

**The Effects of Personal Values and Sustainable Fast  
Fashion Consumption Beliefs on Clothing Reuse  
Behaviour: The Moderating Roles of Facilitating  
Conditions and Habits**

**LOI WAI YEE**

**UNIVERSITI SAINS MALAYSIA**

**2017**

**THE EFFECTS OF PERSONAL VALUES AND  
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BELIEFS ON CLOTHING REUSE BEHAVIOUR:  
THE MODERATING ROLES OF FACILITATING  
CONDITIONS AND HABITS**

by

**LOI WAI YEE**

**Thesis submitted in fulfilment of the requirements for the degree of  
Master of Arts (Management)**

**February 2017**

## LIST OF PUBLICATIONS

- Hassan, S. H & Loi, Wai Yee (2014). Philanthropic and Sustainable Clothing Disposal Behaviour among Generation Y. *23rd IBIMA Conference Proceeding*. (ISI Proceeding).
- Loi, W. Y., Hassan, S. H., & Ramayah, T. (2016). Sustainability and Philanthropic Awareness in Clothing Disposal Behavior Among Young Malaysian Consumers. *SAGE Open*, 6(1).
- Loi, W. Y., & Hassan, S. H. (2016). Attitude-Behaviour Gap In Sustainable Fashion Consumption: The Role Of Facilitating Conditions. *International Journal of Management and Applied Sciences*, 2(7), 108-110.
- Loi, W. Y., Hassan, S. H., & Ramayah, T. (2016). A New Life for Old Garments: Enhancing Clothing Reuse Behaviour among Malaysian Young Consumers. *International Symposium on Sustainable Development and Management*, October 8-9, UTM Kuala Lumpur.

## ACKNOWLEDGEMENT

Firstly, I am grateful to the God for the good health and wellbeing that were necessary to complete the Master's journey. Secondly, I would like to express my gratitude towards my parents and family members, who have supported me throughout the entire process. Next, I would like to express my thanks and appreciations to my supervisor Dr. Siti Hasnah Hassan and my co-supervisor Professor T. Ramayah Thurasamy for the valuable guidance, comments and engagement throughout the learning process.

In addition, I would like to thank my cubicle-neighbour, Stephanie Chuah Hui Wen for her immense guidance, motivation and persistent help. My thanks and appreciations also go to my fellow colleagues, Siti Fatimah binti Zakaria, Wan Maisara binti Wan Mohamad, Jeniboy Kimpah, Azam Abdelhakeem Khalid Ahmed, Jamie Tan, Lilian Khor, Ali Vafaei Zadeh, Arief Bowo Prayoga Kasmoo, Haniruzila binti Md Hanifah, Sangita A/P Jeyaram and others for the support given all the way. I am also thankful for lecturers who have shared their expertise knowledge with me which smoothen my Master's journey.

Moreover, I like to thank all the administrative staffs in School of Management, Ms. Robitah, Ms. Rosnah, Ms. Asmi, Mr. Md Noor, Ms. Yeap, Ms. Dasyilahanim and others for their kind assistance throughout the journey. I am also highly indebted to School of Management, Institute of Postgraduate Studies (IPS) and PhD club for providing the necessary information and workshops which help to enhance my knowledge and personal development. Next, I would like to thank the expert panels during pre-testing process and participants in my survey, who have willingly shared their precious time in reviewing and answering my questionnaires. Last but not least, I would like to express my special appreciation to Ministry of Higher Education for sponsoring my Master's tuition fees under MyBrain 15 sponsorship scheme.

I would like to take this opportunity to express my sense of gratitude to everyone, who directly or indirectly, have lent me their helping hand in this Master's venture. Without all these supports and helps, my Master's journey would not have been possible and successful.

## TABLE OF CONTENTS

Acknowledgement	ii
Table of Contents	iii
List of Tables	x
List of Figures	xii
List of Abbreviations	xiii
Abstrak	xiv
Abstract	xvi

### CHAPTER 1 - INTRODUCTION

1.0	Introduction	1	
1.1	Background of the Study	1	
1.2	Sustainable Consumption and Clothing Disposal Behaviour in Malaysia	4	
1.3	Problem Statement	7	
1.4	Research Questions	11	
1.5	Research Objectives	12	
1.6	Significance of Study	12	
	1.6.1	Theoretical Significance	12
	1.6.2	Practical Significance	15
	1.6.3	Methodological Significance	16
1.7	Scope of the Study	18	
1.8	Definition of Key Terms	18	
1.9	Organisations of Thesis	20	

## **CHAPTER 2 - LITERATURE REVIEW**

2.0	Introduction	22
2.1	Sustainability Studies	22
2.1.1	Sustainable Consumption	23
2.1.2	Sustainable Fashion Consumption	26
2.2	Disposition Studies	30
2.2.1	Clothing Disposition Behaviour	30
2.2.2	Clothing Reuse Behaviour	33
2.3	Personal Values	34
2.3.1	Personal Values - Altruistic Values	36
2.3.2	Personal Values - Biosphetic Values	37
2.3.3	Personal Values - Egoistic Values	38
2.4	Sustainable Fashion Consumption Beliefs	40
2.5	Habits	42
2.6	Facilitating Conditions	44
2.7	Underpinning Theories	46
2.7.1	Value- Belief- Norm Theory (VBN)	47
2.7.2	Theory of Interpersonal Behaviour (TIB)	51
2.8	Gaps in Literature	54
2.9	Hypothesis Development	57
2.9.1	The Relationship between Personal Values and Sustainable Fashion Consumption Beliefs	58
2.9.1(a)	The Relationship between Altruistic Values and Sustainable Fashion Consumption Beliefs	59

2.9.1(b) The Relationship between Biospheric Values and Sustainable Fashion Consumption Beliefs	60
2.9.1(c) The Relationship between Egoistic Values and Sustainable Fashion Consumption Beliefs	61
2.9.2 The Relationship between Sustainable Fashion Consumption Beliefs and Clothing Reuse Behaviour	63
2.9.3 The Mediation Effect of Sustainable Fashion Consumption Beliefs on the Relationship between Personal Values and Clothing Reuse Behaviour	64
2.9.4 The Moderation Effect of Habits on the Relationship between Sustainable Fashion Consumption Beliefs and Clothing Reuse Behaviour	70
2.9.5 The Moderation Effect of Facilitating Conditions on the Relationship between Sustainable Fashion Consumption Beliefs and Clothing Reuse Behaviour	73
2.10 Research Model	76
2.11 Summary of Hypotheses	77

### **CHAPTER 3 - METHODOLOGY**

3.0 Introduction	79
3.1 Research Paradigm	79
3.2 Research Design and Procedures	80
3.2.1 Research Procedures	80
3.2.2 Type of Study	82
3.2.3 Nature of the Study	83

3.2.4	Unit of Analysis	83
3.3	Population, Sample size and Sampling Technique	85
3.4	Data Collection Procedure	86
3.5	Questionnaire Development	88
3.6	Scale and Measurement	89
3.6.1	Independent variables - Personal Values	90
3.6.2	Mediator - Sustainable Fashion Consumption Beliefs	92
3.6.3	Moderator - Habits	94
3.6.4	Moderator - Facilitating Conditions	94
3.6.5	Dependent Variable – Clothing Reuse Behaviour	96
3.7	Statistical Data Analyses	98
3.7.1	Data Screening	99
3.7.1(a)	Data Screening for Missing Data	99
3.7.1(b)	Data Screening for Outliers	99
3.7.1(c)	Data Screening for Normality	100
3.7.1(d)	Data Screening for Common Method Bias	101
3.7.1(e)	Data Screening for Response Bias	102
3.7.2	Validity and Reliability	103
3.7.2(a)	Internal Consistency Reliability	103
3.7.2(b)	Convergent Validity	104
3.7.2(c)	Discriminant Validity	105
3.7.3	Operationalization of Research	106
3.8	Pre-Testing	107
3.8.1	Content Validity	108



## **CHAPTER 4 - RESEARCH FINDINGS**

4.0	Introduction	109
4.1	Response Rate	109
4.2	Data Screening	110
4.2.1	Data Screening Missing data	110
4.2.2	Data Screening for Outliers	110
4.2.3	Data Screening for Normality	111
4.2.4	Data Screening for Common Method Bias	112
4.2.5	Data Screening for Response Bias	114
4.3	Demographic Profiles of Respondents	117
4.4	Descriptive Analysis	119
4.4.1	Clothing Consumption and Disposal Behaviour	119
4.4.2	Reasons of Clothing Disposal	120
4.4.3	Clothing Reuse Behaviour	121
4.5	Measurement Model Results	123
4.5.1	Formative Measurement Assessment	123
4.5.2	Reflective Measurement Assessment	125
4.5.2(a)	Internal Consistency Reliability	125
4.5.2(b)	Convergent Validity	126
4.5.2(c)	Discriminant Validity	129
4.5.2(d)	Standardized Root Mean Square Residual (SRMR)	131
4.6	Structural Model Results	131
4.6.1	Collinearity Assessment	131
4.6.2	Structural Model Estimate	132
4.6.2(a)	Direct Effects	132

4.6.2(b) Mediating Effects	133
4.6.2(c) Moderating Effects	135
4.6.3 Coefficient of Determination (R <sup>2</sup> ) and Predictive Relevance (Q <sup>2</sup> )	138
4.6.4 Summary of Findings	139

## **CHAPTER 5 - DISCUSSION AND CONCLUSION**

5.0 Introduction	141
5.1 Recapitulation of the Study	141
5.2 Discussion on the Relationship between Personal Values and Sustainable Fashion Consumption Beliefs	143
5.3 Discussion on the Relationship between Sustainable Fashion Consumption Beliefs and Clothing Reuse Behaviour	148
5.4 Discussion on the Mediating Effect of Sustainable Fashion Consumption Beliefs on the Relationship between Personal Values and Clothing Reuse Behaviour	151
5.5 Discussion on the Moderating Effect of Habits on the Relationship between Sustainable Fashion Consumption Beliefs and Clothing Reuse Behaviour	156
5.6 Discussion on the Moderating Effect of Facilitating Conditions on the Relationship between Sustainable Fashion Consumption Beliefs and Clothing Reuse Behaviour	159
5.7 Contributions and Implications of the Study	163
5.7.1 Theoretical Contributions	163
5.7.2 Practical Implications	166

5.7.3	Methodological Contributions	170
5.8	Limitations of the Study	171
5.9	Directions for Future Research	171
5.10	Conclusion	174
<b>REFERENCES</b>		175
<b>APPENDICES</b>		198

## LIST OF TABLES

	<b>Page</b>
Table 1.1 The Composition of Waste in Malaysia for year 2000- 2009	6
Table 2.1 Definition of Sustainability Terms	22
Table 2.2 Advantages and Disadvantages in VBN Theory	50
Table 3.1 Questionnaire Items Source and Validity – Personal Values	91
Table 3.2 Questionnaire Items Source and Validity – Sustainable Fashion Consumption Belief	93
Table 3.3 Questionnaire Items Source and Validity – Habits	94
Table 3.4 Questionnaire Items Source and Validity – Facilitating Conditions	95
Table 3.5 Questionnaire Items Source and Validity – Clothing Reuse Behaviour	97
Table 3.6 Operationalization Table	106
Table 4.1 Summary of Univariate Outlier Based on Standardized Values	111
Table 4.2 Descriptive Table of Skewness and Kurtosis	112
Table 4.3 Total Variance Explained (Common Method Bias)	113
Table 4.4 Group Statistics and Differences of Respondent’s Demographic Profiles (Face-to-face vs Online Survey)	115
Table 4.5 Effect Size (Eta Squared)	116
Table 4.6 Demographic Profiles of Respondents	118
Table 4.7 Descriptive Analysis Results (Clothing Consumption and Disposal Behaviour)	120
Table 4.8 Clothing Reuse Behaviour (Mean & Standard deviation)	122
Table 4.9 Collinearity Statistics	124
Table 4.10 Validity Results for Formative Construct	125
Table 4.11 Reflective measurement model	127
Table 4.12 Inter-construct correlations	129

Table 4.13	Cross Loadings	130
Table 4.14	Structural Model - Collinearity Statistics	132
Table 4.15	Hypothesis Testing (Direct Effects)	133
Table 4.16	Bootstrapped Confidence Interval Calculation Results	134
Table 4.17	Indirect Effect Results	135
Table 4.18	Moderating Effect Results	136
Table 4.19	Summary of Hypothesis Testing	140

## LIST OF FIGURES

	<b>Page</b>
Figure 2.1 Life Cycle Assessment Diagram (LCA)	29
Figure 2.2 Waste Hierarchy	32
Figure 2.3 Framework of Value- Belief- Norm Theory	51
Figure 2.4 Framework of Theory of Interpersonal Behaviour	53
Figure 2.5 Summary of Literature Gaps and Attempts to Fill the Gaps	57
Figure 2.6 Research Model	77
Figure 3.1 Research Procedure	82
Figure 3.2 G-Power Analysis Result for minimum sample sizes	86
Figure 4.1 Reasons of Clothing Disposal	121
Figure 4.2 Measurement Model	123
Figure 4.3 Measurement Models after items deleted	128
Figure 4.4 Measurement Model with Moderating Effects	136
Figure 4.5 Interaction Plot for Moderating Effect (Facilitating Conditions)	138
Figure 4.6 Path Coefficients, $R^2$ and $Q^2$ value in the Structural Model	139

## **LIST OF ABBREVIATIONS**

GDP	Gross Domestic Product
NGOs	Non-Governmental Organizations
LCA	Life Cycle Assessment
SCP	Sustainable Consumption and Production
OCSC	Oxford Commission on Sustainable Consumption
TIB	Theory of Interpersonal Behaviour
VBN	Value- Belief- Norm Theory
NEP	New Ecological Paradigm
AC	Adverse Consequences for Valued Objects
AR	Perceived Ability to Reduce Threat
PN	Personal Norms
SPSS	Statistical Software Package for Social Science
PLS	Partial Least Squares
SEM	Structural Equation Modeling
PLS-SEM	Partial Least Squares Structural Equation Modeling
CB-SEM	Covariance-Based Structural Equation Modeling
EM	Expectation-Maximization
CR	Composite Reliability
AVE	Average Variance Extracted
SFCB	Sustainable Fashion Consumption Beliefs
CRB	Clothing Reuse Behaviour

**PERANAN NILAI-NILAI PERSONAL DAN KEPERCAYAAN  
PENGUNAAN FESYEN LESTARI ATAS PERILAKU PENGUNAAN  
SEMULA PAKAIAN: PERANAN KEADAAN SAMPINGAN DAN TABIAT  
SEBAGAI PEMBOLEHUBAH PENYERDAHANA**

**ABSTRAK**

Pembangunan pesat dalam trend “*Fast fashion*” banyak menyumbang kepada perkembangan ekonomi sejagat, namun demikian, dalam masa yang sama ia juga membawa kesan yang negatif terhadap ekologi alam sekitar, khususnya budaya pelupusan pakaian yang membazirkan dan tidak mesra alam. Sememangnya kesedaran dalam isu-isu kelestarian alam sekitar telah pun semakin meningkat, majoriti pengguna masih belum lagi mempratikkan amalan penggunaan dan pelupusan pakaian yang mesra alam. Disebabkan kewujudan jurang tindakan berdasarkan nilai antara setiap individu, penyelidikan ini dikendalikan untuk mengkaji hubungan antara nilai-nilai personal, kepercayaan penggunaan fesyen lestari (SFCB), keadaan sampingan, tabiat dan perilaku penggunaan semula pakaian (CRB) dengan sokongan Teori Kepercayaan Norma dan Teori Perilaku Perseorangan. Kaedah penyelidikan kuantitatif telah dijalankan terhadap 285 warganegara dalam lingkungan umur 19 sehingga 30 tahun. Data tersebut dianalisis dengan menggunakan SmartPLS dan keputusannya menunjukkan bahawa semua nilai personal (altruistic, biosfera, ego) mempengaruhi SFCB secara berperingkat, manakala SFCB meramalkan CRB. Di samping itu, SFCB juga didapati merupakan pengantaraan hubungan antara nilai personal dan CRB. Keadaan sampingan pula berjaya mendemonstrasikan kesan penyederhanaan antara SFCB dan CRB, sebaliknya, tabiat tidak mempunyai sebarang kesan terhadap hubungan antara SFCB dan CRB. Dari segi penyumbangan teoritikal, penyelidikan ini



telah memajukan penyelidikan yang lebih holistik dan komprehensif terhadap penggunaan dan perilaku pelupusan yang lestari. Selain daripada itu, penyelidikan ini juga mengesahkan kekuatan dan kepentingan Teori VBN dalam pembentukan nilai-nilai personal, kepercayaan dan perilaku seseorang individu. Penyelidikan ini juga menyumbang sebagai rujukan kepada kerajaan, pelaksana dan masyarakat untuk lebih memahami tentang penggunaan dan pelupusan fesyen lestari dari persektif pengguna, supaya boleh merancang program pendidikan yang lebih strategik dan efektif. Disamping itu, pembuat dasar pula boleh merujuk penyelidikan ini sebagai pertimbangan untuk potensi intervensi dalam infrastruktur dan motivasi secara psikologi untuk menggalakkan perilaku yang lebih lestari dalam masyarakat. Penyelidikan ini juga memberi sumbangan metodologi melalui penilaian dan validasi terhadap kekuatan dalam konseptualisasi model formatif komposit penggunaan semula pakaian dengan menggunakan kaedah analisis "*partial least square*". Selain daripada itu, penyelidikan ini juga menjadi rujukan dan membuka peluang kepada penyelidik-penyelidik dalam bidang fesyen lestari. Secara kesimpulannya, penggunaan dan pelupusan fesyen yang lestari memerlukan tanggungjawab bersama daripada semua pihak untuk menjamin kehidupan yang lebih lestari.

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**ABSTRACT**

The rapid development of fast fashion trend has greatly contributed to the global economy, nevertheless, it has immensely brought the ecological impacts in the global environment, such as throw-away culture and wasteful clothing disposal. Despite the growing interest and awareness of environmental sustainability issues, majority of the consumers are yet to practise pro-environmental clothing consumption and disposal actions. Due to the values-actions gap, the present study aimed to investigate the relationship of personal values, sustainable fashion consumption beliefs (SFCB), facilitating conditions, habits and the consumers' clothing reuse behaviour (CRB) by underpinning Value-Belief-Norm Theory (VBN) and Theory of Interpersonal Behaviour. A quantitative research is conducted among 285 Malaysian young consumers aged 19-30 years old. The data was analysed using SmartPLS and the results indicated that all personal values (altruistic, biospheric, egoistic values) influence SFCB in various extent, SFCB in turn predicted CRB. In addition, SFCB were found to mediate the relationship between personal values and CRB. Facilitating conditions successfully demonstrated moderating effect among SFCB and CRB, while surprisingly, habits do not have any intervention among the relationship of SFCB and CRB. In terms of theoretical contributions, this study has advancing a more holistic and comprehensive study on sustainable fashion consumption and disposal behaviours. Secondly, this study has validated the power and significance of VBN Theory among

the constructs of personal values, beliefs and behaviours. Moreover, this study also provides some managerial insights to government, practitioners and society to understand better in the consumers' perspectives of sustainable fashion consumption and disposition, in order to plan on strategic and effective education program. Policy makers can use this study to consider the potential interventions, in infrastructure and psychological motivation to encourage a more sustainable behaviour among the citizens. Apart from that, this study has contributed methodologically through the assessment and validation on the power upon the conceptualization of composite formative model in clothing reuse construct using partial least square analysis. Furthermore, the present study suggests and provides ample opportunities for future scholars in the field of sustainable fashion. In conclusion, it is importance to bear in mind that the sustainable state of fashion consumption and disposal required a shared responsibility among various parties in the nation to serve a better and a more sustainable tomorrow.

# **CHAPTER 1**

## **INTRODUCTION**

### **1.0 Introduction**

The chapter sets the stage for the present study by first providing an overview of the state-of-the-art developments of fast fashion retailing along with the related phenomenon of sustainable fashion consumption and clothing disposal in Malaysia context. What follow next are the problem statement of the present study, research questions and research objectives. This study is aimed to examine the relationship between personal values, sustainable fashion consumption beliefs, clothing reuse behaviour, habits and facilitating conditions. The chapter is concluded by presenting the significance of the present study in terms of both theoretical and practical contributions along with the operationalized key terms of the study. The research findings are insightful for government and practitioners in fashion industry to promote sustainable fashion consumption and reuse practices, with the objective to build a greener and more sustainable environment.

### **1.1 Background of the Study**

Fast fashion, in simple terms, is a fast changing fashion trend which has rapidly been growing in the 21<sup>st</sup> century. Byun and Sternquist (2008, p. 135) defined fast fashion as “latest fashion trends by frequently products updating with a short renewal cycle and turning the inventory at a rapid rate”. Fast fashion is also often said to be trendy, inexpensive fashion garments that consumers wear for only certain period of time (i.e., season), or one occasion, and it is consigned to oblivion.

The fast fashion trend has tremendously changed over the years. According to New Delhi Times, the fashion industry once had two fashion seasons per year only, i.e., Spring/ Summer and Fall/ Winter. However, since the year of 2014, the fashion industry has surprisingly developed into 52 micro-seasons per year (New Delhi Times Bureau, 2014, Nov 8th). It is claimed that the current fashion designs are only made to be worn less than 10 times (McAfee et al., 2004). In other words, the current fashion trend turnover is getting shorter and faster. Following the fast fashion concept of “here today, gone tomorrow” and to maximize profit by means of influencing customers into impulse buying, some fast fashion retailers are updating their new fashion design at an interval of 2-3 weeks and at a low price range (Bianchi & Birtwistle, 2012; Foroohar & Stabe, 2005; McAfee et al., 2004). It is very common to observe new and different line of fashion garments being launched and displayed in outlets at the shopping malls almost every 2-3 weeks. The fast fashion trend has eventually led consumers to excessive clothing consumption and purchasing.

Moreover, it is believed that when a new fashion design is very frequently introduced to consumers, the fashion cycle is getting shorter, right from the point of purchase until the disposal stage. For this reason, interestingly, fast fashion has been equated with ‘selling fish’ scenario by Amancio Ortega, the founder of Inditex. The latest fashion item is treated of the same kind to fresh fish, which selling fast; on the other hand, fish which were caught yesterday or the day before may have to be sold at a discounted price or worse still cannot be sold at all (The Economist, 2012). In a survey conducted in fall of year 2014, it was discovered that young consumers spent as much on food as they did for clothing, and this was represented by 21% of the overall sampled population (Piper Jaffray, 2014). This implies that the current trend of fast fashion in

which consumers are eager to buy the latest fashion clothing items in order to keep up with the trend, and the outdated fashion is disposed of. As a consequence, fashion consumption rate increases tremendously.

There are pros and cons with the rise of fashion consumption phenomenon. Higher consumption can increase a nation's Gross Domestic Product (GDP), particularly important for developing nations like Malaysia. In addition, consumption level is an indicator of social well-being, quality of life and economic performance. Higher consumption level indicates a better life and economic standard. However, increasing wasteful fashion consumption is the root cause of throwaway culture and it creates plenty of environmental problems, such as unsustainable textile disposal and landfill problems. It is clear that our eco-system that sustains our economies is failing due to the various environmental problems caused by consumers' unsustainable purchasing and consumption behaviours (Neal, 2012).

One of the consequences of excessive consumption is wasteful textile disposal. Textile disposal is now a serious yet increasing problem in the world. The clothing and textile industry brings a major environmental footprint and is claimed to be polluting around 200 tons of water with every ton of fabric as evidenced in previous studies (Achabou & Dekhili, 2013; Nagurney & Yu, 2012). Consequently, fashion industry is considered as one of the most unsustainable and polluting industries, due to the wasteful production and consumption of textile (Greenpeace, 2012). Hence, environmental degradation and natural resources preservation are becoming a hot topic that forms the basis of research endeavours (Council of Textile Recycling, 2013; National Waste Information Baseline Report, 2012; Waste Online, 2004; Meyer, 2014).

In future, excessive textile disposal will eventually lead to landfill problems. Landfill, according to Oxford Dictionary, means “The disposal of waste material by burying it” (Oxford Dictionaries, 2015b). High volume of wasted textile materials ends up in landfill site every year, although lots of the clothing are still usable. Based on previous empirical studies, it was found that an estimated 95 percent of the clothing inside landfill sites in United States, United Kingdom, Japan and China are still in good condition and it could still be reused, re-worn or recycled (Lu & Hamouda, 2014). In addition, due to the improper landfill management of textile waste, there are high levels of pollution and chemical dangers in the form of emissions, pesticides and dye waste (Treloar et al., 2004), which potentially harm the people, animals and environment. The ineffective clothing disposal behaviour has led to an alarming problem of landfill waste. Despite the alarming environmental problems brought about by unsustainable clothing consumption and disposal practices, there is still insufficient research on proper management of textile waste and thus more studies need to be carried out to address the related issues.

## **1.2 Sustainable Consumption and Clothing Disposal Behaviour in Malaysia**

Under the 11<sup>th</sup> Malaysia Plan, it is Malaysia’s goal to become an advanced economy by the year of 2020, and one of the main concerns is green growth which is based on three pillars of sustainable development – economic, social and environment (Economic Planning Unit, 2015). The objective of this plan is to facilitate a shift towards a more sustainable pattern of consumption and production, which will ensure the sustainability of natural resources and minimize the environmental pollution. Although the household recycling rate increased up to 15% in year 2015, compared to

only 10% in 2010, the participation rate is still considered very low to achieve the full state of sustainability. Hence, it is important to increase the awareness of shared responsibility in a joint effort to protect the environment and to drive the green agenda.

The fashion consumption rate is undoubtedly increasing rapidly due to the progressive development in fast fashion industry, including Malaysia. According to Euromonitor International (2014), apparel and footwear category grew about 35.6% between year 2008 to 2013 and the total sales of apparel and footwear was estimated at MYR 21,704.3 million in the year of 2013. In addition, the total sales are estimated at MYR 24,313.2 million in the year of 2016. Young consumers tend to purchase all of the latest fashion garments introduced by fast fashion retailers just to keep up with the fashion trend. The negative impacts occur when the throw-away culture has emerged, with the clothing being disposed of after a relatively shorter time of usage.

As a result of throw-away culture, the amount of solid waste generation in Malaysia is increasing tremendously due to the rapid population growth (Moh & Abd Manaf, 2014; Tarmudi et al., 2012), and this amount is estimated to increase at 2% per capita per year (Moh & Abd Manaf, 2014). As reported under 10<sup>th</sup> Malaysia Plan, the solid waste is estimated at 31,000 tonnes per day by 2020, due to the increased population growth rate (Johari et al., 2012; Tan et al., 2014). However, surprisingly, it was reported in New Straits Times that Malaysia produced 33,000 tons of solid waste daily in 2012, over and above the estimated production of 30,000 tons by 2020 (Mokhtar, 2013).

In addition, Table 1.1 demonstrates the composition of waste in Malaysia for year 2000- 2012, unfortunately, the latest data is scarce and not properly documented, thus,



most researchers are using a projection or estimated amount (Johari et al., 2012). From the table, we can observe that the percentage of textile composition increasing dramatically from year to year, 1.5% in year 2000 to 4.0% in year 2009 and a slightly drop to 3.5% in year 2012. It is worth noting that textile waste is the fourth highest composition of municipal solid waste in year 2012, just behind organic, paper and plastic wastes. Textile category of municipal solid waste is mainly in the form of discarded clothing, and little percentage of footwear, towel, carpets (Hu et al., 2014). By using the statistics of 33,000 tonnes of total solid waste in 2012, there are approximately 1155 tonnes of textile waste generated in Malaysia daily and this number is increasing from time to time. Although the textile waste problem is getting more serious, it has yet to be comprehensively researched by scholars and is not being treated seriously in terms of disposal methods and enforcement to overcome it. It is said that the issue of recycling in Malaysia has never been resolved (Moh & Abd Manaf, 2014), yet worsening due to ineffective waste management and poor documentation of solid waste data analysis (Badgie et al., 2012). In fact, Malaysia is still lagging behind in sustainable waste management practices, predominantly in the area of recycling (Jereme et al., 2014).

Table 1. 1  
*The Composition of Waste in Malaysia for year 2000- 2012*

<b>Waste Composition</b>	<b>2000 (%)</b>	<b>2005 (%)</b>	<b>2009 (%)</b>	<b>2012 (%)</b>
<b>Organic</b>	43.2	44.8	55.0	44.5
<b>Paper</b>	23.7	16.0	13.0	8.5
<b>Plastic</b>	11.2	15.0	19.0	13.2
<b>Textile</b>	1.5	2.8	4.0	3.5
<b>Glass</b>	3.2	3.0	2.0	3.3
<b>Metal</b>	4.2	3.3	3.0	2.7
<b>Wood</b>	0.7	6.7	1.0	1.4
<b>Others</b>	12.3	8.4	3.0	0.5

Source: compilation from Fauziah and Agamuthu (2009), Samsudin and Don (2013), National Solid Waste Management (2013)

In Malaysia, the present waste management methods are highly dependent on landfill as only 5.5% of the municipal solid waste is recycled and 1% is composted, while the remaining 94.5% of municipal solid waste is disposed of at the landfill sites (Tan et al., 2014; Tey et al., 2013). Unfortunately, the landfill sites in Malaysia were scarce and mostly in small scale operation (Tey et al., 2013). In conjunction with the planning strategies of 11<sup>th</sup> Malaysia Plan where to turn waste into resources, through reuse and recycle which provides economic values and diverting waste away from landfill into a more productive use (Economic Planning Unit, 2015), indicating an urgent need to have alternative ways of sustainable disposal method and reducing the frequency of clothes in good condition being sent to landfills when it still has some values for either reuse or recycle. Moreover, excessive landfilling brings a lot of adverse effects to the environment, social and economic aspect.

### **1.3 Problem Statement**

Environmental degradation has become a serious issue globally and it is an important cause to be concerned. In addition, climate change is considered as a major threat to be urgently addressed in Malaysia, as it adversely impacts on the economic and social development (Economic Planning Unit, 2015). This topic is relevant in the domain of clothing disposal, due to the excessive landfill problems caused by throw-away culture. Hence, there is a growing need to capture the clothing disposal behaviour as the environmental implications of clothing waste disposal is often overlooked (Bianchi & Birtwistle, 2012; Isenhour et al., 2016; Lundblad & Davies, 2015). The key societal challenge to be concerned of is the effort to transform mass-disposal practices toward a more sustainable way with the use of limited natural resources (Ohnishi et al., 2012). However, scarce studies have thus far sought to address the issue of sustainable fashion consumption and disposal (Bianchi & Birtwistle, 2012; Laitala, 2014; Loi et al., 2016;

Meyer, 2014; Morgan & Birtwistle, 2009). Therefore, the purpose of this study is to delve into the problems of sustainable fashion, focusing on sustainable fashion consumption and clothing reuse behaviour.

Next, the collective efforts of government, NGOs and corporate sectors in promoting 3R (reduce, reuse, recycle) are not result in significant impact to encourage sustainable behaviours. The 11<sup>th</sup> Malaysia Plan highlighted to increase the awareness of shared responsibility in safeguarding the environment and biodiversity across all levels of society, especially individuals and citizens (Economic Planning Unit, 2015). It implied the importance to learn about the pro-environmental behaviour, specifically on individual context. Additionally, values-actions gap was addressed where consumers who are concerned about environmental issues, but not necessarily perform it in environmentally friendly and sustainable way (Carrington et al., 2010; Hamilton, 2010; Pears, 2006). This might be one of the reasons which reduced the effectiveness of the current environmental campaigns. To solve this problem, this study looked into the psychological factors which potentially motivate or discourage the sustainable fashion consumption and clothing reuse behaviour. The results provided insights to the authorities and practitioners on the areas to be looked into, in order to increase the clothing reuse rate effectively and efficiently.

In conjunction with the problem of less effective campaigns, a strategy based approach is needed to provide a practical solution. Hence, as suggested, there is a need to future investigate by combining the factors of socio-psychological and technical aspects in recycling related studies (Miafodzyeva & Brandt, 2013). The relationship between the two elements are important as socio-psychological factors, such as personal factors

and norms are insufficient to determine whether an individual is willing to perform a certain action. Therefore, there is also a necessity to evaluate the technical aspects in pro-environmental behaviours (facilitating conditions), such as convenience factors, distance and ease of use, in order to provide a practical and feasible solution to solve the current environmental problem. For example, if a person wishes to donate the unwanted clothing to a charity house, but the charity house is far away from his/her house and there is no collection service provided, the intention to donate might reduce due to the technical aspects of the situation. This approach is useful in the current phenomenon where the whole picture of recycling behaviour is incomplete and it's hard for practitioners to carry out suitable strategies to motivate consumers' pro-environmental behaviour. It is therefore adequately reasoned that personal factors and technical factors would be an important element to investigate in clothing disposal study, which offer a realistic possibility to improve the sustainable clothing reuse participation rate.

In a similar vein, it was said that the current recycling scheme is a traditional top-down practice ruled by the authorities without public participation in the process of decision-making and involvement before implementation (Keramitsoglou & Tsagarakis, 2013). Similar cases were found in Malaysia's practices too (Moh & Abd Manaf, 2017). In fact, a successful and sustainable recycling scheme is not only based on the regulations set by government, but also to consider the participants' daily routine and habit. This is because the effective way to persuade pro-environmental behaviour is to enable behaviour which reflect more on usual behaviour or practices. In relation to this, it was found that consumers' clothing maintenance and disposal behaviour were mainly affected by their existing habits and routines, which take precedence over the

sustainability awareness (Goworek et al., 2012). Hence, the consumers are having a major role to play in the successfulness of sustainable clothing practices, however, the role of habits in the context of recycling is often been overlooked. Therefore, the problems and questions raised within this part are, “To what extent a consumer internalized the habits of practicing sustainable action, such as clothing consumption and disposal behaviour? Does habits strengthen the tendency to act sustainably for consumers who have internalized a belief on sustainable practices?”

Next, although the current consumer awareness of environmental problems is considered to be growing, however, various studies have showed that consumers have a low awareness towards the environmental impacts brought by the fashion industry (Hill & Lee, 2012; Niinimäki, 2010) and consumers are rarely involving in sustainable fashion consumption behaviour (Kozar & Hiller Connell, 2013). In simple words, consumers do not pay a lot of attention in the environmental consequences of their fashion purchasing, consumption, disposal and the apparel production process and cycle. Studies on Malaysia context also found that the Malaysian’s awareness of recycling programmes and negative impacts of improper waste management are relatively low (Masud et al., 2015; Neo et al., 2016; Zen et al., 2014). Hence, to encourage the sustainable clothing consumption and disposal, it is utmost important to first knowing the consumer’s attitude, beliefs and perception towards this sustainable act.

Based on the discussion in the preceding paragraphs, it is known that consumer behaviour in pro-environmental issues have never been resolved although many studies have been carried out. In the context of clothing recycling, the main concern is

that the sustainable behaviour has yet to gain a full momentum among consumers, although various efforts have been made to educate consumers about pro-environmental actions (Hawley, 2008). Undoubtedly, consumer behaviour is a complex research area where the consumer behaviour may vary due to different cultures, personal values and beliefs (Dermody et al., 2016). To provide solutions for the clothing disposal issues, some questions need to be addressed in order to develop a more sustainable environment, such as “what types of values are important in instilling consumers’ sustainable fashion consumption beliefs? How sustainable fashion consumption beliefs encourage consumers to reuse their unwanted clothing? Is there any belief- behaviour gap? If yes, does facilitating conditions and habits enhance the clothing disposal behaviour?” With the effort in studying consumer values, beliefs and their behaviour, necessary prevention actions can be carried out by the authorities to encourage clothing reuse behaviour and eventually reduce the environmental and landfill issue.

In relation to the discussion and arguments raised in the aforementioned sections, the following research questions were devised in the next section.

#### **1.4 Research Questions**

1. What personal values influence sustainable fashion consumption beliefs?
2. What is the relationship between sustainable fashion consumption beliefs and clothing reuse behaviour?
3. How do sustainable fashion consumption beliefs mediate the relationship between personal values and clothing reuse behaviour?
4. Does habits moderate the relationship between sustainable fashion consumption beliefs and clothing reuse behaviour?

5. Does facilitating conditions moderate the relationship between sustainable fashion consumption beliefs and clothing reuse behaviour?

### **1.5 Research Objectives**

1. To examine the relationship between personal values and sustainable fashion consumption beliefs.
2. To identify the relationship between sustainable fashion consumption beliefs and clothing reuse behaviour.
3. To test the mediating effect of sustainable fashion consumption beliefs in the relationship between personal values and clothing reuse behaviour.
4. To examine the moderating effect of habits in the relationship between sustainable fashion consumption beliefs and clothing reuse behaviour.
5. To test the moderating effect of facilitating conditions in the relationship between sustainable fashion consumption beliefs and clothing reuse behaviour.

### **1.6 Significance of Study**

This study allows an exploration into an emergent research area of sustainable fashion consumption and clothing reuse behaviour. In fact, this study contributes to the theoretical foundation of the consumers' sustainable behaviour which involves theoretical and managerial perspectives.

#### **1.6.1 Theoretical Significance**

While the fashion industry is deemed as the most wasteful, polluting and unsustainable industry (Greenpeace, 2012), there are little attention been paid on the research of sustainable fashion consumption and disposal. Hence, this study aimed to enhance the

literatures by underpinning and adapting Value-Belief-Norm Theory (VBN) in the understanding of the determinants of sustainable consumption beliefs and reuse behaviour.

From a theoretical perspective, the present study explains a different perspective of sustainable fashion consumption, by developing a sequential and comprehensive approach to understand the sustainable consumption and disposal flow, right from the consumers' personal values, beliefs of sustainable fashion consumption to disposal stage. There is a necessity to study the whole consumption flow as every stage of the process leads to clothing disposition behaviour. We can clearly understand the consumer disposition behaviour only if in-depth empirical studies which look into the whole consumption process are carried out.

Secondly, this study goes further than the earlier study by allowing the combination of social-psychological and technical aspects in examining clothing disposal behaviour, which is currently under-researched. In line with the notion of values-actions gap, where individuals who hold pro-environmental values and beliefs do not always transform into pro-environmental actions and behaviours, hence, this study trying to examine the situational factors which might enhance or deter the pro-environmental behaviours. To create a more definitive result, Theory of Interpersonal Behaviour (TIB) is integrated to fill the values-actions gap. This study moves beyond from simply examining the influential factors which motivate clothing disposal behaviour by incorporating technical aspects (facilitating conditions) that deter or enhance clothing disposal behaviour. Therefore, this study is able to provide specific solutions on the ways to instil such behaviour by inspection which facilitating conditions that



consumers perceive as restriction or encouragement factors in their efforts to dispose of unwanted clothing in sustainable ways. This is an approach focused on problem-based learning that emphasis on local perspective, implies the municipality level which promotes local and private practical action to put an immediate and practical act to solve the current problems.

Moreover, despite the fact that motivating and educating consumers on the ways to use and dispose their unwanted clothing sustainably is the most employed means to enhance pro-environmental clothing reuse behaviour, whereas, it is to date not fully clear and understand why some people do, and others do not respond to the environmental information. Does it relate to the consumer's habit? Hence, this study empirically demonstrates the relevance of considering individual differences in their usual habits while trying to understand the factors which potentially enhance or deter sustainable clothing reuse behaviour, with the notion of values-actions gap.

Lastly, by appreciating the distinction between value orientations, beliefs and behavioural choices in this context is, however, as important as understanding the relationship of constructs given the persistent gap between sustainability-related attitudes and behaviours in the consumers' heart. This is because the most effective ways to change consumer behaviour must start with a thorough understanding of consumer awareness, knowledge and to what extent, consumers have already internalized the idea of sustainability. Hence, it is therefore reasoned that the holistic approach of personal values, beliefs and behaviours would be great to study, which offering a realistic possibility for information provision to actually improve and promote sustainable clothing consumption and reuse behaviour.

### **1.6.2 Practical Significance**

The present study has several implications for the fashion industry practitioners and policy makers. Firstly, by fully understanding the consumers' personal values and beliefs about sustainable clothing consumption and clothing reuse behaviour, practitioners and government could plan strategic and effective education programs to educate consumers on the sustainable consumption and disposal methods. It is of utmost importance to delve into the influence of consumers' personal values and attitude towards their sustainable consumption and clothing reuse from three perspectives namely altruism, egoism and biospheric value (Meyer, 2014). If for example, the greater motivational factor behind practising sustainable behaviour is altruistic value, the authorities then may work towards the sustainable disposal educational program from the perspectives of altruism and philanthropy.

Secondly, by means of the investigation into the current clothing reuse facilities in this study, the Malaysian government may gain valuable insights on the effectiveness and adequateness of the current clothing reuse facilities. The clothing reuse/ recycling facilities are important as it significantly affects consumers' clothing disposition behaviour. This is because an individual's sustainable action is highly dependent on the convenience, time, knowledge and effort factors. Depending on the findings of this study, the government could then evaluate the current facilities and therefore improvise accordingly to provide the best for the Malaysian citizens in its efforts to promote a more sustainable future.

It may have significant implications for financial aspect as a lot of budget can be saved if the country's citizens choose to reuse their unwanted clothing, instead of assigning

them to the landfill sites, if not achieved zero-waste status. It was reported in the year of 2009, the Malaysian government spends around 50% of their operating budget in municipal waste management and more than 50% spending on waste collection annually (Manaf et al., 2009). In Hoornweg et al. (1999)'s study, the total spending on urban solid waste management of local governments in Asia was estimated at US 25 billion per year, and this amount was 90% more than the total spending in solid waste management of those high income countries. In addition, this amount is projected to rise until US 47 billion by the year of 2025. The reported statistics of textile waste composition is about 4%, using this as an estimate figure, Malaysia can save about US 1 billion or more in textile waste management cost. This waste prevention strategy can ultimately create an ideal situation for economic, social and environmental aspects.

Last but not least, this study is aligned with government and policy makers' objectives to reduce, reuse, and recycle waste. As reported by Yahaya (2012), government plans to reduce 40% of solid waste being sent to landfill and 38% reduction of greenhouse gases from solid waste by the year of 2020. In order to make the government's plans to succeed, we must first understand the consumers' behaviour on sustainable consumption and disposal methods. This is because the biggest contributor of solid waste is household and through a deeper understanding on the consumers' behaviour, the 3R policy (reduce, reuse, and recycling) could run more effectively by targeting on the influential factors which encourage consumers to consume and dispose sustainably.

### **1.6.3 Methodological Significance**

Though limited of scope in relation to the research of clothing reuse behaviour, this study unlocks a wider and more comprehensive definition of 'clothing reuse' by incorporating the knowledge from an exhaustive review of literature. The extant

clothing reuse related researches focused on a narrow definition of clothing reuse, which is converting clothes into rag or re-design the clothes; whereas, passing on the unwanted clothing to others is considered as a type of reuse method as well, for instance, clothing donation, gifting it to friends and family, clothing re-selling and clothing swapping (Lee et al., 2013; Shim, 1995; Stall-Meadows & Goudeau, 2012). In the emerging research field of sustainable fashion, various ways of investigation are continually being proposed by researchers, for example, the comprehensive definition of “clothing reuse”, however, scarce studies have been considering the proposed issue. Hence, this study reveals the divergence of consumers’ reuse behaviour in the form of measuring various reuse methods that was under-researched by previous clothing disposition studies, using composite formative measurements. This study acknowledged that ‘clothing reuse’ does not only represent the conversion of clothes into rag or re-design, but including the transformation of unwanted clothing into a same level, lower grade or different function, for example, clothing donation, swapping, re-selling.

### **1.7 Scope of the Study**

This is a descriptive correlational study to research about the personal values and sustainable fashion consumption beliefs and clothing reuse behaviour among young consumers in Malaysia. It is mainly aimed to examine the relationship between personal values (altruistic, egoistic, biospheric values), sustainable fashion consumption beliefs and clothing reuse behaviour. Secondly, habits and facilitating conditions are set as moderators to investigate their moderating roles on the relationship between sustainable fashion consumption beliefs and clothing reuse behaviour. This study is also looked into the mediating role of sustainable fashion consumption beliefs in the relationship between personal values and clothing reuse

behaviour. Young consumers aged 19-30 were chosen as the respondents of this study by using judgemental sampling method. This is a quantitative research where self-administered questionnaire was developed and all items used in the questionnaire were adapted from previous literatures. Face-to-face and online self-administrated questionnaire survey were conducted for data collection and the responses were analyzed using SmartPLS 2.0 software to test the hypotheses in this study.

### **1.8 Definition of Key Terms**

**Fast Fashion** - “latest fashion trends by frequently products updating with a short renewal cycle and turning the inventory at a rapid rate” (Byun & Sternquist, 2008, p. 135).

**Consumption** - 1. the act of using up resources

2. the purchase of goods or services by public

(Oxford Dictionaries, 2015a).

**Sustainable Consumption** - “Sustainable consumption encompassing behaviour that reduces pressure on humanity’s environmental and social base of livelihood that respects other individuals’ ability to live a decent human life and that does not overburden its addressees” (Reisch & Thøgersen, 2015, p. 4).

**Sustainable Fashion Consumption** - “sustainable fashion consumption is a sub-set of the sustainable fashion system. It includes consumer attitudes and behaviours that lead to reductions in the triple-bottom line (economic, environment and social) impacts of buying, wearing, caring for, repairing and recycling fashion goods. It includes

demanding sustainable alternatives, caring for garments in less impact intensive ways (e.g. cold wash and line drying clothes) and responsible disposal or recycling of obsolete goods” (Gwozdz et al., 2013, p. 14).

**Clothing Reuse Behaviour** - “behaviour in discontinued wear and re-purposing unwanted clothing that are still useful and have utility or value into a same level, lower grade or different function” (self-developed definition, adapted from Ali et al. (2012) and Chun (1987).

**Personal Values** - ‘desirable, trans-situational goals serve as a guiding principle in peoples’ lives (Schwartz, 1994, p. 21).

**Altruistic Value** -“A self- transcendent type of value orientation which focus on people welfare, social justice, equality and care for people” (self- developed definition, adapted from Jägel et al. (2012), De Groot and Steg (2008) and Steg et al. (2014).

**Biospheric Value** - “A self- transcendent type of value orientation which concern about nature, environment, ecosystem and biosphere” (self- developed definition, adapted from De Groot and Steg (2008).

**Egoistic Value** - “A self-enhancement type of value orientation which emphasize on a narrow construal of self, highly concern about personal costs and benefits during decision making stage and emphasize social power, authority, wealth and influencing power in their life” (self- developed definition, adapted from De Groot and Steg (2008) and Steg et al. (2014).

**Belief on Sustainable Fashion Consumption** – “Individual primitive belief, attitude and norms regarding environmental issues in the context of sustainable fashion consumption cycle, from clothing usage to disposition” (self- developed definition, adapted from Steg et al. (2011) and Sánchez and Lafuente (2010).

**Facilitating Conditions** – “ability of a person to perform the behaviour, the person’s level of arousal in relation to the behaviour, the difficulty of performing it, the knowledge needed to do so, and the environmental settings that increase the probability of the act” (Triandis, 1980).

**Habits** - “automatic behavioural responses to environmental cues, thought to develop through repetition of behaviour in consistent contexts” (Lally & Gardner, 2013, p. 137)

## **1.9 Organisations of Thesis**

There are five chapters in this thesis. To recap, chapter 1 provides an overview of the study background and discusses the current problems that need to be addressed by means of this study. Research questions, research objectives and significance of the study were correspondingly explained in chapter 1.

Chapter 2 is Literature Review which discusses theories, as well as related literature on sustainable consumption and clothing disposal. Research framework and research hypotheses are also introduced and delineated in this chapter.

Chapter 3 is Methodology that discusses the research methodology of this research, such as research design, sample and sampling methods employed, and data analysis technique. Additionally, data collection procedures and questionnaire development are

also discussed in Chapter 3. Lastly, the operationalization of statistical data analysis is covered in this chapter.

Next, Chapter 4 discloses the findings of this study. Discussion in this chapter covers all the data analysis needed to answer the study's research questions, starting from data screening, validity and reliability to hypotheses testing analysis. This chapter ends with the summary of findings, which presents the acceptance or rejection of the hypotheses in this study.

Lastly, chapter 5 recaps the main issues and objectives of the study, followed by the discussion of the relationship among constructs. Next, this chapter explains the contributions and implication of the study, in terms of theoretical and practical views. The chapter concludes by indicating the limitation and suggesting some directions for future research.



## CHAPTER 2

### LITERATURE REVIEW

#### 2.0 Introduction

Chapter 2 is organized in several sections as per the aforementioned objectives. This chapter started with a review of literature, particularly studies of both sustainable consumption and clothing disposition behaviour, followed by a discussion of related theories. Later, research hypotheses are developed, and a theoretical framework for the study is proposed.

#### 2.1 Sustainability Studies

Sustainability studies have over the years been gaining more attention in research field, as consumers are increasingly more concern about environmental issues. Sustainability issue is the core focus of this study as it is the final goal of having an effective clothing disposition, especially in developing countries like Malaysia where the sustainable development system has yet to be well developed. Sustainability issue should be the main focus to be overcome in order to protect the mother earth. To provide an overview of sustainability, the definition of sustainability terms are as presented in Table 2.1.

Table 2.1

*Definition of Sustainability Terms*

<b>Terms</b>	<b>Definition</b>	<b>Source</b>
<b>Sustainability Development</b>	Ability of humanity to ensure that it meets the needs of the future generations to meet their own needs.	Brundtland (1987, p. 8)
<b>Sustainable production &amp; consumption</b>	Use of goods and services that respond to the basic needs of natural resources, toxic materials and emissions of waste and pollutants over life cycle, so as not to jeopardize the needs of future generations.	Oslo Symposium on Sustainable Consumption (1994), cited in Dolan (2002, p. 172)

Table 2-1. Continued

<b>Sustainable production &amp; consumption</b>	Involves business, government, communities and households contributing to environmental quality through the efficient production and use of natural resources, the minimization of wastes, and the optimization of products and services.	Weihs (2013, p. 6)
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The Malaysian government is in its efforts of including sustainability issues in 11th Malaysia Plan and the National Sustainable Consumption and Production (SCP) blueprint (Weihs, 2013). Furthermore, the world is working towards a better sustainable development and it has been defined in various ways. A revision of all the definitions stated that all definitions required us to view sustainable development as a system that connects space and time (International Institute for Sustainable Development, 2013). Hence, it is said that sustainable development is a difficult task (Jackson, 2004) where it contains a wide range of scales and indicators. Consumer behaviour is required to be studied, as it is a main key in sustainable development studies where consumer behaviour and the consumption pattern are the main influential factors driving the success of sustainability.

### **2.1.1 Sustainable Consumption**

From the view of sustainable development, consumption has become an emerging important issue to debate (Jackson, 2014). However, the meaning of consumption varies among disciplines, as physicists, economists, ecologists and sociologists are applying different concepts to consumption which align their respective disciplines (Stern, 1997). Economists define consumption as the total spending on consumer goods and services, while in sociology, consumption is described as the consumers' purchasing behaviour to increase their social status. In fact, the latter definition of consumption does no longer revolve around spending, but a broader area which

includes patterns of life and product life cycle (Stern, 1997) and consumption is discussed popularly by linking it to environmental issue (Jackson, 2014).

From the environmental perspective, sustainable consumption is defined by Reisch and Thøgersen (2015, p. 4) as “Sustainable consumption encompassing behaviour that reduces pressure on humanity’s environmental and social base of livelihood that respects other individuals’ ability to live a decent human life and that does not overburden its addressees.” Next, a more collectivism definition of sustainable consumption is that ‘consumption that supports the ability of current and future generations to meet their material and other needs, without causing irreversible damage to the environment or loss of function in natural systems’ (Jackson & Michaelis, 2003, p. 14).

Consumption, a common measure of welfare and quality of life, is deemed to be a stepping-stone to a wealthy economy. Generally, people see higher consumption as equal as higher living standard. People nowadays tend to consume and purchase more, in order to obtain a better, higher standard of lifestyle. However, research have shown that both under-consumption and excessive consumption can be problematic and bring some sorts of positive and negative consequences to consumers and also the society (Jackson, 2011; Quelch & Jocz, 2013). Increasing consumption and currently recognized as excessive consumption raises alarming environmental problems (Sheth et al., 2011).

Excessive consumption has created a lot of environmental problems. Due to excessive consumption, the overuse of environmental resources might affect personal and