

## Comparative Study of Financial Management Models of Chinese and Foreign Library Consortia: Postprint

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### Abstract

[Purpose/Significance] Comparing the funding management models of domestic and foreign library consortia can reveal the strengths and weaknesses of China's library consortium funding management model.

[Method/Process] A comparative analysis of domestic and foreign library consortia is conducted from the perspectives of funding strategic management, management institutions, reporting systems, usage standardization, priority development items, and management personnel. Strategic management is discussed from the viewpoint of strategic objectives and strategies; management institutions are discussed in terms of management committees, finance committees, and audit committees; reporting systems are discussed with respect to annual reports, audit reports, and budget reports; funding usage standardization is discussed from the aspects of basis and procedures; funding expansion strategies are discussed through priority development items; and the foreign funding management personnel system is discussed in terms of finance officers, auditors, and coordinators.

[Results/Conclusion] Through comparison, the similarities and differences in various aspects of funding management between domestic and foreign library consortia are summarized, providing valuable insights.

### Full Text

## A Comparative Study of Funding Management Models in Chinese and Foreign Library Consortia

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[Purpose/Significance] Comparing the funding management models of Chinese and foreign library consortia can reveal the strengths and weaknesses of China's library consortium funding management approaches. [Method/Process] This study conducts a comparative analysis of Chinese and foreign library consortia from the perspectives of strategic funding management, management institutions, reporting systems, standardized use, priority development items, and management personnel. Strategic management is discussed from the standpoint of strategic goals and tactics; management institutions are examined through management committees, finance committees, and audit committees; reporting systems are analyzed through annual reports, audit reports, and budget reports; standardized funding use is discussed in terms of basis and process; funding expansion strategies are explored through priority development items; and foreign funding management personnel systems are discussed from the aspects of financial officers, auditors, and coordinators. [Result/Conclusion] By comparing and summarizing the similarities and differences in various aspects of funding management between Chinese and foreign library consortia, this study draws relevant insights.

**Keywords:** resource sharing; library consortium; funding management; management model; investigation and research

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A library consortium is an organizational alliance established between libraries to achieve resource co-construction and sharing, mutual benefit, and other objectives, operating according to mutually recognized agreements or charters. Currently, most Chinese library consortia adopt a loosely structured management system, with staff drawn from member libraries primarily in part-time capacities. This results in a lack of standardized systems and enforceability in organizational management, low operational efficiency, and difficulty in truly achieving resource co-construction and sharing goals. China's library consortium organizational management models remain immature, lacking standardized regulations and fixed management teams, which hinders the realization of consortium objectives and long-term development. In contrast, foreign library consortia developed earlier with more mature organizational management and have formed certain established models. Funding is the foundation for an organization's survival, and scientific management of library consortium funding is crucial for achieving strategic goals, policies, and projects, as well as for improving management standardization, sustainability, and transparency, making this research highly significant.

Domestic research on library consortium funding management is still in its in-

fancy. Our research team has previously conducted extensive discussions and studies on related aspects, investigating funding sources and management institutions in the United Kingdom, and proposing calculation methods for information resource sharing cost control and specifications for budget allocation, final accounting, and supervision. Other studies have analyzed funding sources and existing problems, surveyed resource sharing status in Chinese libraries, and pointed out that funding mainly comes from government allocations and self-raising, primarily used for shared network management, database, and foreign journal purchases, with a need to expand funding channels. Additional research has examined funding income and expenditure analysis, proposed sustainable development strategies for diversifying funding sources, and constructed interest balancing mechanisms. Overall, domestic and international research on library consortium funding has primarily addressed funding sources, use, optimization, and interest balancing strategies, but has not yet conducted more systematic and in-depth research from the perspectives of strategic funding management, management institutions, reporting systems, standardized use, guiding initiatives, and management personnel. Therefore, our research team employed website surveys, literature investigation, induction, and analysis methods to survey and compare library consortia from the United States, United Kingdom, France, Australia, Canada, Italy, and other countries with domestic consortia, aiming to provide references for scientific funding management in Chinese library consortia. Sample articles are shown in Table 1 for domestic library consortium typical samples and Table 2 for foreign library consortium typical samples.

## 2 Current Status Survey of Chinese and Foreign Library Consortium Funding Management Models

### 2.1 Strategic Management of Funding in Chinese and Foreign Library Consortia

**2.1.1 Strategic Goals and Content of Foreign Library Consortium Funding Management** Funding strategic goals are determined by consortium resource and service demands. Analysis of representative foreign library consortium funding strategies (see Table 3 ) reveals the following strategic objectives:

- (1) **Ensure funding sources and sustainability.** The MOBIUS consortium proposes strengthening financial management and fiscal security capabilities. The Pennsylvania Academic Library Consortium, Inc. (PALCI) believes in seeking new funding and collaboration opportunities to ensure consortium vitality. The Ohio Public Library Information Network (OhioLINK) develops sustainable funding models and strengthens ties with government agencies to secure increased funding.
- (2) **Enhance member library participation and collaboration, reduce procurement costs, and ensure more resources and services with less funding.** The Florida Center for Library Automation (FCLA) pro-

vides services and resources more economically and efficiently than comparable institutions. Amigos Library Services maximizes benefits in information resources, human resources, and management costs through cost-effective collaboration among member libraries, saving costs for members.

- (3) **Other objectives.** Ensure budget execution and strategic priority planning—for example, the Private Academic Library Network of Indiana (PALNI) strategic goals propose improving budget accuracy and priority adjustments. Provide funding for innovation and new services—for instance, the Consortium of Academic and Research Libraries in Illinois (CARLI) emphasizes seeking financial support for innovation and services. Improve academic standards—for example, the Big Ten Academic Alliance enhances institutional academic levels through joint investment.

### 2.1.2 Strategic Goals and Content of Domestic Library Consortium Funding Management

- (1) **Ensure funding sources and sustainability.** China's funding strategic objectives emphasize implementing funding guarantees. During the initial construction of Suzhou's public library main-branch system, it was established that required funds for venues, facilities, literature acquisition, daily operations, business activities, personnel, and free services would be guaranteed by municipal and district-level finances. The Shanghai municipal government, together with the Shanghai Literature Resource Co-construction and Sharing Cooperation Network, increased financial investment to expand the scale of preliminary work and formulated main tasks for a new three-year cooperation network, ensuring funding continuity.
- (2) **Enhance member library collaboration and participation, reduce literature procurement costs, and ensure more resources and services with saved funds.** The primary tasks of the Shanghai Education Network Library are joint procurement, joint cataloging, and joint development of joint services to truly achieve co-construction, co-awareness, and sharing. Xiamen's public library service consortium conducts joint resource procurement to enhance purchasing power and reduce resource acquisition costs. Other domestic library consortium strategic funding clauses from the perspective of funding use are shown in Table 4, demonstrating that Chinese library consortium strategies emphasize funding use supervision.

## 2.2 Funding Management Institutions in Chinese and Foreign Library Consortia

### 2.2.1 Foreign Library Consortium Funding Management Institutions and Responsibilities

- (1) **Management Committee.** Generally operating as non-profit corporations with unified management and operation, these are typically called

management committees, boards of directors, or executive committees that strictly exercise authority over funding matters according to consortium charters. Key funding management responsibilities include: establishing and approving consortium value strategic goals and standards while ensuring financial resources can achieve these goals; appointing executive officers for finance, audit, and other committees; listening to, supervising, and approving annual financial, budget, and audit reports submitted by internal or external finance and audit committees; reviewing management performance and approving consortium construction and service project funding; and regularly receiving training in financial or audit knowledge. For example, the Adventist Library Information Cooperative (ALICE) explicitly stipulates that the board has the authority to approve annual budgets, membership fees, and service charge standards.

- (2) **Finance Committee.** This is the most important institution for managing financial matters in foreign library consortia. In some consortia, it merges with audit, finance, risk, or oversight committees. It is generally composed of financial personnel from major participating libraries or their universities, with positions including financial director, financial manager, financial secretary, and financial accountant. It holds regular meetings and provides financial, budget, or audit reports. Main responsibilities include: formulating and supervising financial strategy implementation; providing investment objectives and strategies for the management committee, monitoring performance, and offering guidance; and providing management strategies for consortium fixed asset management. The Canadian Research Knowledge Network (CRKN) Finance and Audit Committee, a standing committee established by the board, is highly representative. Its main responsibilities include: advising the board on all financial matters affecting CRKN; recommending auditor appointments; reviewing audit scope and approving related fees; receiving and reviewing audited financial statements before board submission to ensure reasonable presentation, appropriate accounting principles, and adequate disclosure; receiving and reviewing the auditor's written annual report; recommending annual budgets to the board, including proposed annual membership fees; determining budget revision needs and making recommendations to the executive board; advising the board on financial emergencies; reviewing all CRKN-related contracts and agreements on behalf of the board and submitting recommendations; ensuring CRKN has effective processes to align financial resources with strategic direction; enhancing transparency and accountability in all financial and planning activities; and other duties as delegated by the board.
- (3) **Audit Committee.** Members are generally recommended or introduced from external independent audit institutions or auditors from member libraries. It holds regular meetings and provides audit reports. Main responsibilities include: providing annual audit reports and financial statements, recommending external auditors and reviewing their independence and

performance, and providing related consulting; monitoring the independence and effectiveness of internal audits; supervising the finance committee's implementation of financial plans; monitoring and supervising organizational operations for compliance with relevant regulations; reviewing consortium-related contracts, agreements, or documents; providing consultation or implementing risk resolution strategies for consortium financial risks; ensuring effective risk management processes, internal controls, and accounting systems; and promoting the sustainability, transparency, and accountability of consortium financial plans to align with financial strategic goals. For example, the Council of Australian University Librarians (CAUL) audit matters include: reviewing audited financial statements before board submission to ensure they truthfully reflect the consortium's financial position, performance, and cash flow; ensuring systems are in place to assess the appropriateness and compliance of internal control systems; regularly reviewing external auditor appointments, engagement terms, and compensation; meeting with external auditors to discuss findings, accounting and financial control adequacy and effectiveness, and any issues auditors wish to raise; and ensuring external auditor independence.

- (4) **Consultation or Preparation Committee.** Members generally consist of consortium experts and externally appointed specialists. Key funding-related responsibilities include: participating in funding use strategic planning; clarifying interests and responsibilities of different participants; providing consultation on major funding use, individual service funding amounts, and growth rates for various funds; providing reports on funding use efficiency and direction; and providing consultation for consortium award programs. For example, the British Columbia Electronic Library Network (BCELN) preparation committee provides the Ministry of Education with reports on core fund use efficiency, while its advisory committee provides recommendations on service charges.
- (5) **Digital Resources Payment Committee.** This committee is dedicated to improving the standardization and efficiency of funding use for digital resource sharing construction and services. Its main responsibilities include: establishing payment policies and regulations; assisting the consortium in developing internal controls and best practices for digital resource procurement funding payments; communicating and training member libraries on electronic payment processes and policies; and communicating with data suppliers on renewal licensing and payment matters. The Ontario Council of University Libraries (OCUL) Digital Resources Payment Committee provides feedback and assists the OCUL office in developing best practices related to internal controls and payment processes for electronic resource licensing; develops resource payment workflows, practices, and policies; establishes OCUL's awareness of payment practices of other consortia; understands policies within member institutions that may affect invoice processing and resource tax rules; and researches and analyzes

purchasing budget practices within member institutions that may affect resource licensing methods.

- (6) **Funding-Related Working Groups.** Foreign library consortia strengthen funding management by establishing working groups related to funding management, such as revenue generation working groups to investigate revenue opportunities and organize revenue-generating activities; financial strategy working groups to review consortium membership fee policies, fund stability and sustainability, and seek donations and input-output analysis; cost-sharing advisory working groups to provide consultation on project funding allocation methods; salary survey working groups to ensure employee salary policies and growth strategies; and investment working groups to manage and guide consortium fixed assets and investment projects. For example, the Alberta Library (TAL) Revenue Generation Working Group investigates business opportunities to generate revenue to further enhance and support TAL's operations, programs, and services, conducting in-depth research on these opportunities and presenting revenue generation recommendations to the board. The Association of Research Libraries (ARL) Financial Strategy Working Group reviews consortium membership fee policies, examines the stability and sustainability of investment and reserve funds, core initiatives and programs, and seeks donations and other income. The ARL Salary Survey Working Group primarily investigates consortium employee salary conditions and develops related salary policies and growth plans to ensure reasonable compensation. The Canadian Research Knowledge Network (CRKN) Cost Sharing Advisory Group submits reports to the board, providing recommendations on cost allocation and distribution for specific subsets of consortium licenses.
- (7) **Scholarship and Award Committee.** Members generally consist of board chairs and members, financial directors, and experts from member libraries. They are responsible for establishing award funding use grant rules, conditions, and processes. Award funds are primarily used to support consortium cooperation projects, digital collections, services, innovation, marketing, academic research, advanced studies, continuing education, overseas travel, and outstanding achievement awards. The establishment of diverse scholarships and awards helps consortia win broader participation and deeper support. For example, ARL's open scholarship provides research libraries with opportunities for cooperation and new services in open storage, open data, and open educational resources. The American International Consortium of Academic Libraries (AMICAL) small grants support professional development for individual staff and faculty, as well as local and collaborative projects related to digital scholarship, digital collections, digital pedagogy, and library innovation. Workshop grants provide financial support for organizing and conducting professional development activities on topics involving multiple member institutions. The American Theological Library Association (ATLA) provides innovation awards,

consulting service grants, international continuing education grants, leadership development project grants, research and publication grants, and theological library diversity enhancement grants. The Rochester Regional Library Council (RRLC) provides outstanding contribution awards, mini marketing awards, library development funds, and technology awards.

- (8) **External Financial or Audit Agencies.** Introducing external agencies and independent financial accountants is a good measure to maintain consortium financial transparency and standardization. External financial accountants are recommended by the board, management committee, or finance and audit committee, coming from independent accounting firms or university finance or audit departments. Internal related committees strengthen supervision and communication by stationing financial representatives. For example, the Nova Scotia Academic Library Consortium (Novanet) Audit Committee recommends external auditors and their compensation to the board; communicates directly with external auditors to discuss and review within their authority; reviews external auditor reports; and contacts and meets to resolve differences between management and external auditors. The UK Joint Information Systems Committee (JISC) board supervises the integrity of the external audit process, while its Audit and Risk Management Committee recommends independent auditors to the board and supervises their efficiency.
- (9) **Funding Coordination Committee.** Primarily responsible for ensuring that grant funds, project partner funds, and donation funds are used in accordance with consortium objectives, missions, visions, and strategic plans; comply with grant objectives and purposes; review and approve member funding applications; communicate with various parties on funding matters; and win more financial support for the consortium while improving funding use transparency. For example, the AMICAL Funding Coordination Committee assists management in developing grant-supported program policies; reviews competitive grant funding program applications; collects ideas for new grant development and provides feedback; develops or clarifies long-term member funding goals; reviews consortium member applications and takes action on them; examines and decides on appropriate actions for consortium opportunities and challenges; and participates in temporary ad hoc committees related to its expertise to accomplish specific short-term tasks.

### 2.2.2 Domestic Library Consortium Funding Management Institutions and Responsibilities

- (1) **Management Committee.** The domestic library consortium management committee is its highest management institution, with a consortium management center as its executive body to implement tasks approved by the management committee. Key funding management responsibilities of the management committee include determining consortium project fund-

ing allocation plans and reviewing consortium funding use. The consortium management center's main responsibilities include developing consortium project construction plans, formulating project financial budgets, organizing joint resource procurement, and actively seeking project funding while managing its use. The management center establishes offices and project funding management working groups to handle funding matters.

- (2) **Superior Government Departments.** Some library consortium funding is directly allocated, supervised, and managed by central ministries or local governments, or operated in cooperation between local governments and relatively strong libraries. Their funding use and project implementation status are reviewed by the responsible management department and then reported to central ministries or provincial departments with financial acceptance seals. Some local consortia are operated by provincial finance departments or entrusted central libraries, with other member libraries obtaining funding subsidies through project participation or application submission.
- (3) **Entrusted Management by Stronger Libraries Within the Consortium.** Some library consortium management centers are directly established within relatively strong libraries in the consortium. For example, the Hubei Academic Digital Library Consortium's project management funds are entrusted by the Hubei Provincial Department of Education to Wuhan University for management, with separate financial accounts for designated use. Funding use complies with Wuhan University's financial system, with the consortium project management center director signing for fund use and reimbursement.

## 2.3 Reporting Systems for Funding Use in Chinese and Foreign Library Consortia

### 2.3.1 Types and Content of Funding Use Reports in Foreign Library Consortia

- (1) **Annual Report.** The annual report is the primary means for foreign library consortia to present their financial status to boards, management committees, and participating libraries. Financial and audit matters in annual reports are generally provided by finance committees or audit committees. Main content includes: clarifying new fiscal year finance or audit committee primary responsibilities and changes; annual financial or audit committee primary responsibilities and change matters; annual financial or audit report summaries; and financial or audit explanatory matters and other important financial information. For example, the Alberta Library Consortium (TAL) annual report provides audited financial statement summaries, such as operating and fund balance change statements, income source statements, and income and expenditure status statements. The Association of Southeastern Research Libraries (ASERL) annual re-

port provides balance sheet details. The Ohio Public Library Information Network (OPLIN) provides detailed expenditure statements in its annual report. The Society of College, National and University Libraries (SCONUL) annual report provides financial reviews, independent auditor reports, financial activity statements, balance sheets, cash flow statements, and financial statement notes.

- (2) **Financial and Audit Reports.** Financial and audit reports are divided into annual, quarterly, and specific project reports. Annual financial reports primarily include financial position statements, income and expenditure statements, net asset change statements, cash flow statements, and notes to financial statements. External audit institutions and independent auditors are often introduced to audit financial conditions. In addition to auditing the above content, annual audit reports also provide independent auditor opinions and audit basis, clarify management responsibilities and financial statement governance responsibilities, and auditor responsibilities for financial statement audits. Various financial and audit reports are realized through regular or irregular financial and audit meeting systems. For example, TexShare provides rich historical financial and audit reports. The M25 Consortium of Academic Libraries clearly identifies financial information (directors, secretaries, auditors, banks, office locations), treasurer reports, independent auditor reports, financial activity statements, balance sheets, and financial report addenda in its financial reports.
- (3) **Consortium Budget Report.** Budget reports are important measures to ensure the realization of established policy goals for consortium funding, providing budget overviews and summaries, usage level strategies and details, allocation strategies, project fund use timelines, payment timelines, tracking timelines, estimated collection timelines, budget summaries by funding use strategy, budget summaries by financial method, budget summaries by expenditure purpose, and budget summaries by target outcomes. For example, TexShare provides detailed budget report content.

### 2.3.2 Types and Content of Funding Use Reports in Domestic Library Consortia

- (1) **Annual Report.** Library consortium committee project management centers report operation and maintenance status and annual financial statements to superior management departments, with content focused on annual funding implementation and expenditure. For example, the China Academic Digital Library & Information System (CADAL) project management center strictly manages annual funds according to central government special fund budgets, detailing fund expenditure items such as resource construction, services, technical support, and management center operation funds.

- (2) **Project Mid-term Acceptance Report.** Consortium sub-project construction units must submit sub-project implementation reports to the consortium management center mid-year and year-end. For example, CALIS sub-projects require mid-term inspection reports, with on-site inspections organized as needed to provide “Evaluation Opinions.” Construction units submit sub-project annual fund final accounts according to budgets, accepting inspection and supervision from superior financial departments, national audit agencies, and the CALIS management center. Budget reports: Project leaders of the Beijing Academic Library Resource Construction Alliance must propose annual fund use budgets for the following year by the end of June based on actual school needs and project fund use principles. The Guangxi Science and Technology Literature Sharing and Service Platform’s funds come from autonomous region government budget allocations, with the finance department responsible for approving the platform’s annual special fund budgets, member library business subsidies, management fees, and performance reward budgets. The National Science and Technology Library (NSTL) proposes fund budgets based on Ministry of Finance approved annual special fund budgets and actual needs, which are submitted to the center’s board for review and then reported to the Ministry of Science and Technology for daily financial management.

## 2.4 Standardized Management of Funding Use in Chinese and Foreign Library Consortia

### 2.4.1 Basis and Process of Standardized Management Systems in Foreign Library Consortia

- (1) **Basis.** Foreign library consortium funding use must comply with respective national legal norms and accounting industry standards. Canadian library consortia must follow Canada’s Non-profit Organizations Act and Non-profit Organization Accounting Standards financial and disclosure clauses, ensuring operations comply with the Canadian Institute of Chartered Accountants’ processes, regulations, and rules, such as the Council of Prairie and Pacific University Libraries (COPPUL) and Novanet. US library consortium funding use must comply with state library statutes and financial accounting industry standards. For example, the Colorado Library Consortium (CLiC) must legally prepare consortium financial and organizational financial records (procedures) into reports for comprehensive audit by the state auditor’s office and file documentation with the US Internal Revenue Service. The Illinois Heartland Library System (IHLS) funding use must comply with the Illinois Library System Act: Administrative Rules. Australian library consortia are established as non-profit corporations, such as the Cooperative Action by Victorian Academic Libraries (CAVL), with funding managed by boards and subject to domestic Company Law constraints.
- (2) **Process.** To make funding use more standardized, efficient, and con-

venient, foreign library consortia establish standardized bank accounts, optimize payment processes, and refine invoice and reimbursement documents while strengthening regular tracking of contract performance, enhancing consortium funding use efficiency. For example, the Statewide California Electronic Library Consortium (SCELC) designed an accounts payable system that not only maintains good credit with suppliers but also provides libraries with purchase flexibility, producing various accounting vouchers with administrative or transaction fees charged as a percentage (0%-5%) on invoices. System notification functions regularly send account statements, reminding participating libraries to handle outstanding funding matters, effectively ensuring normal payment transactions between libraries and suppliers. Minitex provides deposit accounts for member libraries to subscribe to electronic resources, purchase library products, attend workshops, conferences, and training, and supplement lost or damaged materials, with consortium administrative or financial staff monitoring accounts and providing monthly statements and related invoices.

#### 2.4.2 Basis and Process of Standardized Management Systems in Domestic Library Consortia

- (1) **Basis.** Chinese library consortium funding use must comply with national regulations and financial systems, accepting supervision and guidance from superior organizations. The CALIS management center organizes experts to review sub-project funding budgets, with funding amounts determined based on CALIS project funding availability, expert review opinions, and relevant financial systems following prescribed procedures. Sub-project fund management and use accept inspection and supervision from superior financial departments, national audit agencies, and the CALIS management center, with construction units required to actively cooperate and provide relevant materials. NSTL special funds come from central government science budget allocations, jointly managed by the Ministry of Science and Technology and the Ministry of Finance, with the Ministry of Science and Technology responsible for specific implementation and inspection of special fund management and use, which must strictly implement national financial system regulations. The Digital Resource Acquisition Consortium of Chinese Academic Libraries charter mentions that the consortium should comply with national regulations and financial systems during group procurement. The Changbei Academic Library Consortium project funds are managed by the project fund management center, which regularly submits funding use reports to the consortium management committee. The Guangxi Science and Technology Literature Sharing and Service Platform's special funds are jointly managed by the autonomous region finance department and science and technology department, with the science and technology department responsible for specific implementation and supervision and inspection of special fund management and use.

- (2) **Process.** Chinese library consortium funding use processes all have standardized application, approval, and use norms. The main model involves unified and standardized fund use by the consortium management center (management office). The management center organizes experts to review project funding budgets, with funding amounts determined based on project funding availability, expert review opinions, and relevant financial systems following prescribed procedures. During mid-term inspections, construction units must submit mid-term inspection reports to the management center, which may organize on-site inspections as needed. Final evaluations require “Evaluation Opinions” based on review or inspection results, with construction units preparing corresponding annual fund final accounts according to approved sub-project annual budgets, actively cooperating and providing relevant materials in accordance with financial systems. Only with the management center director’s signature can payment requests and reimbursements be processed, forming a complete standardized process for funding approval and completion.

## 2.5 Guiding Initiatives for Funding Expansion in Chinese and Foreign Library Consortia

### 2.5.1 Priority Development Items for Foreign Library Consortium Funding

- (1) **Government department funding in education, history, science, culture, tourism, and other areas is substantial, continuous, planned, and purposeful, with funding use subject to supervision or guidance from funding departments.** Priority is given to: Supporting high-speed internet connections, including network broadband, branch system broadband, network port bandwidth, wireless hotspots, and auxiliary facilities. For example, OPLIN allocates only 10% of its financial and logistical support funds to personnel salaries, rent, equipment, and office supplies, with the remainder primarily used for interconnectivity costs and subscribing to basic information databases to ensure Ohio residents can quickly and freely access local library systems. Investing to bridge the digital divide, supporting new technology applications, personnel digital training, and collection development projects or plans for small libraries in rural and remote areas. For example, ARL uses federal government department funds to serve federal agency projects and programs together with libraries and community education institutions.
- (2) **Applying for internal and external project or research funds to prioritize expanding and improving consortium service content and academic levels.** For example, ARL priorities include advocacy and public policy, data and analysis, promoting diversity, equity, and inclusion, and scholars and scholarships. COPPUL prioritizes developing digital management networks, shared print archive networks, Canadian university reciprocal agreements, and Canadian university interlibrary

loan/resource sharing agreements. The New England Law Library Consortium (NELCO) PALMPRINT project is a resource co-construction and sharing project between the consortium and the Legal Information Preservation Alliance. The Cape Library Consortium requires payment for expensive equipment sharing projects like REEP.

- (3) **Donation income is prioritized for academic programs and citizen knowledge access.** Foreign foundations have unique models for funding libraries, such as cooperating with governments, selecting partners, supporting projects, and establishing special committees. For example, the Carnegie Corporation generally supports higher education and humanities in its donations to AMICAL. The Gates Library Foundation supports research on library information and communication technology for consortia like the Electronic Information for Libraries (EIFL). The Open Society Foundations established by George Soros support projects on open government and social inclusion. Additionally, tax incentives for donations in various countries are important reasons why foreign foundations are willing to donate. For example, US Internal Revenue Code Section 501(C) stipulates that enterprises or individuals donating money or non-monetary items to charitable activities or projects can enjoy tax exemptions, income tax reductions, and tax deductions.

**2.5.2 Priority Development Items for Domestic Library Consortium Funding** Domestic library consortium funding is primarily government-allocated. Government department funding must be reviewed by management centers and expert panels according to relevant financial policies before use and cannot be misappropriated. Funding is mainly prioritized for: providing guarantees for co-construction and sharing platform information resource construction, service system construction, and technological development. For example, the National Science and Technology Literature Sharing and Service Platform provides key support to members with timely literature information resource collection, good processing services, complete network construction, and effective open service. The Hubei Academic Digital Library Consortium provides guaranteed funding for data center and network construction equipment and software, application system development, and literature resource platform construction.

## **2.6 Management Personnel Systems for Funding in Chinese and Foreign Library Consortia**

Domestic library consortium financial personnel management systems are based on China's financial accounting regulations, superior department financial rules, and entrusted library or unit financial management systems, which will not be elaborated here. The following focuses on analyzing foreign library consortium funding management personnel systems.

**2.6.1 Financial Personnel** Financial personnel mainly include financial directors, financial secretaries, financial assistants, and financial accountants. Consortium financial directors are approved or appointed by the board, mostly as board members. Main responsibilities include: submitting annual financial reports and budget reports to the consortium; reporting financial status and matters to the board and providing recommendations; collecting membership fees and project share fees; maintaining records of financial transactions and member payment records; supervising consortium funds, asset account books, and allocating consortium funds; conducting financial decision-making, budgeting, and tax work; managing all consortium funds and securities and supervising their income and expenditure; and ensuring all financial matters comply with national financial legal systems. Consortia using financial agencies dispatch financial directors or personnel for supervision and communication. Financial secretaries, assistants, and accountants accept work assignments from financial directors and assist them. For example, the Manitoba Library Consortium Inc. (MLCI) financial director's responsibilities include: supervising consortium funds and other assets; maintaining member payment records; managing bank deposits and consortium committee-signed payments; maintaining detailed and accurate accounts and financial transaction books; submitting consortium financial account reports at each regular meeting; submitting a financial audit report and next year's financial budget at annual meetings; and reporting all corporate executive financial events to the minister. The Ontario Council of University Libraries (OCUL) financial director secretary supervises whether financial matters comply with Canadian accounting standards, supervises fund expenditures, and maintains and provides financial position accounts.

**2.6.2 Auditors** Foreign library consortium auditors are appointed and reviewed by the board, generally from member libraries or independent audit institutions and auditors, and must possess relevant accounting qualifications. For example, the Council of Australian University Librarians (CAUL) stipulates that accounts for each fiscal year must be audited by an auditor according to Part 5 of the consortium regulations. The auditor must be a member of the Australian Society of Chartered Accountants, the Institute of Public Accountants, or CPA Australia, or a person registered as an accountant under the Corporations Act, with no interest in the consortium. The auditor should be appointed by the board through recorded committee procedures, with suitability reviewed by the board each fiscal year.

**2.6.3 Funding Coordinators** The establishment of funding coordinators facilitates rapid and standardized processing of funding matters. The Consortium of Academic and Research Libraries in Illinois (CARLI) establishes coordinators for institutional receivables or payables in its finance committee, holding regular meetings with financial directors and senior accountants to strengthen communication with member libraries and coordinate solutions to receivable and payable issues. The Electronic Information for Libraries (EIFL) establishes

public library consortium innovation program project coordinators to coordinate seeking donations and expanding funding sources, support consortium grant management and coordination activities, and distribute related donation funds. The Adventist Library Information Cooperative established a start-up funding coordinator position during its initial creation.

**2.6.4 Managers** Foreign library consortia emphasize financial capability training for consortium managers, conducting regular related business training. For example, the Southern Ontario Library Service (SOLS) proposes four financial capabilities for managers: understanding and applying basic budget and financial concepts and terminology; using reasonable business and financial judgment to establish strategic financial management processes; seeking multiple funding sources; and managing service, department, or project budgets.

### 3 Comparative Analysis of Chinese and Foreign Library Consortium Funding Management Models

#### 3.1 Comparative Analysis of Strategic Funding Management

Currently, both Chinese and foreign library consortia have formulated strategic plans, with funding management clauses gradually incorporated into consortium charters or strategic plans. Both Chinese and foreign library consortium funding strategies aim to ensure funding amounts and continuity. The initial establishment and development of consortia cannot be separated from policy support and funding guarantees from government departments, making government allocation amounts and continuous funding important strategic goals. Relevant clauses in national library funding strategies and related provisions clearly indicate maintaining financial strength to address consortium financial reserves, infrastructure, and human resource needs, and specifying where and how government allocated funds should be used. Additionally, to ensure healthy and stable consortium development, improving member library collaboration and participation, reducing literature procurement costs, and saving funds for member units to provide more resources and services are emphasized.

The gap between Chinese and foreign library consortium strategic funding management lies in: Foreign library consortium strategies are at a higher level, not only standardizing funding use procedures but also elaborating more on funding use values, purposes, guiding principles, objectives, strategic tasks, priority levels, timelines, and strategies; Foreign library consortium strategic content is richer, including budget execution and strategic priority plans, funding plans for innovative services, and improving library academic levels, in addition to the similar content analyzed above.

### 3.2 Comparative Analysis of Funding Management Institutions

The core institution for funding management in both Chinese and foreign library consortia is the management committee, with main responsibilities involving developing consortium project construction plans and strategic goals, formulating financial budgets, and reviewing financial reports. As mentioned earlier, foreign library consortia adopt non-profit corporate operation models with relatively complete institutions. In addition to management committees (called boards abroad), they also establish finance committees, audit committees, consultation or preparation committees, digital resource payment committees, and funding-related working groups such as revenue generation working groups, salary survey working groups, financial strategy working groups, cost-sharing advisory groups, scholarship and award committees, external financial or audit agencies, and funding coordination committees. This sub-committee decentralized management approach has clear division of labor, refined responsibilities, clear rights and responsibilities, and high work quality and efficiency.

In contrast, domestic library consortium management institutions have relatively unified rights and responsibilities, either managed by management centers under the management committee, directly managed by consortium superior government departments, or managed by relatively strong libraries within the consortium serving as management centers. China's library consortium funding management institution setup basically involves personnel holding multiple positions, which to some extent affects work efficiency and lacks supervision strength.

### 3.3 Comparative Analysis of Funding Use Reporting Systems

Annual reports, financial reports, audit reports, budget reports, and project reports are currently the main reporting forms for library consortium funding management both domestically and internationally. The main differences between Chinese and foreign library consortium reports are: Different submission and acceptance subjects. Foreign library consortium reports are submitted by finance committees, audit committees, independent financial audit institutions, or auditors, and accepted by consortium boards, management committees, or executive committees. In particular, audit supervision matters are generally completed by independent audit institutions, ensuring standardized and transparent consortium funding use. Domestic library consortium reports are generally completed by consortium management centers, project construction units, offices, financial institutions of participating units, or superior department financial institutions, rarely introducing external independent audit institutions, resulting in insufficient standardization and transparency. Different report items and depth. Foreign library consortium reports strictly present financial position statements, income and expenditure statements, net asset change statements, cash flow statements, statement notes, independent auditor reports, and budget matters according to their financial accounting systems. Domestic financial matters are overly simple, basically listing expenditures. For example,

although the CADAL project management center strictly manages annual funds according to central government special fund budgets, it only details fund expenditure aspects in statement form. Different emphasis on budgets. Foreign library consortium budget reports provide budget overviews and summaries, usage level strategies and details, allocation strategies, project fund use timelines, payment timelines, tracking timelines, estimated collection timelines, and budget summaries by funding use strategy, financial method, and expenditure purpose, as well as budget summaries by target outcomes. Domestic budget reports lack this depth.

### **3.4 Comparative Analysis of Standardized Funding Use Management**

Library consortia are organizations composed of multiple libraries—some are system-internal consortia, some are cross-system consortia, some come from the same region, and some are national cross-regional consortia. These libraries from different fields, regions, or types divide labor and cooperate to achieve information resource co-construction and sharing. Therefore, consortium funding use must establish jointly observed bases and standardize use processes to ensure healthy and stable consortium development.

Our team's investigation and comparison found that foreign library consortia must comply with respective national legal norms and accounting industry standards during funding use, with specific and clear library statutes and strong legal binding force. Chinese library consortia must also comply with national regulations and financial systems, accepting supervision and guidance from superior organizations and regular reporting, but mainly from standardized financial systems formulated by government departments with weaker legal binding force. Comparing Chinese and foreign library consortium funding use processes reveals that foreign processes are more standardized, automated, electronic, convenient, and efficient, regularly tracking contract performance and simplifying review processes to enhance consortium funding use efficiency. Chinese library consortia have standardized application, approval, and use norms, with each member unit required to apply for and report to superior government departments or management centers, then receive approval before distribution. While standardized, this approach has poor timeliness, low convenience, and weak implementation effects.

### **3.5 Comparative Analysis of Funding Expansion Initiatives**

In funding sources for library consortia both domestically and internationally, national education, science, technology, culture, and other government departments provide substantial investment, with special funds promoting consortium initial construction and sustainable development. From the trend of consortium establishment and development, initial funding mainly comes from superior department allocations, founding member shared costs, and support from founding libraries or universities, with unstable funding heavily reliant on external support and donations. After certain development stages, consortium

funding sources and models undergo significant changes, trending toward diversification, primarily from government departments, membership fees (annual fees), services, product or consulting fees, project cooperation fees, external research project funding, conference income, and donations, with funding sources becoming stable and diversified, mainly relying on consortium organization and member funds to ensure stable development. Foreign library consortium funding investment is continuous, planned, and purposeful, with clear supervision, guidance subjects, and responsibilities.

Optimizing fund expenditure is a key focus of funding use for library consortia in all countries. To improve funding use efficiency, funds are mainly used to increase investment in consortium platform equipment, networks, software systems, projects, services, and database construction. Foreign consortia also obtain funds from external foundation projects and prioritize support for designated projects or for expanding consortium service content and improving academic levels. To optimize fund expenditure, Chinese library consortium funding use must follow unified planning, separate accounting, and designated use, without misappropriation or unauthorized fee extraction, and cannot be used for fines, donations, sponsorships, investments, or other expenditures prohibited by national regulations.

### 3.6 Comparative Analysis of Funding Management Personnel Systems

Foreign library consortium funding management personnel are primarily financial audit personnel, including financial directors, audit directors, financial managers, financial secretaries, accounting personnel, and independent auditors. Management and training of financial management personnel are strengthened through: Strengthening institutional construction for funding management personnel from the perspective of legal norms and consortium charters, with specific and detailed specifications for position requirements, generation procedures, job responsibilities, and work processes; Introducing funding coordinators to strengthen revenue generation, coordination, and management; Emphasizing financial capability training for consortium managers. Currently, domestic library consortium funding management personnel systems are immature, with most personnel coming from consortium member units, primarily part-time. Due to insufficient emphasis on financial management personnel, part-time financial management personnel have limited capabilities and weak financial control, often unable to ensure the realization of strategic or project objectives. This leads to regulations like CALIS provisions that sub-project funds are controlled by construction units, directly allocated or held in trust by the management center, with other funds directly allocated to designated recipients, generally without additional funding, and secondary acceptance costs borne by construction units. Therefore, establishing a unified funding use platform and strengthening standardized financial management system construction and training are imperative.

## 4 Recommendations

### 4.1 Develop Funding Strategy at a Higher Level with Richer Content

Given that domestic library consortium financial personnel are mostly part-time, funding management strategies should be elaborated at a higher level and with richer content regarding purpose, principles, objectives, tasks, priority levels, timelines, and strategies. At the strategic level, focus on funding use objectives, task priority levels, and strategies to ensure strategic goal realization. Clear funding use objectives support consortium co-construction and sharing goals; funding priority levels based on strategic tasks enable scientific, hierarchical, and layered implementation; and reasonable funding use strategies ensure high-quality completion of consortium strategic goals, attract new members, expand service content, and improve technology and research levels. Funding strategy development should follow: demand guarantee strategies; benefit maximization strategies; priority development strategies; standardized process strategies; and interest balancing strategies.

### 4.2 Centralized or Decentralized Funding Management Should Be Based on Actual Needs

Organizational financial management has three models: centralized management, decentralized management, and mixed management. Centralized management is currently the global mainstream for corporate financial management, with high operational efficiency and benefits, while decentralized management has advantages in refined management and auxiliary decision-making. Centralized management by the management center, through forecasting, planning, control, accounting, assessment, and analysis, can develop funding strategies, manage funding personnel, improve financial management systems, provide unified funding payment platforms, provide various funding use analysis reports, and develop guiding policies for funding use, thereby exploring cost reduction potential and improving consortium funding operational benefits. In sub-committee establishment, decentralized management can be adopted to establish management committees, finance committees, audit committees, consultation or preparation committees, digital resource payment committees, award committees, funding coordination committees, and related working groups to improve management systems, clarify management responsibilities, hold regular meetings, and provide reports or consultation for consortium funding management decisions, contributing to scientific funding use and benefit maximization.

### 4.3 Actively Establish Various Funding Management Reporting Systems and Independent Auditing

Library consortia are interest communities established according to co-construction, sharing, and mutual benefit principles. Maintaining interest balance among consortium members is essential, and financial transparency determines participation and cooperation levels. Standardized, scientific, and

transparent financial, audit, budget, and project reporting systems enable consortium managers and members to understand funding sources, accountability, usage, effectiveness, and future directions. Full-process funding use supervision and analysis reports are significant for funding use standardization and decision-making. Therefore, introducing independent audit institutions or auditors to provide objective and impartial audit opinions, considering every member's interests, is necessary to maintain interest balance among consortium members.

#### **4.4 Build a Convenient and Secure One-Stop Electronic Payment System to Standardize Funding Use**

To ensure more convenient, standardized, and secure funding use processes, it is necessary to establish a one-stop fund payment system. This system can not only enable online free payments but also automatically provide basic fund use information and invoices such as membership fee invoices, new or renewed database invoices, new or renewed service invoices, project statements, and quarterly statements after consortium members complete related payment matters. It can also provide detailed explanations and operation steps for complex matters such as credit vouchers and outstanding invoice items, providing convenient and easy-to-operate financial technical support for consortium members without financial capabilities.

#### **4.5 Adopt Hierarchical and Decentralized Funding Management to Guide Rational and Optimal Fund Allocation**

Achieving strategic management goals for funding hierarchy requires hierarchical consortium funding management to establish more reasonable hierarchical and decentralized funding use management systems and necessary assessment and reward-punishment systems. Levels and authority are determined through consultation among consortium members and implemented according to regulations. In terms of levels, funding for core strategic management objectives and tasks is approved, monitored, and rewarded/punished by the consortium management committee, while funding for secondary strategic management objectives and tasks or personnel/office expenses is approved and monitored by various subordinate funding management committees. In terms of decentralization, funding for establishing or improving co-construction and sharing platform support systems is approved and monitored by the consortium management center, while funding for project construction, service expansion, or technical support is applied for, approved, used, and monitored by project teams, construction units, or leading units according to decentralization principles.

#### **4.6 Develop Managers' Financial Capabilities**

Managers' financial capabilities affect consortium decision-making direction. It is necessary to enhance the ability to understand and apply basic budget and financial concepts and terminology; establish strategic financial management pro-

cesses using reasonable business and financial judgment, including short-term, medium-term, and long-term financial planning, aligning budgets with strategy, assessing financial risks, and identifying cost reduction and project improvement solutions; develop the ability to seek multiple funding sources, including writing persuasive applications, evaluating revenue generation trends and practices, and securing funds for core strategic objectives; and manage service, department, or project budgets, including understanding tracking financial procedures, monitoring budget expenditure variances, and predicting next year's funding priorities based on service or operational changes.

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