

CHAPTER 2

LITERATURE REVIEW

Product design is a creative process, because without high creativity perhaps can not get a new innovation according to technology development, human needs and consumer behavior when using a product.

Many researches already have done before. The topic is about product design or just proposal product design in several years ago. Some research topic about product design has been conducted by Budiono (2004), and Hutabarat (2005).

In the research, Budiono (2004) makes a design about chair and desk base on ergonomic - anthropometry. The purpose on his research is to design ergonomic work chair and desk according to market or consumer need by concern in ergonomic anthropometry side view.

Hutabarat (2005) does a research about redesign square target base on ergonomic - anthropometry. His research purpose is to redesign square target which don't need partner to hold square target. Square target used in taekwondo or another fighting sport.

The differences Budiono (2004) and Hutabarat (2005) research with this research are in the product and the method. Budiono design chair and desk, Hutabarat redesign square target, while this research is redesign handle for sickle. Budiono and Hutabarat use rational method and this research use value engineering technique. The comparison this research and previous research can shown on table 2.1.

Table 2.1. The Comparison of This Research and Previous Research.

Comparison	Research by Budiono (2004)	Research by Hutabarat (2005)	Research by Wijaya (2006)
The product for research	Chair and desk	Square target	Sickle Handle
Research method	Rational method	Rational method	Value Engineering
Ages range anthropometry data	15-54 years old	20-25 years old	30-50 Years old
Making process	Semi automatic	Semi automatic	Manual

The differences of the research above are in the object. The objects of the previous research are square target, chair and desk, but this research use sickle handle as the object. The method to do the research is also different, the last research is using rational method and this research is using value engineering.