CHAPTER I
INTRODUCTION

1.1. Background

Industrial world develops very quickly these years. Many enterprises, from small, medium, and large, flourish in Indonesia. Competition makes each company strives to improve their product and management in order to get more market share. Because of this background, the companies always design and redesign their product. The design of the product range from product design to display (packaging) design. The role of product designer becomes more and more important in order to increase the sales of the product.

Packaging is the science, art, and technology of enclosing or protecting products for distribution, storage, sale, and use. Packaging also refers to the process of design, evaluation, and production of packages. The packaging and labels can be used by marketers to encourage potential buyers to purchase the product. Package design has been an important and constantly evolving phenomenon for dozens of years (Wikipedia, 2006).

The owner of Rumali stated that badminton is a popular sport played in Indonesia. Indonesia's badminton is well-known throughout the world. The customers have relatively a high loyalty towards the product. The public and common production system causes the competitors arise in a very quick way. Majority of shuttlecocks products are similar due to the common and
similar production process and raw material. In order to have the added value effect of the product, "Kumala" shuttlecocks tries to improve the quality of the product, by increasing the quality control and promoting new product design. The product design considers 2 aspects, shuttlecock design and packaging design.

From the interview of the owner of "Kumala" Shuttlecock Company and the data gathering, many customers complained about the cap design and the label design of the product. The customers felt inconvenient to open and close the cap of the product. From the further research, the writer found that the most problem in the display of "Kumala" package design is the cap design. This is proven by the first questionnaire spreading with the attributes finger comfort to open and close the cap (First priority with the deviation -1.77), easiness to open (Second priority with the deviation -1.53), and easiness to close (Third priority with the deviation -1.43), as the attributes of cap design.

1.2. Problem Statement

How to redesign "Kumala" shuttlecocks display design to increase the customer comfort.

1.3. Research Objectives

a. Find the customers' voices about the product display by using questionnaires and determine the main problem in "Kumala" shuttlecocks' package display.
b. Find and analyze the attributes which influence customers' satisfaction using questionnaires.

c. Choose the best alternative design using Analytical Hierarchy Process, and improve the details from the rough prototype by using AutoCAD 2005 software.

1.4. Problem Limitation

a. Due to the time and cost limitation, the writer focused his research on the package display of "Kumala" shuttlecocks, and the writer only designed one of the two parts (label and cap) of "Kumala" shuttlecocks packages.

b. The competitors used as comparison are "Romeo" shuttlecock as a local brand, and "Gadjah Mada" shuttlecock as a national brand.

c. The writer collected the data by discussion and questionnaire spreading.

d. In this research the writer focused the research in technical analysis, excluding the cost analysis.

e. Because the cost analysis is not included, the writer also excluded the Value Engineering step of the Rational Design Method.
1.5. Research Methodology

Figure 1.1. Research Methodology Flowchart
1.6. Report Outline

Chapter I. **Introduction**
This chapter provides the background, problem statement, research objectives, problem limitation, methodology, and report outline.

Chapter II. **Literature Review**
This chapter provides list of earlier researches and the differences between the earlier researches and the current research.

Chapter III. **Theory**
This chapter provides the theories from books and internet websites as the reference of the research.

Chapter IV. **Data**
This chapter contains data gathering activities details.

Chapter V. **Data Analysis**
This chapter provides analysis and discussion of the data using National Design Method and Analytical Hierarchy Process.

Chapter VI. **Conclusion and Suggestion**
This chapter provides conclusion from the research, and also the suggestion for further research.