UNIVERSITI TEKNOLOGI MARA

THE EFFECT OF TECHNOPRENEUR ORIENTATION CREATION THROUGH SUSTAINABLE FASHION DESIGN CURRICULUM

RAHAYU PURNAMA

Thesis submitted in fulfillment
of the requirements for the degree of
Doctor of Philosophy
(Arts and Design)

College of Creative Arts

January 2023

ABSTRACT

The textile and apparel industries involved the manufacturing sector with the highest growth that had contributed significantly to the Indonesia's economic growth. Fast fashion has recorded as the highest demand among today's consumers in Indonesia. On the contrary, fast fashion has given a severe environmental impact to the Indonesia's eco-system. Meanwhile, the fashion industry requires technopreneurs who engage in technology-oriented entrepreneurship to develop fashion designs that meet the Industrial Revolution 5.0 while resolving technological and digitalization-based complexities arising from this era. This fashion design technopreneur has the opportunity to become a sustainable and resilient graduate in facing the apparel industry in the future. Therefore, fashion education should be able to innovate in preparing its graduates to compete with the rapid technological advances and the demands of the apparel industry. However, based on several tracer studies in fashion education, preliminary studies, and statements of experts in the fashion field, these indicated that it is crucial to develop an entrepreneurship curriculum based on technology (technopreneur). This study explored the need for technopreneur orientation in creation toward a sustainable fashion design curriculum. Ultimately this will assist graduates to create job opportunities through technopreneur orientation. The primary strategy of this study was to examine how technopreneurs in fashion design explicitly enhance fashion knowledge and skills, which in the end, would produce resilient fashion graduates based on the Theory of Planned Behaviour (TPB) and Norm Activation Theory (NAT). Both theories stated the importance of instilling awareness and attitudes that will shape positive behaviour towards fashion sustainability that contribute to SFDC. Both entrepreneur and technopreneur orientations served as the independent variables to predict SFDC as the dependent variable. A quantitative research method involved four (4) constructs with sixteen (16) latent variables based on five likert scale measures. The datasets were collected through a non-probability purposive sampling technique with web paper-based. After screening the procedures, 210 datasets were utilized for further statistical analysis in which SPSS version 26 was conducted for descriptive analysis and SmartPLS 3.2.8 for measurement and structural model analysis. The findings demonstrated that fashion sustainability has a partial mediating effect on SFDC. SFDC would lead to job opportunities, sustainable work ethic, graduate sustainability enhancement, fashion sustainability enhancement, entrepreneur competence enhancement, and technology skills' enhancement. Technology skills were required to establish technology-based entrepreneurship (technopreneurship), resulting towards graduates' resiliency in attending to the needs of Industrial Revolution 5.0. The concept of technopreneurship was not only applicable to the fashion design curriculum, but this idea could also be adapted to other disciplines such as science & technology and business. Moreover, inducing sustainability awareness and attitude as the integration of sustainability proved pivotal for achieving SDGs. Future research should be focused in applying technopreneur knowledge and skills in fashion education.

ACKNOWLEDGEMENT

First and foremost, praises and thanks to Allah SWT, the Almighty, for his showers of blessings throughout my research work to complete my PhD successfully. I want to express deep and sincere gratitude to my supervisor, Assoc. Prof. Ts. Dr Rosita Mohd Tajuddin and my co-supervisor, Assoc. Prof. Dr Shaliza Mohd Shariff for their extraordinary support in this thesis process and providing invaluable guidance throughout this research. Their dynamism, vision, sincerity and motivation have deeply inspired me. They have taught me the entire part of carrying out and presenting the research works as clearly as possible. It was a great privileged and honour to work and this study under her guidance. I am incredibly grateful for what they offered me and their guidance throughout this journey.

My appreciation goes to undergraduates and alumni from selected fashion design institutes in fashion education based in Jakarta. Special thanks to experts in higher education, fashion academicians, curriculum experts at the Ministry of Education, fashion technology experts and consultants in the fashion sector, fashion entrepreneurs, fashion designers, managers and stakeholders of high schools of fashion design, and the fashion industry in Jakarta, Indonesia, who have contributed by providing valuable time, advice, and input for this research.

Finally, this thesis is dedicated to my family. I am incredibly grateful to my beloved Mother [redacted] M.Pd and Father H. Husin, BA for their prayers, caring and sacrifice for educating me and believing I would achieve the best in my life. Very Special thanks to my loving Husband, Achmad Samudra, who has always given me the courage and motivation to pursue my dreams, as well as to my lovely children, Razandra Elrano Achmad, Rashanda Kanaya Qayyumii, and Rashandrina Andrea Kara, who patiently support and understand me during this challenging journey. Last but not least, I would like to express my gratitude to Dra. Melly Prabawati, M.Pd and Vera Utami Gede Putri, M.Ds and all of lecturers and colleagues for supporting and keeping the interest shown to complete me in pursuit of my PhD. This piece of victory is dedicated to all of you. Alhamdulilah.

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		**xiii**
LIST OF FIGURES		**xv**
LIST OF SYMBOLS		**xvii**
LIST OF ABBREVIATIONS		**xix**
CHAPTER ONE: INTRODUCTION		**1**
1.1	Research Background	1
1.2	Statement of the problem	6
1.3	Research Aim	10
1.4	Research Objectives	11
1.5	Research Questions	12
1.6	Scopes and Limitations of Study	13
	1.6.1 Scopes of Study	13
	1.6.2 Limitations of Study	16
1.7	Significance of the study	16
1.8	Key Definition Terms	18
1.9	Chapter Summary	20
CHAPTER TWO: LITERATURE REVIEW		**21**
2.1	Introduction	21
2.2	Sustainable Development Goals and Relation to Fashion Education	22
2.3	The Global Problem of Fast Fashion and Sustainability	23
2.4	Industry 5.0 and the Future of Sustainable Apparel Industry	24

2.5 The Need of Technopreneur Fashion Design Towards Industry 5.0 27
2.6 Technology Adaption Among SME Industry in Indonesia 31
2.7 Fashion Design Education and the Future Opportunity 36
2.8 The Current Fashion Design Curriculum in Indonesia 38
2.8.1 University 1 39
2.8.1.1 Profile 39
2.8.1.2 The Current Curriculum 40
2.8.1.3 Data of Student and Alumni 41
2.8.2 University 2 42
2.8.2.1 Profile 42
2.8.2.2 The Current Curriculum 44
2.8.2.3 Data of Student and Alumni 45
2.8.3 University 3 46
2.8.3.1 Profile 46
2.8.3.2 The Current Curriculum 47
2.8.3.3 Data of Student and Alumni 48
2.9 Sustainable Fashion Design Curriculum (SFDC) as Dependent Variable (DV) 49
2.9.1 Definition of Sustainable Fashion Design Curriculum (SFDC) 50
2.9.2 Sustainable Fashion Design Curriculum (SFDC) in Relation to Sustainable Development Goals (SDGs) Issues 52
2.9.3 Measurements for Sustainable Fashion Design Curriculum (SFDC) 53
2.9.3.1 Job Opportunities 55
2.9.3.2 Sustainable work ethic 56
2.9.3.3 Graduate Sustainability Enhancement 58
2.9.3.4 Fashion Sustainability Enhancement *59*
2.9.3.5 Entrepreneurial Competence Enhancement 61
2.9.3.6 Technology Skills Enhancement 63
2.9.4 Sustainable Fashion Design Curriculum (SFDC) 64
2.9.4.1 Theory of Planned Behaviour (TPB) 64
2.9.4.2 Norm Activation Theory (NAT) 66
2.9.5 Predictors to Sustainable Fashion Design Curriculum (SFDC) as a Dependent Variable 67
2.10 Dependent Variable 68