

I. INTRODUCTION

1.1 Background

Software Development Life Cycle (SDLC) is a well-known cycle in software development. SDLC clearly describes a variety of stages and is used by system engineers, designers, and system developers to carry out planning, analysis, system design, development, integration and testing, implementation, operation and maintenance, as well as the outcome of a product which is information system or software.

Each stage in SDLC has its own important functions and objectives to do. Failure in a certain stage may cause a decrease in the quality of end-product. The quality is measured by the suitability of the product with customer requirements. Therefore, the main objective of implementing SDLC in software development is to produce high-quality product that meets corresponding customer requirements.

To produce a high-quality product, product requirements must be defined clearly by a Project Manager of the team. A list of clear and detailed product requirements is fundamental for Project Manager to convey the product expectations to the rest of project team members which mainly are developers and designers. The product requirements are defined, specified, and documented into a documentation called Product Requirements Document (PRD).

A PRD is a product requirement documentation that is very important to provide a clear vision of expected end-product and prevent assumptions from project team that are contraries. As a guideline, PRD tends to develop in accordance with the additions or change requests from clients, which mainly resulted in changes of functional requirements – a part of PRD which defines functions of behaviors that can be done in the system.

Change requests from client are often limited by the scope of the project. The scope is determined by the business process of corresponding project. A clear business process is important to make better comprehension for all project parties (project manager, project team, client, and shareholders) of how business sequence processes work, relations between business participants, and message flows that occur within business process. Well documented and streamlined processes in Business Process Model and Notation (BPMN) are essential as it is a verified standardized model to ensure consistency, trackability, and focus towards a shared goal of a product via business point of view.

The intern was given the opportunity to work at PT Wave Consulting Indonesia as a Project Manager Intern. PT Wave Consulting Indonesia is a software development company that develops products and provides business and digital solution services to answer various client needs and increase the value of their products so that product can be sustainable and beneficial for their customers, stakeholders, and even shareholders. The intern was assigned as a Project Manager to lead project called Bindcover, an online insurance platform that accommodates

many insurance activities, such as making claims, holding appointments, and buying insurance policies.

The development of Bindcover application is divided into three Phases. The goal of development Phase 1 which is focused in this internship report is to accommodate Claim process between customer, analyst, admin, and insurance agent. The rest of the Phases will cover the development of Appointment process and Policy process.

Bindcover application encountered a state of ambiguity when entering development process. Efforts were wasted because it did not reach client expectations. After having a discussion between executives and project team, the intern concluded that the problem occurred because business process of Bindcover did not mapped clearly. Thus, with analysis of requirements that have been predefined by the company and discussions with client and executives, this internship report focuses on mapping business process of Bindcover application with a standard modeling format which is BPMN diagram version 2.0.

1.2 Problem Formulation

Planning stage in SDLC is very crucial because the system requirements must be defined precisely, clearly, and as detailed as possible. The requirements must be elicited from business process of the product, so risk of wasted efforts because miscommunications between client, project manager, and project team are minimized.

Development process of Bindcover application encountered some problems because incomplete planning stage, such as:

- There was no mapped business process. This caused many misleading assumptions of individuals on project team that results in several wasted efforts because customer did not expect them on the final product.
- The predefined requirements did not connect to any tasks of the initial flow chart diagram. This caused ambiguity of positioning the functional requirements in the flow.
- Many changes on development process made project team hesitating when taking progress because they do not want to have their hardwork done on development to restart back to square one because of unstable decisions of Project Manager and client.

The main problem is there was no business process to accommodate comprehension between customer expectation and project team. As a Product Manager Intern, countermeasure act to solve these problems are analyzing predefined requirements and model them into a standardized business process diagram.

1.3 Problem Limitation

This internship report focuses on mapping business process diagram of Bindcover application based on analysis of predefined functional requirements made by company.

There are restrictions on mapping business process diagram of Bindcover application Phase 1, such as:

- Business process of Bindcover application focused only elements that support Claim process.
- The format used for mapping business process of Bindcover application is Business Process Model and Notation (BPMN) version 2.0.
- Business process diagram modeled based on initial flow chart diagram and predefined functional requirements and specifications made by PT Wave Consulting Indonesia.
- Tools used to make BPMN diagram is BPMN shapes template of Microsoft Visio Professional 2016.
- Validation technique used in testing the diagram is Check Diagram, a feature to validating diagram provided by Microsoft Visio Professional 2016, which implements rule BPMN version 2.0.

1.4 Objective

The objective of this internship report is to model business process of Bindcover application with BPMN version 2.0 based on requirements that have been predefined by PT Wave Consulting Indonesia.

1.5 Internship Methodology

Methodology used in making this internship report is an in-depth study of the development of Bindcover application along with expected end-product by the client. After that, literature study was conducted on the rules of BPMN 2.0 so that the business process of Bindcover application could be carried out systematically and according to standards.

The process of making this report was also accompanied by responsibilities as a Project Manager Intern at PT Wave Consulting Indonesia. The intern was in charged of two projects, Bindcover and EDITH: Living Donor Registry.

Earlier of the internship days, the intern was assigned to be the Project Officer in the development of an application called Bindcover. At that time, Bindcover had entered the stage of developing first phase requirements. The responsibility as a Project Officer was to help Project Manager in charged by organizing the documents needed so it would be easy to read by all project team members that worked on the project. When the development was on progress, the Project Manager of Bindcover project resigned, so the intern was entrusted to hold the position and responsibility as a Project Manager.

As a Project Manager, the intern was responsible for guiding the project to an end, which means to produce a result that satisfies client. With that on mind, the tasks as a Project Manager revolving on two things. The first one is to elicitate the system requirements from client expectations. And the second one is to guide the project team by envisioning the objective of the product.

Aside from the general tasks mentioned before, as a Project Manager the intern was responsible for holding meeting with clients, discussing and creating project plans, mapping business process, defining and specifying functional requirements, and managing tasks for all members in the project team. All things discussed with client must be defined clearly and precisely, especially on functional requirements and business process of the project so the objective of product could be conveyed clearly to the individuals on project team.

1.6 Allocation of Internship Time and Place

Internship activity started from August 1st to November 31st, 2018, every Monday to Friday. The predetermined working hours were from 9 a.m. to 5 p.m. Internship activity was carried out in PT Wave Consulting Indonesia at Ruko Grand Aries Niaga, Blok E1 No. 2V, Jl. Taman Aries, Meruya, Jakarta 11620. Guidance time with the two supervisors is done every two weeks during the internship until after internship was completed. Guidance time was held in the 12th floor building F of lecturer room at Universitas Pelita Harapan. Details on the internship activity can be seen in Table 1.1.

Table 1.1 Implementation of Internship Activity based on N Week

No	Activity	Timeline															
		August				September				October				November			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	Entrusted as Project Officer of Bindcover	•	•	•	•	•	•	•									
2	Comprehend the objective of Bindcover	•															
3	Organizing Product Requirement Documentation of Bindcover		•	•													
4	Collecting resources and formulating problem that occurred				•	•	•	•	•								
5	Entrusted as Project Manager of Bindcover									•	•	•	•	•	•	•	•
6	Mapping business process of Bindcover					•	•	•	•	•							
7	Guidance time with supervisor	•		•		•		•		•		•		•		•	
8	Making internship report									•	•	•	•	•	•	•	•

1.7 Writing Systematic

This internship report consists of six chapters with systematics of writing as follows:

CHAPTER 1: INTRODUCTION

This chapter discusses about background of the problem, problem formulation, problem restriction, objective of the report, internship methodology, allocation of internship time and place, and writing systematic of this report.

CHAPTER II: LITERATURE REVIEW

This chapter discusses about theories and concepts applied as a basis of making the BPMN diagram.

CHAPTER III: OVERVIEW OF PT WAVE CONSULTING INDONESIA AND INTERNSHIP EXECUTION

This chapter discusses about overview of PT Wave Consulting Indonesia and Bindcover as a client company that uses software development service from PT Wave Consulting Indonesia.

CHAPTER IV: ANALYSIS AND DESIGN

This chapter discusses about the stages of planning and defining functional requirements of Bindcover application as well as each own requirement specifications.

CHAPTER V: IMPLEMENTATION AND TESTING

This chapter discusses about implementation of functional requirements which is already defined into BPMN diagram and result of the test performed on the diagram.

CHAPTER VI: CONCLUSION AND SUGGESTION

This chapter discusses about conclusions of Bindcover application business process modeling using BPMN diagram that covers the diagram that have been created and implementation of functional requirements to the diagram. Suggestions are also included in this chapter.

