

**Compass of Academic Library Modernization
(CALM) Report on User Relationship Management
(2023 Edition)**

Report Research Team Members

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Abstract Jointly formulated by the Steering Committee for Academic Libraries of China (SCAL) and Peking University Library, the Compass of Academic Library Modernization (CALM) Report on User Relationship Management establishes a theoretical framework for managing user relationships in academic libraries. Based on questionnaires distributed to large—and medium-sized academic libraries nationwide, the report systematically analyzes the current state of library-user relationship management. It delves into various dimensions such as the benefits for users, the level of trust between libraries and users, the extent of user engagement, and the overall progress within this field. The report further encapsulates the evolving trends in library-user relationship management, focusing on aspects such as strategic planning, service expansion, trust building, and user engagement. It serves as a valuable guide for fostering and evolving the relationships between academic libraries and users.

Keywords Academic Libraries, User Relationships, Benefits, Trust, Engagement, Modernization, High-quality Development, Relationship Marketing

1 Introduction

At the end of 2021, the Steering Committee for Academic Libraries of China (SCAL) and Peking University Library jointly released the Compass of Academic Library Modernization Report (2021 Simplified Edition)^[1], which established a forward-looking macroscopic system for academic library modernization, analyzed and evaluated the key trends for future development. It also provided directional and referential guidance for academic libraries with regard to talent fostering, user relationship development, information resources upgrading, optimization and service innovation, development theory research, guarantees of governance capacities, and clarification of operational ecology. Since 2022, the SCAL and Peking University Library have intensified their focus on specific work themes and published themed compass reports on an annual basis. The end of that year saw the release of the Compass of Academic Library Modernization Report on Librarians^[2], which focused on the development of talent teams.

Users play a pivotal role in ensuring the sustainable development of academic libraries, and the management of user relationships is an essential requirement for promoting the modernization of these libraries. In February 2023, under the guidance of the Department of Higher Education of the Ministry of Education (MOE) and with assistance from the SCAL offices of various regions, the SCAL and Peking University Library jointly set up a research team and formulated the Compass of Academic Library Modernization (CALM) Report on User Relationship Management (the “Report”). The Report aims to provide decision-making references and management guidelines for academic libraries nationwide, with a focus on the development of user relationships.

1.1 Study Background

The year 2023 marks a crucial juncture in the 14th Five-Year Plan. It also signifies the commencement of modernization with Chinese characteristics. In such a context, academic libraries should actively push ahead with user-centered modernization, striving to integrate into national and higher education modernization processes and fulfill the evolving expectations of users.

The wave of technology has brought profound changes to the patterns of information usage, learning, and research. In a university setting, it has significantly reshaped the information and service needs of faculty and students. How to address these evolving needs, optimize user relationships, and enhance competitive advantages has become a key concern of academic libraries. The research team has delved into this issue after an in-depth review of relevant

theoretical and practical achievements.

1.2 Purpose and Significance

The Report aims to establish a theoretical framework for managing user relationships in academic libraries. It leverages firsthand data to comprehend the present state and proven experience regarding user relationship management among large—and medium-sized academic libraries across the nation, and to analyze key future development trends.

The primary importance of the Report lies in deepening insights into the status quo and evolving trends of user relationship management within China's academic libraries, so as to further enrich and improve theoretical studies in relevant fields. Furthermore, the Report provides important references for the strategic planning, service innovation, and institutional development of academic libraries, thus advancing the high-quality and efficient management of user relationships.

1.3 Methodology

The Report delves into three main areas: First, it integrates relationship marketing theories with the realities of library work. From the perspectives of vision and practices, the Report identifies the key elements of library-user relationship management and constructs a theoretical framework for managing user relationships in academic libraries. Second, it examines library-user relationship management in large—and medium-sized four-year universities across China. Through a systematic analysis of the benefits for users, the level of trust between libraries and users, the extent of user engagement, and the overall progress within this field, the Report sheds light on the present state and proven experience regarding user relationship management. Third, based on the theoretical framework and survey results, the Report forecasts the future trends of user relationship management in academic libraries.

The Report is based on literature review and questionnaire survey. It employs statistical analysis and other methods to evaluate the survey results.

2 Present State of Domestic and International Research and Practical Experience

2.1 Present State of Research

Libraries are shifting their focus from resource building through service innovation to user relationships. Relationship marketing, a science committed to

long-term, mutually beneficial relationships between service providers and users, has gradually become a significant theoretical underpinning for research on user relationship management in libraries at home and abroad^[3].

The majority of studies concerned are rooted in the perspective of Customer Relationship Management (CRM), a key component of relationship marketing. Originating in the West during the 1990s, CRM is a business strategy that aims to maximize corporate profits and customer satisfaction through resource organization and business operations tailored to various customer groups^[4]. Scholars worldwide have drawn upon the strategic thinking and system design from the CRM theory to explore how to build and maintain library-user relationships. For instance, based on the CRM theory, Keating, et al. strategically proposed the application of computer technology in academic libraries to foster one-to-one relationships with users^[5]. Wang delved into the potential impediments to and effectiveness of implementing CRM strategies in academic libraries^[6]. Huang Xiaobin analyzed the importance of CRM in the construction and management of digital libraries. He also summarized the contents, methods, and key points of user relationship management in digital libraries^[7].

For academic libraries, the introduction of CRM has brought many new ideas about how they should manage their relationships with users. However, as library-user relationships constantly evolve, they have also revealed certain limitations in the current applicability of CRM. At present, users have transcended the role of mere recipients of resources and services. They are increasingly involved in various aspects of library operations^[8], and user engagement has become a hot topic in the international community of academic libraries^[9]. In other words, library users are turning from customers to partners^[10]. Since previous CRM-based studies tended to underestimate the subjective initiative of users, academic libraries may benefit from new concepts and models regarding the management of user relationships.

In recent years, scholars around the world are exploring other theories in the relationship marketing field, and researching into library-user relationship management from new angles. For example, some have introduced the theory of relational benefits, aiming to propose service strategies that align with the motivations behind library-user interactions^[11]. The theory of relationship quality has also gained traction, providing a lens to evaluate and enhance the ties between users and librarians^[12] or the libraries themselves^[13]. Others have examined user relationship management in academic libraries through the prism of specific services. This includes exploring innovative approaches to facilitate learning and research^[14], engaging users in marketing activities^[15], and employing social

media for communication^[16].

While most of these studies focus on service strategies, there remains a notable gap in systematic research and strategic plans regarding user relationship management in academic libraries. Library-user relationship management should be viewed as a holistic organizational endeavor, one that requires coordination across different library departments. For its integration into a library's day-to-day operational processes, this endeavor needs cohesive guidance and overall planning based on the overarching organizational strategy^[17].

The library sector has accumulated substantial research in relevant fields, but current CRM models fall short of matching the library-user relationships characterized by extensive user engagement. This highlights the necessity for a new theoretical framework. Moreover, previous studies have mainly focused on theoretical explorations or service approaches. They have neglected to conduct an empirical analysis of CRM's overall status in academic libraries or providing a systematic guide for strategic practices.

2.2 Practical Experience

The Report provides a concise summary of current user relationship management practices in global academic libraries, based on a review of papers, official websites, social media, and responses from questionnaires. It concentrates on four key areas:

First, meeting user needs. Academic libraries are creatively tailoring their services to the varied needs of users. This involves diversifying, personalizing, and refining their offerings for various user groups. For instance, libraries provide orientation services for new students, offer guidance to advanced undergraduates on thesis writing and graduate admission exams, furnish advanced graduate students with study spaces and thesis proposal assistance, and grant faculty members access to teaching resources and research information.

Second, enhancing user experience. This aspect is twofold. One part focuses on traditional methods like questionnaires and workshops to collect feedback and advice on service improvement. The other part adopts participatory design, aiming to involve users in the entire service creation process^[18]. For example, libraries at the University of Michigan^[19], Purdue University^[20], and Northwestern University^[21] leverage anthropological methods, card sorting, and usability testing to better understand user needs and preferences for services and spatial design, or involve students directly in the design and development of solutions. With the rise of "user experience librarians"^[22], the libraries of Harvard, MIT, and Peking University have dedicated departments or units to

user experience survey and routine service enhancement.

Third, boosting communication. Academic libraries across the globe have set much store by high-quality communication with users. They are not only leveraging online and offline media but also exploring more targeted and efficient channels for interaction, including 24/7 intelligent customer support, specialized services or contacts for various academic divisions, WeChat/QQ groups for reader services, comprehensive email networks, and workshops for teacher and student representatives. Emphasis is also placed on refining communication skills on social networking and similar platforms^[23] to strengthen user relationships.

Fourth, creatively promoting user engagement. Internationally, academic libraries engage users in five key areas: first, decision-making on administrative affairs involving the active participation of advisory committees and appointed student representatives; second, day-to-day operations by student assistants or volunteers; third, designing library spaces and services in collaboration with school/department/course faculty and students; fourth, information literacy campaigns; and fifth, event planning and organization.

Overall, domestic academic libraries have widely acknowledged the significance of fostering user relationships and have actively pursued initiatives in this area. Their efforts have led to substantial achievements in improving user services, enhancing user experience, boosting communication, and promoting user engagement. However, these initiatives often occur in isolation within different library departments and units, resulting in a lack of cohesive planning and integration. Therefore, strategic planning and comprehensive design are essential to systematically integrate and coordinate efforts in managing user relationships within academic libraries.

3 Theoretical Framework

The Report, based on the theories of relationship marketing and the realities of library work, presents a strategic vision complete with practical guidelines and a theoretical framework for library-user relationship management (Figure 1).

3.1 Foundation

The foundation encompasses both theoretical and practical elements. The Report adopts relationship development and relationship quality theories from the field of relationship marketing as the basis for building the framework of library-user relationship management.

Relationship development theories: Dwyer, et al. pointed out that the formation and progression of business-customer relationships undergo five

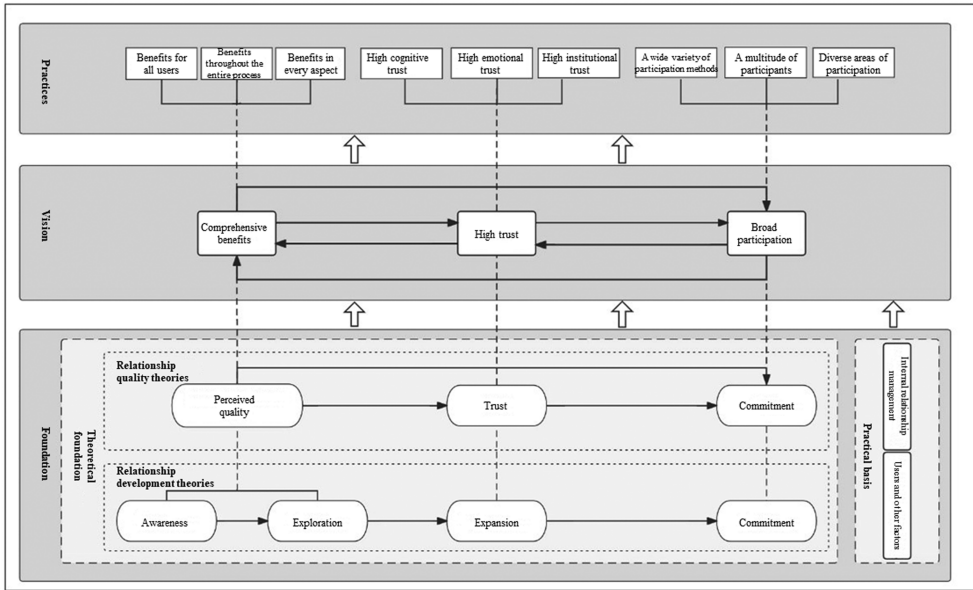


Figure 1 Theoretical Framework for User Relationship Management in Academic Libraries

stages: awareness, exploration, expansion, commitment, and dissolution^[24]. In the awareness stage, businesses recognize potential partners and draw their attention, often through advertising. In the exploration stage, both parties try to seek out each other, with the customer starting to use the business's products and evaluating their performance. The expansion stage sees a constant growth in mutual benefits and trust, driven by more frequent and significant interactions. The commitment stage is the peak of mutual dependency, characterized by high satisfaction and a strong commitment to the relationship's continuous growth. The dissolution stage signifies the end of the relationship. However, as the Report is centered on the establishment and maintenance of library-user relationships, it includes only the first four stages in the theoretical framework.

Relationship quality theories In the realm of relationship marketing, the cornerstone is the quality of relationships, which decides their resilience and longevity. Hennig-Thurau, et al.^[25], building on the theory of key mediating variables^[26], enriched the theoretical concepts of relationship quality by pinpointing three fundamental components: perceived quality, trust, and commitment. Perceived quality reflects users' assessment of a business's products and services; trust represents the users' confidence in the business's intentions and its ability to fulfill their needs; and commitment refers to the users' dedication to staying in the relationship.

These components follow a sequential progression, aligning with various stages of relationship development, and they intricately interrelate with one

another^[27].

Library-user relationship management encompasses both internal and external factors. Specifically, managing internal relationships with librarians is the basis of managing external relationships with users. The effectiveness of relationship management heavily relies on the staff's attitude and behavior. Not just front-line service personnel, but all employees need to embody a user-centric approach; failing to do so can undermine the external relationship marketing strategy^[28]. Other factors for library-user relationship management range from individual to macro-environmental ones. Individual factors include users' fields of expertise, duration of affiliation with the university, information-gathering habits and preferences, as well as prior interactions with library services. Macro-environmental factors include the information ecosystem and cultural atmosphere present within the campus and society at large. Furthermore, elements that users can directly perceive, such as a library's spatial design, physical setting, and technological equipment, will influence the trust between the users and the library.

3.2 Vision

From a strategic viewpoint, this framework proposes three primary objectives for library-user relationship management: delivering comprehensive benefits, fostering high trust, and promoting broad participation.

Delivering comprehensive benefits involves enhancing users' initial perception of product/service quality from the outset of their interaction with and use of the library. The aim is to make users feel they are gaining significant value from the library services. When users recognize benefits that extend beyond their satisfaction with the core services, their relationships with the library are strengthened^[27]. High trust is characterized by users' robust confidence in the library's ability to deliver superior services during their extensive and frequent engagement with the library. Broad participation means that users are actively engaged in the library's growth and deeply invested in such relationships.

The three dimensions of user relationship management vision, akin to the three fundamental components of relationship quality, interact in complex ways. First, there is a reciprocal influence between comprehensive benefits and high trust. High trust broadens and deepens the library experience, leading to greater rewards. Trust also delivers numerous relational benefits^[11], including emotional support (social benefit), alleviation of service-related anxiety (psychological benefit), and perks like personalization or added value. Second, broad participation mutually reinforces both comprehensive benefits and high trust. As

a behavioral commitment, broad participation signifies and promotes the deepening of library-user relationships.

3.3 Practices

Management practices play a central role in achieving the three dimensions of the vision for library-user relationship management.

Comprehensive benefits encompass benefits for all users, throughout the entire process, and in every aspect. “Benefits for all users” necessitates a service system with broad reach and strong appeal. “Benefits throughout the entire process” of learning and growth demands a seamless and cyclic service system. “Benefits in every aspect” calls for a comprehensive and high-quality service system.

High trust encompasses cognitive, emotional, and institutional dimensions^[29]. Cognitive trust is rooted in rational assessment, i. e. the objective understanding of a library’s performance and professionalism. This relates to users’ trust in the library’s ability to provide quality services. Emotional trust emerges from personal connections and subjective feelings towards a library’s environment and equipment, as well as librarians’ attitude and goodwill. This reflects users’ trust in the library’s commitment to providing high-quality services. Institutional trust depends on the comprehensiveness and effectiveness of library rules, reflecting users’ trust in the library’s institutional guarantees for the provision of high-quality services.

Broad participation refers to a wide variety of participation methods, a multitude of participants, and diverse areas of participation.

4 Analysis of Survey Results

Based on the aforementioned theoretical framework, the research team designed a questionnaire focused on academic libraries’ vision and practices regarding user relationship management. The goal is to explore the current trends, main challenges, and proven experience in the realm of delivering comprehensive benefits, fostering high trust, and promoting broad participation. The survey targeted academic libraries with a minimum staff count of 80, from which we obtained 122 valid responses.

4.1 Current Status of User Benefits

4.1.1 Benefits for all users

When it comes to service coverage, 72.95% of academic libraries provide services for faculty and students across various disciplines, while 36.07% extend

their services to alumni.

In terms of information transmission, most academic libraries make full use of online and offline official channels. Notably, the usage ratio of library homepage/app and social media accounts is 100%. Please refer to Table 1 for more details.

Table 1 Information Transmission Channel Usage Ratio

Channel	Number of academic libraries	Proportion
Library homepage/App	122	100%
Library social media accounts (WeChat official account, etc.)	122	100%
Library electronic screens and bulletin boards	113	92.62%
Printed promotional literature (fliers, posters, etc.) from the library	107	87.70%
University homepage/App	95	77.87%
Library WeChat group	91	74.59%
Communication by librarians (subject librarians, etc.)	87	71.31%
University social media accounts	60	49.18%
Offline bulletin boards of the university	39	31.97%
Campus-wide Emails	36	29.51%
Social media platforms (local media, etc.)	35	28.69%
University forum	19	15.57%

4.1.2 Benefits throughout the entire process

Most academic libraries provide services tailored to users at various growth stages. The service coverage ratios for freshmen and new graduate students are 98.36% and 90.98% respectively. Annual library events are typically held on World Book Day and during orientation and graduation seasons. Many libraries have developed signature events or series to coincide with university anniversaries and other special occasions. Please refer to Table 3 for more details.

Table 2 Overview of Periodic Events

Type	Number of academic libraries	Proportion
World Book Day events	122	100%
Orientation season events	119	97.54%
Graduation season events	113	92.62%
Branding events	82	67.21%
University anniversary events	69	56.56%
Events for other traditional festivals (the Mid-Autumn Festival, Dragon Boat Festival, etc.)	41	33.61%
National Day events	33	27.05%
Spring Festival events	28	22.95%
Library anniversary events	20	16.39%

4.1.3 Benefits in every aspect

To address the various needs of users, almost all academic libraries offer four types of services: resource recommendation and acquisition, reading promotion, library entrance guide, and information literacy campaigns. Please refer to Table 4 for more details.

Table 3 Overview of Diversified Services

Type	Number of academic libraries	Proportion
Resource recommendation and acquisition	121	99.18%
Reading promotion services	121	99.18%
Library entrance guide	121	99.18%
Information literacy campaigns	120	98.36%
Liberal arts education services (lectures, exhibitions, etc.)	113	92.62%
Citation and index search	110	90.16%
Diverse spatial services	102	83.61%
Subject information analysis	102	83.61%
Sci-tech novelty search	92	75.41%
Data services	86	70.49%
Intellectual property services	83	68.03%
Multimedia audiovisual services	79	64.75%
Guide to academic norms and paper publication	79	64.75%
Writing support and guidance	74	60.66%
Embedded classroom services	73	59.84%
Research consultation	69	56.56%
Thesis proposal support and guidance	68	55.74%
Embedded research team services	68	55.74%
Teaching reference services	66	54.10%
Experience with cutting-edge technology products	46	37.70%
Book delivery/pickup	43	35.25%
Job and interview support	24	19.67%
Mental health services	23	18.85%

4.1.4 User experience

Common practices for enhancing the user experience of library services include routine collection and analysis of user feedback, prior surveys on user needs, and service pilot runs. Please refer to Table 5 for more details.

Table 4 Overview of User Experience Enhancement Practices

Practice	Number of academic libraries	Proportion
Routine collection and analysis of user feedback for service innovation and improvement	110	90.16%
Prior surveys on user needs	106	86.89%
Service pilot runs and timely adjustments based on user feedback	104	85.25%
Investigating the effects of specific services and making timely adjustments	90	73.77%
Inviting faculty and student representatives to participate in service design	79	64.75%
No related work undertaken yet	2	1.64%

4.2 Current Status of User Trust

This section focuses on the strategies used by academic libraries to foster cognitive, emotional, and institutional trust among users by enhancing their service capabilities, staff attitudes, and institutional reliability.

4.2.1 Improved service capabilities

Most academic libraries offer a wide range of staff training programs, from onboarding sessions for fresh recruits to specialized training for various roles, from front-line capacity building to plenary programs. The training primarily focuses on fostering inter-departmental experience exchange, strengthening front-line service capabilities, and nurturing back-office competencies. However, there is a noticeable gap in training related to emergency response, user communication, and user advocacy.

4.2.2 Improved service attitude

The approaches to improving librarian attitudes are analyzed mainly from two aspects: the promotion of service philosophy among librarians and the incentive mechanisms.

(1) Promotion of service philosophy

Almost all academic libraries have promoted their service philosophy among librarians. Notably, 95.90% have done this through work meetings. Please refer to Table 6 for more details.

Table 5 Service Philosophy Promotion Methods

Method	Number of academic libraries	Proportion
Through work meetings	117	95.90%
By incorporating the promotion into work plans	106	86.89%
Through librarian activities	105	86.07%
Through documents	100	81.97%
Through discussions and workshops	99	81.15%
By creating mottoes or slogans	73	59.84%
No promotional activities conducted yet	1	0.82%

(2) Incentive mechanisms

The main incentives include the incorporation of service performance into assessment or promotion criteria. Please refer to Table 7 for more details.

Table 6 Incentive Mechanisms

Mechanism	Number of academic libraries	Proportion
Incorporation of service performance into assessment or promotion criteria	98	80.33%
Establishment of role models	86	70.49%
Goal-oriented responsibility system	82	67.21%
Honor system	78	63.93%
Material rewards	50	40.98%
Penalty system	48	39.34%
No relevant incentive mechanisms implemented yet	5	4.10%

4.2.3 Improved institutional framework

(1) Relevant protocols

Most academic libraries have comprehensive protocols for managing user behavior, including the library code of conduct (97.54%) and borrowing rules and regulations (99.18%). More than 90% of libraries have annual or medium-to long-term plans for overall development. Please refer to Table 8 for more details.

Table 7 Overview of Library Protocols

	Protocol	Number of academic libraries	Proportion
Library development management	Annual or medium-to long-term plans for the library	112	91.80%
	Library Charter	91	74.59%
User service management	Front desk service rules	86	70.49%
	User emergency management rules	83	68.03%
	Public opinion monitoring and management rules	79	64.75%
	User communication and feedback processing rules	76	62.30%
	Service follow-up rules	49	40.16%
User behavior management	Borrowing rules and regulations	121	99.18%
	Library code of conduct	119	97.54%
	Library entry and exit management rules	106	86.89%

(2) User communication

Most academic libraries have built a diversified user communication system. The core communication channels are the WeChat official account, service desks, and telephone. Please refer to Table 9 for more details.

Table 8 User Communication Channels

Channel	Number of academic libraries	Proportion
Service desks	118	96.72%
WeChat official account	117	95.90%
Telephone	115	94.26%
Email	109	89.34%
Communication with student organizations/representatives	106	86.89%
Themed workshops	104	85.25%
Curator's mailbox	94	77.05%
Librarians (subject librarians, etc.)	92	75.41%
Library WeChat group	77	63.11%
Dedicated user feedback system/platform	51	41.80%
Weibo	44	36.07%
University forum	23	18.85%
Video platforms	20	16.39%
"Tree hole posts" within the university	3	2.46%

4.3 Current Status of User Engagement

4.3.1 User engagement methods

Academic libraries adopt various methods to engage with users, primarily by recruiting student assistants and volunteers. Please refer to Table 10 for more details.

Table 9 User Engagement Methods

Method	Number of academic libraries	Proportion
Through paid student assistants	109	89.34%
Through volunteer services	109	89.34%
Through collaboration with schools and departments within the university	106	86.89%
By helping establish the library's own student organizations	95	77.87%
Through user experience survey and feedback collection	93	76.23%
Through collaboration with on-campus student organizations	92	75.41%
By seeking creative ideas and content for library events (such as holding a vote on closing music and collecting content for the book review column)	86	70.49%
Through collaboration with course faculty	57	46.72%
Through collaboration with the alumni association	51	41.80%
Through student representatives/ambassadors	44	36.07%
Through a multi-party advisory committee (for various types of users)	33	27.05%
Through an advisory committee for faculty members	31	25.41%
Through an advisory committee for students	22	18.03%

4.3.2 Participants

For academic libraries, undergraduates, Master's students, and teachers/scholars are the main targets of user engagement. The number of participants varies widely among different user groups.

4.3.3 Areas of engagement

The leading area of user engagement is library collection development (95.90%), followed by event organization and planning, and user feedback collection and communication. Please refer to Table 14 for more details.

Table 10 Areas of User Engagement

Area	Number of academic libraries	Proportion
Library collection development (book acquisition, cataloging, shelving, etc.)	117	95.90%
Event organization and planning	102	83.61%
User feedback collection and communication	101	82.79%
User consultation	97	79.51%
Borrowing and returning	96	78.69%
Promotional work (copywriting, graphic design, WeChat content editing, etc.)	96	78.69%
Order maintenance	92	75.41%
User survey	87	71.31%
Information literacy campaigns	79	64.75%
Data services	56	45.90%
Space and environment design	56	45.90%
Service project design	42	34.43%
Management decision-making	38	31.15%
System development and support (website development, etc.)	37	30.33%
Administrative affairs	33	27.05%
Research work within the library	30	24.59%

4.4 Overall Progress

4.4.1 Current stage of user relationship management

Twelve academic libraries are comprehensively advancing user relationship management based on systematic plans, accounting for 9.84% of the total. They are the libraries of Peking University, Sichuan University, Xiamen University, Yangzhou University, Qufu Normal University, Nankai University, Nanjing University, Nanjing Normal University, Northwestern Polytechnical University, Henan University of Science and Technology, North China University of Science

and Technology, and East China University of Science and Technology^①. Meanwhile, 72.95% of academic libraries, although yet to form systematic plans, have initiated partial work in this area.

4.4.2 Main challenges with user relationship management

For academic libraries, the main challenges with user relationship management include the diverse and constantly evolving user needs, staff shortages, and increased user expectations for service experience. Please refer to Table 15 for more details.

Table 11 Main Challenges Facing User Relationship Management

Challenge	Number of academic libraries	Proportion
Diverse and constantly evolving user needs	102	83.61%
Staff shortages	90	73.77%
Increased user expectations for service experience	89	72.95%
Lack of theoretical and practical guidance	82	67.21%
Lack of funding	81	66.39%
Lack of opportunities and platforms for user collaboration	43	35.25%
Inadequate focus on user relationships	35	28.69%
Greater appeal of external information service products	32	26.23%
Lack of opportunities for routine communication with users	29	23.77%
Lack of trust from users	25	20.49%
Lack of internal enthusiasm for implementing user relationship management plans	20	16.39%

4.5 Correlation Analysis

The research team has carried out a correlation analysis to further explore and substantiate the interrelationships and influences between “comprehensive benefits”, “high trust”, and “broad participation”, as outlined in the theoretical framework.

The analysis involves examining survey results, primarily from multiple-response questions with mostly positive indicators. The initial step is to tally the total number of responses for each academic library per question. Subsequently, these totals are grouped into three categories: “user benefit”, “user trust”, and “user engagement”, from which three composite indices are formulated. Table 16 demonstrates a significant positive correlation between the indices for user benefit, user trust, and user engagement.

^① Sorted by the current number of librarians in descending order

Table 12 Correlation Matrix for the Three Dimensions of User Relationship Management

	User benefit index	User trust index	User engagement index
User benefit index	1.00	0.79	0.73
User trust index	0.79	1.00	0.75
User engagement index	0.73	0.75	1.00

Additionally, the questionnaire’s only multiple-choice question, which asks about the current stage of user relationship management, serves as a variable for the analysis. It is found that the 12 fully operational academic libraries, which follow systematic plans, outperform others in all three indices. This suggests that systematic planning and thorough execution are essential for delivering comprehensive benefits, boosting user trust, and elevating user engagement.

5 Conclusion

The research team has established a theoretical framework that is not only rooted in survey results, analytical insights, and the proven experience from academic libraries, but also encompasses the challenges, opinions, and suggestions regarding user relationship management. The team has also synthesized strategic themes that cover top-level planning and systematic deployment, the integration and segmentation of library services, the cultivation and consolidation of user trust, and the expansion and extension of user engagement. The team goes on to provide a forward-looking analysis of the core areas and emerging trends in user relationship management within academic libraries, while acknowledging the study’s limitations and outlining the directions for future research.

5.1 Emerging Trends

(1) Users play a fundamental and strategic role in the modernization and high-quality development of academic libraries. These libraries need to bolster the theoretical guidance and top-level planning for user relationship management, and augment resource allocation to achieve comprehensive benefits, high trust, and broad participation.

User needs are the be-all and end-all of library services. Academic libraries have made notable progress in managing user relationships, but they still face several challenges, including a lack of theoretical and practical guidance, rapidly changing user needs and increasing service demands, and limited human and spatial resources. Much remains to be done to improve service diversity, boost trust, and promote user engagement.

Academic libraries should prioritize user needs and satisfaction, and proactively identify and creatively adapt to changes. They should reinforce theoretical and practical research in user relationship management, create scientific top-level plans, establish a robust institutional framework, and increase human and financial support. Such efforts will ensure the fulfillment of diverse needs and the delivery of quality experience, leading to greater trust, broader participation, and all-round, innovative development of academic libraries. By capitalizing on their unique role in fostering talent, carrying forward cultural heritage, and building information ecosystems, academic libraries are set to embark on a new era of modernization and high-quality development.

(2) User benefits are the driving force behind the high-quality development of libraries. Strategic approaches to delivering comprehensive benefits include the constant upgrading of resources and services in line with diverse user needs, and the establishment of a forward-looking and integrated service system.

Ensuring user satisfaction and benefits is a relentless pursuit of academic libraries eyeing a sustainable future. These libraries place great emphasis on new media and digital channels. They have established a comprehensive and diversified service system that caters to users at different stages. Over 70% of the libraries utilize more than seven communication channels, and more than half offer over 19 types of services. However, in seek of comprehensiveness and diversity, libraries should also enhance personalized services and cater to specific needs. This includes extending services to particular groups such as alumni and international students, paying more attention to advanced students and faculty, and addressing diverse spatial requirements for various activities like job interviews, recitations, League building, technological innovation, and creating ultra-quiet environments.

Academic libraries should consistently engage in user surveys and monitor their needs, so as to develop and constantly update the user profiles. Their efforts should be directed towards the digital transformation of services, multi-channel and omni-media promotion, innovative services and improved scenarios for specific groups, flexible allocation and functional expansion of service spaces, and improvement of user experience. By offering comprehensive lifecycle services to all users, these libraries aim to add value at every stage. Additionally, they should focus on the inclusiveness and sustainability of their services to benefit users from varied backgrounds and with different needs.

(3) User trust is the cornerstone of library transformation and development. The key is to solidify the foundation of user relationships, enhance professionalism and reliability, and forge long-term mechanisms for professional services and user trust.

Amidst the challenging landscape of digital transformation, academic libraries are undertaking the pressing task of deepening and reshaping user trust. Bolstering service capabilities is the premise of building trust, while improving the service attitude is key to increasing user satisfaction. Meanwhile, strengthening the institutional framework ensures higher levels of trust. To enhance the service philosophy, attitude, and initiative of librarians, academic libraries have offered robust training, enticing incentives, and institutional safeguards. While these endeavors have undoubtedly contributed to service quality and user trust, the content and methods of training remain to be improved, particularly in terms of user communication and emergency response. Libraries should increase hands-on exercises, simulation training, and case studies, introduce dedicated user feedback systems and platforms, and enhance user privacy and data security measures.

Academic libraries should prioritize staff quality and institutional development by implementing ongoing, thorough training programs. This will bolster both the professionalism and sustainability of library services. Enhancing systematic career development plans and incentive mechanisms will boost librarians' enthusiasm and commitment. Conducting regular evaluations of service quality and satisfaction surveys will improve service transparency and user stickiness. Clarifying service protocols and establishing transparent feedback mechanisms will ensure consistent and reliable services. Furthermore, reshaping how users perceive the library's role and value will help broaden and deepen their trust.

(4) User engagement adds momentum to a library's innovative development. To achieve broad engagement, deepening and expanding user interaction, fostering proactive integration, and ensuring co-creation of value and integrated development are essential.

User engagement is a driver of service improvement and value creation, as it fuels a library's innovative spirit and boosts its foresight. To broaden user engagement, it is essential to diversify the participation methods, draw in a wider group of users, and expand the participation scope. Although academic libraries have seen broad participation in several key service areas, there is still limited involvement in aspects that require deeper professional knowledge and greater decision-making authority, such as library management and the design of service projects. These libraries should proactively open their management and service decision-making processes, encourage a broader spectrum of participation, organize various activities to foster engagement, and reinforce the interactions between users, thus strengthening the library community.

Academic libraries should constantly seek to broaden and enhance user

engagement, enrich and intensify user interaction, and extend and strengthen user integration. By actively crafting and promoting their image, these libraries can foster a favorable environment for collaboration and sharing. By engaging with users on an extensive and profound level, libraries will garner a plethora of innovative ideas and support for their development. It also fosters a heightened sense of belonging and satisfaction among the users, amplifying their sense of accomplishment and magnifying the value they derive from their participation. This will in turn lead to the co-creation of value and integrated development of libraries and users.

5.2 Research Limitations and Future Directions

The Report acknowledges several limitations encountered during the study, including a limited scope that hampered the ability to provide a comprehensive overview of user relationship management in academic libraries across the country. Moreover, the analysis of aggregated data was not exhaustive, and the data did not stem from direct surveys of teachers, students, and other users.

Looking ahead, the research team will constantly seek improvement in the following aspects: When it comes to research subjects, the team will include a wider range of Chinese academic libraries in its surveys and will seek input from diverse user groups. In terms of research content, the team aims to identify missing elements or strategic issues in user relationship management through additional surveys. It will go on to update and improve the framework and models relevant to this field, thereby providing theoretical guidance for academic libraries nationwide. As for the application of research outcomes, the team intends to investigate and share best practices from leading academic libraries, and promote these practices on a national scale. This effort is expected to enhance user relationship management in academic libraries for the purpose of comprehensive benefits, high trust, and broad participation.

Acknowledgment: We sincerely thank the 122 academic libraries from across the country for answering our questionnaire on user relationship management and contributing their valuable first-hand data to our study. Special thanks to the secretariats of the local SCAL offices across the country for their strong support to this survey, to the libraries of Shandong University, Harbin Institute of Technology, Inner Mongolia University, and other universities, and to Wu Yaping, Zhang Lu, Luo Wenxin, Bai Yuntian, and many others from the Peking University Library for their valuable suggestions during questionnaire design, data collection, and other processes.

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Questionnaire on the Management of User Relationships by Academic Libraries

1. Your name: [Fill in the blank] *

2. Your mobile number: [Fill in the blank] *

3. What is the full name of your university's library? [Fill in the blank] *

4. What are the common types of channels does your library use to spread information? [Multiple response] *

Library homepage/App
 Library social media accounts (WeChat official account, Weibo, TikTok, etc.)

- Library electronic screens and bulletin boards
 Printed promotional literature (leaflets, posters, etc.) from the library
 Library WeChat group
 Communication by librarians (subject librarians, etc.)
 Campus-wide Emails
 University homepage/App
 University social media accounts
 University forum
 Offline bulletin boards of the university
 Social media platforms (local media, etc.)
 Others. Please specify: _____

5. What regular events does your library hold annually? [Multiple response] *

- Orientation season events
 Graduation season events
 World Book Day events
 Spring Festival events
 National Day events

- University anniversary events
- Library anniversary events
- Events for other traditional festivals (the Mid-Autumn Festival, Dragon Boat Festival, etc.)
- Branding events. Please specify: _____
- Others. Please specify: _____

6. Which of the following user groups does your library offer targeted services to? [Multiple response] *

- Freshman undergraduates
- Senior undergraduates
- Freshman graduate students
- Senior graduate students
- Newly appointed faculty members
- All faculty members
- Faculty and students of different disciplines
- Faculty and students from different campuses
- Alumni
- Others. Please specify: _____

7. What exemplary practices does your library follow in offering targeted services to the user groups? [Fill in the blank]

8. What exemplary practices does your library follow in helping faculty members and students understand and use its services? [Fill in the blank]

9. Which of the following types of services does your library currently offer? [Multiple response] *

- Recommendations for resource acquisition
- Book delivery/pickup
- Diverse spatial services
- Experience with cutting-edge technology products
- Multimedia audiovisual services
- Information literacy campaigns
- Reading promotion services
- Liberal arts education services (lectures, exhibitions, etc.)

- Library entrance guide
- Teaching reference services
- Embedded classroom services
- Thesis start-up support and guidance
- Writing support and guidance
- Guide to academic norms and paper contribution
- Research consultation
- Subject information analysis
- Embedded research team services
- Technology novelty search
- Citation and index search
- Intellectual property services
- Data services
- Job and interview support
- Mental health services
- Others. Please specify: _____

10. How does your library typically integrate user experience into service design and implementation? [Multiple response] *

- Through prior surveys on user needs
- By inviting faculty and student representatives to participate in service design
- Through service pilot runs and timely adjustments based on user feedback
- By investigating the effects of specific services and making timely adjustments
- Through routine collection and analysis of user feedback for service innovation and improvement
- No related work undertaken yet
- Others. Please specify: _____

11. What exemplary practices does your library follow in meeting the diverse needs of its users? [Fill in the blank]

12. What are the primary unmet needs of your library's users? [Fill in the blank]

13. How does your library promote its service philosophy to all librarians?

[Multiple response] *

- Through documents
- By incorporating the promotion into work plans
- Through work meetings
- Through discussions and workshops
- By creating mottoes or slogans
- Through librarian activities
- No promotional activities conducted yet
- Others. Please specify: _____

14. Which librarian groups does your library offer service training to?

[Multiple response] *

- Newly recruited librarians
- Front-line librarians
- Key librarians
- Librarians from specific business departments
- All librarians
- No service training conducted yet
- Others. Please specify: _____

15. Which of the following are the main types of librarian training in your library? [Multiple response] *

- Front-line service skills training
- Back-end business skills training
- User communication training
- User emergency response training
- Inter-departmental business experience exchange within the library
- General skills training (publicity skills training, etc.)
- Others. Please specify: _____

If the last option of Question 14 is chosen

16. How does your library enhance the service attitude and initiative of librarians? [Multiple response] *

- Through a goal-oriented responsibility system
- By incorporating service performance into assessment or promotion criteria
- Through a penalty system

- Through an honor system
- Through role models
- Through material rewards
- No relevant incentive mechanisms implemented yet
- Others. Please specify: _____

17. What exemplary practices does your library follow in improving the overall service capabilities and attitude? [Fill in the blank]

18. Which user service and management protocols does your library adhere to among the following? [Multiple response] *

- Library Charter
- Annual or medium-to long-term plans for the library
- User communication and feedback processing rules
- Public opinion monitoring and management rules
- User emergency management rules
- Front desk service rules
- Service follow-up rules
- Library entry and exit management rules
- Borrowing rules and regulations
- Library code of conduct
- Others. Please specify: _____

19. What are your library's main channels of day-to-day user communication? [Multiple response] *

- Service desks
- Telephone
- Email
- Themed workshops
- Communication with student organizations/representatives
- Curator's mailbox
- Wechat official account
- Library WeChat group
- Weibo
- Video platforms
- University forum
- Anonymous forum within the university

- Dedicated user feedback system/platform
- Librarians (subject librarians, etc.)
- Others. Please specify: _____

20. What exemplary practices or rules does your library follow in user communication, emergency response, and services? [Fill in the blank]

21. How is your library engaging users? [Multiple response] *

- Through paid student assistants
- Through volunteer services
- Through a multi-party advisory committee (for various types of users)
- Through an advisory committee for students
- Through an advisory committee for faculty members
- Through student representatives/ambassadors
- By helping establish the library's own student organizations
- By seeking creative ideas and content for library events (such as holding a vote on closing music and collecting content for the book review column)
- Through user experience survey and feedback collection
- Through collaboration with schools and departments within the university
- Through collaboration with course faculty
- Through collaboration with on-campus student organizations
- Through collaboration with the alumni association
- Others. Please specify: _____

22. Could you please provide the annual enrollment figures for your library's paid student assistant program? [Fill in the blank] *

If the 1st option of Question 21 is chosen

23. Could you please provide the annual enrollment figures for your library's volunteer service program? [Fill in the blank] *

If the 2nd option of Question 21 is chosen

24. Your library has helped establish [Number of] student organizations with [Number of] active members. [Fill in the blanks] *

If the 7th option of Question 21 is chosen

25. What types of users are encompassed by your library's user engagement efforts? [Multiple response] *

- Undergraduates
- Master's students
- Doctoral students
- Teachers/Scholars
- Other faculty and staff members
- Alumni
- External individuals
- Others. Please specify: _____

26. What areas of service management are your library's users engaged in? [Multiple response] *

- Borrowing and returning
- User consultation
- Library collection development (book acquisition, cataloging, shelving, etc.)
- System development and support (web development, etc.)
- Data services
- Order maintenance
- Event organization and planning
- Information literacy campaigns
- Space and environment design
- Service project design
- Promotional work (copy writing, graphic design, WeChat content editing, etc.)
- Management decision-making
- User feedback collection and communication
- User survey
- Administrative affairs
- Research work within the library
- Others. Please specify: _____

27. What exemplary practices does your library follow in user engagement? [Fill in the blank]

28. How far has your library gone in managing user relationships? [Single choice] *

- Not yet under consideration
- In the planning stage
- Partially implemented
- Systematically planned and implemented
- Others. Please specify: _____

29. What do you think are the main challenges that academic libraries currently face in managing user relationships? Feel free to provide your response directly [Multiple response] *

- Inadequate focus on user relationships
- Lack of theoretical and practical guidance
- Staff shortages
- Lack of internal enthusiasm for implementing user relationship management plans
- Diverse and constantly evolving user needs
- Increased user expectations for service experience
- Greater appeal of external information service products
- Lack of opportunities for routine communication with users
- Lack of opportunities and platforms for user collaboration
- Lack of trust from users
- Lack of funding
- Others. Please specify: _____

30. What are your thoughts or suggestions regarding library-user relationship management? [Fill in the blank]

31. If you have any materials related to the above-mentioned exemplary practices of your library, please feel free to upload them. [File upload]