# MODAT STUDY TABLE FROM PARTICLEBOARD

## **ASHREE BIN AFAZAL**

# BACHELOR OF SCIENCE (Hons.) FURNITURE TECHNOLOGY FACULTY OF APPLIED SCIENCES UNIVERSITI TEKNOLOGI MARA

**FEBRUARY 2023** 

#### **ABSTRACT**

#### MODAT STUDY TABLE FROM PARTICLEBOARD

This research is about a study table that was made from wood panels product which is particleboard. The MODAT name are combination of two elements which is modern element and attractive design. Particleboard is a type of composite panel that is often manufactured using wood as the primary component. It is manufactured by compressing small wood particles and then simultaneously attaching them together using an adhesive. According to the findings of the study, particleboard has potential for usage as an alternative raw material. The purpose of this research is to develop a design for a study table that makes use of particleboard as an innovative raw material, to build a study table, and to conduct a survey to collect responses from participants regarding the knowledge, marketing and satisfaction of respondent for the study table. The procedure for analysing the data was based on the completion of a questionnaire by 99 individuals from a variety of demographic categories, including age, gender, occupation, income, and social status. The knowledge, marketing and satisfaction levels of the respondents served as the basis for the evaluation, which was carried out based on those factors. Several types of analyses, including reliability analysis, demographic analysis, comparative analysis, descriptive analysis, and correlation analysis, have been performed on the data. The findings indicate that most respondents had a positive impression of the product. This study table, which is composed of particleboard, hence possesses a great potential for commercialization within the current market for furniture.

#### **ACKNOWLEDGEMENTS**

First of all, I would like to thank Allah for giving me the most valuable chance to finish this thesis and also for giving me the peace of mind to deal with all the problems and obstacles I had to face in order to do this task right. Thank you very much to my hardworking supervisor, Madam Ainul Munirah Binti Abdul Jalil, for all of her help, advice and enthusiasm as I worked on this thesis. I would like to thank the staffs of Kabinet Dapur Mutiara as allow me to manufacture my product for the thesis. Additionally, I am very grateful for the friendship of all members that involve as furniture technology student such as Mohd Irwan Bin Rosli, Azlif Rohaizad Bin Abd Razak, Mohd Hazwan Bin Khalid, Faris Triputra Bin Zahari and Imadudin Khairul Aznam. Lastly, and most importantly, I want to thank my father,

having faith in me and letting me be as ambitious as I wanted to be. Your prayers for me have kept me going so far.

Ashree Bin Afazal (2021112225)

## TABLE OF CONTENTS

ABSTRACT ABSTRAK ACKNOWLEDGEMENTS TABLE OF CONTENTS LIST OF TABLES LIST OF FIGURES LIST OF ABBREVIATIONS		Page iii iv iii vi vi vii
INTI	RODUCTION	9
1.1	Background of the study	9
1.2		9
1.3	Significant of study	10
1.4	Objectives	11
СНА	APTER 2	12
LITI	ERATURE REVIEW	12
2.1	Furniture Industry	12
2.2	Wood Composite	12
2.3	Particleboard	13
2.4	Space saving	15
2.5	Customer Satisfaction	15
2.6	Modern and attractive	16
2.7	Study Table	17
2.8	Ergonomic	18
2.9	Anthropometrics	19
2.10	Finishing	19
СНА	APTER 3	21
METHODOLOGY		21
	Material	21
3.2 I	Product Design Process	21
	3.2.1 Collecting Information	21
	3.2.2 Problem Identification	22
	3.2.3 Research analysis	22
	<ul><li>3.2.4 Design Process</li><li>3.2.5 Mock-Up Fabrication</li></ul>	22 24
3 2 I	3.2.5 Mock-Up Fabrication  Product Planning	25
	Product Plaining Product Manufacturing Process	26 26
J.71	3.4.1 Material preparing	26 26

	3.4.2 Cutting to the required size	26
	3.4.3 Assembling	27
	3.4.4 Finishing	28
	3.4.5 Finished Product	29
СПА	PTER 4 RESULT AND DISCUSSIONS	30
4.1	Introduction	30
		30
4.2	Reliability Analysis	
4.3	Demographic Analysis	31
4.4	Descriptive Analysis	33
4.5	Comparative Analysis	36
	4.5.1 Gender	36
	4.5.2 Age	37
	4.5.3 Profession	38
	4.5.4 Income	38
	4.5.5 Status	39
4.6	Correlation Analysis	40
CHAPTER 5 CONCLUSION AND RECOMMENDATIONS		43
5.1	Conclusion	43
5.2	Recommendation	43
CITE	44	
APPENDICES		46
CURRICULUM VITAE		56