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From "Policy Silos" to "Talent Ecosystem": A Study on the Synergistic Governance Shift of Local Urban "Attraction, Cultivation, Retention, and Utilization" Policy Chains

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Abstract: In the current era of "white-hot" regional talent competition, the talent policy systems of local cities are undergoing a profound paradigm shift. However, the phenomenon of "policy silos" under traditional bureaucracy remains severe. Various functional departments act independently in the "attraction, cultivation, retention, and utilization" (ACRU) stages of talent work, leading to broken policy chains, resource misallocation, and internal friction of efficacy. Focusing on this governance dilemma and using "talent ecosystem" theory as a lens, this paper constructs an analytical framework for the synergistic governance shift from "policy silos" to a "talent ecosystem." This study employs qualitative research methods, conducting a "thick description" of a typical case of a late-developing, catch-up local city (City C), supplemented by policy text coding and semi-structured interviews. It systematically reveals four typical representations of "policy silos" on the ACRU chain: "link silos" (prioritizing attraction over retention), "supply-demand silos" (decoupling of cultivation and utilization), "departmental silos" (fragmented governance by multiple bodies), and "talent-industry silos" (separation of human capital and industrial development). The study argues that the core essence of achieving this governance shift lies in promoting four transformations: a conceptual shift from "element management" to "habitat cultivation," a value shift from "government-centric" to "talent-centric," a structural shift from "linear segmentation" to "networked synergy," and a model shift from "sole dominance" to "multi-actor co-governance." Finally, from the perspective of governance reconstruction, this paper proposes four core pathways to realize this shift: constructing a "holistic" synergistic governance hub, re-engineering a "closed-loop" policy operational process, innovating "precision" industrial embedding tools, and establishing a "long-cycle" ecosystem evaluation orientation. This study aims to provide theoretical insights and practical guidance for local cities to overcome the "fragmentation" dilemma in talent policy and build high-level talent ecosystem.

Keywords: Policy Silos, Talent Ecosystem, Attraction, Cultivation, Retention, and Utilization (ACRU), Synergistic Governance, Governance Shift, Qualitative Analysis.

1. Introduction

Talent is the strategic resource for national revitalization and for gaining a proactive stance in international competition. The report of the 20th National Congress of the Communist Party of China placed "talent-led development" in a vital position within the overall modernization drive, highlighting the extreme importance of talent in national development. Against this backdrop, regions across the country have successively adopted "Talent-Strong City" and "Talent-Strong Province" as core development strategies, and the regional competition for science and technology (S&T) talent has entered a white-hot phase. In practice, however, local talent policy systems often exhibit significant characteristics of "fragmentation" and "horizontal and vertical segmentation."

Current talent policies are mostly led by different functional departments (e.g., Organization, Human Resources and Social Security (HRSS), S&T, Education, Industry and Information Technology), each acting independently. This results in policy tools being disconnected across the four key stages of "attraction, cultivation, retention, and utilization" (hereinafter ACRU), thus forming "policy silos" [1]. For example, some regions spend heavily on "attracting talent" but lack systematic "cultivation" and "utilization" mechanisms, leading to talent "failing to acclimatize" or being "attracted but not used." Some regions focus on "cultivation" (such as building university towns) but ultimately "make wedding dresses for others" due to a poor "retention" environment and insufficient industrial absorption capacity, resulting in a persistent "brain drain" phenomenon. This "piecemeal" (ling qiao sui da) policy model may seem to be "blossoming at multiple points" on the surface, but at a deeper level, it severs the organic chain of talent development. This not only causes significant waste of administrative resources but also severely undermines the overall efficacy of the policies, failing to create sustained appeal and cohesion for high-level talent.

The academic community has achieved fruitful results in talent policy research, but limitations persist. Existing research has largely focused on policy analysis of a single stage-such as the incentive effects of "attraction" policies, the industry-education integration models for "cultivation," or the environmental factors for "retention"-or has emphasized quantitative evaluation of policy effects, such as the contribution of talent inflow to regional innovation. However, few studies have adopted the perspectives of systems theory and holistic governance to deeply explore the internal mechanisms of "why to synergize" and "how to synergize"

across these four stages. In particular, there is a lack of in-depth, practice-based qualitative analysis that reveals the real-world dilemmas and institutional obstacles policy synergy faces at the grassroots level. The theoretical explanation of "why synergy is necessary" remains insufficient, and the practical pathways to "how it is achieved" remain vague.

This paper attempts to bridge this research gap. The core research questions are: What is the underlying theoretical logic for the synergistic governance shift of local urban talent policy from "silos" to "ecosystem"? What typical governance dilemmas are faced in practice? And, what are the effective pathways to realize this shift?

To answer these questions, this study selects a late-developing, catch-up local city (hereinafter City C) as its analytical case. The case of City C is highly typical: First, the city is located in a non-core area of a developed coastal province and is a key node in the province's major regional balanced development strategy (e.g., the "Hundred-Town, Thousand-County, Ten-Thousand-Village Project"). It is also a primary destination for industrial transfer from the core area, and its "Manufacturing as the Mainstay" strategy creates an urgent demand for S&T talent. Second, the city is adjacent to a first-tier city, a "talent highland," facing both the immense pressure of the "siphoning effect" and the "first-mover" advantage of capturing talent spillover. Third, as a late-developing, catch-up city, City C is not burdened by deep historical policy paths, giving it both the possibility and the necessity for "corner-overtaking" and institutional innovation. Therefore, City C's talent policy practice provides an excellent "typical case" for observing how a developing region attempts to build a systematic talent policy framework to overcome its "talent bottleneck."

This study will employ qualitative research methods. Through deep coding analysis of City C's relevant policy texts, supplemented by semi-structured in-depth interview data from relevant stakeholders (including government officials, enterprise managers, and high-level talent representatives), it will conduct a "thick description" of the current state of synergy in City C's talent policy. Building on this, using an analytical approach derived from Grounded Theory, the study will distill the core obstacles impeding the shift from "policy silos" to "talent ecosystem" and subsequently construct mechanisms for its realization.

2. Conceptual Definition and Theoretical Foundations

2.1. Definition of Core Concepts

1) Policy Silos

"Policy silos" are a concrete manifestation of "fragmented" governance at the policy formulation and implementation levels. It specifically refers to a non-synergistic state where, under a bureaucratic organizational structure, various functional departments independently formulate and execute related policies based on their own jurisdictions, interests, and performance indicators. This leads to disconnection, lack of articulation, or even conflict among different policies in terms of goals, tools, resources, and information [2]. In the domain of talent policy, this manifests as the four ACRU stages being managed by different departments, resulting in policies "coming from multiple gates" (zheng chu duo men) and being mutually disconnected.

2) Talent Ecosystem

"Talent ecosystem" is a metaphor borrowed from ecology, used to describe the systemic state in which talent interacts and co-evolves with the surrounding environment (including industry, policy, capital, culture, services, etc.) [3]. Unlike the traditional "talent resources" concept, which emphasizes "stock" and "management," the "talent ecosystem" emphasizes "environment" cultivation, "actor" interaction, and "system" evolution. A healthy talent ecosystem, much like a tropical rainforest, possesses characteristics such as biodiversity (diverse talent structure), energy cycling (smooth talent mobility), environmental self-purification (tolerance for trial and error), and system regeneration (spontaneous emergence of talent).

3) Shift towards Synergistic Governance

The "synergistic governance shift" referred to in this paper is a fundamental governance paradigm change. It is not merely "coordination" or "cooperation" between departments. Rather, it signifies a process where local government proactively breaks down the institutional barriers of "policy silos," guided by the "talent ecosystem" philosophy. Through reconstructing governance architecture, re-engineering operational processes, integrating policy tools, and introducing multi-actors, it propels the talent policy chain from a linear, segmented state of ACRU into a "governance network" or "ecosystem" where all links, actors, and elements are efficiently synergistic and dynamically coupled.

2.2. Theoretical Foundations: From "Fragmentation" to "Holistic Governance"

Traditional public administration theory, following Weberian bureaucratic logic, emphasizes professional division of labor, hierarchical control, and rule-based operations. While this model ensured administrative efficiency in the industrial age, it also entrenched "departmentalism" and "segmentation," leading to the "fragmentation" governance dilemma [4]. That is, when faced with complex, cross-cutting issues like talent development, the government experiences policy failure or "fallacies of composition" due to functional overlap, information barriers, and conflicting goals.

To meet this challenge, "Holistic Governance" theory emerged. This theory advocates for breaking down organizational and information barriers within government. Through "horizontal synergy" (cross-departmental), "vertical synergy" (cross-level), and "inter-governmental synergy" (cross-regional/cross-actor), it aims to achieve "seamless services" centered on the citizen (or service recipient) [5]. The underlying governance logic of the shift from "policy silos" to "talent ecosystem" is precisely this profound transformation from "fragmented management" to "holistic governance."

However, much of the existing research has focused on describing the necessity of "holistic governance" or its technical pathways (e.g., IT enablement) [6], but has less frequently combined it with "talent ecosystem" theory to systematically explore the internal mechanisms, practical representations, and reconstruction pathways for achieving a synergistic governance shift in the specific field of talent policy. This paper attempts to use "holistic governance" as a theoretical lens, with "talent ecosystem" as the value objective, to construct an analytical framework for the synergistic governance shift in the ACRU policy chain.

3. Typical Representations of "Policy Silos": Governance Dilemmas on the ACRU Chain

Through coding analysis of City C's policy texts and interview data, this study finds that "policy silos" are not an abstract concept but manifest as four typical governance dilemmas on the ACRU policy chain. These are intertwined and collectively constitute the systemic barriers to the development of a talent ecosystem.

3.1. Link Silos: "Prioritizing Attraction over Retention," A "Top-Heavy" Chain

The most significant silo is manifested in the unbalanced resource allocation across the policy chain links. Under the pressure of the "political tournament," local governments exhibit great enthusiasm for "attraction" work, which offers "quick results, easy statistics, and visible achievements."

- Evidence from policy texts: In the 35 policy documents from City C that were analyzed, policies directly related to "attraction" (e.g., settling-in fees, living subsidies, project start-up funds) were significantly more numerous and "concentrated" (in terms of support intensity) than policies related to "cultivation," "retention," and "utilization." The policy design for "attraction" was extremely detailed, while policies for "cultivation," "retention," and "utilization" were comparatively macroscopic, vague, and lacked operationality.
- Evidence from interviews: An interviewee from an HRSS department stated frankly: "'Attraction' work is quantifiable and visible. How many PhDs, how many academicians we brought in this year-the data looks good and is easy to report upwards. In contrast, 'cultivation' has a long cycle and slow results. 'Retention' and 'utilization' are even softer tasks, very difficult to assess. When fiscal money is spent without seeing a 'splash' in the short term, the pressure is immense."

This cognitive path dependence on "prioritizing attraction over retention" leads to "link silos"-policy resources are excessively concentrated at the "entry point," while policy supply is severely inadequate in the subsequent critical stages of "cultivation," "development" (utilization), and "settling in" (retention). A senior executive recruited from the Pearl River Delta mentioned in an interview: "The promises were great when I came (from the government). But after I actually landed, I found that the local industrial support, the technical exchange circles, and the quality educational resources for my children couldn't keep up (cultivation and retention). My subsequent career development was also limited (utilization). It felt like the policy only covered 'attracting' me, not keeping me 'alive' here." This phenomenon of "strong enthusiasm in the first half, weak service in the second" leads to a situation where talent can be "attracted but not retained," severely discounting policy efficacy.

3.2. Supply-Demand Silos: "Decoupling of Cultivation and Utilization," Supply and Demand Moving in Opposite Directions

The second silo manifests as a structural mismatch between the talent "supply side" (cultivation) and the "demand side" (utilization). The government's "cultivation" system (mainly local universities and vocational colleges) is severely disconnected from the local industry's "utilization" needs.

- The "Self-Circulation" of the Education System: City C hosts a large-scale provincial vocational education town. However, in interviews, multiple enterprise managers reported that the professional setups, curriculum systems, and practical training content of these institutions do not align well with the needs of City C's "Manufacturing as the Mainstay" strategy, such as in new materials and advanced manufacturing. An interviewee from the education department admitted: "When setting up majors, colleges consider more the evaluations from higher education authorities and enrollment popularity, rather than the niche demands of local industry. The education system and the industrial system are still 'two skins' (liang zhang pi)."
- "Elitist Preference" in Policy Tools: The "metrics" for policy rewards are highly concentrated on "elite" talents such as "PhDs," "Professors," and "Provincial-level titles." In contrast, incentive policies are clearly insufficient for the "blue-collar" and "grey-collar" talent urgently needed by enterprises, such as "chief engineers," "process technology experts," and "senior technicians."

This "supply-demand silo," characterized by the decoupling of cultivation and utilization, leads to a structural imbalance: on one hand, the "academic elite" talent attracted by the government with heavy funding may "fail to acclimatize" due to a lack of industrial application scenarios [7]; on the other hand, the "grassroots" engineers and technicians urgently needed by industry do not receive adequate policy attention and support.

3.3. Departmental Silos: "Fragmented Governance," Impenetrable Organizational Barriers

The third silo originates from the bureaucratic organizational structure. City C's talent management functions are dispersed across multiple departments: the Organization Department (Talent Office) for macro-level coordination; the HRSS bureau for attraction, household registration, and social security; the S&T bureau for research projects and platforms; the Education bureau for basic and vocational education; and the Industry and Information Technology bureau for industrial talent needs. This "fragmented governance" (jiu long zhi shui, or "nine dragons managing the waters") structure naturally severs the "full chain":

- Information Silos: Each department's talent database (HRSS's social security database, S&T's expert database, Education's student records) is isolated, forming "data chimneys." "No single department can say clearly how many S&T talents City C has, what their structure is, or where they are distributed," (according to an S&T bureau interviewee). The lack of a unified data foundation makes synergy impossible to initiate.
- Disjointed Actions: Departments operate on a "each managing their own segment" model. The HRSS bureau is responsible for "attracting" people, but the S&T bureau's research projects (utilization) may not follow up. The Education bureau is "cultivating" people, but the "retention" policies from HRSS and

Industry bureaus (e.g., employment subsidies) may not be precisely targeted to this group of graduates.

- Shirking of Responsibility: When core cross-departmental matters are involved (such as talent apartment allocation or children's schooling), departmentalism becomes prominent. One corporate HR manager complained: "We applied for a talent apartment. Department A said it was managed by Department B. Department B said they needed a letter from Department A first. The responsibility was just passed back and forth. In the end, the talent couldn't wait and left." This "synergy failure" caused by functional overlap and ambiguity is rampant at the grassroots level.

3.4. Talent-Industry Silos: "Separation of People and Production," Talent and Industry in Parallel Worlds

The fourth silo is the "separation of people and production" (ren chan fen li), a disconnect between "talent policy" and "industrial policy." In City C's practice, the departments responsible for talent work (Organization, HRSS) and those responsible for industrial development (Development and Reform, Industry and Information Technology) often "operate on different tracks."

- "Parallel Lines" in Policymaking: When formulating industrial plans, talent support schemes are rarely demonstrated or synchronized. Conversely, when formulating talent policies, there is a lack of in-depth analysis of the industrial layout and technological roadmaps. The two fail to resonate in terms of goals, timing, and resources.
- "Falling Through the Cracks" in Implementation: An interviewee from the industry bureau pointed out: "We go out to attract investment (attract industry). The biggest problem after a company lands is that they can't recruit qualified technical talent (lack of people). But in our department's policy toolkit, we only have subsidies for technical reform and equipment, not the 'people-attracting' tools like 'offering' (government) '编制' (staffing quotas) or 'hukou' (household registration). Those tools are with HRSS and the Organization Department."

This "talent-industry silo" makes talent development like water without a source or a tree without roots. Talent cannot be precisely matched with industrial needs, and industrial development, in turn, falters due to a lack of talent support. This ultimately leads to a vicious cycle where talent "cannot be attracted or retained," and industry becomes "large but not strong, unable to transform."

4. The Essence of the Synergistic Governance Shift: From "Element Management" to "Habitat Cultivation"

The shift from "policy silos" to "talent ecosystem" is by no means a simple policy "patch-up" (da bu ding); it is a profound governance paradigm shift. This study argues that the core essence of this shift lies in promoting four transformations:

4.1. Conceptual Shift: From "Element Management" to "Habitat Cultivation"

The underlying logic of traditional "siloed" policy is "talent element management." The government acts as a "craftsman," attempting to "manufacture" or "acquire" standardized "talent parts" through tools like subsidies and rewards. The philosophy of "ecosystem-based" governance, however, is "habitat cultivation." The government acts as a "gardener," whose primary duty is to cultivate a "tropical rainforest" environment with suitable "water, soil, light, and air" (i.e., the habitat). The "gardener" does not directly "manufacture" species but rather improves the habitat, allowing talent (species) to spontaneously flow in, thrive, and evolve. This conceptual shift requires the government to move from "prioritizing subsidies" to "prioritizing the environment," and from "short-term attraction" to "long-term cultivation."

4.2. Value Shift: From "Government-Centric" to "Talent-Centric"

"Siloed" policy is "government-centric." The starting point for policymaking is "what the government has and can give." The process design is "what is convenient for the government to manage." The evaluation standard is "how many indicators the government has completed." In contrast, "ecosystem-based" governance must shift to being "talent-centric" (or "user-centric"). With talent and employers at the core, the starting point for policymaking is "what does talent need?" The process design is "what is the most convenient way for talent to access services?" The evaluation standard is "what is the talent's satisfaction and contribution?" This requires the government to set aside its "manager" persona and transform into a "service provider," achieving a value shift from "managing talent" to "serving talent."

4.3. Structural Shift: From "Linear Segmentation" to "Networked Synergy"

"Siloed" policy is structurally "linearly segmented." "Attraction, cultivation, retention, and utilization" are like independent steps on an assembly line, mutually exclusive. In contrast, "ecosystem-based" governance is structurally "networked and synergistic." It recognizes the complexity of talent development: there is "cultivation" in "attraction," "retention" in "cultivation," and "utilization" is in itself "attraction." For example, a high-level "utilization" platform (like a new R&D institute) is itself the best "attraction" magnet and "cultivation" base. This structural shift requires the government to break its "linear thinking" and build a "policy network" where all links and elements empower each other and promote a virtuous cycle.

4.4. Model Shift: From "Sole Dominance" to "Multi-Actor Co-Governance"

"Siloed" policy is characterized by "sole government dominance"; the government is the only policy supplier and resource allocator. However, the complexity, emergence, and self-organizing nature of a "talent ecosystem" are far beyond the control of a single government entity [8]. Therefore, "ecosystem-based" governance must shift to a "multi-actor co-governance" model. The government is no longer the "all-powerful player" but an "ecosystem organizer" and "platform builder." It must actively guide enterprises, universities, research institutes, industry associations, financial institutions, and talent agencies to jointly participate in the entire process

of talent "attraction, cultivation, retention, and utilization," forming a new governance pattern of "government builds the stage, the market takes the lead, multiple parties participate, and all co-build and share."

5. From "Silos" to "Ecosystem": Implementation Pathways for the Synergistic Governance Shift

Based on the analysis of City C's governance dilemmas and the refined essence of the synergistic governance shift, this study argues that realizing this systemic change requires starting from "mechanism design" to reconstruct the governance system.

5.1. Pathway 1: Construct a "Holistic" Synergistic Governance Hub

To break the "departmental silos" of "fragmented governance," the primary prerequisite is to establish a "holistic" governance hub that transcends departmental interests.

1) Establish a "High-Specification" Talent Work Leading Group. This group should be chaired by the main leaders of the Municipal Party Committee and Government, and must include the "top leaders" from core departments such as Organization, HRSS, S&T, Education, Industry and Information Technology, Finance, Development and Reform, Natural Resources (for land security), and Housing (for talent apartments). Its core function is not "coordination," but "decision-making" and "arbitration."

2) Empower the Leading Group with "Substantive" Authority. "High-specification" should not be merely nominal; the key is to empower it with substantive "three powers" to give it "teeth":

The Unified Policy Review Power: All major talent-related policies, regardless of which department drafts them, must be reviewed and approved by the Leading Group. This prevents policy conflicts and "multiple decrees from different gates" at the source.

The Coordinated Resource Allocation Power: Integrate the scattered special talent funds from various departments into a "Municipal Talent Development Strategy Fund." This fund should be uniformly managed and deployed by the Leading Group's office (which can be seated in the Organization Department's Talent Bureau) to ensure resources are directed to the "full chain's" critical nodes and "short planks," changing the "fragmented" model of resource mismatch.

The Final Adjudication Power for Evaluation: The performance evaluation of all departments' talent work should be uniformly organized by the Leading Group, shifting from "departmental evaluation" to "synergistic evaluation," to fundamentally reverse the cognitive bias of "prioritizing attraction over cultivation."

5.2. Pathway 2: Re-engineer a "Closed-Loop" Policy Operational Process

To address "link silos" and "operational blockages," the government must re-engineer policy processes using digital and integrated thinking, guided by the "talent-centric" value shift.

1) Establish a "Single-Window" Synergistic Service Platform. Integrate the approval items and service windows of various departments to create an online "Talent One-Stop" platform and an offline "Talent Service Single Window." Whether for talent household registration (HRSS), project application (S&T), or children's schooling (Education), all applications should be "accepted at a single window, processed internally, and concluded within a time limit," thereby minimizing the "transaction costs" for talent and employers.

2) Establish a "Single-Database" Data Governance Mechanism. Break down "data chimneys" by building a unified, city-wide "S&T Innovation Talent Database." Using ID numbers (or a unified talent ID) as the index, horizontally link data from HRSS, S&T, Public Security, Education, Medical Insurance, and Market Regulation (for enterprise information), and vertically cover the talent's full life cycle from "inflow," "growth," "contribution," to "outflow." Only through data synergy can "precision profiling," "precision policymaking," and "precision services" be achieved.

3) Establish an "Integrated Feedback" Dynamic Response Mechanism. Create standing channels for talent demand surveys and policy satisfaction feedback. Through the "Talent One-Stop" platform's "government hotline" or "Entrepreneur/Talent Through-Train" formats, ensure that "downstream" (utilization, retention) feedback can be promptly fed into the "database" and trigger a response, driving dynamic adjustments in "upstream" (attraction, cultivation) policies, thus forming a "perceive-respond-decide-act" closed loop.

5.3. Pathway 3: Innovate "Precision" Industrial Embedding Tools

To resolve "supply-demand silos" and "talent-industry silos," the talent policy chain must be deeply "embedded" and "fused" with the industrial and innovation chains.

1) Establish an "Industry-Demand-Driven" Policy Generation Mechanism. Completely reverse the "government-supply-oriented" policymaking model, shifting to an "industry-demand-driven" one. The formulation of talent policy (especially for "attraction" and "cultivation") must be closely aligned with City C's "Manufacturing as the Mainstay" key industrial chains (e.g., new materials, advanced manufacturing, biomedicine).

2) Compile an "Industrial Talent Map." In collaboration with the S&T, Industry and Information Technology, HRSS, and Education departments, as well as industry associations and leading enterprises, periodically compile and release a "City C Key Industry Talent Demand Catalog" (White Paper). This map must clearly identify the "pain points" and "gaps" in each stage of the ACRU chain for each industry. This "map" should become the "navigator" for all talent policymaking.

3) Implement "Categorized and Precise" Synergistic Incentives. Move away from "elitist" incentives that "only value titles and degrees" and establish a "classified evaluation" system [9]. For "Scientists" (basic research), provide long-term, high-autonomy research support (utilization). For "Engineers" (technology application), provide incentives based on their contribution to enterprise projects and process innovations (utilization), supplemented by corresponding professional title evaluations (retention). For "Master Technicians" (high skills), provide full guarantees in terms of social status and compensation (retention), and support them in establishing "master workshops" (cultivation).

5.4. Pathway 4: Establish a "Long-Cycle" Ecosystem Evaluation Orientation

To break the cognitive bias of "prioritizing attraction over retention," the "conductor's baton" of evaluation must be reformed, guiding government departments away from "short-term achievements" and toward "long-termism" and "habitat cultivation."

1) Shift from "Stage-based Evaluation" to "Full-Chain Evaluation." Reform the performance evaluations for the HRSS, S&T, and Education departments. Do not just assess the HRSS bureau on "how many people were attracted," but on the "retention rate of attracted talent after three years" (attraction + retention). Do not just assess the Education bureau on "how many graduates were cultivated," but on the "local employment rate and starting salary levels of graduates" (cultivation + retention + utilization). Do not just assess the S&T bureau on "how many projects were approved," but on the "local commercialization rate of research projects" (utilization).

2) Shift from "Explicit Indicators" to "Ecosystem Indicators." Introduce "long-cycle" evaluation [10]. Reduce the weight of short-term, explicit indicators like "quantity of talent attracted" and "amount of funds disbursed." Increase the weight of long-term, systemic "ecosystem indicators" such as "talent's contribution to industry" (e.g., new output value, tax revenue), "regional innovation vitality" (e.g., patent applications and transformations), "talent satisfaction and retention rates," and "talent ecosystem diversity."

3) Introduce "Multi-Actor Co-Governance" Evaluation. Establish a "third-party evaluation mechanism" composed of representatives from enterprises, talent, industry associations, and professional think tanks. This body should periodically conduct independent evaluations of the "talent ecosystem's" construction effectiveness. The evaluation reports should serve as a key basis for the performance assessment of government departments and for the dynamic adjustment of policies, ensuring the objectivity and professionalism of the evaluation.

6. Conclusion and Discussion

Talent is the number one resource in regional competition. In the intensifying "war for talent," it is no longer sustainable for local governments to rely solely on "crude, subsidy-based," "fragmented" attraction policies to win. Shifting from "policy silos" to a "talent ecosystem" and promoting the synergistic governance of the full "attraction, cultivation, retention, utilization" chain is the inevitable choice for achieving high-quality talent work and a strategic opportunity for late-developing regions to achieve "corner-overtaking."

Using "talent ecosystem" theory as a lens, this paper has constructed an analytical framework for the shift from "policy silos" to "synergistic governance." Through a qualitative analysis of the typical case of City C, this study revealed four practical representations of "policy silos"-link silos, supply-demand silos, departmental silos, and talent-industry silos. These dilemmas are common governance challenges faced by late-developing regions, deeply revealing the "choke points" of synergy in practice.

The study argues that the core of achieving this governance paradigm shift lies in promoting four transformations, from "element management" to "habitat cultivation." To this end, this paper proposes four implementation pathways from the perspective of governance reconstruction:

constructing a "holistic" governance hub, re-engineering a "closed-loop" operational process, innovating "precision" industrial embedding tools, and establishing a "long-cycle" ecosystem evaluation orientation. The core of this mechanism is to propel the government to transform from a "policy supplier" into an "ecosystem cultivator." The ultimate goal is not to "possess" talent, but to "fulfill" talent, and by "fulfilling" talent, to "fulfill" the city's own development.

This study also has

certain limitations. First, as a qualitative study based on a single case, its conclusions should be applied with caution when generalizing to other regions (especially developed regions with net talent inflow). Second, due to the limitations of accessing interview data, it may not have comprehensively covered the voices of all stakeholders, and interviews cannot fully replace the depth and vividness of actual fieldwork. Finally, the implementation mechanisms proposed in this paper lean toward an "ideal" construction of "top-level design." The executive deviations and strategic gaming that may be encountered in practice require further follow-up research.

Future research could be expanded in the following directions: First, "comparative case studies" could be introduced, selecting multiple cities with "successful synergy" and "failed synergy" for comparative analysis to more precisely distill the key variables and contingent factors for achieving synergy. Second, (quantitative) empirical tests could be conducted along the chain of "policy synergy-talent perception-innovation performance" to measure the specific contribution of the "talent ecosystem" to regional innovation output. Third, a longitudinal "process tracing" of the implementation of the "synergy mechanisms" proposed in this paper could be conducted to explore the specific transformation process between "what is said" and "what is done" during policy execution.

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