

Research Article

Knowledge Sharing and Knowledge Leakage in Monitoring Opportunity toward Supply Chain Performance: A Study at the Library Office of Mesuji Regency

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Abstract. This study aims to analyze the effect of Knowledge Sharing and Knowledge Leakage on Supply Chain performance, with Monitoring Opportunity as a mediating variable at the Library Office of Mesuji Regency. The research problem arises from the limited structure of knowledge-sharing practices, weak documentation of organizational knowledge, and the potential risk of knowledge leakage that may disrupt the effectiveness of library service supply chains. This study employs a quantitative approach using a survey method. Data were collected through questionnaires distributed to 115 employees of the Library Office of Mesuji Regency and analyzed using Structural Equation Modeling based on Partial Least Squares with SmartPLS. The results show that Knowledge Sharing has a positive and significant effect on Supply Chain performance and Monitoring Opportunity. Knowledge Leakage does not have a significant direct effect on Supply Chain performance, but it has a negative and significant effect on Monitoring Opportunity. Furthermore, Monitoring Opportunity significantly mediates the relationship between Knowledge Sharing and Supply Chain performance, but does not mediate the relationship between Knowledge Leakage and Supply Chain performance. These findings indicate that knowledge sharing becomes more valuable when supported by monitoring capability, while knowledge leakage should be controlled through documentation, access control, and knowledge protection mechanisms. This study contributes to knowledge management and supply chain literature in public library service organizations.

Keywords: Knowledge Leakage; Knowledge Sharing; Monitoring Opportunity; Public Library; Supply Chain

Received: March 02, 2026

Revised: April 14, 2026

Accepted: May 12, 2026

Published: May 19, 2026

Curr. Ver.: May 19, 2026



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1. Introduction

Knowledge management has become a strategic issue in public sector organizations because public services increasingly depend on the ability of institutions to manage information, experience, and organizational knowledge. In public administration, knowledge management contributes to organizational improvement, citizen satisfaction, and collaborative innovation Kassa & Ning (2023). Public libraries are part of this context because their services depend on the flow of knowledge among employees, users, suppliers, and external stakeholders. Therefore, the effectiveness of public library services is not only determined by physical collections, but also by the ability of the organization to manage knowledge as a resource for service continuity.

Public libraries are no longer only institutions that store and lend books; they also function as information service organizations that manage procurement, cataloguing, collection processing, distribution, and user-oriented services. An integrated library supply chain model can help libraries improve service quality, stakeholder satisfaction, strategic planning, and operational efficiency (Hye et al., 2025). In this context, the supply chain of a public library includes the flow of books, documents, service information, and internal knowledge that supports collection availability and user satisfaction. If this flow is not managed properly, public library services may experience delays, inaccurate documentation, and weak responsiveness to user needs.

The Mesuji Regency Library Office faces knowledge management challenges that are relevant to public service supply chain performance. The thesis identifies that knowledge sharing is still informal, knowledge documentation remains weak, monitoring is reactive, technology is not fully integrated, and knowledge leakage risks still exist in internal communication and employee mobility. These conditions indicate that the library supply chain is vulnerable to service inconsistency, information bottlenecks, and dependence on certain employees. Similar public service studies show that service quality, interpersonal communication, facilities, and work environment influence community satisfaction, which means that internal coordination and communication are essential for public service performance Putri et al. (2025).

Knowledge sharing plays an important role in strengthening the public library supply chain because it allows employees to exchange procedural knowledge, service experience, cataloguing information, and problem-solving practices. Knowledge sharing in academic libraries can support service innovation, especially when it is connected to management innovation and information technology innovation (Khalil et al., 2024). In the supply chain context, knowledge sharing can create business value by strengthening governance mechanisms, improving collaboration, and supporting supply chain performance (Liu et al., 2025). In local organizational studies, human resource quality is also shaped by creativity, motivation, and technology adaptation, which indicates that employees' willingness and ability to share knowledge are important for organizational improvement (Suganda et al., 2012).

However, knowledge sharing needs to be balanced with knowledge protection because uncontrolled information flow can lead to knowledge leakage. Knowledge leakage occurs when strategic knowledge, internal procedures, operational information, or tacit expertise moves to unauthorized parties or disappears from the organization. Knowledge leakage has become a common concern in collaborative work because incomplete contracts, subcontracting activities, weak governance, and employee mobility may increase the risk of losing valuable knowledge (Foli & Durst, 2022a). In public libraries, knowledge leakage may occur through undocumented tacit knowledge, informal communication, weak access control, or employee transfer without adequate knowledge retention.

Knowledge leakage can weaken supply chain effectiveness because supply chain activities depend on accurate, reliable, and timely information. Information leakage in supply chain relationships can create strategic risks because exposed information may affect coordination, trust, and decision quality (Yun et al., 2024). For a public library, this risk can appear in procurement errors, collection distribution delays, inaccurate cataloguing, or loss of procedural knowledge when experienced employees are transferred or retire. This is relevant to performance management because organizational performance is not only influenced by output targets, but also by internal systems, motivation, commitment, and the ability to maintain effective managerial processes (Mufahamah & Wuryanti, 2012).

Monitoring opportunity becomes important because knowledge sharing and knowledge leakage do not automatically affect supply chain performance without an organizational mechanism that detects, interprets, and responds to information. Public sector knowledge management should not be understood merely as data storage, but as a social and organizational process through which knowledge is formed, interpreted, and transformed into public action Laihonon et al. (2024). Monitoring opportunity can therefore function as a mediating capability that helps organizations identify service opportunities, detect operational risks, observe information flows, and respond to supply chain problems. In this study, monitoring opportunity is positioned as the mechanism that connects knowledge management practices with the effectiveness of the library service supply chain.

The importance of monitoring is also related to performance assessment in public and service organizations. Non-financial performance assessment can help organizations evaluate service quality, learning processes, internal operations, and stakeholder satisfaction beyond

financial indicators Febriani & Mufahamah (2024). In the context of a public library, monitoring opportunity can strengthen non-financial performance by improving information visibility, early detection of service problems, coordination among work units, and the speed of organizational response. Thus, monitoring opportunity is not only an administrative control mechanism but also a strategic tool for improving knowledge-based service performance.

Digital tools and employee readiness also support the relationship between knowledge management and supply chain effectiveness. Practical training in office applications can improve users' ability to apply digital tools in work-related activities (Wibowo et al., 2024). Community-based digital training also shows that structured assistance can increase users' enthusiasm and readiness to use technology for administrative and financial tasks (Wibowo et al., 2025). These findings are relevant to public libraries because knowledge sharing, documentation, and monitoring opportunity require employees who are able to use digital platforms, record knowledge systematically, and manage information securely.

Previous studies have examined knowledge management, knowledge sharing, knowledge leakage, and supply chain performance, but several gaps remain. First, many studies still focus on private companies, manufacturing, and platform-based supply chains, while public library supply chains remain underexplored. Second, knowledge sharing is often treated as a positive driver of performance, whereas knowledge leakage is rarely integrated as a risk factor in the same empirical model. Third, monitoring opportunity has rarely been positioned as a mediating mechanism that explains how knowledge sharing and knowledge leakage influence supply chain performance in local government library services. The thesis also shows that the Mesuji Regency Library Office requires a model that integrates knowledge sharing, knowledge leakage control, and monitoring opportunity to strengthen supply chain effectiveness.

Based on these gaps, this study aims to examine the effect of knowledge sharing and knowledge leakage on supply chain performance through monitoring opportunity at the Mesuji Regency Library Office. The novelty of this study lies in integrating knowledge sharing as a value-creating mechanism, knowledge leakage as a knowledge risk factor, and monitoring opportunity as a mediating capability in a local public library context. This study is expected to contribute to knowledge management and public service supply chain literature, while providing practical recommendations for improving structured knowledge sharing, preventing knowledge leakage, strengthening digital documentation, and optimizing monitoring mechanisms in public library operations.

2. Literature Review

Knowledge Management in Public Sector Organizations

Knowledge management is an important foundation for public sector organizations because public services depend on the ability of employees to create, store, share, protect, and apply knowledge in daily operational activities. Stoian et al. (2024) stated that the knowledge-based view places knowledge as a strategic organizational resource that creates value when it is integrated into organizational processes. In the context of a regional library, knowledge is not only stored in formal documents and procedures, but also in employees' experience, service routines, cataloguing practices, procurement activities, and coordination across units. ((Mufahamah & Wuryanti, 2012)) also emphasized that organizational performance is influenced by performance measurement systems, motivation, and organizational commitment, indicating that knowledge-based work must be supported by internal systems and employee behavior.

Supply Chain in Regional Library Services

Supply chain in regional library services refers to the integrated flow of procurement, collection management, information distribution, and service delivery to library users. (Baycik, 2024) explained that supply chain visibility helps organizations evaluate operational flows and improve decision-making through clearer information access. In the context of a regional library, supply chain performance does not only depend on physical collection movement, but also on information accuracy, employee coordination, and service responsiveness.

Knowledge Sharing

Knowledge sharing is the process of exchanging information, experience, and work-related knowledge among employees. Eslami et al. (2023) found that knowledge sharing across supply chain actors supports coordination, learning, and technology adoption in operational activities. In a regional library, knowledge sharing can help employees understand procurement needs, improve cataloguing accuracy, reduce service errors, and strengthen coordination among service units. (Maulana et al., 2023) also showed that training and work discipline are

relevant in improving employee work behavior, which supports consistent knowledge exchange in organizational routines.

Knowledge sharing also requires human resource quality, motivation, and technology adaptation. Maulana et al. (2023) explained that human resource quality can be developed through creativity, motivation, and technology adaptation. This is relevant to regional library services because employees need the ability to share knowledge, use information systems, and adapt to service changes. In addition, (Duan et al., 2024) showed that practical training in office applications can improve users' ability to use digital tools in administrative activities. Therefore, knowledge sharing in the Library Office of Mesuji Regency is expected to strengthen procurement accuracy, service coordination, and collection distribution.

Knowledge Leakage

Knowledge leakage refers to the loss, exposure, or transfer of important organizational knowledge to unauthorized parties or outside the organization. (Tan et al., 2025) showed that knowledge leakage caused by employee departure can threaten organizational knowledge protection and reduce the value of internal knowledge resources. In public library services, knowledge leakage may occur through weak documentation, informal communication, employee transfer, retirement, or limited internal control.

Monitoring Opportunity

Monitoring opportunity refers to the ability of the organization to monitor, detect, and respond to opportunities and risks in operational processes. (Tiwari et al., 2024) explained that supply chain visibility and digital information processing are important for strengthening resilience and operational response in supply chain activities. In regional library services, monitoring opportunity enables the organization to identify procurement delays, collection shortages, cataloguing errors, service complaints, and opportunities for process improvement. (Duan et al., 2024) also emphasized the importance of structured assistance and digital readiness in improving the ability to use information tools, which is relevant for strengthening monitoring practices in public service organizations.

The Relationship between Knowledge Sharing, Supply Chain Performance, and Monitoring Opportunity

Conceptually, knowledge sharing is expected to improve supply chain performance because shared knowledge increases coordination, reduces information gaps, and supports operational decision-making. Huang et al. (2025) found that information sharing contributes to supply chain performance by improving knowledge absorption, supplier development, and decision quality. Knowledge sharing is also expected to improve monitoring opportunity because open information exchange provides better visibility for detecting service problems and operational opportunities. Mariska et al. (2024) showed that service quality and interpersonal communication influence community satisfaction, indicating that communication and information exchange are important for improving public service outcomes.

The Relationship between Knowledge Leakage, Supply Chain Performance, and Monitoring Opportunity

Conversely, knowledge leakage is expected to weaken supply chain performance and monitoring opportunity because the loss or exposure of knowledge can reduce information accuracy, internal control, and service continuity. Foli & Durst (2022b) explained that weak governance and collaboration risks can increase knowledge leakage in organizational relationships. In the Library Office of Mesuji Regency, knowledge leakage may reduce the organization's ability to maintain service consistency, especially when important knowledge is not properly documented or transferred. Thus, knowledge leakage must be managed through stronger internal control, knowledge retention, and monitoring mechanisms.

The Mediating Role of Monitoring Opportunity

Monitoring opportunity is positioned as a mediating variable because knowledge management practices will create stronger operational value when the organization is able to monitor, interpret, and respond to information. Isa & Ar Rahmah (2023) stated that dynamic capabilities can mediate the relationship between knowledge management and organizational performance because organizations need sensing and response capabilities to convert knowledge into outcomes. In the Library Office of Mesuji Regency, monitoring opportunity is expected to explain how knowledge sharing and knowledge leakage influence supply chain performance through better information visibility, early problem detection, and faster service response.

Research Hypothesis

- a. H1: Knowledge sharing affects supply chain performance at the Library Office of Mesuji Regency.
- b. H2: Knowledge leakage affects supply chain performance at the Library Office of Mesuji Regency.
- c. H3: Knowledge sharing affects monitoring opportunity at the Library Office of Mesuji Regency.
- d. H4: Knowledge leakage affects monitoring opportunity at the Library Office of Mesuji Regency.
- e. H5: Monitoring opportunity mediates the effect of knowledge sharing on supply chain performance at the Library Office of Mesuji Regency.
- f. H6: Monitoring opportunity mediates the effect of knowledge leakage on supply chain performance at the Library Office of Mesuji Regency.

3. Method

This study proposes a quantitative SEM-PLS model to analyze the effect of Knowledge Sharing and Knowledge Leakage on Supply Chain, with Monitoring Opportunity as a mediating variable at the Library Office of Mesuji Regency. The model consists of four latent variables: Knowledge Sharing (KS) and Knowledge Leakage (KL) as independent variables, Monitoring Opportunity (MO) as the mediating variable, and Supply Chain (SC) as the dependent variable. Data were collected through questionnaires using a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree. The population consisted of 115 employees of the Library Office of Mesuji Regency, and all members of the population were used as respondents through saturated sampling.

The proposed model is designed to evaluate both direct and indirect relationships among variables. Knowledge Sharing is expected to improve Supply Chain performance and strengthen Monitoring Opportunity, while Knowledge Leakage is expected to weaken Supply Chain performance and influence Monitoring Opportunity. Monitoring Opportunity is positioned as a mediating variable because it explains how knowledge management practices are transformed into operational effectiveness in the library service supply chain. The conceptual relationship among variables is shown as follows:

Algorithm/Pseudocode

INPUT: Questionnaire responses from 115 respondents; indicators of KS, KL, MO, and SC

OUTPUT: Validity results, reliability results, path coefficients, mediation effects, and hypothesis decisions

- Step 1: Define the research variables: KS, KL, MO, and SC.
- Step 2: Collect primary data using a five-point Likert scale questionnaire.
- Step 3: Code and tabulate respondent answers.
- Step 4: Import the dataset into SmartPLS.
- Step 5: Evaluate the measurement model through convergent validity, discriminant validity, Cronbach's Alpha, and Composite Reliability.
- Step 6: Evaluate the structural model through R-square, path coefficient, t-statistics, and p-values.
- Step 7: Test the direct effects of KS and KL on SC and MO.
- Step 8: Test the mediating role of MO in the relationship between KS, KL, and SC.
- Step 9: Interpret the results and determine whether each hypothesis is accepted or rejected.

Mathematical Model

The structural relationship in this study is formulated using two regression equations in the SEM-PLS model. Eq. (1) is used to estimate the effect of Knowledge Sharing and Knowledge Leakage on Monitoring Opportunity:

$$MO = \beta_1 KS + \beta_2 KL + \varepsilon_1$$

(1)

Eq. (2) is used to estimate the effect of Knowledge Sharing, Knowledge Leakage, and Monitoring Opportunity on Supply Chain:

$$SC = \beta_3 KS + \beta_4 KL + \beta_5 MO + \varepsilon_2$$

(2)

The mediation effect is calculated through the indirect effect. Eq. (3) is used to measure the indirect effect of Knowledge Sharing on Supply Chain through Monitoring Opportunity:

$$IE_{KS} = \beta_1 \times \beta_5$$

(3)

Eq. (4) is used to measure the indirect effect of Knowledge Leakage on Supply Chain through Monitoring Opportunity:

$$IE_{KL} = \beta_2 \times \beta_5$$

(4)

The hypotheses are accepted when the path coefficient is significant, with a t-statistic value greater than 1.96 and a p-value lower than 0.05. The measurement model is considered valid and reliable when the loading factor is greater than 0.70, Cronbach's Alpha is greater than 0.70, Composite Reliability is greater than 0.70, and the construct meets discriminant validity criteria.

Research Procedure

The research procedure begins with identifying the main problem in the library service supply chain, particularly the limited structure of Knowledge Sharing and the risk of Knowledge Leakage. After that, the research model was developed by placing Monitoring Opportunity as a mediating variable. The questionnaire was then distributed to 115 respondents, and the collected data were processed using SEM-PLS. The analysis consisted of outer model testing, inner model testing, hypothesis testing, and mediation testing. This procedure was used to determine whether Knowledge Sharing and Knowledge Leakage influence Supply Chain directly and indirectly through Monitoring Opportunity.

4. Results and Discussion

This study used primary data obtained from questionnaires distributed to employees of the Library Office of Mesuji Regency. A total of 115 questionnaires were distributed and all were returned completely, resulting in a response rate of 100%. The data were analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS) with SmartPLS software. The analysis includes respondent characteristics, measurement model evaluation, structural model evaluation, hypothesis testing, mediation testing, and discussion of the research findings.

Respondent Characteristics

The respondents in this study were employees of the Library Office of Mesuji Regency who were involved in operational activities, information management, public services, procurement, and distribution processes. The respondent profile is presented in Table 1.

Table 1. Respondent Characteristics

Characteristic	Category	Frequency	Percentage
Gender	Female	66	57.4%
	Male	49	42.6%
Age	< 25 years	54	47.0%
	25–30 years	34	29.6%
	31–40 years	18	15.7%
	> 40 years	9	7.8%
Education/Category	Senior High School	38	33.0%
	Bachelor's Degree	52	45.2%
	Master's Degree	2	1.7%
	Employee	21	18.3%
	Public Service	2	1.7%

Based on Table 1, the respondents were dominated by female employees, indicating that women have a strong presence in the operational activities of the Library Office of Mesuji Regency. Most respondents were also in the productive age group, especially under 25 years and 25–30 years. In terms of education, most respondents had a bachelor's degree, which indicates that the respondents had sufficient educational background to understand the questionnaire items related to Knowledge Sharing, Knowledge Leakage, Monitoring Opportunity, and Supply Chain.

Measurement Model Evaluation

The measurement model was evaluated through convergent validity, discriminant validity, and construct reliability. Convergent validity was assessed using outer loading and Average Variance Extracted (AVE). The outer loading results showed that the indicators of Knowledge Leakage, Monitoring Opportunity, Knowledge Sharing, and Supply Chain generally met the required validity criteria. Indicators with loading values above 0.70 were considered valid, while indicators slightly below 0.70 were still retained because they were statistically significant and acceptable in social research.

Table 2. Convergent Validity Results

Construct	Indicator Range	Interpretation
Knowledge Leakage	0.703–0.883	Valid
Monitoring Opportunity	0.756–0.872	Valid
Knowledge Sharing	0.758–0.820	Valid
Supply Chain	0.856–0.872	Valid

The results in Table 2 indicate that all constructs were adequately represented by their indicators. Knowledge Leakage was strongly represented by the leakage-related indicators, while Monitoring Opportunity showed consistently high loading values, indicating that visibility, early detection, response speed, and coordination were important dimensions of monitoring in the library service supply chain.

The AVE value was also used to evaluate convergent validity. The AVE results are shown in Table 3.

Table 3. Average Variance Extracted (AVE)

Construct	AVE	Interpretation
Knowledge Sharing	0.614	Valid
Knowledge Leakage	0.614	Valid
Monitoring Opportunity	0.683	Valid
Supply Chain	0.734	Valid

All AVE values were above 0.50, meaning that each construct was able to explain more than 50% of the variance of its indicators. Therefore, all variables fulfilled the convergent validity criteria and were suitable for further structural model testing.

Construct reliability was assessed using Cronbach's Alpha and Composite Reliability. The results are presented in Table 4.

Table 4. Construct Reliability Results

Construct	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	Interpretation
Knowledge Leakage	0.684	0.730	0.825	Reliable
Monitoring Opportunity	0.906	0.908	0.928	Reliable
Knowledge Sharing	0.874	0.877	0.905	Reliable
Supply Chain	0.927	0.928	0.943	Reliable

The reliability results show that all constructs had acceptable internal consistency. Although the Cronbach's Alpha value of Knowledge Leakage was slightly below 0.70, its Composite Reliability values exceeded 0.70, indicating that the construct remained reliable. Thus, the measurement model was considered valid and reliable.

Structural Model Evaluation

The structural model was evaluated using the coefficient of determination or R-square. The R-square value explains how much variation in the endogenous variables can be explained by the independent variables in the model.

Table 5. R-square Results

Endogenous Variable	R-square	Interpretation
Monitoring Opportunity	0.334	Moderate
Supply Chain	0.534	Moderate

The R-square value of Monitoring Opportunity was 0.334, meaning that 33.4% of the variation in Monitoring Opportunity could be explained by Knowledge Sharing and Knowledge Leakage. Meanwhile, the R-square value of Supply Chain was 0.534, indicating that 53.4% of the variation in Supply Chain could be explained by Knowledge Sharing, Knowledge Leakage, and Monitoring Opportunity. These results show that the model has adequate explanatory power, especially in explaining Supply Chain performance.

Hypothesis Testing

Hypothesis testing was conducted using the bootstrapping procedure. A hypothesis is accepted if the t-statistic value is greater than 1.96 and the p-value is less than 0.05. The results of direct effect testing are presented in Table 6.

Table 6. Direct Effect Hypothesis Testing

Relationship	Path Coefficient	T-statistics	P-values	Result
KL → MO	-0.197	2.152	0.031	Significant
KL → SC	-0.106	1.294	0.196	Not significant
MO → SC	0.507	4.736	0.000	Significant
KS → MO	0.455	5.890	0.000	Significant
KS → SC	0.244	2.148	0.032	Significant

The results show that Knowledge Sharing has a positive and significant effect on Monitoring Opportunity and Supply Chain. This means that better knowledge exchange among employees can improve monitoring activities and strengthen the effectiveness of the library service supply chain. Knowledge Sharing enables employees to exchange information about procurement, collection management, service procedures, and operational problems, which ultimately supports better coordination and faster decision-making.

Knowledge Leakage has a negative and significant effect on Monitoring Opportunity. This finding indicates that the higher the risk of knowledge leakage, the lower the organization's ability to monitor opportunities and operational risks. In other words, when important knowledge is not properly protected or documented, the organization becomes less capable of detecting problems, identifying service opportunities, and responding to changes in the supply chain process.

However, Knowledge Leakage does not have a significant direct effect on Supply Chain. This indicates that the impact of Knowledge Leakage on Supply Chain may not occur directly, but rather through the weakening of internal monitoring mechanisms. Therefore, the role of Monitoring Opportunity becomes important in explaining how knowledge-related risks influence supply chain performance.

Monitoring Opportunity has a positive and significant effect on Supply Chain. This finding confirms that monitoring ability is an important factor in improving the effectiveness of library service supply chains. When the organization is able to monitor information flows, detect delays, identify service problems, and respond quickly, the supply chain process becomes more efficient and responsive.

Mediation Testing

The mediation test was conducted to examine whether Monitoring Opportunity mediates the relationship between Knowledge Sharing and Supply Chain, as well as the relationship between Knowledge Leakage and Supply Chain. The results are shown in Table 7.

Table 7. Indirect Effect Testing

Mediation Path	Indirect Coefficient	T-statistics	P-values	Result
KL → MO → SC	-0.100	1.871	0.061	Not significant
KS → MO → SC	0.231	3.459	0.001	Significant

The mediation results show that Monitoring Opportunity significantly mediates the effect of Knowledge Sharing on Supply Chain. This means that Knowledge Sharing improves Supply Chain not only directly, but also indirectly through Monitoring Opportunity. Employees who actively share knowledge provide better information for monitoring processes, and this monitoring ability helps the organization improve procurement, collection distribution, and service responsiveness.

Meanwhile, Monitoring Opportunity does not significantly mediate the relationship between Knowledge Leakage and Supply Chain. Although Knowledge Leakage negatively affects Monitoring Opportunity, the indirect effect on Supply Chain was not statistically significant. This finding suggests that knowledge leakage may weaken monitoring ability, but its impact on the overall supply chain requires stronger or more direct organizational mechanisms, such as information security policies, documentation systems, and knowledge retention procedures.

Discussion

Knowledge Sharing has a positive and significant effect on Supply Chain. This finding indicates that knowledge exchange among employees strengthens coordination, reduces information gaps, and supports the continuity of procurement, collection management, cataloging, and service distribution at the Library Office of Mesuji Regency. In public service supply chains, information sharing and stakeholder collaboration are important drivers of service delivery performance because they improve coordination among actors involved in public operations (Ngxsha et al., 2024). This finding is also supported by Wibowo et al.

(2025), who showed that structured digital training can improve practical information-processing ability, which is relevant for strengthening knowledge-based work routines.

Knowledge Leakage does not have a significant direct effect on Supply Chain. This result suggests that knowledge leakage has not yet become an immediate operational barrier in the library supply chain. In this context, knowledge leakage may function as a latent risk whose impact depends on the sensitivity of the leaked knowledge, the strength of internal control, and the extent to which the organization depends on certain employees. Wu & Xu (2021) explained that information leakage in supply chains may affect strategic decisions depending on uncertainty and the value of private information. (Pratama et al., 2024) also emphasized that digital literacy is needed to prevent risky information behavior, which is relevant for reducing knowledge leakage in public service institutions.

Knowledge Sharing has a positive and significant effect on Monitoring Opportunity. This means that open information exchange strengthens the organization's ability to monitor operational processes, identify service problems, and detect opportunities for improvement. In library services, shared knowledge about procurement delays, collection needs, cataloguing errors, and service complaints can improve the accuracy of monitoring. Sienkiewicz & Szymczak (2024) stated that public service supply chains require synchronized relationships and information flows to improve efficiency and service quality. Wibowo et al. (2024) also found that practical application-based training supports administrative capability, which is relevant for improving documentation and monitoring practices.

Knowledge Leakage has a negative and significant effect on Monitoring Opportunity. This finding shows that leaked, lost, or undocumented knowledge weakens the organization's ability to monitor opportunities and risks. When knowledge is not properly retained, the organization may face incomplete information, weak documentation, and lower accuracy in identifying operational problems. (Brintrup et al., 2024) emphasized that digital supply chain surveillance depends on accurate data interpretation and may create risks when information is incomplete or misused.

Monitoring Opportunity has a positive and significant effect on Supply Chain. This result indicates that the ability to monitor information flows, detect operational barriers, and respond to service opportunities is a key mechanism for improving library supply chain performance. Monitoring helps the organization identify collection shortages, reduce service delays, and improve coordination across units. (Blaettchen et al., 2024) explained that traceability technology improves supply chain management by increasing visibility and verifying activities across supply chain networks.

Monitoring Opportunity mediates the effect of Knowledge Sharing on Supply Chain. This finding means that knowledge sharing becomes more valuable when shared information is monitored, interpreted, and transformed into operational action. Knowledge Sharing provides the information base, while Monitoring Opportunity converts that information into early problem detection, service evaluation, and process improvement. (Wanyama et al., 2025) showed that information sharing and collaborative decision-making can strengthen supply chain resilience through better risk management.

Opportunity does not mediate the effect of Knowledge Leakage on Supply Chain. Although Knowledge Leakage weakens Monitoring Opportunity, the indirect effect is not strong enough to reduce Supply Chain performance significantly. This indicates that the impact of Knowledge Leakage may be long-term, contextual, and dependent on how critical the leaked knowledge is for operational activities. A supply chain visibility study by (Swink et al., 2024) emphasizes that the value of visibility depends on relational, environmental, and operational characteristics, meaning that monitoring does not always convert every information risk into immediate performance change.

Overall, the findings show that Knowledge Sharing is the main knowledge management factor that improves Supply Chain performance, both directly and through Monitoring Opportunity. Meanwhile, Knowledge Leakage mainly weakens Monitoring Opportunity but does not directly or indirectly reduce Supply Chain performance in a significant way. The novelty of this study lies in showing that Monitoring Opportunity acts as a bridge between Knowledge Sharing and Supply Chain performance in a public library context. The public service supply chain literature explains that supply chain thinking can help improve public service delivery by strengthening coordination, value co-creation, and service responsiveness.

5. Comparison

This study supports previous findings that Knowledge Sharing plays an important role in improving Supply Chain performance. Firmansyah & Siagian (2022) found that information sharing improves supply chain performance through agility and innovation, while (Alam et al., 2021) showed that knowledge management processes strengthen supply chain performance through supporting mechanisms. In line with these studies, this research found that Knowledge Sharing positively affects Supply Chain at the Library Office of Mesuji Regency. However, this study differs by placing Monitoring Opportunity as a mediating variable, showing that shared knowledge becomes more effective when it is used to monitor operational problems, detect service opportunities, and improve procurement and distribution processes.

Table 8. Comparison with Previous Studies

Study	Main Focus	Main Finding	Difference from This Study
Firmansyah & Siagian (2022)	Information sharing and supply chain performance	Information sharing improves supply chain performance	This study applies the model to public library services
Alam et al. (2023)	Knowledge management and supply chain performance	Knowledge management improves supply chain performance through supporting mechanisms	This study uses Monitoring Opportunity as the mediator
Frishammar et al. (2015)	Knowledge leakage	Knowledge leakage may harm organizational performance	This study found no direct effect of Knowledge Leakage on Supply Chain
Durst & Zieba (2019)	Knowledge risk	Knowledge risk can disturb organizational processes	This study found Knowledge Leakage weakens Monitoring Opportunity
Mufahamah et al. (2022)	Internal systems and managerial performance	Internal systems influence performance	This study connects internal knowledge management with Supply Chain performance

The main contribution of this study is the integration of Knowledge Sharing, Knowledge Leakage, Monitoring Opportunity, and Supply Chain in the context of a local government library. Unlike many previous studies that focus on private-sector or manufacturing supply chains, this research shows that public service supply chains also depend on knowledge flow, monitoring capability, and knowledge protection. The findings also show that Knowledge Leakage does not directly reduce Supply Chain performance, but it negatively affects Monitoring Opportunity, meaning that leakage first weakens the organization's ability to monitor information before potentially affecting operational performance. Therefore, this study offers a more contextual model for strengthening knowledge-based Supply Chain management in public library services.

6. Conclusions

This study concludes that Knowledge Sharing has a positive and significant effect on Supply Chain performance at the Library Office of Mesuji Regency. The findings show that the exchange of knowledge, work experience, procedures, and operational information among employees can improve coordination, support monitoring activities, and strengthen the effectiveness of library service supply chains. In addition, Knowledge Sharing also has a positive effect on Monitoring Opportunity, indicating that shared knowledge helps the organization detect service problems, identify improvement opportunities, and respond more effectively to operational needs.

Knowledge Leakage was found to have no significant direct effect on Supply Chain performance, but it has a negative effect on Monitoring Opportunity. This indicates that knowledge leakage does not immediately disrupt supply chain performance, but it can weaken the organization's ability to monitor information, maintain documentation accuracy, and identify operational risks. Furthermore, Monitoring Opportunity significantly mediates the rela-

tionship between Knowledge Sharing and Supply Chain, but does not mediate the relationship between Knowledge Leakage and Supply Chain. These findings support the argument that shared knowledge must be converted into monitoring capability before it can create stronger operational value.

Theoretically, this study contributes to the development of knowledge management and supply chain literature by integrating Knowledge Sharing, Knowledge Leakage, Monitoring Opportunity, and Supply Chain in the context of a public library organization. Practically, the findings suggest that the Library Office of Mesuji Regency needs to strengthen structured knowledge-sharing practices, digital documentation, internal coordination, access control, and routine monitoring mechanisms to improve the effectiveness of public library services.

This study has limitations because it only focuses on one public library organization and uses questionnaire-based quantitative data. Future research is suggested to expand the object of study to other public service institutions, use a mixed-method approach, and include additional variables such as digital readiness, organizational culture, information security, and service innovation to provide a more comprehensive understanding of knowledge-based supply chain performance.

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