CHAPTER 1

INTRODUCTION

1.1. Background

In the information era, companies are impacted to manage their information properly in order to facilitate business processes. There are various techniques of information management, which can be undertaken to enhance a company's performance. One of these is document management, which should be fully utilized to gain competitive advantage for the company.

Document management is an important element in supporting the creation of the company's strategy. By managing documents, all tasks which need to be accomplished within a compressed time frame will be significantly facilitated. Knowledge shared electronically enables companies to minimize risks of information loss through employee resignation, for example and to save space for document filing. Moreover, it can support the optimization of productivity and effectiveness by replacing the conventional/manual way of accomplishing tasks. Consequently, its implementation can optimally gain strategic advantages for companies to prosper in the competitive environment of similar businesses.

By managing documents efficiently, companies will gain many advantages related to their performance. The routine and cumbersome tasks done daily will be able to be optimally handled in a practical manner. In this way, not only the time used but also the human errors inherently involved in the task accomplishment can be optimally reduced. Likewise, information loss due to employee negligence can be

minimized. As a result, a satisfactory trade-off will be quickly gained as a strategic advantage over competitors in the same industry.

1.2. Problem Definition

PT. PD is a luxury housing construction company which has been utilizing a LAN to link each personal computer in each department in order to share information resources. Nevertheless, strategic management is not done optimally since it does not manage documents properly in interrelated departments. Some weaknesses which appear in pursuing company objectives lead to failure in improving productivity and effectiveness. Several weaknesses appearing in the estimate department are:

- Time wasted searching for electronic documents (files) stored without planning for future retrieval
- Time wasted using an incorrect version of a document, leading to negative consequences (e.g. company loss or profit reduction)
- Storage wasted on unnecessary duplication of documents
- Legal contracts cannot be adequately defended because vital information stored in a diskette can not be retrieved
- Loss of opportunities due to inability to provide information or to provide it rapidly
- Lack of a common corporate view due to unavailability of information throughout all departments

Much information has always been reused in accomplishing strategic processes in construction companies. This is true across a range of construction

companies' core businesses including building, housing, factory, and plant construction. In these companies, the estimation tasks, which constitute the business core process, are very time-consuming and exhaustive, as new sets of project information and new ways of estimating and producing budget estimates often have to be rapidly prepared. In addition, project specifications are often produced in large quantities but a routine manner, so companies need a reliable way of creating and storing them properly and efficiently.

The problems and nature of the work mentioned above will influence the company's productivity and effectiveness. By inadequately storing the documents of the estimate department, the company will find it very difficult to increase its productivity, since in fact much of the same information is used repeatedly in most strategic activities. Moreover, the cumbersome way of storing documents results not only in many disadvantages, but also in many human errors. Hence, effectiveness cannot be achieved due to the improper storage of knowledge.

Recent business and technological developments focus on the question of whether any particular methods used lengthen or slow down the process of strategic tasks. Across many construction companies' core business, there is increasing pressure for employees to reuse previous knowledge of products and processes when developing new project work. Work is also increasingly recognized as a social and collaborative activity. Advances in information technology are also leading to collaborative activities being distributed over time and space. This tendency will no doubt continue, and construction companies need to respond to the changing demands placed on their services. The main solution which this thesis will focus on,

therefore, relates to designing conceptual and logical solutions to improve productivity of a construction company through the application of document management to the core business processes.

1.3. Thesis Objective

This thesis aims to analyze and design document management systems to assist a company to increase its capability to produce maximally and win over its competitors by managing and providing the necessary knowledge quickly to authorized employees.

Proper document management will enable a company to facilitate the core business processes and minimize human errors. By attaining these goals, the customers' satisfaction will increase. In addition, it will enable the company to optimize information shared and prevent information loss in the estimate department. Consequently, the employees' productivity and effectiveness will also increase.

1.4. Scope of the Thesis

This thesis will focus only on the analysis and design phase of the systems since the development and maintenance phases require longer time than is available to accomplish them. The document management system design is limited to the conceptual and logical design of a system shared between the Estimate Department staff members and the Marketing Director of PT. PD which will aim to facilitate the strategic tasks in an efficient way.

In the experience of the author, such problems are common in the

construction industry in Indonesia, and urgently require solutions. It is expected, however, that this design will be generalizable and applicable to other similar firms operating in the same field under similar conditions.

1.5. Structure of Content

This thesis consists of five chapters, comprising:

Chapter 1 Introduction

The introduction contains the background of the main thesis idea, the problem, the possible causes and impact, and the scope of the thesis. In addition, it also covers the purpose (objective) and significance of the thesis.

Chapter 2 Theoretical Foundation

The theoretical foundation explains the theoretical framework which is used as the basis of this thesis. Besides that, it also covers a literature review relating to the main thesis idea.

Chapter 3 Methodology

In this chapter, a description of the methodology reveals several methods used in regard to the system analysis and design.

Chapter 4 Analysis and Design

This chapter analyses the problem context, and then uses this as the basis for the system design.

Chapter 5 Conclusions and Recommendations

Chapter 5 discusses the general conclusion of the system analysis and design as the final result of the thesis. A summary is presented as a brief and clear presentation in order to effectively explain all results of the system analysis and design. Finally, some suggestions will be proposed for further development of this topic.