Audit Model Study of Professional Research Institutions in Power Grid Enterprise

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Abstract: Power grid companies arrange a large number of scientific research projects and spend a huge amount of money every year. There will be various problems in the management and R&D of science and technology projects. For example, the research efficiency is not high, original creativity achievements and valuable patents are not many. At present, the internal audit department of scientific research institution of power grid company cannot do very well to reflect the business characteristics and innovative requirements of scientific research institute when conducting regular audit of scientific research projects. It focuses too much on the aspects of legal compliance, which limits the play of value-added value of internal audit. The purpose of this paper is to establish a new audit mode for scientific research institutions internal auditing. The author based on the theory of innovation management, combined with the working characteristics of the power grid academy, puts forward the concept of innovation oriented audit model for grid academy, designs concentric circles of innovation oriented audit model framework, including auditing innovation performance evaluation, innovation activities, comprehensive management audit and so on, explain in detail the various levels of audit contents, audit methods within the innovation oriented audit model. The purpose of implementing this model is to unify the all audit works of scientific and technological projects to concentrate on scientific and technological innovation. This paper has an important guiding significance for the transformation of audit of power grid research institute, and it is also applicable to guide the audit work of other professional research institutes.

Keywords: Grid Academy, Innovation, Audit Mode

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1. Power Grid Research Institute Internal Audit Status

The grid research institute system (hereinafter referred to as the 'grid research institute') is a grid enterprise including the China Southern Power Grid Research Institute, the State Grid China Electric Power Research Institute, and the power research institutes (central test institutes) of many provincial power grids (electric power) companies. Important research and technical support. The power grid research institute is undoubtedly an innovative enterprise.

Whether it is possible to innovate, whether to focus on innovation, and whether to encourage innovation should be the core objective of the audit work of the power grid research institute, and should be significantly different from the audit of general power companies. However, the current

audit work of the power grid research institute is still dominated by traditional audits due to the impact of the audit work of the power grid company headquarters. For example, the audit projects carried out by a power grid research institute in recent years include: economic contract audit, economic responsibility audit, scientific research project management and fund revenue and expenditure audit, financial revenue and expenditure audit, fixed asset management audit, tax audit, etc., which basically do not reflect the business characteristics and innovative requirements of the research institute and limit the value-added function of internal audit.

It is an inevitable choice of internal audit to combine with business characteristics. The audit of power supply bureau, which is also a power grid enterprise, must also be combined with power supply work, such as power marketing audit, line loss management audit, etc. Only by combining the audit

work with the scientific research work and carrying out the audit work in accordance with the law of scientific and technological innovation can the audit work play its maximum role. Obviously, without understanding the business characteristics of grid scientific research institute, the law of scientific and technological innovation, and the innovation management, it is impossible to do a good job in the audit work of grid scientific research institute.

2. Innovative Audit and Innovation-Oriented Audit Mode

Innovative auditing is a new concept developed in recent years [1]. Chiesa believes that “innovation audit refers to finding out the current situation of innovation and the difference between it and expected value based on the measurement of innovation, identifying the problems, finding out the links that need improvement, and then providing information to improve the level of innovation and promoting the improvement of plan implementation” [2]. Innovation audit is the core work of internal audit of innovation-oriented enterprises, which belongs to the category of performance audit and management audit, and is a comprehensive evaluation of innovation performance, innovation process and innovation influencing factors.

In order to implement innovation audit, domestic and foreign scholars have proposed various technological innovation audit models since the 1990s. Among them, Burgelman audit model, Adler audit model, Vittorio Chiesa audit model, OECD Oslo technology innovation model and Chen jin, Smith (1997) c-s model, and so on are widely influential. For example, Burgelman's audit model of technological innovation capability and performance evaluation advocates auditing in five aspects: (1) availability and allocation of resources (expressed as R&D fund level, breadth and depth of technology, obvious competitive advantage, and R&D resource allocation); (2) Understanding of competitors' innovation strategies and industrial development; (3) understanding of the technological environment; (4) Organization (expressed as the management of R&D projects, the transformation from R&D to production, and the degree of centralization of various functional departments) and cultural atmosphere; (5) Entrepreneur's Quality and Strategic Management Ability [3]. Mortimer Adler's Benchmarking and Enterprise Technology Function Strategic Evaluation Model believes that product and strategic management process should be benchmarked. The most important contribution of this model is to link innovation with corresponding management process implementation [4]. Vittorio Chiesa proposed a more detailed process audit model, which divided innovation process into core process and support process. The audit model with the statistical manual on technological innovation (Oslo manual)[5] prepared by the organization for economic cooperation and development (OECD) as the core emphasizes the indicators of input and output of

technological innovation among many indicators. The audit of c-s model by Chen jin and Smith includes the following contents: (1) general economic indicators (sales volume, profit, total assets, number of employees, number of technical and sales personnel, level of technology and equipment, etc.); (2) quantity of product innovation (fundamental innovation and gradual innovation) and quantity of process innovation; (3) innovation strategy (development or purchase); (4) positioning of innovation level (enterprise level, regional level, industry level, domestic level and international level); (5) innovation costs (details of specific funding sources); (6) revenue from innovation (new product sales, new technology transfer, etc.); (7) innovation process (characteristics of each stage); (8) system elements and positioning of innovation ability. The new Schumpeterians place great emphasis on the close relationship between the various functional departments within the enterprise and the effect of the cumulative process of internal technical knowledge on successful innovation.

These audit models have their own rationality and can be used for auditing, but they also have the following disadvantages:

First, there is no prominent core goal of innovation achievements, no division of innovation performance, innovation process and innovation elements into different levels, and no logical relationship between audit contents. Second, it cannot be combined with the practice of traditional audit business, and it is difficult for general auditors to implement. Third, power grid research institute is a professional scientific research institution, and some indicators are not suitable for power grid enterprises. For example, power grid enterprises do not have tangible products and do not have market share problems. Grid scientific research institute is a professional research institution, and scientific and technological achievements are its professional business.

We believe that it is a more feasible audit path to take the innovation evaluation as the core to guide and transform the traditional audit project, unify the current audit work of the grid research institute to the innovation strategy, and fully implement the innovation-oriented audit model.

The so-called innovation-oriented audit mode refers to whether innovation and contribution to innovation are the main audit objectives, innovation evaluation as the core audit content, innovation science and innovation management as the main audit basis, and to govern the various audit work of power grid research institute. The implementation of the innovation-oriented audit mode will comprehensively adjust the current audit objectives, audit contents, audit principles, audit standards, audit techniques, audit methods and audit relationships of the Power Grid Research Institute to promote the improvement of audit efficiency and audit effect.

3. Innovation-Oriented Audit Model Framework and Audit Content

The innovation-oriented audit model is not a simple audit

model. It is a comprehensive audit with innovation audit as the core, but a three-layer concentric framework:

Figure 1. Concentric circle diagram of innovation-oriented audit model.

3.1. Core Audit Level: Audit Evaluation of Innovation Performance

This refers to the audit of the quantity and quality of the scientific and technological achievements of the auditees according to the evaluation index of scientific and technological innovation. Include:

- (1) Audit of scientific and technological quantitative achievements: number of projects completed, awards, number of papers, level, number of patents and types.
- (2) Audit of scientific and technological quality achievements: technical innovation level and breakthrough of projects or papers. Independent expert groups could be invited to conduct assessments; Or use technology maturity of science and technology projects to conduct science and technology quality audit; Or to determine the level and status of science and technology with reference to the frontier of similar research at home and abroad. At the same time, the research level of key technologies is specially evaluated, such as multi-terminal large-capacity flexible dc technology, smart grid, etc.
- (3) Audit of application benefits of scientific and technological achievements: especially the actual application of innovation, patent transfer, application benefits, user feedback, etc.
- (4) Audit of scientific and technological economic benefits: audit of input and output of innovation work, controllable cost, project profit, economic contribution to scientific research institutes, as well as macro-benefit audit and social benefit audit of scientific research work.
- (5) Evaluation of scientific and technological innovation capability: conduct comprehensive audit evaluation on the overall innovation capability and innovation performance of scientific research institutes. Such as

scientific and technological input intensity (R&D), invention patent density (denominator can be the amount of investment, or the number of scientific and technological personnel), industrial sales and proportion of scientific and technological achievements, total labor productivity, etc.

- (6) Audit of the contribution of the grid company: Starting from the investigations and interviews of the relevant departments of the network company headquarters and the various brother units, it is necessary to reversely evaluate whether the research institutes are doing well enough, and what problems still exist. At the same time, the contribution of the research institute to the grid company includes: economic benefit contribution; safety production contribution; production service contribution; patent contribution; Contribution; Contribution of technical standards, etc.

3.2. Related Audit Layer: Audit of Innovation Related Activities

- (1) Science and technology development strategy audit: to audit and evaluate the forward-looking, scientific, feasible and innovative nature of science and technology development strategy.
- (2) Science and technology management mode and system innovation audit: In the current period, scientific research institutes mostly adopt project management mode for science and technology project management. Is the management mode of science and technology conducive to innovation? What are the advantages and disadvantages of the project management mode? Is there a better management model?
- (3) Science and technology project management audit: In the past, science and technology project management audit mainly focused on the management of science and technology funds, such as whether the final accounts of science and technology projects exceed the plan, whether science and technology projects are completed on time, whether the expenditure of science and technology funds is true, how effective the use of science and technology funds is, and whether scientific research assets are under unified management. There are few audits on whether science and technology project management promotes innovation effect and efficiency.
- (4) Research cooperation: audit evaluation of users' participation in scientific and technological work, scientific and technological cooperation with related universities, enterprises, research institutes and research institutes in accordance with the innovation model of the whole value chain, and audit evaluation of global scientific and technological cooperation and distribution of scientific and technological sites.
- (5) Audit of scientific and technological talent management and incentive mechanism: evaluate whether it is committed to recruiting and retaining the

best talents in the world and whether it can give full play to the role of human resources; The satisfaction of researchers was investigated by questionnaire survey. Evaluate the core talent strategy of the research institute; Evaluate the content and methods of the party's talent management work; Special audit on overseas high-level imported talents.

- (6) Management of scientific and technological innovation team and audit of internal competition mechanism: analyzing and judging the establishment effect of the team, mainly evaluating the scientific and technological performance and management of the scientific and technological innovation team.
- (7) Audit of innovation culture construction: innovation culture is a kind of cultural concept and code of conduct that is conducive to innovation activities. Audit and analyze the construction of innovation documents.
- (8) Management audit of scientific and technological resources: including utilization of laboratories, scientific research equipment and facilities, government policies and allocation of resources.
- (9) Management audit of acceptance of science and technology projects: evaluation of the completion of expected objectives, achievements achieved, intellectual property rights and application prospects; It can provide supporting materials such as novelty search report.
- (10) Management audit of scientific and technological project achievements: whether the project achievements and intellectual property rights are applied for, registered and protected in a timely manner; Whether to establish a mechanism for the transformation of scientific and technological achievements, conduct follow-up tests, development, application and promotion of scientific and technological achievements of practical value, and promote the industrialization and commercial application of scientific and technological achievements; Timely application of science and technology awards; Whether to write relevant papers in time.
- (11) Post-evaluation audit of scientific research projects: re-evaluate the post-evaluation work of scientific and technological projects of the ministry of science and technology and related management units, check whether the original research objectives and funding control objectives of scientific and technological projects have been achieved, and make an objective and comprehensive evaluation of the research results of scientific and technological projects.
- (12) Intellectual property and other intangible assets management audit: audit and evaluate the integrity of intellectual property, the effectiveness of value management and protection methods, and the maintenance and utilization of intellectual property.

3.3. General Audit Layer: Comprehensive Management Audit

The core evaluation criteria for the audit of comprehensive management are whether it is conducive to scientific and technological innovation and whether it is conducive to serving the vast number of scientific and technological personnel.

1. Audit of flexible management concept: Innovation work is very different from general routine work. For example, the commuting time of scientific researchers can be flexible, the workplace can be flexible, the salary incentive is diversified, and the rigidity of work plan and budget is weakened. These concepts should be fully reflected in the management concept of scientific research institutes.

2. Plan management audit: mainly carries out audit evaluation on the scientific nature, preciseness and execution of the comprehensive plan and special plan of the scientific research institute and the work plan of various professional research institutes, the basis for plan preparation, the medium-term adjustment and actual implementation, and the completion of plan indicators, etc.

3. Budget management audit: mainly includes the following aspects:

- (1) Budget performance audit: evaluate the performance of science and technology budget by calculating performance evaluation indicators, such as the solution of production problems caused by unit investment, technology spillover effects, mastery of new technologies, application and patent acquisition, core papers, monograph books, intellectual property rights, knowledge accumulation, other improvements, etc. At the same time, analyze the rationality of budgetary expenses.
- (2) Budget standard audit: Is it based on the requirements of cost-intensive management, establishing a standard cost system covering all types of projects, project budgeting, and cost application and expense reimbursement implementation standards, evaluating the rationality of standard cost items and expenditure standards, Scientific, basis for development, analysis of the differences and causes of budgetary standards for each project. It is a very important audit method to solicit opinions and suggestions from professional institutes on standard costs. Secondly, the actual implementation effect and deviation analysis of the project budget are also important audit methods.
- (3) Audit of budget expenditure: scientific, compliance, and authenticity of budget expenditure, and analysis of budget completion. Including capital expenditure budget audit and expense expenditure budget audit. The audit can be conducted in conjunction with the eight central regulations.
- (4) Budget control audit: Auditing the budget monitoring, monitoring, adjustment, etc. of the budget execution process, mainly analyzing the accuracy of budget formulation and the reasons for adjustment.
- (5) Audit of budget completion: including the audit of the

implementation of the fund plan, with an emphasis on analyzing the effectiveness of budget management.

4. Performance assessment of the institute and economic responsibility audit of the person in charge: the performance assessment has a strong orientation, and the auditor should evaluate whether the assessment is conducive to scientific and technological innovation and whether the performance assessment of professional institutes is scientific and effective. When appropriate, the director of a professional institute can conduct an economic responsibility audit.

Comprehensive management audit also includes financial management audit, asset management audit, administrative management audit, logistics management audit, etc. The core audit standards are to help maximize the service of scientific and technological personnel and research activities, and promote scientific and technological innovation.

4. The Audit Method of Innovation-Oriented Audit Mode

In the innovation research project auditing process, The auditor usually collects all research projects studied by all the research institutes in Grid Company the in the last 3-5 years, and after then using the follow audit procedures:

(1) making classified statistics according to the methods of research and acceptance, basic and prospective technology research, major and key technology research, operational technology research, demonstration and application of advanced applicable technology, decision support technology research, and improvement of test capacity; (2) Using the index of science and technology evaluation to evaluate science and technology innovation; (3) Establishing expert groups in relevant fields to conduct overall analysis and evaluation; (4) Comparing and positioning with international companies, other power grid companies and other power grid research institutes; (5) Sending questionnaires to users of research projects within Grid Compan to feedback their satisfaction and application; (6) Selecting typical scientific and technological projects and study their foresight and innovation degree; (7) Dynamic analysis of scientific and technological achievements; (8) Summarize and evaluate scientific research failures and successful scientific research projects, scientific research teams, scientific and technological policies, scientific and technological systems, project management, etc., analyze the reasons and sum up experiences and lessons.

Among them, measuring and evaluating scientific and technological innovation achievements is the core procedure of innovation-oriented audit mode. A comprehensive grasp of scientific and technological innovation theory and innovation evaluation methods is an essential knowledge and skills for auditors. It is the crucial to select and determine the evaluation indexes in the audit method of innovation-oriented audit mode.

In the early days, research and development expenditure (R&D) was widely used as an indicator to measure scientific and technological innovation activities in European and American countries. In 1963, the OECD first produced the Frascati Manual in the Italian town of Frascati. Since then, OECD has successively released a series of technical statistical standards manuals, such as Technical Balance of Payments manual (TBP manual) (1990), technical innovation manual (Oslo manual) (1992), patent technology index manual (1994), and scientific and technological personnel resource manual (Canberra manual) (1995) [6, 7]. Since 2001, the European Union has launched the European innovation ranking list (EIS), which includes 30 indicators according to three aspects: driving factors, enterprise innovation behavior and output. The comprehensive innovation index is generated to reflect the innovation capacity of EU countries [8]. On December 15, 2004, the US Competitiveness Committee released the "Report of the 21st Century Innovation Working Group"[9]. The proposed evaluation index system includes six aspects: (1) innovation input factors, including key knowledge, capital and human resources of enterprises. Innovative resources; (2) innovation execution elements, including design, production, organizational culture, industrialization barriers, etc.; (3) public policy environment, including research and development policies, fiscal and taxation policies, intellectual property protection, technology transfer policies, human resources policies, government Procurement policies, market access, etc.; (4) Innovation infrastructure, including research institutions, educational institutions, capital markets, information infrastructure, regional innovation clusters, etc.; (5) Corporate output performance, including financial performance, knowledge and capabilities, etc. Intangible output, consumer value and output (products, services and processes, etc.); (6) National innovation output and outcomes, including innovation's contribution to GDP growth, labor and total factor productivity, sectoral trade balance, company innovation Income, market share, etc. The us index is so comprehensive that it is considered the fourth generation of indicators. Since 2001, the China Science and Technology Development Strategy Research Group has released the China Regional Innovation Capability Report (excluding Hong Kong, Macao and Taiwan), which comprehensively evaluates innovation capability from five aspects. The innovation ability evaluation team of Renmin University of China selected 39 indicators from 8 aspects. The "Made in China 2025" strategy promulgated by the State Council uses two indicators of innovation capability: (1) the proportion (%) of internal expenditures of R&D funds of manufacturing industries above designated size in the main business income; (2) Number of valid invention patents (pieces) per 100 million yuan of main business income of manufacturing industry above scale. In 2013, China Southern Power Grid Corporation first released the 2013 Annual Analysis Report on Evaluation Indicators of Scientific and Technological Innovation. The evaluation includes three major sections, namely, continuous innovation capability,

scientific and technological project management capability, and scientific and technological achievement creation and application capability, with a total of 16 indicators. In 2016, China Southern Power Grid Co., Ltd. (CSG) revised and compiled the "Evaluation Index System of Science and Technology Innovation (2016 Edition)", which improved the evaluation index.

China Southern Power Grid Co., Ltd. (CSG) invests in constructs and operates power networks throughout

Guangdong, Guangxi, Yunnan, Guizhou and Hainan Provinces, with a total service area spanning 1 million square kilometers and a population of 252 million people. In Year 2018, CSG sold 970.2TWh of electricity while company revenue exceeded RMB 573.3 billion, with 217.5TWh of electricity transmitted from "West to East". "The Evaluation Index System of Science and Technology Innovation (2016 Edition)" "setted by CSG is listed follow [10]:

Table 1. The Evaluation Index System of Science and Technology Innovation (2016 Edition) of CSG Co., Ltd.

Sector	Serial Number	Fist Level Index Name
sustainable innovation ability (30 point)	1	Proportion of funds for science and technology projects for company earning
	2	The proportion of funds of scientific research institutions for company earning
	3	Proportion of capital expenditure for the whole project funds
	4	Number of technological innovation platforms
	5	Collaborative R&D rate
	6	Independent R&D rate
Science and technology project management ability (20 point)	7	pass rate of submission of science and technology project plan
	8	corporate headquarters level ratio for the whole project funds
	9	Success rate of patent application
	10	Number of major scientific and technological projects undertaken
	11	qualified rate of science and technology project opening report
	12	Qualified rate of project plan assignment
Ability to innovate and applcation of results (50 point)	13	Comprehensive score for mid-term inspection of science and technology projects
	14	Comprehensive score for acceptance inspection of science and technology projects
	15	Science and technology award number
	16	Patent development rate
	17	Popularization and application of scientific and technological achievements
	18	Setting number of technical standards
	19	Number of scientific papers published

The above evaluation index system of scientific and technological innovation of the company plays a good role in strengthening the initiative, standardization and guidance of scientific and technological innovation of each unit. CSG has made great achievements in the field of science and technology, but the ability of the company's continuous innovation ability is still weak.

The audit department shall take full advantage of the above-mentioned innovative index system according to the requirements, strategies and audit purposes of the superior and the company at the corresponding level end to set independent audit evaluation index sytem to strongly assist science and technology projects audit work.

In the audit evaluation of specific projects, it is inevitable to face electrical expertise technology for the auditors, such as interaction between AC and DC systems, Large - scale AC DC power system, grid electromagnetic transient simulation technology, Dc transmission engineering integration technology, STATCOM engineering integration technology, VSC-HVDC system, energy storage technology, overvoltage and insulation matching technology, electromagnetic environmental technology, external insulation technology, high voltage new technology, distribution network automation technology, new energy access technology, microgrid technology, etc. Therefore, science and technology projects auditor should be familiar with electrical expertise technology to facilitate the correct audit judgment.

5. Conclusion

The task of power grid research academy is to innovate power grid technology and solve the technical problems in the productive progress of power grid enterprises. Innovation are its basic characteristics, which must be reflected in the audit work.

We have designed an innovation-oriented audit model with the concentric structure, which focuses on scientific and technological innovation through three levels of audit activities. These three levels are: (1) core audit Level: audit evaluation of Innovation Performance, and (2) related audit layer: audit of innovation related activities, (3) the general audit layer: comprehensive management audit. This model can not only grasp the core of the scientific research project audit work, but also cover other common aspects of internal audit, which hierarchical structure is very distinct and have strong logicity.

The key success factor of the audit of science and technology projects is the comprehensive correct evaluation of the scientific research projects. This paper proposes to make full use of the existing science and technology evaluation results, including the large achivements of OECD, such as Frascati Manual, Technical Balance of Payments manual (the TBP Manual), Technology Innovation Manual (Oslo handbook), Patent Technology Index Manual, Science and Technology Personnel Resources Manual (Canberra

manual), and US Competitiveness Committee released the "Report of the 21st Century Innovation Working Group", China Regional Innovation Capability Report (excluding Hong Kong, Macao and Taiwan), Renmin University of China's Innovation Ability Evaluation Indexes, "Made in China, 2025", China Southern Power Grid Co., Ltd. (CSG)'s "Evaluation Index System of Science and Technology Innovation".

When evaluating individual research project one by one by the auditor, it is inevitable to face different research projects. At present, the auditor faces the main problem is lack of deep understanding of electric technology, which deeply affecting the quality of audit work. Therefore, internal auditors in the grid academy, must study the grid technology, understand the development tendency of newest grid technology, master grid technology development rule and the theory of scientific and technological innovation, actively take part in the research work through the audit activities, put forward the audit opinions beneficial to the scientific and technological innovation, the then maximize the constructive value-added internal audit function.

References

- [1] Xu Qingrui. Comprehensive Innovation Management - Theory and Practice. Beijing: Science Press, 2007. 05, p30, 255, 257.
- [2] V. Chiesa, P. Coughlan, and C. A. Voss, Development of a Technology Innovation Audit, Journal of Product Innovation Management, Vol., pp. 105-136, 1999.
- [3] R. A. Burgelman, T. J. Kosnik, and M. van den Poel, Toward an Innovative Capabilities Audit Framework, in the "Strategic management of technology and innovation", R. A. Burgelman and M. A. Maidique eds, Homewood, IL: Irwin, 1998, pp. 31-44.
- [4] Adler, Paul S, McDonald. D. William and Macdonald Fred. Strategic Management of Technical Function, Sloan Management Review, 33 (2): 19-37 (Winter 1992).
- [5] Organization for Economic Co-operation and Development (2005), Oslo Manual: Proposed Guidelines for Collecting and Interpreting Technological Innovation Data, OECD Publishing, Paris.
- [6] OECD. Frascati manual 2002: proposed standard practice for surveys on research and experimental development [M]. OECD Publishing. Paris. 2002.
- [7] OECD. Frascati manual 2015: guidelines for collecting and reporting data on research and experimental development [M]. OECD, Publishing, Paris, 2015.
- [8] European Innovation Score Board 2007: Comparative Analysis Innovation Performance [M]. UNU-MERIT, 2008.
- [9] The Council on Competitiveness. Innovate American [R]. Washington, DC: The Council on Competitiveness, 2004.
- [10] http://www.csg.cn/xwzx/2016/gsyw/201605/t20160527_136742.html
- [11] Zhang Chidong, Li Xinnan, Zhang Jiejun. Evaluation Theory and Practice of Innovative Enterprises. Beijing: Economic Science Press, 2015. 08, p 15, 33.
- [12] Song da. Application of internal audit of science and technology projects [J]. Harbin: Chinese and foreign entrepreneurs, 2016, (21).
- [13] Zhang Mingqian. Comprehensive quality assessment of innovation comprehensive evaluation indicators. Shanghai: Shanghai People's Publishing House, 2015. 02, p 3.
- [14] Johan Frishammar, Anders Richtnér, Anna Brattström, Mats Magnusson, Jennie Björk. Opportunities and challenges in the new innovation landscape: Implications for innovation auditing and innovation management [J]. European Management Journal, 2019, 37 (2).
- [15] Kang Guangsheng. Several focal points of innovative audit management [N]. China audit news, 2017-04-05 (006).
- [16] Tang Ling. Innovation practice of digital audit management mode in power grid enterprises [J]. Accountant, 2019 (03): 53-54.
- [17] Cheng Guangliang. Application of audit management method innovation in practice [J]. Audit and finance, 2019 (05): 16-17.
- [18] Zhang Liangzhong, Guan Yajun. Enhancing audit innovation to promote full coverage of audit [J]. Modern audit and economy, 2017, 09 (A01): 23-24.