Post-print of Grounded Theory Analysis of Quality Influencing Factors and Pathways in Think Tank Intelligence Collection

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Abstract

[Purpose/Significance] The big data era presents substantial challenges to the intelligence collection phase of think tank intelligence analysis. To enhance the quality of intelligence collection in think tanks, this study conducts an in-depth analysis of the factors influencing the quality of this phase.

[Method/Process] This study employs grounded theory methodology. Fourteen think tank intelligence analysts and experts were selected for in-depth interviews on the research topic. Interview data were collected and organized, followed by three rounds of coding to inductively identify the factors influencing the quality of the intelligence collection phase.

[Results/Conclusions] Through grounded analysis, this study identifies four categories of factors that influence the quality of think tank intelligence analysis and analyzes their influence paths and interrelationships.

Full Text

A Grounded Theory Analysis of Factors Influencing the Quality of Intelligence Collection in Think Tank Intelligence Analysis

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Abstract

[Purpose/Significance] The era of big data has brought significant challenges to the intelligence collection phase of think tank intelligence analysis. To

enhance the quality of intelligence collection in think tanks, this study attempts to conduct an in-depth analysis of the factors influencing this quality. [**Method/Process**] This research employs grounded theory methodology, selecting 14 think tank intelligence analysts and experts for in-depth interviews around the research theme. After collecting and organizing the interview data, three rounds of coding were conducted to summarize the influencing factors of intelligence collection quality in think tanks. [**Result/Conclusion**] Through grounded analysis, this study identifies four categories of factors affecting think tank intelligence analysis quality and analyzes their influence pathways and interrelationships.

Keywords: think tank intelligence analysis; intelligence collection; grounded theory; influencing factors
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In the think tank intelligence analysis process, intelligence collection represents the first core step after intelligence requirements are identified. The key challenge in studying this phase's quality lies in how to leverage think tanks' technical capabilities and human expertise to effectively collect and filter valuable information from massive, complex data streams.

Think tank intelligence collection involves two fundamental requirements. First, the accessibility of data, information, and materials stored on available platforms determines the hardware conditions for intelligence collection. Both policy consulting research institutions and government intelligence agencies have moved beyond relying on single intelligence sources. An increasing number of organizations have embraced the concept of "all-source intelligence," leading to increasingly diverse and complex intelligence sources. The advent of the big data era has simultaneously increased the volume and speed of intelligence collection while also creating substantial challenges for subsequent processing and analysis. In this context, the independent development of think tank databases has become essential for improving institutional product quality, enhancing competitiveness, and expanding influence. Data collection, integration, mining, and preprocessing play crucial roles in intelligence collection.

Second, think tank intelligence collection is not merely simple grabbing and storage through technology and tools. It requires intelligence analysts to actively select information based on analytical needs. Requirement identification establishes specific research questions and tasks for intelligence analysis projects. Analysts must consciously select intelligence from various databases, archives, big data platforms, websites, and multiple information providers—including open-source intelligence, human intelligence, and technical intelligence—that can address current research problems, and mine various types of information related to the research questions. This process is completed by analysts using technical means and tools based on their own experience.

Therefore, intelligence collection in think tank analysis requires both techni-

cal methods and human expertise. The vast quantity of intelligence obtained through technical means naturally creates a filtering problem when combined with the precision of analyst selection. Identifying factors that influence the quality of the intelligence collection phase, enhancing the value of collected intelligence, and reducing the time cost of searching are crucial for improving this phase's quality. To this end, this study employs grounded theory methodology to identify factors influencing think tank intelligence collection quality and explore the mechanisms and interaction pathways of these factors.

1 The Distinctive Characteristics of Think Tank Intelligence Collection

Unlike general intelligence collection, think tank intelligence collection has its own unique features: (1) According to the "Opinions on Strengthening the Construction of New Types of Think Tanks with Chinese Characteristics" issued by the General Office of the CPC Central Committee and the State Council in 2015, think tanks currently focus on strategic issues and public policies. Consequently, think tank intelligence collection necessarily centers on policy research and must possess policy sensitivity, timeliness in providing policy recommendations, and service orientation. (2) Think tank intelligence collection draws from richer sources. Beyond general intelligence channels, it can obtain first-hand intelligence and information from personal networks within the institution or related platforms. Additionally, think tanks can extract intelligence from historical cases rich in their institutional archives. (3) Think tanks have inherent advantages in establishing structured knowledge resource platforms urgently needed for intelligence collection. Compared to general intelligence research institutions, think tanks have greater motivation and greater possibility for realization in terms of policy support, funding reserves, and institutional construction. Therefore, intensifying research on factors influencing think tank intelligence collection is significant for implementing and promoting the construction of new types of think tanks in China.

2 Research Status and Methodology Selection

As a crucial component of intelligence analysis, intelligence collection has received widespread attention in the intelligence studies community. Some scholars have conducted in-depth research on the internal mechanisms of intelligence collection, while more scholars focus on exploring influence patterns and pathways in specific fields, such as counter-terrorism intelligence and internet security.

However, current research has not yet formed a systematic and in-depth analysis of factors influencing the quality of intelligence collection in think tank intelligence analysis, with few reference cases available. As of June 2019, searches for "think tank intelligence collection" in CNKI, or using keywords like "intelligence/information gathering/collection in think tanks" in Springer, JSTOR,

and Wiley foreign journal databases, yielded no effective relevant research results. In fact, considering the complexity and variability of intelligence analysis itself, think tank intelligence analysis work, and the development level of think tanks in China, analysis of intelligence collection quality cannot be limited to reviewing and summarizing past research—it must delve into actual practice.

Therefore, this study adopts grounded theory as the primary research method, conducting in-depth interviews with frontline researchers and relevant experts working in think tanks both domestically and internationally. Actual interview data serves as the foundation for extracting influencing factors, upon which the mechanisms of action and interaction pathways of these factors are studied.

3 Research Design

3.1 Overview of Grounded Theory

Grounded theory is an important branch among various qualitative research approaches, first proposed by American scholars B. Glaser and A. Strauss in 1967 in their monograph *The Discovery of Grounded Theory*. Grounded theory is a research methodology aimed at generating theory from empirical data, thereby transcending mere description and interpretation of phenomena. It requires researchers to keep the goal of theory generation in mind, following "theoretical sampling" criteria rather than demographic variables. Researchers first select appropriate respondents based on research themes and objectives, conduct in-depth interviews, then systematically organize, collect, and analyze interview data according to their own experience. Through multiple coding processes, they achieve conceptualization and categorization, ultimately forming relationships between categories. Research results are presented by researchers through abstract and conceptual language.

3.2 Selection of Interview Participants

To collect interview data that reflects actual think tank work and ensure research relevance and validity, this study established several principles for participant selection: (1) Participants must be frontline researchers conducting intelligence research in think tanks, or experts and scholars who have previously participated in think tank work, with profound understanding and rich practical experience in think tank intelligence analysis. (2) Participants should be distributed across various types of think tanks, basically covering all categories in the Chinese Think Tank Index (CTTI) developed by the Center for Think Tank Studies and Evaluation at Nanjing University, as well as two overseas think tanks. (3) To prevent research from being influenced by characteristics of a single respondent group, participants should have diverse think tank types and varying years of work experience.

Based on these principles, this study selected 14 participants, all from frontline think tank research positions or former intelligence analysts in think tank insti-

tutions, with deep practical understanding and rich work experience in think tank intelligence analysis. Their statistical information is shown in Table 1 .

Table 1 Sample Statistics of Interview Participants

Category	Count
University-affiliated think tanks	3
Military think tanks	2
Corporate think tanks	2
Social think tanks	2
Media think tanks	2
Overseas think tanks	3
1-5 years experience	3
6-10 years experience	5
Over 10 years experience	6

As shown in Table 1, participants were selected from party/government think tanks, academy of social sciences think tanks, university think tanks, military think tanks, research institute think tanks, corporate think tanks, social think tanks, media think tanks, and overseas think tanks. Among them, 3 had 1-5 years of work experience, 5 had 6-10 years, and the remaining 6 had over 10 years.

3.3 Interview Process Design

As an important research method in qualitative studies, grounded theory requires researchers to conduct in-depth interviews with respondents. In-depth interviews should be directional while also exploring research questions thoroughly. On one hand, interview questions should be open-ended to encourage respondents to reveal more information and content. On the other hand, these questions should focus on the research theme, guiding respondents to provide more in-depth details rather than aimless conversation. Therefore, this study employed semi-structured interviews, first establishing certain questions while the interviewer used verbal guidance to encourage respondents to reveal more relevant content and details, making the interviews both open and focused.

Based on this approach, the interviews were planned and designed as follows: (1) Research theme determination. The interview aimed to understand from think tank intelligence analysts what factors influence the quality of intelligence collection in actual think tank work. (2) Interview design. To help respondents gradually understand and explore the research theme, six main questions were designed: What positive or negative factors affect the value and speed of collected data and materials? How specifically do they influence? What difficulties have you encountered in quickly finding high-value materials? Under what circumstances do you consider that sufficient information

has been obtained to move on to the next source? From the analyst's perspective, what factors (including but not limited to information literacy, research capability, psychological/personality factors) affect data collection? From the institutional perspective, what factors (including but not limited to resource allocation, hardware/software conditions, talent selection criteria, training, performance monitoring, exchange mechanisms) might affect data collection? When your research topic is not in your area of expertise (or requires research methods you're not proficient in), what measures do you take? Additionally, the interviewer controlled and guided the entire process, asking exploratory or clarifying questions such as "Could you elaborate on…?" "Any other thoughts?" "Do you mean…?" "Any similar cases?" to obtain richer, more specific data. (3) Interview principles. Although six research questions were established, respondents could expand on more detailed discussions under the interviewer's guidance. All interview content, however, was based on the research theme.

3.4 Interview Data Acquisition and Organization

This study selected 14 researchers and experts currently working in frontline think tank research positions, conducting interviews around the theme "factors influencing the quality of intelligence collection in think tanks." Before each interview, respondents were introduced to the research purpose, significance, content, and methodology to ensure full understanding. Interview times were scheduled, and first-hand data were obtained through face-to-face, telephone, or WeChat voice interviews. Each interview lasted between 25-90 minutes. With respondents' consent, interviews were recorded and fully transcribed, yielding over 50,000 words of interview data.

4 Research Process

4.1 Open Coding

As the first step in grounded theory methodology, open coding uses complete original textual data as the analysis foundation, referred to as "data." The coding process involves classifying, summarizing, and explaining data. Coding manifests as assigning meaning to data segments, defining the meaning of described scenarios to transcend specific descriptions, then further selecting, classifying, and summarizing to develop general categories. Therefore, coding is both a process of generalizing and classifying data and a process of analyzing scenarios.

To analyze interview data more scientifically and effectively, this study used the qualitative research software NVivo 11 to code the original interview materials, deriving initial concepts. Subsequently, items with identical meanings among initial concepts were merged, while concepts appearing fewer than two times were eliminated. The remaining concepts were summarized into 13 categories (B1-B13). Open coding results are shown in Table 2 , with concepts and categories corresponding to partial original data for each category.

Table 2 Open Coding Results

Category	Concepts	Partial Original Data
B1 "Policy Knowledge Network" Panoramic Display	Building "policy knowledge network" awareness; Creating and improving update mechanisms; Enhancing retrieval technology; Strengthening data integration	A1: "…The first factor affecting efficiency when retrieving information is the lack of a basic structured database about policies…"; A2: "…Once updated, summaries are sent to your email, making it convenient…"; A3: "…Retrieval tools need integrated methods…"; A4: "…Information is scattered online, lacking integration…"
B2 Structured Knowledge Starting Point Design	Purchasing or building knowledge resource platforms; Establishing knowledge resource sharing platforms	A5: "…Need more effective ways to find data, including existing databases…"; A6: "…Problem is lack of a unified entry point, like a federated search engine…"
B3 Knowledge Structure	Combining existing knowledge reserves; Relying on experience; Foreign language proficiency; Long-term focus on research areas; Comprehensive knowledge scope	A7: "…Must combine your existing knowledge…"; A8: "…Can only provide solutions based on experience…"; A9: "…Policy research requires good foreign language skills…"; A10: "…Important to focus on one research area long-term…"; A11: "…Need comprehensive knowledge to provide policy recommendations…"
B4 Non-intellectual Psychological Factors	Patience and willpower; Personal habits and preferences; Strong sense of responsibility	A12: "…Searching in massive information tests patience…"; A13: "…Depends on the researcher's personal nature…"; A14: "…Need strong responsibility…"

Category	Concepts	Partial Original Data
B5 Intelligence Perception Capability	Macro insight ability; Information discrimination ability; Sensitivity to information; Understanding ability; Rapid learning ability	A15: "…Includes information acquisition methods and discrimination ability…"; A16: "…Requires strong information sensitivity…"; A17: "…Researchers need understanding ability…"; A18: "…Requires rapid learning ability…"
B6 Knowledge Social Capability	Observational skills; Interview abilities; Multi-sector communication skills	A19: "…Must be able to observe interviewees…"; A20: "…Need interview capabilities…"; A21: "…Need to interact with government and media…"
B7 Intelligence Scarcity Dilemma	Data attention level; Limited acquisition technology; Historical information loss; Weak official statistics collection awareness	A22: "…Search speed affected by data attention level…"; A23: "…Primitive collection methods…"; A24: "…Some data lost due to historical reasons…"; A25: "…Government doesn't emphasize information collection…"
B8 Knowledge Expansion	Information homogenization; Information overload; Difficult content differentiation	A26: "…Need to eliminate wrong information…"; A27: "…Information overload, too much repetition…"; A28: "…Difficult to distinguish content…"
B9 Intelligence Value	Authority assessment; Need for first-hand materials; Proximity to target; Temporal requirements	A29: "…Difficulty determining material authority…"; A30: "…Need first-hand materials through interviews…"; A31: "…Closer to target means higher value…"; A33: "…Some projects have strong time requirements…"

Category	Concepts	Partial Original Data
B10 Intelligence Perception Pathway	Research subject cooperation; Purchase requirements; Purchase procedure complexity; Think tank positioning limitations	A34: "…Confidentiality levels determined administratively…"; A35: "…Subject selection and unit cooperation affect collection…"; A36: "…May need to purchase materials…"; A37: "…Purchase procedures are cumbersome…"; A38: "…Think tank level affects accessibility…"
B11 Material Unconcealment Conditions	Funding adequacy; Infrastructure and configuration	A39: "…Technical staff salaries are high…"; A40: "…Emphasize information capacity building…"
B12 External Resource Support	Social network relationships; Cooperative platform building; External expert reserves	A41: "…Build rich interpersonal networks…"; A42: "…Can collaborate with partner institutions…"; A43: "…Need to organize relevant experts…"
B13 Human System Evolution Framework	Introducing/cultivating interdisciplinary talent; Setting up/training support staff; "Revolving door" mechanism	A44: "…Recruiting interdisciplinary talent is difficult…"; A45: "…Information collection should be done by professional support staff…"; A46: "…Revolving door system brings in experienced policy experts…"

The 13 categories obtained through open coding are: B1 "Policy Knowledge Network" Panoramic Display, B2 Structured Knowledge Starting Point Design, B3 Knowledge Structure, B4 Non-intellectual Psychological Factors, B5 Intelligence Perception Capability, B6 Knowledge Social Capability, B7 Intelligence Scarcity Dilemma, B8 Knowledge Expansion, B9 Intelligence Value, B10 Intelligence Perception Pathway, B11 Material Unconcealment Conditions, B12 External Resource Support, and B13 Human System Evolution Framework. Axial coding was then conducted for further categorization and conceptualization.

4.2 Axial Coding

Based on the 13 categories from open coding, further analysis examined associations and classifications among categories, forming four main categories to complete axial coding. The process and results are shown in Table 3 .

Table 3 Axial Coding Process and Results

Main Category	Corresponding Categories	Relationship Description
Structured Knowledge Presentation	B1 "Policy Knowledge Network" Panoramic Display; B2 Structured Knowledge Starting Point Design	Building and improving policy-oriented knowledge resource platforms
Intelligence Analysis Subject	B3 Knowledge Structure; B4 Non-intellectual Psychological Factors; B5 Intelligence Perception Capability; B6 Knowledge Social Capability	Analysts' qualities and capabilities are important internal factors
Intelligence Analysis Object	B7 Intelligence Scarcity Dilemma; B8 Knowledge Expansion; B9 Intelligence Value; B10 Intelligence Perception Pathway	The object itself is an important internal factor affecting collection quality
Institutional Self-reflection Dimension	B11 Material Unconcealment Conditions; B12 External Resource Support; B13 Human System Evolution Framework	Think tank's material strength, external resources, and talent development

The main categories obtained through axial coding are Structured Knowledge Presentation, Intelligence Analysis Subject, Intelligence Analysis Object, and Institutional Self-reflection Dimension. These four main categories represent the primary classifications and concepts of factors influencing intelligence collection quality in think tank analysis.

4.3 Selective Coding

To examine how the four main categories affect intelligence collection quality and their interrelationships, selective coding was conducted after open and axial coding. The process is shown in Table 4 .

Table 4 Selective Coding Process

Relationship	Nature	Description
Structured Knowledge Presentation → Intelligence Collection Quality	Positive correlation	Improvement enhances collection quality

Relationship	Nature	Description
Intelligence Analysis Subject → Intelligence Collection Quality	Causal relationship	Subject qualities are important internal factors
Intelligence Analysis Object → Intelligence Collection Quality	Causal relationship	Object characteristics are important internal factors
Institutional Self-reflection Dimension → Intelligence Collection Quality	Positive correlation	Improvement enhances collection quality
Institutional Self-reflection Dimension → Structured Knowledge Presentation	Constructive relationship	Institution shapes structured knowledge presentation
Institutional Self-reflection Dimension → Intelligence Analysis Subject	Positive correlation	Improvement enhances subject qualities
Institutional Self-reflection Dimension → Intelligence Analysis Object	Positive correlation	Improvement enhances object quality
Structured Knowledge Presentation → Intelligence Analysis Subject	Constructive relationship	Shapes subject capabilities
Structured Knowledge Presentation → Intelligence Analysis Object	Positive correlation	Improvement enhances object quality
Intelligence Analysis Subject → Intelligence Analysis Object	Positive correlation	Subject capability improvement enhances object quality

After selective coding, saturation testing was conducted using remaining portions of the original data, revealing no important concepts, categories, or relationships not already covered. Thus, the theoretical model from this grounded theory research reached saturation.

5 Analysis of Factors and Influence Pathways in Think Tank Intelligence Collection Quality

Based on the grounded analysis above, the main factors influencing think tank intelligence collection quality include structured knowledge presentation, intelligence analysis subject, intelligence analysis object, and institutional self-reflection dimension. Detailed analysis follows based on the diagram showing influence pathways and relationships among these factors [Figure 1: see original paper].

5.1 Influence of Structured Knowledge Presentation on Intelligence Collection Quality

The main category of structured knowledge presentation refers to the establishment and improvement of structured knowledge resource platforms, including "Policy Knowledge Network" panoramic display and structured knowledge starting point design. Since most think tank research and consulting projects are policy-related, sorting out policy documents, archives, and information related to research topics is a necessary step for policy research. After all, all research should be based on a clear understanding of relevant policies. However, interviews with multiple think tank intelligence analysts revealed that a current difficulty in intelligence collection is the lack of aggregation platforms for specific types of information, particularly knowledge resource platforms related to policy information.

The so-called "Policy Knowledge Network" is merely a vivid term for this type of knowledge resource platform that aggregates policy information. In actual implementation, other more appropriate names could be assigned. The key point is that such a platform prototype has not yet emerged. Its realization requires not only the technical tools proposed above but, more importantly, professional researchers who understand policies and have received professional training. Therefore, both human expertise and technical methods are indispensable for building a "Policy Knowledge Network."

In addition to building and improving policy-oriented knowledge resource platforms, other types of platforms should continuously enhance their applicability and effectiveness. Many respondents emphasized the importance of establishing cooperative mechanisms for knowledge resource platforms. Cooperative mechanisms can achieve greater knowledge sharing and improve think tank intelligence analysis efficiency, which is crucial for think tanks focusing on policy research. Interview data clearly showed the negative effects caused by the lack of shared cooperative entry points for knowledge resource platforms: "These databases, whether market-operated or academic, actually have a problem: lack of a unified entry point. We need something like a federated search engine. I need a material and want to associate multiple information sources, but now I have to search them one by one, spending enormous time collecting and integrating data. This is a hardware problem. It's not just our think tank; almost all think tanks in China have this issue."

From an information foraging theory perspective, improving structured knowledge presentation can not only increase intelligence collection benefits but also reduce time spent searching for intelligence, thereby positively affecting think tank intelligence collection quality. If structured knowledge presentation improves, intelligence collection quality also improves, showing a positive correlation in the influence pathway.

5.2 Influence of Intelligence Analysis Subject on Intelligence Collection Quality

The main category of intelligence analysis subject encompasses various qualities and capabilities of intelligence analysts, including knowledge structure, non-intellectual psychological factors, intelligence perception capability, and knowledge social capability. Knowledge structure refers to the most basic professional knowledge and ability reserves for think tank intelligence analysts. Non-intellectual psychological factors include emotions, willpower, personality, personal preferences, and work attitudes. Intelligence perception refers to "the cognitive, interpretive, and expressive processes through which intelligence analysts comprehensively apply various knowledge tools to understand intelligence user needs, intelligence object content, and intelligence task organization during routine information collection, processing, and analysis." Intelligence perception capability in the collection phase includes "the ability to perceive intelligence sources," with information capability, information awareness, understanding ability, learning ability, and macro insight ability as important components. Additionally, think tank intelligence analysts must possess strong knowledge social capabilities. Much intelligence in think tanks is obtained through analysts' rich personal networks and strong communication skills.

As one respondent noted: "We have higher requirements for think tank talent. They need to understand policies, science, and methodology; need to write reports and papers; the requirements are really high. They also need to interact with government departments and media, contacting all aspects. Think tank talent assessment requires comprehensive quality evaluation over a longer cycle. Our think tank researchers are neither government officials nor university researchers—they are a special category playing a bridging role…"

Thus, the particularity of think tank intelligence analysis places high demands and challenges on its researchers. For ordinary researchers, research capability largely determines job suitability. However, think tank intelligence analysts face complex and urgent research topics. Beyond long-term tracking of their research fields, they need broad knowledge scope, rich networks, sophisticated communication strategies, and stable psychological qualities. In other words, think tank intelligence analysts must both "specialize in their field" and be versatile, comprehensive talents. The high requirements for qualities beyond research capability constitute the particularity of think tank intelligence analysts.

As an indispensable factor influencing think tank intelligence collection, the quality and competence of intelligence analysts have a tight causal relationship with collection quality, representing important internal influencing factors.

5.3 Influence of Intelligence Analysis Object on Intelligence Collection Quality

The intelligence analysis object is a main category discussed from the dimension of the intelligence itself. In the collection phase, factors such as collection diffi-

culty, channels, and intelligence value directly affect collection quality. Through multiple rounds of coding, four important aspects of this category were identified: intelligence scarcity dilemma, knowledge expansion, intelligence value, and intelligence perception pathway.

Intelligence scarcity is mainly influenced by four factors: data attention level, technical limitations in acquisition, historical information loss, and weak official statistics collection awareness. Knowledge expansion primarily refers to information overload or excessive information noise, caused by wrong information, information homogenization, and information confusion. Intelligence value should be evaluated through authority, originality, relevance, applicability, and timeliness indicators. Authority refers to whether intelligence comes from official channels; originality refers to whether materials are first-hand; relevance refers to whether intelligence matches the research theme; applicability refers to whether intelligence is suitable for policy research; and timeliness examines whether intelligence brings new knowledge in terms of time and content. Intelligence perception pathway refers to channels through which analysts can collect intelligence, where data density, research subject cooperation, purchase requirements, purchase procedure complexity, and think tank positioning limitations affect collection difficulty.

Various dimensions of the intelligence analysis object cannot be tackled one by one. In many cases, intelligence scarcity is influenced by natural, humanistic, and historical conditions, making solutions difficult and costly relative to benefits. The other three dimensions—knowledge expansion, intelligence value, and intelligence perception pathway—can be resolved, determined, or improved through certain methods. Among them, determining intelligence value is crucial, directly affecting overall think tank intelligence analysis quality.

Therefore, for think tank intelligence collection, the existence and characteristics of the intelligence analysis object constitute a necessary category affecting collection quality, forming a causal relationship. The multiple concepts and dimensions contained in the intelligence analysis object represent important internal influencing factors of collection quality.

5.4 Influence of Institutional Self-reflection Dimension on Intelligence Collection Quality

Based on the above analysis of three main categories, further improvement of many categories and concepts must rely on the think tank institution's own adjustment and evolution. The institutional self-reflection dimension is also essential for influencing intelligence collection quality. This dimension refers to adjustment and improvement from the think tank institution's perspective, encompassing three categories:

(1) **Material Unconcealment Conditions** form the foundation of institutional self-reflection. Heidegger argued that "technology is a way of revealing," while Xunzi in *Xunzi · Jiebi* pointed out that "bi" (obscuration)

refers to cognitive limitations, and only through "jiebi" (unconcealment) can people achieve comprehensive understanding. For think tanks, material unconcealment conditions refer to material conditions and means available to enhance comprehensive understanding. These include funding adequacy and information infrastructure configuration. For think tanks at any level, material unconcealment conditions are crucial factors. Adequate financial support and quality information infrastructure largely determine the starting point for think tank intelligence collection and overall analysis.

(2) **External Resource Support** is an important category. Think tanks' external resources mainly include institutional social networks, cooperative platforms built with other think tanks, and accessible external experts. As policy consulting research institutions, think tanks need rich social resources to meet research topics and intelligence users' real needs. Unlike pure research institutions, think tank intelligence collection involves large amounts of information from complex interpersonal social networks. Only by enriching think tanks' social functions can broader and more effective intelligence and information be obtained.

(3) The final category is **Human System Evolution Framework**. Excellent think tanks spend considerable time and effort on recruiting and training outstanding talent. For example, RAND Corporation established its own institute where graduates can join RAND, while Carnegie Endowment and other institutions also regard talent selection and training as important ways to expand influence. Beyond introducing and cultivating interdisciplinary talent, multiple respondents emphasized establishing dedicated support staff positions responsible for collecting needed data, information, and intelligence for researchers. The "revolving door" mechanism common in Western think tanks has now been implemented in some large official think tanks in China, demonstrating its applicability to China's environment. Therefore, to further enhance overall think tank intelligence collection quality, this mechanism should be promoted in future improvements.

Improvement and enhancement of the institutional self-reflection dimension will inevitably positively affect think tank intelligence collection quality, forming a positive correlation.

5.5 Analysis of Influence Pathways Among Factors

After analyzing the four main categories influencing think tank intelligence collection quality, this study also identified relationships among several categories through grounded analysis. Specifically, improvements in the human system evolution framework within institutional self-reflection can promote selection of outstanding talent, enabling intelligence analysis subjects to possess better qualities and capabilities. Material unconcealment conditions and external re-

source support help obtain more intelligence channels and higher-value information, thereby enhancing overall intelligence analysis object quality. Therefore, relationships between institutional self-reflection dimension and both intelligence analysis subject and object can be understood as positive correlations. The relationship between institutional self-reflection dimension and structured knowledge presentation constitutes a constructive relationship, as institutional self-reflection establishes, shapes, or changes structured knowledge presentation through material unconcealment conditions, external resource support, and human system evolution framework. Additionally, enhanced structured knowledge presentation can improve intelligence analysis object quality and construct, reshape, or change the internal capabilities and qualities of intelligence analysis subjects. Improved capabilities of intelligence analysis subjects also help obtain more valuable data, information, and intelligence, thereby enhancing intelligence analysis object quality.

Conclusion

This study employed grounded theory methodology to inductively analyze factors influencing the quality of intelligence collection in think tank intelligence analysis and explore each factor's influence pathways. The study first established participant selection criteria and determined research themes and procedures. After conducting in-depth interviews with 14 participants, rich and detailed data were collected and organized. Through open coding, axial coding, and selective coding, the interview data were conceptualized and categorized, yielding four categories influencing think tank intelligence collection quality: structured knowledge presentation, intelligence analysis subject, intelligence analysis object, and institutional self-reflection dimension. Finally, the study analyzed how these four categories influence collection quality and their interrelationships.

This study selected 14 participants for in-depth interviews, with relatively limited coverage, creating certain limitations. Future research should employ additional methods to enhance explanatory power and further promote the construction and improvement of think tank intelligence analysis work.

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Author Contributions

Ding Lulu: Proposed research ideas, collected and analyzed data, wrote and revised the paper.
Xu Kaiying: Proposed research methodology.
Li Xinying: Collected data.

Abstract: [Purpose/significance] In the age of big data, intelligence collection, a significant segment of intelligence analysis in think tanks, now confronts big challenges. To enhance the quality of intelligence collection in think tanks, this paper examines the influencing factors towards the quality of intelligence collection in think tanks. [Method/process] Based on grounded theory, this paper firstly conducted in-depth interviews with 14 researchers working in think tanks. After sorting out the materials data, the paper conducted the 3-step-coding by using grounded theory and summed up the final influencing factors. [Result/conclusion] This paper obtains 4 influencing factors toward the quality of intelligence collection in think tanks by using grounded theory and analyzes its influencing approach and relationship between each other.

Keywords: intelligence analysis in think tanks; intelligence collection; grounded theory; influencing factors

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