Research on the Knowledge Governance-Based Optimization Mechanism for Public Archives Service Quality (Postprint)

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Abstract

[Purpose/Significance] The introduction of knowledge governance theory into the optimization of public archives service quality enables a more fundamental understanding of and more effective solutions to the complex problem of service quality optimization, thereby providing a reference for enhancing the service quality and capacity of public archives. [Method/Process] Grounded in knowledge governance theory, this study analyzes and explores the optimization of public archives service quality and designs a corresponding optimization mechanism. [Results/Conclusions] By drawing upon and examining knowledge governance mechanisms, an optimization mechanism for the influencing factors of public archives service quality is constructed, encompassing five primary components: the optimization environment, optimization objectives, internal optimization dynamics (governance mechanisms), external optimization drivers, and the optimization process.

Full Text

Preamble

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Research on the Service Quality Optimization Mechanism of Public Archives Based on Knowledge Governance*

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Abstract

[Purpose/Significance] This paper introduces knowledge governance theory into the optimization of public archives service quality, enabling a more fundamental understanding and more effective solutions to the complex problem

of service quality optimization, and providing references for improving the service quality and capacity of public archives. [**Method/Process**] Supported by knowledge governance theory, this paper analyzes and discusses the optimization of public archives service quality and designs a corresponding optimization mechanism. [**Result/Conclusion**] By drawing upon and exploring knowledge governance mechanisms, this paper constructs an optimization mechanism for the influencing factors of public archives service quality, which mainly includes five components: optimizing environment, optimizing objectives, optimizing internal dynamics (governance mechanisms), optimizing external drivers, and optimizing process.

Keywords: public archives; knowledge governance; service quality; optimization mechanism
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Introduction

The development of modern technology and changes in users' archival needs profoundly influence the service concepts and methods of public archives. While these changes create new development opportunities, they also impose higher requirements on service quality. Currently, knowledge has become the source of competitive advantage for organizations—an increasingly recognized consensus among public archives at all levels. Optimizing public archives service quality requires drawing strength from knowledge to continuously update and improve service capabilities. The introduction of knowledge governance theory enables a more fundamental understanding and more effective solutions to the complex problem of service quality optimization. Knowledge governance provides theoretical guidance and support for public archives to utilize and create knowledge, thereby achieving sustainable optimization of archival service quality.

1 Literature Review

Domestic scholars primarily approach archives service quality optimization from four perspectives:

(1) User Perspective. This research focuses on analyzing influencing factors, challenges, and targeted optimization strategies driven by user information needs. Key strategies include enhancing users' archival literacy, innovating service concepts, strengthening service team building, promoting archival resource construction and integration, optimizing service methods and utilization channels, diversifying archival utilization forms, and rationalizing service fees. These efforts have improved public awareness of archives and service efficiency. Representative scholars include Wang Yi[7], Zhang Jufeng[8], Zhao Yangyue[9], Liu Fudong[10], Zhang Xiaoyu[11], and Zhou Mimi[12].

(2) Archives Perspective. This research addresses how public archives adapt

to the information society and social environment by establishing security protection mechanisms, improving infrastructure, and expanding archival resource development. It also emphasizes strengthening user feedback collection and establishing service quality supervision organizations to maximize user information need satisfaction and improve archival information resource effectiveness. Representative scholars include Zhan Xiaolin[13], Yang Xia[14], Zhu Lanlan[15], and Zhang Nanxue[16].

(3) Service Mode. This research examines the advantages and disadvantages of existing public archives service modes, their synergistic relationship with quality optimization, and multi-stakeholder participation models. Scholars have proposed various optimization-promoting modes, including social service models, personalized archival service models, and incentive mechanisms. Some have constructed knowledge management frameworks to effectively integrate national archival resources, meet human-centered knowledge service demands, achieve top-level integrated design, and promote optimal resource utilization[17]. Representative scholars include Zhang Rui[18], Zhu Zhijun[19], Xue Chen[20], and Wang Lihan[21].

(4) Service Means. This research proposes macro and micro-level optimization strategies based on existing service quality problems, including optimizing archival portal websites and functions, strengthening archival information service APP development, and building cloud platforms for resource sharing. These measures improve user satisfaction, enhance archives' emphasis on service quality optimization, and promote archival 事业 development. Representative scholars include Liu Zizhan[22], Wang Xiaomin[23], Wang Jinjing[24], and Mao Wentao[25].

Through reviewing domestic and foreign literature, we find that foreign scholars primarily base their research on the user perspective, examining service models (Y. Kim[1], H.K. Kang[2]), information needs (F.M. Hsu[3], B. Edvardsson & B. Enquist[4]), and service means (P.C. Howze[5], A. Boyd[6]) to construct service systems that better help users utilize archival information and thereby optimize service quality.

In summary, compared with foreign research, domestic scholars cover a broader scope with richer content and more fruitful results. However, current research primarily proposes targeted optimization strategies with relatively high homogeneity. The research landscape lacks holistic and mechanistic studies on the internal and external dynamics, environmental factors, and optimization processes of archives service quality optimization. With technological development and increasingly complex user needs, archives service quality optimization requires a complete mechanism for deep interpretation and practical guidance. Therefore, exploring the optimization mechanism is necessary. Against this background, this paper discusses the optimization mechanism of public archives service quality based on knowledge governance theory, aiming to provide new ideas and approaches.

2 Knowledge Governance and Its Relationship with Public Archives Service Quality Optimization

2.1 The Connotation of Knowledge Governance

The concept of knowledge governance was first proposed by A. Grandori[26], referring to the governance of knowledge transfer, exchange, and sharing activities within or between enterprises. Another representative scholar, N. Foss et al.[27], defines knowledge governance as institutional arrangements—including governance structure selection and coordination mechanism design—to optimize knowledge production, transfer, sharing, and application processes. V. Mahnke and T. Pedersen view knowledge governance as arrangements that promote value creation through knowledge flows[28]. Zhao Junjie et al. consider it as governance structures influencing knowledge transfer and flows[29]. C. Antonelli believes knowledge governance shapes organizational forms for knowledge production and use through institutions, policies, strategies, transaction types, and interaction patterns, enabling organizations to possess innovation characteristics[30]. Despite different perspectives, scholars consistently recognize that knowledge governance essentially integrates and coordinates knowledge through effective mechanisms to promote organizational knowledge activities and enhance capabilities from within.

2.2 The Relationship Between Knowledge Governance and Public Archives Service Quality Optimization

Knowledge governance is an epistemology and methodology that more effectively implements knowledge organization activities to achieve goals, transcending knowledge management. Unlike knowledge management's "domination" and "control," knowledge governance emphasizes "process" and "reconciliation," relying more on continuous interaction among elements. For public archives service quality optimization, governance mechanisms enable free information and knowledge flow within and outside archives, continuously enhancing user service capabilities from within.

2.2.1 Knowledge Governance Provides Internal Dynamics for Optimization The fundamental driving force for optimizing public archives service quality originates internally as a mechanism generated from within. Through internal knowledge governance, public archives develop abilities to learn, integrate, restructure, and utilize internal and external knowledge to adapt to environmental changes, enhancing service value. Optimization results manifest in external service delivery, representing an active, inside-out process[32]. Although optimization requires external technical support and user demand guidance, without internal capacity renewal and development, archives cannot effectively leverage technology or respond to social demand changes. This capacity renewal depends on knowledge governance effectiveness, making it the internal driver of service quality optimization.

2.2.2 Knowledge Governance Ensures Sustainability of Optimization Compared with traditional measures, knowledge governance ensures sustainable optimization through organizational structure and mechanisms. Traditional measures focus on solving specific problems according to external technology, demand, and competition changes, representing one-time solutions. Passive, reactive optimization has lagging characteristics and cannot achieve sustainable development. Knowledge governance-based optimization originates internally, maintains vigilance toward external developments through knowledge flows, provides continuous momentum, and enables optimization to keep pace with or even autonomously adapt to external environmental changes.

2.2.3 Knowledge Governance Mechanisms Provide Organizational Guarantees Sustained and effective optimization requires structural and institutional arrangements for guidance and assurance. Knowledge governance mechanisms utilize formal organizational structures to influence informal practices, promoting knowledge sharing and creation[27]. In this process, public archives employ formal mechanisms (governance structures[27], work design[26], formal contracts[26], institutional rules[26], incentive plans[26]) and informal mechanisms (organizational culture, psychological contracts, intrinsic motivation[27]) to motivate and coordinate members' knowledge behaviors, influencing the optimization process in value-creating directions. Therefore, knowledge governance theory provides theoretical support for structural arrangements, and its mechanisms provide organizational guarantees. Through formal institutional design and its interaction with informal mechanisms[33], archives coordinate internal and external knowledge activities, optimize internal knowledge flows, create service value, and achieve quality optimization.

2.2.4 Knowledge Governance Catalyzes Optimization Through Process and Results The knowledge governance process optimizes knowledge flow, sharing, learning, and creation within public archives. Through formal governance mechanisms, this process influences organizational culture, core values, and staff attitudes and behaviors[27], improves business-based knowledge flow and absorption, enhances internal knowledge fusion and innovation capabilities, and strengthens understanding and responsiveness to technological development and user needs, ultimately achieving effective service quality optimization. Knowledge governance thus transforms the "external problem" of service quality optimization into an "internal problem" of organizational knowledge, with its process and results catalyzing optimization realization.

3 Optimization Mechanism of Public Archives Service Quality Based on Knowledge Governance

Knowledge governance mechanisms essentially represent the interaction of formal organizational mechanisms (including governance structures, work design, responsibility allocation, institutional rules, incentive plans, and formal con-

tracts) and informal mechanisms (including organizational culture, psychological contracts, and intrinsic motivation) on knowledge processes[31]. Based on knowledge governance theory, focusing on influencing factors of public archives service quality, and aiming to address problems such as lack of planning in service function construction and uneven service levels, this paper explores an optimization mechanism comprising five components: optimizing environment, optimizing objectives, optimizing internal dynamics (governance mechanisms), optimizing external drivers, and optimizing process, as shown in Figure 1 [Figure 1: see original paper].

As illustrated in Figure 1, the optimizing environment influences both the establishment of optimization objectives and internal governance mechanisms. External optimization drivers, interacting with the environment, affect objective formulation. Objectives influence governance mechanism selection, while mechanisms affect objective achievement. The optimization process is objective-oriented, with external drivers and internal dynamics jointly promoting implementation.

3.1 Optimizing Environment

3.1.1 Importance of Archival Knowledge Innovation and Services With public cultural service development, users have more choices, forcing public archives to compete with libraries, museums, and other cultural institutions, changing their survival boundary conditions[34]. Integrating and excavating archival knowledge through innovation has become urgent for creating core competitive advantages in knowledge services. This importance manifests in three ways: (1) guiding service work with knowledge innovation concepts to form new service system patterns; (2) serving as the driving force for sustainable competitive development and internal mechanism reform; and (3) enabling personalized, targeted information services. Archival services represent a major challenge in archives management, with modern technology providing possibilities, personalized user needs driving innovation, and service methods and content raising specific implementation requirements—all demonstrating the importance of archival services and promoting optimization objective achievement.

3.1.2 Complexity of Archival Knowledge Innovation and Services Archival knowledge innovation is a dynamic process encompassing knowledge generation, creation, and application. Its complexity is increased by the openness of the social environment, nonlinear transformation between cooperation and competition, collaboration with libraries and museums, and unpredictable service outcomes. The diversity of users and complexity of their needs, archives' limited grasp of service processes and lack of formal standards, resistance in service delivery, and information asymmetry between archives and users all increase service complexity, constrain efficiency, and justify the necessity of quality optimization.

3.2 Optimizing Objectives

Objective formulation is influenced by external drivers, internal mechanisms, and the optimizing environment. Objectives influence mechanism selection while mechanisms affect objective achievement, with both interacting mutually. The optimization process is objective-oriented, with objectives influencing implementation from both internal and external dimensions.

3.2.1 Internal Objectives Through knowledge governance, achieve knowledge distribution based on organizational functions and business processes, providing direction for optimization. With archival knowledge services as the premise, improve incentive plans and institutional rules, enhance internal knowledge flow and absorption, elevate knowledge fusion and innovation capacities, enable internal self-adaptation, optimize knowledge transfer, sharing, and utilization, and improve service quality and public service capacity.

3.2.2 External Objectives Through joint action of internal governance mechanisms and external drivers, provide effective optimization strategies for users' personalized needs, improve user satisfaction, achieve optimization objectives, deliver useful archival knowledge, and enhance awareness and responsiveness to technological development and user needs, ultimately achieving effective service quality optimization.

3.3 Optimizing External Drivers

3.3.1 Promotion of Technological Development Technological development promotes updating of service means and provides technical support for new service forms and content. It influences objective establishment and jointly promotes the optimization process with internal dynamics, enhancing service quality and capacity.

3.3.2 Drive of Archival User Needs User needs are an important external driver for optimization, influencing objective establishment together with technological development. As an external driver, user needs work with internal dynamics to promote the optimization process.

3.3.3 Competition Among Public Cultural Institutions Although cooperation among libraries, museums, and archives is advocated, public archives services still lag behind these and other institutions. While archives have recognized the importance of public services and implemented various utilization services, they face restrictions in resource development and lack competitiveness in social influence compared with other institutions. This results in lower social recognition, affecting future development. Therefore, under competitive pressure, archives must optimize service quality, satisfy and guide social needs, and enhance attractiveness and influence to seek development.

3.4 Optimizing Internal Dynamics (Governance Mechanisms)

Service quality optimization is not merely about investing in advanced technology or blindly pursuing high-tech solutions, but rather more about internal mechanisms. Public archives governance mechanisms include formal mechanisms (governance structures, work design, formal contracts, institutional rules, incentive plans) and informal mechanisms (organizational culture, psychological contracts, intrinsic motivation). Governance structures adjust interdepartmental relationships, select appropriate organizational forms according to special needs and departmental priorities, match them with user needs, promote implementation, and deliver valuable services. Additionally, archives establish incentive plans based on internal structures, which work with external drivers to ensure service quality improvement continuously adapts or even self-adapts to external changes. Through formal mechanisms influencing informal mechanisms such as culture, psychological contracts, intrinsic motivation, and practices, archives achieve optimization objectives. Governance mechanisms both influence objective achievement and work with external drivers to promote the optimization process.

3.5 Optimizing Process

The optimization process includes three aspects: content identification, implementation, and feedback. Implementation comprises plan preparation and service optimization utilizing "collective intelligence," as shown in Figure 2 [Figure 2: see original paper].

In this process, archives first identify content requiring optimization, analyzing and confirming deficiencies and improvement areas to prepare for subsequent implementation. Based on identified content, optimization proceeds through plan preparation and utilization of "collective intelligence." This "collective intelligence" primarily refers to archives learning, absorbing, and utilizing partner knowledge to seek solutions for optimizing service quality and enhancing capacity. Partner knowledge can come from peer institutions (libraries, museums, other cultural institutions) and user suggestions. Integrating partner knowledge effectively enhances user satisfaction and core competitiveness, achieving optimization objectives. Finally, feedback on results is collected. By comparing results with objectives, effectiveness is verified. Feedback is re-input into the initial stage, enabling renewed identification and implementation based on differences between previous results and objectives or new objectives established due to environmental and external driver changes, creating a cyclical process. Feedback forms a stable closed loop, enabling continuous verification and ensuring the process proceeds continuously according to objectives and their changes.

4 Research Conclusions

The public archives service optimization mechanism guided by knowledge governance theory aligns with the contemporary trend of transitioning from basic

public services to knowledge-based and value-added services. It reflects how archives, under the combined effects of external technological development, user needs, and competitive pressure, enhance service capabilities through internal governance to optimize quality. This mechanism essentially involves optimizing knowledge flow and transfer within the knowledge governance framework, accurately positioning and understanding the optimization environment, maintaining vigilance toward external developments, and establishing objectives accordingly. Oriented by objectives and based on selected formal and informal governance mechanisms, archives coordinate interdepartmental relationships to match services with external needs, promote implementation through the knowledge governance process, and deliver valuable services. All components depend on effective governance of internal and external knowledge activities. Through integration and coordination of knowledge and knowledge activities, archives develop the ability to integrate organizational knowledge to adapt to environmental changes, thereby enhancing service value and optimizing quality.

The knowledge governance framework enables archives service quality optimization to obtain driving force and formal organizational support from within, providing guarantees for sustainable optimization rather than one-time solutions. Knowledge governance transforms the "external problem" of service quality optimization into an "internal problem" of organizational knowledge, fundamentally changing optimization thinking and concepts. This process closely links service quality optimization, user satisfaction, and internal governance and capacity enhancement, providing a holistic framework. By introducing knowledge governance advantages and optimizing internal knowledge flow and creation, service capabilities and quality are enhanced, enabling archives to more sensitively capture changing user needs and respond to external technological development and competition, achieving sustainable development.

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Author Contributions

Song Xueyan: Proposed the research topic and framework, wrote the paper;
Zhu Lixiang: Collected and organized research materials, wrote the paper;
Sheng Panpan: Collected and organized research materials;
Sun Zhenjia: Collected research materials, revised the paper.

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Abstract: [Purpose/Significance] This paper introduces knowledge governance theory into the optimization of public archives service quality, making the complex problem of service quality optimization more comprehensible and providing more effective solutions, thereby improving the service quality and capacity of public archives. [Method/Process] Based on knowledge governance theory, this paper analyzes and discusses the optimization of public archives service quality and designs an optimization mechanism. [Result/Conclusion] By drawing upon and exploring knowledge governance mechanisms, the optimization mechanism for influencing factors of public archives service quality includes five components: optimizing environment, optimizing objectives, optimizing internal dynamics (governance mechanisms), optimizing external drivers, and optimizing process.

Keywords: public archives; knowledge governance; service quality; optimization mechanism

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