

SIDE TABLE WITH EPOXY AND COCONUT SHELLS

SITI NUR AISYAH BINTI ABU BAKAR

**Final Year Project Report Submitted in
Partial Fulfilment of the Requirements for the
Degree of Bachelor of Science (Hons.) Furniture Technology
in the Faculty of Applied Sciences
Universiti Teknologi MARA**

AUGUST 2020

ABSTRACT

SIDE TABLE WITH EPOXY AND COCONUT SHELLS

Small furniture mostly preferred by people who lived in limited space as they want to save space in their house. Due to the limited space, those furniture consumers often faced problem in buying all kinds of furniture which they needed in assisting their daily lives. Material that can be recycled is very important in saving cost of production. The objectives of this study were to produce a Side Table with Epoxy and Coconut Shells which is a rare combination. It is also to prove that other than wood, coconut shells are suitable material to be used along with epoxy to increase the aesthetic value of furniture. After completed the design and manufacturing process, a survey has been conducted towards 106 correspondents to evaluate it characteristics based on demographic factor. The results showed that the performance for price and marketing factor is higher compared to others. It can be concluded that Side Table with Epoxy and Coconut Shells has great potential to be commercialized in the market and become new trend in the future.

ACKNOWLEDGEMENTS

Assalamualaikum w.b.t

Praise to Allah S.W.T for giving opportunity to me to complete this project in specified time especially during pandemic issue that happening right now. First of all, I would like to express my gratitude to my supervisor Madam Nurrohana Binti Ahmad for her guidance through this process to complete my final year project. And not to forget my co-supervisor Madam Zaimatul Aqmar Binti Abdullah who also gave encouragement over the duration of my project. Other than that, a very special thanks to the project co-ordinator, Dr. Siti Zalifah Binti Mahmud for guiding us in writing this thesis from start and always lend help whenever I faced problems regarding my project. Also, I am indebted to my family who always give me moral support even from afar and by maintained my confidence in this project and keep going on what I am doing. Last but not least, I feel very thankful to all my friends who never complained in order to help me to solve the problem that I faced throughout this project and also lecturers who directly or indirectly involved in this project. All of the help that I have received will never be forgotten.

Siti Nur Aisyah Binti Abu Bakar

TABLE OF CONTENTS

| | PAGES |
|---|--------------|
| APPROVAL SHEET | ii |
| ABSTRACT | iii |
| ABSTRAK | iv |
| ACKNOWLEDGEMENTS | v |
| CANDIDATE'S DECLARATION | vi |
| TABLE OF CONTENTS | vii |
| LIST OF TABLES | ix |
| LIST OF FIGURES | x |
| LIST OF PLATES | xi |
| LIST OF ABBREVIATIONS | xii |
| | |
| CHAPTER 1 INTRODUCTION | 2 |
| 1.1 Background of the Study | 2 |
| 1.2 Problem Statement | 5 |
| 1.3 Justification of Study | 6 |
| 1.4 Objectives | 6 |
| | |
| CHAPTER 2 LITERATURE REVIEW | 7 |
| 2.1 Wood Industry | 7 |
| 2.2 Furniture Industry | 9 |
| 2.3 Side Table | 9 |
| 2.4 Coconut Shells | 10 |
| 2.5 Wood Coatings | 11 |
| 2.6 Epoxy | 12 |
| 2.7 Metal | 13 |
| | |
| CHAPTER 3 MATERIALS AND METHODS | 15 |
| 3.1 Materials | 15 |
| 3.2 Methods | 15 |
| 3.2.1 Product Design Process | 15 |
| 3.2.2 Manufacturing Process | 17 |
| 3.2.3 Survey (Questionnaire) | 29 |
| | |
| CHAPTER 4 RESULTS AND DISCUSSION | 30 |
| 4.1 Introduction | 30 |
| 4.2 Reliability Analysis | 30 |
| 4.3 Demographic Analysis | 31 |
| 4.4 Descriptive Analysis | 33 |
| 4.5 Comparative Analysis | 36 |

CHAPTER 5 CONCLUSION AND RECOMMENDATIONS

| | | |
|-----|-----------------|----|
| 5.1 | Conclusion | 39 |
| 5.2 | Recommendations | 39 |
| | | 39 |

REFERENCES

APPENDICES

| | | |
|-------------------------|--|----|
| | | 41 |
| CURRICULUM VITAE | | 46 |
| | | 52 |