

Chapter 1

INTRODUCTION

1.1 Background

The rapid growth of electronic payments in Indonesia has placed Electronic Data Capture (EDC) machines as one of the most critical infrastructures enabling merchant transactions across the banking industry. As shown in statistical report by ASPI for Q1 2025 Admin (2025), we can see that the growth of EDC machines in the 4 years had been increasing by 40% from 1.6 million to 2.1 million EDCs as shown in Figure 1.1.

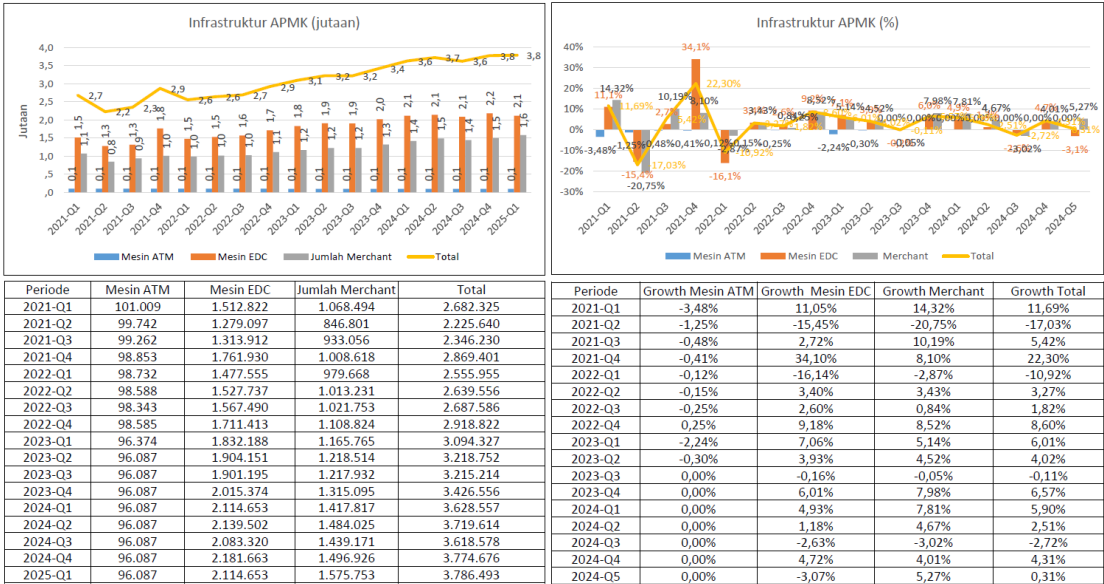


Figure 1.1: Infrastructure Payment Card System

However, this growth has also exposed persistent weaknesses in service delivery. At PT. XYZ, vendor-managed operations for EDC deployment and maintenance frequently underperform against Service Level Agreements (SLAs), resulting in extended downtime, delayed replacements, and uneven technician response across regions. Such shortfalls not only disrupt merchant transactions but also erode customer trust and create reputational risks for the bank. IR Academy McEntee mentioning that SLAs are key element in managing financial and operational risk associated with outsourcing contracts and specific services, not delivering on SLA or ineffective

management of the fall out of processing issues can result in breach of trust between the customer and provider.

For large banks in managing hundreds of thousands of EDC units nationwide, service delivery performance has becoming a decisive factor in ensuring customer trust and sustaining reliability in cashless ecosystem. In This context, vendor management becoming a pivotal role, especially at PT. XYZ, since majority of EDC deployment, maintenance and replacement cycles are outsourced to third party providers being monitored by Service Level Agreements (SLAs). An SLA is not just a contractual formality, but it is a governance instrument that defines clear metrics. As mentions at NContacts whitepaper [NCo \(2023\)](#), in its simplest form, an SLA between a financial institution and third party vendor is a document that outlines minimum performance standards during term of contract and the potential consequences for failing to meet those standards.

Ensuring good quality at SLAs delivery especially in using outsourcing vendor at vendor management for EDCs services becoming top priority for PT. XYZ. Focusing at deployment and maintenance of EDC machines, PT. XYZ and their vendors agreed at SLA delivery as shown at Table [1.1](#) which for deployment (called Onboarding or PB - Pemasangan Baru) have SLA of Day +1 from requested date with delivery of 99% percent according to the given SLAs, and for Maintenance activity that consist of checking, repaired and replacement of EDC machines at location have SLA of Hour +4 prior to incident has arise to 2 days according to which area that the incident occurred (as define internally) that have target of 99% delivery of given SLAs

Table 1.1: SLA Target of PT. XYZ in managing Onboarding & Maintenance Services

Scope of Service	Service Quality	%SLA Target
Onboarding / PB	Day +1	99%
Maintenance	Hour +4 to 2 days (area dependency)	99%

Unfortunately, the expected SLAs being agreed by PT. XYZ and its outsourced vendor was not being achieved. Based on performance report at 2024, SLAs deployment at Jabo (Jakarta, Bogor, Depok, Tangerang, Bekasi) only achieved once at February for 99% delivery, while at non Jabo area achieve 9 from 12 times. For

maintenance itself, only achieved twice at non Jabo Area, special mention at Jabo area, SLAs maintenance was suffering a lot especially at Q1 - Q3 2024, in which all the months SLAs for maintenance average at 95% with lowest delivery at 91% in February as shown at Figure 1.2

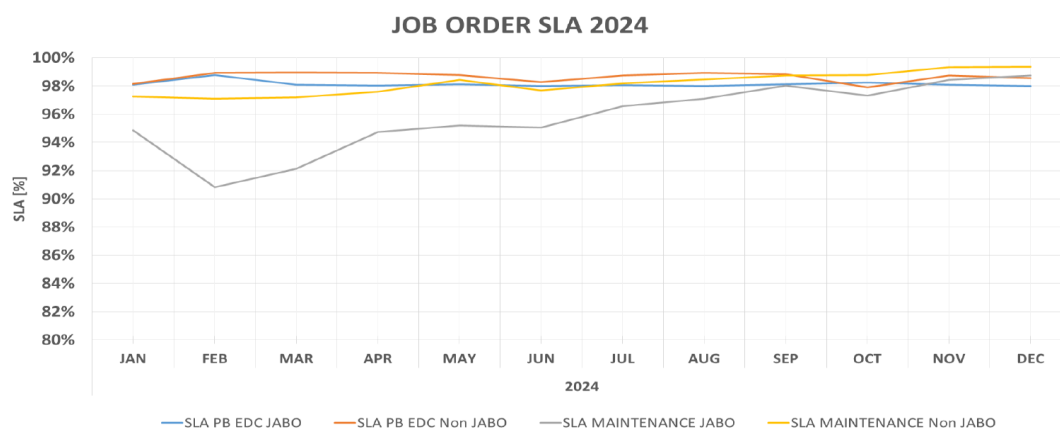


Figure 1.2: SLA Performance of PT. XYZ 2024

The result of Undelivered SLA Performance become main issue in PT. XYZ, which is almost throughout the year the target not being achieve, therefore this study is taken to further analyze and study based on this use case.

1.2 Research Problem

To understand the operational challenges being face by PT. XYZ in managing its nationwide operational of EDC Services, an internal Forum Group Discussion (FGD) was conducted with stakeholder at the operational level. These stakeholder ranging from Vice President (VP) to operational staff, to provide further insight from their specific roles and responsibilities in the service delivery chain (see Table 1.2). This perspective is needed to gathered what is the cause of recurring issues in vendor management being faced by PT. XYZ in vendor governance, SLA monitoring, field operations and day to day execution.

Table 1.2: PT. XYZ EDC Services

Position	Role	Key Responsibilities
Vice President (VP) of EDC Services	Strategic Oversight	Provides strategic direction for EDC operations, ensures alignment with corporate governance frameworks, approves vendor policies, and acts as decision-maker for escalations related to SLA breaches or vendor disputes.
Assistant Vice President (AVP)	Tactical Management	Translates strategic directives into operational plans, monitors SLA performance indicators, supervises multiple units, prepares vendor evaluation reports, and escalates operational issues to the VP.
Officer	Process Specialist / Analyst	Executes vendor coordination tasks, documents SLA performance, validates invoices, maintains operational reporting, supports audits, and provides analytical input for vendor scorecards and compliance monitoring.
Supervisor	Operational Oversight	Coordinates frontline teams, ensuring SOP compliance in service delivery, monitors workload distribution, manages incident escalation, and guarantees timely EDC deployment and maintenance.
Staff	Operational Executor	Carries out daily operational activities such as EDC installation, merchant onboarding, service request handling, and documentation of vendor service performance; reports execution outcomes to supervisors.

The discussion outcome were being categorized using the Ishikawa (fishbone) framework across five dimensions (**Man, Method, Process, Environment, Material**) which each stakeholder feedback being mapped into these categories to identify root cause contributing to SLA underperformance (Table 1.3). For example, how VP highlighted that vendor selection lacked in standard justification which categorized under method, while supervisor emphasized on inconsistency of field service team quality due to outsourcing practices which categorized under Man. Similarly, officers raised concerns about vendor qualification standards and reporting quality (environment), and staff was pointed out dependencies on manual process (Material, Process)

Table 1.3: Summary of FGD Stakeholder Discussion

Discussion Point	Fishbone Category	Key Problem Identified
Oversight on vendor policies and SLA contracts	Method	No standard process in vendor selection; justification for vendor appointment not documented
SLA monitoring and reporting	Process	Not all processes are covered by SOP; performance measures too general and SLA-only
Vendor coordination and SLA documentation	Environment	Vendor qualification not standardized; performance evaluated only on SLA results
Field team operations and workload distribution	Man	Outsourced staff vary in quality; no standard recruitment requirements
Daily execution of EDC deployment and maintenance	Material / Process	Dependence on EDC machines without supporting standardization; some processes remain manual
Overall operational readiness	Process	Ongoing development required for system readiness and SLA alignment

The synthesis of these discussions and categorization is further visualize in Fishbone Diagram (Figure 1.3). From this analysis, several recurring themes were identified: (1) absence of standardized vendor selection and qualification process, (2) gaps in SOPs coverage and performance measurement that remain overly general, (3) inconsistent of quality and recruitment standards outsourced staff, and (4) ongoing system development that forces reliance on manual processes. These found out were consolidated in Table 1.4.

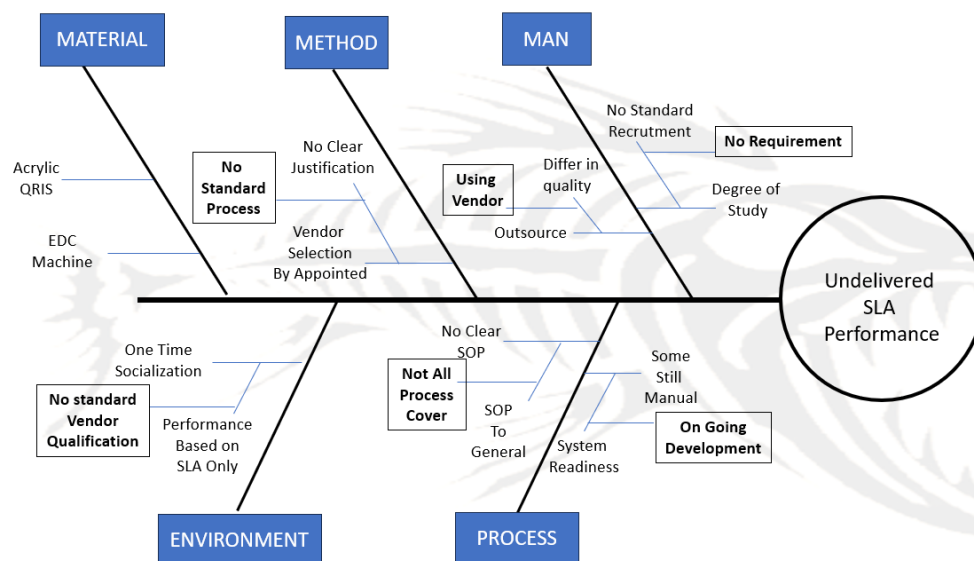


Figure 1.3: Fish Bone Diagram

Table 1.4: Identified Problem of PT. XYZ in managing Onboarding & Maintenance Services

Identified Problem
No Standard Process
Using Vendor (Outsourcing)
No Requirement
No Standard Vendor Qualification
Not All process Cover in SOP
On Going Development for the System

In summary, these research problem can be defined as **the consistent underachievement of SLA targets in EDC Onboarding and maintenance services at PT. XYZ, which caused by fragmented vendor management practices and lack of standardized governance mechanisms..** This absence of uniform processes either at vendor appointment stages and during operational service delivery creates further variability in service quality delivery across regions nationwide, which resulting in SLA performance gaps, reputational risks, and potential transactional losses for PT. XYZ. This condition provides the foundation for the study to develop a framework that addresses these governance and operational shortcomings

1.3 Research Objective

Primary Objectives

- To develop a **vendor governance framework for PT.XYZ based on COBIT 2019 (APO10, DSS01, MEA01)** which ensures standardized in vendor selection, qualification, and SLA monitoring at PT. XYZ EDC Service delivery.

Secondary Objectives

1. Design a COBIT 2019 based vendor-governance framework (APO10, DSS01, MEA01) that outputs SOP/RACI, SLA/KPI scorecards, and a vendor evaluation model (SWA).
2. Assess current capability for APO10/DSS01/MEA01 using NPLF and quantify gaps to target levels.
3. Demonstrate improvement logic by mapping gaps → controls (SOP, metrics, roles) and validating via expert review.
4. Operationalize vendor rationalization with SWA and report baseline vs ranked outcomes for current vendors.

1.4 Significance of Study

This study holds significance on two major categories, in its practical contribution to the financial industry and at academic enrichment to the field of IT Governance and Operations Managements.

From **practical perspective**, this research responds directly to the challenge being face by PT. XYZ in managing its nationwide EDC machines delivery network which being outsource to outsourced vendors. By examining gaps in service delivery and vendor governance, this study provides a structural framework that can help the company to standardize vendor selection, qualification, and SLA monitoring across regions. Such as a framework critical not just only for day to day operational level, but also safeguarding for customer trust and minimizing reputational risks. In the long term, the outcomes of this research can support PT. XYZ in achieving operational excellence, ensuring that SLAs target are consistently meet and providing model that can be adopted

by other financial institutions whom facing similar issues with outsourced service delivery.

From **academic perspective**, this study contributes by applying and contextualizing COBIT 2019, specially domains **APO10 (Managed Vendors)**, **DSS01 (Managed Operations)**, and **MEA01 (Monitoring Performance and Conformance)**, to the domain of vendor governance in financial operations. While ITIL and SCOR are reviewed as comparison frameworks, this research will focused on COBIT 2019 as the foundation for developing governance guidelines. In doing so, it demonstrates how a well established IT governance model can be adapted to solving operational issues such as vendor rationalizations and SLA performance in the banking sectors. Furthermore, the validation of proposed framework in measuring which vendor will be selected in the process of rationalization will using **Simple Weighted Average (SWA)** to introduce practical way of measuring vendor performance and prioritization, which strengthens the academic rigor of this study while keeping its application grounded in real operational needs.

Overall this research is significance because its not only proposed a governance framework tailored to PT. XYZ operational challenge only, but also advance to understand how IT Governance principles can be translated into practical tools for managing outsourced vendor services in large scale of financial ecosystems.

1.5 Research Question

This study try to answer following question:

1. RQ1: Which documented gaps (by NPFL %) exist in APO10/DSS01/MEA01 and which controls are missing at PT. XYZ?
2. RQ2: How can a COBIT-aligned SOP/RACI + SLA/KPI set reduce those gaps toward target capability > L3?
3. RQ3: Which criteria & weights (SWA) most reliably differentiate vendor performance aligned to the SLA/KPI set?
4. RQ4: Do experts who meet predefined competence criteria agree that the proposed framework is fit for purpose for PT. XYZ? (agreement threshold, e.g., >80% “agree/strongly agree”).

1.6 Scope and Limitation

The scope of this study is limited to the operational aspects of vendor management at PT. XYZ, specifically those related at deployment (onboarding) and maintenance of EDC machines delivery. This research will focus on vendors at field service operations and evaluates their performance against Service Level Agreements (SLAs). For aspect of Strategic, Financial or Enterprise Wide perspectives in detail are not included in this analysis, as the emphasis is on the governance and operational level where SLA underperformance has been more apparent.

Furthermore, the study will apply COBIT 2019 framework as its foundation, with particular domains **APO10, DSS01, MEA01**. These domains are selected because they directly address vendor governance, service delivery and performance evaluation. Other frameworks such as ITIL and SCOR are reviewed as comparative references in the literature review and are not used as the basis of proposed framework.

In terms of methodology, this study limits its vendor evaluation using Simple Weighted Average (SWA) methods as Multi Criteria Decision Making (MCDM) approach. This is being chosen to ensure a straightforward, practical, and replicable process for scoring vendor performance. More complex MCDM methods such as AHP are excluded from the scope.

Finally, this research acknowledges several limitations during the process. The findings are based on the case of PT. XYZ and may not capture all challenges faced by other financial institutions with different operational scale or vendor ecosystems. In addition, the study relies on internal reports, SLA records, and stakeholder inputs, which may carry certain biases or reflect specific organizational context. Nevertheless, the focus on PT. XYZ provides a detailed and relevant exploration of vendor governance issues in large scale financial operations

1.7 Thesis Structure

The rest of this document will be based on the following order:

- Chapter 2: Review the literature based on previous study and on theoretical perspective

- Chapter 3: Based on previous study, will describe research methods that will be used for this study
- Chapter 4: Discuss the process being conduct based on the research methods mention at Chapter 3 and analyzed the result of the research
- Chapter 5: Will summarized the result from Chapter 4, and the conclusion of this study

