

## C716345 MAJOR INDUSTRIAL ENGINEERING

KEY WORD: WASTE REDUCTION ? THE WOODEN TOY

CHANA SUPHATSORN ; WASTE REDUCTION AND CONTROL IN THE WOODEN TOY  
INDUSTRY. THESIS ADVISOR : ASIS.PROF.SUTHAS RATANAKUAKANGWAN, 366 PP.  
ISBN 974-635-160-5

Most wooden toy industry companies in Thailand have developed themselves from family businesses whose target markets are primarily domestic customers. When faced with intense competition and the need to develop for exports, dramatic changes occur that affect their production environment. Suddenly, there are needs to produce more no matter what the losses and the increased costs are. This has resulted in higher prices than their competitors and subsequent reduction in sales and market share.

From a problem analysis of a sample factory, it has been found that the losses that occurred in the production processes arose from incorrect work methods and inspection procedures as well as from the inefficient utilization of the company's manufacturing resources such as manpower, raw materials, machines and equipments.

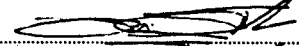
The objective of this thesis is to find means to reduce manufacturing process losses by analyzing problems by the types of manufacturing resources and eliminate the causes of these losses. Two loss indexes are used :  
1) Scrap Index, or percent of work pieces scrapped, and 2) Rework Index, or percent of rework time.

Following the implementation of the work improvement procedures outlined in these thesis, it has been found that the scrap index has been reduced from 15.77 to 11.43 an improvement of  $(15.77-11.43)/15.77 = 27.52\%$ . The rework index has been reduced from 4.40 to 1.45 an improvement of  $(4.40-1.45)/4.40 = 53.40\%$

ภาควิชา.....วิศวกรรมอุตสาหการ.....

สาขาวิชา.....วิศวกรรมอุตสาหการ.....

ปีการศึกษา.....2539.....

ลายมือชื่อนิติ.....

ลายมือชื่ออาจารย์ที่ปรึกษา.....

ลายมือชื่ออาจารย์ที่ปรึกษาร่วม.....