

## **ABSTRACT**

Beer game is a simple game which represents the supply chain of product distribution. The objective of this beer game is to demonstrate the principals of supply chain management. The beer game would help students to understand the principals of supply chain. The current existing beer game is done manually and is not computerized where the lead time and delay time is considered to be constant valued, purchase of product is only price-based, not including location-based. Transaction record system such as supply and back-order is also done manually. Hence the software of simulation for the computerized product distribution system based on the traditional beer game is made as a simulator to make understanding the concept of supply chain management easier. With the goal described above, hence the title “Design of Simulation for Logistics Distribution based on The Traditional Beer Game” is given to this final project.

In designing this system, five stages in general were done to solve the problem. The first stage is the early study stage, in which the problem defining, research defining and problem limitations were done. The second stage is the initiation stage, which consist of literature study and field study. The third stage is the creative stage which is the stage of software designing. The fourth stage is the stage of design analysist and testing. The last stage is the stage of conclusion and suggestions.

This final project is divided into several chapters. Chapter I consists of research background, research objective, research benefit and problem limitations. Chapter II consists of the study literature of supply chain management, supply management, lead time, and the beer game manual. Chapter III consists of the conceptual modeling of the system and the problem defining of this final project. Chapter IV consists of the essence of this final project, which is the design of the system and it is followed with the system analysis in Chapter V. The last chapter is chapter VI, which consists of the conclusion and suggestion of this final project.

The final result of this project is a logistics distribution simulation based on the scenario of the traditional beer game and it can be treated as a simulation tool to simplify the understanding of supply management, network configuration concept and lead time concept for students.

Key words : Beer Game, Simulation for logistic distribution.