UNIVERSITI TEKNOLOGI MARA

ATTRIBUTION OF INTUITION-DRIVEN DECISION-MAKING IN STRATEGIC DESIGNERLY PRACTICE

NATRINA MARIANE P. TOYONG

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

Faculty of Art & Design

November 2021

AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

Name of Student	:	Natrina Mariane P. Toyong
Student I.D. No.	:	2015664784
Programme	:	Doctor of Philosophy (Art & Design) – AD950
Faculty	:	Art & Design
Thesis Title	:	Attribution of Intuition-Driven Decision-Making in
		Strategic Designerly Practice
		July 1
Signature of Student	:	
Date	:	November 2021

ABSTRACT

There is a general recognition of the evolutionary nature of a designer's role, which mimics the pattern of a persistently changing industry, locally, glocally, and globally. With a focus on the Malaysian design industry, consistent with what is happening everywhere, the definition of a trained designer is constantly being pushed to meet this demand for change, and designers are finding themselves moving from working with complicated problems to increasingly complex design problems. Thus, а reconsideration on the current designerly way of thinking towards discovering a strategic decision-making practice is needed to fit this new condition. Not coincidentally, the present study establishes that intuition is an often-quoted cause for many unexplained brilliant works by designers. Among all the excellent decisionmaking strategies, it is least understood in the design field and often reduced to being an ambiguous designer's instinct, which is divine in nature. The study, therefore, investigated intuitive attribution as it explains the causes of decision making at the early concept stage of a design process. Although Intuitive Expertise and Intuitive Creation has been heavily studied, current research on intuition has neglected to account for the outcome attributes of Intuitive Foresighting. The present study addressed questions on types of decision making in design, how intuition-driven decision making is applied at the early concept stage and how it may be practised strategically as a form of designerly thinking. Therefore, this form of thinking, specifically Designerly Concepting, is presented as a form of intuitive foresighting and a hallmark of design practice expertise. The inquiry's subjectivity comes from the complexity problem's nature that stems from unknown and ambiguous underpinning theory in intuition research. Thus, the present study adopted a philosophical assumption with a relativism ontology that is interpretive and constructive by employing a qualitative inquiry. It looks at the symbolic interaction of multiple reality in the attribution of intuitive decision making specific to the design and designers changing culture. Using multiple case studies through in-depth interviews of ten expert-level designers and five senior-level designers triangulated with four focus group session with thirty two novice-level designers. The findings demonstrated a distinct combination of heuristic, holistic and affective-intuition attributes in design and the internal and external condition that leads to it. The result is a rich constructed meaning that defines an intuitive decision-making pattern of experienced designers consisting of an expert and senior-level designers. The study also presents five welldefined intuition decision-making patterns found in novice designers, which sets the training toolkit for practical decision-making ability at the early concept stage. The finding offers a starting point for the formulation of future training module of Designerly Concepting aptitude that can be trained as practical skills in design education. The significance of the study is that it informs the domain knowledge of design studies and design education by introducing a focus on the internal and external intuition attribution, leading to value and skill in the form of Designerly Concepting. Finally, the availability of the suggested training module further strengthens Designerly Concepting as a proponent for future-proofing design in a climate of an unpredictable, complex environment.

ACKNOWLEDGEMENT

As the saying goes, "*PhD is a lonely journey*". I embarked on this expedition in 2015, and today, I testify that nothing can be further from the truth.

Firstly, I wish to thank God for walking with me through this arduous and challenging academic journey. With His will, nothing was impossible.

I am grateful to my supervisors Professor Dr Shahriman Zainal Abidin and Dr S'harin Binti Mokhtar, for their continuous support and guidance at various PhD process stages. Together, we explored the possibilities into uncharted gaps in the area of study, relearned, discovered, and brought multiple viewpoints towards the exciting contribution of new knowledge in the field.

My appreciation also extends to my respondents, consisting of experienced design practitioners and aspiring future designers whose participation is the sole reason this research is possible. Despite their anonymity, I acknowledge that their insights and candid feedback and the works of other inspirational academicians, industry players, and researchers before me have formed the greater part of this thesis.

Along with this, I would like to take this opportunity to express gratitude to the Department of Industrial Design, Formigiving Research Group, the Faculty of Art and Design and Universiti Teknologi MARA. Thank you for trusting and supporting this study through an excellent research management facility and financial grants, as well as administrative considerations that allowed me to undertake this research on a part-time basis.

I am greatly indebted to my husband Bryan Shane Jinius, two children Mary Victoria and Joseph Aristotle and all my family members, especially my mothers Florintina Abdullah and Lily Kugan, as well as my sister Natasha Merilyn, for their unconditional love, tolerance, support and understanding. I will forever value the little sacrificed moments that allowed me to find stability in life amidst my study.

Last but not least, I also take great pleasure in expressing gratitude to everyone who has, directly and indirectly, contributed to the completion of this research. My journey was never a lonely one because everyone I met in these six years has left a mark in my life in one way or another.

Thank you from the bottom of my heart.

This thesis is dedicated to my late father's memory, Paul Kathil Toyong whose life and last moments taught me the true meaning of persistence and fighting spirit.

TABLE OF CONTENTS

CONFIRMATION BY PANEL OF EXAMINERS AUTHOR'S DECLARATION ABSTRACT ACKNOWLEDGEMENT			ii iii iv v				
				TAB	LE OF	CONTENTS	vi
				LIST	Г <mark>OF</mark> ТА	BLES	xi
				LIST	LIST OF FIGURES		
LIST OF ABBREVIATIONS							
СНА	APTER (ONE INTRODUCTION	1				
1.1	Backg	ground of the study	1				
1.2	Staten	nent of the Problem	6				
	1.2.1	The research gap	9				
	1.2.2	Conceptual Framework	12				
1.3	Objec	tive of the Study					
1.4	Resea	urch Questions					
1.5	Defini	16					
	1.5.1	Design	17				
	1.5.2	Design Expertise	18				
	1.5.3	Expert Designer, Senior Designer and Novice Designer	18				
	1.5.4	Designerly (thinking)	19				
	1.5.5	Design Decision-Making	19				
	1.5.6	Decision-Making at Early Concept Stage	20				
	1.5.7	Design Intuition	20				
	1.5.8	Complex Problem	21				
1.6	Scope	Scope and delimitation of the study					
	1.6.1	Respondents and Participants	22				
	1.6.2	Design Activity	23				
	1.6.3	Design Intuition	24				