

Research on the Operational Model of Industrial Think Tank Alliance Under the Concept of Collaborative Innovation: Postprint

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Abstract

[Purpose/Significance] The operational models of industry think tank alliances currently exhibit a relatively singular phenomenon, which is not conducive to providing more comprehensive services or meeting the diversified service demands of demand-side entities. Therefore, based on the previously constructed industry think tank alliance under the collaborative innovation concept, this study explores the operational models of industry think tank alliances. [Method/Process] The operational models are examined from three dimensions: growth path, operational output model, and service model. The growth path is divided into three stages—startup phase, growth phase, and maturity phase. The operational output models are categorized as problem-oriented, project-oriented, public product-oriented, and foresight-oriented. The service model encompasses service targets, service channels, and service content. [Results/Conclusion] Industry think tank alliances provide corresponding diversified services across different growth paths, operational output models, and service models, thereby promoting their own development while ultimately realizing the value of industry think tank alliances.

Full Text

Preamble

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Research on the Operation Mode of Industrial Think Tank Alliance Under the Concept of Collaborative Innovation

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Abstract

[Purpose/Significance] The operation mode of industrial think tank alliances currently exhibits a relatively singular pattern, which is detrimental to providing comprehensive services and meeting the diversified service demands of clients. Building upon previously constructed industrial think tank alliances under the collaborative innovation concept, this study explores their operation modes. **[Method/Process]** The operation mode is examined from three perspectives: growth path, output mode, and service mode. The growth path is divided into three stages—initial, growth, and maturity. Output modes include problem-oriented, project-oriented, public product-oriented, and foresight-oriented approaches. The service mode encompasses service objects, channels, and content. **[Result/Conclusion]** Industrial think tank alliances provide corresponding diversified services across different growth paths, output modes, and service modes, thereby promoting their own development while ultimately realizing their value.

Keywords: collaborative innovation; industrial think tank alliance; operation mode

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The primary objective of think tank alliance construction remains focused on decision-making, operating around the principle of “everything that benefits decision-making” to support policymaking, guide public opinion, and facilitate cultural exchange. A think tank alliance is a network composed of various types of think tanks, information service organizations, and other entities established through certain agreements to achieve resource sharing, complementary advantages, and collaborative innovation. It differs from think tank groups and is not merely a simple aggregation of think tanks. This paper examines industrial think tank alliances—organic service entities established through joint or cooperative efforts among relevant service institutions and think tank organizations related to industrial information services. These alliances integrate dispersed intelligence within industries to form social organizations that maximize collective industrial intelligence. Alliances can be categorized as loose or tight-knit; this study focuses on tight-knit industrial think tank alliances.

Although tight-knit industrial think tank alliances need not directly intervene in specific business operations, they can function as virtual entities operating around specific goals, possessing their own growth paths while serving as platforms for communication and coordination both within the alliance and with external parties. Currently, the number of industrial think tank alliances is limited. Through investigation of typical domestic and international examples—including the American Consortium for Policy Research in Education (CPRE) and China’s News Publishing Industry New-Type Think Tank Alliance—several patterns emerge. First, development paths can be divided temporally, with corresponding services provided according to each stage. CPRE’s research, for instance, evolved through three stages: an initial focus on education policy

research, followed by expansion to relationships and allocation of educational resources, and finally addressing innovative issues such as education reform. Second, current cooperation models predominantly remain problem-oriented. CPRE establishes specialized project teams to investigate issues, leveraging members' research capabilities and geographic advantages to conduct evidence-based policy research, knowledge production, and consulting dissemination services in education, thereby achieving goals of educating the public and enhancing the capacity of decision-makers, practitioners, and research communities. The News Publishing Industry New-Type Think Tank Alliance similarly emphasizes problem orientation and transformation priority, with members cooperating on a project basis to achieve shared responsibility, co-creation, and mutual benefit.

These observations reveal that singular operation modes limit industrial think tank alliances' capacity to provide comprehensive services. Beyond problem-solving, clients also require public products and development forecasting—needs that a monolithic problem-oriented approach cannot satisfy. Moreover, such singularity constrains funding diversification. Building upon these insights and the temporal stage-based development approach, this study further explores industrial think tank alliance operation modes.

1 Overview of Related Research on Think Tank Alliance Operation Modes

Drawing on social network theory, collaborative innovation theory, and systems theory, Zhou Wendi proposed two classification methods for smart city think tank alliance organizational models—organizational management patterns and information technology application patterns—categorizing operation modes into star, spider-web, and federal structures, as well as online, offline, and hybrid models, with detailed analysis of online operation principles, architecture, functions, and mechanisms. R. Struyk explored transnational think tank alliance networks, proposing three models: spontaneous aggregation, official intervention, and single-party leadership, which differ in objectives, incentives for participation, member characteristics, and network coherence. However, research on industrial think tank alliance operation modes remains limited, with existing studies generally enumerating models in broad terms related to organizational management or information technology application. In reality, the same alliance may adopt different operation modes at different development stages and for different constituencies. This paper therefore examines industrial think tank alliance operation modes through the lens of collaborative innovation, subdividing them into growth path, output mode, and service mode.

2 Industrial Think Tank Alliance Under the Collaborative Innovation Concept

2.1 Framework Model

The collaborative innovation concept-based industrial think tank alliance model [Figure 1: see original paper] comprises five layers: element, organization, operation, service, and objective.

The **element layer** includes seven main entities: industrial think tanks, industry associations, professional think tanks, library and information service institutions, university think tanks, industry media think tanks, and leading industrial enterprises. The **organization layer** consists of six virtual organizations—wisdom group, media group, policy group, enterprise leading group, foundation, and management committee—which drive and feedback across national, regional, and provincial levels to achieve collaborative innovation. In the **operation layer**, these six virtual units serve as primary actors, secondary actors, coordinators, test sites, funders, and facilitators respectively, providing talent and technical support, product transformation support, policy support, experimental environment support, funding support, and integration and supervision support. The **service layer** addresses four constituencies: the industry and its enterprises, alliance members, government, and the public, delivering seven service types through online and offline collaborative channels: problem-solving, information services, project research, talent development, publicity and science popularization, working materials, and development forecasting. The **objective layer** runs throughout alliance construction, encompassing primary goals (enhancing decision-making support for enterprises and the industry, strengthening member capacity and cohesion), secondary goals (educating and guiding public opinion through self-promotion and brand building), and peripheral goals (adjusting based on service feedback to achieve supply-demand balance and drive broader industrial and social development). Collaborative innovation manifests through objective coordination, organizational collaboration, operational collaboration, and service collaboration, with each level informing and enabling the others.

2.2 Operation Modes

Industrial think tank alliance development and operation is not achieved overnight but requires a growth process, making growth path analysis essential. Furthermore, establishing alliances aims to operate rationally and maximize output, necessitating examination of output modes. Finally, since alliances exist to provide various services to enterprises, industries, and society, service modes must also be addressed.

This study therefore explores operation modes through three dimensions: growth path, output mode, and service mode. The growth path includes initial, growth, and maturity stages, each differing in development priorities, influence, service content, output quality, primary beneficiaries, and cooperation phases.

Output modes are categorized based on dominant processing objects and outputs into problem-oriented, project-oriented, public product-oriented, and foresight-oriented approaches, each comprising distinct stages. Service modes encompass service objects, channels, and content, with alliance characteristics and member collaboration determining their diverse features. The collaborative innovation-based operation mode framework is illustrated in [Figure 2: see original paper].

3 Growth Path of Industrial Think Tank Alliance Under Collaborative Innovation

3.1 Initial Stage

The initial stage marks the beginning of the growth path, with the alliance still exploring its operations. The primary focus is internal construction—member recruitment, capacity building, and cohesion development—to establish a solid foundation for diversified future services. At this stage, the alliance has limited visibility and influence, focusing mainly on policy research, practical problem-solving, and internal capacity enhancement. Output quantity is low and quality varies. Primary beneficiaries include alliance members, government, and industry enterprises. Members undergo preliminary 磨合 (run-in) through complementary collaboration and conflict resolution to enhance overall alliance capacity.

3.2 Growth Stage

Following initial exploration, the alliance enters a rapid development phase. Output quantity and quality increase, brand identity strengthens, and influence expands. Development priorities shift toward standardization and external relationship management. Beneficiaries now include alliance members, government, the public, organizations, and industry enterprises. Internal cooperation transitions from conflict to harmony, with cohesion and capacity growing rapidly.

3.3 Maturity Stage

After rapid development, the alliance reaches maturity. Beneficiaries now extend to the alliance itself and the entire industry. The alliance holds authoritative status with substantial, high-quality, and systematically categorized outputs. Member relationships stabilize with high synergy, entering a harmonious and solid phase. Development priorities focus on internal-external coordination, leveraging member diversity to contemplate industry and alliance reform and innovation.

4 Output Modes of Industrial Think Tank Alliance Under Collaborative Innovation

Output modes are categorized based on dominant processing objects and outputs: problem-oriented, project-oriented, public product-oriented, and

foresight-oriented. Problem-oriented and project-oriented modes are reactive, implemented upon receiving problems or projects. Public product-oriented and foresight-oriented modes are proactive, initiated after analyzing needs and conditions. The output mode framework is shown in [Figure 4: see original paper].

Collaboration manifests across various stages of each mode. In problem-oriented mode, the management committee collaboratively interprets and screens problems, reconstructs problem-solving teams, and outputs solutions through media group and foundation cooperation. In project-oriented mode, the committee coordinates member selection and project team reconstruction, with teams delivering outputs through collaborative effort. In public product-oriented mode, members capture daily needs and collaboratively deliver public products. In foresight-oriented mode, accumulated experience and knowledge enable members to collaboratively perceive risks, propose preventive warnings, and generate innovative reform suggestions. Innovation features prominently in foresight-oriented outputs, which drive industry and alliance innovation.

4.1 Problem-Oriented Output Mode

Problem-oriented (or demand-oriented) mode addresses client problems to enhance their capabilities, representing the most common practical approach. Both CPRE and China's News Publishing Industry New-Type Think Tank Alliance operate primarily in this mode, focusing on micro-level, targeted issues derived from and applied to practice. The eight-stage process includes: (1) receiving requests, (2) problem interpretation, (3) team reconstruction, (4) field investigation and agreement signing, (5) solution conceptualization, (6) output delivery, (7) tracking feedback, and (8) archiving and self-adjustment.

4.2 Project-Oriented Output Mode

Project-oriented mode involves research on macro-level, strategic decision-making projects or topics commissioned by government, enterprises, or organizations. This academically and theoretically oriented mode includes five stages: (1) project receipt, (2) team reconstruction, (3) optional field investigation, (4) output delivery through media group and foundation cooperation, and (5) archiving and self-adjustment.

4.3 Public Product-Oriented Output Mode

This mode involves routine delivery of universal public products, including macro-level policy products and micro-level education and publicity products. After accurately capturing existing and potential demand, the alliance categorizes and delivers products to meet regular client needs.

4.4 Foresight-Oriented Output Mode

The most advanced mode, foresight-oriented operation leverages accumulated experience and knowledge to perceive risks, propose preventive measures, and generate innovative reform suggestions for long-term industry development. Outputs are often macro-level strategic ideas rather than concrete products.

5 Service Mode of Industrial Think Tank Alliance Under Collaborative Innovation

The service mode comprises three dimensions: objects, channels, and content. Alliance diversity and collaborative innovation determine varied, impartial, authoritative, effective, and irreplaceable services. The service mode framework is illustrated in [Figure 5: see original paper].

5.1 Service Objects

Objects are categorized as external and internal. External objects include the industry and its enterprises (including leading enterprises), government, and the public. Internal objects are alliance members. Leading enterprises serve as both internal and external objects.

5.2 Service Channels

Channels include online (official websites, information sharing platforms, WeChat public accounts, Weibo, apps, WeChat/QQ groups) and offline (forums, annual conferences, seminars, report meetings, lectures, academic exchanges). Online platforms offer multiple access points for different user groups, while offline events facilitate direct interaction. Channels can be used individually or in combination.

5.3 Service Content

Seven service types are provided: problem-solving, information services, project research, talent development, publicity and science popularization, working materials, and development forecasting. Problem-solving services deliver customized solutions and decision support. Information services include case databases, general research reports, and personalized consultations. Project research focuses on policy perspectives and industry problem-solving. Talent development offers knowledge and skills training. Publicity and science popularization disseminates publications, policy briefs, and academic achievements to influence government and public opinion. Working materials facilitate internal member collaboration. Development forecasting provides long-term, programmatic policy recommendations.

Services are also classified by duration: short-term (problem-solving), medium-term (project research), and long-term (information services, working materials,

development forecasting, talent development, publicity). The alliance continuously adjusts service priorities based on industry needs, using big data analysis of case databases to generate strategic insights while providing sustained talent development and regular publicity activities.

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Author Contributions

Sun Yun: Manuscript writing and revision;

Zheng Rong: Research direction determination and revision suggestions.

Research on the Operation Mode of Industrial Think Tank Alliance Under the Idea of Synergistic Innovation

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Abstract: [Purpose/significance] This paper explores the operation mode of industrial think tank alliance after the construction of it before the state that it's unable to provide more comprehensive services and meet diversified demands because of its single operation mode. [Method/process] This paper builds the operation mode of industrial think tank alliance based on the idea of synergistic innovation from three aspects, that is, the growth path, the output mode and the service mode. The growth path includes the initial stage, growth stage and maturity stage. The output mode includes problem oriented, project oriented, public product oriented and foresight oriented output mode while the service

mode includes service content and service object. [Result/conclusion] During different periods, industrial think tank alliance offers corresponding pluralistic service under different output mode and service mode, promotes its development and finally realizes its value.

Keywords: synergistic innovation; industrial think tank alliance; operation mode

Note: Figure translations are in progress. See original paper for figures.

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