UNIVERSITI TEKNOLOGI MARA

THE MALAY'S DESIGN DNA: FORMULATION OF THE BEHAVIORAL AND THE REFLECTIVE ASPECTS FOR PRODUCT FUNCTION AND IDENTITY

IZZUDDINAZWAN BIN MISRI

Thesis submitted in fulfillment Of the requirements for the degree of **Doctor of Philosophy** (Art and Design)

College of Creative Art

May 2023

ABSTRACT

The Product design identity has reached massive development through time with continuous invention and innovations were introduced. It starts from the consideration of design at the outlook which appearance in visually, functionality, and senses of feeling that estimated to give pleasure to the user of a product, onward. Theories and methodology of product design and development were adapted, however, through time, the similarity and indistinguishable ways to produce seem competitive to establish as they less being identical and recognizable. Here, Design DNA as the study of identity toward designs takes its role. To be identical, product design requires the recognition point and signature for the user to capture, acknowledge and experience the product. Otherwise, these requirements are unlimited to what is user visually seeing but also the understanding of usage and suitability to themselves. Visceral, Behavioral, and Reflective is the kinds of level that a designer should notify as 'complete condition' to make a product. For that, these levels are the particular consideration parts to be identical. The research of design DNA over these levels of design has been done to find design DNA through visceral or visual aspects with crosscultural product features as the sample. However, the research defines a limit to formulation design DNA at a visceral level, and as other two levels was unexplained. This study aims to identify and formulate design DNA at the Behavioral and Reflective level of design with a specific technical methodology such as the cross-cultural product measurement (CCPM) table. The Function Matrix for criteria segregation, and quantitative analysis to find out "the Function DNA" for Malay's kind products. Hence, in defining the DNA or identity in the reflective aspect of Malay's product features, the methodology applied is the quantitative analysis using Kansei's interpretation and PrEmo as it is preferable to Emotion aspects. It is a purpose to provide guidelines and references for designers or other design experts to find an identical signature for the desired product at these two levels. Ultimately, the guideline in the figure of framework that shows the flow to find the function DNA and the reflective DNA purposely in creating a product was created and proposed. It is hoped that this study will be part of an optional solution for design practitioners in finding design identity for their product establishments instead of directions for future research.

ACKNOWLEDGEMENT

First of all, I would like to express my most praises and gratitude to Allah S.W.T., the Almighty, and the All-knowing, for His full blessings throughout my journey of research work and completion.

My huge thanks and sincere gratitude to my supervisor for this research, Prof. Dr. Amer Shakir Zainol for his encouragement, sincerity, and helpfulness. Also to my co-supervisor, Dr. S'harin Mokhtar, thank you for her every advice and support along this journey of research. It was an honor and great privilege to gained new information and knowledge under the supervision of them.

I also would like to thanks those experts and participants for their time, patience and for giving me such great responses and informative opinions especially in my research analysis.

Final but not least, the never-ended appreciation and gratitude go to my parents and my family members for their prayers, love, patience, and support in any of my conditions.

Hopefully, all the sacrifices, times, and struggles for this research will benefit our design industry and society. Thank you. Subhanallah. Alhamdulillah. Allahuakbar.

TABLE OF CONTENTS

	Page
CONFIRMATION BY PANEL OF EXAMINERS	ii
AUTHOR'S DECLARATION	iii
ABSTRACT	iv
ACKNOWLEDGEMENT	V
TABLE OF CONTENTS	vi
LIST OF TABLES	xi
LIST OF FIGURES	xviii
LIST OF ABBREVIATIONS	xxiv
CHAPTER ONE · INTRODUCTION	1

UIIA	HIERONE: INTRODUCTION	1
1.1	Introduction	1
1.2	Research Background	2
1.3	Problem Statement	5
1.4	Aim	6
	1.4.1 Research Objectives	6
	1.4.2 Research Question	6
1.5	Research Scope and Limitation	7
	1.5.1 Delimitation	7
1.6	The significance of the Study	8
1.7	Thesis Outline	8
СНА	APTER TWO : LITERATURE REVIEW	10
2.1	Introduction	10
2.2	The Design DNA	10
2.3	Design DNA for Culture and Heritage Preservation Initiative	18
2.4	Design DNA Process and System Understanding	27

2.4	Design DNA Hotess and System Onderstanding	21
	2.4.1 The DNA Algorithm	29
2.5	The Design Levels	35

CHAPTER ONE INTRODUCTION

1.1 Introduction

This section exposes the run-through to the study later on to this thesis. It shows the main structure in figuring the core of issues that occurs and what is the issue in detail. This section also innovate relativity by examining how the study adds to the terminology contents of the information in the disciplinary that has been explored. It locates the foundation related to the interpretation of the study barrier through the point of limitations and the research questions. Here, the difficulties faced by innovators, designers, and other product developers in the generating idea for the creation identity are reveal. Simplified as the design DNA, It is purposely to encourage the establishment of every product through the segregation toward identity among others that creating in the same intention, specifically, the products. At initial part of this chapter, it describes the background of the study which holistically explains what is the main content of this study?, the history and the continuous initiative of the study, what is the novelty comparing to the previous study, the importance in doing this study and others that related. Even though this perspective of the design DNA is expose into specific and limited into covered idea of study, instead, it is to give the idea and proper guidelines to the respective community that responsible as mentioned earlier, hence, it will beneficial the society in improving the designing understanding and appreciation. On the next point, the problem statement shares the overview toward issue of study. Here, the design itself has the levels and requirements that make it properly and evenly before the products. Whereas, the levels that divide into 3 perspectives impose to discrete the design DNA or design identity partially. At this point of statements, it shows what the gap that the study concerned is and what is to fulfilling. At the next section, the 'Aims' of this study describes on the specific point to reach. Intentionally, it shows the formulation at the targeted design levels aspect in beneficial those respective to achieves. As the aims are seems unlimited to single paragraph, the subpoint such Research Objectives and Research Question are filled for the clear view and to