

CHAPTER 3 - METHODOLOGY

3.1 Introduction

In this chapter, methodologies that are used to solve the thesis work will be explained. First will be the thesis methodology, and then the implementation methodology. The implementation methodology is based on the basic concepts and theories of Accelerated SAP methodology and ADempiere implementation methodology, explained in the previous chapter.

3.2 Thesis Methodology



Figure 3.1 Thesis Methodology

Figure 3.1 shows the guidelines of method when doing this thesis work. It all starts by defining the thesis objective first. In this case, the thesis objective is to implement ERP system at CV. Indo Surya. And the scope of implementation will be discussed in the ERP implementation steps. Since the thesis objective is to implement ERP, all exploratory research about ERP was done in detail. Knowledge skills such as training for the ERP system were done in the exploratory research phase. The ERP implementation will be explained later on in the subchapter. After all of the work is done, results must be concluded about the progress of implementation project and analysis about the benefits of ERP system for the company, which leads to the recommendation for continuous improvements.

3.3 Implementation Methodology

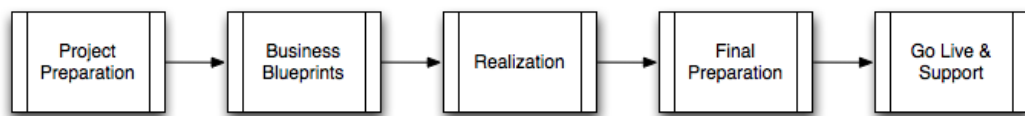


Figure 3.2 Implementation Methodology Phases

The methodology used for the ERP implementation is Accelerated SAP (ASAP) Methodology. Even though this methodology was created for SAP software projects, this time it will be used for implementing ADempiere ERP system. The ASAP methodology is divided into five phases:

1. Project Preparation
2. Business Blueprints
3. Realization
4. Final Preparation
5. Go Live & Support

3.3.1 Project Preparation

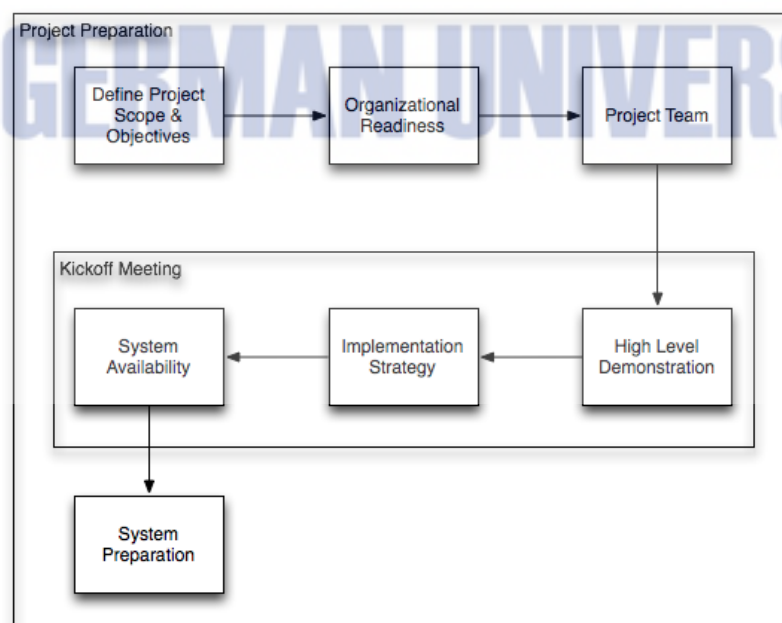


Figure 3.3 Implementation Methodology – Project Preparation

Project preparation purpose is to prove initial planning and preparation for the implementation. This preparation phase helps both consultants and the clients to identify the goal and strategies of the implementation project.

3.3.1.1 Define Project Scope & Objectives

It is crucial to define the project scope and objectives in advance. The purpose is to avoid sudden changes and ambiguities when the implementation process occurs. Before even thinking about going to the next step, the project scope and objectives must be described clearly.

3.3.1.2 Organizational Readiness

There are a lot of factors of successful ERP implementation. But the most significant one is the client readiness of change. No matter how perfect the system is configured, it will mean nothing if there are no commitment from the management. Organizational readiness will be asked for a full dedication in the implementation project.

3.3.1.3 Project Team

This activity is to assemble the project team responsible for the implementation. The project team consists of the project manager and the subordinates. The project manager is responsible of planning, executing, and controlling the project. Subordinates will help the project manager to accomplish the task. The subordinates will also consist of some executives and staffs from the organization.

3.3.1.4 Kickoff Meeting

This will be the first kickoff meeting consisting of three activities such as demonstrating the ERP package, creating the implementation strategy, and checking system availability.

3.3.1.5 High Level Demonstration

Before even using the ERP system, the client must receive a high level demonstration of the ERP concepts. This is to acquaint the team members to get along with the ERP project.

3.3.1.6 Implementation Strategy

An implementation strategy explanation is significant for all the members within the implementation project. By creating the perfect implementation strategy, organization can prepare of what is ahead of them. Project members can have the big picture of how the implementation process will go.

3.3.1.7 System Availability

In the last discussion of the kickoff meeting, company's technical infrastructure requirements for the system are defined. The hardware configuration is mostly dependent on the availability of the system. By using the template below, list of hardware can be ordered for system preparation.

Table 3.1 System Availability

System Availability	Yes/No	Remarks
Are there any server available/installed?		
Are there any networking system installed?		
Is there any router available?		
Is the internet connection available?		

3.3.1.8 System Preparation

After obtaining the system requirements for the project, the project team may start to order initial hardware. Software can be selected ahead, for example, the operating system and the ERP package. In this case, it will be ADempiere ERP.

3.3.2 Business Blueprints

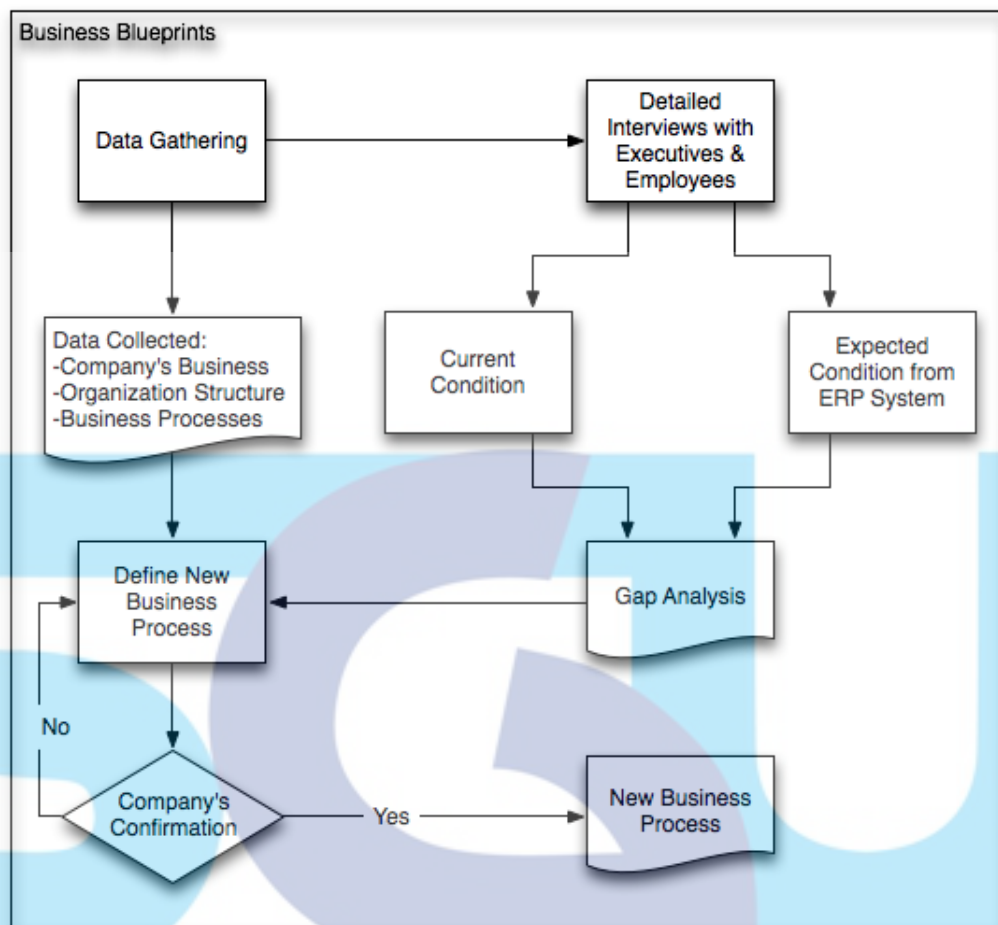


Figure 3.4 Implementation Methodology – Business Blueprints Phase

In this second phase, the objective goal is to achieve a common understanding of how the company runs the business, and how they intend to run ERP system to support their business. The result is a document called business blueprints.

3.3.2.1 Data Gathering

By gathering the data from the company, the project manager can obtain a detailed document of how the company is organized, how they run the business, and the processes within the company. The data will be documented using a business process-modelling (BPM) tool.

3.3.2.2 Gap Analysis

From a detailed interview with the company’s executives and staffs, a gap analysis can be made. Gap analysis purpose is to compare company’s current and expected situation. Gap analysis can identify the room for improvement within the company. By studying each process that occurs based on the implementation scope, gaps for improvement will be revealed. Table 3.2 is the template of the gap analysis that will be used when interviewing the company.

Table 3.2 Gap Analysis Template

No	Activity	Existing			Expected	
		Current	Result	Document	Expected	Result
Business Process						
1						
Business Process						
2						

3.3.2.3 Define New Business Process

From the results of data gathering and gap analysis, a new business process can be defined and proposed. The old processes cannot be repeated in the new system because that’s the way they have always been done. To see whether the gap analysis is accurate is by defining a new business process. After having the client’s agreement of the new business process, a new blueprint is documented.

3.3.3 Realization

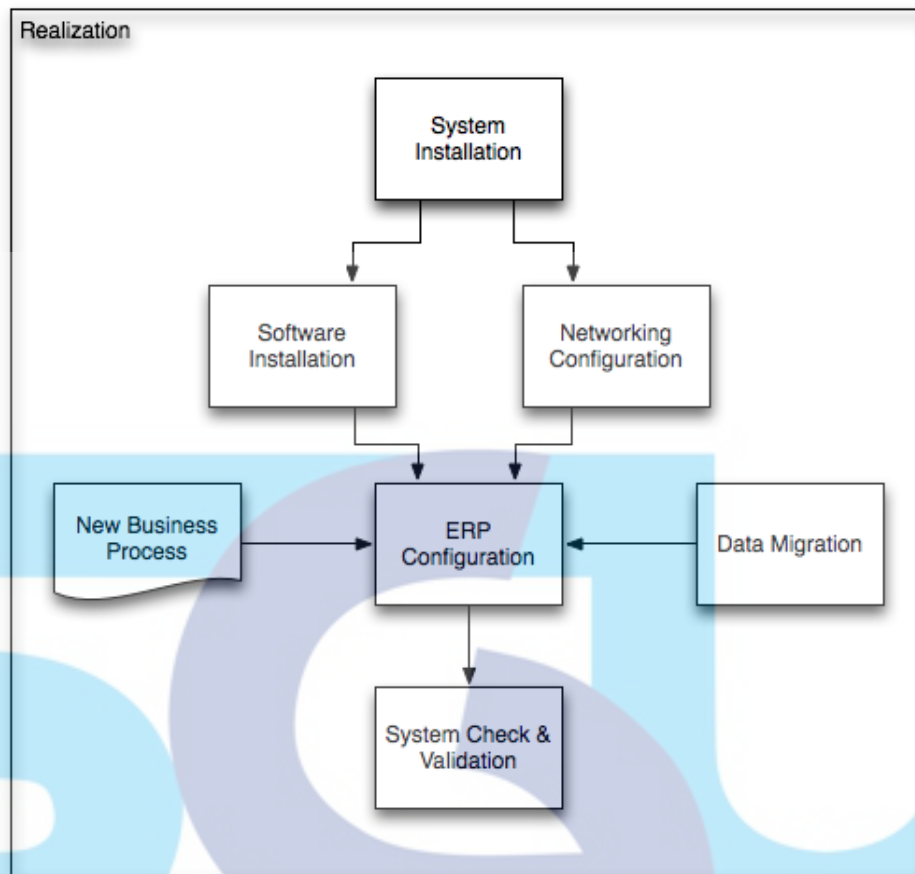


Figure 3.5 Implementation Methodology – Realization Phase

The realization phase is to implement all the business process and technical requirements gathered during the previous phases and documented in the business blueprint. This phase includes testing and validating the system.

3.3.3.1 System Installation

After achieving the required hardware proposed in the previous phase, the consultant may start installing the all the system. If the intention is to use a new operating system, then the new operating system will be installed. All of the required package for the ERP software will be prepared. ERP software, in this case is ADempiere, will be properly installed. Networking system for better security and performance will be configured.

3.3.3.2 Software Installation

Since a new hardware is created for the ERP system, some software needs to be installed inside the new hardware. Such type of software is:

- Operating System Software
- Database Software
- ERP Package Software
- Programming Language Software

Those types of software are necessary to be installed to build architecture of ERP IT system.

3.3.3.3 Networking Configuration

One of the important requirements of ERP system is that it has to be accessible from outside server area. This can be local area or public area. This activity will configure all the networking jobs such as:

- Setting up static IP for the server hardware
- Configuring server connection in the ERP package
- Registering a public IP or port forwarding
- Networking system check

3.3.3.4 ERP Package Configuration

After installing the ERP package, now it is time to configure all the documents from the business blueprints phase into the system. Since the used ERP software is ADempiere ERP, then this configuration phase will be setting up all the company's data into the system and migrating all the data required to be used for running the system.

3.3.3.5 System Check & Validation

The last activity in the realization phase is to check and validate all the configured and imported data in the ERP system. It is vital to check whether the system will run according plan or not because the next step is to have the user acceptance of the system.

3.3.4 Final Preparation

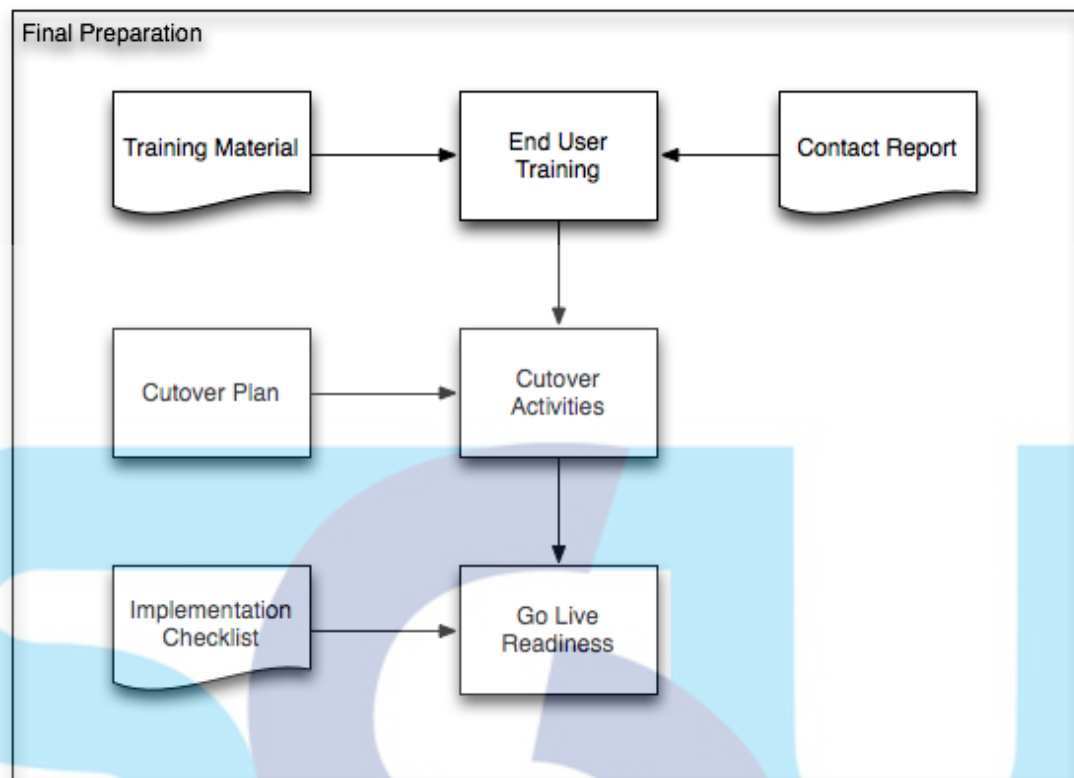


Figure 3.6 Implementation Methodology – Final Preparation Phase

This phase focuses on preparing both the software and end users for going live. In this phase, all open points have to be checked and resolved in order to ensure that there will be no problem in the Go Live & Support phase. Apart from system testing, system management and users training also play a central role in this phase.

3.3.4.1 End User Training

Training the end user is important if they want to use the software properly. Not just a basic training, the end user must be reminded of how the ERP system will run so that they can have a deep understanding of their job roles. The training will be given to the user that was pointed to use the ERP software in the future. Since every job process is a different training, it will be done separately within days using the Training Material Schedule template shown below. The evidence of this activity will be shown in the Contact Report.

Table 3.3 End User Training Material Schedule Template

No	Training Material	User	Day
1			
2			

3.3.4.2 Cutover

The cutover is the transition from the old system to the new system. Cutover plan is created to clarify the starting point of the new system. Cutover activities, such as importing last inventory at the starting point, will be done in this section.

3.3.4.3 Go Live Readiness

Finally before going live running the system, all the specified requirements must be checked again to ensure there will be no problems ahead. In this point, the system will be ready to run. ADempiere implementation checklist template will be used to check whether the system is fully ready or not.

3.3.5 Go Live & Support

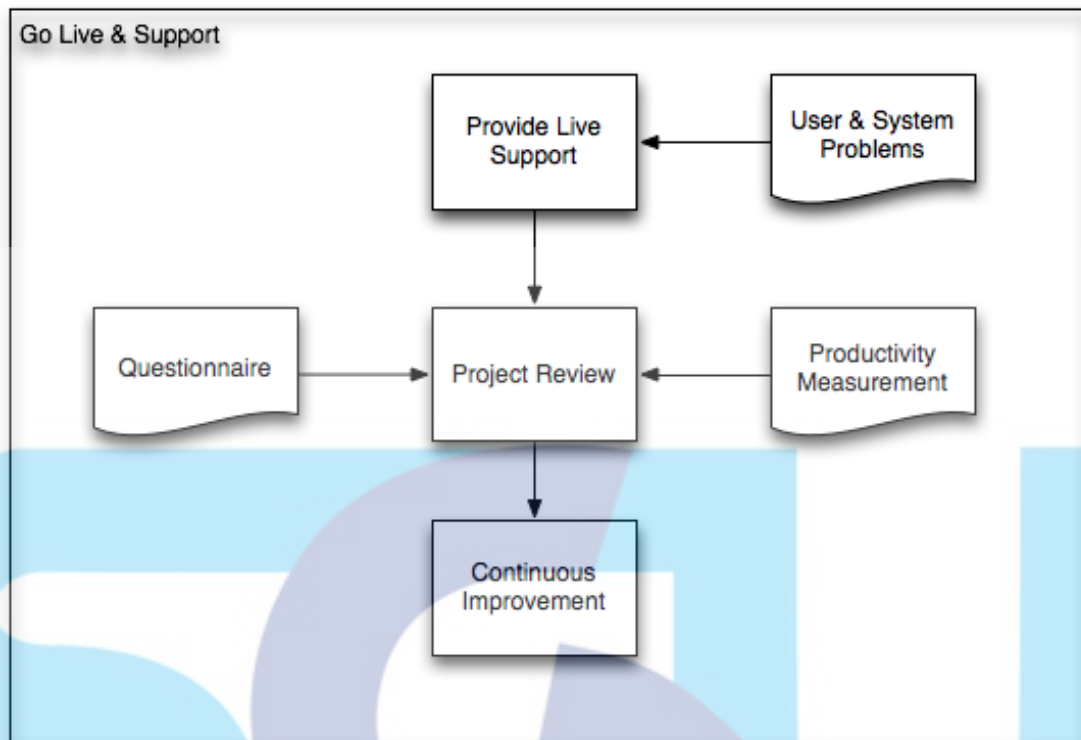


Figure 3.7 Implementation Methodology – Go Live & Support Phase

Completing this phase is the end destination of the implementation project. In this phase, the organization goes live with software and starts managing all daily activities independently.

3.3.5.1 Provide Live Support

Even though training for end users had been done and the system was checked and validated, sometimes problem occurs. In this case someone had to provide live support to end user and executives. And any problems that occur during the live system, all of it will be noted for the project review.

Table 3.4 Live Support Template

No	User	Problem Found	Solution	Date Occurred
1				
2				

The template above will be given to each end user including the project manager. If the problem can be solved at that mean time, the information will be noted.

3.3.5.2 Project Review

In the end, after a successful implementation project, a review is conducted. Whether the implementation was satisfying or there are comments about the project. Measurements are calculated to prove the gap analysis. Questionnaires will be given to all the users to achieve data analysis about the project.

3.3.5.3 Continuous Improvement

After obtaining bunch of results regarding all the activities, system & user performance, and implementation project, the next step is refine everything that can be improved. Subsequently, improvements such as new organizational structure and management system will be created and proposed in order to have the perfect system.