. Although enterprises face internal limitations such as weak resource integration and ineffective management mechanisms, factors such as technological innovation (Zhang et al., 2023b) and corporate social responsibility (Cao et al., 2023) serve as significant enablers. Externally, policy incentives (Xu & Song, 2023) and digital transformation have been instrumental. Mechanistically, ESG performance aligns intrinsically with high-quality development, with environmental and social performance driving greater progress than governance performance (Ge et al., 2022). Digital transformation significantly enhances total factor productivity by improving transparency, innovation, and financial stability, while financing constraints and government subsidies play moderating roles (Wu et al., 2023). As a vital component of the digital economy, digital inclusive finance alleviates financing constraints and reduces financial leverage, significantly advancing high-quality development, especially in non-state-owned enterprises and the tertiary sector (Lee et al., 2023). Environmental information disclosure, by augmenting intellectual capital, further enhances economic, environmental, and social performance, thereby promoting high-quality development (Jiang et al., 2021). Across industries, the mechanisms of influence vary. In state-owned enterprises, mixed-ownership reforms exhibit a U-shaped relationship with high-quality development, achieved by enhancing internal competition and mitigating speculative motives (Liao et al., 2022). In logistics, optimizing workforce structures and bolstering R&D capabilities are considered key drivers of high-quality development (Huang et al., 2019).

In summary, existing research on SRDI enterprises has revealed the important influencing factors of their high-quality development from the perspectives of policy support, technological innovation, digital transformation and leadership traits, etc., but in-depth research on the comprehensive mechanism of their role is still insufficient, especially in the realization of multi-dimensional synergistic effects, which still needs to be further explored. Research on high-quality development of enterprises is mostly focused on the macro level, and research on the influencing factors of high-quality development of enterprises from the micro level is scattered and lacks systematic integration, making it difficult to comprehensively grasp the paths and mechanisms of the factors, and the contextual suitability is lacking, so it is necessary to carry out all-around, multi-angle systematic research by combining the types of enterprises, stages of development, enterprise scales, and environments, and other dimensions.

Building upon this foundation, this study centers on three pivotal research questions: 1) What are the key factors influencing the high-quality development of SRDI enterprises? Addressing this question aids in identifying the specific manifestations of high-quality development, thereby establishing a robust foundation for subsequent analyses. 2) How do these influencing factors form the high-quality development path of SRDI enterprises through different configuration combinations? By exploring the complex interactions between factors, the multiple paths of enterprise development and their internal logic can be revealed, providing a scientific basis for enterprises' strategic choices in different industry types and stages of development. 3) Under varying contextual scenarios, what effective measures should different types of SRDI enterprises adopt to optimize their pathways to high-quality development? This inquiry seeks to deliver actionable strategic recommendations from a practical perspective, offering policymakers and enterprise managers valuable guidance for refining SRDI enterprise cultivation policies.

To address these core issues, this research combines the Zhagen Paradigm and Qualitative Comparative Analysis methods, taking a micro-enterprise perspective to examine the paths to high-quality development. By constructing a theoretical model for SRDI enterprises, this study aims to deeply explore the key influencing factors, their combinatory effects, and the diverse development paths that either promote or hinder the high-quality development of SRDI enterprises. This approach breaks through the limitations of traditional single-factor analyses, offering varied strategic options for enterprises to achieve high-quality development in different contexts.

2. Identification and Model Construction of Factors Influencing the High-Quality Development of SRDI Enterprises Based on the Zhagen Paradigm

2.1. Research Methodology

The "Chinese Management Zhagen Paradigm" was proposed by Jia Xudong and Heng Liang in 2016 as a theoretical construction method rooted in the Chinese

context. This paradigm synthesizes and compares the differences and commonalities among the three major schools of Zhagen Paradigm, combining previous research experiences with both qualitative and quantitative research methods. It is based on the "Zhagen spirit," with constructive Zhagen Paradigm at its core, the classical Zhagen Paradigm data processing procedure as the main framework, and the causal relationships of procedural Zhagen Paradigm as an auxiliary structure. Additionally, cognitive mapping is used to simulate the respondents' cognitive development process, thereby revealing the causal relationships inherent in the grounded research data (Clarke & Mackaness, 2001). The Chinese Management Zhagen Paradigm consists of two stages: the qualitative research phase is used to construct the theory and uncover the mechanisms underlying the research questions; the quantitative research phase tests the theoretical model with data, ensuring the scientific and reliable nature of the findings (Jia & Heng, 2016).

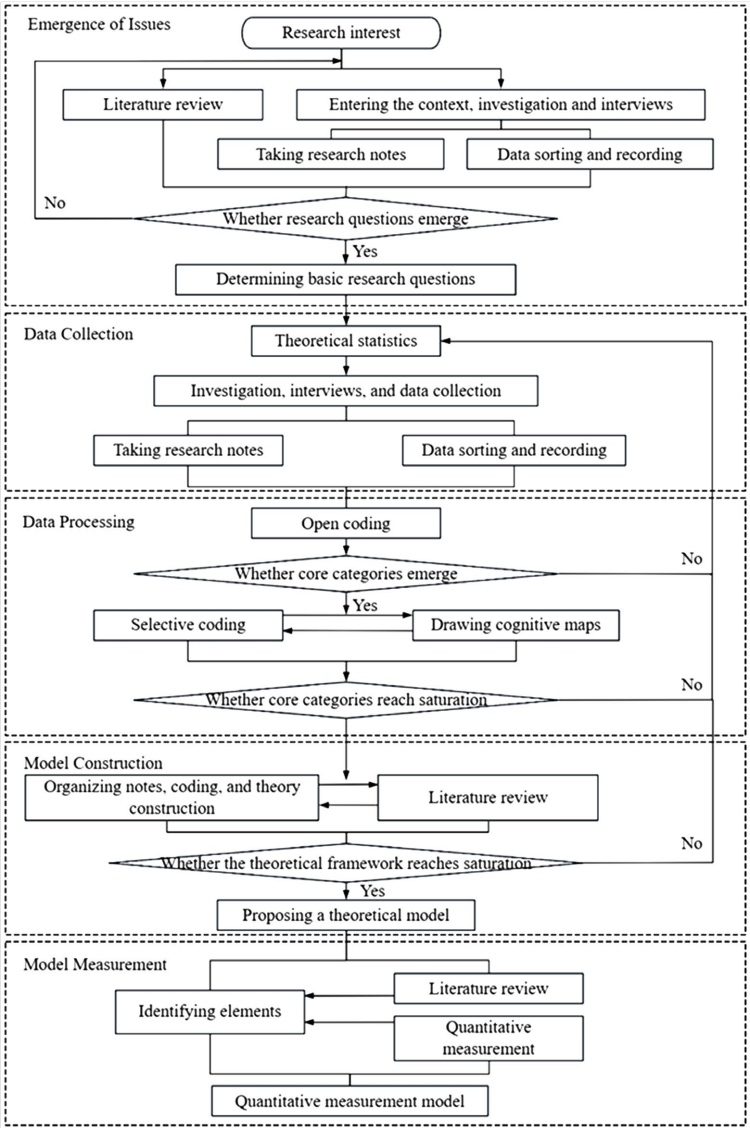

Figure 1. Zhagen paradigm research process diagram.

The high-quality development of SRDI enterprises involves multiple dimensions and may entail complex interactions, which current theories are insufficient to fully explain. Therefore, it is necessary to explore the components of high-quality development for SRDI enterprises based on Zhagen Paradigm, providing a theoretical foundation for relevant research on their high-quality development. The specific Zhagen Paradigm research process is illustrated in **Figure 1**.

2.2. Emerging Issues

The problem addressed in this study arises from a focus on the development of SRDI enterprises in practice and a systematic review of the existing literature. Current research lacks in-depth exploration of the multi-dimensional influencing factors and their mechanisms in high-quality development, aligning with the natural emergence of Zhagen Paradigm. The adoption of the Chinese Management Zhagen Paradigm fully considers the unique context of China, allowing for an in-depth exploration of the underlying mechanisms of enterprise development. It also balances theoretical construction and practical guidance, thereby providing more comprehensive, profound, and reliable research outcomes. For these reasons, Zhagen Paradigm is selected as the qualitative research method for this study.

2.3. Case Selection and Data Collection

The research sample comprises enterprises from the Guotai An database as well as some from the "List of World-Class Demonstration Enterprises and SRDI Demonstration Enterprises" released by the State-owned Assets Supervision and Administration Commission of the State Council in February 2023. After theoretical sampling, 29 listed SRDI enterprises are selected as case studies. To eliminate the impact of regional differences, the selection of case enterprises covers the economically developed East, Central, and Western regions. These case enterprises span various industries, including food manufacturing, electrical machinery, non-ferrous metal smelting, electronic equipment manufacturing, pharmaceutical manufacturing, and software and information technology services, representing enterprises of different sizes. This comprehensive selection reflects the impact of various capital market environments, enterprise scales, and developmental stages on SRDI enterprises. The specific selection criteria are detailed in **Table 1**.

The grounded theory methodology draws upon both newly generated and existing textual data (Sun et al., 2020). Primary data were collected through semi-structured interviews, while secondary data were systematically cross-referenced and analyzed to achieve data triangulation (Yinrk et al., 2009), thereby enhancing the validity of the research. To gather primary data, semi-structured in-depth interviews were conducted with six case enterprises. Interviewees were specifically selected based on their comprehensive knowledge of overall corporate operations and strategic decision-making, including R&D department leaders and senior executives. Each interview lasted approximately 25 minutes on average. With par-

ticipants' consent, all sessions were audio-recorded and subsequently transcribed verbatim. Furthermore, empirical data were theoretically enriched through a systematic literature review to ensure comprehensive data coverage and theoretical saturation. The categories of data sources are summarized in Table 2.

Table 1. Case enterprise selection criteria.

Selection Criteria	Interpretation
Distinctive SRDI Characteristics	Select enterprises that exhibit prominent SRDI features in niche markets, possessing unique technological advantages or significant market positions within their respective domains
Diversity in Development Stages	Include enterprises at various stages of development, encompassing both well-established firms and those still in the growth phase, to capture the unique traits and challenges at each stage
Broad Industry Coverage	Ensure the sample encompasses enterprises across multiple industries to reflect the diverse characteristics and models of different sectors, thereby enhancing the generalizability of the findings
Variety in Enterprise Scale	Incorporate both medium-sized and small enterprises to explore the potential impact of enterprise scale on SRDI development
Regional Representation	Include enterprises from the eastern coastal regions, central and western areas, as well as minority regions, taking into account the economic disparities among regions to ensure geographical representativeness
Data Availability	Prioritize enterprises with reliable and publicly accessible information and data to ensure the depth and accuracy of the research.

Table 2. Data source categories.

Categories of Data	Categories of Source
Interview Data	Conduct interviews with individuals associated with the case enterprises, utilizing methods such as face-to-face meetings, phone calls, emails, and WeChat communications to gather firsthand information
Media Reports and Exclusive Interviews	Browse prominent media and industry-specific websites to identify relevant news columns or features pertaining to the case enterprises, extracting valuable insights from reports and interviews
Corporate Disclosures	Access the official websites of the case enterprises and perform keyword searches such as "high-quality development" to locate relevant disclosure documents, annual reports, press releases, and other resources
Academic Journals and Papers	Search academic databases like CNKI, Wanfang, and using the names of case enterprises to find journal articles and papers related to their high-quality development

2.4. Identification and Modeling of Factors Influencing the High-Quality Development of SRDI Enterprises

2.4.1. Open Coding

In the open coding phase, the study conducts a detailed word-by-word and sentence-by-sentence coding of the raw interview data, extracting initial concepts and identifying potential conceptual categories. To minimize researcher bias, the study adopts the respondents' original words or raw data content as labels to ex-

tract initial concepts, forming a correspondence between original statements and their initial concepts. Due to the large number of initial concepts and some overlap, the study further categorizes these concepts. During this process, initial concepts occurring less than twice are excluded, and concepts with internal contradictions are eliminated, retaining only those concepts that appeared more than three times. A portion of the initial coding is demonstrated in Table 3, using Angel Yeast as a case study.

Table 3. Initial coding example (using angel yeast as a case study).

Original Data	Initial Coding
Over the past three years, Angel has recruited 910 individuals with bachelor's degrees or higher, including nearly 200 master's and doctoral graduates. It has hired nine high-level experts from home and abroad, along with 45 external consultants. The total recruitment increased by 30%, with graduates from top-tier universities (985 and 211 institutions) rising by 15%. The number of doctoral and master's recruits doubled year-on-year. Meanwhile, the company has gradually built a comprehensive international sales team encompassing all product categories and business lines.	Recruitment of foreign experts; Establishing an international team
In line with the internal and external conditions of each development stage, the company formulates clear medium-term strategic goals and quantitative measures to ensure strategic execution. After Angel's stock listing in 2000, the company set the goal of becoming an "internationalized and specialized major yeast company," implemented a domestic production layout spanning east, west, south, north, and central China to strengthen manufacturing advantages, and accelerated overseas market expansion to enhance global market share.	Formulating strategic objectives; Defining market positioning; Establishing market vision goals; Expanding overseas markets
"Wherever there is bread production, there is Angel Yeast." Currently, Angel's products are available in over 160 countries and regions. To further penetrate international markets, Angel Group established an international business center and six overseas business divisions, extending its export operations to end markets and gradually building a comprehensive international sales team.	Extending export operations; Establishing an international business center; Setting up overseas business divisions

2.4.2. Selective Coding

The primary aim of selective coding is to integrate and refine the categories and concepts identified in the research, building a coherent theoretical framework around the core phenomenon. Selective coding involves in-depth analysis of the relationships between categories based on initial coding, revealing the logical connections between categories, and constructing higher-level core categories. These are then presented in the form of a "storyline." In the selective coding phase, this research carefully distinguishes and categorizes open codes, repeatedly reviewing existing studies and supplementing the data to achieve theoretical saturation (Hoppe & Ozdenoren, 2005). The result is a more systematic set of 8 core categories: strategic planning, innovation driven, resource endowment, corporate culture, green development, internationalization development, social responsibility, and environmental protection. The selective coding of data is shown in Table 4. Additionally, the study uses Mindmanager 2023 software to represent these 8 core categories as tree nodes, which are higher-level categories formed by integrating and categorizing the free nodes from the open coding process.

Table 4. Main category codes.

Subcategories	Core Categories
A1 Focus on Niche Market Positioning, A2 In-depth Demand Mining, A3 Precision Resource Allocation, A4 Construction of Technical Barriers, A5 Dynamic Risk Management	Strategic Planning A
B1 Core Technology Research and Development, B2 Process Improvement and Product Iteration, B3 Fine Production Management, B4 Industry-University-Research Collaboration, B5 Exploration of Characteristic Business Models, B6 Cultivation of Innovation Culture, B7 Enhancement of Intelligent Level	Innovation Driven B
C1 Core Technology Patents, C2 Construction of High-quality Professional Talent, C3 Brand Building in Niche Markets, C4 Participation in Industry Standard Formulation, C5 Stable Core Supply Chain, C6 Improvement of Quality Management System	Resource Endowment C
D1 Pursuit of Excellence and Craftsman Spirit, D2 Customer-oriented Rapid Response, D3 Team Knowledge Sharing and Collaboration, D4 Pragmatic and Efficient Work Style, D5 Integrity and Reliable Corporate Image	Corporate Culture D
E1 Application of Energy Conservation, Emission Reduction and Environmental Protection Technologies, E2 Green Product Design, E3 Sustainable Supply Chain Management, E4 Efficient Resource Recycling and Utilization	Green Development E
F1 Cultivation and Introduction of International Talents, F2 International Brand Promotion, F3 Participation in Global Market Development, F4 International Vision and Technical Benchmarking, F5 Adaptation to International Rules and Standards	Internationalization Development F
G1 Ensuring Product Quality and Safety, G2 Active Participation in Social Contributions, G3 Protection of Employee Rights and Development, G4 Integrity Management and Business Ethics Construction, G5 Participation in Environmental Protection	Social Responsibility G
H1 Economic Environment Guarantee, H2 Political Policy Environment Guarantee, H3 Market Environment Guarantee, H4 Legal Environment Guarantee, H5 Social Environment Guarantee	Environmental Protection H

2.5. Theoretical Saturation Test

The study performs step-by-step coding of the raw data from 29 SRDI enterprises, continuously comparing new data with existing literature to refine and revise the theory. Ultimately, after deriving the 8 core categories of strategic planning, innovation driven, resource endowment, corporate culture, green development, internationalization development, social responsibility, and environmental protection, no new concepts, categories, or relationships emerge. Therefore, the theoretical model constructed in this study has reached theoretical saturation based on the existing data.

2.6. Theoretical Model Construction

Based on the eight core categories influencing the high-quality development of SRDI enterprises, this study constructs a model of influencing factors for their high-quality development, as shown in Figure 2. The storyline overview is as follows: SRDI enterprises, leveraging their unique resource endowments, develop clear strategic plans as guiding frameworks for growth. They adhere to innovation-driven principles, continually enhancing core competitiveness, and foster internal consensus by shaping a distinctive corporate culture. While pursuing eco-

nomic benefits, enterprises actively embrace green development principles to drive sustainable operations. As globalization deepens, SRDI enterprises gradually implement international development strategies, expanding into overseas markets and improving their position in the global value chain. Enterprises take an active role in fulfilling social responsibility and building strong relationships with stakeholders. The government and related agencies provide policy, financial, and talent support as environmental guarantees. Through the organic integration and synergistic effects of these eight core elements, SRDI enterprises progressively achieve the unity of scale, benefits, and sustainability, ultimately reaching high-quality development goals and making a positive contribution to the national economy. Subsequently, the forthcoming empirical investigation will delve deeper into these influencing factors to validate the proposed model's practical applicability and effectiveness.

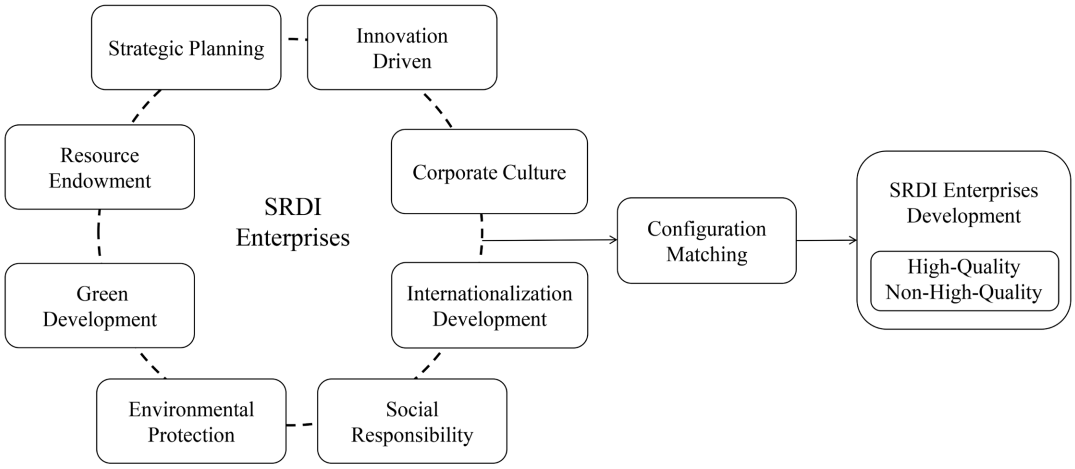

Figure 2. Influencing factors model for the high-quality development of SRDI enterprises.

3. Empirical Research Design Based on the SRDI Enterprise High-Quality Development Influencing Factors Model

3.1. Research Methodology

The interdependence and co-action between organizational elements often lead to multiple concurrent causal relationships, and traditional statistical methods based on independent and unidirectional linear relationships of independent variables are difficult to cope with such complexity. Therefore, QCA has emerged. QCA method is proposed by Ragin (2009), as a case-oriented method combining set theory and Boolean algebra laws, QCA can analyze the deeper reasons behind complex causal relationships, and it is mainly divided into three types, namely, clear-set qualitative comparative analysis, fuzzy-set qualitative comparative analysis, and multiple-valued qualitative comparative analysis, which can analyze conditional causality from a holistic perspective by integrating the advantages of case study and variable study, and the advantages of case study and variable study. advantages of case studies and variable studies, analyzing different ways of combin-

ing condition variables from a holistic perspective, and effectively solving the problems of causal asymmetry, multiple concurrent causality, and multiple equivalence schemes (Du & Jia, 2017). The QCA methodology integrates the depth of qualitative analysis and the large-sample generalization ability of quantitative analysis, and is suitable for small-size samples (10 or 15 or fewer cases), medium-size samples (10 or 15 to 50 cases), and large-scale samples (more than 100 cases) sample studies (Ragin, 2009; Crilly et al., 2012; Greckhamer et al., 2013).

3.2. Data Sources and Variable Selection

The study selected 165 listed SRDI enterprises as the research sample. All data were obtained from the companies' publicly available reports for the period 2021-2023, including annual reports and financial statements. The 2021-2023 timeframe was chosen as the research window primarily for the following reasons: First, as of the data collection date, 2023 represented the most recent year with complete and audited financial data, thereby reflecting the latest development conditions and performance levels of SRDI firms. Second, the use of multi-year cross-sectional data enables a horizontal comparison and configuration analysis of corporate high-quality development pathways under comparable macroeconomic conditions. This approach helps more clearly reveal synergistic effects generated by different combinations of condition variables, while minimizing interference from cross-year macroeconomic fluctuations.

The selected enterprises collectively span 36 industries and 29 provinces and municipalities, and vary in scale, ensuring broad sample representativeness. Due to data availability constraints, non-listed SRDI firms were excluded from the sample. This research strictly followed the established procedures of crisp-set Qualitative Comparative Analysis (csQCA) (Du & Sun, 2022), beginning with the identification of the outcome variable and antecedent condition variables. To perform csQCA, eight core constructs were transformed into dichotomous variables. Specific calibration criteria were developed for each construct to determine unambiguously whether a firm exhibited the corresponding attribute. The calibration process integrated information from publicly available sources such as corporate annual reports, financial statements, and official company websites. A panel of experts—including scholars specializing in high-quality corporate development and senior corporate executives—participated in the assignment of values. A score of 1 was assigned if a firm demonstrated clear and systematic practices in a given dimension, and 0 if such practices were absent.

To mitigate potential endogeneity concerns, the outcome variable—high-quality development of SRDI enterprises—was measured using total factor productivity estimated via the Levinsohn-Petrin method. In addition, the study supplemented the configurational patterns identified through QCA with qualitative analysis based on authoritative media coverage and relevant industry research reports, thereby enhancing the robustness and comprehensiveness of the findings. Detailed calibration criteria are presented in **Table 5**.

Table 5. Explanation of the assignment for condition and outcome variables.

Variable	Operational Definitions	Assignment Explanation	Assignment
Strategic Planning	The enterprise possesses a clearly articulated development strategy, supported by specific resource allocation plans and risk management measures.	No publicly released strategic development plan; unclear resource allocation or risk management content on official website or annual report; no positive information on strategic execution in third-party evaluations.	0
		Publicly released strategic development plan; clear resource allocation and risk management content on official website or annual report; positive third-party evaluations on strategic execution.	1
Innovation Drive	The enterprise demonstrates sustained investment in research and development (R&D) and has clearly identifiable innovative outcomes.	R&D investment as a proportion of revenue is lower than the median of case enterprises; no major technological breakthroughs or patents obtained in the past three years; no clear product innovation or business model innovation cases.	0
		R&D investment as a proportion of revenue is higher than the median of case enterprises; won national or industry-level innovation awards in the past three years; major products or technologies have achieved significant market success; there are unique and successful innovation promotion cases.	1
Resource Endowment	The enterprise holds significant advantages in critical resources such as human capital, technology, finance, or brand equity.	Labor education level, current assets, and cash flow are lower than the average of case enterprises.	0
		Labor education level, current assets, and cash flow are higher than the average of case enterprises.	1
Corporate Culture	The enterprise maintains a publicly advocated value system that is actively practiced, resulting in strong internal cohesion.	No publicly released mission, vision, or values on official website; low employee satisfaction; low brand awareness in the target market.	0
		Publicly released mission, vision, and core values on official website; high employee satisfaction; high brand awareness and user satisfaction.	1
Green Development	The enterprise incorporates environmentally friendly principles into its products and production processes.	No green product-related patents or certifications; no green certifications obtained.	0
		Has green product-related patents or certifications; obtained green product certifications.	1
Internationalization Development	The enterprise systematically explores and operates in international markets.	No international market revenue; no international team; brand has no global awareness or influence.	0
		Has international market revenue; has an international team; has established overseas offices; brand is recognized in the international market.	1
Social Responsibility	While pursuing profitability, the enterprise actively addresses its responsibilities towards employees, society, and the environment.	No records of social welfare activities; environmental protection investment is lower than the industry average; high labor dispute rate.	0
		Won environmental protection awards or certifications; participated in charity or welfare activities; good employee satisfaction and rights protection.	1

Continued

Environmental Protection	The external policy and market environment in which the enterprise operates is conducive to its development.	The annual report indicates that the enterprise faces significant challenges in policy support, market conditions, industry environment, and economic environment.	0
		The annual report indicates that the enterprise has favorable conditions in policy support, market conditions, industry environment, and economic environment.	1
High-quality Enterprise Development	Total Factor Productivity is used as a comprehensive measure of the enterprise's resource allocation efficiency and technological progress.	The total factor productivity (calculated via Levinsohn-Petrin method) is less than or equal to the median value of 7.76683618.	0
		The total factor productivity (calculated via Levinsohn-Petrin method) exceeds the median value of 7.76683618.	1

3.3. Variable Boolean Grouping Truth Table Construction

The study constructs a data matrix for causal conditions and outcome variables, applying fuzzy Boolean algebra to perform logical operations on fuzzy membership values, generating a truth table without contradictions. The truth table presents various condition combinations and their corresponding outcome values, providing a foundation for subsequent necessity and sufficiency analysis.

4. Empirical Analysis Based on the SRDI Enterprise High-Quality Development Influencing Factors Model

4.1. Necessity Analysis of Conditional Variables

The study employs QCA software to test the necessary conditions for high-quality enterprise development. The purpose of necessity analysis is to identify the essential conditions influencing the occurrence of the research outcomes. A consistency threshold of 0.9 or higher indicates the presence of a necessary condition, while a lower threshold suggests its absence. As shown in Table 6, the consistency of strategic planning, innovation-driven, and resource endowment exceeds 0.9, while the consistency of other individual variables falls below 0.9. This suggests that, aside from strategic planning, innovation-driven, and resource endowment, other variables do not constitute necessary conditions for high-quality enterprise development. Therefore, it is necessary to explore the impact of the configuration matching of each element on the outcome variable.

In particular, in the case of high-level enterprise high-quality development, the consistency of strategic planning is 0, indicating that no enterprise was classified as high-level in terms of high-quality development due to a lack of strategic planning; the coverage is also 0, meaning there are no cases of high-quality development linked to the absence of strategic planning. Similarly, the consistency of innovation-driven is 0, indicating that no enterprise was categorized as high-level

in high-quality development due to the lack of innovation-driven initiatives; the coverage is 0, implying no cases satisfy the condition of lacking innovation-driven activities and their relevance to high-quality development.

Table 6. Results of the necessity analysis for condition variables.

Conditional Variable	High-quality development of high-level enterprises		High-quality development of low-level enterprises	
	Consistency	Degree of coverage	Consistency	Degree of coverage
Strategic Planning	1.000000	0.506173	0.963855	0.493827
~Strategic Planning	0.000000	0.000000	0.036145	1.000000
Innovation Drive	1.000000	0.503067	0.975904	0.495933
~Innovation Drive	0.000000	0.000000	0.024096	1.000000
Resource Endowment	0.951219	0.600000	0.626506	0.400000
~Resource Endowment	0.048780	0.114286	0.373494	0.885714
Corporate Culture	0.792683	0.524194	0.710843	0.475806
~Corporate Culture	0.207317	0.414634	0.289157	0.585366
Green Development	0.878049	0.545455	0.722892	0.454545
~Green Development	0.121951	0.303030	0.277108	0.696970
Internationalization Development	0.804878	0.568965	0.602410	0.431034
~Internationalization Development	0.195122	0.326531	0.397590	0.673469
Social Responsibility	0.719512	0.568965	0.542169	0.432692
~Social Responsibility	0.280488	0.377049	0.457831	0.622951
Environmental Protection	0.341463	0.608696	0.216867	0.391304
~Environmental Protection	0.658537	0.453782	0.783133	0.546219

4.2. Sufficiency Condition for Conditional Configuration

To mitigate the influence of contradictory configurations, this study strictly adhered to established academic thresholds by setting a raw consistency cutoff of 0.8, a proportional reduction in inconsistency (PRI) consistency cutoff of 0.75, and a case frequency threshold of 1. These criteria ensure clear delineation of set membership across the cases. In order to explore whether a core variable exists in different paths, combined with the nested relationship between the intermediate solution and the reduced solution, the core conditions of multiple paths are found: the conditions that exist in both the intermediate solution and conditions that appear in both the intermediate solution and the reduced solution are the core conditions of the configuration, and conditions that appear only in the intermediate solution are the marginal conditions of the configuration (Du & Sun, 2022). The results of the QCA configuration analysis are shown in Table 7 below. The combination of conditions presents four results, which indicates that in these four cases, SRDI enterprises can achieve high-quality development. Among them, the consistency level of each individual configuration is higher than the standard of 0.8, and the overall consistency level reaches 0.9, which is higher than the accepta-

ble standard of 0.75. The overall coverage reaches 1, indicating that these condition combinations can well explain the sample cases.

Table 7. Sufficiency analysis of the configuration of conditions for high-quality development of enterprises.

Conditional variable	High-quality enterprise development			
	P1	P2a	P2b	P3
Strategic Planning	●	●	●	●
Innovation Drive	●	●	●	●
Resource Endowment	⬤	⬤	⬤	⬤
Corporate Culture	⊗	●	⊗	⬤
Green Development	⬤	⊗	⊗	●
Internationalization Development	⊗	⬤	⬤	⬤
Social Responsibility	⊗	⊗	●	⬤
Environmental Protection	⬤	⬤	⬤	⬤
Consistency threshold	1	1	1	0.866667
Original coverage	0.0121951	0.0243902	0.0243902	0.158537
Unique coverage	0.0121951	0.0243902	0.0243902	0.158537
Overall consistency	0.9			
Overall coverage	0.219512			

Note: ⬤ and ● indicate the presence of conditions, the ⊗ and ⊠ indicate that the condition is missing; ⬤ and ⊗ indicate core conditions, ● and ⊠ indicate marginal conditions, and a space indicates that the presence or absence of the variable is irrelevant.

This study divides the pathways leading to the high-quality development of SRDI enterprises into three categories: the dual-driven model of resource endowment and green development under environmental protection, the dual-driven model of resource endowment and internationalization under environmental protection, and the path of comprehensive factor coordination development. This study categorizes the pathways leading to the high-quality development of SRDI enterprises into three types, as summarized in Table 8. The specific analysis is as follows:

1) Dual-driven model of resource endowment and green development under environmental protection

Pathway P1 is based on internal resource endowment, integrated with the concept of green development, and utilizes external environmental protections to form a unique competitive advantage. Ample resource endowment meets the needs of SRDI enterprises in areas such as human capital, infrastructure, and research and development investment, providing support for building core competitiveness. The concept of green development enables enterprises to pursue economic benefits while balancing environmental protection and resource conservation. A favorable external environment provides institutional support and policy guarantees, including favorable industry policies, comprehensive regulations, and a fi-

nancial support system, creating conditions for innovation and sustainable development. In this configuration, enterprises have resource strength and external support but still have deficiencies in areas such as corporate culture, international expansion, and social responsibility. This suggests that such SRDI enterprises may be in the following stages: ① Resource integration phase, prioritizing the allocation of resources to core areas like R&D to enhance technological innovation capabilities; ② Transition phase of transformation and upgrading, shifting toward innovation-driven and green development models, with soft power cultivation strategies still in formation; ③ Policy adaptation phase, responding to national policies and adjusting development strategies, but internal management system adjustments are still needed.

Enterprises in resource-intensive and high-energy-consuming industries are primarily represented in the dual-driven model of resource endowment and green development. These enterprises use effective integration of internal resources and external policy support to promote green development, enhancing competitiveness while meeting environmental protection requirements. Green development plays a key role in industry transformation and upgrading, especially in sectors like automotive and chemical fibers, where enterprises rely not only on resource endowment for technological progress but also on actively responding to national green policies to form a dual development model emphasizing both economic and environmental benefits. Similarly, the green transformation in the software and information technology services industry indicates that green development has become a widespread pursuit across various industries.

2) Dual-driven model of resource endowment and internationalization under environmental protection

Configuration P2 includes two sub-models (P2a and P2b). This driving model is based on resource advantages, advancing internationalization strategies, and fully leveraging external environmental support. Abundant resources effectively support the enterprise's needs in talent acquisition, technological R&D, and market expansion during internationalization, enhancing the enterprise's global competitiveness. A favorable external environment provides institutional support and policy guarantees for international development, reducing the risks and uncertainties of multinational operations. Specifically, in this configuration, enterprises generally have high levels of resource endowment and internationalization, but have not yet achieved a high level of green development. This suggests that such SRDI enterprises may be in the following development stages: ① International expansion phase, actively utilizing abundant resources for global deployment, but not yet considering green development as a core strategy; ② Resource integration phase, integrating resources globally to optimize allocation and enhance international competitiveness; ③ Transformation exploration phase, recognizing the importance of green development but not yet forming a systematic green development strategy and practice.

Enterprises in industries that require substantial resource support and have in-

ternationalization potential, such as pharmaceutical manufacturing, food manufacturing, and chemical product manufacturing, are primarily represented in the dual-driven model of resource endowment and internationalization. By accumulating internal resources and utilizing external environmental support, these industries demonstrate strong competitiveness in international markets. Resource endowment provides a crucial foundation for their internationalization, particularly in technology, product R&D, and production, ensuring their expansion capabilities in global markets. Moreover, the institutional and policy support of the external environment reduces risks and offers favorable conditions for these industries in the globalization process. In summary, these enterprises achieve enhanced economic benefits and expanded global market shares through the synergy of resource advantages and internationalization strategies.

3) Comprehensive factor coordination development path

Pathway P3 is based on resource advantages and achieves comprehensive development through cultural construction, internationalization expansion, and social responsibility fulfillment. Resource endowment is the foundation and guarantee for enterprises to implement a comprehensive development strategy, forming a key constraint on the formulation and execution of development strategies by top management. Ample resources effectively support enterprise investments in multiple dimensions, such as cultural construction, internationalization, and social responsibility, thereby building a comprehensive competitive advantage. A high-level corporate culture empowers the organization, promoting innovative thinking and teamwork. Internationalization enhances the enterprise's global perspective and market adaptability. A strong sense of social responsibility helps enterprises build a positive brand image and stakeholder relationships. The favorable external environment also provides institutional support and policy guarantees for diversified development. Such SRDI enterprises may be in the following development stages: ① Comprehensive integration phase, effectively integrating various advantageous resources to build diversified competitive advantages; ② Soft power enhancement phase, recognizing the importance of cultural construction and social responsibility, and making significant progress in these areas; ③ Strategic adjustment phase, exploring how to integrate existing advantages with innovation-driven and green development strategies to address market competition and environmental challenges.

The comprehensive factor coordination-driven path is primarily applicable to manufacturing and technology-intensive industries. These industries achieve comprehensive and sustainable high-quality development by integrating resource endowment, green development, internationalization strategies, and corporate culture construction. Green development and social responsibility are particularly important in industries such as chemicals and plastics, helping enterprises maintain competitive advantages while meeting external environmental demands. In conclusion, these industries need to integrate multiple factors to enhance their market adaptability and long-term competitiveness.

Table 8. Diversified pathways of high-quality development for SRDI enterprises.

Trails	Industry Type	Developmental Stage	Main Challenges Faced
Dual-driven model of resource endowment and green development under environmental protection	Resource-intensive Energy-intensive industries	Resource integration period Transition period for transformation and upgrading Policy adaptation period	Insufficient development of soft power, particularly in the areas of technological innovation and corporate culture, leading to a weak capacity for supporting the efficient use of resources, which in turn impacts sustainable development outcomes
Dual-driven model of resource endowment and internationalization under environmental protection	Industries with strong internationalization potential such as pharmaceutical manufacturing, food manufacturing and chemical manufacturing	Period of internationalization and expansion resource integration period	Green development has not yet become a core strategic priority, making it difficult to fully align with global green development trends, and there is a need to enhance the ability to meet international market green standards
Comprehensive factor coordination development path	Service industry Technology-intensive industries	Full integration period Soft power enhancement period period of strategic realignment	There is significant pressure in maintaining a comprehensive competitive advantage, particularly in balancing technological innovation, resource integration, and market adaptation within a dynamic environment, which remains a formidable challenge.

Table 9. Sufficiency analysis of enterprise non-high-quality development conditions configuration.

Conditional Variable	High-quality development of non-enterprises			
	P1	P2	P3	P4
Strategic Planning	●	●	●	●
Innovation Drive	●	●	●	●
Resource Endowment	⊗	●	⊗	⊗
Corporate Culture	⊗	●	●	●
Green Development	⊗	⊗	●	●
Internationalization	●	⊗	⊗	●
Social Responsibility		⊗	⊗	●
Environmental Protection	⊗		⊗	
Consistency	1	1	1	1
Original coverage	0.060241	0.0481928	0.0722892	0.0722892
Unique coverage	0.060241	0.0481928	0.0722892	0.0722892
Overall consistency	0.954545			
Overall coverage	0.253012			

This study also examines the sufficient conditions for non-high-quality development in SRDI enterprises, resulting in four configurations for non-high-quality

development. This study identifies four configurations that result in non-high-quality development, as presented in Table 9.

Paths P1-P4 all show the presence of strategic planning and innovation-driven elements, implying that even when SRDI enterprises have strategic awareness and innovation tendencies, they may still fail to achieve high-quality development. This challenges the traditional view of the decisive role of strategic planning and innovation-driven factors in enterprise development, highlighting the importance of other factors. Specifically, paths P1, P3, and P4 all demonstrate the absence of resource endowment, indicating that resource scarcity is a key factor hindering the high-quality development of SRDI enterprises. Moreover, the presence of internationalization development in path P1, contrasted with the absence of other conditions, reveals the limitations of single-dimensional development. Path P2 shows that, despite the resource endowment, deficiencies in green development, internationalization, and social responsibility still lead to non-high-quality development. This path emphasizes the multi-dimensional nature of enterprise development, demonstrating that resource advantages alone are insufficient to ensure high-quality development. Paths P3 and P4 further highlight the complexity of development. In P3, the presence of green development contrasts with the absence of other conditions, while P4 indicates that, even with performance in corporate culture, green development, internationalization, and social responsibility, the lack of resource endowment still prevents high-quality development.

4.3. Robustness Tests

This study refers to Du Yunzhou's method for robustness testing (Du et al., 2021). First, the frequency is adjusted. The frequency is adjusted from 1 to 2, and the others remain unchanged. A configuration analysis of the high-quality development of SRDI enterprises is performed, and the results are shown in the table below. Second, the originality threshold is adjusted (Meuer et al., 2015). The threshold for the originality of the solution was adjusted from 0.8 to 0.85 for robustness testing (Xie et al., 2022), and then 10 cases were randomly deleted. The results of the configurational analysis for the high-quality development of SRDI enterprises under these two robustness testing methods are shown in Table 10 and Table 11. Comparative analysis reveals a clear subset relationship in the adjusted configurations, with no substantive changes in the core condition combinations. The research conclusions remain robust and are largely unaffected by parameter variations.

Table 10. Robustness test results (frequency adjustment).

Conditional Variable	High-quality enterprise development		
	P1	P2	P3
Strategic Planning	●	●	●
Innovation Drive	●	●	●
Resource Endowment	●	●	●

Continued

Corporate Culture	●	⊗	●
Green Development	⊗	⊗	●
Internationalization	●	●	●
Social Responsibility	⊗	●	●
Environmental Protection	●	●	●
consistency threshold	1	1	0.866667
original coverage	0.0243902	0.0243902	0.158537
Unique coverage	0.0243902	0.0243902	0.158537
Overall consistency		0.894737	
Overall coverage		0.207317	

Table 11. Robustness test results (adjustment of original consistency threshold).

Conditional Variable	High-quality enterprise development	
	P1	P2
Strategic Planning	●	●
Innovation Drive	●	●
Resource Endowment	●	●
Corporate Culture	⊗	●
Green Development	⊗	●
Internationalization	●	●
Social Responsibility	●	●
Environmental Protection	●	●
consistency threshold	1	0.866667
original coverage	0.0243902	0.158537
Unique coverage	0.0243902	0.158537
Overall consistency	0.882353	
Overall coverage	0.182927	

5. Discussion

5.1. Comparison and Limitations of Existing Theoretical Frameworks

Current research on high-quality enterprise development predominantly constructs theoretical frameworks based on linear logic, such as the Resource-Based View (RBV), Dynamic Capabilities Theory, and Institutional Theory. Domestic studies often focus on single core variables like R&D investment, business environment, or corporate digital responsibility to explore their linear impact on high-quality development (Xu & Song, 2023; Li & He, 2022; Yang & Lian, 2023). Such studies emphasize the significance of individual driving factors but overlook the intricate complexities of multi-factor interactions in real-world scenarios. In contrast, international studies (Ferreras-Méndez et al., 2021; Diabate et al., 2019) tend to prioritize market-driven factors, such as market maturity, entrepreneurial ori-

entation, and managerial capabilities, in fostering the growth of SMEs, with less attention paid to the indirect or interactive effects of policy environments on enterprise development.

This research adopts a configurational perspective, integrating resource endowments and institutional environments to reveal diverse pathways promoting the high-quality development of SRDI enterprises. This approach transcends the limitations of single-factor analysis, systematically reflecting the complex logic underpinning high-quality development, thereby addressing the gaps in existing theoretical frameworks regarding multi-factor integration. Nonetheless, the study falls short of explaining specific contextual mechanisms. For instance, why do the synergies between resource endowments and policy environments become more pronounced in certain contexts? Future research should delve deeper into these underlying mechanisms.

5.2. Innovation and Limitations in Research Methodology

Conventional research methodologies primarily rely on traditional regression analyses and causal inference models, such as Structural Equation Modeling (SEM) and panel data analyses. Domestic research frequently employs large-sample quantitative methods to analyze the significance of single factors (Ma & Cao, 2020), while international studies often use case studies or experimental designs to test the validity of singular hypotheses (Elsahn et al., 2020). By employing QCA, this research identifies core pathways under various configurations, providing a novel analytical perspective for high-quality development studies. QCA not only unveils complex, multi-causal relationships but also identifies heterogeneous pathways for different enterprises pursuing similar objectives, thereby compensating for the limitations of traditional methods in analyzing complex systemic issues.

However, QCA's strength in pathway recognition is offset by its limitations in capturing dynamic causal mechanisms. The grounded theory paradigm and QCA utilized here cannot fully account for dynamic processes. Future research could incorporate dynamic process models or longitudinal data analyses to explore long-term factors influencing high-quality development. Additionally, while this study covers multiple industries and regions, the sample is primarily composed of publicly listed SRDI enterprises due to data accessibility constraints. This could compromise the external validity of the findings and their comprehensiveness. Future studies should broaden the sample scope, including non-listed enterprises, to enhance the robustness of the conclusions.

5.3. Universality and Specificity of Research Contexts

Domestic research on SRDI enterprises' high-quality development often centers on policy-driven pathways, emphasizing the pivotal role of policy support in fostering innovation and growth (Jiang et al., 2021). Conversely, international research places less emphasis on government policies and more on enterprises' au-

tonomous innovation capabilities within free-market contexts (Kolbe et al., 2022). Focusing on China's context, this study highlights the significance of policy-resource synergies, uncovering unique insights into policy-driven enterprise development while providing new contextual evidence for applying resource-based theories.

However, the generalizability of these findings might be constrained. Future research should address the following questions: Do the observed synergies between policy and resource endowments apply universally across different economies? Are the development pathways for enterprises consistent under varying institutional contexts? Furthermore, comparative analyses of similar enterprises in different economic systems would provide a more comprehensive understanding of how institutional environments influence enterprise development.

6. Conclusion and Implications of the Study

6.1. Conclusion of the Study

This study analyzes 29 listed SRDI enterprises as representative cases, utilizing the Zhagen Paradigm approach to examine both primary and secondary data. The study identifies the key factors influencing the high-quality development of SRDI enterprises and constructs a theoretical model. Additionally, data from 165 listed SRDI enterprises is subjected to Qualitative Comparative Analysis (QCA) to explore the mechanisms through which various factor combinations affect high-quality development. The main findings of the study are as follows:

Firstly, through grounded analysis of the SRDI case enterprises, the study identifies eight primary categories that influence the high-quality development of SRDI enterprises. These categories include strategic planning, innovation-driven growth, resource endowment, corporate culture, green development, internationalization, social responsibility, and environmental security. These categories encompass both internal organizational development and external environmental adaptation. Based on these categories, the study constructs a theoretical model of high-quality development for SRDI enterprises, clarifying the interrelationships among these factors and revealing their combined effects on the enterprises' high-quality development.

Secondly, to further validate and refine the theoretical model, the study applies Qualitative Comparative Analysis to the case enterprise data. The results reveal that: firstly, strategic planning, innovation-driven growth, and resource endowment form a necessary combination for achieving high-quality development in SRDI enterprises. The enterprise's strategic positioning, innovation capabilities, and resource foundation play key roles in the process of high-quality development. Secondly, the study identifies three main pathways for the high-quality development of SRDI enterprises, each representing a different combination of factors. This result confirms the complexity and multiplicity of high-quality development, emphasizing the synergetic effects between the factors. Therefore, different pathways exhibit varying adaptability, and there is no one-size-fits-all combi-

nation of conditions. SRDI enterprises should select an appropriate development pathway based on their unique circumstances.

Thirdly, the study identifies four main pathways of non-high-quality development for SRDI enterprises, further revealing the multidimensional and complex nature of enterprise development. The results show that, despite the presence of strategic planning and innovation-driven growth in all pathways, these alone are insufficient to ensure high-quality development, highlighting the importance of other critical factors. In particular, the lack of resource endowment emerges as the main bottleneck preventing high-quality development in multiple pathways. Moreover, strategies focused on a single dimension, such as internationalization or green development, cannot effectively compensate for shortcomings in areas such as resources, corporate culture, or social responsibility. Therefore, enterprises need to adopt a multidimensional, collaborative development strategy, integrating factors such as resources, culture, and social responsibility to achieve sustainable high-quality development.

6.2. Practical Implications

6.2.1. Enterprise Level

Enterprises should transition from a "large and comprehensive" development approach and instead identify and strengthen high-quality growth pathways that align with their industry characteristics and resource endowments. First, for resource-intensive and high-energy-consumption sectors, the central objective is to establish green resource advantages. This entails going beyond mere resource ownership to proactively upgrade traditional endowments into environmentally compliant competitive strengths through green technology innovation. Management should treat environmental compliance costs as strategic investments and actively leverage green finance mechanisms, environmental subsidies, and other supportive policies at national and local levels to achieve dual upgrading of both resource capacity and sustainable development. Second, for industries with strong internationalization potential such as pharmaceutical and food manufacturing, firms should concentrate on global resource integration. While fully utilizing domestic policy support and resources, they must establish international standards-compliant quality systems, intellectual property strategies, and brand storytelling capabilities. Moreover, global expansion should not come at the expense of social responsibility or corporate culture. Instead, companies should integrate global citizenship principles and develop cross-cultural management competencies to mitigate international risks and enhance brand reputation. Third, for manufacturing and technology-intensive industries, the focus should be on strategic synergy while avoiding critical weaknesses. With a solid foundation in three essential elements—strategic positioning, innovation capability, and resource endowment—firms should engage in forward-looking resource allocation. By fostering complementarity and mutual reinforcement among these elements, they can build integrated competitive advantages that are difficult for rivals to replicate.

6.2.2. Government Level

Policies should provide customized support tailored to the specific challenges and development paths of different enterprises. First, precisely address resource constraints. For high-potential enterprises hampered by resource shortages, policies should provide survival and development-oriented support. Key measures include broadening financing channels, offering substantive cost reductions such as super-deductions for R&D expenses, and establishing public technology service platforms to help them overcome the most critical resource bottlenecks. Second, actively guide strategic myopia. For enterprises with solid internal foundations but limited strategic vision, policies should focus on incentive-based and guidance-oriented support. Initiatives such as establishing green innovation funds, providing export credit insurance subsidies, and creating social responsibility awards can incentivize companies to internalize green development, internationalization, and social responsibility as strategic objectives. Third, optimize the industrial cultivation ecosystem through categorized approaches. For enterprise clusters driven by both resource endowments and green development, strengthen the diffusion of environmental technologies and support infrastructure development. For clusters driven by internationalization, provide services such as overseas legal consultation, market information, and risk early-warning systems. For total-factor-driven enterprises, position them as regional benchmarks and encourage them to play a leading role as "chain leaders" in the industrial ecosystem.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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