CHAPTER 2

LITERATURE REVIEW

Pamungkas (2009) had conducted the research about making the Master Model machine for spin casting technology. This research have objective to obtain the best technique in making master model and to obtain the production time and machine cost in making master model, PDPC (Process Decision Program Chart) is used in this research.

Prasetyo (2009) had conducted the research about development process of spin casting machine for spin casting technology. This research have objective to redesign a new construction of spin casting machine by evaluating the present one, obtain experimental research of UAJY Keychain and obtain the machine cost and production time. Failure Analysis is used in this research.

In this thesis, is about the development of the mold frame and plate of the master model machine for spin casting process. The development of the mold frame conducted in order to obtain master product with more than 40mm in diameter for spin casting process by consider eliminating the prop use. The new mold frame and plate will be design adjusting to the existing frame machine. The current master model machine will be set as object of research. In this research the HTV silicone rubber is used, and it needs few product masters to make mold on spin casting technology.

Failure analysis is the logical, systematic examination of an item, its construction, application,

and documentation to identify the failure mode and to determine the failure mechanism and its basic cause. FMEA (Failure Mode and Effect Analysis) is used to evaluate the previous master modeler machine. It is a sequence of activities (from the point of initiation of the analysis failure Modes identification up to it is conclusion and evaluation of the effectiveness of the procedure), and the remedies proposed, in reducing risk. The current master modeler whole system and performance will be evaluated to perform redesign process.

Table 2.1 Comparison of Previous and Present Research

Description	Researcher		
	Pamungkas	Prasetyo	Present
Object of research	Silicone rubber for casting tin in spin casting technology	Spin casting machine	Master model machine
Research objectives	To obtain the best alternative techniques on product mastering	Obtain the specification and construction of spin casting machine by evaluating the current one, obtain the experimental result of UAJY keychain using the new spin casting machine, obtain the production time and machine cost	Obtain larger mold frame and construction of master model machine by evaluating the present one; Obtain the experimental result of Adaro Business Card Holder product due to eliminate the prop usage in master model machine by evaluating the present one; Obtain the product price per unit.
Research Methodology	PDPC (Process Decision Program Chart), Arrow Diagram	Failure Analysis	Failure Analysis, objective tree diagram, fishbone diagram
Research Outputs	Master model machine	Spin casting machine, souvenirs	Larger mold frame of master model machine, larger master model, eliminate prop usage