

SMART CHAIR WITH STORAGE

AYYUB AS'AD BIN MOHD MOKHTAR

(2019461834)

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

AUGUST 2021

ABSTRACT

SMART CHAIR WITH STORAGE

Smart Chair with Storage is multifunction furniture that can act as a chair and storage. The size of the living area in a small area that has limited space is a factor that smart chair with storage will become a necessary thing to accommodate the living area in the small area. The concept of minimalist and contemporary design will able to attract customers nowadays for purchasing the product. This design of smart chair with storage is simple and can save space, which enables them to be commercialized in the market. This report is presented on functional and designing if smart chair with storage. The objectives of this study are to design a product of multifunction furniture where the target customer for people who lives in small space houses and to analyze respondent's feedback based on the design, function, marketing and satisfaction from the smart chair virtual prototype style.

ACKNOWLEDGEMENTS

Bismillahirrahmanirrahim.

Alhamdulillah, the completion of this responsibility could not have been probably done without the permission of Allah S.W. T. The most Merciful for ease my way in completing this research. A big thanks to my Project Coordinator, Dr. Siti Zalifah Binti Mahmud for all her efforts to help and guide me during completing my research.

I would also like to thank my supervisor, Puan Nurrohana Binti Ahmad, for her exemplary guidance, constant inspiration, and wisely monitoring during my research project. I would also like to thank all my lecturers, my friends for the moral support they gave me to complete this thesis.

Finally, I am very thankful to my beloved family, especially my parents for their caring, sacrifices in terms of times, financial and moral supports to complete this thesis.

TABLE OF CONTENT

ABSTRACT	ii
ABSTRAK	iii
ACKNOWLEDGEMENTS	iv
TABLE OF CONTENTS	v
LIST OF TABLES	vii
LIST OF FIGURES	viii
LIST OF ABBREVIATIONS	ix

1.0 INTRODUCTION

1.1 Background of study	1
1.2 Problem statement and Justification.....	4
1.3 Significance of Study	4
1.4 Objectives of study.....	4

2.0 LITERATURE REVIEW

2.1 Furniture History.....	5
2.1.1 Rubberwood	6
2.1.2 Contemporary Furniture.....	7
2.2 Multifunction Furniture.....	8
2.3 Furniture Marketing	9
2.4 Target user.....	10
2.5 Target place – Bedroom	10
2.6 Minimalist	11
2.7 Space-saving chair	11
2.8 Furniture Design	12
2.9 Fasteners	13
2.9.1 Screws	13
2.9.2 Hinges	14
2.10 Anthropometry and Ergonomic.....	15
2.11 Finishing	16
2.11.1 Stains.....	17
2.11.2 Lacquer.....	17

3.0 METHODOLOGY

3.1 Material selection.....	19
3.2 Methodology	19

3.2.1 Product Design Process.....	19
3.2.1.1 Case Study.....	20
3.2.1.2 Problem identification.....	20
3.2.1.3 Research Analysis	20
3.2.1.4 Design Process	20
3.1.2.4.1 Sketching.....	21
3.1.2.4.2 Technical Drawing	21
3.2.2 Design Confirmation.....	22
3.2.3 Mockup Building	23
3.2.4 Production Process	24
3.2.5 Bill of Materials	24
3.2.6 Route Sheet	27
3.2.7 Part List.....	28
3.2.8 Virtual Prototype.....	29
4.0 RESULTS AND DISCUSSION	30
4.1 Introduction.....	30
4.2 Reliability Analysis.....	30
4.3 Demographic Analysis.....	31
4.4 Descriptive Analysis.....	32
4.5 Comparative Analysis.....	34
4.5.1 Gender.....	34
4.5.2 Age.....	36
4.5.3 Profession.....	37
5.0 CONCLUSION AND RECOMMENDATION	39
5.1 Conclusion.....	39
5.2 Recommendation.....	39
REFERENCES.....	41
APPENDICES.....	44
CURRICULUM VITAE.....	49