



UNIVERSITI PUTRA MALAYSIA

***MODERATING EFFECTS OF GENDER ON THE RELATIONSHIP
BETWEEN FINANCIAL KNOWLEDGE, FINANCIAL ATTITUDE AND
SELF-CONTROL AND FINANCIAL BEHAVIOUR AMONG COLLEGE-
BOUND GEN Y IN KLANG VALLEY, MALAYSIA***

ZUHAIRAH MAAROF

FEM 2015 65



**MODERATING EFFECTS OF GENDER ON THE RELATIONSHIP
BETWEEN FINANCIAL KNOWLEDGE, FINANCIAL ATTITUDE AND
SELF-CONTROL AND FINANCIAL BEHAVIOUR AMONG COLLEGE-
BOUND GEN Y IN KLANG VALLEY, MALAYSIA**

By

ZUHAIRAH BINTI MAAROF

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,
in Fulfillment of the Requirements for the Degree of Master of Science**

June 2015

COPYRIGHT

All material contained within the thesis, including without limitation text, logos, icons, photographs and all other artwork, is copyright material of Universiti Putra Malaysia unless otherwise stated. Use may be made of any material contained within the thesis for non-commercial purposes from the copyright holder. Commercial use of material may only be made with the express, prior, written permission of Universiti Putra Malaysia

Copyright © Universiti Putra Malaysia



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the Degree of Master of Science

**MODERATING EFFECTS OF GENDER ON THE RELATIONSHIP
BETWEEN FINANCIAL KNOWLEDGE, FINANCIAL ATTITUDE AND
SELF-CONTROL AND FINANCIAL BEHAVIOUR AMONG COLLEGE-
BOUND GEN Y IN KLANG VALLEY, MALAYSIA**

By

ZUHAIRAH BINTI MAAROF

June 2015

Chairman : Sharifah Azizah Bt Haron, PhD
Faculty : Human Ecology

Bankruptcy cases among youth are increasing each year. A total of 20 percent from all bankruptcy cases in Malaysia consist of those aged 35 years old and below (Malaysian Department of Insolvency, 2012) – an age cohort specifically known as Generation Y. In comparison with the previous generation, this generation has unique personalities. Additionally, in future, they have the prospective of earning higher income upon completing college. Hence, this study is significant in an attempt to ensure that Generation Y are able to perform effective financial behaviour to help them avoid from possible financial crisis such as bankruptcy.

The objectives of the study are to determine gender differences in financial behaviour, financial attitude, financial knowledge and self-control among Generation Y in college. Moreover, this study intends to determine the moderating effect of gender on the relationships between three variables (financial knowledge, financial attitude and self-control) and financial behaviour. The study utilises secondary data of a research project on “Generation Y’s Consumer Competency and Lifestyle” in 2012 which was funded through Research University Grant Scheme (RUGS). Data were collected among six public universities and three private universities in the Klang Valley area using self-administered questionnaires. Respondents were selected using stratified random sampling technique. A total of 2,068 respondents involved in the study. However, only 1,399 were usable and used in the study. From the collected data, descriptive, t-test and hierarchical regression analysis were conducted using IBM SPSS (Version 21) to meet the objectives of the study.

Findings showed that gender differences exist in financial behaviour, financial knowledge and financial attitude of Generation Y. Female students were found to have higher financial knowledge and possessed more positive financial attitude compared to male students. However, behaviour wise, male students indicated that they practiced more effective financial behaviour than the female counterpart. Ironically, despite having higher financial knowledge and more positive financial attitude, female students were not at par with male students in the aspect of effective financial behaviour.

Results of hierarchical regression analyses showed that the moderating effect of gender existed on the following: financial knowledge and financial behaviour; and financial attitude and financial behaviour. The relationships, specifically, between financial knowledge and financial behaviour; and financial attitude and financial behaviour were stronger among female than male. Therefore, being female would enhance the relationship between financial knowledge and financial behaviour; and financial attitude and financial behaviour. The moderating effect of gender on the relationship between self-control and financial behaviour were found to be insignificant. However, self-control was found to have direct influence on the financial behaviour. It means that self-control affect the way students behave financially regardless of the gender. In conclusion, gender has a significant influence on the relationship between financial knowledge and financial attitude, and financial behaviour. Therefore, parties directly or indirectly involve in financial socialization of youth such as financial educators, policy makers and parent should take into account gender differences in their dealing and intervention programmes.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Sarjana Sains

**KESAN MODERASI JANTINA TERHADAP HUBUNGAN DI ANTARA
PENGETAHUAN KEWANGAN, SIKAP KEWANGAN DAN KAWALAN
DIRI DAN TINGKAH LAKU KEWANGAN DALAM KALANGAN
GENERASI Y KOLEJ DI LEMBAH KLANG, MALAYSIA**

Oleh

ZUHAIRAH BINTI MAAROF

Jun 2015

Pengerusi : Sharifah Azizah Bt Haron, PhD
Fakulti : Ekologi Manusia

Kes kebangkrutan dalam kalangan belia semakin meningkat setiap tahun. Sebanyak 20 peratus daripada jumlah kes kebangkrutan dalam kalangan rakyat Malaysia terdiri daripada mereka yang berusia 35 tahun dan ke bawah (Jabatan Insolvensi Malaysia, 2012)–Kelompok ini khususnya dikenali sebagai Generasi Y. Generasi ini mempunyai personaliti yang unik berbanding generasi yang lepas. Sebagai tambahan, mereka berpotensi memperoleh pendapatan yang lebih tinggi pada masa akan datang setelah tamat pengajian di kolej. Oleh itu, kajian ini adalah penting bagi memastikan Generasi Y mampu untuk melakukan tingkah laku yang efektif bagi mengelakkan mereka terjebak dalam krisis kewangan seperti bankrap.

Objektif kajian ini adalah untuk menentukan perbezaan jantina dalam tingkah laku kewangan, sikap kewangan, pengetahuan kewangan dan kawalan diri di kalangan Generasi Y di kolej. Selain itu, kajian ini bertujuan untuk menentukan kesan moderasi jantina terhadap hubungan di antara tiga pembolehubah (pengetahuan kewangan, sikap kewangan dan kawalan diri) dan tingkah laku kewangan. Kajian ini, menggunakan data sekunder yang diperoleh daripada kajian 'Kompetensi Pengguna dan Gaya Hidup Generasi Y' pada tahun 2012 yang dibiayai oleh Skim Geran Penyelidikan Universiti (RUGS). Data tersebut telah dikumpul daripada enam universiti awam dan tiga universiti swasta di sekitar lembah Klang menggunakan borang soal selidik yang dipantau sendiri. Responden dipilih menggunakan teknik persampelan rawak berstrata. Sebanyak 2068 responden terlibat dalam kajian ini. Namun, hanya 1399 data boleh digunakan dan digunakan dalam kajian ini. Daripada data yang dipeolehi, analisis deskriptif, ujian-t dan regresi berperingkat dijalankan menggunakan IBM SPSS (Versi 21) untuk memenuhi objektif kajian ini.

Hasil kajian menunjukkan terdapat perbezaan jantina dalam tingkah laku kewangan, pengetahuan kewangan dan sikap kewangan Generasi Y. Pelajar perempuan didapati mempunyai pengetahuan kewangan yang lebih tinggi dan sikap kewangan yang lebih positif berbanding pelajar lelaki. Walaubagaimanapun, dari segi tingkah laku kewangan, pelajar lelaki menunjukkan mereka mengamalkan tingkah laku kewangan yang lebih efektif berbanding perempuan. Ironinya, walaupun mempunyai pengetahuan kewangan yang lebih tinggi dan sikap kewangan yang lebih positif, pelajar perempuan tidak standing pelajar lelaki dalam aspek tingkah laku yang efektif.

Hasil analisis regresi berperingkat menunjukkan kesan moderasi jantina wujud pada hubungan berikut : pengetahuan kewangan dan tingkah laku kewangan; dan sikap kewangan dan tingkah laku kewangan. Secara terperinci, hubungan di antara pengetahuan kewangan dan tingkah laku kewangan; dan sikap kewangan dan tingkah laku kewangan adalah lebih kuat di kalangan perempuan daripada lelaki. Oleh itu, perempuan akan meningkatkan hubungan di antara pengetahuan kewangan dan tingkah laku kewangan; dan sikap kewangan dan tingkah laku kewangan. Kesan moderasi jantina terhadap hubungan di antara kawalan diri dan tingkah laku kewangan didapati tidak signifikan. Walaubagaimanapun, kawalan diri didapati mempengaruhi tingkah laku kewangan Generasi Y secara terus. Ini bermaksud, kawalan diri akan mempengaruhi cara pelajar berkelakuan terhadap kewangan tanpa mengira jantina. Kesimpulannya, jantina mempunyai kesan yang signifikan terhadap hubungan di antara pengetahuan kewangan dan sikap kewangan; dan tingkah laku kewangan. Oleh itu, pihak-pihak yang terlibat secara langsung atau tidak langsung terhadap sosialisasi kewangan belia seperti pendidik kewangan, penggubal dasar dan ibu bapa perlu mengambil kira perbezaan jantina dalam urusan dan program intervensi mereka.

ACKNOWLEDGEMENTS

**In the name of Allah, the Most Gracious, the Most Merciful. Thank you Allah
for all your blessing**

I would like to express my gratitude to my supervisor, Associate Professor Dr Sharifah Azizah Haron for her guidance, assistance, knowledge and advice throughout the entire process. Besides my supervisor, I would like to thank my thesis committee, Professor Dr Laily Hj Paim for their expertise and support throughout this study.

Also, I would like to give out my special thanks to my parent, family and friends for their endless support, help and encouragement for me to finish my study. Furthermore, I wish to extend my gratitude to all those with have helped me with my thesis. Without encouragement and support from all people around me it would have been impossible for me to finish this study

This thesis was submitted to the Senate of the Universiti Putra Malaysia and has been accepted as fulfillment of the requirement for the degree of Master of Science. The members of the Supervisory Committee were as follows:

Sharifah Azizah Haron, PhD

Associate Professor
Faculty of Human Ecology
Universiti Putra Malaysia
(Chairman)

Laily Hj Paim, PhD

Professor
Faculty of Human Ecology
Universiti Putra Malaysia
(Member)

ROBIAH BINTI YUNUS, PhD

Professor and Dean
School of Graduate Studies
Universiti Putra Malaysia

Date:

Declaration by graduate student

I hereby confirm that:

- this thesis is my original work;
- quotations, illustrations and citations have been duly referenced;
- this thesis has not been submitted previously or concurrently for any other degree at any institutions;
- intellectual property from the thesis and copyright of thesis are fully-owned by Universiti Putra Malaysia, as according to the Universiti Putra Malaysia (Research) Rules 2012;
- written permission must be obtained from supervisor and the office of Deputy Vice-Chancellor (Research and innovation) before thesis is published (in the form of written, printed or in electronic form) including books, journals, modules, proceedings, popular writings, seminar papers, manuscripts, posters, reports, lecture notes, learning modules or any other materials as stated in the Universiti Putra Malaysia (Research) Rules 2012;
- there is no plagiarism or data falsification/fabrication in the thesis, and scholarly integrity is upheld as according to the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) and the Universiti Putra Malaysia (Research) Rules 2012. The thesis has undergone plagiarism detection software

Signature: _____ Date: _____

Name and Matric No.: Zuhairah Binti Maarof, GS27370

Declaration by Members of Supervisory Committee

This is to confirm that:

- the research conducted and the writing of this thesis was under our supervision;
- supervision responsibilities as stated in the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) were adhered to.

Signature: _____

Name of Chairman
of Supervisory
Committee:

Dr. Sharifah Azizah Bt Haron

Signature: _____

Name of Member
of Supervisory
Committee:

Dr. Laily Hj Paim

TABLE OF CONTENTS

	Page
ABSTRACT	i
ABSTRAK	iii
ACKNOWLEDGEMENTS	v
APPROVAL	vi
DECLARATION	viii
LIST OF TABLES	xiii
LIST OF FIGURES	xiv
 CHAPTER	
1 INTRODUCTION	1
1.1 An Overview	1
1.2 Problem Statements	2
1.3 Research Questions	4
1.4 Research Objectives	4
1.5 Research Hypotheses	4
1.6 Significance of Study	5
1.7 Conceptual and Operational Definition of Terms	6
 2 LITERATURE REVIEW	 8
2.1 Generation Y as the new generation of youth: An Overview	8
2.2 Financial Behaviour of Generation Y Students	10
2.2.1 Concept and measurement of Financial Behaviour	11
2.2.2 Youth Financial Behaviours and its Consequences	12
2.3 Factors Influencing Financial Behaviour among Youth	13
2.3.1 Financial Knowledge	14
2.3.2 Financial Attitude	17
2.3.3 Self-Control	18
2.4 Gender and Financial Matters	19
2.4.1 Gender and Financial Behaviour	20
2.4.2 Gender and Financial Knowledge	21
2.4.3 Gender and Financial Attitude	22
2.4.4 Gender and Self-Control	22
2.5 Review of Relevant Theories	23
2.5.1 Gender Theories	23
2.5.1.1 Social Learning Theory	23
2.5.1.2 Sexual Division Theory	25
2.5.2 Family Resource Management Model	26
2.6 Research Framework	27
 3 METHODOLOGY	 30
3.1 The Data	30
3.2 Data Manipulation and Variable Definitions	31
3.2.1 The Dependent Variable	31

3.2.2	The Predictor Variables	34
3.2.2.1	Financial Knowledge	34
3.2.2.2	Financial Attitude	37
3.2.2.3	Self-control	38
3.2.3	The Moderating Variable	39
3.3	Data analyses	40
3.3.1	Exploratory Data Analysis (EDA)	40
3.3.1.1	Testing of Assumptions of Multivariate Analysis	40
3.3.1.1.1	Outliers	41
3.3.1.1.2	Normality	41
3.3.1.1.3	Multicollinearity	45
3.3.1.1.4	Correlation	46
3.3.1.2	Testing Goodness of Fit	47
3.3.1.2.1	Reliability	47
3.3.2	Hierarchical Regression	47
3.3.2.1	Model 1 : Testing the Moderating Effect of Gender on the Relationship between Financial Knowledge and Financial Behaviour	48
3.3.2.2	Model 2 : Testing the Moderating Effect of Gender on the Relationship between Financial Attitude and Financial Behaviour	49
3.3.2.3	Model 3 : Testing the Moderating Effect of Gender on the Relationship of Self-Control and Financial Behaviour	49
4	RESULTS AND DISCUSSIONS	51
4.1	Socio-Demographic Background of Respondents	51
4.2	Gender Comparison on Financial Behaviour	52
4.3	Gender comparison on Factors contributing towards Financial Behaviour	57
4.3.1	Gender comparison on Financial Knowledge	57
4.3.2	Gender Comparisons on Financial Attitude	64
4.3.3	Gender Comparison on Self-Control	68
4.4	Gender as Moderator	73
4.4.1	The Moderating Effect of Gender on the Relationship between Financial Knowledge and Financial Behaviour	73
4.4.2	The Moderating Effect of Gender on the Relationship between Financial Attitude and Financial Behaviour	76
4.4.3	The Moderating Effect of Gender on the Relationship between self-control and financial behaviour	80

5	SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS	82
5.1	Summary	82
5.2	Conclusion	83
5.3	Research Implications	84
5.4	Limitations	85
5.5	Future Research	85
	REFERENCES	87
	APPENDICES	104
	BIODATA OF STUDENT	110
	LIST OF PUBLICATIONS	111



LIST OF TABLES

Table	Page
1 Financial Behaviour Scale	32
2 Summary of the Dependent, Predictor and Moderating Variables	32
3 Financial Knowledge Scale	36
4 Financial Attitude Scale	38
5 Self-control Scale	39
6 Standardized Residual Value	41
7 Skewness and Kurtosis	44
8 Multicollinearity Test for each Model	46
9 Reliability Test Results	47
10 Socio-Demographic Background of Respondents	52
11 Gender Comparison on Financial Behaviour	55
12 Gender Comparison on Financial Knowledge	59
13 Gender Comparison on Financial Attitude	66
14 Gender Comparison on Self-Control	70
15 Result for Moderating Effect of Gender on the Relationship between Financial Knowledge and Financial Behaviour	75
16 Result for Moderating Effect of Gender on the Relationship between Financial Attitude and Financial Behaviour	78
17 Result for Moderating Effect of Gender on the Relationship between Self-Control and Financial Behaviour	81

LIST OF FIGURES

Figure		Page
1	Model of Family Resource Management	27
2	Research Framework	28
3	Q-Q Plot for Financial Behaviour Scale	42
4	Q-Q Plot for Financial Knowledge Scale	43
5	Q-Q Plot for Financial Attitude Scale	43
6	Q-Q Plot for Self-Control Scale	44
7	Model of Moderating Effect of Gender on the Relationship of Financial Knowledge and Financial Behaviour	73
8	Graph Moderating Effect of Gender on the Relationship between Financial Knowledge and Financial Behaviour	75
9	Model of Moderating Effect of Gender on the Relationship of Financial Attitude and Financial Behaviour	76
10	Graph Moderating Effect of Gender on the Relationship between Financial Attitude and Financial Behaviour	79
11	Model of Moderating Effect of Gender on the Relationship of Self-Control and Financial Behaviour	80

CHAPTER 1

INTRODUCTION

This chapter presents the overview of the study, problem statements, research questions, objectives, hypotheses, significance of the study and conceptual and operational definition of terms used.

1.1 An Overview

United Nations (2011) defined youth as those between the ages of 15 and 24. However, in Malaysia the definition of youth is much broader. Malaysian Youth and Sport Ministry has defined youth as a person between age of 15 and 39 years old (Ministry of Finance Malaysia, 2013). According to the population and vital statistics from the Department of Statistics Malaysia (2012), the total number of youth between these ages represents about 44.29% of the whole population. In Malaysia, people within this age range are mostly working or still attending schools or colleges.

Current youth are mostly consist of Generation Y. According to previous studies (Crampton and Hodge, 2009; Weiler, 2004), Generation Y are defined as a group of people born between 1980 and 1999. Therefore, in 2014 Generation Y are those aged between 15 and 34 years old. Based on the above generational classification, the present college students are born between 1980 and 2000 and falls within the age cohort group referred to as Generation Y. In other words, members of Generation Y who are still in colleges represent the younger group of the cohort.

Many researchers in various fields such as marketing (Bakewell and Mitchell, 2003; Noble, Haytko, and Phillips, 2009; Martin and Turley, 2004) and finance (Rugimbana, 2007; Heaney, 2007; Chowdhury and Coulter, 2006) are interested to study about this generation because of the sheer size of their market segment and unique characteristics. According to The Star (15 June 2013), Generation Y make up almost 25% of the world population in 2013. Due to its sheer size, Generation Y has become an important consumer market segment projected to represent approximately 26% to 30% of the total global consumer market. Consequently they could generate trillions of dollar worth of business worldwide (Ang, Yee and Seong, 2009). Moreover, by 2020, Baby Boomer Generation who are the parents of Generation Y will eventually demise, hence the Generation Y will become the largest adult generation and hold important responsibility towards their countries and the next generations (Promar, 2001).

Demographic studies (Markert, 2004; Coomes and DeBard, 2004; Shaw and Fairhurst, 2008) observed that each and every generation shared some distinct characteristics and lifestyles compared to their predecessors. Having to live in a

globalized world and liberalized economy, besides having been exposed technologically during their early age, a study by Wallace (2007), observed that Generation Y generally are more optimistic, confident, sociable, ethical, street smart, civic minded, focused, and find value in diversity. In addition, Generation Y has many experiences in consuming activities compared with the other generations when they were in the same age range (Backwell and Mitchell, 2003). Hence they have a higher desire to consume and also a higher disposable income considering that they have yet to have financial responsibilities of a family (Tomkins, 1999; Lachane, 2007).

Although this generation is being praised as a better generation compared to the previous generation in terms of consumption, education, talent and technological skills (Mohd, Mohamad and Nor, 2015), they also reported to have bad behaviour especially in financial aspect. It was reported that this generation has a higher credits loads than the previous generation (Mohd, Mohamad and Nor, 2015). However, in Malaysia situations, more youth are protected from the real world challenges (Hwee, Lin and Sellapan, 2010). This is worrying as these youth are unable to overcome problems in real situations (Mohd, Mohamad and Nor, 2015).

Moreover, gender role may affect financial behaviour of male and female youth (Sereetrakul, Wongveeravuti and Likitapiwat, 2013). This is due to their way being raised which are different between boys and girls by their parents followed by expectations of their sons and daughters (Thorne, 2003). Normally, parents are stricter towards their daughters than sons. They are also expected to do the more household chores than their sons (Brusdal and Berg, 2010). Consequently, gender differences in financial behaviour may occur.

Therefore, it is important to understand the moderating effect of gender on the relationship between financial knowledge, financial attitude and self-control, and financial behaviours of the youth will help grasp clearly the role of the gender in explaining factors effecting the financial behaviour of youth in Malaysia.

1.2 Problem Statement

Educational services in Malaysia have been rapidly growing with an increasing number of higher learning institutions (Masud, Rahim, Paim and Britt, 2004). The Ministry of Higher Education (MoHE) reported that in 2011, the total student enrolment in public and private higher learning institutions had increased by almost 60% between 2002 and 2010. The increase in college enrolment has been partly contributed by the availability of educational loans mainly provided through the National Higher Education Fund (PTPTN) to the students. Thus, more people can afford to get college education and increase the opportunity of obtaining higher income in the future (Masud et al., 2004).

From an industry retail and banking point of view, expansion in higher education presents business opportunities due to market size, current purchasing power (due to education loans and other sources of income such as from their parents); and their potential or future earning upon graduation. As such, college students (currently of Generation Y) become an attractive market segment for businesses. Furthermore, advances in technology have led to the increase in student's expenses too. Male students are more attracted to buy expensive gadgets, while females are more likely to shop for apparel (that they thought is crucial), because they want to look nice when attending classes (Sorooshian & Teck, 2014).

Since college students have greater responsibilities with their own money as their parents are no longer helping them in making a financial decision (Lyons, Scherpf and Roberts, 2006), without proper knowledge and skills in managing their money, it would lead towards several negative consequences with their future financial situation later on in their life. Previous researchers emphasize that a person who cannot manage their finances well, will end up with financial problems such as bankruptcy (Roberts and Jones, 2001), financial stress (Hayhoe, Leach, Turner, Bruin and Lawrence, 2000) and decreased financial well-being (Worthy, Jonkman and Pike, 2010).

Much worse, youth particularly college students are now readily burdened with debt acquired through educational loans such as those from National Higher Education Fund (PTPTN) upon graduation. According to PTPTN, the statistics on its borrowers are increasing each year. In 2010, loans given out to students by PTPTN were approaching RM1.14 million with the total amount of funds provided was RM2.61 billion (PTPTN, 2010). However, PTPTN reported that only 46.7% from total borrowers are paying back their loans (Sam, Geetha and Mohidin, 2010) while more than 50% failed to paying back their loans, even after they have already graduated and entered the workforce. Therefore, this is important for the students to have the abilities in managing their money in order to avoid financial crisis such as bankruptcy due to being unable to pay back their debt.

This is especially true when bankruptcy cases involving young consumers around the world, including Malaysia, are increasing each year. For example, in the United States, 25% of total bankruptcy cases involved youth aged 25 years old and below (Shryk, 2008). In Malaysia, between 2005 to June 2012, 20% of 243,823 bankruptcy cases consisted of individuals aged 35 and below (Malaysia Department of Insolvency (MDI), 2012). This age cohort consists of Generation Y who are either still studying in colleges and/or in the early stage of their employment. This problem requires an immediate solution as it can adversely affect our economic performance (Salikin, Wahab, Masruki, Zakaria and Nordin, 2012).

Despite several study on youth financial behaviour, issues of financial problems among younger consumer persisted. According to AKPK (2014) about 47% of those aged between 18 to 35 years old are having serious debts due to living beyond their

limits. Therefore, more studies on financial behaviour among youth are necessary to provide a better understanding of their financial behaviour to make sure that they are capable to protect themselves from challenges in the world after they graduated.

1.3 Research Questions: -

Research questions are posed to obtain relevant information required to fulfil the objectives. The proposed questions to be answered in this research are as follow: -

1. Do male and female Generation Y students have different financial behaviour, financial knowledge, financial attitude and self-control?
2. Does gender moderates the relationship between financial knowledge and financial behaviour of Generation Y students?
3. Does gender moderates the relationship between financial attitude and financial behaviour of Generation Y students?
4. Does gender moderates the relationship between self-control and financial behaviour of Generation Y students?

1.4 Research Objectives: -

The general objective of the study is to identify the moderating effect of gender on relationship of factors contributing towards financial behaviour (financial knowledge, financial attitude and self-control) with financial behaviour of Generation Y students. The study aims specifically to meet the objectives as stated below: -

1. To determine gender differences in financial behaviour, financial knowledge, financial attitude and self-control among Generation Y students.
2. To determine the moderating effect of gender on the relationship between financial knowledge and financial behaviour of Generation Y students.
3. To determine the moderating effect of gender on the relationship between financial attitude and financial behaviour of Generation Y students.
4. To determine the moderating effect of gender on the relationship between self-control and financial behaviour of Generation Y students.

1.5 Research Hypotheses

The research hypotheses of the present study comprise of seven main ones. The following are the hypotheses for the study: -

H1_a: There is a significant difference in financial behaviour between male and female Generation Y students.

H2_a: There is a significant difference in financial knowledge between male and female Generation Y students.

H3_a: There is a significant difference in financial attitude between male and female Generation Y students.

H4_a: There is a significant difference in self-control between male and female Generation Y students.

H5_a: Financial knowledge by the moderation of gender has an effect on the financial behaviour of Generation Y students.

H6_a: Financial attitude by the moderation of gender has an effect on the financial behaviour of Generation Y students.

H7_a: Self-control by the moderation of gender has an effect on the financial behaviour of Generation Y students.

1.6 Significance of Study

This study could provide benefits towards consumer behaviour field. As the focus is given on financial behaviour of Generation Y, this research could provide an understanding on financial behaviour of this generation in Malaysia. Assessment from previous research showed that financial behaviour for this generation was mostly done in the western countries. However, it was not applicable in the Malaysian context (Masud et al., 2004). Therefore, this study could become the source of reference for any future study on financial behaviour of Generation Y.

Furthermore, the study was focused on factors which contributed towards financial behaviour among male and female Generation Y students. Also included was financial knowledge of Generation Y students. Therefore, the study will give some information and knowledge regarding the level of financial knowledge of Generation Y students for financial educators in colleges. This is an important finding for financial educators as they are responsible in improving financial knowledge among college students. Additionally, the focus on gender in this study gives more understanding on gender differences in the dimension of financial knowledge possessed by male and female Generation Y students. Therefore, it could help financial educators to determine which dimension of financial knowledge that is essential among male and female Generation Y students, in order to improve their financial knowledge.

Other than that, financial policymakers may also get benefits from this study. As the role of financial policymakers is to provide financial aids to college students, they should know their financial situation and behaviour of Generation Y students. Therefore, from this study they could review a financial behaviour of Generation Y and provide a solution to lower the percentage of students who defaulted paying back their educational loans.

Additionally, the findings could contribute towards the society especially parents and student themselves. Parents play an important role in developing the behaviour of their children (Clark, Heaton, Israelsen and Egget, 2005). Therefore, parent role in educating and developing personalities and behaviour of the students is important. The findings from the study would give information to the parents on how their children should manage their own money, and factors which contribute towards money management to help them educate their children more effectively. Moreover, emphasizing on gender in this study could help the parents to monitor financial behaviour of their children according to gender.

The findings, moreover, also could give the benefits towards Generation Y themselves. By reviewing the findings in this study, Generation Y could know how their financial behaviour situations and factors may contribute towards their financial behaviour. Therefore, it could improve their financial behaviour to avoid any financial crisis in future.

1.7 Conceptual and Operational Definition of Terms

Generation Y:

Conceptual Definition: Generation Y consists of groups of people born between 1978 and 1988 (Martin, 2005). They were also known as the millennials, why generation, net generation and echo boomers (Raman, Ramendran, Beleya, Nadeson, and Arokiasamy, 2011).

Operational Definition: Generation Y in this study is represented by college students in the Klang Valley area. They comprise of students between the ages 17 and 32 years old in 2010. These students, specifically, were born between 1978 and 1993 and are within the definition of Generation Y. In this study, the term Generation Y is used interchangeably with students and youth. This is due to the age cohort for Generation Y which falls under all of the three groups.

Financial Behaviour:

Conceptual Definition: Xiao (2008) defined financial behaviour as human behaviour regarding money management such as cash, credit and saving behaviours.

Operational Definition: Financial behaviour in this study is to measure the frequency in conducting personal financial activities such as cash management and savings behaviour for the past six months.

Financial Knowledge:

Conceptual Definition: According to Bowen (2002), financial knowledge is defined as one's understanding about financial terms and concepts which can be used in the society such as budgeting and savings.

Operational Definition: Financial knowledge in this study is measured by the degree of students' knowledge regarding financial issues and concepts such as credits, records, savings, investment, general knowledge and risk management on personal finance. In this study, financial knowledge term was used interchangeably with financial literacy.

Financial Attitudes:

Conceptual Definition: According to Chowa, Despard, and Osei-Akoto (2012), financial attitudes can be defined as one's beliefs and values related to various personal finance concepts.

Operational Definition: Financial attitude in this study measures the attitude of students on money management. In this study, financial attitude term is used interchangeably with money attitude.

Self-Control:

Conceptual Definition: According to Baumeister (2002), self-control is defined as a person's ability to change its own conditions and reaction to resist any temptation. The term of self-control was used interchangeable with self-regulation in psychology field (Baumeister, 2002).

Operational Definition: Self-control in this study measures an ability of students to control their feelings, thoughts, concentration and distraction from their surroundings.

REFERENCES

- Abdullah, M. A. & Chong, R. (2014). Financial literacy: An exploratory review of the literature and future research. *Journal of Emerging Economies and Islamic Research (JEEIR)*, 2(3). Retrieved from : <http://www.jeeir.com/index.php/jeeir/article/view/129/pdf>
- Abdullah, H., Dahalan, D., Hamzah, A., Ismail, I. A., Tamam, E., Abdullah, A. L., Gill, S. S., Ahmad, N., & Suandi, T. (2012). Majlis Belia Malaysia: Quo vadis transformasi era semasa. *Geografia: Malaysian Journal of Society and Space*, 8(7), 13-19.
- Agensi Kaunseling dan Pengurusan Kredit (2013). Financially distressed individuals on the rise. *The Edge*. Retrieved from <http://www.akpk.org.my/happenings/news/press-release/id/1038>
- Aiken, L. S. & West, S. G. (1991). *Multiple Regression: Testing and Interpreting Interactions*. Newbury Park CA: Sage.
- Ajzen, I. (1996). The Social Psychology of Decision Making. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social Psychology: Handbook of Basic Principles* (pp. 297–325). New York, NY: Guilford.
- Ajzen, I. & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behaviour*. Englewood Cliffs, NJ: Prentice-Hall.
- Al-Amoodi, M. & Abdulrhman, S. (2006). *Exploring Money Attitudes and Credit Card Usage in Compulsive Buying among (MBA) Executive Students (USM)* (Doctoral dissertation, USM).
- Al-Tamimi, H. and Kalli, A. (2009). Financial literacy and investment decision of UEA investors. *The Journal of Risk Finance*, 10 (5): 500-516.
- Ang, E., Yee, L. H. & Seong, L. K. (2009, June 15). Gen Y – Technically Savvy. *The Star*. Retrieved from: <http://biz.thestar.com.my/news/story.asp?file=/2009/10/24/business/4771567&sec=business>
- Australian Government and Financial Literacy Foundation (2008). *Financial literacy- Women understanding money*, Australian Government and Financial Literacy Foundation. Retrieved from : <http://www.financialliteracy.gov.au/media/209296/women-understanding-money.pdf>
- Bakewell, C. & Mitchell, V. W. (2003). Generation Y female consumer decision-making styles. *International Journal of Retail & Distribution Management*, 31(2), 95-106.

- Bandura, A. (1977). *Social Learning Theory*. Englewood Cliffs, NJ: Prentice-Hall
- Bandura A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: PrenticeHall
- Bandura, A. & Walter, R.H (1963). *Social Learning and Personality Development*. New-York: Holt Rinehart and Winston
- Barber, B.M. and Odean, T. (2001). Boys will be boys: gender, overconfidence and common stock investment. *Quarterly Journal of Economics*. 116, 261-92
- Baumeister, R. F. (2002). Yielding to temptation: Self-control failure, impulsive purchasing, and consumer behavior. *Journal of Consumer Research*, 28, 670-676.
- Baumeister, R. F., Vohs, K. D. & Tice, D. M. (2007). The strength model of self-control. *Current Directions in Psychological Science*, 16(6), 351-355.
- Becker, G. S. (1985). Human capital, effort, and the sexual division of labor. *Journal of labor economics*, 3(1), 33-58.
- Beeghley, L. (2000). *The Structure of Social Stratification in the United States* (3rd ed.). Boston: Allyn and Bacon.
- Bernstein, D. (2004). Household debt and IRAs: Evidence from the survey of consumer finances. *Financial Counseling and Planning*, 15, 63-72
- Bickel, J. & Brown, A. J. (2005). Generation X: Implications for faculty recruitment and development in academic health centers. *Academic Medicine*, 80(3), 205-210.
- Blair-Loy, M. & Wharton, A. S. (2002). Employees' use of work-family policies and the workplace social context. *Social Forces*, 80(3), 813-845.
- Blakemore, J. E. O., Berenbaum, S. A. & Liben, L. S. (2009). *Gender development*. New York, NY: Psychology Press.
- Blankstein, K. R. & Polivy, J. (1982). Emotions, self-control, and self-modification: An introduction. In K. R. Blankstein & J. Polivy (Eds.), *Self-control and self-modification of emotional behavior* (pp. 1-11). New York: Plenum Press.
- Borden, L.M., Lee, S. Serido, J. and Collins, D. (2008). Changing college students' financial knowledge, attitudes, and behavior through seminar participation. *Journal of Family and Economic Issues*, 29 (1), 23-40.
- Bowen, C. F. (2002). Financial knowledge of teens and their parents. *Financial counseling and planning*, 13(2), 93-102.

- Brandon, D. P. & Smith, C. M. (2009). Prospective teachers' financial knowledge and teaching self-efficacy. *Journal of Family & Consumer Sciences Education*, 27(1), 14-28
- Braspenning, J. J. A. (2012). Your future starts today, not tomorrow: an explanatory study of financial literacy and debt-related behavior among students in the Netherlands. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=02040913.
- Bristor, J. M. & Fischer, E. (1993). Feminist thought: Implications for consumer research. *Journal of Consumer Research*, 19(4), 518-36.
- Broadbridge, A. M., Maxwell, G. A. & Ogden, S. M. (2009). Selling retailing to generation y graduates: Recruitment challenges and opportunities. *The International Review of Retail, Distribution and Consumer Research*, 19(4), 405-420.
- Brown, J. K. (1970). A Note on the Division of Labor by Sex. *American Anthropologist*, 72(5), 1073-1078.
- Brusdal, R. and Berg, L. (2010), 'Are parents gender neutral when financing their children's consumption?', *International Journal of Consumer Studies*, 34 (1), 3–10, DOI: 10.1111/j.1470-6431.2009.00822.x.
- Buechel, B., Mechtenberg, L. & Petersen, J. (2014). Peer effects and students' self-control. MPRA Paper 53658, University Library of Munich, Germany. Retrieved from <http://www.ideas.repec.org/p/pramprapa/53658.html>
- Bakewell, C. & Mitchell, V.W. (2003). Generation y female consumer decision-making styles. *International Journal of Retail & Distribution Management*, 31 (2), 95 – 106
- Carpenter, J. M. & Moore, M. (2008). Gender and credit behaviors among college students: Implications for consumer educators. *Journal of Family & Consumer Sciences Education*, 26(1), 42-47.
- Chen, H. & Volpe, R. P. (2002). Gender differences in personal financial literacy among college students. *Financial Services Review*, 11(3), 289-307.
- Clark, M.C., Heaton, M.B., Israelsen, C.L. & Egget, D.L. (2005). The acquisition of family financial roles and responsibilities. *Family Consumer Sciences Research Journal*, 33(4), 321-340.
- Coates, J. (2007). *Generational Learning Styles*. River Falls, WI: LERN Books.
- Coltrane, S. (2000). Research on household labor: Modeling and measuring the social embeddedness of routine family work. *Journal of Marriage and family*, 62(4), 1208-1233.

- Coomes, M. D. & DeBard, R. (2004). A generational approach to understanding students. *New Directions for Student Services*, 2004(106), 5-16.
- Chatterjee, S., Palmer, L. & Goetz, J. (2010). Individual wealth accumulation: Why does dining together as a family matter?. *Munich Personal RePEc Archive*. Retrieved from : http://mpira.ub.uni-muenchen.de/26334/1/MPRA_paper_26334.pdf
- Chien, Y. W. & Devaney, S. A. (2001). The effects of credit attitude and socioeconomic factors on credit card and installment debt. *Journal of Consumer Affairs*, 35(1), 162-179
- Chowdhury, T. G. & Coulter, H. R. A. (2006). Getting a “sense” of financial security for generation y. *Marketing Theory and Applications*, 19(1), 14-65.
- Chowa, G. A. N., Despard, M. & Osei-Akoto, I. (2012). *Financial knowledge and attitudes of youth in Ghana* (Youth Save Research Brief 12-37). St. Louis, MO: Washington University, Center for Social Development
- Cochran, J. K., Aleksa, V. & Sanders, B. A. (2008). Are persons low in self-control rational and deterrable?. *Deviant Behavior*, 29(5), 461-483.
- Crampton, S. M. and Hodge, J. W. (2007). Generations in the workplace: Understanding age diversity. *The Business Review, Cambridge*, 9(1), 16–23.
- Cunningham, M. (2001). Parental influences on the gendered division of housework. *American Sociological Review*, 166(2), 184-203
- Ibrahim, D. I. D., Harun, R. & Isa, Z. M. (2010). A study on financial literacy of Malaysian degree students. *Cross-cultural communication*, 5(4), 51-59.
- Danes, S. M. & Haberman, H. R. (2007). Teen financial knowledge, self-efficacy, and behavior: A gendered view. *Financial Counseling and Planning*, 18(2), 48-60.
- Davis, E. P. & Helmick, S. A. (1985). Family financial satisfaction: The impact of reference points. *Home Economics Research Journal*, 14(1), 123-131.
- Deacon, R. & Firebaugh, F. (1981). *Family Resource Management: Principles and Applications*. Boston: Allyn & Bacon, Inc.
- Deacon, R. & Firebaugh, F. (1988). *Family Resource Management: Principles and Applications*. Boston, MA: Allyn and Bacon.
- Department of Statistics Malaysia (2010). Income and Expenditure. Retrieved from http://www.statistics.gov.my/portal/download_Stats_Malaysia/files/MMS/2010/BI/07_Income_and_Expenditure.pdf

- Department of Statistics Malaysia (2012). Social Statistics Bulletin. Retrieved from http://www.statistics.gov.my/portal/download_Labour/files/BPS/Buletin_Pe_rangkaian_Sosial2012.pdf
- Dew, J. & Xiao, J. J. (2011). The financial management behavior scale: Development and validation. *Journal of Financial Counseling and Planning*, 22(1), 43.
- Dowling, N. A., Corney, T. & Hoiles, L. (2009). Financial management practices and money attitudes as determinants of financial problems and dissatisfaction in young male Australian workers. *Journal of Financial Counseling and Planning*, 20(2), 5-13.
- Duckworth, A. L. & Seligman, M. E. (2005). Self-discipline outdoes IQ in predicting academic performance of adolescents. *Psychological science*, 16(12), 939-944.
- Bakar, E. A., Masud, J. & Jusoh, Z. M. (2006). Knowledge, attitude and perceptions of university students towards educational loans in Malaysia. *Journal of family and economic issues*, 27(4), 692-701.
- Eagly, A. H. & Chaiken, S. (1993). *The Psychology of Attitudes*. Harcourt Brace Jovanovich College Publishers.
- Economic Planning Unit Malaysia (2010). Bilangan Penduduk Mengikut Negeri. Retrieved from <http://www.epu.gov.my/population-and-labourforce>
- Engelbreton, J. (2004). Odd generation out. *American Demographics*, 26, 14-17
- Engel, C. (2012). *Low Self-Control as a Source of Crime. A Meta-Study* (No. 2012_04). Max Planck Institute for Research on Collective Goods.
- Erskine, M., Kier, C., Leung, A. & Sproule, R. (2006). Peer crowds, work experience, and financial saving behaviour of young Canadians. *Journal of economic psychology*, 27(2), 262-284.
- Ethics Resource Center (2010). Millennials, gen X and baby boomers: Who's working at your company and what do they think about ethics? Supplemental Research Brief, 2009. *National Business Ethics Survey*. Retrieved from <http://ethics.org/files/u5/Gen-Diff.pdf>
- Faber, R. & Vohs, K. D. (2004). To Buy or not to Buy?: Self-control and Self-regulatory Failure in Purchase Behavior. In R.F. Baumeister & K. D. Vohs (Eds.), *Handbook of Self-regulation: Research, theory, and applications* (pp. 509-524). New York: Guilford.
- Falahati, L. (2011). *Gender Differences in Financial Well-Being among Malaysian College Students* (Unpublished Phd's thesis). University of Putra Malaysia

- Falahati, L., Babaei, H. & Paim, L. H. (2011). Ethnic and gender differences in financial management among college students. *Journal of American Science*, 7(6), 1189-1192
- Falahati, L. & Paim, L. H. (2011a). Toward a framework of determinants of financial management and financial problems among university students. *African Journal of Business Management*, 5(22), 9600-9606
- Falahati, L. & Paim, L. H. (2011b). A comparative study in money attitude among university students: A gendered view. *Journal of American Science*, 7(6), 1144-1148.
- Falahati, L. & Paim, L. H. (2012a). Experiencing financial problems among university students: An empirical study on the moderating effect of gender. *Gender in Management: An International Journal*, 27(5), 315-330.
- Falahati, L. & Paim, L. (2012b). Gender differences in saving behavior determinants among university students. *Journal of Basic and Applied Scientific Research*, 2(6), 5848-5854.
- Fulcher, M., Sutfin, E. L. & Patterson, C. J. (2008). Individual differences in gender development: Associations with parental sexual orientation, attitudes, and division of labor. *Sex Roles*, 58(5-6), 330-341.
- Furnham, A. (1984). Personality and values. *Personality and individual differences*, 5(4), 483-485.
- Ganesan, A. S. (2012). *Consumption, spending and investment behaviour of Malaysia generation y* (Doctoral dissertation, UTAR).
- Gathergood, J. (2012). Self-control, financial literacy and consumer over-indebtedness. *Journal of Economic Psychology*, 33(3), 590-602.
- Ghahfarokhi, A.D. and Zakaria, M.S. (2009). The impact of CRM on customer retention in Malaysia. *Proceedings of the International Conference on Electrical Engineering and Informatics*, 1(2), 298-302
- Goldsmith, E. B. (2005). *Resource Management for Individuals and Families*. Cengage Learning.
- Goldsmith, R. E. & Goldsmith, E. B. (2006). The effects of investment education on gender differences in financial knowledge. *Journal of Personal Finance*, 5(2), 55-69.
- Gutter, M. & Copur, Z. (2011). Financial behaviors and financial well-being of college students: Evidence from a national survey. *Journal of Family and Economic Issues*, 32(4), 699-714.

- Hair, J. F., Tatham, R. L., Anderson, R. E. & Black, W. (2006). *Multivariate Data Analysis* (Vol. 6). Upper Saddle River, NJ: Pearson Prentice Hall.
- Hayes, J. V. (2006). *Money attitudes, economic locus of control, and financial strain among college students* (Doctoral dissertation, Texas Tech University).
- Hayhoe, C. R., Leach, L. J., Turner, P. R., Bruin, M. J. & Lawrence, F. C. (2000). Differences in spending habits and credit card use of college students. *The Journal of Consumer Affairs*, 34(1), 113-133.
- Heaney, J. G. (2007). Generations X and Y's internet banking usage in Australia. *Journal of Financial Services Marketing*, 11(3), 196-210.
- Henry, R. A., Weber, J., & Yarbrough, D. (2001). Money management practices of college students. *College Student Journal*, 35, 244-249.
- Higgins, G. E. (2004). Can low self-control help with the understanding of the software piracy problem?. *Deviant Behavior*, 26(1), 1-24.
- Hilgert, M. A., Hogarth, J. M. & Beverly, S. G. (2003). Household financial management: The connection between knowledge and behavior. *Federal Reserve Bulletin*, 89, 309.
- Hira, T. K. & Mugenda, O. (2000). Gender differences in financial perceptions, behaviors and satisfaction. *Journal of Financial Planning-Denver*, 13(2), 86-93.
- Hirschi, T. (2004). Self-control and Crime. In *Handbook of Self-Regulation: Research, Theory, and Application*, eds. Roy F. Baumeister and Kathleen D. Vohs. New York: The Guilford Press
- Hoffman, R. M., Hattie, J. A. and Borders, L. D. (2005), Personal definitions of masculinity and femininity as an aspect of gender self-concept. *The Journal of Humanistic Counseling, Education and Development*, 44, 66-83.
- Hogarth, J. M. & Hilgert, M. A. (2002). Financial knowledge, experience and learning preferences: Preliminary results from a new survey on financial literacy. *Consumer Interest Annual*, 48(1), 1-7.).
- Hoi, J. (2013). Gen Y – they are different, deal with it Understand them, get the best out of them rather than trying to remould them. Retrieved from <http://biz.thestar.com.my/news/story.asp?file=/2009/10/24/business/4771567&sec=business> <http://www.thestar.com.my/Business/Business-News/2013/06/15/Gen-Y-they-are-different-deal-with-it-Understand-them-get-the-best-out-of-them-rather-/?style=biz> (accessed 10 August 2013)
- Huat, S. Y., Geetha, C. & Mohidin, R. A. (2010). Financial behavior amongst undergraduate students with and without financial education: A case among University Malaysia Sabah undergrads. *Prosiding Perkem V*, 210 – 224

- Huston, S.J. (2010). Measuring financial literacy. *The Journal of Consumer Affairs*, 44(2), 296-316.
- Hwee, J. K., Lin, L. H. & Sellapan, R. D. (2010). Financial planning and youth: Implications in educating generation Y. *The 4E Journal*, 18-20.
- Ibrahim, D., Harun, R. & Isa, Z. M. (2009). A study on financial literacy of Malaysian degree students. *Crosscultural Communication*, 5(4), 51-59.
- Idris, F. H., Krishnan, K. S. D. & Azmi, N. (2013). Relationship between financial literacy and financial distress among youths in Malaysia-An empirical study. *Geografia: Malaysian Journal of Society and Space*, 9(4), 106-117.
- Iversen, T. & Rosenbluth, F. (2006). The political economy of gender: Explaining cross-national variation in the gender division of labor and the gender voting gap. *American Journal of Political Science*, 50(1), 1-19.
- Joo, S. H., Grable, J. E. & Bagwell, D. C. (2003). Credit card attitudes and behaviors of college students. *College Student Journal*, 37(3), 405.
- Juen, T. T., Sabri, M. F., Rahim, H. A., Othman, M. A. & Arif, A. M. M. (2013). The influence of financial knowledge, financial practices and self-esteem on money management skills of young adults. *Malaysian Journal of Youth Studies*. 9, 23-37
- Kaur, P. & Singh, R. (2006). Children in family purchase decision making in India and the West: a review. *Academy of Marketing Science Review*, 8(2), 1-30.
- Kerkmann, B. C., Lee, T. R., Lown, J. M. & Allgood, S. M. (2000). Financial management, financial problems and marital satisfaction among recently married university students. *Financial Counseling and Planning*, 11(2), 55-65.
- Kish, L. (1965). *Survey Sampling*. New York: John Wiley & Sons, Inc.
- Kim, V. W. E. & Periyayya, T. (2013). Student expectations and branding strategies among private institutions of higher education in Malaysia. *Malaysian Journal of Chinese Studies*, 2(1): 69-81.
- Kroll, R. J. (1982). Consumer science : It's unique niche as an academic discipline. In *consumer science in institutions of higher education*. Paper presented at Proceedings of a national invitational symposium, 5-9, July, the University of Wisconsin, Madison (pp. 91-100). Wis: publisher not identified.
- Lachance, M.J. & Legault, F. (2007). College students' consumer competence: Identifying the socialization sources. *Journal of Consumer Research*, 13, 1-21.

- Lim, C.S., Sia, B.K. & Gan, G.J. (2011). The analysis of psychological factors affecting savers in Malaysia. *Middle Easter Finance and Economic*, 12, 77-85.
- Lim, V. K., Teo, T. S. & Loo, G. L. (2003). Sex, financial hardship and locus of control: an empirical study of attitudes towards money among Singaporean Chinese. *Personality and Individual Differences*, 34(3), 411-429.
- Lim, V. K. & Teo, T. S. (1997). Sex, money and financial hardship: An empirical study of attitudes towards money among undergraduates in Singapore. *Journal of Economic Psychology*, 18(4), 369-386.
- Lippa, R. A. (2005). *Gender, Nature, and Nurture*. Routledge.
- Loong, T. E. (2013). International students' self-regulated learning and its relation to mathematics achievement in an offshore Australian program. *Academic Research International*. 4(5), 507
- Lusardi, A. (2008). *Financial literacy: an essential tool for informed consumer choice?* (No. w14084). National Bureau of Economic Research.
- Lusardi, A., Mitchell, O. S. & Curto, V. (2009). *Financial literacy among the young: Evidence and implications for consumer policy*. National Bureau of Economic Research.
- Lynn, R. (1969), An achievement motivation questionnaire. *British Journal of Psychology*, 60, 529-534
- Lyons, A. C. (2004). A profile of financially at-risk college students. *Journal of Consumer Affairs*, 38(1), 56-80.
- Lyons, A. C., Scherpf, E. & Roberts, H. (2006). Financial education and communication between parents and children. *Journal of Consumer Education*, 23, 64-76.
- Magrabi, F. M., Chung, Y. S., Cha, S. S., & Yang, S. (1991). *The Economics of Household Consumption*. New York: Praeger Publishers
- Mahdzan, N.S. & Tabiani, S. (2013). The impact of financial literacy on individual saving : An exploratory study in the Malaysian context. *Transformations in Business and Economics*, 12 (1), 41-55.
- Malaysia Department of Insolvency (2013). *Report on Bankruptcy Statistics*. Retrieved from <http://www.insolvensi.gov.my/about-us/resources/statistics/bankruptcy/217-bankruptcy-statistic>
- Malhotra, N. K. (2004). *Marketing Research: An Applied Orientation* (4th ed). NJ: Prentice Hall.

- Mandell, L. & Klein, L. S. (2009). The impact of financial literacy education on subsequent financial behavior. *Journal of Financial Counseling and Planning*, 20(1).
- Mansfield, P. M., Pinto, M. B. & Parente, D. H. (2003). Self-control and credit-card use among college students. *Psychological reports*, 92(3), 1067-1078.
- Marie, B. (2014). Understanding Consumers' Thoughts and Feelings about Financial Literacy and how Financial Literacy affects their Lives using the Zaltman Metaphor Elicitation Technique (ZMET). Retrieved from <http://digitalcommons.georgefox.edu/cgi/viewcontent.cgi?article=1013&context=dba>
- Markert, J. (2004). Demographics of age: Generational and cohort confusion. *Journal of Current Issues & Research in Advertising*, 26(2), 11-25.
- Martin, C. (2005). From high maintenance to high productivity: What managers need to know about Generation Y. *Industrial and Commercial Training*, 37 (1), 39-44.
- Martin, C. A., & Turley, L. W. (2004). Malls and consumption motivation: an exploratory examination of older Generation Y consumers. *International Journal of Retail & Distribution Management*, 32(10), 464-475.
- Mason, C. L. & Wilson, R. (2000). *Conceptualising Financial Literacy*. Loughborough University.
- Masuo, D. M., Kim, J. H., Malroux, Y. L. & Hanashiro, R. (2002). Money beliefs and behaviors: A comparison of Asian and Asian American female college students. *Journal of Asian Regional Association of Home Economics*, 9, 223-227.
- Masuo, D. M., Malroux, Y. L., Hanashiro, R. & Kim, J. H. (2004). Do men and women perceive money differently? A study of Asian and Asian American college students. *Western Family Economics Association*, 19, 12-23.
- Masud, J., Rahim, H.A, Paim, L. & Britt (2004). Financial behavior and problems among university students: Need for financial education. *Journal of Personal Finance*, 3(1), 82-96.
- Meier, S. & Sprenger, C. D. (2013). Discounting financial literacy: Time preferences and participation in financial education programs. *Journal of Economic Behavior & Organization*, 95, 159-174.
- Merritt, S. R. & Neville, S. (2002). Generation Y: A perspective on America's next generation and their impact on higher education. *The Serials Librarian*, 42(1-2), 41-50.

- Micomonaco, J.P. (2003). *Borrowing Against the Future: Practices, Attitudes and Knowledge of Financial Management among College Students* (Master's Thesis). Retrieved from <http://scholar.lib.vt.edu/theses/available/etd-05052003-122728/unrestricted/MicomonacoETD.pdf>
- Ministry of Finance Malaysia (MOF) (2013). Economic Management and Prospects. Retrieved from <http://www.treasury.gov.my/pdf/economy/er/1213/chap1.pdf>
- Ministry of Higher Learning Education Malaysia (MOHE) (2011). *Indikator Pengajian Tinggi 2009-2010*. Retrieved from http://www.mohe.gov.my/web_statistik/indikator_pengajian_tinggi_2009-2010.pdf
- Mirshekari, H., R., Reza Toloei Qara Chanaq, A.,R. & Mollahy Zahed M. (2014). The investigation of the relationship between ego's strength, self-control, and self-esteem among the students of University of Shahed. *Indian Journal of Fundamental and Applied Life Sciences*, 4(3), 1303-1308
- Mischel, W. (1966). Theory and research on the antecedents of self-imposed delay of reward. *Progress in experimental personality research*, 3, 85.
- Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H. L., Houts, R., Poulton, R., Roberts, B. W., Ross, S., Sears, M. R., Thomson, W. M. & Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the National Academy of Sciences*, 108(7), 2693-2698.
- Mohd, R., Mohamad, S., & Nor, N. (2015). Understanding Financial Behaviour of Gen Y via Financial Intelligence Logit Ruler: A Preliminary Study. *Proceedings of 11th International Business and Social Science Research Conference*.
- Moschis, G. P. (1987). *Consumer Socialization: A life Cycle Perspective*. Lexington, MA: Lexington Books
- Moschis, G. P. & Churchill Jr, G. A. (1978). Consumer socialization: A theoretical and empirical analysis. *Journal of Marketing Research*, 599-609.
- Mottola, G. R. (2014). The Financial Capability of Young Adults—A Generational View. *FINRA Foundation Financial Capability Insights*. Retrieved from <http://www.usfinancialcapability.org/downloads/FinancialCapabilityofYoungAdults.pdf>
- Muraven, M., Collins, R. L. & Neuhaus, K. (2002). Self-control and alcohol restraint: an initial application of the self-control strength model. *Psychology of Addictive Behaviors*, 16(2), 113.

- Murdock, G. P. & Provost, C. (1973). Factors in the division of labor by sex: A cross-cultural analysis. *Ethnology*, 203-225.
- Napoli, J. & Ewing, M. T. (2000). The net generation: An analysis of lifestyles, attitudes and media habits. *Journal of international consumer marketing*, 13(1), 21-34.
- National Higher Education Fund (PTPTN) (2010). Statistics of Borrower.
- Noble, S. M., Haytko, D. L. & Phillips, J. (2009). What drives college-age Generation Y consumers?. *Journal of Business Research*, 62(6), 617-628.
- Norvilitis, J. M., Merwin, M. M., Osberg, T. M., Roehling, P. V., Young, P., & Kamas, M. M. (2006). Personality factors, money attitudes, financial knowledge, and credit-card debt in college students. *Journal of Applied Social Psychology*, 36 (6), 1395–1413.
- Norvilitis, J. M., Szablicki, P. B. & Wilson, S. D. (2003). Factors influencing levels of credit card debt in college students. *Journal of Applied Social Psychology*, 33, 935-947.
- Nowak, L, Thach, L & Olsen, J.E. (2006). Wowing the millennials: creating brand equity in the wine industry. *Journal of Product & Brand Management*, 15(5): 316-323.
- Nunnally, J. M. & Bernstein, I. (1994). *Psychometric Theory*. New York, NY: McGraw-Hill
- Özgen, Ö. & Bayoğlu, A. S. (2005). Turkish college students' attitudes towards money. *International Journal of Consumer Studies*, 29(6), 493-501.
- Ozmete, E. & Hira, T. (2011). Conceptual analysis of behavioral theories/models: Application to financial behavior. *European Journal of Social Sciences*, 18(3), 386-404.
- Pallant, J. (2013). *SPSS Survival Manual*. McGraw-Hill International.
- Paul, P. (2001). Getting Inside Gen Y. *American Demographics*, 23(9), 42-49.
- Parrotta, J. L. & Johnson, P. J. (1998). The impact of financial attitudes and knowledge on financial management and satisfaction of recently married individuals. *Financial Counseling and Planning*, 9(2), 59-74.
- Perry, V. G. & Morris, M. D. (2005). Who is in control? The role of self-perception, knowledge, and income in explaining consumer financial behavior. *Journal of Consumer Affairs*, 39(2), 299-313
- Promar International. (2001). *Generation Y: Winning snack strategies*. Management Review. Retrieved from www.promarinternational.com

- Pryzgoda, J. & Chrisler, J. C. (2000). Definitions of gender and sex: The subtleties of meaning. *Sex Roles*, 43(7-8), 553-569.
- Raman, G., Ramendran, C., Beleya, P., Nadeson, S. & Arokiasamy, L. (2011). Generation Y in institution of higher learning. *Proceeding Papers, 2nd International Conference on Business and Economic Research (2nd ICBER 2011)*.
- Robb, C. A. (2011). Financial knowledge and credit card behavior of college students. *Journal of family and economic issues*, 32(4), 690-698.
- Robb, C. A. & Sharpe, D. L. (2009). Effect of personal financial knowledge on college students' credit card behavior. *Journal of Financial Counseling and Planning*, 20(1).
- Robb, C. A. & Woodyard, A. (2011). Financial knowledge and best practice behavior. *Journal of Financial Counseling and Planning*, 22(1).
- Roberts, J. A. & Jones, E. (2001). Money attitudes, credit card use, and compulsive buying among American college students. *The Journal of Consumer Affairs*, 35, 213-240.
- Robson, S. (2012). Generation Y: the (modern) world of personal finance. *Centre for the Study of Financial Innovation*. Retrieved from http://www.thefinancialfairytale.com/blog/wp-content/uploads/2012/07/Generation_Y...by_Sophie_Robson_PDF.pdf (Januray 20, 2015).
- Romal, J. B. & Kaplan, B. J. (1995). Differences in self-control among spenders and savers. *Psychology: A Journal of Human Behavior*, 32, 8-17.
- Rugimbana, R. (2007). Generation Y: How cultural values can be used to predict their choice of electronic financial services. *Journal of Financial Services Marketing*, 11(4), 301-313.
- Rose, G. M. & Orr, L. M. (2007). Measuring and exploring symbolic money meanings. *Psychology & Marketing*, 24(9), 743-761.
- Rosenstock, I. M., Strecher, V. J. & Becker, M. H. (1988). Social learning theory and the health belief model. *Health Education & Behavior*, 15(2), 175-183.
- Sabri, M. F., Hayhoe, C. R. & Ai, G. L. (2006). Attitudes, values and belief towards money: Gender and working sector comparison. *Pertanika Journal of Social Sciences & Humanities*, 14(2), 121-130.
- Sabri, M. F. & MacDonald, M. (2010). Savings behavior and financial problems among college students: The role of financial literacy in Malaysia. *Cross-Cultural Communication*, 6(3), 103-110.

- Sabri, M. F., MacDonald, M., Hira, T. K. & Masud, J. (2010). Childhood consumer experience and the financial literacy of college students in Malaysia. *Family and Consumer Sciences Research Journal*, 38(4), 455–467.
- Sabri, M. F., MacDonald, M., Masud, J., Paim, L., Hira, T. K. & Othman, M. A. (2008). Financial behavior and problems among college students in Malaysia: Research and education implication. *Consumer Interests Annual*, 54, 166-170
- Sabri, M. F., Masud, J. & Paim, L. (2006). *Financial Literacy, Attitude and Practice among Malaysian IPTs Students'*. Serdang: UPM
- Salikin, N., Wahab, N.A., Masruki, R., Zakaria, N. & Nordin, S.N. (2012). The influence of parents' background on students' saving. *2nd International Conference on Financial Management and Economics (ICFME)*, 196-201.
- Sam, Y.H, Geetha, C. & Mohidin, R.A. (2012). What were the factors that influence financial management behavior of undergraduates?. *International Journal of Business Trends and Technology*, 2(1), 1-10.
- Schwarzer, R., Diehl, M. & Schmitz, G.S. (1999). *Self-regulation Scale*. Retrieved from : <http://www.fu-berlin.de/esund/skalen>
- Sereetrakul, W., Wongveeravuti, S. & Likitapiwat, T. (2013). Gender differences in saving and spending behaviours of Thai students. *Research in Education*, 90(1), 68-81.
- Serido, J., Shim, S., Mishra, A. & Tang, C. (2010). Financial parenting, financial coping behaviors, and well-being of emerging adults. *Family Relations*, 59(4), 453-464.
- Sharma, G. (2004). *Financial literacy: A student and young adult perspective*. Retrieved from cfltaskforce.treasury.gov.au/.../_download/submissions/sharma_g.pdf
- Shaari, N. A., Hasan, N. A., Mohamed, R. K. M. H. & Sabri, M. A. J. M. (2013). Financial literacy: A study among the university students. *Interdisciplinary Journal Of Contemporary Research In Business*. 5(2): 279–299
- Shaw, S. & Fairhurst, D. (2008). Engaging a new generation of graduates. *Education+ Training*, 50(5), 366-378.
- Shim, S., Barber, B. L., Card, N. A., Xiao, J. J. & Serido, J. (2010). Financial socialization of first-year college students: The roles of parents, work, and education. *Journal of Youth and Adolescence*, 39(12), 1457-1470.
- Shim, S., Xiao, J. J., Barber, B. L. & Lyons, A. C. (2009). Pathways to life success: A conceptual model of financial well-being for young adults. *Journal of Applied Developmental Psychology*, 30(6), 708-723.

- Shively, M. (2001). Male self-control and sexual aggression. *Deviant Behavior*, 22(4), 295-321.
- Shryk (2008). "Shryk needs to understand the market IT is targeting". *Alarm: Clock.com*. Retrieved from <http://www.thealarmclock.com>
- Sorooshian, S., & Teck, T. S. (2013). Spending behaviour of a case of Asian university students. *Asian Social Science*, 10(2), 64.
- Strayhorn, J. M. (2002). Self-control: Theory and research. *Journal of the American Academy of Child & Adolescent Psychiatry*, 41(1), 7-16.
- Sumarwan, U. & Hira, T. K. (1993). The effects of perceived locus of control and perceived income adequacy on satisfaction with financial status of rural households. *Journal of Family and Economic Issues*, 14(4), 343-364.
- Tabachnick, B. G. & Fidell, L. S. (2001). *Using Multivariate Statistics* (4th ed.). New York: Harper Collins.
- Taft, M. K., Hosein, Z. Z. & Mehrizi, S. M. T. (2013). The relation between financial literacy, financial wellbeing and financial concerns. *International Journal of Business and Management*, 8(11), 63.
- Tangney, J. P., Baumeister, R. F. & Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of personality*, 72(2), 271-324.
- Thorne, B. (2003). *Gender Play*. New Brunswick: Rutgers University Press.
- Thurasingam, A. S. & Sivanandan, P. (2012). Generation Y's Perception Towards Law and Ethics. *Journal of Advanced Social Research*, 2(1).
- Tomkins, A. J. (1999). Introduction: employment discrimination. *Behavioral Sciences and The Law*, 17(1), 1-1.
- United Nation (2010). *Definition of Youth*. United Nations Department of Economic and Social Affairs (UNDESA). Retrieved from <http://www.un.org/esa/socdev/documents/youth/fact-sheets/youth-definition.pdf>
- Verplanken, B. & Herabadi, A. (2001). Individual differences in impulse buying tendency: Feeling and no thinking. *European Journal of personality*, 15(1), 71-83.
- Wallace, K. (2007). *Understanding and managing Generation Y* (Doctoral dissertation). University of Kansas. Retrieved from <https://kuscholarworks.ku.edu/handle/1808/3595>

- Warwick, J. & Mansfield, P. (2000). Credit card consumers: College students' knowledge and attitude. *Journal of Consumer Marketing*, 17(7), 617-626.
- Webster, R. L. & Ellis, T. S. (1996). Men's and women's self-confidence in performing financial analysis. *Psychological Reports*, 79(3), 1251-1254.
- Weiler, A. (2005). Information-seeking behavior in Generation Y students: Motivation, critical thinking, and learning theory. *The Journal of Academic Librarianship*, 31(1), 46-53.
- White, D. R., Burton, M. L. & Dow, M. M. (1981). Sexual division of labor in African agriculture: A network autocorrelation analysis. *American Anthropologist*, 83(4), 824-849.
- Wingood, G. M. & DiClemente, R. J. (2000). Application of the theory of gender and power to examine HIV-related exposures, risk factors, and effective interventions for women. *Health education & behavior*, 27(5), 539-565.
- Wood, J. T. (2004). *Gendered Lives, Communication, Gender and Culture* (3 ed.). Canada: Wadsworth.
- Worthy, S. L., Jonkman, J. & Blinn-Pike, L. (2010). Sensation-seeking, risk-taking, and problematic financial behaviors of college students. *Journal of Family and Economic Issues*, 31(2), 161-170.
- Xiao, J. J. (2008). Applying Behavior Science Theories in Financial Behaviors. *Handbook of Consumer Finance Research* (pp 69-81). New York: Springer
- Xiao, J. J., Chen, C. & Chen, F. (2014). Consumer financial capability and financial satisfaction. *Social Indicators Research*, 118(1), 415-432.
- Xiao, J. J., Ford, M. & Kim, J. (2011). Consumer financial behavior: An interdisciplinary review of selected theories and research. *Family and Consumer Sciences Research Journal*, 39(4), 399-414.
- Xiao, J. J., Shim, S., Barber, B. & Lyons, A. (2007). Academic success and well-being of college students: Financial behaviors matter. *Tucson, AZ: University of Arizona, Take Charge America Institute for Consumer Financial Education and Research*.
- Xiao, J. J., Sorhaindo, B. & Garman, E. T. (2006). Financial behavior of consumers in credit counseling. *International Journal of Consumer Studies*. 30(2), 108-121.
- Xiao, J. J., Tang, C. & Shim, S. (2009). Acting for happiness: Financial behavior and life satisfaction of college students. *Social Indicator Research* 92(53), 53-68

Xiao, J. J. and J. Wu. 2006a. Applying the Theory of Planned Behavior to Retain Credit Counseling Clients. In *Proceedings of the Association for Financial Counseling and Planning Education*, edited by D. C. Bagwell, (91-101). Columbus, OH: Association for Financial Counseling and Planning Education.

Yamauchi, K. T., & Templer, D. J. (1982). The development of a money attitude scale. *Journal of Personality Assessment*, 46(5), 522-528.



LIST OF PUBLICATIONS

- Maarof, Z., Haron, S.H. & Paim, L. (2014). Financial Behaviours of Malay Youths: The Socio- Demographic and Psychological Profile of College-Bound Gen Y in Klang Valley. *Malaysian Journal of Consumer and Family Economics (MAJCAFE)*, 17, 78-94
- Haron, S.A., Paim, L., Maarof, Z. (2012). Using Nominal Group Technique To Peek Into The Lifestyles Of Generation Y In Malaysia. *Malaysian Journal of Consumer and Family Economics (MAJCAFE)*, 15, 103-117





UNIVERSITI PUTRA MALAYSIA

STATUS CONFIRMATION FOR THESIS / PROJECT REPORT AND COPYRIGHT

ACADEMIC SESSION : _____

TITLE OF THESIS / PROJECT REPORT :

MODERATING EFFECTS OF GENDER ON THE RELATIONSHIP BETWEEN FINANCIAL KNOWLEDGE, FINANCIAL ATTITUDE AND SELF-CONTROL AND FINANCIAL BEHAVIOUR AMONG COLLEGE-BOUND GEN Y IN KLANG VALLEY, MALAYSIA

NAME OF STUDENT: ZUHAIKHA BINTI MAAROF

I acknowledge that the copyright and other intellectual property in the thesis/project report belonged to Universiti Putra Malaysia and I agree to allow this thesis/project report to be placed at the library under the following terms:

1. This thesis/project report is the property of Universiti Putra Malaysia.
2. The library of Universiti Putra Malaysia has the right to make copies for educational purposes only.
3. The library of Universiti Putra Malaysia is allowed to make copies of this thesis for academic exchange.

I declare that this thesis is classified as :

*Please tick (✓)

☐

CONFIDENTIAL

(Contain confidential information under Official Secret Act 1972).

☐

RESTRICTED

(Contains restricted information as specified by the organization/institution where research was done).

☐

OPEN ACCESS

I agree that my thesis/project report to be published as hard copy or online open access.

This thesis is submitted for :

☐

PATENT

Embargo from _____ until _____
(date) (date)

Approved by:

(Signature of Student)
New IC No/ Passport No.:

Date :

(Signature of Chairman of Supervisory Committee)
Name:

Date :

[Note : If the thesis is CONFIDENTIAL or RESTRICTED, please attach with the letter from the organization/institution with period and reasons for confidentiality or restricted.]