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Research on the Mechanism of Enhancing Resilience of Specialized, Refined, Distinctive, and Innovative (SRDI) Enterprises through Digital-Intelligent Technology

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Abstract: In the context of the deep adjustment of the global economic pattern and the rapid development of digital-intelligent technology, the development of specialized, refined, distinctive, and innovative (SRDI) enterprises is increasingly crucial for the high-quality development of the national economy and the enhancement of industrial competitiveness. Based on reality and literature research, this article summarizes the current development status of SRDI enterprises in Jiangxi, grasps the key issues of digitalization & intelligentization empowering the resilience improvement of Jiangxi SRDI enterprises, statically identifies and deconstructs the functional components of the "Digital-Intelligent Empowerment Subsystem" and the "Jiangxi SRDI Enterprises Immunity Subsystem", and explores the response mechanism of digitalization & intelligentization empowering the resilience of Jiangxi SRDI enterprises. The research conclusion of this article can help enterprises determine the key direction of digital-intelligent investment, reduce blind attempts in transformation, and enable limited resources to be more effectively used to enhance their own immunity. It can provide specific practical solutions for organizations such as industrial parks and industry associations to promote digital-intelligent collaboration in the industrial chain.

Keywords: Digital-Intelligent Technology, SRDI, Enterprises Resilience, Enhancement Mechanism.

1. Introduction

In the context of the deep adjustment of the global economic pattern and the rapid development of digital-intelligent technology, the development of specialized, refined, distinctive, and innovative (SRDI) enterprises is increasingly crucial for the high-quality development of the national economy and the enhancement of industrial competitiveness. In recent years, the global industrial chain has undergone a dual transformation of "regionalization+digitalization+intelligentization". In 2024, global foreign direct investment decreased by 8%, but investment in high-tech manufacturing increased by 28% against the trend, highlighting the important value of SRDI enterprises in replacing key technological nodes. At the same time, the United States and Europe continue to promote the nearshore integration of supply chains, and in this situation, the demand for China to accelerate the cultivation of "chain strengthening" enterprises is urgent. During this process, SRDI enterprises have become the core force in ensuring the security and stability of the industrial and supply chains, relying on their professional advantages in specific fields. From a domestic perspective, the trajectory of economic development has undergone a critical shift, gradually moving from a high-speed growth model to a new stage of high-quality development. In this context, China's manufacturing industry is facing extremely prominent pressure for transformation and upgrading.

Although SRDI enterprises have unique advantages in specific fields, they often have relatively small scales, limited resources, and relatively weak risk resistance capabilities. At present, there is a lack of systematic and in-depth research on the mechanism of how digital-intelligent technology empowers SRDI enterprises to enhance their resilience. Based on the above background, it is of great theoretical and practical significance to explore in depth the mechanism of how digital-intelligent technology can enhance the resilience of SRDI enterprises. This article can provide practical guidance for SRDI enterprises to apply digital-intelligent technology reasonably and enhance their own immunity, helping them achieve high-quality and sustainable development in complex and changing market environments.

2. Literature Review

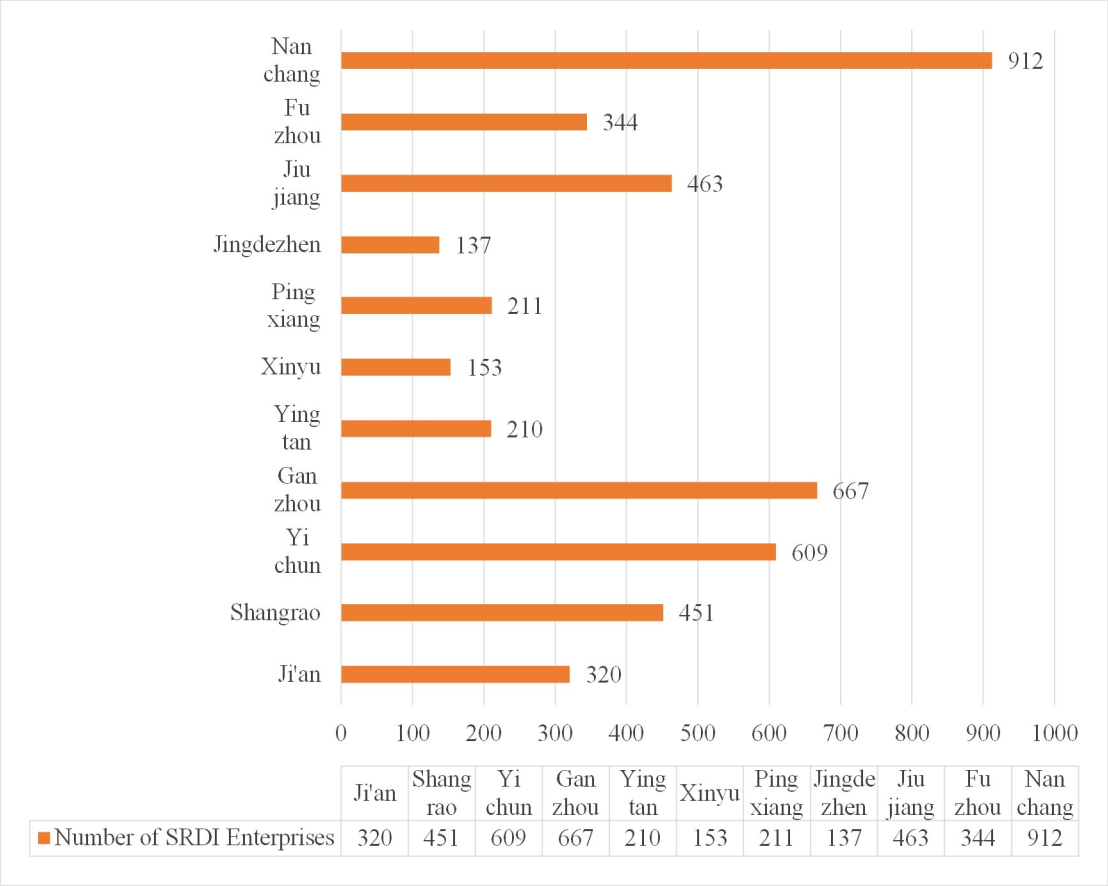
Digital-intelligent technology drives development and transformation in multiple fields. Firstly, the driving role of digital-intelligent technology in the field of business innovation is mainly achieved through two levels: product and business innovation, and organizational and management change. At the level of product and business innovation, Wu Xinyu et al. (2021) found through reviewing literature on intelligent service innovation that digital-intelligent technology has been deeply integrated into the application and development of intelligent service innovation at different stages of technological and social development[1]. At the level of organizational and management change, Zhu Xiumei and Liu Yue (2021) took Haier Group as a case study and used the theory of "integration of knowledge and action" to explain the mutual coupling between institutionalized knowledge and autonomous learning behavior in organizations, forming a digital-intelligent ecosystem capability[2]. Jiang Junfeng and Shang Yanying (2022) adopted the grounded theory and found that data empowerment can provide strong driving force for the service-oriented transformation of manufacturing enterprises from the three key dimensions of value creation, value transmission, and value capture, promoting their transformation and development[3]. Secondly, the driving role of digital-intelligent technology in

the field of intelligent operations helps to innovate models, optimize decisions, and deepen social impact. Matarazzo et al. (2021) found through multiple case studies that digital-intelligent transformation can promote innovation in intelligent models, create value for distribution channels and customer groups, and enable users to deeply participate in organizational operations[4]. Li Xizhen and Song Rui (2021) pointed out in their study on the impact of "cloud platforms" on global information technology applications that the transformation and application of digital-intelligent information technology have brought profound global social impacts, giving rise to "digital-intelligent media," "digital-intelligent economy," and "digital-intelligent life[5]. Thirdly, digital-intelligent technology plays a driving role in the field of ecological integration. Digital-intelligent technology not only develops within enterprises, but also extends to the entire industrial and supply chain, promoting ecological integration. Chen Jian and Liu Yunhui (2021) clarified the characteristics of the supply chain ecosystem by studying networked, dynamic, and virtual real integrated supply chains[6]. Babich and Hilary (2020) pointed out that digital-intelligent technology is an important support for the formation of the supply chain ecosystem[7]. By providing services such as visual presentation, information integration and aggregation, information verification and validation, contract automation processing, and information risk resistance enhancement, it can effectively promote the construction of a more stable, transparent, secure, and efficient supply chain system, thereby promoting the integrated development of supply chain and finance. Gueler et al. (2021) pointed out that such a strong supply chain ecosystem can better coordinate the contributions of supply chain members in collaborative value creation and the distribution of competitive value[8].

The resilience improvement of SRDI enterprises does not rely on a single factor, but is the result of the synergistic effect of the digital-intelligent business environment and dynamic capabilities, namely external conditions and internal capabilities (Duan Yunlong et al., 2025)[9]. Among them, the digital-intelligent business environment includes government factors and market factors. Government factors refer to providing institutional guarantees for enterprises innovation through digital-intelligent government services and digital-intelligent economic market supervision (Xu Hao et al., 2022)[10], while market factors refer to stimulating innovation vitality through the protection of digital-intelligent economic market entities and the development of market environment (Lu Xianxiang and Teng Yutong, 2023)[11]. Dynamic capabilities include perceptual ability, integration ability, and reconstruction ability. Perceptual ability is the ability to capture environmental changes and help SRDI enterprises respond to innovation risks in a timely manner (Cao Yuhua et al., 2023)[12]; Integration capability is the ability to integrate internal and external resources, supporting efficient allocation of innovative resources (Yang Lin et al., 2020)[13]; Refactoring ability is the ability to restructure resources and knowledge systems, promoting the upgrading of innovative models (Hu Baoliang et al., 2022)[14]. Ge Baoshan and Zhao Liyi (2024) believe that the entrepreneurial orientation composed of innovation, proactivity, and risk-taking is the source driving force for enhancing the resilience of SRDI enterprises[15]. Organizational dual learning achieves knowledge accumulation and updating to promote resilience improvement through different combinations of exploratory learning and exploitative learning (Wang Juanru et al., 2024)[16], with differentiated effects (Qi Xin et al., 2024)[17]. When the allocation of resources between exploratory learning and exploitative learning is balanced, the resilience of SRDI enterprises is better than that of unbalanced states, that is, the balanced state is better than the unbalanced state. In a balanced state, the higher the level of exploratory learning and exploitative learning, the stronger the resilience, that is, high-level balance is better than low-level balance.

3. Development Status of SRDI Enterprises in Jiangxi

As of the first quarter of 2025, Jiangxi has cultivated a total of 4477 provincial-level SRDI enterprises, as well as 270 national level SRDI "little giant" enterprises. However, compared to other advanced provinces, there is still significant room for improvement. By guiding more small and medium-sized enterprises to transform towards becoming SRDI, and cultivating a group of "small yet sharp" and "small yet strong" enterprises, not only can we strengthen the 12 key manufacturing industry chains in Jiangxi, but we can also form an ecological advantage of "using points to lead chains and chains to form clusters" in advantageous fields such as new energy and rare earths. This will better complete the "1269 Action Plan for Modernization of Key Manufacturing Industry Chains in Jiangxi Province (2023-2026)" and ultimately achieve Jiangxi's transition from a manufacturing province to a manufacturing powerhouse. Figure 1 reports the distribution of SRDI enterprises in Jiangxi Province as of the first quarter of 2025. The top three cities are Nanchang with a total of 912, Ganzhou with 667, and Yichun with 609. In terms of target customer selection, based on the current development status and characteristics of SRDI enterprises in Jiangxi Province, we focus on manufacturing fields such as computer, communication, and other electronic equipment manufacturing, electrical machinery and equipment manufacturing, and actively enter SRDI enterprises in industries or industrial chains that are supported and encouraged by Jiangxi Province's economic development plan and suitable for the survival and development of enterprises.



	Ji'an	Shang rao	Yi chun	Gan zhou	Ying tan	Xinyu	Ping xiang	Jingde zhen	Jiu jiang	Fu zhou	Nan chang
Number of SRDI Enterprises	320	451	609	667	210	153	211	137	463	344	912

Figure 1. Distribution of SRDI enterprises in Jiangxi province as of q1 2025

4. Key Issues in Empowering Jiangxi's SRDI Enterprises with Digitalization & Intelligentization for Resilience

(1) Strategic Level.

The strategic level is the "bottleneck" of cognition and planning, and the "first kilometer" obstacle to the digitalization & intelligentization of SRDI enterprises in Jiangxi. On the one hand, there is insufficient awareness of the necessity of transformation. Many SRDI enterprises have become "hidden champions" in their segmented fields, and traditional models can still bring stable profits. The management has a mentality of being content with small gains, believing that investing heavily in digitalization & intelligentization, carrying high risks, and slow results, is a "icing on the cake" rather than a "survival necessity". How to make business owners deeply understand that "digitalization & intelligentization are not a multiple-choice question, but a survival question", and realize that under the wave of digitalization & intelligentization, not transforming may quickly be eliminated by competitors with data-driven capabilities. On the other hand, the strategic path is ambiguous. Is the lack of clear top-level design and implementation path for SRDI enterprises a priority for transforming the production process? Or optimizing the management process? Or innovative business models? Unclear direction leads to lack of direction or wastage of resources. Lack of composite leaders who understand both industry production processes and digital-intelligent technology to formulate strategies. The solutions provided by external consulting firms are often flashy but not practical, and do not match the actual needs and resources of SRDI enterprises.

(2) Technical Level.

The technical aspect is the "difficulty" of implementation and integration, and the hard bone in the transformation process. On the one hand, the integration of old and new systems is difficult. SRDI enterprises generally have a large number of outdated equipment and information systems. These system data protocols are not unified, forming a "data island". To achieve device interconnectivity (IoT) and data integration, the cost of transformation is extremely high and the technical difficulty is high. Achieving smooth digital-intelligent transformation and system integration without stopping production or affecting existing businesses carries extremely high risks. On the other hand, the solution is not suitable for the local environment. The mainstream digital-intelligent solutions (such as industrial Internet platform and SaaS software) in the market are mostly of universal design, which is difficult to fully adapt to the highly personalized production process and subdivision needs of SRDI enterprises. A large amount of secondary development and customization is required, which not only increases costs and cycles, but also places extremely high demands on the technical understanding and project management capabilities of SRDI enterprises.

(3) Element Level.

The element level is the "pain point" of resources and talents, and the most realistic factor that restricts transformation. On the one hand, there is enormous financial pressure. The digital-intelligent transformation is a heavy investment project, including software and hardware procurement, system integration, personnel training, etc. For relatively small SRDI enterprises, a one-time investment is huge and the investment return cycle is long, which will affect the company's profits in the short term and lead to tight cash flow. Although the government provides subsidies, the

application process is complex, the threshold is high, and the coverage is limited. Debt financing places more emphasis on collateral and lacks evaluation of intangible assets and future income rights. The problem of difficult and expensive financing for enterprises is prominent. On the other hand, there is an extreme shortage of digital-intelligent talents. This is the core pain point faced by SRDI enterprises in Jiangxi. Local colleges and universities in Jiangxi have relatively weak talent cultivation ability in industrial big data, artificial intelligence algorithms, industrial Internet and other cutting-edge digital-intelligent technologies, and high-end talents tend to flow to first tier cities such as the Yangtze River Delta and the Pearl River Delta. Jiangxi's SRDI enterprises find it difficult to attract and retain compound talents who understand both technology and business. Lack of internal talents leads to excessive dependence on external service providers, insufficient self generating ability, and the transformation process is easily controlled by others.

(4) Data Level.

The data level is the "blind spot" between application and security, and it is a deep-seated issue for realizing value after transformation. On the one hand, data value mining is shallow. Many SRDI enterprises have invested heavily in purchasing systems and collecting data for display and monitoring, but they have only stayed at the stage of dashboard monitoring and have not been deeply applied to core business processes such as process optimization, predictive maintenance, quality improvement, and precision marketing. The value of digitalization & intelligentization has not been truly transformed into commercial value. Lack of data analysis and modeling capabilities leads to the inability to extract massive amounts of data, gain insights, and guide decision-making. On the other hand, there are concerns about data security and privacy. SRDI enterprises production processes, customers information, and operational data are core assets. Cloud migration and networking may pose risks of data leakage, tampering, and attacks. This depends on the security capabilities of the platform service provider. SRDI enterprises lack a comprehensive network security protection systems and professional teams, resulting in ambiguous areas with platform service providers in terms of data ownership and responsibility allocation.

(5) Ecological Level.

The ecological level is the "breakpoint" of collaboration and service, which is a problem supported by the external environment. On the one hand, there is insufficient coordination in the supply chain. The digitalization & intelligentization of SRDI enterprises are an optimization of the "point". Only by achieving data connectivity with upstream and downstream suppliers and customers can the collaborative efficiency of the "chain" be improved. However, the level of digitalization & intelligentization among upstream and downstream enterprises varies greatly, making it difficult to synchronize, resulting in the inability to fully leverage synergies. Promoting the digital-intelligent transformation of the entire industrial chain requires the lead of anchor enterprises or industry associations, but the difficulty far exceeds the transformation of a single SRDI enterprise. On the other hand, there is a shortage of effective service supply. There is a mixed bag of digital-intelligent transformation service providers in the market, with varying levels of expertise. Some service providers exaggerate their advertising and have weak landing capabilities, resulting in high sunk costs for enterprises and dampening their enthusiasm for transformation. Lack of authoritative, neutral, and professional third-party consulting and evaluation agencies to assist SRDI enterprises in identifying and selecting the most suitable service providers and solutions for their current situation and budget.

5. Static Deconstruction Analysis of Functional Components

In recent years, digital-intelligent technology has become a key driving force for organizations to cope with complex, volatile, and uncertain environments. Gartner has released the "Top 10 Strategic Technology Trends of 2023" report, which points out the need to accelerate the construction of a digital-intelligent immune system, drive decision-making with data, and improve organizational resilience and stability. Therefore, it is necessary for SRDI enterprises to achieve full scenario digital-intelligent technology to empower their immune defense line. This article argues that digital-intelligent resilience of enterprises is a special type of immunity, which refers to the ability of organizations to identify dissidents through design, deployment, and utilization of digital-intelligent technology, mobilize resources to eliminate them, and summarize experience to form memory, thereby improving the efficiency of healthy operation. Digital-intelligent technology is the technological condition and fundamental element for forming immunity. SRDI enterprises need to adopt transformative behavior to empower their immune architecture and process efficiency with digital-intelligent technology, thereby promoting the unity of stability and adaptability of organizations in crisis situations.

Biomedical immunology research has shown that the human immune system has two response modes: innate immunity and adaptive immunity. Innate immunity is an innate function of the body to maintain health, consisting of skin, mucous membranes, secretions, etc; Acquired immunity is the immunity obtained through vaccination or exposure to pathogenic microorganisms. The organizational immunity theory holds that corporate immunity and biological immunity have high similarities in structure, function, and other aspects, and corporate immunity also has two barriers: innate immunity and adaptive immunity. Innate immunity mainly includes the organizational structure, system, and culture of enterprises, while adaptive immunity consists of organizational immune surveillance, immune defense, and immune memory.

Based on this, this article believes that the digital-intelligent resilience of SRDI enterprises also includes two aspects: inherent digital-intelligent immunity and adaptive digital-intelligent immunity, and has a mapping relationship with human immunity and corporate immunity. Specifically, innate digital-intelligent immunity refers to the ability of enterprise organizations to respond to harmful internal and external factors through the application of digital-intelligent technology in advance and in a general manner. It mainly relies on digital-intelligent defense systems (such as big data business units, organizational digital-intelligent literacy and digital-intelligent culture, etc.), dedicated digital-intelligent immune systems (such as digital-intelligent risk management departments, digital-intelligent audits, etc.), and digital-intelligent immune cells (such as digital-intelligent employees, digital-intelligent teams, etc.) to exert immune efficacy. Inherent digital-intelligent immunity is the first line of defense for enterprise organizations to deal with internal

and external harmful factors, and it is also the basis for enterprise organizations to carry out immune responses. Adaptive digital-intelligent immunity refers to the postnatal and specific immune responses adopted by enterprise organizations based on pre-set digital-intelligent defense systems, dedicated digital-intelligent immune systems, and digital-intelligent immune cells, empowered by digital-intelligent technology to target internal and external dissidents. It functions through three mechanisms: digital-intelligent monitoring (such as digital-intelligent risk supervision, cloud testing, etc.), digital-intelligent defense (such as digital-intelligent crisis management, intelligent anti-virus measures, etc.), and digital-intelligent learning and memory (such as digital-intelligent knowledge management system, intelligent learning system, data quality management information database update, etc.), serving as the second line of defense for enterprises digital-intelligent resilience.

6. Non Specific Immune Response Mechanism of Digitalization & Intelligentization Empowering the Resilience of SRDI Enterprises in Jiangxi

Non specific immunity is an innate immunity that does not target specific antigens. This type of immunity provides defense against all external risks, but the immunity is weak and the specificity is not strong. Mapping to SRDI enterprises in Jiangxi, the main contents include "organizational structure" (full-time departments, temporary departments), "organizational rules" (management systems, innovation norms), and "organizational culture" (material culture, spiritual culture).

6.1. Organizational Structure Policy Objectives

The top-level design of digital-intelligent talent construction should be improved. Firstly, formulating a plan for cultivating digital-intelligent talents. On the basis of vigorously promoting the action plan for the development of digitalization & intelligentization, a talent cultivation plan for the field of digital-intelligent economy is specially formulated around the key areas of digital-intelligent economy development, optimizing the public service environment for digital-intelligent talents, guiding various resources to attract and gather digital-intelligent talents, providing institutional guarantees for the construction of the digital-intelligent talent teams, and effectively promoting the healthy development of the digital-intelligent economy. Secondly, compiling a map of scarce digital-intelligent talents. Research teams composed of experts from universities, research institutes, private think tanks, research institutions, and other related fields should be established to conduct multidimensional in-depth research on talent cultivation in the field of digital-intelligent economy, clarify the urgently needed professional fields, formulate key training directions, contents, and populations for each stage, explore priority training directions and paths, and provide strong human resource support for the early layout of key fields. Thirdly, creating a good atmosphere for talent growth. The development achievements and technological innovation contributions of digital-intelligent talents should be taking as the main evaluation criteria. The professional title system for digital-intelligent talents should be improved, and a classification evaluation standard system should be constructed, achieving two-way communication between the evaluation of specialized and skilled talents. The intensity of talent evaluation and recognition should be increased. Digital-intelligent talents in various talent projects should be paid more attention to and tilted towards, creating a favorable environment for the high-quality development of digital-intelligent talents.

6.2. Organizational Rules and Policy Objectives

(1) Building a Local Talent Cultivation System for Digitalization & Intelligentization

Firstly, accelerating the establishment of degree disciplines in the field of digital-intelligent in universities. The autonomy of universities in setting up majors should be further implemented. The establishment of cutting-edge disciplines and courses should be encouraged such as digital-intelligent economy, integrated circuits, artificial intelligence, and big data, promoting interdisciplinary integration. A framework for building teams of digital-intelligent talents should be formed through discipline construction and basic research layout to fully leverage the active driving role of universities and research institutes. Secondly, guiding vocational education to strengthen the cultivation of digital-intelligent talents. The curriculum arrangement in the field of digitalization & intelligentization should be improved in vocational education. SRDI enterprises and vocational colleges should be supported to jointly explore the construction of digital-intelligent skill teaching and practice bases. An order-based and customized training platform for digital-intelligent talents shoule be created. An talent docking mechanism between schools and enterprises should be established. The cultivation of digital-intelligent technology talents in key fields should be accelerated to systematically form a talent pool for digitalization & intelligentization. Thirdly, encouraging SRDI enterprises to increase their investment in digital-intelligent skills training. Legitimate units should be authorized to conduct digital-intelligent professional skills training and issue graduation certificates or technical certifications. Corresponding policy subsidies should be provided to various institutions that actively participate, and special subsidies and tax incentives should be provided to SRDI enterprises that participate in the training. SRDI enterprises should be encouraged to carry out new apprenticeship training, establish an internal cultivation system for digital-intelligent talents, and actively build talent training bases with ordinary universities, vocational colleges and other teaching institutions.

(2) Intensifying Efforts to Introduce High-End Digital-Intelligent Talents

The first phase is planting the "phoenix tree". The construction of digital-intelligent platform should be strengthened. A national major scientific and technological infrastructure, a national technological innovation center and a National Engineering Research Center in the field of digital-intelligent economy should be strived to build in Jiangxi to create the strongest brain of digital-intelligent economy, actively attracting top teams at home and abroad to carry out basic research, application research and development, achievement transformation and other activities of digital-intelligent economy in Jiangxi, so as to form a brand of digital-intelligent economy research and development base in our province. The second phase is letting the "phoenix tree" attract "phoenix". To draw in high-caliber professionals in the

digital-intelligent economy industry from both domestic and abroad to work in Jiangxi, efforts will focus on introducing high-end industrial platforms and developing competitive local industries. A series of measures will be rolled out to create ample opportunities and a favorable ecosystem for high-quality development of digital-intelligent talents to retain talents effectively. These include establishing a premium service center for digital-intelligent talents, enhancing the government subsidy framework for digital-intelligent talents, executing a full suite of supporting policies, and strengthening key public services such as children's education, housing, and tax incentives, etc. The third phase is empowering the "phoenix" to soar. A "Digital-Intelligent Craftsman" cultivation project should be initiated, accompanied by a comprehensive increase in policy support for premium talents in this sector. Institutional and mechanism reforms should be deepening to provide support for digital-intelligent talents in the use of research funds, application for scientific research projects, and transformation of scientific research results. These efforts are designed to create a relaxed and positive innovation and entrepreneurship environment, help digital-intelligent talents fully exert their talents and aspirations, and ultimately transform Jiangxi into a gathering place for digital-intelligent talents.

(3) Establishing a Flexible Policy System for Attracting Talents and Expertises

Firstly, fully leveraging the role of "unveiling the list and assigning leaders" in scientific research. Focusing on the key areas of digital-intelligent development in Jiangxi, Key scientific research projects from across the country and even globally should be systematically and step by step solicited to actively utilize external expertise to provide intellectual support for the practical needs of Jiangxi's development. At the same time, the influence of Jiangxi's digitalization & intelligentization will be widely disseminated, and Jiangxi will be developed into a high-end demonstration zone for digital-intelligent economy and a pioneer city for digital-intelligent technology research and development. Secondly, vigorously introducing part-time digital-intelligent experts and skill masters. local universities, research institutes, and vocational colleges should be encouraged to actively hire top experts in the field of digitalization & intelligentization as part-time professors (researchers), in order to quickly address the shortage of teaching staff in the construction of digital-intelligent disciplines, curriculum design, skill training, and other aspects. A training base for digital-intelligent talents and a master studio for leading digital-intelligent skills talents should be established to cultivate a group of "digital-intelligent craftsmen" and "digital-intelligent pioneers", and provide a solid talent foundation for the development of digitalization & intelligentization.

6.3. Organizational Culture Policy Objectives

Multiple measures should be taken to improve the digital-intelligent literacy of the entire population. Firstly, popularizing digital-intelligent knowledge and enhance digital-intelligent skills. Training content related to digital-intelligent knowledge should be added in various vocational skills training. Digital-intelligent skills training should be strengthened for all workers to enhance the digital-intelligent level of employed individuals. Information technology promoters or volunteers should be arranged in rural areas and communities to be responsible for promoting and educating on digital-intelligent knowledge in their respective regions, especially providing assistance services for the elderly and vulnerable groups to use digital-intelligent devices and adapt to the digital-intelligent age, and improving the digital-intelligent literacy of the entire population. Secondly, increasing training on digital-intelligent literacy and data awareness. Non-profit organizations should be encouraged to actively promote digital-intelligent theory and related technologies, regularly hold digital-intelligent forums, popularize digital-intelligent knowledge, especially in information infrastructure construction, digital-intelligent security and protection, digital-intelligent regulation, prevention of data monopoly, and the coordinated development of digital-intelligent and traditional business models, creating a favorable social environment for digital-intelligent development. Thirdly, strengthening the tracking research of digital-intelligent theory. With the rapid development of the digital-intelligent economy, the relevant theoretical foundation and framework will gradually be established and improved. Theoretical workers should be guided to conduct continuous and in-depth tracking and research on these. The list of scarce talents should be adjusted in a timely manner according to development needs to further strengthen the aggregation, activity, and contribution of digital-intelligent talents. The institutional mechanism should be improved for the construction of the digital-intelligent talent teams.

7. Research Conclusion and Policy Recommendations

7.1. Research Conclusion

Firstly, the key issues in empowering Jiangxi's SRDI enterprises with digitalization & intelligentization include strategic, technological, factor, data, and ecological levels. The strategic level is the bottleneck of cognition and planning. The technical aspect is the "difficulty" of implementation and integration. The element level is the "pain point" between resources and talents. The data level is the blind spot between application and security. The ecological level is the "breakpoint" of collaboration and service. Secondly, inherent digital-intelligent immunity is the first line of defense for enterprise organizations to deal with internal and external harmful factors, and it is also the basis for enterprise organizations to carry out immune responses. Adaptive digital-intelligent immunity works through three mechanisms: digital-intelligent monitoring (such as digital-intelligent risk supervision, cloud testing, etc.), digital-intelligent defense (such as digital-intelligent crisis management, intelligent anti-virus measures, etc.), and digital-intelligent learning and memory (such as digital-intelligent knowledge management system, intelligent learning system, data quality management information database update, etc.), serving as the second line of defense for enterprises digital-intelligent resilience. Thirdly, the non-specific immunity that empowers Jiangxi's SRDI enterprises with digitalization & intelligentization is innate immunity that does not target specific antigens. This type of immunity provides defense against all external risks, but the immunity is weak and the targeting is not strong. Mapping to SRDI enterprises in Jiangxi, there are mainly "organizational structures" (full-time departments, temporary departments), "organizational rules" (management systems, innovation norms), "organizational culture" (material culture, spiritual culture), etc.

7.2. Policy Recommendations

(1) Regularly Compiling a List of Information and Innovation Application Scenarios.

A normalized list release mechanism and separate lists should be established around the supply and demand levels. The first is the list of opportunities in the information and innovation industry scenario. Based on the demand information related to solutions, infrastructure construction, product (service) procurement, and other aspects involved in the construction of different industry scenarios, various industry regulatory departments, industry operating units, and relevant state-owned enterprises and institutions should actively explore, organize, or commission third-party organizations to jointly sort out and compile the industry information and innovation scenario demand list. This effort of coordinating and organizing should form perceptible and participatory scenario opportunities with scenario construction as the core. The second is the list of capabilities for the information and innovation industry scenarios. Based on the needs of various industry scenarios, information and innovation product solutions should be extensively solicited from enterprises and thoroughly selected excellent solutions to strengthen the supply of multi-dimensional and multi-level application scenarios. A combination of centralized and thematic releases should be adopted and the list of information and innovation application scenarios should be simultaneously published online and offline, to improve the efficiency and quality of supply and demand docking, and promote the project-based and normalized construction of information and innovation application scenarios.

(2) Establishing a Universal Software and Hardware Adaptation Verification Center.

SRDI enterprises should be encouraged to combine their own resource advantages and market expansion needs, integrate industry demand units, upstream and downstream enterprises, research institutes, financial institutions and other resources, establish a universal software and hardware adaptation verification center in the field of information and innovation, build a CPU whole machine adaptation platform, application software adaptation platform, application solution joint adaptation platform, comprehensive business operation platform, etc., provide services such as domestic component single product testing, software and hardware combination adaptation, integrated optimization evaluation, and information and innovation talent cultivation, achieve unified adaptation standards, unified evaluation system, and unified ecological services for information and innovation software and hardware products, further improve the information and innovation adaptation ecosystem, and promote the accelerated implementation of information and innovation integration solutions in diverse application scenarios.

(3) Exploring the Cultivation Model of the Lighthouse SMEs (Small and Medium-sized Enterprises) System.

Drawing on the typical practices of Zhejiang's "Future Factories" and "Jiangsu Lighthouse" initiatives, the "Lighthouse Effect" should be summarized to explore the establishment of "Digital-Intelligent Navigation" enterprises, "Digital-Intelligent Factories" and Lighthouse SMEs cultivation models. Through systematically planning, replicating and promoting, and demonstrating and leading, the influence of Jiangxi's intelligent manufacturing should be amplified. Firstly, promoting efficiency and consumption reduction for enterprises through strengthening technological empowerment. Efforts are being made to increase efficiency, with marketing, procurement, research and development, manufacturing, and service as the entry points for "Digital-Intelligent Transformation", gradually expanding to the entire operation and management of enterprises. Secondly, enhancing industry resilience and vitality in response to industry demand. Focusing on the resilience of the industrial chain, "Digital-Intelligent Navigation" enterprises, "Digital-Intelligent Factories", Lighthouse SMEs and potential enterprises should be encouraged to open up their digital-intelligent technology and production capabilities to upstream, midstream and downstream enterprises and manufacturing factories, reduce the technological threshold for SMEs digital-intelligent transformation, drive the replication of experience by related enterprises in the industrial chain and supply chain, and promote the overall process of industrial digitalization & intelligentization. Thirdly, actively creating an ecosystem to gather momentum and increase energy to promote industry development. Enterprises should be encouraged to accumulate technology, delve into vertical fields, and actively participate in the construction of their own industry sectors.

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Data Availability

Data can be obtained from the corresponding author on request.

Declaration of Interest Statement

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Conflicts of Interest

The authors declare no conflicts of interest.

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