

## ENHANCING FINANCIAL TECHNOLOGY OPERATIONS: A COMPREHENSIVE EVALUATION USING COBIT 2019 FRAMEWORK

Sherly<sup>1</sup>, Melissa Indah Fianty<sup>2\*</sup>

Information System

Faculty of Engineering and Informatics

Universitas Multimedia Nusantara, Indonesia

sherly3@student.umn.ac.id<sup>1</sup>, melissa.indah@umn.ac.id<sup>2\*</sup>

(\*) Corresponding Author

### Abstrak

This research aims to enhance information technology (IT) governance in a financial technology company by focusing on peer-to-peer lending services. The main challenges faced by the company involve a lack of system design details, leading to post-implementation imperfections and negative impacts on business process performance, including unnecessary delays and adjustments. The lack of transparency in system evaluation is also a hindrance caused by incomplete recording of test results. Therefore, this research aims to address these challenges by utilizing the COBIT 2019 framework. The study employs a qualitative approach, utilizing data obtained through interviews and literature studies supported by the COBIT Tool Kit. The analysis is conducted on three main objectives: security management, solution identification, and IT change management, to identify disparities between the current status and desired targets. The analysis results highlight the need for improvements in specific aspects, including the lack of system design details, more precise information in the change process, and deficiencies in recording test results. Recommendations for improvement involve the development of more detailed guidelines for system design, enhanced documentation of changes, and improvements in testing instructions and result reporting. Additionally, recommendations focus on enhancing capabilities through proactive evaluation, refining security plans, developing more adaptive solution acquisition strategies, and improving testing practices. Thus, this research underscores the importance of strategic improvements within the IT and Information Systems governance framework to shape a more effective and transparent operational environment in Financial Technology companies.

Keywords: Capability level; COBIT 2019; IT audit; IT governance

### Abstract

Penelitian ini bertujuan untuk meningkatkan tata kelola Teknologi Informasi (TI) di perusahaan Financial Technology yang fokus pada layanan peer-to-peer lending. Masalah utama yang dihadapi perusahaan melibatkan kurangnya detail desain sistem, yang menyebabkan ketidak sempurnaan pasca-implementasi dan dampak negatif pada kinerja proses bisnis, termasuk keterlambatan dan penyesuaian yang tidak perlu. Kurangnya transparansi dalam evaluasi sistem juga menjadi hambatan, disebabkan oleh pencatatan hasil pengujian yang tidak lengkap. Oleh karena itu, penelitian ini bertujuan untuk mengatasi tantangan tersebut dengan menggunakan kerangka kerja COBIT 2019 melibatkan pendekatan kualitatif dengan memanfaatkan data yang diperoleh melalui wawancara dan studi literatur, didukung oleh penggunaan COBIT Tool Kit. Analisis dilakukan terhadap tiga objektif utama, yaitu pengelolaan keamanan, identifikasi solusi, dan pengelolaan perubahan TI, untuk mengidentifikasi disparitas antara status saat ini dan target yang diinginkan. Hasil analisis menyoroti kebutuhan perbaikan pada aspek-aspek tertentu, termasuk kurangnya detail desain sistem, kebutuhan akan informasi yang lebih jelas dalam proses perubahan, dan kekurangan dalam pencatatan hasil pengujian. Rekomendasi perbaikan melibatkan penyusunan pedoman yang lebih rinci untuk desain sistem, peningkatan dokumentasi perubahan, dan perbaikan instruksi pengujian serta pelaporan hasil. Selain itu, rekomendasi juga fokus pada peningkatan kapabilitas melalui evaluasi proaktif, penyempurnaan rencana keamanan, pengembangan strategi pengadaan solusi yang lebih adaptif, dan peningkatan praktik pengujian.

Kata Kunci: Audit TI; COBIT 2019; Tata kelola TI; Tingkat kemampuan TI



## INTRODUCTION

In the modern era, technology has become crucial in reshaping how people lead their day-to-day lives (Nurdin & Lubis, 2023). Information Technology (IT) has evolved into a pivotal force, enabling companies to adapt to new markets, drive innovation, and create cutting-edge services and products that support business growth. Information technology has become necessary and inseparable from a company's operational routine (Alsaleem & Husin, 2023). Technological advancements have revolutionized efficiency, speed, and accuracy across various activities, enhancing overall productivity (Nugroho, 2017). Many companies have shifted from conventional business systems towards adopting more modern information technology (Pratama Arthananda, 2021). However, evaluating information technology to ensure optimal performance and alignment with the company's objectives is also crucial in this process (Mutia & Nur'ainy, 2020). This research focuses on a company within the Financial Technology sector, particularly in peer-to-peer lending services, bridging borrowers and lenders through online and offline platforms for loan provisions.

In conducting their operations, this fintech company heavily relies on information technology. The company provides a website platform for borrowers and lenders to engage in loan transactions. Additionally, internally developed information systems have been implemented. Nevertheless, despite relying on information technology as the primary operational foundation, the company faces challenges. One significant issue frequently encountered by fintech companies is data security. Given the sensitivity of financial information, cyberattack vulnerabilities become a primary concern. Heightened protection of users' personal data and financial transactions becomes imperative. Even with a robust security infrastructure, cyber threats continue to evolve, necessitating continuous updates to counter them.

Furthermore, adopting new technology often poses integration challenges with existing infrastructure. At times, existing systems must be integrated with new technology to maintain alignment and operational efficiency. Difficulties amalgamating legacy platforms with innovations can hinder a fintech company's ability to evolve and respond to the ever-changing market needs swiftly. Striking a balance between retaining established systems and introducing new technology becomes critical in maintaining relevance and competitiveness in the dynamic fintech market.

The evaluation and audit of IT and IS (Information Systems) become crucial in detecting potential issues using the company's information systems (Amorim et al., 2020). This evaluation and audit employ the COBIT 2019 framework, a guideline presenting best practices in leveraging information technology in line with the company's objectives (Mubarak & Fianty, 2023). Through this audit, the company can identify issues, offer solutions, and provide recommendations to enhance efficiency and operational productivity using the company's information systems. Evaluating IT and IS using the COBIT 2019 framework will help identify weaknesses or potential risks associated with the systems used by this fintech company (Saeedinezhad & Naghsh, 2019). Well-documented steps within COBIT will assist the audit team in comprehensively understanding how IT is utilized within the company, ensuring compliance with security standards and regulations.

COBIT 2019, which stands for Control Objectives for Information and Related Technologies, is a widely used framework to ensure that an organization's information technology (IT) effectively supports its business objectives (Nachrowi et al., 2020). This framework provides a comprehensive and structured guide for managing, controlling, and measuring the performance of IT within the context of a company's goals and needs (Muttaqin et al., 2020; Putra & Fianty, 2023). COBIT 2019 offers a clear structure for understanding how IT can underpin strategic company objectives and offers practical guidance on identifying, evaluating, and enhancing IT processes (Bounogui et al., 2018). The COBIT 2019 framework is structured around five fundamental principles: ensuring that IT supports the company's objectives, ensuring effective IT management, ensuring well-managed IT risks, ensuring required IT resources are prepared, and ensuring continuous measurement and monitoring of IT to achieve company goals. COBIT 2019 guides setting IT objectives aligned with business strategy, identifying and measuring IT performance, and offering direction on IT risk management and necessary controls to ensure the successful implementation of information technology within an organization (Jaime & Barata, 2023). Hence, COBIT 2019 is a robust foundation for companies, including fintech companies, to manage and leverage information technology effectively to achieve their business goals.

Moreover, this audit will provide in-depth insights into how the IT infrastructure supports the business operations of this fintech company. This encompasses data security, risk management, and compliance with regulations applicable in the



financial services industry. The outcomes of this audit will offer specific recommendations on actions that the FinTech company can take to enhance the reliability, security, and efficiency of the company's information systems. These recommendations could include upgrading IT infrastructure, improving data security policies, or enhancing risk management processes associated with the lending services provided by the company. By regularly conducting evaluations and audits of IT using recognized frameworks like COBIT 2019, this fintech company can continually improve the quality of their services, minimize risks, and remain relevant in the face of technological changes and regulations in the financial industry.

## RESEARCH METHODS

The flow of research conducted in this study is used as a reference in conducting research. The sequence of research activities is illustrated in Figure 1 (Angelina & Fianty, 2023). Firstly, an extensive review of the existing IT infrastructure and systems within the fintech company is conducted to assess their strengths and weaknesses. Following this, a comprehensive audit is performed using the COBIT 2019 framework to evaluate the alignment of technology usage with the company's objectives and industry standards.

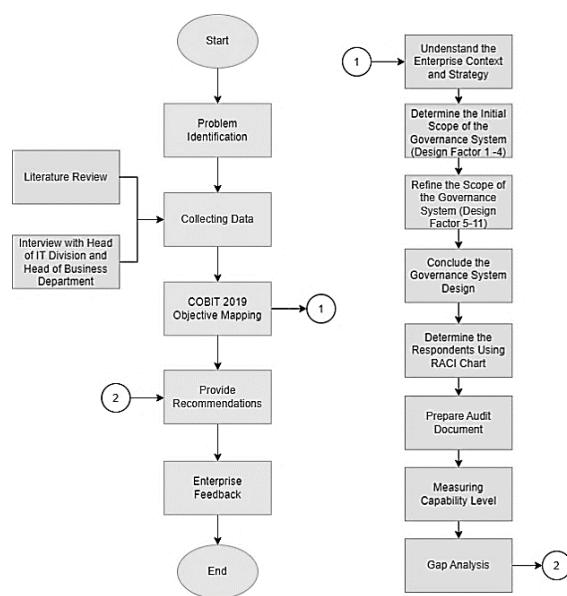
2013). This fintech company consistently faces significant hurdles, especially regarding safeguarding data. Incorporating new technologies into its established framework often presents obstacles, hindering the company's swift response to dynamic market demands as it combines older systems with innovative solutions.

## Collecting Data

The study entails gathering data by reviewing pertinent literature from books and journals to understand 2019 better, specifically focusing on data security (Nasser et al., 2022). This literature is a critical reference source (Sanjaya & Fianty, 2022). Furthermore, interviews with enterprise representatives will be conducted to incorporate existing issues into the study and to provide an overview for assessing audit documents related to each objective. This comprehensive approach aims to amalgamate theoretical knowledge with practical insights to tackle the challenges encountered by the enterprise, especially in terms of data security and adhering to COBIT 2019 standards.

## COBIT 2019 Objective Mapping

The process will involve mapping data security concerns in alignment with COBIT 2019's objectives, selected from its five domains (Information Systems Audit and Control Association, n.d.). The mapping initiative is initiated using the COBIT 2019 Design Toolkit to map out design factors. The initial step delves into understanding the company's context and strategy, emphasizing customer service. Subsequently, the second phase defines the initial governance system scope by assessing design factors 1-4. After that, refining the governance scope includes evaluating design factors 5-11 to conclude the governance system's design while meeting set objectives. Following this, the identification of respondents tasked with evaluating audit documents through the RACI Chart, specifically regarding their objectives, is conducted by presenting them in the format of audit documents. The RACI Chart analysis revealed the involvement of the IT division head and the business department head in assessing audit objectives (Information Systems Audit and Control Association, n.d.). These assessment outcomes will gauge the level of capability and discern the gap between the current and desired capability levels. The formula for determining capability levels is based on data gleaned from interviews.



**Figure 1.** Research Workflow

## Problem Identification

The study will identify problems by conducting interviews within the enterprise under investigation to pinpoint existing issues (Misuraca & Viscusi,

*CC*: The value of achieving the level of capability.

$\Sigma CLa$ : Total value of governance and management.  
 $\Sigma Po$ : Total process of governance and management.

### Provide Recommendations

Based on that assessment, this study will formulate suggestions to tackle and resolve concerns while elevating the company's proficiency (Tantiono & Legowo, 2020). These suggestions are anticipated to offer specific directions to enhance the company's operational systems and boost efficiency.

### Enterprise Feedback

After receiving the suggestions, the enterprise will initially assess their suitability and effectiveness in aiding the company in tackling and resolving the challenges. Following this evaluation, the company will devise an implementation strategy to integrate these recommendations into its operational framework.

## RESULTS AND DISCUSSION

The company's IT governance is evaluated using the COBIT 2019 framework, which is utilized to gauge the IT governance capabilities within this company. This assessment involves mapping related to COBIT objectives that must be established beforehand. COBIT 2019 offers a toolkit specifically designed for this objective mapping. Within this toolkit are various design factors, each addressing topics related to the usage and capabilities of IT within a company. The outcomes from this toolkit will serve as a reference for the evaluation and determination of the primary priorities for this company. Data analysis involves assessing the achievement of capabilities in the previously identified processes. This stage involves interviewing relevant parties to address specific questions using audit documents. Subsequently, the assessment will be measured based on the rating ranges provided.

### Problem Identification

The research-focused company, particularly in the Financial Technology (fintech) sector, is encountering several primary challenges in implementing and managing Information Technology (IT). Identified issues involve data security, integration of new technologies, and compliance with industry standards. Data security is a particular concern, given that the company operates in peer-to-peer lending services involving users' financial information sensitivity. Furthermore, integrating new technologies with existing infrastructure poses its own set of

challenges. The shift from conventional business systems towards modern IT requires effective integration to maintain coherence and operational efficiency. Difficulties amalgamating legacy platforms with innovations can hinder the fintech company's ability to adapt quickly to the ever-changing market needs. Additionally, the company faces demands for compliance with industry standards, where the COBIT 2019 framework is employed to evaluate and measure IT performance in line with business objectives. The gaps between targeted and achieved capability levels indicate that the company needs to enhance specific aspects of risk management, solution identification and development, and IT changes.

### COBIT 2019 Objective Mapping

Evaluating information technology governance in the company will be conducted using the COBIT 2019 framework, a comprehensive tool for assessing the technological management capabilities of the organization. Before commencing the evaluation, it is essential to establish a mapping of COBIT objectives facilitated by the toolkit within COBIT 2019. This toolkit comprises various design factors, each addressing specific aspects related to the utilization and proficiency of information technology within the organizational context. The outcomes derived from this toolkit will serve as a benchmark for the evaluation, guiding the determination of critical priorities tailored to the company's needs.

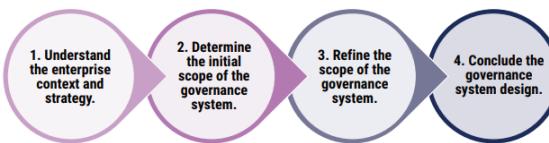


Figure 2. Governance System Design Workflow

Figure 2 illustrates the sequential COBIT 2019 governance design workflow, encompassing four distinct stages. These stages are meticulously designed to ascertain governance priorities that precisely align with the company's unique requirements. Further elucidation on each stage provides a detailed understanding of how the COBIT 2019 framework guides the organization's governance design process.

### Understanding the Enterprise Context and Strategy

Three initial steps in identifying corporate governance priorities involve comprehending the enterprise's strategy, enterprise objectives, and IT Risk Profile. The company utilizes its enterprise

strategy to implement digital transformation, mainly offering efficient peer-to-peer lending solutions. The company's enterprise objectives encompass delivering both productive and consumptive financing and ensuring adept risk management in compliance with regulations. The IT risk profile encompasses data security, regulatory compliance, technology, and credit risk. Simultaneously, IT-related challenges include addressing data security, intricate technology integration, staying abreast of regulatory changes, proficient data analytics, and developing and sustaining secure, responsive, and integrated corporate information systems. Ultimately, companies can circumvent issues such as profit-making at the expense of compromising company data security. Companies can successfully attain their organizational goals, vision, and mission by effectively managing IT-related risks.

### Determine the Initial Scope of the Governance System

During this phase, the company delineated the initial framework for the Governance System by assessing design factors 1 to 4, aiming to comprehend the strategy, objectives, risk profile, and information technology-related issues. Based on the assessment outcomes of design factors 1 to 4, it is evident that the company places a primary emphasis on aspects like growth, innovation, cost-effectiveness, and maintaining consistent customer service. The company prioritizes goals linked to digital transformation initiatives and the innovation of products and business. Nevertheless, substantial risks related to IT investment decisions, Enterprise/IT architecture, and unauthorized activities present notable potential challenges requiring meticulous management. Additionally, issues tied to IT, including significant incidents and non-compliance with regulations, demand careful attention to ensure the company's successful attainment of its objectives, vision, and mission.

### Improving the Scope of the Governance System

The evaluation of design factors 5-11 in the company highlights a primary focus on growth, innovation, and cost efficiency, particularly on digital transformation programs and innovation. However, high risks associated with IT investment decisions, Enterprise/IT architecture, and unauthorized actions pose serious threats. IT-related issues, including significant incidents and non-compliance with regulations, demand serious attention. The design toolkit indicates a high-threat landscape, balanced compliance requirements, and a crucial role for IT. The company uses the

insourcing model and agile IT implementation method, adopting technology as a follower. This conclusion guides the improvement and optimization of the company's governance system.

### Concluding the Governance System Design

After gaining a comprehensive understanding of the company's context and strategy, identifying the initial scope of the governance system design, and refining the governance system design scope, the final step involves summarizing the governance system design based on inputs from the preceding steps. This process aims to produce objectives tailored to the company's priorities and needs. These objectives will then be further analyzed to determine the results of measuring the capability levels at the company.

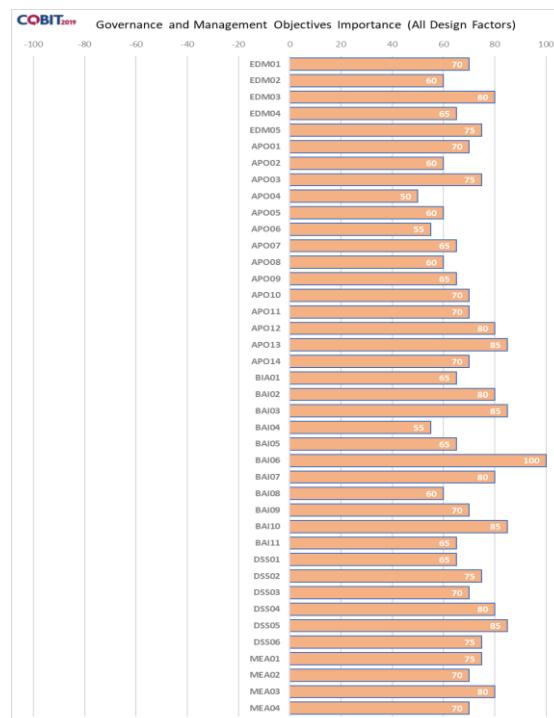


Figure 3. Design Factors Conclusions

Figure 3 illustrates the conclusion of all design factors measured through interviews with the company, resulting in objectives aligned with the company's priority needs. Objective importance is assessed on a scale from -100 to 100, with 100 being the highest importance level. Although all processes will be assessed, not all will be deemed crucial and prioritized. There are predefined capability level targets: objectives scoring 75 or higher are considered highly important and should target capability level 4. Objectives scoring 50 or higher should target capability level 3, while those scoring

25 or higher should target capability level 2. In this study, the company prioritizes objectives scoring 75 or higher, precisely above 80. Objectives with scores above 80 include APO13 (Managed risk), BAI03 (Managed solutions identification and build), BAI06 (Managed IT changes), BAI10 (Managed configuration), and DSS05 (Managed security services). However, after further discussion with the company, the selected objectives are APO13 (Managed risk), BAI03 (Managed solutions identification and build), and BAI06 (Managed IT changes).

### Measuring Capability Level

Comprehensive insights have been extracted based on the extensive research findings gleaned from in-depth interviews with the Company's IT and product divisions. In particular, the average calculation results for each goal and level of ability have been meticulously analyzed, providing a robust foundation for evaluating the company's performance and strategic alignment.

#### APO13 (Managed Risk)

The average calculation results for APO13 (Managed Risk) are as follows: These insightful metrics provide a comprehensive overview of the company's risk management performance, allowing for a nuanced understanding of its strengths and areas that require enhancement. By dissecting the results, the company can tailor its strategies to fortify risk management processes and proactively address potential challenges.

**Table 1.** APO13 The calculation results

Process	Score
APO13.02	80%
APO13.03	83.75%
<b>Level Results</b>	<b>Total</b> 163.75%
<b>Capability</b>	<b>Average</b> 81.875%

Table 1 outlines the detailed calculation results for two of the three processes encapsulated in APO13 for level 4. The average score is 81.875%, falling just short of the 85% threshold required for progression to level 5. This discrepancy points to specific challenges within the risk management process that warrant careful examination. The inability to advance to level 5 can be attributed to various factors. First and foremost, there may be imperfections in implementing the risk management process. This could include gaps in execution, inconsistencies in application, or deviations from established protocols. Additionally, limitations in resources or employee skills may play a role in hindering the attainment of a higher level.

#### BAI03 (Managed solutions identification and build)

The calculation outcomes for BAI03 (Managed solutions identification and build) indicate a noteworthy performance with an average result that showcases the company's competence in effectively identifying and constructing managed solutions. This positive result suggests a robust approach to the processes associated with developing solutions within the governance framework.

**Table 2.** BAI03 The calculation results

Process	Score
BAI03.01	78.75%
BAI03.02	80%
BAI03.03	78.75%
BAI03.05	85%
BAI03.07	82.5%
BAI03.08	78%
BAI03.10	85%
<b>Level Results</b>	<b>Total:</b> 565%
<b>Capability</b>	<b>Average:</b> 81.14%

The results from Table 2 present the calculated outcomes for 7 out of the 12 processes within BAI03, aiming at achieving level 2. With an average result of 81.14%, the company exhibited a commendable performance in these processes. However, the threshold for progressing to level 3 (85%) was unmet. This shortfall may be attributed to a potential deficiency in the comprehensive comprehension of solution identification and development and potential imperfections in the execution of related processes. Further analysis is recommended to address these aspects and enhance the overall effectiveness of the identified processes.

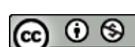
#### BAI06 (Managed IT changes)

The average calculation results for BAI06 (Managed IT changes) reflect notable improvements in the company's management of IT changes, signifying progress in adapting to evolving technological needs.

**Table 3.** BAI06 The calculation results

Process	Score
BAI06.01	85%
BAI06.02	82.5%
<b>Level Results</b>	<b>Total:</b> 167.5%
<b>Capability</b>	<b>Average:</b> 83.75%

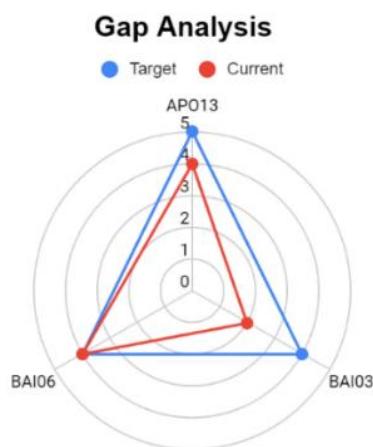
The data presented in Table 3 elucidates the calculation outcomes for 2 of the 4 processes within BAI06, showcasing an average result of 83.75% for



level 4. Despite not reaching the 85% threshold to advance to level 5, achieving level 4 signifies a notable proficiency in managing IT changes within the company. This underscores the effectiveness of current practices and highlights the importance of continually maintaining and refining these capabilities to meet evolving demands in the IT landscape.

### Gap Analysis

The radar graph offers a comprehensive overview of the gap analysis performed across various objectives. This analysis is crucial in elucidating the differences between the targeted and actual capability levels within the specified objectives.



**Figure 4.** Radar Chart Gap Analysis

In Figure 4, it is evident that specific objectives exhibit disparities in their achievement levels. Firstly, Objective APO13 emphasizes security management, aiming for a target level of 5. However, the actual achievement level is 4, indicating a gap of 1 level. This highlights the opportunity to improve security management processes to meet the intended capability level. Secondly, Objective BAI03, addressing the Management of Identification and Creation Solutions, targeted a level of 4. Unfortunately, the achieved level is 2, resulting in a significant gap of 2 levels. This underscores a considerable disparity that warrants attention and strategic initiatives to bridge the gap and enhance the management of identification and solution-creation processes.

In contrast, Objective BAI06, focusing on IT change management, reveals no gaps, signifying that the company has reached its targeted capability level in this domain. This achievement indicates that the existing processes related to IT change management align well with the desired capability level. In summary, the gap analysis identifies areas

for improvement and serves as a strategic guide for the company to prioritize and address specific objectives, effectively enhancing its overall capability levels.

### Findings and Impacts of Capability Level Measurement

After assessing the previous objectives, various shortcomings were pinpointed in activities scoring  $\leq 50$  (Partially Achieved). These identified weaknesses comprehensively evaluate the company's IT governance performance, forming a foundation for enhancement. These findings not only shed light on the areas requiring attention but also facilitate a deeper understanding of the impacts experienced by the company. The evaluation of the company's achieved capability levels revealed specific activities with lower rankings, emphasizing the importance of analyzing these insights. Consequently, recommendations for improvement are essential to enhance the capability levels in the corresponding objectives.

**Table 4.** Findings on Objectives

Objective Details	Findings
BAI03.01	The creation of workflow and system design is less mature, causing the system to be less than perfect after it is built and used in business processes.
BAI03.03	Lack of information and data regarding what you want to change and what you want from the changes that will be made. Some testing instructions regarding wording and technical implementation are still not good.
BAI03.08	Incomplete recording of test results.

Table 4 In evaluating the BAI03 objectives, several key findings emerged, providing insights into areas that require attention and improvement. In BAI03.01, it is observed that the creation of workflows and system design is not mature, leading to suboptimal system performance post-construction and affecting its effectiveness in supporting business processes. Moving on to BAI03.03, there is a lack of information and data regarding desired changes and their anticipated impacts. Additionally, some testing instructions exhibit deficiencies in language clarity and technical implementation, requiring refinement for better effectiveness. Lastly, BAI03.08 highlights an issue with incomplete recording of test results, indicating

the need for a more systematic approach to capturing and archiving test outcomes. These findings collectively provide valuable insights into specific shortcomings within the BAI03 objectives. Addressing these issues through targeted improvements and refinements is crucial for elevating overall capability levels per the company's objectives.

### Recommendations

Suggestions are provided for the organization to enhance processes currently at level 2, aiming to elevate the activities and capability levels. Furthermore, these recommendations seek to ensure the alignment of IT usage with business operations, fostering the achievement of the organization's goals.

**Table 5.** Recommendations

Objective Details	Recommendation
BAI03.01	Creating a workflow in the form of a clear and structured <i>guidebook</i> containing system requirements from start to finish and how to evaluate a sound system.
BAI03.03	Making reasonable requirements documents requires active participation from all elements of the company, whether for certain divisions or crucial needs. The design change process is improved through accurate problem identification, more precise impact analysis, and formulation of change plans. The writing of test instructions needs to be improved to better suit testing needs, and a dedicated testing team is recommended to ensure the quality of the solution. Using evaluation and testing tools can also support the efficiency of the testing process.
BAI03.08	Create writing rules in the form of test reports with specified standards so that the entire testing process has the same writing and note structure recording.

In Table 5, the comprehensive examination of specific objectives within BAI03 has brought to light critical findings that necessitate immediate attention for process improvement. The issues identified, such as immature workflow creation, insufficient information for changes, shortcomings in testing instructions, and incomplete recording of

test results, significantly impact the efficiency and effectiveness of the company's operations. To tackle these challenges, tailored recommendations have been put forth. These include developing clear workflow guidelines, thoroughly documenting requirements, enhancing testing instructions, and establishing standardized reporting practices. Implementing these recommendations is crucial for elevating the overall capability levels in alignment with the company's objectives, ensuring a more resilient and efficient IT governance system. The recommendations for level improvement in BAI03 and AP013 are detailed as follows. For AP013 at Level 5, it is suggested that in-depth input on security plan maintenance be provided, considering the findings from monitoring and reviews. Meanwhile, for BAI03 to achieve Level 3, the company is advised to proactively evaluate design weaknesses, create and maintain a solution acquisition plan considering future flexibility, and establish a QA plan covering various aspects, such as specifying quality criteria and validation processes. At Level 4, it is recommended to periodically monitor solution quality using appropriate testing practices and ensure that maintenance activity patterns and volumes are analyzed regularly to detect potential quality or performance issues. All these recommendations aim to ensure that the company's security and IT solution development activities are conducted optimally, in compliance with standards, and capable of effectively meeting its needs and objectives.

### Enterprise Feedback

The enterprise has received and thoroughly examined the recommended actions, leading to their approval. Subsequently, the forthcoming strategy, aligned with these recommendations, involves emphasizing employee awareness. The enterprise intends to promptly draft a procedural document for the information management security system. Once employees' understanding of security risks is deemed satisfactory and the documentation of the information management system security procedures is finalized, the enterprise will execute additional recommendations.

## CONCLUSIONS AND SUGGESTIONS

### Conclusions

The crucial role of Information Technology (IT) in transforming the operational landscape of companies, particularly in the Financial Technology (fintech) sector, is highlighted in this research. The study focuses on a fintech company that provides peer-to-peer lending services, emphasizing its



significant reliance on IT for operations. Despite the transformative benefits of IT adoption, challenges such as data security and integration with existing infrastructure are identified. To address these issues, the research employs the COBIT 2019 framework to evaluate and audit the company's IT and Information Systems (IS).

The evaluation reveals that the company faces challenges related to data security, integrating new technologies, and complying with industry standards. The COBIT 2019 framework provides a structured approach to assess the company's IT governance, emphasizing the importance of aligning IT with business goals and effectively managing risks. The research measures the capability levels in specific IT processes using COBIT 2019, identifies gaps, and provides recommendations for improvement.

Gap analysis indicates variations between targeted and actual capability levels, highlighting areas that need enhancement. Specific weaknesses are identified in risk management processes, solution identification and development, and IT changes. Recommendations are formulated to address these weaknesses, improving workflow creation, information documentation, and testing practices. Emphasis is placed on continuous evaluation and improvement using leading frameworks like COBIT 2019. The company approves the recommended actions, signifying a commitment to enhancing security, IT processes, and overall operational efficiency. Future strategies include increasing employee awareness and developing procedural documents for information management security, ensuring the company remains resilient and competitive in the dynamic fintech market.

## Suggestions

To improve information technology (IT) management in a company, the initial step is identifying and establishing quality requirements. Subsequently, a suitable IT management framework, such as COBIT 2019, should be implemented. Afterwards, the current level of IT process capability will be evaluated, and the predefined targets will be compared. Sustainable improvement plans must be developed to address disparities and close gaps, particularly at level 2. Regular monitoring, stakeholder engagement, training, and compliance checks are crucial in these improvement steps. Involving all stakeholders, from senior management to IT staff, and conducting independent audits will ensure a comprehensive approach to achieving the desired level of IT management capability.

## REFERENCES

Alsaleem, E., & Husin, N. (2023). The Impact of Information Technology Governance Under Cobit-5 Framework on Reducing the Audit Risk in Jordanian Companies. *International Journal of Professional Business Review*, 8, e01236. <https://doi.org/10.26668/businessreview/2023.v8i2.1236>

Amorim, A., Mira da Silva, M., Pereira, R., & Gonçalves, M. (2020). Using agile methodologies for adopting COBIT. *Information Systems*, 101, 101496. <https://doi.org/10.1016/j.is.2020.101496>

Angelina, A., & Fianty, M. (2023). Capability Level Assessments of Information Security Controls: An Empirical Analysis of Practitioners Assessment Capabilities. *G-Tech: Jurnal Teknologi Terapan*, 8(1), 91–103. <https://doi.org/10.33379/gtech.v8i1.3509>

Bounagui, Y., Mezrioui, A., & Hafiddi, H. (2018). Toward a unified framework for Cloud Computing governance: An approach for evaluating and integrating IT management and governance models. *Computer Standards & Interfaces*, 62, 98–118. <https://doi.org/10.1016/j.csi.2018.09.001>

Information Systems Audit and Control Association. (n.d.). *COBIT® 2019 Framework: introduction and methodology*.

Information Systems Audit and Control Association. (n.d.). *COBIT 2019 Design guide designing an information and technology governance solution*.

Jaime, L., & Barata, J. (2023). How can FLOSS Support COBIT 2019? Coverage Analysis and a Conceptual Framework. *Procedia Computer Science*, 219, 680–687. <https://doi.org/10.1016/j.procs.2023.01.339>

Misuraca, G., & Viscusi, G. (2013). *Managing E-Governance: A Framework for Analysis and Planning* (pp. 204–224). <https://doi.org/10.4018/978-1-4666-4245-4.ch010>

Mubarak, R. F., & Fianty, M. I. (2023). Leveraging COBIT 2019 to Implement IT Governance in Mineral Mining Company. *Journal of Information Systems and Informatics*, 5(3), 1058–1071. <https://doi.org/10.51519/journalisi.v5i3.545>

Mutia, N., & Nur'ainy, R. (2020). IT GOVERNANCE: MEASURE CAPABILITY LEVEL USING COBIT 5 FRAMEWORK. *Jurnal Ilmiah Ekonomi Bisnis*, 25, 97–110.



https://doi.org/10.35760/eb.2020.v25i2.260  
9

Muttaqin, F., Idhom, M., Akbar, F., Swari, M., & Putri, E. (2020). Measurement of the IT Helpdesk Capability Level Using the COBIT 5 Framework. *Journal of Physics: Conference Series*, 1569, 022039. <https://doi.org/10.1088/1742-6596/1569/2/022039>

Nachrowi, E., Nurhadryani, Y., & Sukoco, H. (2020). Evaluation of Governance and Management of Information Technology Services Using Cobit 2019 and ITIL 4. *Jurnal RESTI (Rekayasa Sistem Dan Teknologi Informasi)*, 4, 764-774. <https://doi.org/10.29207/resti.v4i4.2265>

Nasser, B., Eleyan, D., & Alkhateeb, M. (2022). E-Government Sustainability & Governance: A General Framework. *International Journal of Scientific & Technology Research*, 11, 139-144.

Nugroho, H. (2017). Proposed IT Governance at Hospital Based on COBIT 5 Framework. *IJAIT (International Journal of Applied Information Technology)*, 1, 52. <https://doi.org/10.25124/ijait.v1i02.875>

Nurdin, A., & Lubis, M. (2023). The IT Governance Measurement using Cobit 5 Framework in Quality Assurance Department. *Jurnal Informatika Dan Rekayasa Perangkat Lunak*, 5, 0

80.  
https://doi.org/10.36499/jinrpl.v5i1.7963

Pratama Arthananda, K. (2021). The Role of COBIT5 as a Reference for Quality Service Quality Improvement Case Study: Private Bank in Indonesia. *Ultima Infosys : Jurnal Ilmu Sistem Informasi*, 12(2).

Putra, D., & Fianty, M. I. (2023). Capability Level Measurement of Information Systems Using COBIT 5 Framework in Garment Company. *Journal of Information Systems and Informatics*, 5(1), 333-346. <https://doi.org/10.51519/journalisi.v5i1.454>

Saeedinezhad, S., & Naghsh, A. (2019). *Management of IT Services in the Field of Pre-Hospital Emergency Management with the Combined Approach of COBIT Maturity Model and ITIL Framework: A Conceptual Model*.

Sanjaya, D., & Fianty, M. I. (2022). Measurement of Capability Level Using COBIT 5 Framework (Case Study: PT Andalan Bunda Bijak). *Ultima Infosys : Jurnal Ilmu Sistem Informasi*, 13(2).

Tantiono, A., & Legowo, D. (2020). Information System Governance in Higher Education Foundation using COBIT 5 Framework. *International Journal of Recent Technology and Engineering (IJRTE)*, 8, 2798-2811. <https://doi.org/10.35940/ijrte.F8192.03862>

