

Modelling impact of knowledge asymmetry on organizational performance in academic information institutions

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Abstract

Background: Academic information institutions operate in knowledge-driven environments where effective knowledge sharing is essential for organizational performance. However, knowledge asymmetry (KA), the unequal distribution of knowledge among departments, units, and individuals, undermines collaboration, innovation, decision-making, and service delivery.

Purpose: The study examined the impact of KA on organizational performance in academic information institutions, focusing on its causes, manifestations, and consequences.

Methodology: Explanatory sequential mixed-methods design was adopted, combining quantitative and qualitative approaches. Data were collected from selected academic information institutions targeting 100 respondents, of whom 83 participated. The study explored knowledge gaps between library staff and administrators, their influence on decision-making, service delivery, and strategic planning. Quantitative data were analyzed using correlation analysis, while qualitative findings supported interpretation of results.

Results: The findings revealed that high levels of KA reduce institutional preparedness, hinder knowledge-based decision-making, and negatively affect service quality and operational efficiency. A strong positive and statistically significant relationship was established between KA and organizational performance ($r = .956$, $p = .001$). The findings support the Communication and Knowledge Management Theory (CoNPAKT) by showing that effective communication, knowledge sharing, and capacity building help reduce knowledge gaps.

Conclusion: The study concluded that KA significantly limits institutional effectiveness, innovation, and performance in academic information institutions. Addressing KA is, therefore, essential for improving collaboration, planning, and service delivery.

Implications: The study contributes to knowledge management and organizational performance literature by emphasizing the need for open knowledge sharing, intentional collaboration, and accessible institutional knowledge systems, to minimize KA in academic institutions.

Keywords: *Knowledge management, Knowledge Asymmetry, Asymmetric Knowledge, Organizational Performance, Academic Information Institutions/libraries.*

Introduction

Knowledge is widely recognized as a strategic organizational resource that enhances innovation, competitiveness, efficiency, and service delivery in contemporary knowledge-driven economies. In academic information institutions such as libraries, knowledge management (KM) refers to the systematic process of acquiring, organizing, storing, sharing, and utilizing knowledge to improve institutional operations and performance (Rafi et al., 2022). Effective

knowledge management enables institutions to respond to changing user needs, technological developments, and organizational challenges through improved learning, communication, and decision-making. Consequently, many academic institutions continue to invest in knowledge management systems, digital infrastructures, and information technologies, to strengthen institutional effectiveness and service delivery (Choi et al., 2008). Existing studies indicate that organizational performance in academic libraries depends on competent leadership, ICT capabilities, staff expertise, collaboration, and

supportive organizational cultures (Rafi et al., 2019a; Tambo & Filtenborg, 2019). Similarly, knowledge-oriented leadership, organizational learning capabilities, and ICT competencies have been identified as significant predictors of knowledge performance and institutional productivity (Mohd Shoid & Kassim, 2014; Sahibzada et al., 2021).

Closely related to knowledge management is the concept of knowledge asymmetry, which refers to the unequal distribution of knowledge, expertise, information, or access among individuals, departments, or institutional units. In academic information institutions, knowledge asymmetry occurs when some staff members, administrators, or stakeholders possess critical institutional or technical knowledge that others lack. Such disparities often result in communication breakdowns, duplication of effort, weak collaboration, poor coordination, and ineffective decision-making. Scholars argue that knowledge asymmetry contributes to hidden information, unequal participation, and organizational inefficiencies that negatively affect transparency, innovation, and institutional performance (Eckardt, 2002; Palazzo & Rethel, 2008). Although technology and digital systems are increasingly integrated into academic libraries, organizational culture, behavioral barriers, limited communication, and unequal access to information continue to hinder effective knowledge sharing and collaborative learning (Rashid, 2021). This demonstrates that technological advancement alone cannot eliminate knowledge disparities without supportive institutional structures, transparent communication systems, and inclusive organizational practices.

The study is anchored on the Information Asymmetry Theory, advanced by Akerlof (1970), which posits that when one party possesses more or better information than another, inefficiencies, poor communication, and suboptimal decisions are likely to occur. Within academic information institutions, such asymmetry may exist between librarians,

administrators, ICT personnel, faculty, students, and other stakeholders, thereby affecting collaboration, service delivery, and organizational performance. The theory that guided this study emphasizes the importance of knowledge creation, sharing, organizational learning, and equitable access to information in improving institutional effectiveness. In this study, knowledge asymmetry is conceptualized as the independent variable, while organizational performance, measured in terms of efficiency, effectiveness, decision-making quality, and service delivery, constitutes the dependent variable. The theoretical assumption is that reducing knowledge asymmetry through training, collaborative knowledge-sharing mechanisms, open information systems, and institutional learning initiatives can significantly improve organizational outcomes.

Despite the growing body of literature on knowledge management and organizational learning, limited research has specifically examined how knowledge asymmetry affects organizational performance in academic information institutions. Existing studies have largely focused on knowledge creation, ICT adoption, and information sharing, without adequately addressing how unequal access to institutional knowledge undermines service delivery, decision-making, innovation, collaboration, and institutional productivity. This gap demonstrates the scientific and practical need for research that models the impact of knowledge asymmetry on organizational performance in academic information institutions. Therefore, this study sought to examine the nature and extent of knowledge asymmetry among stakeholders in academic information institutions; assess the impact of knowledge asymmetry on organizational performance; analyze the relationship between knowledge asymmetry and organizational performance; and propose intervention strategies for minimizing knowledge asymmetry in order to enhance organizational performance. By addressing these objectives, the study

contributes to knowledge management scholarship and provides practical strategies for strengthening organizational learning, institutional collaboration, equitable knowledge sharing, and sustainable performance in academic information institutions.

Purpose of the study

The purpose of this study was to examine the impact of knowledge asymmetry on organizational performance in academic information institutions and to propose strategies to minimize it to improve efficiency and service delivery.

Study Objectives

1. To examine the nature and extent of knowledge asymmetry among stakeholders in academic information institutions.
2. To assess the impact of knowledge asymmetry on organizational performance in academic information institutions.
3. To analyse the relationship between knowledge asymmetry and organizational performance in academic information institutions.
4. To propose intervention strategies for minimizing knowledge asymmetry to enhance organizational performance.

Problem Statement

Despite the increasing recognition of knowledge as a strategic organizational asset, it is worth noting that academic information institutions have significant issues with knowledge asymmetry, or the unequal distribution of access to knowledge among employees, departments, users, and administrators (Rezaei, 2020). Effective communication, decision-making and innovation as well as service delivery, are often interfered with by the knowledge asymmetry (Changwei, 2011; Eckardt, Palazzo & Rethel, 2008). Smooth exchange and use of knowledge are a key determinant of organizational

performance in knowledge-driven settings, like academic information institutions. However, challenges in accessing knowledge, whether encouraged through a lack of collaborative culture, inadequate communication systems, hidden information, or weak ICT competencies, weaken institutional effectiveness and openness (Rafi et al., 2022; Yoon & Donaldson, 2019). The underlying disparities in knowledge access and usage are still not well understood and addressed despite academic information institutions' growing investments in professional training, ICT infrastructure, and knowledge management systems (Sahibzada et al., 2021; Mazorodze & Buckley (2019). Such disparities could lead to missed chances for creativity and cooperation, decreased employee productivity, organizational inefficiencies, and missed opportunities for innovation and collaboration as well as poor strategic alignment (Ugwu & Ejikeme, 2022; Mohd Shoid & Kassim, 2014). Although knowledge management has been linked to improved performance (Sahibzada et al., 2020), few studies have explicitly exhibited the impact of knowledge asymmetry on organizational performance in academic information institutions. Moreover, there is insufficient empirical evidence on how asymmetry influences library performance outcomes and which strategies are most effective in minimizing these disparities. Without addressing this gap, information institutions risk underperforming in their critical role as engines of knowledge creation, access, and dissemination.

Therefore, this study seeks to investigate the nature and extent of knowledge asymmetry among stakeholders, examine its impact on organizational performance, analyse the relationship between knowledge asymmetry and performance, and propose intervention strategies to minimize asymmetry in academic information institutions.

Methodology

The study adopted an explanatory sequential mixed-methods design in which quantitative data were collected and analysed first, followed by a qualitative inquiry to explain and enrich the quantitative findings. The quantitative component involved the use of structured Likert-scale questionnaires administered to respondents from selected academic libraries, while the qualitative strand employed semi-structured questionnaires and interviews to obtain deeper insights into knowledge asymmetry, communication gaps, and organizational performance. Integration of the quantitative and qualitative findings occurred during the interpretation stage, where qualitative responses were used to explain patterns identified in the statistical results, particularly regarding decision-making processes, service delivery, and strategic planning within academic libraries. Although the study incorporated participatory problem-identification and practical recommendations consistent with action-oriented inquiry, it did not fully implement iterative intervention cycles associated with classical action research; therefore, the study is more appropriately described as a mixed-methods explanatory study with practical institutional implications.

The study targeted 100 respondents drawn from selected universities, government information institutions, and special libraries across Uganda. The sample size was guided by Krejcie and Morgan's (1970) sample size determination criteria for small populations and was considered sufficient to capture perspectives from key stakeholders involved in knowledge management. A total of 83 valid responses were obtained, representing an 83% response rate.

The sampling frame comprised librarians, library assistants, library administrators, lecturers, students, and information professionals from institutions such as Makerere University, Kyambogo University, Gulu University, Uganda

Management Institute, Parliament of Uganda, Bank of Uganda, Uganda Museum, Soroti University, Muni University, Lira University, Kabale University and other selected academic institutions. Purposive and simple random sampling techniques were used to ensure adequate representation across stakeholder groups and regions of Uganda.

To ensure rigor, validity, and reliability, the research instruments were reviewed by experts in Library and Information Science and research methodology to establish content validity. Reliability was assessed using Cronbach's alpha prior to data collection. The Impact of Knowledge Asymmetry on Performance ($\alpha = 0.701$) and Intervention Strategies ($\alpha = 0.727$) scales demonstrated acceptable internal consistency and were considered reliable for analysis. However, the Nature and Extent of Knowledge Asymmetry ($\alpha = 0.437$) and Relationship between Knowledge Asymmetry and Performance ($\alpha = 0.320$) scales exhibited poor reliability, suggesting that the items may not have consistently measured the intended constructs and, therefore, required further refinement.

Quantitative data were coded, edited, tabulated, and analysed using Statistical Package for the Social Sciences (SPSS), which was used to generate descriptive statistics such as frequencies, percentages, means, and standard deviations, as well as inferential statistics, including correlations analysis to examine the relationship between knowledge asymmetry and organizational performance.

A strong positive and statistically significant relationship was observed between the nature and extent of knowledge asymmetry and organizational performance ($r = .956$, $p < .001$), indicating that the two variables are closely associated. The extremely high correlation suggests that changes in knowledge asymmetry are strongly linked to changes in performance outcomes. Qualitative data were analyzed thematically through coding and categorization

to identify recurring patterns related to communication barriers, knowledge-sharing practices, and institutional effectiveness. To enhance the credibility of the findings and minimize bias, the study ensured respondent anonymity, voluntary participation, data source triangulation, and the consistent use of standardized instruments and procedures throughout data collection and analysis.

Data Analysis and Results

This section lists the demographic information of the respondents, the analysis as per each variable, aligned with the objectives as follows: nature and extent of knowledge asymmetry among stakeholders; impact of knowledge asymmetry on organizational performance; relationship between knowledge asymmetry and performance; Strategies to minimize knowledge asymmetry to enhance organizational performance. The data was analysed based on the objectives and presented as follows.

The study obtained responses from 83 participants out of the targeted population of 100 respondents. Of these, 54 respondents (65.1%) were male, while 29 respondents (34.9%) were female. The findings further indicate that most respondents were above 40 years of age, representing 34.9% of the sample population. In terms of educational qualifications, the majority possessed bachelor's and master's degrees, accounting for 31.3% and 14.5% respectively. Regarding designation, Library Assistants and Librarians constituted the largest categories of respondents, representing 24.1% and 21.7% respectively.

From table 2, the findings indicate that 87% of respondents either agreed or strongly agreed that they were aware of library services, while 6.6% reported being unaware of such services. Additionally, 74.7% indicated that they understood the access and use of electronic resources, whereas 18.1% were uncertain. The results further show that 84.3% believed library staff communicate new technologies and systems to users. However, 78.3% of respondents agreed that knowledge gaps exist between stakeholder groups such as librarians and students, while 88% reported that limited technical knowledge negatively affects service use and academic outcomes. Furthermore, 79.5% confirmed the existence of knowledge gaps between library staff and administrators.

From table 3, 81.9% of respondents agreed that knowledge asymmetry limits access to academic resources such as databases and repositories. Additionally, 94% confirmed that lack of skills contributes to poor service usage, while 91.6% agreed that this leads to delays in service delivery. The study further found that 89.1% of respondents believed that rumors and misinformation negatively affect trust and resource utilization. Moreover, 90.3% linked misuse and loss of resources to misunderstandings of institutional policies.

Table 1: Demographic Information of Respondents

Variable	Indicators	Frequency	Percentage (%)
Gender	Male	54	65.1
	Female	29	34.9
Age	19-24	3	3.6
	25-29	13	15.7
	30-34	16	19.3
	35-39	22	26.5
	Above 40	29	34.9
Educational Level	Student	9	10.8
	Certificate Holder	3	3.6
	Diploma Holder	9	10.8
	Bachelor Holder	26	31.3
	Masters Holder	24	28.9
	PhD Holder	12	14.5
Designation	Administrative Staff	3	3.6
	Assistant Librarian	9	10.8
	Deputy University Librarian	2	2.4
	Lecturer	8	9.6
	Librarian	18	21.7
	Library Assistant	20	24.1
	Library Clerk	1	1.2
	Others	7	8.4
	Senior Librarian	4	4.8
	Students	7	8.4
	University Librarian	4	4.8

Source: Researchers (2025)

Table 2: Nature and Extent of Knowledge Asymmetry among Stakeholders

Statement	SA	%	A	%	N	%	D	%	SD	%
I am aware of the full range of services provided by the academic library, i.e., digital databases, reference services) and low awareness leads to underutilization.	42	50.6	30	36.1	8	9.6	2	2.4	1	1.2
Users understand how to access and use electronic resources i.e.. logins, remote access, database search)	17	20.5	45	54.2	15	18.1	4	4.8	2	2.4
Library staff effectively communicate new technologies or systems to users	29	34.9	41	49.4	8	9.6	3	3.6	2	2.4

There are significant differences in knowledge among stakeholder groups i.e., librarians vs. students, that lead to unequal service access	23	27.7	42	50.6	14	16.9	4	4.8	0	0
Limited technical knowledge affects users' ability to fully benefit from library services, resulting in poor academic outcomes	38	45.8	35	42.2	8	9.6	1	1.2	1	1.2
Knowledge gaps exist between library staff and institutional administrators, i.e. lack of support for emerging technologies, leading to strategic misalignment	25	30.1	41	49.4	14	16.9	3	3.6	0	0

Source: Researchers (2025)

Table 3: Impact of Knowledge Asymmetry on Organizational Performance

Statement	SA	%	A	%	N	%	D	%	SD	%
Knowledge asymmetry reduces users' access to quality academic resources, i.e., databases, repositories	42	50.6	26	31.3	14	16.9	1	1.2	0	0
Lack of skills and knowledge causes underutilization of available services, e.g., students not using open access resources	54	65.1	24	28.9	3	3.6	2	2.4	0	0
Knowledge gaps result in communication breakdown between departments, i.e., IT and Library, not coordinating system upgrades, hence delayed service delivery.	50	60.2	26	31.3	4	4.8	3	3.6	0	0
Information disorder (e.g., misinformation about services or resources) worsens knowledge gaps. E.g., rumors about library closures reduce trust and usage.	48	57.8	26	31.3	5	6.0	1	1.2	3	3.6
Misunderstanding of policies leads to misuse of library services, i.e., overdue books due to ignorance of return policies, resulting in resource loss.	44	53.0	31	37.3	5	6.0	3	3.6	0	0

Source: Researchers (2025)

Table 4: Relationship between Knowledge Asymmetry and Performance

Statement	SA	%	A	%	N	%	D	%	SD	%
Improved knowledge sharing, such as a joint staff-user session, leads to efficient service delivery	60	72.3	21	25.3	1	1.2	1	1.2	0	0
Knowledge asymmetry negatively affects decision-making in library operations as a result of misaligned resource allocation, hence wasting funds	38	45.8	37	44.6	7	8.4	1	1.2	0	0
Performance improves when users are trained to understand library systems, i.e., OPAC, citation tools, which reduces service time	53	63.9	28	33.7	1	1.2	1	1.2	0	0
Strategic initiatives like tech adoption fail when key stakeholders do not share a common knowledge base, leading to organizational unproductivity.	30	36.1	45	54.2	7	8.4	1	1.2	0	0

A framework linking knowledge levels (training needs) and performance can help identify gaps	36	43.4	41	49.4	5	6.0	1	1.2	0	0
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Source: Researchers (2025)

Table 4 shows that 97.6% of respondents believed that joint activities such as training sessions and knowledge-sharing initiatives enhance service delivery. Additionally, 90.4% agreed that knowledge gaps contribute to poor resource allocation and weak decision-making, which ultimately affects organizational performance. The study also found that 97.6% supported user training in systems such as Koha, citation tools, and OPAC as a strategy for

improving performance. Furthermore, 90.3% attributed failed institutional initiatives to knowledge asymmetry resulting from inadequate sharing of common knowledge, particularly regarding technological adoption. Finally, 92.8% supported establishing structured knowledge-performance frameworks to identify gaps and improve institutional performance.

Table 5: Intervention Strategies to Minimize Knowledge Asymmetry

Statement	SA	%	A	%	N	%	D	%	SD	%
Information literacy programs help bridge knowledge gaps, i.e., training on database use, plagiarism awareness. Due to increased user competence	61	73.5	20	24.1	1	1.2	1	1.2	0	0
Library staff require regular CPDs, digital resource management, and emerging tools for improved internal service standards	52	62.7	29	34.9	1	1.2	1	1.2	0	0
Cross-departmental knowledge sharing enhances institutional performance, i.e., Library-ICT collaboration leads to better alignment and innovation	53	63.9	28	33.7	1	1.2	1	1.2	0	0
Workshops and peer learning forums support knowledge equity, i.e., students training fellow students to broaden knowledge distribution.	40	48.2	34	41.0	8	9.6	1	1.2	0	0
Policies such as open access policies, Open Knowledge, can promote open and transparent communication and reduce asymmetry due to consistent understanding.	40	48.2	41	49.4	1	1.2	1	1.2	0	0

Source: Researchers (2025)

Table 5 shows that 97.6% of respondents agreed that information literacy programs, including database training and plagiarism awareness, would help reduce knowledge gaps. Similarly, 97.6% supported continuous staff training and professional development initiatives. Another 97.6% emphasized the importance of collaboration between departments such as ICT and the library, to promote cross-departmental knowledge sharing.

Additionally, 89.2% identified workshops and peer learning as useful strategies for minimizing knowledge asymmetry, while 97.6% believed that open access to institutional policies would improve communication and reduce knowledge gaps.

Table 6: Correlations

		Nature and Extent of Knowledge Asymmetry	Impact of Knowledge Asymmetry on Performance	Intervention Strategies	Relation between Knowledge Asymmetry and Performance
Nature and Extent of Knowledge Asymmetry	Pearson Correlation	1	.208	.258*	.956**
	Sig. (2-tailed)		.057	.018	.000
	N	83	83	83	83
Impact of Knowledge Asymmetry on Performance	Pearson Correlation	.208	1	.310**	.034
	Sig. (2-tailed)	.057		.004	.756
	N	83	83	83	83
Intervention Strategies	Pearson Correlation	.258*	.310**	1	.236*
	Sig. (2-tailed)	.018	.004		.031
	N	83	83	83	83
Relation between Knowledge Asymmetry and Performance	Pearson Correlation	.956**	.034	.236*	1
	Sig. (2-tailed)	.000	.756	.031	
	N	83	83	83	83

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Researchers (2025)

Pearson correlation analysis was conducted to examine relationships among nature and extent of KA, impact of KA on performance, intervening strategies of KA on performance, and the relationship of KA and performance (N = 83). Results showed a very strong positive correlation between Nature and Extent of KA and Relationship of KA and performance, $r(81) = .956$, $p < .001$. Intervening Strategies of KA on performance was positively correlated with Nature and Extent of KA, $r(81) = .258$, $p = .018$, Impact of KA on performance, $r(81) = .310$, $p = .004$, and Relation KA and performance, $r(81) = .236$, $p = .031$. However, no significant correlations were observed between Nature and Extent of KA and Impact of KA on performance, $r(81) = .208$, $p = .057$, or between Impact of KA on performance and Relation KA and performance, $r(81) = .034$, $p = .756$.

Discussions of Findings

This section presents the findings of the study on knowledge asymmetry in academic information institutions based on the study objectives, including the nature and extent of knowledge asymmetry, its impact on organizational performance, and strategies for minimizing knowledge asymmetry to improve performance. The discussion focuses on the causes and effects of knowledge asymmetry, staff coping mechanisms, and tools or platforms that support effective knowledge sharing. The findings are presented thematically through tables, figures, and narrative explanations to provide a comprehensive understanding of the study.

Nature and Extent of Knowledge Asymmetry among Stakeholders

The findings demonstrate that although awareness of library services and communication of technological developments are relatively high, substantial knowledge disparities still exist among stakeholders within academic information institutions. The existence of gaps between librarians, administrators, and users suggests unequal access to institutional knowledge and technical competencies, which may undermine effective service utilization and collaboration. These results reinforce the argument that knowledge asymmetry persists even in environments with established communication structures, thereby affecting institutional coordination and academic support services.

The findings further revealed notable asymmetry among stakeholders in academic information institutions. Although 87% of respondents confirmed awareness of library services, significant knowledge gaps still existed among librarians, students, administrators, and ICT personnel. These disparities were linked to limited technical expertise, unequal access to institutional information, and selective information sharing practices. The findings are consistent with Changwei (2011), who observed that library leaders often delay sharing ideas and suggestions with junior staff, thereby contributing to knowledge asymmetry. Similarly, Chen (2020) noted that many librarians lack adequate information literacy skills needed to effectively communicate information about resources and services to users. This suggests that awareness alone is insufficient without equitable knowledge sharing, technical competence, and effective communication systems.

The study also revealed that organizational practices and leadership behaviors significantly contribute to knowledge asymmetry. Respondents identified weak teamwork, poor departmental collaboration, centralized decision-making, inadequate communication, and limited opportunities for training and professional development, as major causes of knowledge gaps. Other concerns included poor communication of management resolutions, conflicts between ICT and library departments, lack of feedback on resource requests, and absence of structured information literacy programs. These findings indicate that institutional structures and communication systems can either reduce or reinforce knowledge asymmetry within academic information institutions.

“Organizational practices on the centralized decision-making process. Important decisions are often made at the top levels of management without input from frontline staff who interact most directly with users and operational issues. As a result, valuable insights from staff are overlooked, and information doesn't flow back down efficiently.” (R. 12).

The study therefore established that centralized leadership structures, limited training opportunities, selective information sharing, weak transparency, underfunding, favoritism, and inadequate knowledge-sharing policies negatively affect organizational performance. The findings imply that academic information institutions require participatory leadership, stronger interdepartmental collaboration, transparent communication systems, and continuous professional development initiatives to reduce knowledge asymmetry and improve institutional effectiveness.

Table 7: Causes and Impact of Knowledge Asymmetry on Information Worker

Causes of Knowledge Asymmetry	Impact of Knowledge Asymmetry
Centralized decision-making without consultation	Overlooked staff insights, poor service delivery
Limited training and professional development	Knowledge gaps and skill disparities
Poor communication and lack of transparency	Misinformation, inefficiency, lack of trust

Selective or restricted information sharing	Unequal access to knowledge, favoritism
Low funding and underestimation of staff roles	Reduced efficiency, inability to expand services
Poor coordination between departments	Missed collaboration opportunities, delays
Abusive supervision and favoritism.	Toxic work environment, low morale
Lack of knowledge-sharing platforms and policies	Difficulty in disseminating knowledge

Source: Researchers (2025)

Impact of Knowledge Asymmetry on Organizational Performance

These findings indicate that knowledge asymmetry has significant negative effects on organizational performance within academic information institutions. Limited access to knowledge and inadequate technical skills reduce effective utilization of library resources and weaken service delivery efficiency. The findings also suggest that poor communication and policy misunderstanding contribute to mistrust, resource misuse, and operational inefficiencies, thereby affecting the institution’s ability to deliver quality and user-centered services.

The findings further demonstrate that knowledge asymmetry negatively affects organizational performance in academic information institutions. More than 80% of respondents agreed that knowledge asymmetry limits access to academic resources such as databases and repositories, contributes to underutilization of services, delays service delivery due to communication breakdowns, and promotes misinformation that weakens user trust and confidence in library systems. These findings indicate that unequal access to information and inadequate communication structures create barriers to effective service provision and institutional coordination. The findings are consistent with Si and Chen (2020), who argued that information competence requires individuals to rapidly acquire, process, and apply information technologies effectively for learning, communication, and service delivery. This aligns with the current findings where respondents emphasized that limited access to institutional information and poor communication practices

significantly contribute to knowledge asymmetry. Similarly, Alavi and Leidner (2001) observed that ineffective knowledge-sharing practices result in poor service delivery, reduced organizational learning, and user dissatisfaction.

The qualitative findings further reinforced the negative impact of poor communication and fragmented knowledge-sharing practices on organizational performance. Respondents highlighted that inadequate cross-departmental communication often creates confusion among users and staff, particularly during the implementation of new services and technologies. One respondent explained that poor coordination between departments negatively affected user support and institutional professionalism.

“A new online research guide was launched without informing the circulation and IT departments. Consequently, staff could not adequately assist students, resulting in confusion, inconsistent information, and a poor user experience. Better internal communication and prior staff briefings would have ensured effective support for the initiative.” (R. 12).

The findings in Table 3 further indicate that there is a strong relationship between knowledge asymmetry and organizational performance. Over 90% of respondents agreed that joint training sessions, collaborative learning, and improved knowledge-sharing mechanisms enhance institutional efficiency and service delivery. At the same time, respondents acknowledged that knowledge gaps contribute to poor resource allocation, weak decision-making, delayed implementation of institutional initiatives, and operational

inefficiencies. These findings imply that reducing knowledge asymmetry positively influences organizational effectiveness, coordination, and institutional productivity. The results support the findings of Gold, Malhotra, and Segars (2001), who argued that effective knowledge management practices strengthen organizational capabilities, improve decision-making, and enhance overall organizational performance. Therefore, the study demonstrates that promoting collaborative knowledge-sharing practices, strengthening communication systems, and investing in continuous staff training are essential strategies for improving performance in academic information institutions.

Relationship between Knowledge Asymmetry and Organizational Performance

The findings in Table 4 demonstrate that there is a strong relationship between knowledge asymmetry and organizational performance in academic information institutions. A majority of respondents (97.6%) agreed that improved knowledge sharing through joint staff-user sessions, collaborative training, and exchange of ideas enhances efficient service delivery. Similarly, 97.6% of respondents supported training users in systems such as OPAC, Koha, and citation tools as a strategy for improving performance and reducing service delays. These findings suggest that when stakeholders possess shared knowledge and adequate technical competencies, organizational processes become more efficient, communication improves, and users are able to access services more effectively. The findings, therefore, indicate that knowledge sharing and collaborative learning play a significant role in strengthening institutional performance and service quality within academic libraries.

The study further established that knowledge asymmetry negatively affects decision-making and institutional productivity. The findings revealed that 90.4% of respondents agreed that knowledge gaps contribute to poor resource allocation, resulting in ineffective

decision-making and wastage of institutional resources. In addition, 90.3% of respondents noted that strategic initiatives such as technology adoption often fail when stakeholders do not share a common knowledge base. These findings imply that unequal access to information and limited understanding of institutional systems hinder organizational coordination, weaken innovation, and reduce operational effectiveness. The results support the argument that knowledge asymmetry disrupts institutional planning and implementation processes by creating inconsistencies in communication, interpretation, and execution of organizational strategies.

The findings also revealed that 92.8% of respondents supported the establishment of frameworks linking knowledge levels, training needs, and performance as a mechanism for identifying gaps and improving institutional effectiveness. This demonstrates that respondents recognized the importance of structured knowledge management systems in enhancing performance outcomes. The findings are consistent with Ugwu and Ejikeme (2022), who established that organizational culture mediates the relationship between knowledge management practices and job performance among academic librarians. Similarly, Mohd Shoid and Kassim (2014) argued that employees' competencies, organizational learning capabilities, and ICT dimensions are significant predictors of knowledge performance in academic information institutions. From the same perspective, Rafi emphasized that effective library ICT infrastructure, skilled personnel, competent management, and well-coordinated projects are essential for assessing and improving employee performance. Therefore, the study confirms that reducing knowledge asymmetry through training, collaborative knowledge sharing, and effective knowledge management frameworks can significantly improve organizational performance in academic information institutions.

Strategies to minimize knowledge asymmetry to enhance organizational performance

The findings of the study indicate that minimizing knowledge asymmetry in academic information institutions requires integrated strategies that strengthen knowledge sharing, staff competencies, institutional collaboration, and transparent communication systems. A majority of respondents (97.6%) supported information literacy programs such as database training, plagiarism awareness, and user education initiatives as important mechanisms for reducing knowledge gaps. Similarly, 97.6% emphasized the importance of continuous staff training and professional development in improving knowledge acquisition, service utilization, and institutional efficiency. These findings suggest that institutions that invest in continuous learning and technical capacity building are more likely to promote equitable knowledge distribution, effective service delivery, and improved organizational performance.

The study further established that collaboration and institutional openness are critical in addressing knowledge asymmetry. Respondents strongly emphasized the need for collaboration between departments such as ICT and the library to strengthen cross-departmental knowledge sharing and coordinated service delivery. In addition, 97.6% of respondents believed that open access to institutional policies and procedures would improve transparency, communication, and organizational coordination. The findings therefore indicate that knowledge asymmetry is not only a technological challenge but also an organizational and communication problem that requires participatory leadership structures, transparent information systems, and inclusive institutional practices. Strengthening interdepartmental relationships and creating accessible knowledge-sharing platforms can

therefore improve institutional trust, collaboration, and operational efficiency.

The qualitative findings reinforced the importance of capacity building, peer learning, and institutional knowledge-sharing systems in minimizing knowledge asymmetry. Respondents emphasized that institutions should establish mechanisms that support continuous communication, collaborative learning, and equitable access to organizational information.

“Staff can address knowledge asymmetry through proactive information seeking, peer learning, and informal networks. However, sustainable solutions require institutional investment in capacity building through regular interdepartmental meetings, centralized knowledge management systems, staff training, and leadership that promotes transparency and open communication.” (R. 12).

This response demonstrates that reducing knowledge asymmetry requires both institutional commitment and individual initiative. The findings also revealed that 89.2% of respondents identified workshops and peer-learning initiatives as effective strategies for reducing knowledge disparities and promoting collaborative problem-solving among staff.

Overall, the findings highlight that addressing knowledge asymmetry requires structural reforms, collaborative organizational cultures, continuous professional development, and technological interventions to improve organizational performance in academic information institutions. These findings are consistent with Ahmad et al. (2019), who found that limited technical capacity and hierarchical communication structures intensify knowledge asymmetry in university information institutions. Similarly, Kim and Park (2020) argued that knowledge gaps reduce organizational efficiency and contribute to the underutilization of institutional resources, while Su and Wang (2022) emphasized the importance of

professional development and cross-departmental collaboration in improving institutional performance. In the same context, Onaolapo, Ayeni, and Mncube (2025) asserted that open access policies and digital platforms promote transparency, wider information sharing, and institutional inclusiveness. The study therefore confirms that integrated interventions involving information literacy programs, collaborative knowledge-sharing frameworks, leadership support, and transparent communication systems are essential for reducing knowledge asymmetry and enhancing service delivery and organizational performance in academic libraries.

Real-life situation on the negative impact of knowledge asymmetry on service delivery

It should be noted that, when knowledge is not shared, workers may spend a lot of valuable time searching for the same knowledge. A participant reported that, “colleague declined to train another on the new database tool that had been introduced to the organization, which led to reduced efficiency and productivity.”(R. 21). In other words, departments do not work together as reported by the respondent that “library acquired a database for health science students, which was helpful, but because management lacked knowledge on what this database does and how helpful it was, there was no budget allocated for it in the following years” (R. 24). Such incidences contribute to knowledge asymmetry.

Respondents indicated that knowledge asymmetry is reflected through misinformation, disinformation, and poor communication among staff and users. For example, a lack of knowledge sharing and cross-departmental collaboration between a hospital's emergency and radiology departments delayed the communication of a patient's CT scan results, resulting in the patient's discharge before the results were reviewed and subsequent readmission due to preventable complications (R. 2; R. 5).

Respondents cited several instances where poor knowledge sharing or lack of cross-departmental collaboration negatively impacted service delivery. Examples include library staff unaware of new book shipments, IT upgrades disrupting access to resources, reference guide launches creating confusion, and recruitment of underqualified staff due to miscommunication. These examples emphasize how gaps in communication undermine institutional effectiveness, diminish user satisfaction, and erode trust in academic information institution services.

Tools and how staff/institutions can cope with the challenges of knowledge asymmetry

The study revealed that institutional support and capacity building are essential for helping library staff cope with the challenges of knowledge asymmetry. Respondents emphasized the need for collaboration and networking with professionals from other institutions, regular interdepartmental meetings, information literacy programs, mentorship, and onboarding systems to facilitate knowledge sharing and integration of junior staff. The findings also highlighted the importance of developing communication skills, using social media and online platforms for information dissemination, and establishing centralized systems for sharing documents, updates, and institutional knowledge.

“Reducing knowledge asymmetry requires a cultural shift, one where knowledge is viewed as a shared asset, not a personal advantage. Staff can do their part, but real change depends on the institution creating structures and incentives for open, inclusive knowledge sharing” – University Senior Librarian (R. 13).

The study further emphasized the importance of continuous professional development, equal and rotational staff training, and weekly seminar series, peer learning, and pairing junior and senior staff to promote experiential knowledge transfer. Respondents also recommended strengthening leadership openness, teamwork, communities of practice, trust, and clear

communication channels to support collaborative learning and organizational effectiveness. Staff reported using coping strategies such as mentoring, self-directed learning, and team collaboration; however, they noted that these efforts remain limited without institutional support through structured communication systems, training opportunities, and centralized knowledge repositories.

The study therefore recommends the adoption of knowledge management tools and digital collaboration platforms such as Microsoft

Teams, Google Workspace, institutional repositories, mailing lists, cloud-based sharing drives, social media platforms, and WhatsApp groups, to facilitate real-time communication, knowledge exchange, and collaborative document creation. Overall, the findings suggest that reducing knowledge asymmetry requires a combination of institutional reforms, technological support, leadership commitment, and a culture that promotes open and inclusive knowledge sharing in academic information institutions.

Table 8: Strategies, tools/platforms in promoting knowledge sharing among staff/departments

Coping Strategies	Tools & Platforms
CPD, workshops, and seminars	Social media platforms (WhatsApp, Facebook, YouTube)
Motivation and involvement in decision-making	Collaborative platforms (Microsoft Teams, Slack, Google Workspace, Zoom)
Building transparency and collaboration culture	Library websites & institutional repositories
Centralized knowledge management systems	SharePoint, intranets, list serves, mailing list
Mentorship and onboarding programs	Communities of practice

Thematic Analysis Matrix

To synthesize the findings, a thematic matrix was developed, mapping challenges to their impacts and proposed solutions.

Table 9: Thematic Analysis Matrix

Challenges	Impacts	Solutions
Centralized decision-making	Overlooked staff insights	Inclusive, participatory decision-making
Limited training	Knowledge gaps	Regular CPD and mentoring programs
Poor communication	Misinformation, inefficiency	Structured communication platforms
Selective information sharing	Inequality, favoritism	Transparent and open communication culture
Low funding	Reduced efficiency	Increased budget allocation to library services
Poor coordination	Delays and missed opportunities	Interdepartmental collaboration initiatives
Favoritism, abusive supervision	Low morale	Leadership training and accountability mechanisms

The findings underscore that knowledge asymmetry in academic Information institutions arises primarily from structural, cultural, and resource-related challenges. Its impacts are far-reaching, affecting both staff morale and service delivery to users. Effective coping strategies, combined with robust institutional

support, can minimize these effects. Central to addressing the problem are policies that promote transparency, continuous training, interdepartmental collaboration, and the adoption of digital knowledge management tools. This discussion provides a foundation for formulating recommendations and designing a

conceptual model that addresses knowledge asymmetry in academic information institutions.

Policy implementation and recommendation

The findings indicate that the data were reasonably normally distributed, with composite variable skewness values ranging from -0.269 to 1.302 , which fall within the acceptable threshold of ± 2 . Specifically, the Nature and Extent of Knowledge Asymmetry ($Sk = 0.116$), Impact of Knowledge Asymmetry on Organizational Performance ($Sk = 1.302$), and Intervention Strategies to Minimize Knowledge Asymmetry ($Sk = 0.127$) exhibited slight positive skewness, while the Relationship between Knowledge Asymmetry and Performance showed slight negative skewness ($Sk = -0.269$). These patterns suggest that respondents generally agreed on the existence of knowledge asymmetry, its effects on organizational performance, and the need for interventions to address knowledge gaps within academic information institutions. The presence of both positive and negative skewness further indicates that knowledge, resources, and opportunities are not uniformly distributed among stakeholders, thereby influencing communication, collaboration, service delivery, and decision-making processes.

From a policy perspective, the observed asymmetry underscores the need for institutions to strengthen equitable access to knowledge through structured knowledge management frameworks, continuous staff training, digital knowledge-sharing platforms, and collaborative learning systems. Academic information institutions should also promote interdepartmental collaboration, transparent communication, and evidence-based decision-making to reduce disparities in information access and utilization. By recognizing and addressing uneven knowledge distribution, administrators can identify institutional weaknesses, improve operational efficiency, enhance innovation, and strengthen organizational performance. Consequently, the study recommends the adoption of intentional

collaboration networks, partnerships, and knowledge transfer mechanisms to support sustainable improvement in academic library services and overall institutional effectiveness.

Correlation

The study found a strong positive relationship between knowledge asymmetry and organizational performance ($r = .956$, $p < .001$), indicating a close connection between the two variables within academic information institutions. This suggests that stakeholders' access to, possession, and sharing of knowledge significantly influence organizational performance. Reducing knowledge gaps among library users, staff, and administrators can improve communication, decision-making, resource utilization, and service delivery. Consistent with the Knowledge-Based View theory, the findings highlight knowledge as a strategic asset that drives organizational effectiveness. Therefore, institutions should promote knowledge-sharing initiatives, information literacy programs, staff training, and collaborative knowledge management practices to enhance performance.

CoNPAKT linkage

The findings support the Communication and Knowledge Management Theory (CoNPAKT), which emphasizes the role of effective communication and knowledge sharing in reducing knowledge asymmetry and improving organizational performance. The study identified knowledge gaps among stakeholders in areas such as awareness of library services, access to electronic resources, and communication of technological innovations. The strong positive relationship between knowledge asymmetry and performance ($r = .956$, $p < .001$) indicates that communication and knowledge distribution significantly influence institutional effectiveness. The findings further show that training, information literacy programs, and knowledge-sharing initiatives are essential for enhancing service delivery, decision-making, and overall organizational performance.

Recommendations

1. There is need to integrate knowledge management processes in academic information institutions in Uganda, to increase efficiency and effectiveness in the performance of academic information institutions.
2. A policy guiding the knowledge management process and knowledge sharing should be in place in every institution, as part of a knowledge management system. This will guide on open knowledge sharing, especially internship reports, field reports, among others. This will motivate staff to create, share and retain knowledge.
3. The knowledge management policy should leverage on new technologies in academic information institutions that will enable faster and effective knowledge sharing.
4. Academic information institutions should provide training programs and enable provision for feedback mechanisms and reward systems based on the effective and efficient use of technology.
5. Academic Information institutions should adopt Intentional Collaborations, Networks, Partnerships, and Knowledge Transfer (CoNPakT), to improve through learning from each other and mitigate knowledge asymmetry, which hurts the quality of library services and the rights of users.

CoNPakT-KA Impact Model (CoNPakT Knowledge Asymmetry Model)

The CoNPakT-Impact model of knowledge asymmetry integrates intentional collaborations, networks, partnerships, and knowledge transfer to address knowledge asymmetry in academic libraries. According to the approach, reducing information imbalances (also known as knowledge asymmetry) between various stakeholders is crucial for academic library effectiveness. The model offers a thorough

framework for comprehending how organizational performance in academic information institutions (libraries) is impacted by knowledge asymmetry and how tactical measures might lessen its detrimental impacts.

The model's first component analyses the causes and characteristics of knowledge asymmetry, such as uneven information availability, poor communication channels, policy gaps, professional silos, the digital divide, inadequate training, and power disparities. These elements lead to differences in the knowledge that librarians, instructors, students, ICT personnel, researchers, and institutional officials possess and have access to. By incorporating ideas from the information asymmetry theory, specifically the claim that unequal information distribution results in inefficiencies, subpar decision-making, and diminished trust the model expands upon current knowledge management theories (Changwei, 2011; Eckardt, 2002). While earlier knowledge management studies emphasized knowledge creation, storage, and dissemination as drivers of organizational competitiveness (Alavi & Leidner, 2001; Gold et al., 2001; Choi et al., 2008), this model advances the discourse by specifically illustrating how unequal knowledge flows undermine collaboration and institutional effectiveness in academic libraries.

The second component of the framework focuses on the dimensions of knowledge asymmetry among stakeholders within academic information institutions. The model demonstrates how fragmented institutional learning and operational inefficiencies are caused by gaps in explicit and tacit knowledge, uneven metadata practices, limited decision-making knowledge, service awareness gaps, and unequal policy understanding. Research has repeatedly demonstrated that staff competencies, ICT integration, and cooperative organizational cultures are necessary for efficient knowledge management

(Ahmad et al., 2019; Rashid et al., 2021; Rezaei et al., 2020). This paradigm, however, offers a fresh viewpoint by demonstrating that unequal access to institutional information can nevertheless hinder fair participation and impair organizational performance even in the presence of knowledge management systems. The inclusion of the LIS practices and knowledge management processes, such as knowledge acquisition, codification, sharing, and retrieval, communities of practice, training, and evidence-based service design, demonstrates how libraries can operationalize knowledge management to reduce asymmetry and improve institutional coordination. This aligns with findings that knowledge sharing and innovation significantly improve service quality and institutional agility in academic libraries (Khalil et al., 2024; Ogunmodede & Popoola, 2024; Pandey, 2024).

The third section of the model links knowledge asymmetry to organizational performance outcomes. The framework demonstrates that increased asymmetry leads to reduced service quality, poor user satisfaction, weak innovation, delayed decision-making, poor resource utilization, policy inconsistency, weakened user rights, and reduced institutional effectiveness. Asymmetrical information structures have a detrimental impact on organizational agility, performance, and strategic responsiveness (Ashrafi et al., 2019; Setyoko & Kurniasih, 2022). This link is consistent with larger organizational and information management research. The capacity to deliver effective, user-centered, and data-driven services in academic libraries is diminished by inadequate coordination of institutional knowledge. By linking the information asymmetry theory with frameworks for measuring library performance put forth by Rafi et al. (2022) and Sahibzada et al. (2020), the model thus advances current research by providing a multifaceted explanation of how organizational knowledge disparities impact service delivery and institutional productivity. Additionally, the model acknowledges the growing significance of digital

governance, ICT infrastructure, analytics, and data curation capacities in contemporary libraries (Tambo & Filtenborg, 2019; Yoon & Donaldson, 2019; Tevera & Ruhode, 2024).

The introduction of the CoNPakT intervention strategy, Intentional Collaborations, Networks, Partnerships, and Knowledge Transfer as a workable and strategic way to lessen knowledge asymmetry and improve organizational performance, is the framework's last and most inventive contribution. CoNPakT presents a collaborative ecosystem approach that includes interlibrary networks, mentoring, professional alliances, open repositories, policy harmonization, digital platforms, collaborative learning communities, and structured knowledge exchange mechanisms, in contrast to traditional knowledge management models that mainly concentrate on technology and internal organizational procedures. By offering an integrated model created especially to address asymmetrical knowledge distribution in academic information institutions, this intervention framework expands on previous research on tacit knowledge sharing, collaborative learning, and knowledge innovation in libraries (Mangulo & Akwala, 2021; Njuki & Kimani, 2025; Abubakar & Auyo, 2022). Through this contribution, the framework not only clarifies the issue of knowledge asymmetry but also offers libraries operating in increasingly digital and knowledge-driven environments a scalable path for enhancing knowledge equity, institutional learning, innovation, and sustainable organizational performance

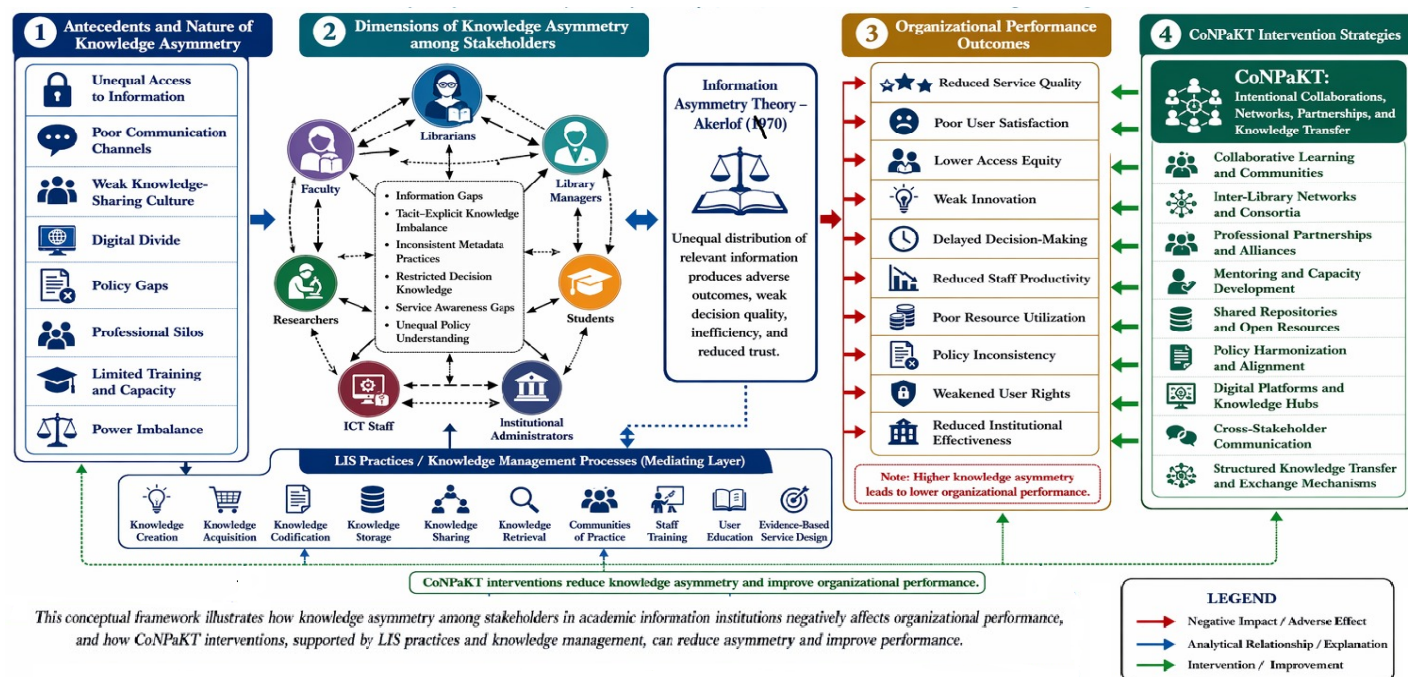


Figure 1: CoNPakT Impact Model of Knowledge Asymmetry on Organizational Performance in Academic Libraries

Source: (Researchers, 2026), with ideas from Akerlof, E. (1970).

Source: Researchers (2025)

Conclusion

Due to knowledge asymmetry's influence on the management, sharing, and utilization of knowledge inside organizations, knowledge asymmetry in academic library institutions can have a substantial impact on organizational performance. As knowledge-based organizations, academic information institutions greatly depend on efficient knowledge management techniques to improve their operations and service provision. In these contexts, enhancing organizational performance requires the integration of knowledge management techniques, including knowledge production, storage, transfer, and application. A

few more elements of the knowledge infrastructure that impact this relationship are corporate culture, technology, and structure. The data clearly showed a high perception of knowledge asymmetry among stakeholders, which significantly impacts library service utilization and organization performance; however, there is strong consensus on effective strategies such as training, CPDS, collaboration, and policy formulation to address these gaps

Through this study, it was evident that people's information skills and knowledge levels influence how effectively they locate and utilize library resources in a university library. The search for any information among different users has

specific information needs that shape what the users look for. However, the existence of knowledge asymmetry is likely to affect the library's effectiveness in supporting learning and research at the university.

Limitations

The study was limited by a relatively small sample size of 100 respondents from selected academic information institutions in Uganda, which could have reduced statistical power and limited the generalizability of the findings. However, the high response rate of 83 respondents, inclusion of diverse stakeholder groups, and triangulation of quantitative and qualitative data enhanced the credibility, validity, and robustness of the results, warranting cautious interpretation.

Areas for Further Study

Future research could explore how knowledge asymmetry changes over time by comparing different types of knowledge-based institutions and how emerging technologies influence knowledge distribution and sharing, and implications on performance, with considerations of how culture, structure, and user-centeredness affect organizational performance.

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Ethical Considerations

The researchers addressed the ethical concerns throughout the conduct of this study in order to ensure academic integrity, confidentiality, and responsible research practice. Although ethical approval was not obtained, the researchers ensured that this study involved minimal risk to participants and was conducted online, with no physical contact with respondents, and did not involve clinical procedures or the collection of sensitive personal information. The study

focused only on generic demographic and professional information obtained from adult participants.

Informed consent was obtained from all 83 participants before they participated in the study. Respondents were provided with clear information regarding the purpose of the study, the voluntary nature of participation, procedures involved, and their right to withdraw from the study at any stage without penalty. Consent was obtained electronically through the online questionnaire system, before respondents could proceed to complete the survey and semi-structured responses.

To ensure anonymity and confidentiality, no personally identifiable information, such as names, contact details, or institutional identifiers, was collected from participants. All responses were coded and stored securely, and verbatim quotations used in the study were presented using anonymous respondent codes such as "R.12" to protect participants' identities. In addition, all sources, authors, and scholarly contributions consulted during the study were appropriately acknowledged and cited, to uphold academic honesty and intellectual integrity.

AI Use Declaration

The material used for writing this article was modified using Grammarly. However, the final workings on the documents such as proofreading, editing, and content alignment of the research document, have been solely the works of the authors.

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