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Strategy Improvement for IT Governance in Library Services Using an Adaptation of ITIL 4 and FitSM: A COBIT 2019 Evaluation

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Abstract.
Purpose: Effective management of IT services in public libraries is critical to maintaining service continuity, optimizing resources, and ensuring user satisfaction. However, current practices face persistent challenges in workforce capability, operational consistency, and problem resolution. This study evaluates IT service governance and develops improvements.
Methods/Study design/approach: This study employs a qualitative approach by integrating COBIT 2019, ITIL 4, and FitSM, specifically adapted for public libraries. The research began with a capability assessment to establish the baseline. Adaptive procedures were then formulated by retaining key guidance from ITIL 4 while integrating the lightweight, practical principles of FitSM, and excluding elements unsuitable for small scale organizations like libraries.
Result/Findings: The assessment revealed that several domains, including DSS01, DSS02, DSS03, and APO07, were operating at a capability level 1, with gaps identified in human resource management, operational standardization, and incident or problem management. The study proposes a set of practical, simplified improvements based on FitSM for operational domains and the adaptation of ITIL 4 OCM practices for human resource management (APO07. These improvements are designed to enhance workforce capabilities, standardize operations, and improve service request and problem resolution, addressing the library's resource limitations.
Novelty/Originality/Value: This study offers a practical governance improvement model tailored for public libraries and similar small scale public sector organizations. The integration of ITIL 4 and FitSM provides a structured yet simplified framework that supports process standardization and service quality enhancement, overcoming the limitations of relying only on COBIT 2019.

Keywords: FitSM, ITIL 4, COBIT 2019, IT governance, Adaptation, Process improvement
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INTRODUCTION

Information Technology (IT) governance plays a crucial role in supporting organisational operations and achieving strategic objectives. As organisations increasingly rely on IT, structured and effective governance becomes essential to ensure that IT investments generate optimal value and support institutional goals and vision [1]. Public service institutions, including regional libraries, are no exception. Libraries serve as vital knowledge repositories and public service hubs, with growing dependency on IT to facilitate digital access, virtual experiences, and network connectivity [2].

The library in this research case study has implemented various IT-based services, such as digital book applications, augmented reality (AR), virtual reality (VR), and internal internet networks. Based on initial interviews, several problems were found in IT governance. Technical incidents, including system failures, application breaches, and network disruptions, were not systematically recorded due to the lack of a formal recording mechanism. In addition, maintenance procedures, service requests, and incident handling were carried out on an ad-hoc basis by limited technical staff. The lack of a structured governance evaluation also made it difficult to assess the capability or consistency of IT service management practices in the library [3]. These challenges in IT services indicate that IT governance practices in organizations are still not well documented, this can increase the risk of service inconsistencies, unpreparedness for disruptions, and lack of continuous improvement. To address this, an objective and comprehensive evaluation mechanism is needed. COBIT 2019 (Control Objectives for Information and Related Technologies) is widely recognized as an appropriate framework for assessing IT governance capabilities due to its domain based structure and process capability model [4]. Previous studies have applied COBIT 2019 to assess governance practices in various public and private organizations, which validates the strength of its benefits in implementing it [5], [6], [7], [8].

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In this study, COBIT 2019 serves as the foundation for evaluating the current governance capabilities in the Semarang City Library, focusing on four domains identified through design factor analysis consisting of DSS01 (Manage Operations), DSS02 (Manage Service Requests and Incidents), DSS03 (Manage Problems) and APO07 (Managed Human Resources). However, to generate actionable and context relevant recommendations for improving capabilities, an appropriate IT Service Management (ITSM) framework should be considered. Due to organizational resource constraints and moderate operational complexity, a framework that is too comprehensive or too resource-intensive may not be feasible for practical implementation. Therefore, this study proposes a tailored strategy by adapting and optically integrating processes from two ITSM frameworks, namely ITIL 4 and FitSM. ITIL 4 is known for its comprehensive and systematic approach to management services but may be too complex for small organizations [9]. In contrast, FitSM offers a lightweight and structured alternative designed for small to medium-sized organisations, with simplified documentation and process models [10]. While FitSM supports ease of implementation, its reference processes may be incomplete and insufficient for several other domains.

Previous studies emphasise that ITSM frameworks cannot be universally applied without adaptation. Each organisation has unique characteristics and constraints that require a contextualised approach. This is because each organization has specific characteristics and constraints that require a contextual approach. This research has highlighted the importance of adapting the framework process to ensure effective and easy-to-implement ITSM framework implementation [11], [12]. Other studies have utilised ITIL 4 to formulate improvement strategies based on COBIT evaluations [13], [14], and recognised the applicability of FitSM in low resource environments [10]. However, these studies often adopt a single framework in full, without exploring the integrative potential between the depth of ITIL 4 and the simplicity of FitSM.

To address this gap, this study focuses on formulating an adaptive strategy by integrating selected practices from ITIL 4 and FitSM to enhance IT governance capabilities in line with COBIT 2019 domain results. By integrating both frameworks at the process level, this approach seeks to deliver simplified yet comprehensive governance practices aligned with organisational needs, particularly in the context of public libraries. This research contributes to bridging the gap between formal governance evaluation and practical ITSM implementation in small public sector institutions [15]. However, as far as the existing literature indicates, no previous study has explicitly integrated ITIL 4 and FitSM based on COBIT 2019 evaluation results within the context of small scale public libraries, where resource constraints and operational limitations remain critical challenges [10], [13], [16].

METHODS

Data collection involved three techniques: interviews, direct observation of IT operations, and questionnaires distributed to five internal library staff members. These staff members included four IT services operators responsible for the evaluated service domains and one administrative staff member overseeing human resource-related responsibilities in IT service management. To ensure effective assignment of roles, a RACI matrix was tailored to the library's limited staff structure, ensuring that key responsibilities such as *Responsible* and *Accountable* were assigned according to the operational constraints of the library. This adaptation aligned with the capacity of the available staff while maintaining a clear division of responsibilities [17], [18]. To complement the questionnaire data, semi structured interviews were also conducted with the same respondents to clarify responses and gain deeper insights into operational practices. This combination ensured that both operational and managerial perspectives were captured [3], [19], [20], [21], [22], [23]. The stages of the research in the Semarang City Library using the COBIT 2019 framework are illustrated in Figure 1.

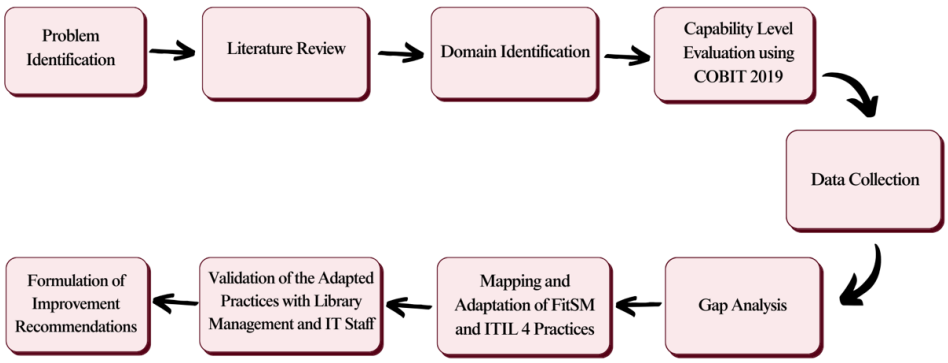

Figure 1. The stages of the research

The stages of the research, illustrated in Figure 1, are as follows:

1) Problem Identification
   The first stage focused on identifying governance challenges within library IT services, including limited workforce capability, inconsistent operational monitoring, and reactive problem handling. This step followed standard case study protocols to contextualize organizational issues [16].
2) Literature Review
   A comprehensive review was carried out on COBIT 2019, ITIL 4, and FitSM frameworks to establish the theoretical foundation. COBIT 2019 was selected for governance evaluation [24], [25], [26], ITIL 4 for its comprehensive service management practices[27], and FitSM for its lightweight adaptability to small-scale organizations [4], [10].
3) Domain Identification
   Based on the literature and organizational priorities, four COBIT 2019 objectives were selected for evaluation: DSS01 (Managed Operations), DSS02 (Managed Service Requests and Incidents), DSS03 (Managed Problems) and APO07 (Managed Human Resources). Previous studies highlight these domains as critical for public service IT governance [7], [14], [16].
4) Capability Level Evaluation
   The capability evaluation stage of IT service governance in the library uses the COBIT 2019 framework supported by the Process Assessment Model (PAM), which applies the NPLF assessment scale, as follows N = Not, P = Partially, L = Largely, F = Fully achieved. The scale is to determine the level of capability in the range of 0–5. The explanation of the values is, 0 = Incomplete process, 1 = Perfomed Process, 2 = Managed process, 3 = Established process, 4 = Predictable process, 5 = Optimized process [4], [27].
5) Data Collection
   The assessment results were obtained from various sources, which are interviews, direct observation of system operations and questionnaire results with five IT staff in the library [3], [19], [20].
6) Gap Analysis
   The results of the obtained capability levels are compared with the target levels. In this study, the capability target was to achieve level 3 for all domains, indicating an established process. Through this observation, it shows the difference between current practices and the desired standards, thus providing a basis for future improvement strategies [3], [28].
7) Mapping and Adaptation of FitSM and ITIL 4 Practices
   Relevant practices from FitSM and ITIL 4 were mapped to the identified gaps in each COBIT 2019 domain. FitSM practices were aligned with DSS01, DSS02 and DSS03 due to their lightweight applicability to small public organizations, while ITIL 4's Organizational Change Management (OCM) components were adapted for APO07, which FitSM does not address. The ITIL 4 practices were restructured using the simplified FitSM process format to ensure ease of implementation, removing complex or resource intensive elements and retaining only those components that were directly relevant to the library's operational capacity [15], [29], [30], [31].
8) Validation of The Adapted Practices with Library Management and IT Staff
   The adapted FitSM and ITIL 4 practices were validated through discussions with the library's IT team and administrative personnel. Feedback ensured that the adapted processes were realistic, implementable, and aligned with organizational capabilities and constraints.
9) Formulation of Improvement Recommendations

In the final stage, the selected ITIL 4 and FitSM processes were aligned with the evaluated COBIT 2019 objectives. This selective adaptation ensured that the recommendations were comprehensive and feasible for small public libraries [10], [24], [32].

RESULT AND DISCUSSION

This study aims to improve IT governance capabilities in library services by evaluating capability levels using the COBIT 2019 framework and adapting relevant practices from ITIL 4 and FitSM to provide capability improvement recommendations. These frameworks complement each other by integrating governance, service management, and operational improvement approaches. COBIT 2019 offers a comprehensive governance model, ITIL 4 provides service management best practices, and FitSM contributes lightweight, process oriented guidance for practical implementation [33], [34], [35]. The evaluation outcomes form the basis for adapting processes to meet the library's operational needs and strategic objectives, ultimately leading to enhanced efficiency, consistency, and service quality.

The adaptation strategy draws on key principles from ITIL 4 and FitSM, mapped against COBIT 2019 governance objectives. ITIL 4 emphasises value co-creation, continual improvement, and practical implementation, while FitSM promotes simplicity, clarity of process, and role definition. By aligning these with COBIT 2019's governance domains, the adapted design ensures process optimisation while maintaining relevance to the library's context. Based on the identified gaps, procedure enhancements are proposed to improve IT service management in the library services**,** ensuring that adapted ITIL 4 and FitSM practices align with COBIT 2019 objectives to achieve a higher capability level.

Capability measurement

Following the identification of domains in the library, four key domains : DSS01 (Managed Operations), DSS02 (Managed Service Requests and Incidents), DSS03 (Managed Problems) and APO07 (Managed Human Resources) were identified for capability level measurement. The measurement followed the assessment criteria outlined in COBIT 2019, focusing on process performance, management practices, and outcomes [4], [24].

Table 1. Capability level measurement and gap analysis for selected COBIT 2019 processes

COBIT 2019	Capability Level				Description	Target	GAP
	0	1	2	3			
DSS01	F	L	P		Level 1 (Largely Achieved (L))	3	2
DSS02	F	L	P		Level 1 (Largely Achieved (L))	3	2
DSS03	F	F	P		Level 1 (Fully Achieved (F))	3	2
APO07	F	L	P		Level 1 (Largely Achieved (L))	3	2

Based on Table 1, the capability level measurement for DSS01 (Managed Operations), DSS02 (Managed Service Requests and Incidents), DSS03 (Managed Problems) and APO07 (Managed Human Resources) in the library services context is currently at Level 1. This indicates that process implementation meets only some of the attributes defined in the capability assessment. The target capability level for all processes is set at Level 3 (Established Process), resulting in a consistent gap of two levels across all evaluated domains. The identified gaps include unstandardized daily operations, inconsistent documentation of service requests and incidents, reactive rather than preventive problem management and insufficient staff competency development. To illustrate the extent of the governance gap, Figure 2 presents the current and target capability levels for the four evaluated COBIT 2019 objectives.

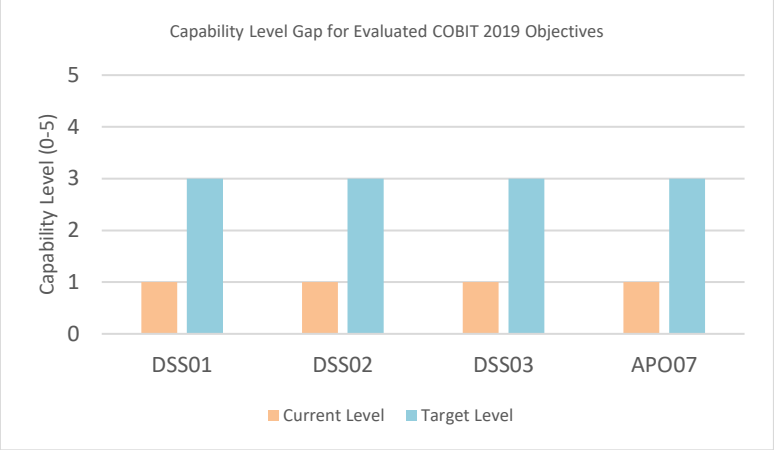

Figure 2. Capability level gaps of COBIT 2019 objectives in the semarang city library

This gap reflects that processes are still not standardized or institutionalized across the organization, limiting their effectiveness in supporting IT governance objectives. To address this gap, procedural improvements are essential, particularly in formalizing process documentation, standardizing operational practices, and strengthening monitoring mechanisms [36], [37]. These findings are consistent with prior studies applying COBIT 2019 in public institutions, which also reported low capability levels in human resource and operational domains [3], [7]. However, unlike studies that relied solely on COBIT evaluation, this research proposes an integrative improvement model by aligning COBIT with ITIL 4 and FitSM. [14] showed that ITIL 4 can strengthen service management after COBIT evaluation, while [10] demonstrated the suitability of FitSM for small firms with limited resources. In contrast, this study demonstrates the potential of combining both frameworks, offering a balanced approach that retains ITIL 4's comprehensive practices while leveraging FitSM's simplicity for feasible implementation in resource-constrained environments. These improvements are essential to be guided by the adaptation and integration of ITIL 4 and FitSM practices mapped to COBIT 2019 objectives, the goal of which is to ensure alignment with best practices in the management and governance of IT services in libraries.

Problem analysis and mapping framework

The capability evaluation results highlighted several issues within the library's IT governance processes. These findings were derived from document reviews, direct observations, and interviews with key stakeholders. The analysis revealed that while certain practices have been initiated. The identified issues were mapped to appropriate ITIL 4 and FitSM practices, along with COBIT 2019 objectives, as shown in Table 2.

Table 2. Mapping frameworks

Problem Identified	ITIL 4 Practices	FitSM Processes	COBIT 2019 Objectives
Inconsistent operational monitoring and execution	Monitoring & Event Management	SACM (Service Availability and Continuity Management)	DSS01 (Managed Operations)
Service requests and incidents not systematically documented	Incident Management, Service Desk	ISRM (Incident & Service Request Management)	DSS02 (Managed Service Requests & Incidents)
Root cause analysis not consistently performed	Problem Management	PM (Problem Management)	DSS03 (Managed Problems)
Limited staff capability in IT service delivery and governance	Organizational Change Management	No specific FitSM process for Human Resource Management	APO07 (Managed Human Resources)

Adaptation of FitSM processes for APO07 based on ITIL 4 organizational change management practices

This study focuses on adapting FitSM to provide lightweight improvements for APO07, aligning with the improvement strategies for DSS01, DSS02, and DSS03. A comparison between ITIL 4 and FitSM shows that FitSM is better suited for libraries, but does not fully address the needs of APO07 in COBIT 2019. Therefore, this study integrates ITIL 4's Organizational Change Management (OCM) practices into a step-by-step implementation strategy for small organizations. This approach supports [11], who advocates for adaptive, simplified frameworks for small organizations. The proposed process is shown in Figure 3.

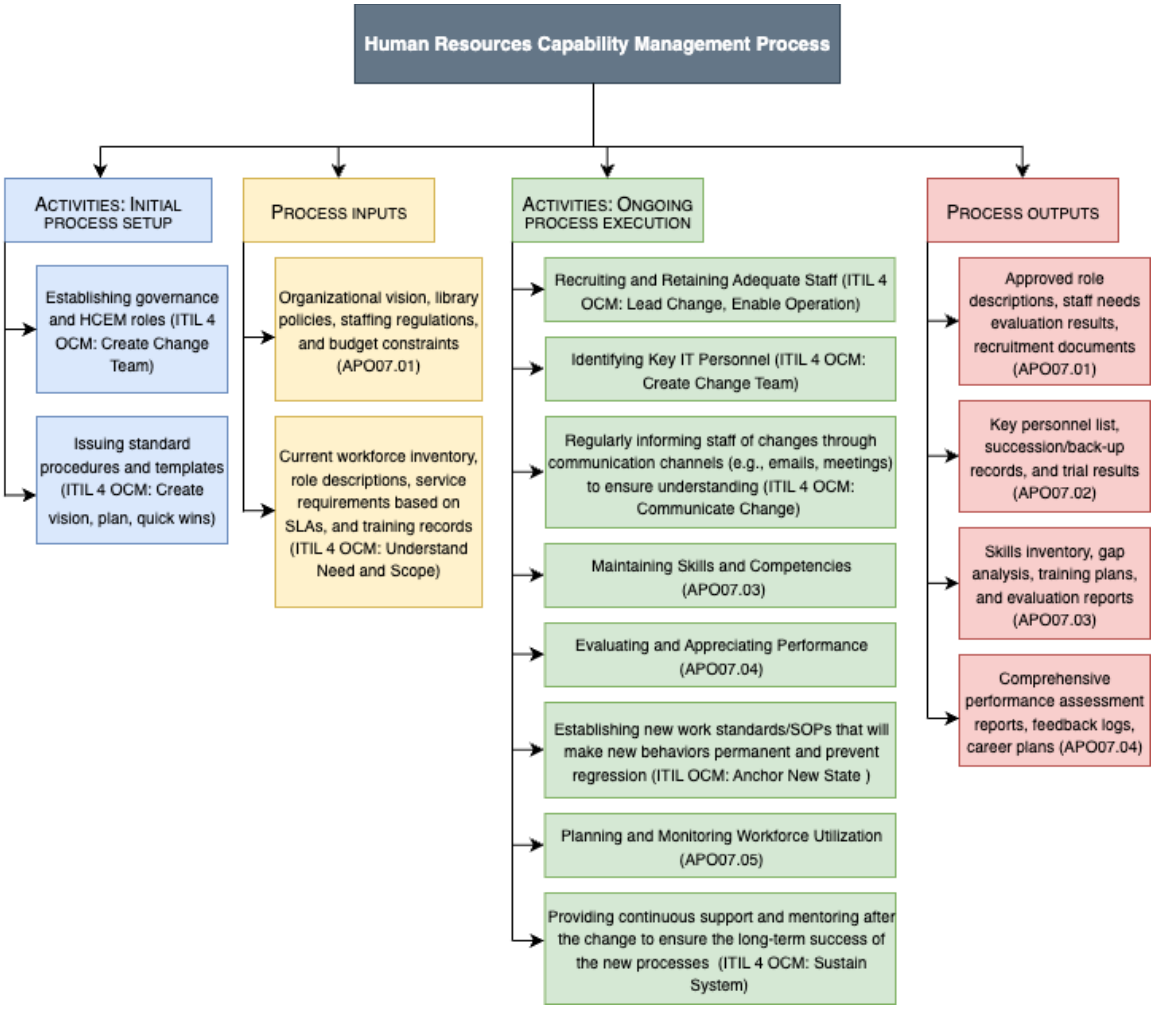

Figure 3. Proposed adapted human resources capability management process (APO07) based on ITIL 4 and FitSM

To address the specific needs of the library, this study adapts select practices from ITIL 4's Organizational Change Management (OCM), restructured into the FitSM format, and further supplemented to meet the requirements of APO07. The findings align with [15], who emphasize the effectiveness of lightweight frameworks like FitSM in organizations with limited resources. FitSM is ideal for DSS01, DSS02, and DSS03, but for APO07, the lack of Human Resources focused processes in FitSM requires the integration of OCM practices from ITIL 4, ensuring consistency in competencies and responsibilities. This aligns with [10]), who highlight the modularity and flexibility of FitSM, allowing for the integration of practices like OCM where necessary. The approach in this study aligns with the work of [35], who highlight the importance of synthesizing and simplifying related activities to reduce complexity and improve understanding. Similar to their process of merging planning and operations activities, this research adapts and simplifies ITIL 4 processes using FitSM to provide a lightweight and implementable solution, especially for small organizations like libraries.

In conclusion, adapting FitSM for operational domains and OCM for APO07 addresses the gaps in both frameworks, making the solution suitable for small-scale organizations like libraries while maintaining simplicity and practicality.

This selective adaptation ensured that the improvement strategies remained practical, scalable, and aligned with the library's organizational context. Moreover, this adaptation was validated through discussions with the library's IT staff and administrative personnel, ensuring that the proposed changes were feasible and tailored to the specific needs of the library.

Proposed improvement process

The strategy for improving IT governance capabilities is based on FitSM framework processes, specifically adapted for the evaluated library context. Recommendations are provided for the domains DSS01, DSS02, DSS03 and APO07. This approach aligns with previous studies that emphasize the importance of tailored recommendations for organizations [10], [13]. For domains DSS01, DSS02, and DSS03, recommendations follow FitSM practices, while for APO07, adaptations from ITIL 4 are formatted to FitSM to meet organizational needs. This approach is supported by [12], who state that IT governance frameworks should not be one size fits all but must be customized based on the organization's context. Accordingly, this study adopts a hybrid approach using FitSM and ITIL 4 to address the specific requirements and limitations of small scale library organizations.

Managed operations

Managed Operations procedures aim to ensure the effective and reliable execution of daily IT services, maintaining agreed service levels, and ensuring the availability and continuity of critical services [4].
Based on multiple references and aligned with FitSM PR4 SACM, the operations management activities presented are as follows:

a) Event Detection & Logging: Detect events from service monitoring tools and log them with relevant details.
b) Event Categorisation & Prioritisation: Classify events based on their nature (informational, warning, or exception) and prioritise according to potential impact.
c) Incident Identification: Escalate events that indicate service disruption into incidents for immediate handling.
d) Service Availability Review: Monitor current service availability and compare with SLA targets.
e) Risk & Impact Analysis: Assess potential risks affecting service continuity and availability, as outlined in the SACM process.
f) Preventive Actions: Implement preventive measures from continuity and availability plans to avoid recurrence of issues.
g) Service Restoration & Continuity Execution: Execute restoration activities and continuity plans when service disruption occurs.
h) Post-Event Review: Analyse event and incident trends to identify improvements.
i) Reporting & Closure: Generate service availability reports, communicate results to stakeholders, and formally close logged events/incidents.

Managed service requests and incidents

Managed services request and incidents aim to minimize the impact of incidents and ensure that services are restored as quickly as possible [13]. In the library context, incidents may include disruptions to IT services such as the online catalogue system, network connectivity, or circulation services, as well as service requests from users [32]. This procedure is based on FitSM PR9 ISRM, which emphasises standardized classification, prioritization, and escalation as follows:

a) Identification and Logging: Use a ticketing system to record all incidents and service requests, capturing the time of occurrence, service cate gory, and issue description. Assign a unique ticket number to each record for tracking purposes.
b) Classification and Categorization: Define service categories (ecatalogue system, Wi-Fi network, circulation services) and incident types (technical faults, information requests). Apply a consistent classification scheme to enable trend analysis of incidents.
c) Prioritization: Apply a priority matrix based on the impact and urgency of the issue. Incidents affecting core services (unavailability of the borrowing system) should receive the highest priority.
d) Initial Diagnosis and First Line Resolution: Conduct an initial analysis using the knowledge base or documented solutions to previous incidents. Provide rapid resolution for straightforward issues at the first line of support.
e) Escalation: Escalate unresolved incidents to the technical team or third-party providers according to the defined escalation path. For major incidents, assign an incident coordinator and handle them as a priority.
f) Resolution and Service Restoration: Implement corrective actions in accordance with established procedures to restore services to normal operation. Document the root cause and actions taken.
g) Verification and Closure: Confirm with the user that the service has been restored. Close the ticket, ensuring that the resolution details are complete and accurate.

h) Monitoring and Reporting: Review incidents periodically to identify recurring issues and implement preventive measures. Produce monthly incident reports to support continual improvement efforts.

Problem management

Problem management aims to reduce the likelihood and impact of incidents by identifying underlying causes, developing permanent solutions, and maintaining effective workarounds when immediate resolution is not possible [13]. In a library service environment, this process ensures that recurring service disruptions such as system errors in the library management system, network instability, or application malfunctions are systematically investigated and resolved. This is complemented by the FitSM PR10 PM process for structured problem registration, root cause analysis, and maintenance of a Known Error Database (KEDB), the activities are as follows:

a) Problem Detection: Identify problems proactively through trend analysis of incident records, recurring user complaints, and monitoring data.
b) Problem Logging: Record all relevant problem details in the problem register or ticketing system, ensuring accurate and complete documentation.
c) Problem Categorization: Classify problems using the same categorization structure as incidents to maintain consistency in reporting and analysis.
d) Problem Prioritization: Assign priority based on impact, urgency, and frequency of related incidents, with a focus on issues that significantly affect library operations.
e) Root Cause Analysis: Use structured investigation techniques (5 Whys, Ishikawa diagram) to determine the fundamental cause of the problem.
f) Workaround Development: Where immediate resolution is not possible, document and implement temporary workarounds to reduce impact, recording these in the KEDB.
g) Known Error Management: Maintain and update the KEDB with confirmed root causes, associated workarounds, and resolution status to facilitate faster recovery in the future.
h) Problem Resolution: Implement permanent solutions once root causes are addressed, ensuring minimal disruption to library services.
i) Escalation: Escalate problems that cannot be resolved internally to relevant third parties, such as software vendors or network providers.
j) Resolution Review: Verify that implemented solutions achieve the intended results and do not introduce new risks or issues.
k) Problem Closure: Officially close the problem record after confirming the resolution and updating all related documentation, including the KEDB.

Managed human resources

Managed Human Resources aims to ensure that the organization has the right people, with the right skills, in the right roles, at the right time to support service delivery and organizational objectives. To address the specific needs of the library, this study adapts select practices from ITIL 4's Organizational Change Management (OCM), restructured into the FitSM format, and further supplemented to meet the requirements of APO07. This approach ensures that the library's human resource management processes are simplified, practical, and aligned with the organization's limited resources [10], [33]. In alignment with COBIT 2019, this approach closely corresponds to APO07, specifically APO07.01 through APO07.06. Based on these frameworks and the library's operational context, the following improvement activities for human resource management are proposed:

a) Recordkeeping Tools and Formats: Use simple systems like spreadsheets or cloud-based tools to track Human Resources data, performance management, and training, including skills, training history, and 360 review feedback.
b) Recruitment and Retention: Implement risk-based recruitment processes to select qualified candidates and retain existing staff through career development and training based on needs.
c) Career Development and Planning: Identify skill gaps and create development plans to address them, offering relevant training aligned with library needs.
d) Succession Planning Documentation: Establish succession plans for key roles, ensuring backup personnel are ready and conducting periodic role trials.
e) Performance Evaluation and Recognition: Develop a performance evaluation system based on clear (SMART) objectives, providing timely feedback and creating career development plans with recognition and disciplinary procedures.

f) Contractor and Third-Party Management: Implement strict policies for contractors and third parties regarding access, data usage, and clear tasks, monitoring performance to ensure all external work is managed according to clear agreements.
g) Workforce Utilization Planning and Monitoring: Maintain an up-to-date workforce inventory, forecasting future staffing needs based on daily operations and IT projects, aligning staffing with projections and addressing any gaps with new hires or reassignment.
h) 360 Review Implementation: Conduct regular 360 assessments to gather feedback on staff performance from supervisors, peers, and users to evaluate team and individual effectiveness.
i) Knowledge Management and Documentation: Provide an accessible knowledge repository for staff and contractors, including training materials and optimized work process documentation.

The proposed improvement strategies for DSS01, DSS02, DSS03 and APO07, are the result of a deliberate adaptation of both ITIL 4 and FitSM practices. This dual framework approach is essential because each standard offers distinct strengths that, when combined, produce a more balanced and context appropriate solution. FitSM provides a lightweight, structured framework that is particularly advantageous for smaller organisations or those with limited resources, such as public libraries [10], [35]. However, while FitSM offers simplicity and clarity, it lacks the breadth of process depth and integration mechanisms found in ITIL 4. Conversely, ITIL 4 offers a more detailed set of practices that cover the entire service management lifecycle. However, some of its processes may be too complex or resource-intensive for smaller-scale organizations like libraries.

These results are comparable with previous studies that found similarly low governance capability in public institutions when using COBIT 2019. For instance, [32] also reported level 1 performance in incident and request management at a regional library, while Lubna et al [7] observed human resource management as one of the weakest domains in public organizations. On the other hand, [14] demonstrated that COBIT evaluations supported by ITIL 4 can improve service management outcomes, though the complexity of ITIL 4 often challenges smaller institutions. Meanwhile, [10] showed that FitSM is more suitable for small firms with limited resources but lacks depth in process coverage. Conversely, this study demonstrates that the integration of ITIL 4 and FitSM practices provides a balanced solution that maintains the structured practices of ITIL 4 while simplifying implementation through FitSM. This integrative approach offers a practical IT service governance improvement solution specifically designed for small public libraries, by addressing the limitations identified in the COBIT study without the integration of the ITSM framework.

By integrating the strengths of the ITIL 4 and FitSM frameworks, this improvement strategy provides operational clarity and scalability for FitSM, while leveraging the depth of ITIL 4 procedural detail and best practices. Elements deemed unnecessary or resource-intensive were excluded, ensuring that the resulting process is not only theoretically sound but also practically feasible within the operational context of IT services in libraries. This tailored adaptation ensures more efficient, sustainable, and contextually relevant IT governance capability enhancements aligned with COBIT 2019 objectives for similar small organizations.

CONCLUSION

This study successfully formulates recommendations for improving IT governance capabilities at the Semarang City Archives and Library by adapting elements from ITIL 4 and FitSM practices. Aimed at addressing the needs of a small scale organization, the study identifies that FitSM is more suitable for domains DSS01, DSS02, and DSS03 due to its lightweight, simple approach, which aligns with the limited resources available in small organizations like libraries. FitSM processes provide clear, repeatable structures, making them easier to implement and maintain in daily library operations. While FitSM is highly effective for these domains, it does not meet the requirements for APO07 related to human resource management and organizational change. Therefore, ITIL 4's Organizational Change Management (OCM) elements were adapted to address the more complex aspects of change management, communication, and skill development. Elements such as change communication, career planning, skill management, and performance evaluation from ITIL 4 OCM were tailored to the specific context of the Semarang City Archives and Library, which faces limitations in human resources and infrastructure.The proposed recommendation strategy aims to ensure that these processes are repeatable, well documented, and measurable, facilitating sustainable improvement in IT governance capabilities. It is recommended that the

Semarang City Archives and Library implement these recommendations to elevate the governance capability from level 1 to level 3, aligning with the library's desired improvement objectives.

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