

Postprint: University Library-User Relationship Evaluation

Authors: Qi Xianghua

Date: 2023-08-26T00:00:00+00:00

Abstract

[Purpose/Significance] Relationship quality serves as an indicator for measuring the strength of the relationship between users and libraries. This study seeks to construct a scientific evaluation index system to assess library relationship quality and propose targeted management recommendations for its improvement. [Method/Process] A questionnaire survey was administered to university library users. Exploratory factor analysis was employed to identify the constituent dimensions of library relationship quality. Additionally, descriptive statistical analysis, quadrant analysis, and variance analysis were conducted on user-perceived relationship quality. [Results/Conclusion] Empirical findings reveal that library relationship quality comprises three dimensions: satisfaction, trust, and commitment, with overall user evaluations tending toward the positive. The commitment dimension received the highest ratings, while the trust dimension received the lowest. Users who reported being familiar or very familiar with the library evaluated relationship quality significantly higher than those who were moderately familiar or unfamiliar. To enhance users' perception of relationship quality, libraries should establish and implement standardized service protocols, improve librarians' service competencies, transition from resource-oriented to user-oriented services, and strengthen library-user interactions.

Full Text

Preamble

ChinaXiv Collaborative Journal

Volume 62, Issue 12, June 2018

Evaluation of the Relationship Between University Libraries and Users

Qi Xianghua

School of Economics and Management, Shanxi University, Taiyuan 030006

Abstract

Relationship quality is an indicator used to measure the strength of the relationship between users and libraries. This study attempts to construct a scientific evaluation index system to assess library relationship quality and propose targeted management recommendations for its improvement. A questionnaire survey was conducted among university library users, employing exploratory factor analysis to summarize the constituent dimensions of library relationship quality. Descriptive statistical analysis, quadrant analysis, and variance analysis were performed on users' perceived relationship quality. Empirical results demonstrate that library relationship quality comprises three dimensions: satisfaction, trust, and commitment. Overall, user evaluations tend to be positive, with commitment receiving the highest ratings and trust the lowest. Users who are familiar or very familiar with the library evaluate relationship quality significantly higher than those with average or poor familiarity. To enhance users' perception of relationship quality, libraries should establish and implement service standards, improve librarians' service capabilities, transform from resource-oriented to user-oriented services, and strengthen library-user interactions.

Keywords: library; relationship quality; satisfaction; trust; commitment

Classification Number: G251

DOI: 10.13266/j.issn.0252-3116.2018.12.004

Introduction

Libraries are institutions that provide information services to users. Without users, libraries would have no reason to exist; the quantity and quality of users determine a library's survival and development. While user quantity is self-evident, "user quality" in this study refers specifically to those who frequently use the library, feel satisfied with and trust its resources and services, and psychologically commit to continuing frequent use in the future—in other words, users who have established long-term, stable, and positive relationships with the library. During the relationship lifecycle, these users repeatedly utilize library services, actively recommend them to others, and constructively contribute suggestions for library development. Thus, building long-term stable relationships with users is fundamental to a library's interests [1].

The renowned management guru Drucker once stated: "What gets measured gets managed." Evaluating relationship quality is a crucial component of relationship establishment and management [2]. While library scholars have long recognized the importance of studying library-user relationships, drawing on relationship marketing theories to explore how to build and maintain these relationships, few have systematically evaluated relationship quality outcomes.

Most existing research focuses on applying Customer Relationship Management (CRM) theories to discuss management concepts, strategic approaches, and software systems for establishing library-user relationships. However, the actual effectiveness of these practices and the true state of library-user relationship quality remain underexamined.

This study aims to identify the key factors constituting library relationship quality, evaluate them through empirical research, and provide references for library relationship management.

Literature Review on Library Relationship Quality

2.1 Theoretical Research on Library Relationship Quality

L.L. Berry posited that for service industries, the essence of relationship marketing lies in developing and maintaining long-term, positive relationships with customers [3]. Relationship quality serves as a critical metric for assessing this relationship state. L.A. Crosby et al. were among the first scholars to propose the concept of relationship quality, defining it as the degree of honest and trustworthy reliance on a salesperson's future behavior based on past satisfaction [4]. Subsequent definitions largely expand upon this foundation. For instance, T. Hennig-Thurau et al. view relationship quality as the extent to which relational needs are satisfied, which can be summarized as customer trust in and commitment to marketers and their products [5]. Despite varying expressions due to industry and research perspective differences, scholarly consensus encompasses three key points: (1) relationship quality is grounded in users' subjective perceptions, reflecting both users' relatively strong decision-making power in relationship establishment and maintenance and the "user-centered" service philosophy; (2) its determinants include relational characteristics such as satisfaction, trust, and commitment; and (3) relationship quality reflects the strength and depth of the customer-enterprise relationship [6].

High-quality relationships are particularly vital for service industries. Due to the intangible and heterogeneous nature of service products, users often cannot evaluate them through tangible cues. In such contexts, if users are satisfied with past service experiences and have built trust in the service provider, they will likely believe future services will continue meeting their needs and be less inclined to risk trying uncertain alternatives. This indicates a high evaluation of relationship quality and a greater likelihood of becoming loyal customers. Although early relationship quality research focused primarily on for-profit enterprises [7], recent studies have shifted toward public service institutions such as hospitals and government agencies [8][9][10].

As a service institution, libraries have received limited attention regarding relationship quality despite scholars' recognition of its importance. Searching Elsevier and Emerald databases with keywords "library" and "relationship quality" yields no matching literature. A CNKI search (subject = library AND subject = relationship quality) retrieves eight documents, with five relevant after

screening. Cao Ge, an early scholar addressing library relationship quality, conceptualized it as intangible benefits that strengthen trust and commitment between libraries and readers to maintain long-term relationships [11]. Yang Qi constructed a four-dimensional, 17-item scale comprising user commitment, staff trust, organizational trust, and user satisfaction [12]. Zou Wei et al. treated library relationship quality as a unidimensional concept encompassing user satisfaction, trust, and commitment [13][14]. Wang Fang et al., through confirmatory factor analysis, divided library relationship quality into four dimensions—satisfaction, commitment, dependence, and partner quality—with 15 items [15]. However, these studies, constrained by their research perspectives, did not evaluate overall library relationship quality outcomes.

In relationship marketing research, Zhang Suxian et al. summarized relationship quality evaluation dimensions across life insurance, healthcare, financial services, retail, and banking, concluding that in B2C contexts, relationship quality primarily comprises trust, satisfaction, and commitment [16]. Liu Renhuai and Yao Zuowei similarly argued that evaluating relationship quality from the customer perspective typically employs these three dimensions, which demonstrate strong predictive validity for relationship outcomes (customer loyalty) [17]. Consequently, this study adopts satisfaction, trust, and commitment as the dimensions of library relationship quality.

2.2 Evaluation Research on Library Relationship Quality

Library relationship quality evaluation represents users' perceptual assessment of relationship characteristics, known as dimensions and items in relationship quality research.

While consensus on dimensions remains elusive in library science, satisfaction research is well-established. Library user satisfaction refers to users' internal feelings and subjective evaluation of whether library services meet or exceed certain standards [18]. As a hot topic in library science, satisfaction research has evolved from theoretical discussion to empirical evaluation. Current empirical methods include: (1) the index system approach (multidimensional evaluation), which measures multiple service dimensions and items then aggregates them to assess overall satisfaction, offering diagnostic advantages; and (2) the satisfaction index model approach (one-dimensional evaluation), which uses specific causal models with single-dimensional multi-items to measure overall satisfaction, enabling assessment of relationships between satisfaction and its antecedents and consequences. Scholars generally agree that reader satisfaction significantly and positively influences reader loyalty [19], with loyalty directly resulting in relationship maintenance [20].

However, deepening satisfaction research reveals that customer satisfaction is a necessary but insufficient condition for loyalty [21]. Empirical library research by Liu Jinyuan et al. confirms that the causal relationship between service satisfaction and loyalty lacks data support [22]. This suggests satisfaction alone

is inadequate; relationship quality encompassing satisfaction, trust, and commitment better measures the relationship between service institutions and consumers [23].

Trust forms the prerequisite and foundation of relationships. L.A. Crosby et al. defined trust as a belief that salespeople are dependable and will act in customers' long-term interests [4]. Yu Fengmin's knowledge mapping analysis of domestic library trust research over three decades reveals gradually enriched theoretical systems but no empirical evaluation studies [24]. In relationship marketing, commitment refers to customers' behavioral intention to maintain relationships with brands regardless of environmental predictability [25]. In library science, scholars typically define commitment as service standards and behavioral norms established by libraries [26], differing from the relationship marketing conceptualization. Currently, no user-perspective theoretical or empirical research on relationship commitment exists in the library field.

Construction of the Library Relationship Quality Evaluation Index System

3.1 Evaluation Indicator Design

This study adopts satisfaction, trust, and commitment as evaluation dimensions for library relationship quality.

Satisfaction Dimension: Treated as a component of relationship quality, this study employs one-dimensional evaluation, assessing users' perceptions of service performance versus expectations regarding library environment, resources, staff, and services. After validation, one item ("Compared with Baidu, library information services make me more satisfied") was removed due to low correlation, retaining seven items (see Table 1 "Items" column).

Trust Dimension: Empirical studies show varying dimensional divisions for trust, generally categorizable into three dimensions [27]: (1) cognitive trust—believing the other party will keep promises and is trustworthy; (2) competence trust—believing the other party can meet one's needs; and (3) affective trust—believing the other party's actions are benevolent and non-harmful. This study designed ten indicators accordingly. After validation, three items were removed due to correlation coefficient or factor loading issues, including all three cognitive trust indicators. The remaining seven indicators are shown in Table 1.

Commitment Dimension: Drawing on H.S. Bansal's research, user commitment comprises three dimensions [28]: (1) continuance commitment—maintaining relationships due to lack of alternatives or high switching costs; (2) affective commitment—maintaining relationships due to shared values and goals; and (3) normative commitment—feeling obligated to maintain relationships. Nine indicators were designed, with three removed after validation. The final six indicators appear in Table 1.

All indicators were developed based on extensive literature review, refined through consultation with two library science experts and pilot testing with 18 graduate students from different disciplines, with ambiguous items revised accordingly.

3.2 Questionnaire Design and Data Collection

The questionnaire comprises two parts: (1) the main body with 27 items using a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree); and (2) background information including gender, education level, and user status.

This study focuses on university library users because, compared with other library types, university libraries offer higher service levels and greater variety, while their educated user base better comprehends questionnaire content, ensuring reliability. Practically, concentrated university library users facilitate empirical research, maximizing output under limited conditions—a common approach in similar studies.

The study first conducted offline surveys at Shanxi University Library, distributing 110 paper questionnaires and retaining 97 valid responses after removing invalid ones. To expand sample size and enhance representativeness, online questionnaires were distributed via Wenjuanxing and WeChat Moments to university library users, yielding 365 valid online responses after strict screening. The final valid sample comprised 462 questionnaires collected between March 25 and April 17, 2017. User background proportions appear in Table 2 “Percentage” column. Notably, while female users significantly outnumbered males, this reflects actual conditions: Wuhan University’s 2015 reading report showed male readers averaged 44.2 library visits versus 52.4 for females [29]; Dongbei University of Finance and Economics’ 2016 big data report indicated female readers accounted for 69% of library entries [30].

3.3 Indicator System Quality Testing

Quality testing examined reliability and validity using SPSS 21.

Reliability Testing: Conducted in two steps: (1) item purification—calculating corrected item-total correlation (CITC) and Cronbach’s alpha if item deleted (CAID), removing five items with $CITC < 0.4$ or increased CAID; (2) exploratory factor analysis on the remaining 22 items. The KMO value was 0.944, and Bartlett’s test of sphericity was significant (Sig. = 0.000), indicating suitability for factor analysis. Principal component analysis with varimax rotation extracted three factors with eigenvalues > 1 , consistent with the theoretical dimensions. Two items with factor loadings < 0.5 were removed, leaving 20 items loading on corresponding dimensions with coefficients > 0.5 (see Table 1 “Factor Loading” column). The overall Cronbach’s alpha was 0.923; for satisfaction, trust, and commitment dimensions, alphas were 0.866, 0.862, and 0.792 respectively, demonstrating good reliability.

Validity Testing: Content validity was ensured by deriving all items from previous empirical studies, consulting experts for library-contextualized adaptation, and successful pilot testing. Structural validity was confirmed through exploratory factor analysis showing all items loaded > 0.5 on their respective factors with low cross-loadings, and the three factors explained 55.423% of cumulative variance.

Empirical Research

4.1 Evaluation Data Results for University Library Relationship Quality

Statistical analysis of 20 valid items from 462 questionnaires appears in Table 1. The “Dimension” column shows dimension-level evaluation means; “Mean (Rank)” column shows item-level means with ranks in parentheses; “Quadrant” column indicates quadrant positions for quadrant analysis within each dimension.

Quadrant analysis uses factor loadings (vertical axis) and user ratings (horizontal axis) with means as origins. Factor loadings indicate item importance to dimensions. Quadrant 1 items exceed mean importance and rating (maintain); Quadrant 2 items exceed mean importance but fall below mean rating (priority improvement); Quadrant 3 items are unimportant with low ratings; Quadrant 4 items are unimportant with high ratings. Quadrants 1 and 2 warrant particular attention.

4.2 Data Analysis of University Library Relationship Quality Evaluation

The overall relationship quality mean was 3.810, between “neutral” and “agree,” leaning toward “agree,” indicating generally positive user attitudes. At the dimension level, satisfaction, trust, and commitment scored 3.798, 3.732, and 3.900 respectively. Commitment scored highest, exceeding the overall mean, suggesting strong future usage intentions. However, low recognition of library service capabilities resulted in the lowest trust rating, with satisfaction ranking in the middle.

Satisfaction Dimension: Among seven indicators, SA6 (helpfulness) scored highest, ranking second among all 20 items, indicating strong user recognition of libraries’ value for study and work. SA4 (meeting expectations) scored lowest. Notably, SA3 (meeting needs) fell in Quadrant 2, signaling high importance but underperformance. SA1 (overall service) and SA2 (environment) in Quadrant 1 represent strengths to maintain. SA5 (service experience) and SA7 (staff performance) in Quadrant 3 were neither highly rated nor considered important.

Trust Dimension: Trust items generally ranked lowest. TR1 (fairness) received highest trust ratings, while TR5 (never disappointed) scored lowest overall, suggesting frequent user disappointment. TR2 (staff professionalism) in

Quadrant 2 requires attention as it's important but poorly rated. Users rated affective trust items (TR1, TR4, TR5) relatively high but competence trust items (TR2, TR3, TR6, TR7) low, indicating low perceived service capability as a primary cause of weak trust.

Commitment Dimension: Commitment received the highest ratings across dimensions, with most items ranking high. CO5 (continued use) ranked first, showing strong future usage intentions. However, CO1 (indispensability) and CO6 (substitutability) scored low, indicating users believe alternatives exist. CO1's Quadrant 2 position signals high importance but low rating. Users rated affective commitment items (CO3, CO4, CO5) highly, while normative commitment (CO2) in Quadrant 1 was both important and well-rated—a distinctive finding differing from business contexts where normative commitment is often considered non-existent.

4.3 Variance Analysis of Different User Types' Library Relationship Quality Evaluations

Relationship quality, as subjective perception, is influenced by individual factors including age, education, status, usage frequency, and familiarity. This study examined these background variables, calculating evaluation values for different user types. Due to space limitations, only dimension-level differences are presented in Table 2.

Table 2 shows varying means across user types for satisfaction, trust, commitment, and overall evaluation. T-tests for gender and status, and ANOVA for education, usage frequency, and familiarity revealed significant differences (marked with * in Table 2).

Gender and education showed no significant differences. Among user statuses, teachers rated satisfaction significantly higher than students, but no differences emerged for trust, commitment, or overall evaluation.

Usage Frequency: Users with different physical library visit frequencies showed significant differences in trust, commitment, and overall evaluation, with ratings increasing with visit frequency, but no significant satisfaction differences. Users with different website visit frequencies showed significant differences in commitment and overall evaluation, with ratings generally increasing with frequency except for a drop in the highest-frequency group. Multiple comparisons revealed significant differences between low-frequency (Groups 1-2) and high-frequency (Groups 3-4) users, with low-frequency groups scoring below the overall mean and high-frequency groups above it.

Familiarity: Familiarity emerged as the most important background factor. Table 2 shows that greater familiarity with library resources, services, or staff significantly correlated with higher ratings across all dimensions. Multiple comparisons indicated significant differences between familiar/very familiar groups (Groups 4-5) and unfamiliar groups (Groups 1-3), with familiar groups consis-

tently exceeding overall means and unfamiliar groups falling below them.

Conclusions and Recommendations

In summary, users' evaluation of library relationship quality is generally positive, recognizing libraries' substantial help for study and work (SA6). Particularly encouraging are high ratings for affective items: users believe libraries treat them fairly and considerately (affective trust) and express strong willingness to continue using library services (affective commitment), indicating deep emotional connections. However, aside from environment, users feel library resources, services, and staff performance fail to meet expectations (satisfaction dimension). Library service capabilities also fail to earn user trust, becoming the lowest-rated relationship quality dimension (trust dimension). Notably, although users cannot easily choose alternative libraries, they believe other institutions could replace library information services (commitment dimension).

These results indicate room for improving library relationship quality. Given resource constraints, libraries should prioritize improvements for maximum impact. Trust, as the perceived weak link, warrants primary attention. Additionally, reducing substitutability to enhance continuance commitment requires urgent action. Specific recommendations follow:

5.1 Establish and Implement Library Service Standards

This is crucial for improving cognitive trust. Detailed, strictly enforced standards reduce perceived uncertainty and enhance trust. The deletion of all three cognitive trust indicators during index optimization suggests problems in this area, possibly due to absent or unknown service standards. Without visible norms enabling rational reliability expectations, users cannot develop high trust.

5.2 Improve Librarians' Service Capabilities

This addresses competence trust through two aspects: (1) Frontline service staff capabilities—users judge competence based on staff performance, but rarely witness knowledge-intensive services (e.g., subject librarian services) beyond routine tasks, limiting trust in professional competence; (2) Overall staff capabilities—amid increasingly homogeneous information resources, library service differentiation depends increasingly on staff professional quality. Low ratings for staff service performance (SA7) and professionalism (TR2) validate user distrust [31], challenging library human resource management.

5.3 Transform from Resource-Oriented to User-Oriented Services

User-oriented services are key to enhancing continuance commitment. Traditional library work is resource-oriented, focusing on processing, storing, and providing information resources. User-oriented services prioritize meeting user

needs as the central goal [32]. User needs include functional needs (information for work, study, life) and social needs (satisfaction from interaction). For functional needs, libraries cannot compete with online information services on resource uniqueness or comprehensiveness. The only non-substitutable path is providing deep, personalized information services—standardized services merely prevent dissatisfaction, while high-quality personalized services earn loyalty [33]. Social needs include staff-user and user-user interactions, with the latter particularly deserving attention. Libraries should aim to become users' spiritual homes where like-minded individuals gather, share information, build friendships, and appreciate each other. Meeting social needs greatly enhances user stickiness. Libraries should build platforms for user communication as organizers and facilitators, a role currently largely neglected.

5.4 Strengthen Library-User Interactions

Interaction quality significantly impacts relationship quality [13]. Table 2 shows that high-frequency users, particularly those familiar with library resources, services, and staff, rate relationship quality significantly higher. Familiarity stems from frequent interactions—essentially, every library service occurs through interaction, including face-to-face staff-user interaction, online staff-user interaction, and user-system interaction via library websites. Libraries must first increase interaction willingness and frequency (only 37.8% of users reported familiarity with library staff) and improve interaction quality. Staff-user interaction quality depends on frontline staff professionalism, behavior, and attitude, as users' library judgments are largely based on staff judgments. System interaction quality depends on website usability and usefulness. Experiences and emotions generated during these interactions directly determine user satisfaction and trust, influencing continued usage.

Finally, this study targeted university library users; whether conclusions apply to other library types requires further verification.

References

- [1] Wen Guoqiang. Strategies for improving reader loyalty in libraries[J]. Chinese Journal of Library Science, 2004, 30(6): 79-82.
- [2] Zhang Guangling, Wu Wenjuan. Research scope, methods, and prospects of relationship quality assessment[J]. Foreign Economics & Management, 2005, 27(1): 27-33.
- [3] BERRY L L. Relationship marketing of services: growing interest, emerging perspectives[J]. Journal of the Academy of Marketing Science, 1995, 23(4): 236-245.
- [4] CROSBY L A, EVANS K R, COWLES D. Relationship quality in services selling: an interpersonal influence perspective[J]. Journal of Marketing, 1990, 54(3): 68-81.
- [5] HENNIG-THURAU T, KLEE A. The impact of customer satisfaction and relationship quality on customer retention: a critical reassessment and model

- development[J]. *Psychology & Marketing*, 1997, 14(8): 737-764.
- [6] FOURNIER S. Consumers and their brands: developing relationship theory in consumer research[J]. *Journal of Consumer Research*, 1998, 24(3): 343-373.
- [7] Su Qin. *Service Quality, Relationship Quality and Customer Satisfaction: Models, Methods and Applications*[M]. Beijing: Science Press, 2010.
- [8] Guan Cuiling. *Interaction Quality and Its Impact on Relationship Quality: A Study of the Healthcare Service Industry*[M]. Beijing: China Social Sciences Press, 2011.
- [9] Zhao Xian. *Research on the Impact of Service Quality on Relationship Quality in Grassroots Government Departments*[D]. Shijiazhuang: Hebei University of Economics and Business, 2016.
- [10] Zhang Yun, Ning Jiming. Research on the influence mechanism of brand relationship quality in educational service organizations—an empirical study based on Confucius Institutes[J]. *Dongyue Tribune*, 2017, 38(4): 135-141.
- [11] Cao Ge. Application of relationship marketing theory in reader services[J]. *Library Work and Study*, 2010(5): 36-40.
- [12] Yang Qi. *Construction of a Relationship Quality Scale for University Library Users*[D]. Taiyuan: Shanxi University, 2016.
- [13] Zou Wei. Empirical study on the interaction quality model between librarians and readers[J]. *Library Tribune*, 2014, 34(3): 8-13.
- [14] Zou Wei, Zhao Zhaolin. Research on the impact of interaction quality between subject librarians and readers on relationship quality—from the perspective of interpersonal interdependence theory[J]. *Library Science Research*, 2015(5): 83-87.
- [15] Wang Fang, Zhang Hui, Niu Zhenbang. Empirical study on the impact of customer engagement on user-library relationship quality[J]. *Library and Information Service*, 2015, 59(6): 48-60.
- [16] Zhang Suxian, Su Qin, Song Yongtao, et al. Empirical study on the impact of certification body service quality on relationship quality[J]. *Science Research Management*, 2011(3): 43-50.
- [17] Liu Renhuai, Yao Zuowei. A review of relationship quality research[J]. *Foreign Economics & Management*, 2005, 27(1): 27-33.
- [18] Chu Jingli. On user satisfaction[J]. *Information and Documentation Services*, 1999(4): 10-12.
- [19] Liu Kai. *Research on the relationship between public library service quality and reader satisfaction and loyalty*[D]. Suzhou: Jiangsu University, 2014.
- [20] Li Shuanglong. Research on relationship quality, relationship value, and customer relationship marketing strategy[J]. *Reform and Strategy*, 2013(3): 53-56.
- [21] Yi Munong, Chu Tianshu, Qiao Shi, et al. Research on the formation mechanism of customer loyalty based on initial trust and subsequent trust[J]. *Management Review*, 2011(12): 92-99.
- [22] Liu Jinyuan, Cao Shujin, Zhang Li. Causal mechanism between library service quality and service loyalty[J]. *Information and Documentation Services*, 2013(1): 81-85.
- [23] Zhao Jiulong. Research on the relationship among customer perceived

- value, relationship quality, and customer loyalty in service industries[D]. Jinan: Shandong University, 2014.
- [24] Yu Fengmin. Progress in domestic library trust research over the past 30 years[J]. Journal of Zhejiang Shuren University (Natural Sciences Edition), 2016(1): 39-44.
- [25] FOURNIER S, DOBSCHA S, MICK D G. Preventing the premature death of relationship marketing[J]. Harvard Business Review, 1998, 76(1): 42-44.
- [26] Liu Jinyuan. How service commitments improve readers' perception of libraries[J]. Library Tribune, 2011(4): 57-59, 34.
- [27] Qian Keping. Research on the relationship among service interaction, relationship quality, and behavioral intention[D]. Hangzhou: Zhejiang Gongshang University, 2011.
- [28] BANSAL H S, IRVING P G, TAYLOR S F. A three-component model of customer commitment to service providers[J]. Journal of the Academy of Marketing Science, 2004, 32(3): 234-250.
- [29] Wuhan University Library 2015 Annual Reading Report[EB/OL]. [2018-03-10]. <https://wenku.baidu.com/view/d3fed1f6eff9aef8951e06bc.html>.
- [30] Dongbei University of Finance and Economics Library 2016 Annual Big Data Report—Reader Behavior Section[EB/OL]. [2018-03-10]. <http://www.chnlib.com/News/2017-05/247021.html>.
- [31] Du Hui. Analysis of factors influencing reader loyalty in university libraries[J]. Library Science Journal, 2013(2): 13-16.
- [32] Wu Zejun, Yu Hualin. Improving customer-oriented library performance[J]. Science and Technology Square, 2015(3): 124-127.
- [33] Gong Huaping, Sun Xiao, Shao Xiandu. Research on learning society construction and library information service reform and innovation—from the perspective of learner loyalty to libraries[J]. Library Research, 2013, 43(5): 1-5.
- [34] PEDRAJA-IGLESIAS M, MURPHY R, MARZO-NAVARRO M. The benefits of relationship marketing for the consumer and for fashion retailers[J]. Journal of Fashion Marketing & Management, 2004, 8(4): 425-436.

Integrity Reminder on Common Issues in Academic Paper Authorship

Upholding research ethics is a fundamental principle of scientific work and a basic requirement for fulfilling the mission of scientific and technological innovation entrusted by the Party and the people. Based on prominent issues identified in daily research misconduct reports, the Office of the Chinese Academy of Sciences Committee on Research Integrity summarizes common problems and errors in current academic paper authorship to raise awareness and advocate for honest research practices.

Reminder 1: Incomplete authorship or honorary authorship. Authorship should follow academic conventions and journal requirements, recognizing scholars who contribute substantively to the research process. Honorific, gift, and quid-pro-quo authorship are opposed.

Reminder 2: Improper authorship ordering. Author order should reflect contribution levels as per academic publishing conventions or journal requirements, determined jointly by all authors.

Reminder 3: Excessive number of first or corresponding authors. Authorship should be based on substantive contributions, avoiding excessive first or corresponding authors that may cause ambiguity among peers.

Reminder 4: Unauthorized use of authorship. Using a scholar's name as an author without their knowledge is prohibited. Every author should provide informed consent before publication and endorse the paper's fundamental academic viewpoints.

Reminder 5: Failure to disclose relevant conflicts of interest. Declarations of conflicts of interest, such as funding sources and research-related associations, should be provided according to international conventions and standards.

Reminder 6: Inadequate acknowledgment of contributions. Insufficient use of acknowledgments to recognize other participants' contributions may cause intellectual property and research ethics disputes.

Reminder 7: Incorrect institutional affiliation. Author affiliations should reflect the primary institution where the work was completed. Inappropriate changes due to author affiliation changes are opposed.

Reminder 8: Use of non-institutional contact information. Using public email addresses or other social communication methods as author contact information is discouraged.

Reminder 9: Failure to cite important literature. Authors should comprehensively understand predecessor work and directly relevant important literature, ensuring no omission of representative works in the field.

Reminder 10: Post-publication issues. If defects are discovered or research misconduct is identified after publication, authors should proactively declare corrections or request retraction.

All CAS units should provide necessary education and training based on these reminders, disciplinary characteristics, and academic conventions, ensuring every researcher maintains high responsibility toward authorship, cherishes academic honor, resists academic misconduct, and upholds research integrity throughout their career.

Source: Chinese Academy of Sciences Bureau of Supervision and Auditing

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

Source: ChinaXiv — Machine translation. Verify with original.