

Supply Chain Management Model for Supporting the Professional Development of University Think Tanks (Postprint)

Authors: Wang Jian, Wang Peipei, Chen Yue, Wang Peipei

Date: 2018-08-14T00:00:00+00:00

Abstract

[Purpose/Significance] University think tank construction needs to shift from a results-oriented to a process-oriented approach, improve institutional mechanisms, and enhance professional standards.

[Methods/Process] This paper draws on management theory and proposes achieving process management through the construction of a university think tank supply chain. By defining university think tank products—which mainly include three basic stages (demand alignment, scientific research, and outcome promotion) and two operational models (à la carte model and self-selection model)—a product supply chain is established. Based on make-to-order and make-to-stock production modes, the operational characteristics of the à la carte and self-selection models are analyzed.

[Results/Conclusion] Finally, combined with samples, the characteristics and problems of the product supply chain in practice are analyzed, providing development ideas and a reference model for university think tanks to enhance their professional standards.

Full Text

A Supply Chain Management Model for Supporting the Specialization Development of University-Affiliated Think Tanks

Wang Jian¹, Wang Peipei¹, Chen Yue²

¹School of Management, Shanghai University, Shanghai 200444

²East China Normal University, Shanghai 200062

Abstract: [Purpose/Significance] The management of university-affiliated think tanks should shift from an output-oriented approach to a process-oriented approach to improve institutional mechanisms and enhance specialization levels through supply chain-based process management. [Method/Process] Drawing on management theories, this paper proposes a product supply chain management model for university-affiliated think tanks, primarily for process management. The supply chain comprises three basic processes (demand docking, scientific research, and results promotion) and two operational models (build-to-order and build-to-stock). Based on operations management theory, the paper analyzes the operational characteristics of these models in think tanks and conducts a survey to examine the practical application of the supply chain management model. [Result/Conclusion] Finally, the research provides recommendations for improving the specialization level of university-affiliated think tanks.

Keywords: supply chain management; university-affiliated think tank; process management; specialization level

1 Introduction

Strengthening think tank construction is crucial for serving national economic and social development, and for enhancing the role of policy consultation. For instance, in recent years, Chinese universities have gathered substantial social science research capacity, publishing approximately 150,000 academic works and 1.58 million research papers in the humanities and social sciences. However, only slightly over 60,000 of these have had any real policy impact, with merely 2,035 policy recommendations being adopted by central government departments. While the state has invested heavily in higher education and universities have produced numerous research outputs, most have remained at the level of “face projects,” characterized by a “publish-or-perish” culture and an obsession with foreign publications.

With 2,035 institutions of higher learning nationwide, many universities have established research organizations oriented toward public policy. Yet most university think tanks suffer from being “small, scattered, and weak,” with dispersed resources, unclear positioning, and uneven research quality. In January 2015, the General Office of the CPC Central Committee and the State Council issued the “Opinions on Strengthening the Construction of New-Type Think Tanks with Chinese Characteristics,” marking the entry of think tank development into a stage focused on expanding scale and influence. Subsequently, various local governments introduced management measures for think tank construction. Since 2013, the Ministry of Education has promoted the construction of university-affiliated think tanks, with over 40 philosophy and social science col-

laborative innovation centers established in more than 70 universities under the principle of “national urgency, world-class standards, and institutional innovation.”

As university think tank construction develops rapidly, questions remain about how to advance it effectively. Compared to other types of think tanks such as those affiliated with academies of social sciences or party schools, the positioning and characteristics of university think tanks require further exploration. The construction philosophy for university think tanks has reached consensus: the more prestigious the university, the more it should maintain independence and academic rigor while serving national strategy. Based on comparative analysis of dozens of university think tanks and other types, this paper proposes a supply chain management model to support the specialization development of university think tanks.

2 Literature Review on University Think Tank Construction

2.1 Theoretical Exploration

Research on university think tank construction covers multiple dimensions, including funding mechanisms, personnel systems, and evaluation systems. Major studies have identified several key issues: (1) funding and investment mechanisms [16-17]; (2) personnel construction mechanisms [8-11]; (3) exchange mechanisms [12-15]; and (4) branding and marketing mechanisms. The Shanghai Academy of Social Sciences' annual think tank rankings have examined influence from perspectives such as decision-making impact, academic influence, media influence, public influence, and international influence [19].

Methodologically, case studies dominate research on university think tanks [20], supplemented by comparative analysis (including international and regional comparisons) [21-22] and questionnaire surveys [23]. However, most studies remain descriptive, lacking quantitative support for decision-making in think tank management. Theoretically, while educational theory is commonly applied, management theories are increasingly utilized, such as enterprise competitiveness theory [24] and knowledge management theory [8, 25].

2.2 Practical Exploration

After several years of construction, university think tanks have achieved initial scale but face significant challenges: (1) being “small, scattered, and weak,” with dispersed strength and inaccurate positioning; (2) insufficient high-quality outputs, with some research lacking policy relevance and timeliness; (3) inadequate incentive mechanisms for top talent and innovation, and insufficient mechanisms for applying research results; and (4) excessive academic orientation in university research processes, lacking systematic service capabilities for party committees, governments, and local applications.

Two primary operational models have emerged: the “output-oriented” model and the “process-oriented” model. The output-oriented model, similar to a “reward-for-results” approach, has limitations in supporting think tank construction. For instance, while the Shanghai Research Institute (co-established by the Chinese Academy of Social Sciences and Shanghai Municipal Government) can find researchers for commissioned projects, they often lack the capacity to complete high-quality research efficiently, leading to high costs and limited output quality.

The second model involves converting research bases into think tanks through designation, but this often results merely in creating “new signs” without substantive improvement. Since 2012, think tank construction has moved from macro-level strategic research to addressing practical operational problems. With the 2015 policy document, university think tank construction must shift from output-orientation to process-orientation.

3 Supply Chain Management Model for University Think Tanks

3.1 Comparison Between Supply Chain Management and Think Tank Development

Supply chain management and think tank development share several similarities. Referring to Michael Porter’s value chain model (Figure 1), this paper establishes a product supply chain model for university think tanks (Figure 2). Porter’s value chain divides activities into primary activities (inbound logistics, operations, outbound logistics, marketing, and service) and support activities (infrastructure, human resource management, technology development, and procurement). Similarly, think tank development involves multiple stages from raw material (data) collection to final product delivery.

Many renowned think tanks have adopted similar process thinking. For example, the Chongyang Financial Research Institute at Renmin University of China describes its internal process as a “thought factory,” comprising data collection, idea processing, packaging, dissemination, and after-sales service. While the humanities and social sciences differ from natural sciences in research formalization, major policy research requires fixed personnel conducting long-term, systematic work. In social science think tanks, only 9% of annual budgets are allocated to database construction; in political science think tanks, this figure is merely 5.6%.

The evolution of supply chain management theory also parallels think tank development. Since the 1990s, supply chain management has shifted from comprehensive to specialized, from material supply to product delivery. Think tank development similarly requires specialization and integration. Currently, Chinese think tanks remain at a low specialization stage, while internationally influential think tanks like the Brookings Institution, RAND Corporation, and

Korea Institute for International Economic Policy (KIEP) are comprehensive yet highly specialized. The trend toward specialization represents a major challenge and opportunity for Chinese university think tanks.

3.2 Composition Model of University Think Tank Product Supply Chain

University think tanks can be categorized into official, civilian, and university-affiliated types. Compared to the other two, university think tanks have distinct characteristics: (1) they rely on universities with both discipline-specific depth and interdisciplinary breadth; (2) they have inherent advantages in knowledge production and academic dissemination but lack mechanisms for demand docking and results application; (3) they can maintain independence while accessing government, yet lack flexibility.

The product supply chain for university think tanks comprises three core components: demand docking, knowledge production, and knowledge supply. Demand docking requires building sustainable capacity to receive demands, which currently come through two channels: researcher-initiated applications and government commissions. However, council mechanisms, while including demand-side representatives, often have limited activities and superficial exchanges.

Knowledge production involves organizing research teams to form sustainable capacity for producing influential results. Currently, most university think tanks rely on individual capabilities or small project teams, lacking systematic processes and specialized division of labor. Researchers must handle everything from project design to data collection, analysis, and output, resulting in fragmented processes.

Results promotion requires multi-channel dissemination. While university think tanks produce numerous outputs with some gaining central leadership approval, their influence remains limited. They lack dedicated management personnel and mechanisms for converting academic research into policy briefs compared to civilian think tanks.

3.3 Operational Models of University Think Tank Product Supply Chain

Two operational models are prevalent: build-to-order (BTO) and build-to-stock (MTS), termed here as “à la carte” and “buffet” models respectively.

(1) Build-to-Order Supply Chain: À La Carte Model

The BTO model offers maximum flexibility for customized demands. In business research, Dell’s direct-sales model exemplifies how BTO reduces inventory and accelerates response [30-31]. University think tanks often face urgent, high-level requests for policy briefs on specific topics. The challenge lies in rapidly producing high-quality outputs. The à la carte model can be enhanced

through modularization—building standardized research modules based on accumulated foundational studies. While policy briefs appear diverse, they can be constructed from relatively stable research components, enabling faster response times.

(2) Build-to-Stock Supply Chain: Buffet Model

The buffet model involves researchers proactively selecting topics based on anticipated demand, conducting research, and then recommending results to potential users. This model requires researchers to accurately judge future policy needs and arrange research activities accordingly. For example, Shanghai Institute for International Studies organizes its research agenda around major national strategic issues, proactively producing research for future policy consultation.

4 Applying the Supply Chain Management Model: An Empirical Analysis

A survey was conducted on 18 university-affiliated think tanks in Shanghai, including the Shanghai Research Institute (co-established by CASS and Shanghai government), the Chongyang Financial Research Institute at Renmin University, and the Institute of Public Policy at South China University of Technology. Comparative analysis was also performed with party-government and civilian think tanks like Fudan Development Institute, drawing on the Shanghai Academy of Social Sciences' annual think tank rankings.

4.1 Demand Docking Investigation

Most surveyed think tanks have established councils or expert advisory committees incorporating demand-side representatives to guide development and provide funding. However, council meetings are often limited in frequency and depth. Sustainable demand capacity requires deeper integration between think tanks and government departments, fostering continuous interaction to identify emerging needs.

4.2 Scientific Research Investigation

Personnel configuration reveals significant gaps. While top international think tanks like Brookings Institution employ over 300 staff, China's leading university think tanks have much smaller teams: Peking University's National School of Development has 45 full-time researchers, Fudan University's US Studies Department has 32, and Tsinghua University's Institute of International Relations has 40. Among surveyed think tanks, 70% have fewer than 30 full-time staff, with many lacking dedicated researchers or postdoctoral positions. This limits sustainable research capacity.

4.3 Results Promotion Investigation

Administrative support capacity is crucial. Influential think tanks allocate significant resources to results conversion. For instance, Shanghai Development Research Center employs dedicated staff to transform academic papers into 1,500-word policy briefs. In top university think tanks, administrative staff comprise 12-21% of total personnel, while most have less than 15%, with many administrators being part-time. This reflects limited output volume and weak service capacity. As demands grow, university think tanks must increase administrative support ratios.

5 Conclusion

This study provides a framework for enhancing think tank specialization. University think tanks must develop their own products and supply chain processes. The proposed model comprising three core processes and two operational modes offers clear pathways for institutional improvement. By building sustainable capacity in demand docking, modularizing research production, and strengthening results promotion, university think tanks can overcome the “small, scattered, and weak” challenge and significantly enhance their policy influence.

References

- [1] Li Weihong. The Mission of Universities in New-Type Think Tank Construction[N]. People’ s Daily Overseas Edition, 2014-07-29(04).
- [2] Qin Huimin, Xie Shuiqing. Issues in China’ s University Think Tank Construction[J]. Academic Forum, 2012, 35(11): 178-184.
- [3] Xu Xiaohu, Chen Qi. Basic Issues in Chinese Think Tank Development[J]. Tsinghua University Education Research, 2014(4): 4-21.
- [4] Wang Simin. China’ s Think Tank Construction Enters Boom Period, Universities Become Key Force[N]. Guangming Daily, 2014-02-16(05).
- [5] Editor. Liu Qibao Emphasizes Building High-Level Influential Think Tanks During Tsinghua University Investigation[N]. People’ s Daily, 2015-05-09(04).
- [6] Wei Zhezhe. Deepening Comprehensive Reform to Build New-Type Think Tanks: Interview with Zhang Donggang, Director of Ministry of Education Social Science Department[N]. People’ s Daily, 2015-03-20(06).
- [7] Wang Feng. Interactive Mechanism Between First-Class Disciplines and New-Type Think Tank Construction in Universities[J]. China Higher Education Research, 2016(9): 35-40.
- [8] Hou Ding kai. Knowledge Transfer Capacity Building in Humanities and Social Sciences[J]. Fudan Education Forum, 2011, 9(5): 33-38.

- [9] Meng Weixiao. System and Operational Mechanism of University Think Tank Construction[J]. Higher Education Management, 2014, 8(4): 31-36.
- [10] Fang Tingting. Influence and Operational Mechanism of American University Think Tanks: Case Study of Hoover Institution, Stanford University[J]. Higher Education Management, 2014, 8(4): 37-40.
- [11] Ren Yue. Dilemma in Function Development of Chinese and American University Think Tanks: A Comparative Perspective[J]. Higher Education Management, 2014, 8(4): 31-36.
- [12] Li Anfang, Wang Juan, et al. Annual Report on Chinese Think Tanks 2010[M]. Shanghai: Shanghai Academy of Social Sciences Press, 2010: 161-164.
- [13] Wang Chongmin. Thoughts on University Think Tank Construction[N]. Hainan Daily, 2014-05-08(06).
- [14] Fang Tingting. Influence and Operational Mechanism of American University Think Tanks: Case Study of Hoover Institution, Stanford University[J]. Higher Education Management, 2014, 8(4): 37-40.
- [15] Ren Yue. Dilemma in Function Development of Chinese and American University Think Tanks: A Comparative Perspective[J]. Higher Education Management, 2014, 8(4): 31-36.
- [16] Li Wei. Reflections on University Think Tank Construction[J]. Science and Technology Information, 2013(27): 200-201.
- [17] Du Baogui, Sui Limin, Ren Liyun. Path Analysis of Collaborative Construction of University Think Tanks in China[J]. Modern Education Management, 2014(4): 8-12.
- [18] Zou Wei, Guo Chen. Current Status and Improvement Paths of China's New-Type University Think Tanks[J]. Education Science and Culture, 2014, 30(3): 66-70.
- [19] Shanghai Academy of Social Sciences Think Tank Research Center. Annual Report on Chinese Think Tanks 2015[R]. Shanghai: Shanghai Academy of Social Sciences Press, 2015: 11-24.
- [20] Feng Shujun. Think Tank Strategy[M]. Beijing: Life·Reading·New Knowledge Joint Publishing Company, 2012.
- [21] Wang Yao, Miao Lü, et al. Great Power Think Tanks[M]. Beijing: People's Publishing House, 2014.
- [22] Lei Feng, Feng Shaolei. Think Tanks: International University Research Centers[M]. Shanghai: Shanghai People's Publishing House, 2011: 1-37.
- [23] Shanghai Academy of Social Sciences Think Tank Research Center Project Team. Empirical Study on Influence of Chinese Think Tanks and Policy Recommendations[J]. Society, 2014(4): 4-21.

- [24] Zhou Zhenhua, Tao Jiyuan, et al. Strategic Research: Theory, Methodology, and Practice[M]. Shanghai: Shanghai People' s Publishing House, 2014: 3-37.
- [25] Shen Guojun. Innovating Knowledge Production Mechanism to Promote University Think Tank Construction[N]. Guangming Daily, 2015-01-28(16).
- [26] Zhang Donggang. Giving Play to University Advantages to Build New-Type Think Tanks[EB/OL]. [2014-03-24]. http://www.jyb.cn/talk/ftjb/201403/t20140324_{575221}.html.
- [27] Wang Baohua, Zhang Jie. Think Tanks and Specialization: Reflections on Development Path of University Research Institutions[J]. China Higher Education Research, 2009(11): 35-37.
- [28] Wang Jian. Current Status, Problems and Reform Priorities of Chinese Think Tanks[J]. Journal of Xinjiang Normal University (Philosophy and Social Sciences), 2015, 3(4): 29-34.
- [29] Wang Jian. University Think Tank Construction and Academic Discourse Power[C]. Hangzhou: Proceedings of 2015 Annual Conference of National University Social Science Research Management Association, 2015.
- [30] GUNASEKARAN A, NGAI E. Build-to-order supply chain management: A literature review and framework for development[J]. Journal of Operations Management, 2005(23): 423-451.
- [31] GUNASEKARAN A. The build-to-order supply chain (BOSC): A competitive strategy for 21st century[J]. Journal of Operations Management, 2005(23): 419-422.

Author Contributions:

Wang Jian: Drafted and guided revisions of the manuscript

Wang Peipei: Revised manuscript content

Chen Yue: Conducted case studies

Received: 2017-10-12

Revised: 2017-10-23

Responsible Editor: Lü Qing

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

Source: ChinaXiv –Machine translation. Verify with original.