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Information System Audit of FIF Mobile Collection at PT Federal International Finance POS Baros Using the COBIT 5 Framework

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Abstract

This study aims to evaluate the governance and performance of the FIF Mobile Collection information system implemented at PT Federal International Finance POS Baros using the COBIT 5 framework. As mobile-based applications become critical tools in financial operations—particularly in billing and collection activities—ensuring their security, efficiency, and alignment with organizational goals is imperative. The COBIT 5 framework was adopted to assess the maturity and capability of IT processes, with a specific focus on the DSS05 process: Manage Security Services. Data was collected through observation, interviews, and documentation analysis, and evaluated using the COBIT 5 Process Assessment Model (PAM). The results of the audit show that the DSS05 process achieved Capability Level 3, meaning the process is well-defined and implemented but not yet fully measurable or optimized. The assessment revealed that Levels 1 and 2 were fully achieved, while Level 3 was largely achieved (60–66.66%), indicating the need for performance monitoring and continual improvement mechanisms. Several gaps were identified in the areas of risk management, incident response, and user training, which present potential threats to data security and system reliability. The findings also indicate partial alignment of the system with key enterprise goals such as customer service excellence, operational agility, and information-based decision-making. However, the lack of real-time monitoring, formalized response procedures, and predictive controls hinders the organization from achieving higher governance maturity. Recommendations include implementing automated security tools, conducting regular IT risk assessments, and enhancing user awareness programs. This study concludes that while the FIF Mobile Collection system delivers operational benefits, improvements in governance maturity—guided by COBIT 5—are essential to ensuring secure, efficient, and strategically aligned system performance in the long term.

Keywords: COBIT 5, Information System Audit, DSS05, Capability Level, Mobile Collection, IT Governance, PT Federal International Finance.

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1. Introduction

The rapid development of information technology has significantly transformed how companies conduct their business activities. One of the most impacted sectors by digitalization is the financial services sector, including financing companies such as PT Federal International Finance (FIFGROUP), a subsidiary of PT Astra International Tbk. In response to the growing need for operational efficiency and faster services, FIFGROUP adopted a mobile-based information system known as FIF Mobile Collection, designed to support collection processes and manage customer data in real-time and in an integrated manner.

Mobile information systems like FIF Mobile Collection offer strategic benefits in supporting business processes, including improved data accuracy, workforce efficiency, and ease of reporting and monitoring collections. However, these systems also present unavoidable risks, such as data security, system integrity, and service reliability. Therefore, a proper control and evaluation mechanism is needed to ensure the system operates in alignment with the company's business objectives and complies with good IT governance standards (Ali & Green, 2012).

Information system auditing becomes a critical approach in assessing the performance and effectiveness of IT management. In this context, the COBIT 5 (Control Objectives for Information and Related Technology) framework stands out as a globally recognized, comprehensive standard for IT governance and management. COBIT 5 helps

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organizations ensure that their information systems align with business goals, maximize the benefits of technology, and manage risks and resources effectively (ISACA, 2012).

COBIT 5 is based on five core principles: meeting stakeholder needs, covering the enterprise end-to-end, applying a single integrated framework, enabling a holistic approach, and separating governance from management. These principles are highly relevant in the audit of the FIF Mobile Collection system as they offer an objective guideline to assess system alignment with business requirements and the efficiency of its processes (De Haes, Joshi, & Van Grembergen, 2013).

PT Federal International Finance POS Baros, as part of FIFGROUP's operational network, is a strategic location for conducting an information system audit using COBIT 5. This audit aims not only to assess the effectiveness of the FIF Mobile Collection system but also to identify areas for improvement, potential risks, and to provide data-based recommendations for corrective actions.

Issues frequently encountered in the field implementation of mobile-based systems—such as data entry errors, network limitations, low digital literacy among field agents, and weak monitoring of system activities—can lead to significant losses for the company. Thus, auditing the information system using the COBIT 5 approach is crucial to provide an objective overview of control effectiveness, governance alignment, and system-to-business strategy integration (Alreemy, Chang, Walters, & Wills, 2016).

Moreover, conducting an audit using the COBIT 5 framework can support better managerial decision-making processes, as it provides measurable and documented performance indicators and control mechanisms. This aligns with the modern business demand for accountability, transparency, and technology-based efficiency (Ab Rahman, Omar, & Ariffin, 2017).

Based on the above, this study aims to conduct an audit of the FIF Mobile Collection information system used at PT Federal International Finance POS Baros using the COBIT 5 framework. This research is expected to contribute to the development of more effective information systems, improved IT governance, and minimized risks and inefficiencies that could hinder the company's operational continuity.

2. Literature Review

2.1. Information System Audit

Information system audit refers to the systematic evaluation of the controls, security, and efficiency of information systems in an organization. Its primary goal is to assess whether the implemented IT systems effectively support organizational objectives, secure valuable assets, and ensure data accuracy and confidentiality (Hall, 2011). As digital transformation becomes central to business operations, organizations are increasingly reliant on information systems for decision-making and operational efficiency. Consequently, auditing these systems is critical to identify gaps in governance and risk management (Singleton et al., 2006).

In the context of mobile systems, such as FIF Mobile Collection, audits must consider dynamic environments, real-time data exchange, and user interaction in distributed locations. These unique challenges require structured frameworks for governance and assurance.

2.2. COBIT 5 Framework

COBIT 5 (Control Objectives for Information and Related Technology) is a globally recognized framework developed by ISACA to guide enterprise IT governance and management. Unlike its predecessors, COBIT 5 integrates previous versions with standards such as ITIL, ISO/IEC 38500, and CMMI, thereby offering a comprehensive, end-to-end governance structure (ISACA, 2012). The five principles of COBIT 5—meeting stakeholder needs, covering the enterprise end-to-end, applying a single integrated framework, enabling a holistic approach, and separating governance from management—make it well-suited for aligning IT strategies with business goals.

COBIT 5 also introduces seven enablers: principles, policies and frameworks; processes; organizational structures; culture, ethics and behavior; information; services, infrastructure and applications; and people, skills and competencies (De Haes & Van Grembergen, 2015). These enablers provide practical tools for evaluating how IT processes contribute to value creation and risk mitigation.

2.3. Mobile Collection Systems in Finance

Mobile collection systems are designed to assist financial institutions in managing field collection operations efficiently. These systems enable real-time data access, online payment confirmation, GPS tracking, and secure communication between collectors and the central office (Saini & Chawla, 2020). In companies like PT Federal International Finance, mobile applications such as FIF Mobile Collection play a pivotal role in digitizing customer interactions and optimizing operational productivity.

However, mobile platforms introduce specific challenges including data synchronization, system availability, user authentication, and device-level security (Zhou & Leung, 2014). These factors emphasize the importance of rigorous governance and control measures.

2.4. IT Governance and Performance

Effective IT governance ensures that organizational investments in IT yield business value and mitigate IT-related risks. According to Weill and Ross (2004), companies with strong governance practices outperform their peers in profitability and innovation. COBIT 5 serves as a benchmark for best practices in this area. A study by Ali and Green (2012) demonstrated that the implementation of COBIT significantly improved alignment between IT and business strategies in outsourced environments.

Auditing based on COBIT 5 enables companies to identify control weaknesses, improve process maturity, and foster accountability in IT operations. Furthermore, it helps in tracking performance indicators that support continuous improvement and compliance (Peterson, 2004).

2.5. Prior Research Using COBIT 5

Numerous studies have utilized COBIT 5 for auditing and assessing IT performance. For instance, Nugroho and Hasibuan (2018) conducted an audit of a university's academic information system using COBIT 5 and found significant gaps in process capabilities, particularly in DSS (Deliver, Service, and Support) domains. Similarly, Wibowo and Irianto (2021) applied COBIT 5 to assess a mobile banking system and provided actionable recommendations to improve service availability and customer trust.

3. Methods

3.1. Existing System Design

This section describes the operational flow and structure of the currently implemented FIF Mobile Collection system at PT Federal International Finance POS Baros. The design is represented through UML diagrams such as Use Case, Activity, and Sequence diagrams to visualize user interaction, business processes, and system behavior.

3.1.1. Use Case Diagram

The Use Case Diagram illustrates the interactions between actors (users) and the system's functionalities. In the current system, two primary actors are identified: Field Collector and System Admin. The diagram outlines several core use cases, including:

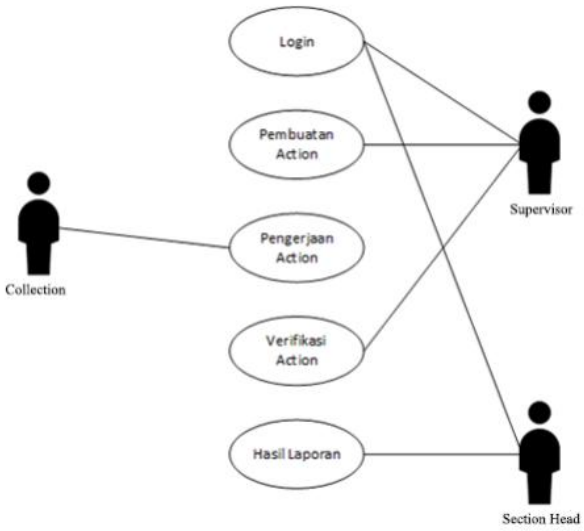

Figure 1. Use Case Diagram Existing System

The Use Case Diagram in Figure 1 illustrates the interaction between three main actors—Collection, Supervisor, and Section Head—with the system in the current operational workflow of FIF Mobile Collection. The Collection actor is responsible for executing assigned actions through the "Pengerjaan Action" process. The Supervisor performs multiple roles, including system access via the "Login" process, initiating tasks through "Pembuatan Action," and validating progress via "Verifikasi Action." Meanwhile, the Section Head oversees the overall reporting outcome by accessing the "Hasil Laporan." This diagram highlights a hierarchical workflow where tasks originate from the Supervisor, are executed by Collection staff, and ultimately evaluated by the Section Head, reflecting a structured and role-based system process.

3.1.2. Activity Diagram

The Activity Diagram describes the sequential workflow of processes in the running system. It visualizes how users perform tasks from the beginning of the login process to the end-of-day synchronization. The core activities include:

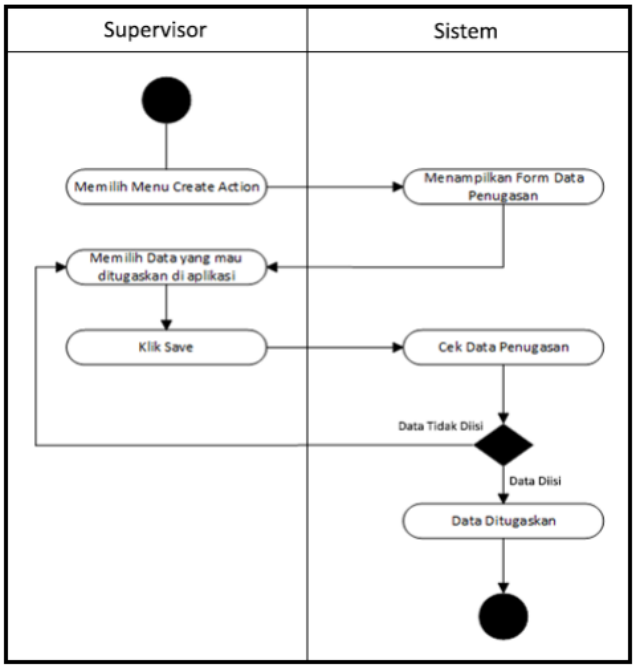

Figure 2. Activity Diagram Existing System

Figure 2 illustrates the Activity Diagram of the existing system, focusing on the workflow between the Supervisor and the System during the task assignment process. The activity begins with the Supervisor selecting the "Create Action" menu, followed by choosing the specific data to be assigned within the application. Once the data is selected, the Supervisor clicks "Save." The system then responds by displaying the task assignment form and verifying the input data. If the data is incomplete, the process loops back for correction; if the data is complete, the system proceeds to finalize the task as "Assigned." This diagram effectively demonstrates a conditional decision-making flow and emphasizes the validation process before data is officially delegated.

3.2. Research Design

This research uses a descriptive qualitative method supported by a quantitative audit assessment using the COBIT 5 framework. The design focuses on evaluating the current FIF Mobile Collection system in terms of its governance, process capability, and alignment with organizational objectives.

The steps of the research design include:

3.2.1. Problem Identification

Analyze issues within the existing mobile collection system through observation and interviews with stakeholders.

3.2.2. Data Collection

Primary data is obtained through interviews and documentation from PT FIF POS Baros. Secondary data includes related literature, user manuals, and system logs.

3.2.3. Mapping with COBIT 5

The system's processes are mapped into COBIT 5 domains—primarily Evaluate, Direct and Monitor (EDM), Align, Plan and Organize (APO), Build, Acquire and Implement (BAI), Deliver, Service and Support (DSS), and Monitor, Evaluate and Assess (MEA).

Figure —COBIT 5 Enterprise Goals

BSC Dimension	Enterprise Goals	Relation to Governance Objective		
		Benefits Realisation	Risk Optimisation	Resource Optimisation
Financial	2. Portfolio of competitive products and services	P		S
	3. Managed business risk (safeguarding of assets)	P	P	S
Customer	6. Customer-oriented service culture	P		S
	7. Business service continuity and availability		P	
	8. Agile responses to a changing business environment	P		S
	9. Information-based strategic decision making	P	P	P
	10. Optimisation of service delivery costs	P		P
Internal	11. Optimisation of business process functionality	P		P
	12. Optimisation of business process costs	P		P

Figure 3. Enterprise Choosed

Figure 3 presents a systematic mapping of selected COBIT 5 Enterprise Goals based on the Balanced Scorecard (BSC) dimensions—Financial, Customer, and Internal—against the three core IT Governance Objectives: Benefits Realisation, Risk Optimisation, and Resource Optimisation. Each goal is evaluated and marked to indicate its primary

(P) or secondary (S) contribution to the corresponding governance objective. For instance, goals such as "Managed business risk" and "Customer-oriented service culture" are identified as having a primary impact on Benefits Realisation and Risk Optimisation. Additionally, goals related to operational efficiency—like "Optimisation of business process functionality" and "Information-based strategic decision making"—are shown to contribute across all governance objectives. This mapping provides a clear strategic alignment between enterprise goals and governance priorities, supporting informed decision-making in auditing and improving the performance of the FIF Mobile Collection system.

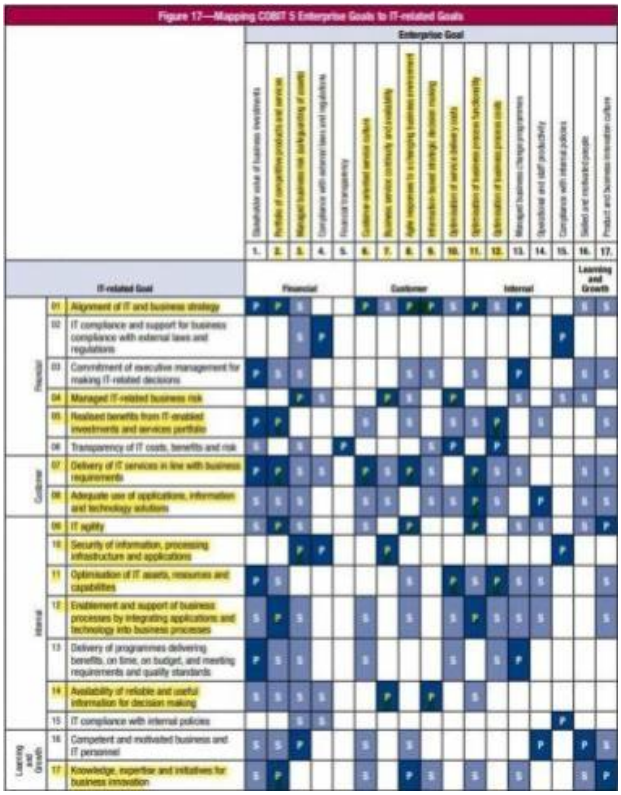

Figure 4. Mapping Enterprise Goals to IT-Related Goals

Figure 4 illustrates the mapping of COBIT 5 Enterprise Goals to IT-related Goals, serving as a strategic alignment framework that connects organizational objectives with IT performance indicators. The matrix showcases how each enterprise goal, categorized under the Balanced Scorecard dimensions (Financial, Customer, Internal, and Learning & Growth), corresponds to specific IT-related goals such as IT compliance, service availability, risk management, resource optimization, and support for innovation. Each relationship is labeled with either a Primary (P) or Secondary (S) designation, indicating the degree of contribution. For example, the enterprise goal of "Alignment of IT and business strategy" strongly aligns with IT-related goals like "Delivery of IT services in line with business requirements" and "Management of IT-related business risk." This structured mapping provides a clear linkage between business needs and IT capabilities, helping organizations like PT Federal International Finance to ensure that IT initiatives—such as the FIF Mobile Collection system—are not only compliant and secure but also value-driven and strategically aligned.

3.2.4. Process Capability Assessment

Each process is evaluated using COBIT 5's Process Capability Model, which consists of levels 0 to 5 (Incomplete to Optimized).

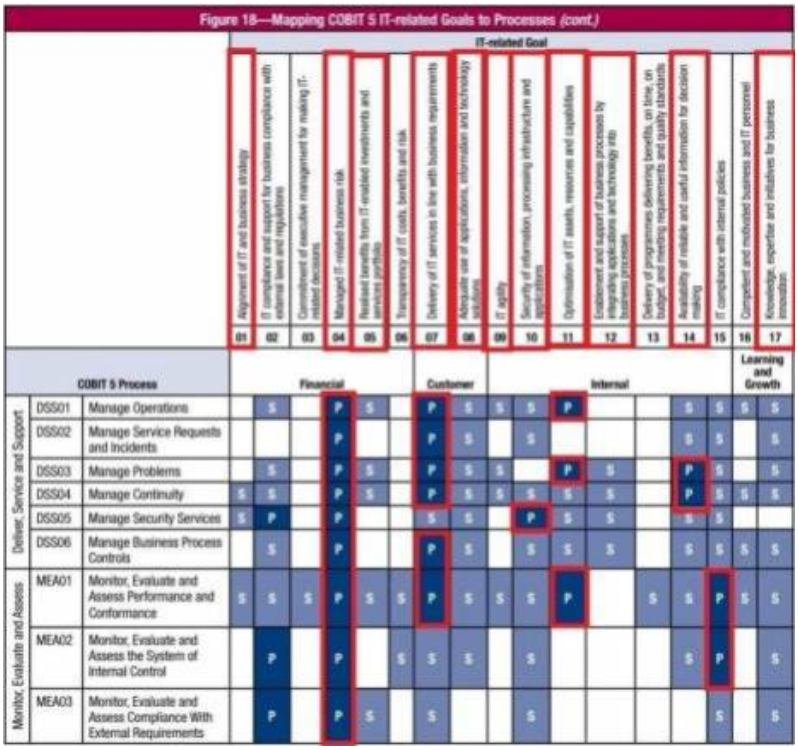

Figure 5. Mapping IT-Related Goals to Cobit 5 Process

Figure 5 displays the mapping of COBIT 5 IT-related Goals to specific COBIT 5 Processes, forming a critical connection between strategic IT objectives and operational process execution. The diagram categorizes processes under the DSS (Deliver, Service and Support) and MEA (Monitor, Evaluate and Assess) domains. Each intersection between an IT-related goal and a COBIT process is marked as Primary (P) or Secondary (S), showing the level of contribution each process makes toward achieving the goal. For example, the process DSS01: Manage Operations plays a primary role in supporting IT goals such as "Ensured IT compliance with internal policies" and "Delivery of IT services in line with business requirements." Similarly, MEA01 to MEA03 are essential for evaluating system performance, internal controls, and compliance with external standards. This structured mapping emphasizes how operational excellence, continuity, incident handling, and performance monitoring are all tightly interwoven with broader IT governance outcomes, providing organizations like PT Federal International Finance with a clear blueprint for auditing and improving the FIF Mobile Collection system based on COBIT 5 best practices.

Table 1. Cappability Level DSS05 Result

Name Process	Level 0	Level 1	Level 2		Level 3		Level 4		Level 5	
DSS05		PA1.1	PA 2.1	PA 2.2	PA 3.1	PA 3.2	PA 4.1	PA 4.2	PA 5.1	PA 5.2
Rating by criteria	F 100 %	F 88,09 %	F 100 %	F 100 %	F 60 %	F 66,66 %				
Capability level achived		1	2	2	3	3				
Legend : N (not achived, 0-15%) **P** (partially achived, > 15-50%), **L** (large achived, >50-80%) **F** (fully achived, >85-100%)										

Table 1 presents the Capability Level Assessment Results for the COBIT 5 process DSS05: Manage Security Services, showing the maturity of the process across Levels 0 to 5 using the Process Assessment Model (PAM) indicators. Each level is evaluated using specific process attributes (e.g., PA 2.1, PA 3.2, etc.), and the level of achievement is rated as F (Fully Achieved, >85%), L (Largely Achieved, 50–85%), or P (Partially Achieved, 15–50%). The data indicates that Level 1 and Level 2 were fully achieved, with 88.09% and 100% respectively. At Level 3, the process was largely achieved, reaching 60% and 66.66% on PA 3.1 and PA 3.2. However, Levels 4 and 5 were not assessed, suggesting the

organization's current capability for DSS05 stands at Level 3. This result implies that the security management process is defined and implemented, but still requires improvement to reach a more optimized and continually improving stage, particularly in predictive and innovation-based security controls.

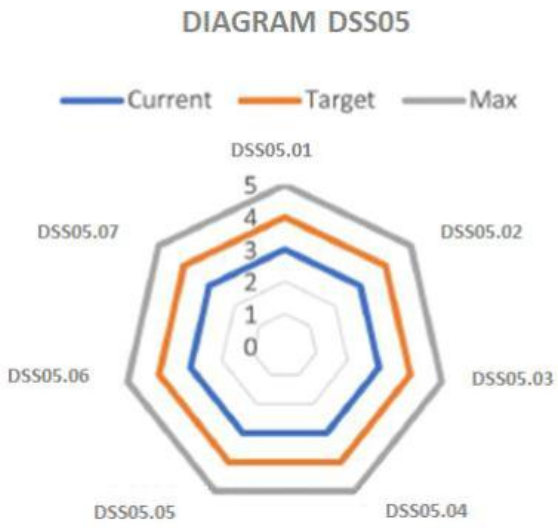

Figure 6. DSS05 Diagram

3.2.5. Gap Analysis and Recommendations

The difference between current and expected process capabilities is identified, and recommendations are given to improve system governance and performance.

4. Result and Discussion

The results of the audit conducted on the FIF Mobile Collection system at PT Federal International Finance POS Baros using the COBIT 5 framework, particularly focusing on the DSS05: Manage Security Services process, indicate that the organization has achieved a Capability Level 3. This level suggests that while the process has been clearly defined and implemented, it is still not quantitatively managed or subject to continuous improvement. The assessment showed full achievement at Levels 1 and 2, while Level 3 was only largely achieved, highlighting that structured practices are in place but lack performance optimization and governance enforcement. This condition aligns with the findings of previous studies, such as those by De Haes and Van Grembergen (2015), who argue that many organizations remain at this intermediate level due to the absence of measurable process performance indicators and insufficient integration between policy and practice.

From a risk management perspective, several operational gaps were discovered, including limited monitoring of security breaches, lack of formalized incident response procedures, and insufficient user training for mobile security. These vulnerabilities present potential threats to data integrity and service availability, especially in the context of a mobile-based application that relies on real-time synchronization and distributed access. As highlighted by Ahmad et al. (2015), mobile systems in financial services are particularly vulnerable to security threats due to their dynamic environment and exposure to external networks. Therefore, strengthening DSS05 by adopting real-time security monitoring tools, structured risk analysis, and user-focused security education is necessary.

In terms of enterprise value alignment, the system has contributed positively toward enterprise goals such as customer-centric service, agility in service delivery, and data-driven decision-making. However, to ensure sustainability and alignment with governance objectives—especially in benefits realization and risk optimization—further enhancements in IT governance maturity are required. Overall, the discussion emphasizes the need for strategic improvements in process capability, guided by COBIT 5, to move the organization beyond Level 3 maturity and ensure secure, efficient, and value-driven system operation.

5. Conclusion

Based on the audit of the FIF Mobile Collection system at PT Federal International Finance POS Baros using the COBIT 5 framework, particularly focusing on the DSS05: Manage Security Services process, it can be concluded that the organization has achieved Capability Level 3. This indicates that the process is defined and implemented but has not yet reached the levels of performance measurement and continuous improvement required for higher maturity. The system has shown positive contributions to enterprise goals related to customer service orientation, agility in operations, and strategic decision-making. However, several gaps remain in terms of risk management, security monitoring, and user awareness. To progress toward a more optimized and predictive level of capability, the organization should strengthen its governance structure by implementing real-time monitoring, formalizing incident response plans, and improving employee training. The findings underscore the importance of aligning IT governance with strategic business objectives to ensure secure, efficient, and value-driven digital service delivery in financial operations.

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