



Strategy Implementing Continual Service Improvement with ITIL Framework at PT.Anabatic Technologies Tbk

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Abstract—Along with the development of technology, various solutions companies in Indonesia have contributed a lot in the banking sector in Indonesia. Anabatic is one solution provider for banking software in Jakarta which is well known among other providers. Anabatic has more than 10 years experience as a solution provider, and many projects have been completed and have many customers especially in the banking industry sector therefore to maintain the trust of sustainable services as a solution provider then respond to the above there are several ways done, one of them is to explore new approaches to improve services. The management should provide the appropriate means to approach the new approach is not lost in vain. One method that is capable of dealing with change that can make dynamic organizations and respond to change well, it is necessary to strategize and apply the concept of continuous service improvement better known as Continual Service Improvement (CSI) which can be applied in organizations. Continual Service Improvement (CSI) will be aligned with strategic concepts that fit the needs of organizations that are sequenced logically and have advantages. Therefore in this research using Information Technology Infrastructure Library (ITIL) as a framework and this method aims to improve the Services and trust to customers.

Keywords: Continual Service Improvement (CSI); Information Technology; Infrastructure Library (ITIL); Information Technology Service Management;

I. INTRODUCTION

The development of information technology especially in Indonesia is increasing rapidly with the modernization in the technology-based software to business activities run in each company as a medium of information, the information system that can help bring the message in real time to smooth business in each company. The role of the Information System is significant that of course must be balanced with the proper arrangements and management so possible losses may be avoided [1].

With growing of business activity accompanied by the rapid development of information technology requires the utilization of optimal system on various existing resources, the need of time and cost efficiency which cause every company need to apply information technology in order to have excellence in running its business process and can compete with other company in similar industries, therefore today many information technology services companies provide services and the provision of information technology solutions that aims to help each company improve the effectiveness and efficiency to achieve strategic objectives and provide a variety of purposes that of course by utilizing information technology with the optimal system. The availability of software as a major component in achieving excellence and competing in information technology services business.

PT. Anabatic Technologies ("Anabatic") is a national private company established in 2002 which is affiliated with Titan Group, the group has diversified business fields such as information technology, mining and agribusiness. Anabatic acts as the holding company for the IT arm of Titan Group, and currently is one of the leading Information Technology companies in Indonesia. Anabatic is a trusted IT service solution company which has a competency team especially in banking services. Anabatic has a SME (Subject Matter Expert) team and consultant team who has competence in the related fields and appropriate in the implementation of this project. The Anabatic team always work together to support for success of all project entrusted to Anabatic. They must be completely aligned with business in order not only to support it, but also to improve it [2]. Meanwhile, these beliefs include: a focus on the organization (the business enterprise in particular) as the primary level of analysis; recognition that organizations differ—in value creation, value capture (firm performance), and value distribution, as well as in intermediary outcomes such as, but not limited to, innovativeness, competitive intensity, legitimacy, reputation, and status [3]. The management should provide the right tools for the new approaches to be lost in vain.

One method that is capable of dealing with change that can make dynamic organizations and respond to change well, it is necessary to strategize and apply the concept of continuous service improvement better known as Continual Service Improvement (CSI) which can be applied in organizations. Continual Service Improvement (CSI) will be aligned with strategic concepts that fit the needs of organizations that are sequenced logically and have advantages. Based on purpose of CSI, Service Improvement is where the service provider maintains and improves the quality of the service by agreeing to, monitoring, and reporting on IT achievements [4]. Therefore in this research using Information Technology Infrastructure Library (ITIL) as a framework and this method aims to improve the Services and trust to customers.

A. Research Problems

Based on the background described above, the outline of the problem is how are the stages, challenges, risks, and determinants of the success of the Continual Service Improvement (CSI) implementation using the ITIL framework?

B. Limitation of Research

In this issue so that the discussion is not too extensive, then the focus problem definition are as follows:

- 1) In this research is located at PT. Anabatic Technologies Tbk
- 2) This research uses only ITIL framework which is focused on Continual Service Improvement.
- 3) The project to be implemented is the WB / SME LOS and Credit Monitoring System project at Banking Project.
- 4) Research technique we use assessment and service metric

C. Purpose And Objectives

The purpose of this research are:

- 1) Explain the implementation stages of Continual Service Improvement (CSI)
- 2) Explain the implementation challenges Continual Service Improvement (CSI)
- 3) Explain the risk of implementing Continual Service Improvement (CSI)
- 4) Explain the determinants of the implementation of Continual Service Improvement (CSI)
- 5) Implementing Continual Service Improvement (CSI) on WB / SME LOS project and Credit Monitoring System at Banking Project and objective of this implementation is to improve the services to customers of PT. Anabatic Technologies Tbk.

II. THEORY FUNDAMENTAL

A. Information Technology Infrastructure Library

ITIL is a collection of best practices for managing IT, collected from sources all over the world. It was developed in the UK in the 1980s by the government to improve its management of IT. ITIL life cycle consists of five phases; each phase includes processes, functions, roles and performance measures [5]:

- 1) Service Strategy: Covers the strategic vision, design, development and implementation of service management. It is composed of three processes (portfolio management, demand management, financial management).
- 2) Service Design: Covers architecture, processes, policies and documentation and consists of seven processes (Catalogue Design, Service Level Management, Supplier Management, Availability Management, Continuity Management, Capacity and Information Security Management).
- 3) Service Transition: Covers the elements needed to start production of services (construction, testing, documentation and training) and consists of seven processes (Configuration Management, Change Management, Release Management, Knowledge Management, Transition planning and support, service validation and testing and evaluation of execution of requests).
- 4) Service Operation: Covers the elements necessary for the provision of services, it guides the execution of processes necessary for the management of services and technologies. It consists of five processes (event management, incident management, problem management, request management and access management) and four functions (service desk, technical management, application management and IT operations management).
- 5) Continual Service Improvement: Covers service improvement processes, service measurement and service reporting.

In other theory, ITIL framework is prepared by the Office of Government Commerce (OGC) UK in collaboration with the IT Service Management Forum. ITIL is an IT framework that provides guidance on how to achieve success in the operational management of IT services (IT Services Management). ITIL consists of a collection of guides 8: Service Delivery, Service Support, Planning to Implement Service Management, ICT Infrastructure Management, Software Asset Management, Business Perspective, Security Management and Application Management [6].

B. Continual Service Improvement Definition

The goal of the CSI stage according to the ITIL cycle stages is to align IT services with changing business needs by identifying and implementing improved IT services that support business processes. This improvement activity supports life cycle approach through service strategy, service design, service transition and service operation. CSI can always find ways to improve service effectiveness, process effectiveness, and cost effectiveness [7], and there the other definition is ITIL Continual Service Improvement describes best practice for achieving incremental and large scale improvements in service quality, operational efficiency and business continuity, and for ensuring that the service portfolio continues to be aligned to business needs [8].

C. Objective of Continual Service Improvement

There are objective of CSI on below [8]:

- 1) Review, analyse, prioritize and make recommendations on improvement opportunities in each lifecycle stage: service strategy, service design, service transition, service operation and CSI itself
- 2) Review and analyse service level achievement
- 3) Identify and implement specific activities to improve IT service quality and improve the efficiency and effectiveness of the enabling processes
- 4) Improve cost effectiveness of delivering IT services without sacrificing customer satisfaction
- 5) Ensure applicable quality management methods are used to support continual improvement activities
- 6) Ensure that processes have clearly defined
- 7) objectives and measurements that lead to actionable improvements
- 8) Understand what to measure, why it is being measured and what the successful outcome should be

III. METHODOLOGY

A. Research Stages

In doing this research the authors take steps taken systematically so that what is desired can be achieved. Figure 1 is the steps undertaken by the author of conducting this research, based on 7 Step improvement process of implementing Continual service Improvement [8]:

- 1) Step 1 – Identify the strategy for improvement
- 2) Step 2 – Define what you will measure
- 3) Step 3 – Gather the data
- 4) Step 4 – Process the data
- 5) Step 5 – Analyse the information and data
- 6) Step 6 – Present and use the information
- 7) Step 7 – Implement improvement

B. Research Technique

In this research we used assessment from “continual service improvement readiness assessment” and metric focus on “service metric”. This Research use 10 participants to fill the assessment and 152 Questions. The Assessment for test the CSI Process, CSI Technology Consideration, Organizing CSI, Implementing CSI, Service Design Process Implementation Considerations, Service Management as a Practice, and CSI Principles

IV. RESULT AND DISCUSSION

A. Implementation Stages

This research implementation stages use 7 step improvement process in CSI which are; Identify the strategy for improvement, define what you will measure, gather the data, process the data, analyse the information and data, present and use the information and implement improvement. All this stages as a guide to implement Continual Service Improvement with ITIL principle for improve the services at Anabatic project, especially for WB / SME LOS project and Credit Monitoring System at Banking Project.

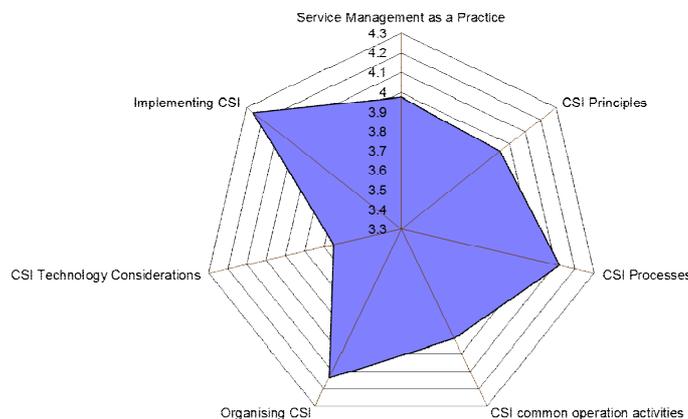
1) Assessment

The result assessment on table 1:

Table 1. Result CSI Assessment

Participant	CSI Processes	CSI Technology Considerations	Organizing CSI	Implementing CSI	Service Design Process Implementation Considerations	Service Management as a Practice	CSI Principles
Participant 1	183	126	56	60	37	50	64
Participant 2	177	124	53	60	40	51	63
Participant 3	179	124	70	59	42	49	64
Participant 4	176	125	67	58	42	52	64
Participant 5	173	122	73	59	42	51	60
Participant 6	175	124	67	59	46	52	63
Participant 7	180	124	68	60	43	54	62
Participant 8	174	129	70	58	43	51	64
Participant 9	178	127	70	55	43	54	63
Participant 10	177	128	68	56	43	53	63
Average	4.12	3.65	4.14	4.21	3.91	3.98	3.94

As result on table 1, we get information from questionnaire that the high score on the assessment is implementing CSI with score 4.21. The result indicate the project team are ready to implement CSI on the project, and the high score in the questionnaires in this domain is “We have a communication strategy and plan” indicator with score 47 from 50 point. The indicator “We have a communication strategy and plan” has already defined on first discussion from request of Proposal (RFP) to improve the CSI. The average CSI readiness Score with radar chart is shown on picture 1:



Picture 1. Radar Chart – Average CSI readiness Score

From picture 1 score “CSI Technology consideration” is 3.65 and it showing low score in the radar. The lowest indicator “We use software version control tools to support CSI activities” score 33 from 50, the reason is the support only have use software low version to accommodate controlling CSI Activity.

2) Service metrics

Service metric with used service level agreement (SLA) are as shown in the following table 2:

Table 2. Service Level Agreement

Severity Level	Description	Response Time for Tactical Solution	Resolution Time
Severity 1 "Priority 1"	Related functions on production system immediately unavailable/stop/seriously impact the business users. No bypass or workaround is available for the problem. Typical online critical transactions failing under this umbrella could be related to all modules in Regulatory Reporting System	30 (thirty) minutes	Temporary solution: 4 hours Fixed solution: 2 (two) days
Severity 2 "Priority 2"	Critical components and applications are unavailable, although the operations can be carried out by implementing compensating controls or by other workarounds.	1 (one) hour	Temporary solution: 1 (one) day Fixed solution: 2 (two) days
Severity 3 "Priority 3"	Little or no operational impact but causes loss of productivity and/or cost efficiency. A non-essential function is not working in a restricted manner. Effect on the business would be minimal	1 (one) hour	Fixed solution: 2 (two) business days
Severity 4 "Priority 4"	Cosmetic problems with no operational impact.	1 (one) hour	Fixed solution: 5 (five) business days

Tables 2 show the Service Level Agreement (SLA) and this SLA is to bridge the gap between service provider and users or customers [9]. So this SLA as an agreement should be agree with 2 side, Anabatic and Bank.

B. Implementation Challenges

In this research there are challenges of the implementation from each role in the project, shown on table 3:

Table 3. Roles and responsibilities for the Bank team assigned to the project

Role	Descriptions
Project Sponsor/ Steering Committee (Management)	<ul style="list-style-type: none"> • Sets high-level direction of the Program/Project accordance with Bank portfolio in scope (Wholesale Banking and SME) • Ensures the objectives of the Program/Project are aligned to the business priorities defined in the Strategic Business Plan Periodically reviews progress towards achievement of program and business objectives • Resolve any major conflicts or policy changes that the Program/Project Committee cannot resolve
Project Manager	<ul style="list-style-type: none"> • Has overall day to day basis responsibility for ensuring the success of overall project • Controls the day to day aspects of the Project • Tracks Project action items and issues. • Responsible for administrative coordination of Project • Responsible for timely and quality delivery of project deliverables Approve project deliverables as defined in Key Project Milestone Signoff • Develops Project Charter and Project Plans • Executes formal reviews and management reviews • Tracks and disposes of issues • Report timely and accurately project status and project performance
PMO Manager	<ul style="list-style-type: none"> • Monitor and Coordinate all project deliverable to comply with bank Standards. • Review all project progress and recommend appropriate actions to respective parties. • Ensure the Project Management comply with Bank Standards. • Approve project deliverables as defined in Key Project Milestone Signoff
Technical Team	<ul style="list-style-type: none"> • Provide technical configurations and communicate the user requirement to Data management team. • Provide and setup IT infrastructure

	<ul style="list-style-type: none"> • Support testing activities • Migrate existing configurations and data source from 3rd party (if any). • Setup production user profile • Support post production activities in command center
Business Team Member/ Business Consultant/ Analyst	<ul style="list-style-type: none"> • Collect & confirm user requirements and documenting the status of implementation • Monitor documentation on Training • Provide deployment plan • Workshop • Support testing activities • Support Training & Rollout • Identify, evaluate and mitigate operational risk assessment
Business Process Owner	<ul style="list-style-type: none"> • Appointed senior representative of the products and services implemented in the Program/Project • Approves project deliverables as defined in Key Project Milestone Signoff • Provides expert products and services understanding of the organization • Takes ownership for the functional quality of the products and services implemented • Provides high-level direction for the business aspects of the project • Provides business justification for the project and any subsequent changes to its scope • Helps resolve conflicts over policies and procedures relating to the product/services • Makes user resources available
IT Service/ Process Owner	<ul style="list-style-type: none"> • Owner and approval authority of policy on any IT issue include Security, Testing along with Deployment. • Approves project deliverables as defined in Key Project Milestone Signoff • Review and final approval on IT policy (include Security, Testing along with Deployment) as needed for the project implementation • Review and final approval at risk acceptance level • Validate the configurations • Assign representative for IT and Administration training, and all IT support required

C. Implementation Risk and Mitigation Strategy

In this research we highlight the following key risks and mitigation strategies are shown on table 4:

Table 4. Risk and Mitigation Strategy Project

Risk	Mitigation Strategy	Responsibility
Business Processes (work flows and document templates) not completely defined and validated internally	It is necessary that the Bank goes through workshop exercises with each business unit to identify the major processes and sub processes within each business unit and document these. Roles, responsibilities of each participant have to be defined. Document templates, reports, etc. have also to be validated.	Bank
Availability of IT resources for the integration with the Bank's systems (online and batch interfaces).	Introduce an integration manager (technical) role, staffed by a suitably qualified person, who is the single point of contact for batch and online interface related issues.	Bank
Change management: Users can have difficulty to adhere to the new procedures and platform (common risk to any project)	Users have to be involved quite early during the project Implementation (kick-off, etc.). Their opinion and input have to be taken into account (in a channeled and structured manner). Change management process has to take place with training sessions, etc. Project Progress Reports has to be published regularly Trainings have to take place with the right timing	Bank and Anabatic
Project Management and Resource Continuity	Accurate assessment of the workload, deadlines and perfect understanding of business and technical challenges by the Project Manager and Consultants. The same consultants involved in scope of work should continue to be involved in implementation process as he/she has the full understanding of the requirements and the Bank environment.	Anabatic

D. Implementation Determinant

There are success factor for determination implement CSI based on the indicator “We have a communication strategy and plan”:

- 1) Good cooperation in the project team both from business and technical from the Anabatic and Bank.
- 2) Clear guidance (with deadlines) from the project steering committee especially for issues which need high level decision making.
- 3) Project progress report/review in periodic basis to ensure that deliverables and project milestones have been achieved.
- 4) Good and assured support from all parties.
- 5) Execution of the project in a structured way

V. CONCLUSION

Based on the results of the deliberations of the research that has been discussed in the previous chapter, then the conclusion for succession the implementation Continual Service Improvement have 7 step, the steps is a based practice for implement the CSI. Meanwhile implementing the CSI there are many challenge and risk as a ingredients for succession the Implementing CSI.

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