

The copyright © of this thesis belongs to its rightful author and/or other copyright owner. Copies can be accessed and downloaded for non-commercial or learning purposes without any charge and permission. The thesis cannot be reproduced or quoted as a whole without the permission from its rightful owner. No alteration or changes in format is allowed without permission from its rightful owner.



**THE INFLUENCE OF FINANCIAL LITERACY AND  
ISLAMIC FINANCE AWARENESS ON FINANCIAL  
BEHAVIOUR: STUDENTS` PERSPECTIVE**

BY

**NUR SYAKIMAH BINTI MOHD SUBHI**



**UUM**  
Universiti Utara Malaysia

**Dissertation Submitted to  
Othman Yeop Abdullah Graduate School of Business,  
Universiti Utara Malaysia  
in Partial Fulfilment of the Requirement  
for the Master of Science (International Accounting)**

## Permission to Use

In presenting this dissertation in partial fulfilment of the requirements for a Post Graduate degree from the Universiti Utara Malaysia (UUM), I agree that the Library of this University may make it freely available for inspection. I further agree that permission for copying this dissertation in any manner, in whole or in part, for scholarly purposes, may be granted by my supervisor or in her absence, by the Dean of Othman Yeop Abdullah Graduate School of Business where I did my dissertation. It is understood that any copying or publication or use of this dissertation or parts of it for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the UUM for any scholarly use which may be made of any material in my dissertation.

Request for permission to copy or to make other use of materials in this dissertation in whole or in part should be addressed to:



UUM

Dean of Othman Yeop Abdullah Graduate School of Business

Universiti Utara Malaysia

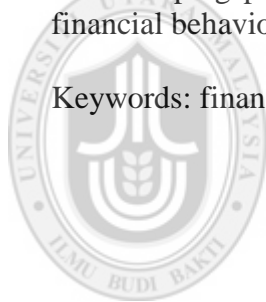
06010 UUM Sintok

Kedah Darul Aman

## Abstract

This study aims to examine the influence of financial literacy and Islamic finance awareness on financial behaviour among Kolej MARA Kuala Nerang (KMKN) students. A sample of 350 active students was selected to complete an internet survey, consisting of questions on students' demographic background, financial literacy, Islamic finance awareness and financial behaviour. This study hypothesises financial literacy and Islamic finance awareness significantly influence financial behaviour. The findings show that on average, 48% of the students answered the questions on financial literacy correctly. In addition, they are also aware and have the knowledge about Islamic finance but with limited ability to explain the concept. Further, students' financial behaviour is found to be at moderate level. Regression analysis shows Islamic finance awareness positively and significantly influence students' financial behaviour. This finding may assist policymakers in developing programmes that inculcate Islamic values to encourage good financial behaviour.

Keywords: financial literacy, Islamic finance awareness, financial behaviour



UUM  
Universiti Utara Malaysia

## Abstrak

Kajian ini bertujuan untuk mengkaji pengaruh celik kewangan dan kesedaran kewangan Islam pada tingkah laku kewangan dalam kalangan pelajar Kolej MARA Kuala Nerang (KMKN). Sampel kajian terdiri daripada 350 orang pelajar aktif yang telah dipilih untuk melengkapkan kaji selidik atas talian. Kaji selidik terdiri daripada soalan-soalan mengenai latar belakang demografi pelajar, celik kewangan, kesedaran kewangan Islam dan tingkah laku kewangan. Kajian ini menjangkakan celik kewangan dan kesedaran kewangan Islam dengan ketara mempengaruhi tingkah laku kewangan dan hasil kajian menunjukkan bahawa secara purata, 48% pelajar menjawab soalan-soalan celik kewangan dengan betul. Di samping itu, mereka juga menyedari dan mempunyai pengetahuan mengenai istilah dalam kewangan Islam tetapi mempunyai keupayaan yang terhad untuk menjelaskan istilah tersebut. Tingkah laku kewangan pelajar juga didapati berada pada tahap sederhana. Analisis regresi menunjukkan kesedaran kewangan Islam dengan ketara mempengaruhi tingkah laku kewangan pelajar secara positif. Hasil dapatan mungkin boleh membantu pembuat polisi dalam membangunkan program-program yang menerapkan nilai Islam bagi mendorong tingkah laku kewangan yang baik. .

Kata kunci: celik kewangan, kesedaran kewangan Islam, tingkah laku kewangan



UUM  
Universiti Utara Malaysia

## Acknowledgement

Bismillahirrahmanirrahim,

I am grateful to Allah, for I can complete this dissertation entitled, “The influence of financial literacy and Islamic finance awareness on financial behaviour: Students` perspective”.

First and foremost, my sincere gratitude is dedicated to my respected supervisor, Dr Norhani binti Aripin. Thanks for your guidance, strong support, intuitive comments and motivation throughout the process of completing this dissertation.

In addition, I would like to express my gratitude to the Othman Yeop Abdullah Graduate School of Business and Universiti Utara Malaysia for giving me an opportunity to conduct this dissertation.

I also would like to address my appreciation to all college administrators, educators and students of Kolej MARA Kuala Nerang who supported my dissertation with useful and relevant information during the data collection process. My gratitude also goes to the many others who helped me from the beginning of my study until final completion.

Finally, thank you to all my family members and friends for your support, help and motivation, making it possible for me to complete this dissertation.

## Table of Contents

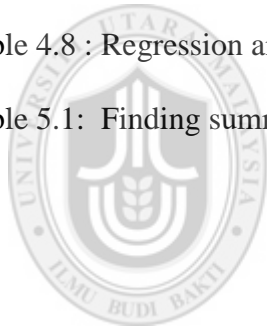
Permission to Use.....	i
Abstract .....	ii
Abstrak .....	iii
Acknowledgement.....	iv
Table of Contents .....	v
List of Tables.....	vii
List of Figures .....	viii
List of Abbreviations.....	ix
Chapter 1: Introduction .....	1
1.1 Introduction .....	1
1.2 Background of the Study .....	1
1.3 Problem Statement .....	5
1.4 Research Questions .....	11
1.5 Research Objectives .....	12
1.6 Significance of the Study .....	12
1.7 Scope of the Study.....	13
1.8 Organization of the Dissertation.....	14
Chapter 2: Literature Review .....	15
2.1 Introduction .....	15
2.2 Financial Behaviour .....	15
2.3 Demographic Background.....	20
2.4 Financial Literacy.....	24
2.5 Islamic Finance Awareness .....	27
2.6 Underpinning Theory .....	29
Chapter 3: Methodology .....	31
3.1 Introduction .....	31
3.2 Research Framework.....	31
3.3 Hypotheses Development.....	33
3.4 Research Design .....	35
3.5 Conceptual and Operational Definition of Terms .....	36

3.5.1	Financial Behaviour .....	36
3.5.2	Financial Literacy.....	36
3.5.3	Islamic Finance Awareness.....	37
3.6	Research Instrument .....	37
3.7	Measurement of Variables.....	37
3.7.1	Financial Behaviour .....	38
3.7.2	Demographic Background .....	38
3.7.3	Financial Literacy.....	39
3.7.4	Islamic Finance Awareness.....	40
3.8	Instrument's Validity and Reliability .....	40
3.9	Survey Administration .....	42
3.9.1	Population and Sampling Strategy .....	42
3.9.2	Sample Size.....	43
3.10	Techniques of Data Analysis.....	44
Chapter 4: Results and Discussion .....		46
4.1	Introduction .....	46
4.2	Demographic Profile .....	46
4.3	Analysis on Students' Level of Financial Literacy, Islamic Finance Awareness and Financial Behaviour.....	48
4.4	Hypotheses Testing .....	53
Chapter 5: Conclusion and Recommendation.....		62
5.1	Introduction .....	62
5.2	Discussion of the Study .....	62
5.2.1	Reflection on Level of Financial Literacy, Islamic Finance Awareness and Financial Behaviour .....	64
5.2.2	Reflection on Demographic Background and Financial Behaviour ....	65
5.2.3	Reflection on Financial Literacy and Financial Behaviour.....	67
5.2.4	Reflection on Islamic Finance Awareness and Financial Behaviour...	68
5.3	Conclusion of The Study .....	68
5.4	Recommendation of the Study .....	69
5.5	Limitation of the Study.....	70
References .....		71
Appendices.....		84
Questionnaire.....		84



## List of Tables

Table 3.1 Reliability analysis.....	42
Table 3.2 Statistical analysis for each research hypothesis.....	45
Table 4.1: Students' demographic background.....	46
Table 4.2 : Students' financial literacy.....	49
Table 4.3 : Islamic finance services awareness.....	50
Table 4.4 : Students' level of understanding on Islamic finance terms.....	51
Table 4.5 : Students' financial behaviour results.....	52
Table 4.6 : T-Test financial behaviour with gender, course and hometown.....	54
Table 4.7 : ANOVA financial behaviour with academic and family background....	56
Table 4.8 : Regression analysis.....	60
Table 5.1: Finding summary.....	63



**UUM**  
Universiti Utara Malaysia

## List of Figure

Figure 3.1 Conceptual Research Framework.....	32
---	----



## List of Abbreviations

BNM	Bank Negara Malaysia
CRRC	Consumer Research and Resource Centre
PTPTN	Perbadanan Tabung Pendidikan Tinggi Nasional
CCDMA	Credit Counselling and Debt Management Agency
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
KMKN	Kolej MARA Kuala Nerang
AKPK	Agensi Kaunseling dan Pengurusan Kredit
ERA	Education and Research Association
MARA	Majlis Amanah Rakyat
NGOs	Non-Governmental Organizations
PSD	Public Service Department
OECD	Organisation for Economic Co-operation and Development

## Chapter 1: Introduction

### 1.1 Introduction

The financial system plays a vital role in any economy. The financial system allows the financial intermediation process that facilitates the flow of funds between savers and borrowers, thus ensuring the efficient allocation of financial resources and encouraging economic growth. Financial stability refers to a situation where the financial intermediation process functions smoothly and there is confidence in the operations of major financial institutions and market economies (BNM, 2016).

Money is a part of the financial system and an asset that plays an important role in daily lives, especially under the current conditions of economic uncertainty. Without money, many necessities of life cannot be fulfilled perfectly. Although there is a saying, ‘money is not everything’, but in reality, almost all dealings require money. In view of the importance of money, it must be managed properly to improve the quality of life.

### 1.2 Background of the Study

The Education and Research Association for Consumers (ERA Consumer Malaysia) and Consumer Research and Resource Centre (CRRC) have conducted a study on the behaviour and habits of Malaysians with regards to saving and spending; the finding is that younger Malaysian workers do not have enough financial knowledge; some are mired in debt; and some spend in excess of their ability (Raj, Zakaria & Mohd Yusof, 2013).

Zakaria (2012), in his study, stated that knowledge in financial management among Malaysians should be enhanced. This concurs with the findings that the

financial burden of respondents is due to their living beyond their means and not having financial planning. The household debt problem is now a topic of discussion in the mass media, such as the newspapers, television, website, social media and others. The Malaysian Insider on July 9, 2013, in an article titled, "Malaysian Lifestyle - Debt Endless", states that the people have several debt problems, such as housing loan, vehicle hire-purchase, personal loan and credit card loans. Some Malaysians have to do a second job for additional income in order to resolve their debts (Lee, 2013). It shows the increase in household debt is not commensurate with the increase in income. This can affect household spending and sustained economic growth.

Therefore, it is believed that knowledge and financial management skills potentially can help individuals to overcome the burden of debt. Holistic education is very important to educate the young executives and its effective delivery is desperately needed. A comprehensive approach and synergy of all stakeholders, including researchers, non-governmental organisations (NGOs), financial institutions and policymakers, is essential to help create a community of knowledgeable money users (Sabri and MacDonald, 2010).

Ideally, every individual should be a smart planner in terms of using money, be it to spend or to save. Sometimes, items purchased do not reflect one's daily needs. The problem actually stems from confusion in identifying the needed and desired goods. The problem can be reduced and a lot of money can be saved if individuals can distinguish between desire and necessity. The requirements refer to items needed for living and survival, such as food, shelter, transportation and clothing (Amy, 2001). This problem is also faced by the students. Students should

plan their expenses wisely and be aware of their financial behaviour. However, problems often arise because the students are unable to control their spending in a rational manner; they are not prudent and cannot differentiate between their needs and desires. This leads to unnecessary purchases and a drain on their monthly expenses.

There seems to be a great need for financial literacy education among the youth, especially students in Malaysia. Financial planning is one of the most important parts in financial literacy education. In addition, there also seems to be a very strong need for personal financial planning among students. Students should have the skills and knowledge necessary to prepare and implement a plan of their own finances. Financial planning can help explain in detail the financial concepts in ways that students can readily and easily understand. Financial planners, such as government agencies, can promote programmes to cater to students' needs for financial literacy, including education programmes via ongoing campaigns.

It is important to note that significant efforts are being effectively undertaken to assist youth in Malaysia to manage their finances more efficiently during these challenging times. Sabri and MacDonald (2010), in their study, show that Malaysian students are not managing their finances well. They do not have enough knowledge about financial products and financial management and do not have the skills to make sound financial decisions. This gap will certainly have an impact on the daily management of their finances. Similarly, it will affect the ability to save for long-term goals, such as buying a house or bonds. Less efficient financial management can also lead these young adults to enter the workforce early to manage their daily needs, through controlled spending and increased savings and investment to lessen

their debt. The students can become more knowledgeable about financial planning, budget, how to control their actual spending and improve their financial well-being now and in the future.

Financial education delivers students with information and skills to plan and manage their money or allowance which mostly comes from their parents or provided by the government. All these education programmes can help students develop the discipline to save, be prudent and reduce unnecessary spending. This financial management education can help students to use their limited money or what they have and make financial decisions that give value for their money when buying any product; it also can improve their understanding of basic financial information, such as risks and returns as well as more specific information about different types of investments. Without a financial knowledge base, the students may not be able to buy financial products and services they need, or they may have bought a financial product that is not necessary or appropriate.

Most of today's students face financial crisis. Most of them have not enough knowledge on finances and needed exposure to manage their personal finances. Various efforts have been taken by the government through government agencies, such as Agensi Kaunseling dan Pengurusan Kredit (AKPK), Perbadanan Tabung Pendidikan Tinggi Nasional (PTPTN), Majlis Amanah Rakyat (MARA), banks and others, to help improve the financial knowledge among the public, especially students and to increase their awareness and abilities, including knowledge on personal financial planning and financial management. It aims to create awareness about wise spending habits among young people and the importance of sound financial behaviour among students.

### 1.3 Problem Statement

News Release dated 9 April, published an article by Yuen (2014) entitled, "Bankruptcy cases on the rise in Malaysia"; it mentions that until December 2013, a total of 253,635 bankruptcies was recorded in Malaysia. The number of bankruptcies has been consistently increasing since 2007 due to failure to settle hire purchase of vehicles, inability to control the use of credit cards and to manage outstanding debts, as well as personal loans. What is more worrying is that of the total declared bankruptcies between 2007 and 2013, 1.5% of the individuals involved were aged below 25 years. According to the report, many credit card holders involve young people who use the facility to spend on unnecessary or luxury goods.

The same newspaper's survey reveals consumers who use credit cards tend to spend 17% more than individuals who deal in cash. It is clear that the use of credit cards that is not controlled is very alarming and can destroy the future of the younger generation involved. How do we prepare our future generations to be "financially literate" or "financially fit"? All parties, like parents, educators and the government have to play a key role in this regard. Financial education equips children with specific skills to face the world and to build a brighter financial future. Educators and educational institutions therefore have their own significant roles.

Based on the Official Portal of the Malaysian Department of Insolvency, 2016, the Director General of Insolvency explains that most cases of bankruptcy involving young people are related to the uncontrolled use of credit cards and failure to repay the debt within the prescribed period. In the case of older people, it is related to loans taken for housing, vehicles and businesses. The same website also mention that, there are over 10 million credit card users in this country owing a total of



RM24.4 billion, but only 30% repay in full each month. Statistical calculations indicate if a person has RM1,000 credit card debt and only makes the minimum payment of 5% per month, he or she will take five years and eight months to settle the debt, including interest.

Zainal & Ismail (2012), find that many students face difficulties in repaying not only their education loan, but also other debts that they incur after entering the job market. If more information and knowledge is imparted by all relevant parties to students about financial management, then they will be able to control their finances better, and as a result, have less debt.

Zainal & Ismail (2012), also suggest several ways that can be used to educate students. Students can be enlightened and advised on how to reduce and control spending. They can be shown the credit card statement and given explanation how the interest rate is calculated and the risks if credit card usage is not controlled. They should be made aware of the importance of financial management or behaviour, and the negative consequences, such as bankruptcy declaration if they do not manage personal finances properly. Students also need to understand the purpose of bankruptcy and how it can affect a person's future.

Financial education should be included in the school curriculum from the first year of the child's schooling. The school curriculum should provide children with the knowledge and financial skills and not just focus on passing examinations. Financial management can be considered as a life skill. The approach to delivering these skills should be more interactive and through activities, games, case studies and role play. The emphasis is on learning skills rather than memorising facts to pass examinations.

Financial education can be delivered to all students through informal education. This training can be delivered by government agencies or Non-Governmental Organizations (NGOs). Importantly, each individual must be given the opportunity to understand and learn basic financial skills. To change the current situation and make it better in the future, it must start now with concrete actions. If not, the younger generation will be debt-ridden. Financial literacy must be inculcate in the minds of the younger generation. The issue of bankruptcy among young executives in Malaysia has increased as a result of failure to properly manage their personal finances. Even among students themselves, they often claim that they are facing a shortage of funds despite receiving support from family and MARA or PTPTN. These is because most students cannot distinguish between their needs (need to have) and the need to possess a good (nice to have). Friends and advertisements almost always lead students to use their financial assistance monies to purchase items that are categorised as 'nice to have' such as latest smart phones, motorcycles, cars and clothing. In this regard, even though students received financial aid from PTPTN for example, some of them still ask for extra financial support from their families.

PTPTN is a statutory body responsible for managing the funding of education for students in public higher education institutions and the private sector in Malaysia. It was established under the National Higher Education Fund Corporation 1997 (Act 566) which became effective on July 1, 1997 to replace the role of the Public Service Department (PSD), which previously channelled funding for the education of students. According to a report by the Higher Education Ministry in Utusan Malaysia (24 March 2016), a total of 662.983 PTPTN borrowers have failed to make repayments, involving RM5.4 billion as at 31 December 2015.

For this similar period, as many as 1.88 million borrowers have to repay PTPTN loans totalling of RM15.33 billion. The Ministry of Higher Education expects PTPTN will face a deficit of RM46 billion in 2020 due to the failure of repayment. This expectation is entirely possible if the number of defaulters keeps growing.

Repayment failure is mainly due to the attitude of the borrowers (students). Some students are easily influenced by current lifestyle trends, like the need to own latest gadgets and wear the latest fashion which often times, are unnecessary for students on a limited budget. Some of these gadgets are bought for the purpose of showing off. Such extravagance and unnecessary indulgence will continue to increase and affect the ability to repay the loan if it is left unchecked. Fresh and young employees are the most involved in inefficient financial management, including credit card debt and taking loans from illegal loan sharks. Inefficient personal financial management has been identified as one of the causes of the emergence of social problems. Financial problems have also been reported in Sinar Online dated 23 October, 2015 as one of the main causes for divorce. The collapse of the family in turn can contribute to moral and disciplinary problems, such as truancy among the children, drug abuse and promiscuity. Debt problems also lead to emotional disturbance; those involved cannot concentrate on their work and become depressed because of being sought by loan sharks. There are often blacklisted by financial institutions and cannot apply for loans, eventually leading to being declared a bankrupt. The Central Bank of Malaysia's (BNM) data shows that the number of people declared bankrupt in 2012 was 19,575 cases stemming from failure to pay credit card debt, hire purchase loans, education loans and outstanding bank debt (BNM, 2016).

Legal action cannot totally solve the problems related to inefficient personal financial management. Zakaria & Kannan (2014) state that creating a society which has awareness on the importance of financial and debt management, requires long-term actions, including the introduction of subjects related to personal financial management for students of institutions of higher learning as well as school students. Guidelines related to prudent financial planning, saving habits, managing credit effectively, managing expenses, ethics and responsibilities as a borrower, etc., need to be developed and delivered at least as elective courses in the schools and universities. These efforts will not only be able to produce a knowledgeable generation but help to develop the right attitude in terms of financial planning and management. The people of the future will then face less problems caused by poor financial planning and management. If we can educate the youth in terms of prudent financial management, we will provide them with a strong defence to deal with 'threats' created by advertising and promotion of a life that centres on opulence and unnecessary emphasis on wealth.

Bank institutions, together with various parties, including the government, consumer associations and NGOs have stepped up efforts to create a conducive financial environment, especially among the younger generation, comprising the students. The Credit Counselling and Debt Management Agency (CCDMA) is an agency set up by BNM to provide financial education in addition to financial counselling. The AKPK urges the public to increase their knowledge about financial education, especially when the country is experiencing rising cost of living; this is a way to enable them to manage their personal finances well as reported in Utusan Online dated 14 March, 2014.

In the face of rising prices of goods and services, the AKPK suggests that people in this country have to change the way of shopping and lifestyle towards simplicity by reviewing spending patterns, in addition to austerity to avoid wastage. They need to adjust their expenses accordingly to ensure that they can have extra money and not be involved in debt burden in the long-term. They must manage their daily spending priorities, prepare a list of essential items and goods that are not important and mandatory and set spending limits for purchases to avoid wastage and expenditure caused by lust. Many programmes have been designed by the government, especially for the youth aged between 18 and 30 years, where they are exposed to the skills and knowledge to manage their finances effectively in addition to being provided useful information to encourage prudent money management. Individuals from various backgrounds have benefited from the programmes and have been able to increase their financial knowledge significantly. The government is currently reviewing and adding more programmes to improve the effectiveness, particularly in ensuring the knowledge gained is practiced by students in their daily lives. The Malaysian government, together with BNM and CCDMA, are planning to collaborate with private agencies to deliver programmes in an integrated manner to the targeted groups.

Financial responsibility must begin with children as young as four years old; then the behavioural change can start immediately. Students need to change both attitude and behaviour to avoid bad habits, such as luxurious lifestyle and spending beyond their means, thus resulting in indebtedness. Students must also be encouraged to prepare a budget and spend in accordance with a plan. In brief, to build a better and strong financial position, students must be responsible and have the discipline in and commitment to financial planning. All parties should continue to be committed

in conducting appropriate programmes in order to improve financial education for all segments of society, especially students as well as to provide a more effective deterrent, so that they are more knowledgeable and prudent in their use of money.

The purpose of this study is to examine the influence of students' financial literacy and Islamic finance awareness on students' financial behaviour. This study also attempts to provide evidence on the level of financial literacy among students to benefit parents, as well as to educators, college management and any government agency to enable them to provide relevant programmes to enhance students' level of financial literacy.

#### **1.4 Research Questions**

Given the overview of the background of the study and the research problem, there is a need to investigate the factors that influence financial behaviour among students. Hence, the main research questions addressed in this dissertation are:

- a) What is the level of financial literacy, Islamic finance awareness and financial behaviour among KMKN students?
- b) Is there any difference of students' financial behaviour among various KMKN students' demographic background?
- c) Does financial literacy have an influence on financial behaviour of KMKN students?
- d) Does Islamic finance awareness have an influence on financial behaviour of KMKN students?

## 1.5 Research Objectives

The objective of this study is to investigate the factors that influence students' financial behaviour. Specifically, the objectives are:-

- a) To examine the level of financial literacy, Islamic finance awareness and financial behaviour of KMKN students.
- b) To examine the difference of students' financial behaviour among various demographic backgrounds.
- c) To examine the influence of Islamic finance awareness on financial behaviour of KMKN students.
- d) To examine the influence of financial literacy on financial behaviour among KMKN students.

## 1.6 Significance of the Study

This study investigates the influence of financial literacy and Islamic finance awareness on the financial behaviour of students. The findings from this study can contribute theoretically and practically to the existing body of knowledge as explained below:

**Theoretical Contribution:** It is hoped that the findings from this study will add to the emerging literature on financial behaviour, financial literacy and Islamic finance awareness. In addition, this study discovers how students' foresee the importance of financial literacy and their awareness on Islamic finance which may lead to their good financial behaviour. This study also provides fundamental knowledge regarding the significance of religiosity to psychological wellbeing in later life.

**Practical Contribution:** From the practical perspective, this study provides some scientific information to social workers, counsellors and other finance-related professionals working with people to use those significant variables in their modules, training or education programmes. The results of this study may also promote a greater awareness of the importance of financial literacy, Islamic finance awareness and financial behaviour among Malaysians.

Further, this study also provides important scientific information concerning the significant predictors of financial behaviour from the students' perspective that may drive social and finance policymakers to develop programmes to maintain and enhance the financial behaviour of Malaysians. Additionally, it is expected that knowledge obtained from this study would assist policymakers to pay more attention to vulnerable people who are experiencing or at risk of financial problems due to bad finance-related habits.

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

The study focuses on examining the influence of financial literacy and Islamic finance awareness on financial behaviour. For the purpose of this study, a questionnaire was distributed to science and business students in KMKN. The reason for choosing this sample is because financial management skills are very important for them. They receive a monthly allowance from MARA; therefore, they are supposed to plan and manage the money given properly. This sample can also provide a better picture of the differences between science students who lack financial knowledge in the curriculum and business students whereby financial management skills are included in the curriculum.



## **1.8 Organization of the Dissertation**

This chapter explains the background of the study, research questions, research objectives, significance and scope of this study. The next chapter is a review of literature related to the topic of this dissertation. The review of literature provides foundation of the topic related to financial literacy, Islamic finance awareness and financial behaviour.

Chapter 3 discusses the methodology of the overall study. It begins with the development of research framework, hypothesis development and justification of the research design as well as the operational definition of terms used. Chapter 3 also explains the instrumentation of the study, its developmental stages and related statistical methodology used to analyse the data collected.

Chapter 4 provides the findings of the study and Chapter 5 focuses on the discussion and recommendation for future research, in relation to the findings revealed in Chapter 4.

## Chapter 2: Literature Review

### 2.1 Introduction

A review of previous and existing literature is performed to support the framework of this study. This chapter starts with a review of literature on financial behaviour, which includes the demographic factors and financial literacy, its meaning, conceptualisation and dimensions. It is then followed by Islamic finance awareness, its meaning and dimensions. The last part of this chapter discusses the theory of planned behaviour which assists in building the research framework of the study.

### 2.2 Financial Behaviour

Generally, financial behaviour which also refer as personal financial management is the way how people planning, spending and investing their money. It is the action of managing money which involves several theories that are based on economics and accounting fields (Fadzil, Haron & Jantan, 2005). According to Muske & Winter (2004), financial behaviour refers to financial management and planning, whereby if the students cannot manage the financial elements properly, it could have a negative impact on their mental and physical wellbeing. It will also potentially reduce students' opportunities when they seek jobs after they finish their studies.

Ibrahim, Harun & Mohamed Isa (2009), state that financial behaviour includes the methods of saving money, budgeting and investing. While, financial

management involves financial organisations to help users manage their finances in order to avoid losses and to facilitate them to optimise their own expenses.

For organization, financial management is a process of decision-making and financial planning. It is a vital part in handling and managing the subsystems that have been created in the organisation. Financial management includes Treasury functions, like working capital and it describes the impact that can bring about changes in the international arena based on the exchange rate mechanism. It also involves the process of evaluating, selecting and managing new capital and investment. An organisation must have its own financial management plans in order to manage all financial affairs for a long period of time. It is also related to strategic planning that needs to be done by the organisation involved in business matters (Fung, 2012).

According to Paramasivan (2008), financial management is a vital part of any organisation, whereby the staff or workers who are responsible to manage the financial affairs must conduct their work properly without creating any problems. It is the same as personal financial management; it is important for officers to balance the company's finances using their financial wisdom and by working within the budget to ensure the company keeps performing better in terms of income and expenditure. At the same time, good personal financial behaviour can help organisations to make decisions for the entire business, including for the marketing unit. To ensure profitability, organisations must always manage their budget and control their financial situation.

Bourdieu (1984) states that financial management is the management of personal financial planning. From this perspective, it shows that financial behaviour

actually refers to the action of planning, organising, directing and controlling the financial activities, such as procurement and utilisation of funds on a daily basis. It also applies to some activities involved in financial behaviour, such as the practice of using credit cards, taking home loans, student loans and saving.

As for financial planning, Calvet, Camphell & Sodini (2005) mention that financial planning is a process of formulating the goals and objectives. Paramasivan (2008) says that financial management is that part of an organisation's process whereby it has financial managers who have different duties to manage the entire financial system of the organisation. From this point of view, financial management can be seen as the process of managing the finances, i.e., money, effectively. It also is about teaching people how to make the right decisions when handling their money. It is actually that part of management that is related to corporate finance, business finance and personal finance.

In addition, Bujang (2007) suggests that financial planning has a vital role in everyone's life. Without good financial behaviour, people will be in trouble whereby they will fail to manage their money; they will not know how to prioritise between their needs and wants. This is not a new issue and is common among even university students because they normally spend too much of their money on unnecessary items. Sometimes, some students do not know how to identify what they really need.

Therefore, it is important for people to have a good financial behaviour as it will help them to understand the use of money and they will be able to manage their savings properly (Hilgert, Hogarth & Beverly, 2003). Then, it also creates opportunities for people to get professional jobs and have a good life when they know how to manage their financial matters.

Lawson (2006) defines financial behaviour as a part of personal financial planning by an individual to balance saving and expenses, including budgeting for their education and retirement.

Lusairdi & Mitchell (2007) suggest that all students should be responsible for managing their financial manners, including planning their retirement funds. It is the best time to do these plans while they are still young. Lawson (2006) also supports that students need to start saving early to ensure that they can better manage their professional life. Wisdom is needed when one is handling situations that are related to money. This is because one must be able to identify what should be bought by paying cash and what must be purchased on loan. It is important for them to prioritise their needs over their wants (Lawson, 2006).

University students mostly live away from their own families. Based on this situation, they can learn how to manage their financial status, so that they can save money and undertake budget planning (Shaari, Hasan, Mohamed & Sabri, 2013). Sometimes, students spend too much money on unnecessary things. They have to learn how to balance between their savings and expenses in order to maintain their budget. If not, they will lose their money for something that is irrelevant. Therefore, students must plan a budget and stick to it. Students should not change the plan without strong reason and keep track of the previous expenses in order to trace the irrelevant expenses (Lawson, 2006). Hayes (2012) adds that saving and investment are a part of budget planning. Knowledge on investments is also as important for students as saving and managing expenses knowledge.

Huang & Kisgen (2013) mention that it is necessary for students to attend additional classes related to financial management. It is important for them to develop their skills and learn how to manage their money, so that they will be able to make better financial decisions in future. They also can apply the information and skills that they have gained to improve their financial behaviour. Besides, Ibrahim et al. (2009), who focus on investing, also prefer ongoing effort by students to learn about financial management by reading and attending seminars to get the right information on how to deal with financial issues. They must also try to meet financial counsellors and advisors if they get into any financial problems or complications (Usera, 2002).

Sabri & MacDonald (2010) find in their study that the financial behavior of teenagers, especially students, is affected by financial socialisation. Behaviour and attitude of young users in the market actually reflects consumer behaviour in the future (Mangleburg & Bristol, 1998). Therefore, they suggested that programmes related to financial behaviour should be organised to encourage students to get exposure and gain knowledge on managing money. Such programmes can assist to increase students' knowledge and awareness on financial matters.

Basically, to nurture people who are literate in finance, two things need to be done. The first refers to the responsible party who should organise seminars or exhibitions in order to expose people to information related to finance. The second is people not proficient in financial planning should go for training and gain new knowledge for them to improve their skills (Yunus, 2008). An individual who starts at the age of 18 should have his or her own financial target and planning (Peng, Bartholomae and Cravener, 2007).

To summarise, financial behaviour is a vital management and planning aspect that can be done in various ways; it applies to everyone for the achievement of financial goals.

### **2.3 Demographic Background**

Broadly, demographic background is categorised as personal characteristics, such as students' gender, academic and family background. Demographic analysis refers to the statistical data of the population's characteristics, like gender (male and female), age and income of working people. Meanwhile, the criteria for age encompasses ages starting from the young to the old. The government and the private sector always carry out demographic analysis to obtain, among others, financial information.

The primary focus of the demographic profile is gender. Concerning awareness and knowledge on finances, the Organisation for Economic Co-operation and Development (OECD, 2013) reports that women have much lower levels of financial knowledge than men in almost all of the countries studied, including the United Kingdom (UK) and Germany. Whilst 67% of men in the UK gained a score of six or more on the knowledge measure, just 40% of women achieved the same; in Germany, the corresponding percentages are 67% and 50%. Women had the higher percentage of financial illiteracy in Australia and the United States (US). This situation has led to women being less productive and only a small number of women participate in economic activities. Men take the lead with a difference of 1%, i.e., 49% compared to women at 48% in the participants' demographic profile (Lusardi & Mitchell, 2007).

Women have less knowledge about personal financial management. The Americans actually have less knowledge that leads them to poor financial management; women have lower confidence whereby they do not believe in themselves. Women are always not willing to learn about topics on finance compared to men. Men usually approach learning financial topics positively because they have interest in it. Men seem more knowledgeable and have expertise in every aspect of finance (Harris/Scholastic Research, 1993). The same result has been found by other researchers, i.e., male college students have higher knowledge and are more financially literate compared to females (Markovich & DeVaney, 1997; Chen & Volpe, 1998, 2002).

Usually, women have less knowledge about finance because they are not interested in the field of investment and personal finance and this is one of the solid reasons found in literature (Goldsmith & Goldsmith, 1997). In Australia, almost 400 young male Australian female workers have problems in managing their money (Dowling, Tim & Hoiles, 2009). There are huge differences and gaps between men and women when they are involved in financial management because women do not do well in calculation compared to men. Women also lack knowledge in finance and they only can do simple and basic calculation. Thus, females are in the lowest level of financial literacy (Lusardi & Mitchell, 2007). Males perform better in financial knowledge than females because they are more literate and have more expertise in this field (Chen & Volpe, 1998).

Contrary to the above, Sabri & MacDonald (2010) conducted a survey in Malaysia. They find that their respondents comprise 40.4% male and 59.6% female, meaning that females have more knowledge on finance compared to males. Ibrahim



et al. (2009) find that there are no huge differences female and male students in their level of financial knowledge. They assume that both men and women are the same and nothing seems to be changed regarding finances. The most important thing is they know how to manage their own money without having problems. Nevertheless, the aspect of gender is the most studied in terms of financial topics, compared to other characteristics.

Murphy (2013) finds that undergraduate business majors are more financially literate than non-business majors. This finding was later supported by Chen and Volpe (1998) who claim that business major course is more related to the personal financial topic, for example, the subject of finance and accounting.

It is also assumed that students who are taking business course studies can manage their finances better compared to students taking other courses. According to Beal and Delpachitra (2003), a survey done in Australia shows the level of financial literacy among the first year students is not high. However, it improves when the students start working and generating their own income. James, Leavell & Maniam (2002) state that, the students who are majoring in business courses in the universities seem to be experts and know how to make financial decisions based on what they have learnt.

Murphy (2013) finds that those who are from more educated families score better than those from less educated family backgrounds. Students from educated or business background families are more literate than those from less educated families. Parents' education is proven as one of the elements that could affect a child's literacy. Murphy (2013) also points out that college students who are studying

in the town or urban areas always focus on the latest fashion trends and hence, fail to manage their routine expenses properly.

While, the JumpStart College Survey by Mandell (2008) finds that financial literacy is monotonically related to parents' education levels. Likewise, Chiteji & Stafford (1999) find that the parents' income influences their children's wealth in terms of managing their finances and also that individuals with high income are more likely to have more knowledge on finance. Parents' incomes are correlated across generations; it is more likely that students whose parents have high income might simply be an artefact of the cross-generational income correlation and could manage finances better.

An educated mother or graduate mother highly influences here children's knowledge on finance compared to a non-graduate mother (Lusardi 2011). A family with high income and higher education seems to have better financial knowledge. Chiteji and Stafford (1999) find that the children whose parents have private wealth or retirement wealth are more understanding about the effects of risk diversification. The children whose parents have higher education really help to increase the knowledge on finance because they will be able to manage their own finances independently without seeking any help from outsiders.

In a nutshell, demographic factors are proven to influence a person's financial behaviour in a good or bad way depending on the characteristics itself. Positive characteristics, such as high income and education, may lead to good financial planning and behaviour. In the financial field, it shows that the percentage of males is higher compared to females. This is because females have less interest in financial aspects. Some of them dislike managing money and they do not have good

knowledge about finance. These are the factors why the survey seems to indicate females are weaker in financial management than males. Males usually participate and show great interest when it comes to financial matters. They seem to be very interested in this field, especially in investment of money. They are very particular about financial matters. Based on research done by experts, males have a higher level of knowledge than females.

## **2.4 Financial Literacy**

Financial literacy commonly also refers as financial knowledge or financial education. Huston (2010) analyzed several studies to examine the definitions of financial literacy and finds that most of the studies use the terms of financial knowledge and financial literacy synonymously. She come out financial literacy as a set of knowledge and skills related to their financial planning and management to make effective and informed decisions in an individual life. While, Kim (2001) state financial literacy as understanding and knowing basic principles of saving, spending and investing. He also emphasize that the expertise on how to plan and manage financial resource effectively is knowledge that each individual need in order to survive in challenging society.

Garman and Forgue (2000) describe financial literacy as knowing the vocabulary and facts necessary to well manage an individual finance effectively. Financial literacy also involves the ability to use financial skills and knowledge to manage personal finance successfully for the long-term of financial wellbeing. (Huston, 2010). It is an important skill, gradually seen as need of communities and individuals (Greenspan, 2001).

Huston (2010) recognizes four main categories of financial literacy that arise from several studies namely personal finance basics, saving or investing, borrowing, and protection. Huston also finds that understanding on personal finance knowledge (theory), and using personal finance knowledge (application) are the conceptual of financial literacy.

While, Remund (2010) explored the conceptual of financial literacy and concludes that financial literacy fall into five categories which are knowledge of financial concepts, able to talk about financial concepts, able to manage personal finances , skill in making effective financial decisions and confidence in planning efficient budget for future.

Most previous researches have focused on financial literacy among high school students (Mandell, 2008; Hilgert, Hogarth, & Beverly, 2003; Danes, Huddleston & Boyce, 1999). Hira (1997) investigated students' knowledge on overall personal financial management and found that college students have limited skill and knowledge on financial. The other study conducted by Volpe, Chen, & Pavlicko (1996) to investigate the relationship of investment literacy and students' background also found that students have poor knowledge of personal saving and investment. Markovich & DeVaney (1997) surveyed on the students' financial literacy, again agreed that college students have lack of sufficient personal finance knowledge.

According to Lusardi and Tufano (2009), financial literacy has its own effect on financial behaviour. Their study proved that individual who have less knowledge

on finances usually face problems in planning and managing their financial resources. Financial knowledge and skills supposedly drive their behaviour on spending, saving and investing. Students with financial illiterate tend to make incorrect decisions on spending, borrowing and saving.

Chen & Volpe (2002) found that the level of financial literacy related to education and experience factors. Mostly, young people interested in learning about the intricacies of finance especially on how to spend their money wisely, save their money profitably and invest it securely. It can help them to make effective financial decisions. However, some of them could not find the right channel to get all the information. They only obtained financial knowledge through their parents and friends.

In summary, previous studies agree that a lack of financial literacy is a growing problem in most countries. By having the financial knowledge, someone will be able to develop their strength on financial and it can increase their level of financial literacy and suppose to fulfil personal, family and global community goals of finance. The financial is extremely important to be developed among student, so that they can learn all of the techniques and tactics that cover all areas in financial management no matter what are the circumstance that will arise. Nevertheless, previous also mention that the terms of financial knowledge and financial literacy have been used interchangeably.

## 2.5 Islamic Finance Awareness

In general, Islamic finance awareness could be defined as a knowledge that combines successful strategies and informed judgments for making thoughtful spending, saving, and credit use decisions based on Islamic perspective or views, Demirguc-Kunt, Klapper & Randall (2014). Islamic finance is a financial system that operates according to Islamic law (which is called shariah), and is therefore, shariah-compliant. The extreme competition that exists in the market for Islamic financial services presents a big trial to the prosperity of Islamic banking organisations.

A frequent suggestion is that Islamic retail banks should react to this challenge by making better use of customer awareness techniques, which can help to meet the demands of the competitive market environment (Ahmad & Haron, 2002; Haron, Ahmad & Planisek, 1994). Thus, the idea endeavours to link the gap between diverse customer desires and limited bank resources, by encouraging distinct products and improved marketing offerings to suit the requirements of different customers. Although some studies on customers' awareness and knowledge of Islamic financial products and services in Malaysia have indicated that the level of awareness is acceptably high, the level of understanding about Islamic finance products is still considered as minimal (Mohd-Karim, 2010).

Thus, this section further discusses the findings of the studies that have been conducted in Malaysia and other countries. Although the level of awareness of the existence of Islamic finance is rather high for both categories of customers, nevertheless, the level of knowledge for both is quite low (Haron et al. 1994). There are a number of more recent studies that have also endeavoured to examine the

customers' level of awareness and knowledge on Islamic financial products and services in Malaysia. For example, Doraisamy, Shanmugam & Raman (2011) conducted a study on customer preferences for Islamic banking products and services in Sungai Petani. Their results reveal that 79.1% of the respondents are aware about the Islamic banking products and services. However, they find that the respondents have no knowledge about the specific Islamic financial products, like murabahah, musharakah, mudharabah, ijarah, qard hassan and al-ijarah thumma al bai'.

On the other hand, the result also shows that most of the Islamic banking consumers are aware and familiar with al-wadiah savings and current account. In another study, Hamid, Yaakub, Mujani, Sharizam & Jusoff (2011) find that there is no significant difference between Malay and Chinese customers regarding their level of awareness on Islamic home financing products. In Malaysia, the majority of Islamic banks are keen to use Arabic terminology and names for a new product or brand name, even though Arabic is not the country's main language (Mokhlis, 2009). However, Malaysia is a multicultural society; only a small fraction of the population in Malaysia can speak, write and understand well the Arabic language. This should be considered when devising customer services. However, Mokhlis' (2009) findings contend this suggestion. They measured the sensitivity of the customers towards the adoption of Arabic terminology in the Islamic banking industry, and they conclude that most of the respondents agree that Arabic terminology gives competitive edge to Islamic banks but at the same time, they indicate that the catchy Arabic names will make it difficult for them to gain fast information about the product.

Thus, there is a need to resolve this issue, since the non-Muslims are also clients of the Islamic banking industry in Malaysia. Several studies have been

conducted to gauge the level of awareness of Islamic financial products and services in other countries. For example, a study that was conducted in Singapore by Gerrard and Cunningham (1997) concludes that most of the Muslims are aware of the fundamental concepts of Islamic finance. However, they are not aware of the specific Islamic financial products, such as murabahah and ijarah. Nonetheless, that study was conducted in a non-Muslim majority country. On the other hand, Khattak and Rehman (2010) attempted to measure the customers' awareness level towards Islamic banking products in Pakistan. Their result also shows that the customers have no knowledge about the specific Islamic products, such as murabahah financing, ijarah financing, and musharakah financing. It means that the Islamic banking industry has to give consideration to promote Islamic banking products and services to their customers.

It can be summarised from the findings of this brief literature review that the level of awareness of Islamic finance, especially in the Malaysian scenario, is still low due to the Arabic terminology and the lack of strong understanding and knowledge concerning Shariah principles governing Islamic finance. In addition, the lack of knowledge in differentiating the unique features of Islamic financial awareness is not only among the customers, but also among all people, generally.

## **2.6 Underpinning Theory**

There are a number of behavioural theories that have been applied in explaining the relationship between financial literacy and financial behaviour. This study looks at the theory of planned behaviour (TPB) since this theory has been used for understanding and predicting human behaviour and motivation as well as human



needs. Ajzen (2008) modified the theory of reasoned action (TRA) to create the TPB and found that attitude toward the behaviour and perceived behavioural control come together to predict behavioural intention; it mediates the relationship between actual behaviour and attitude. Attitude toward a specific behaviour is used to predict behaviour in forming a behavioural intention that determines the real behaviour. Grable & Joo (2004) state that financial literacy has also been added as a forecaster to the TPB model and it is believable that financial literacy is a contributory factor in defining the financial behavioural intention of people.



## Chapter 3: Methodology

### 3.1 Introduction

This chapter explains the methodology of the current study. It starts with the development of the research framework, followed by hypotheses development and justification of research design. The next subsection explains the operational definition of terms related to the study, according to each variable used. This chapter also discusses the measurement of variables and instrumentation as well as data collection and data analysis technique used.

### 3.2 Research Framework

Figure 3.1 depicts the conceptual framework used for this dissertation adapted from Shaari et al. (2013). This framework is developed comprises nine independent variables (IV) and a dependent variable (DV). The independent variables are: respondents' gender, courses enrolled, CGPA, previous school, hometown, total parents' income, parents' education level, financial literacy and Islamic finance awareness. The dependent variable in the current study is financial behaviour. This framework illustrates how financial behaviour might be influenced by financial literacy and Islamic finance awareness.

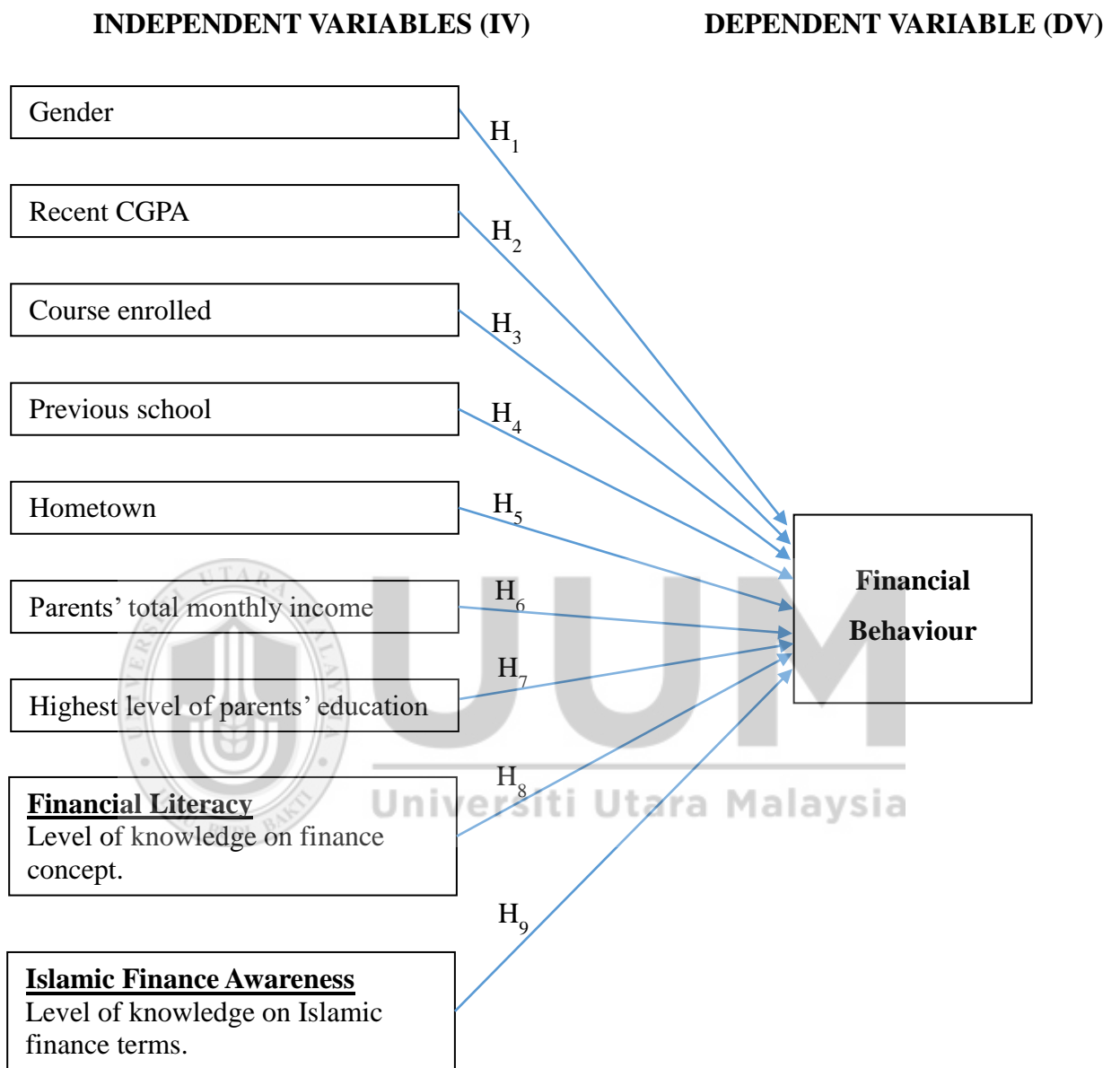


Figure 3.1 *Conceptual Research Framework*

### 3.3 Hypotheses Development

Based on the framework developed for the current study, nine research hypotheses are constructed as a guide to answer all the research questions. Research hypotheses also provide the direction of a research study based on the literature. The few studies that have examined the relationship between financial behaviour, financial literacy, Islamic finance awareness and students' demographic background revealed some inconsistent results.

Most previous researchers found that men seem more knowledgeable and have expertise in every aspect of finance compared to women. (OECD, 2013; Lusardi & Mitchell, 2007; Harris/Scholastic Research, 1993; Markovich & DeVaney, 1997; Chen & Volpe, 1998, 2002; Goldsmith & Goldsmith, 1997; Dowling et al. 2009). Contradictly, Sabri & MacDonald, 2010 and Ibrahim et al. 2009 find that there are no huge differences between female and male students in their level of financial matters. Therefore, the following hypothesis is suggested:

H<sub>1</sub> There is a significant difference of students' financial behaviour between genders.

James, Leavell & Maniam, 2002; Murphy, 2013; Chen and Volpe, 1998 find that there is a difference between business and non-business students and claim that business students are more financially literate than non-business students. Hence, the following hypotheses are constructed to test the difference of financial behaviour among different students' academic background:

H<sub>2</sub> There is a significant difference of students' financial behaviour between courses enrolled.

H<sub>3</sub> There is a significant difference of students' financial behaviour among different categories of recent Cumulative Grade Point Average (CGPA)

H<sub>4</sub> There is a significant difference of students' financial behaviour among different school backgrounds.

Some researcher state that, students from educated background families are more literate than those from less educated families. (Murphy, 2005; Chiteji & Stafford, 1999; Mandell, 2008). They also claim that, students whose parents have high income could manage finances better. (Mandell, 2008; Chiteji & Stafford, 1999; Lusardi, 2011). Murphy (2013) points out that college students who are studying in the town or urban areas always focus on the latest fashion trends and hence, fail to manage their routine expenses properly. Accordingly, the following hypotheses to test the difference of financial behaviour among different students' family background are suggested:

H<sub>5</sub> There is a significant difference of students' financial behaviour between locality statuses.

H<sub>6</sub> There is a significant difference of students' financial behaviour among different parents' total income.

H<sub>7</sub> There is a significant difference of students' financial behaviour among different parents' level of education

Lusardi and Tufano (2009) find that financial literacy has its own effect on financial behaviour. Their study proved that individual who have less knowledge on finances usually face problems in planning and managing their financial resources. Therefore, the next hypothesis is suggested:

H<sub>8</sub> There is a significant influence of financial literacy on students' financial behaviour.

There are several studies on customers' awareness and knowledge of Islamic financial products and services in Malaysia. Mohd-Karim (2010) indicated that the level of awareness on Islamic finance products is acceptably high while the level of understanding about Islamic finance products is still considered as minimal. Haron et al. (1994) in their study find that the level of awareness of the existence of Islamic finance is rather high, nevertheless, the level of knowledge is quite low. In the knowledge of researcher, there are no study that links between Islamic finance awareness and financial behaviour. Thus the following hypothesis is suggested:

H<sub>9</sub> There is a significant influence of Islamic finance awareness on students' financial behaviour.

### 3.4 Research Design

Descriptive cross-sectional research design is employed to determine the relationship between the dependent and the independent variables and to establish any association between these variables. According to Mugenda & Mugenda (2003), descriptive survey design helps a researcher to gather, summarise, present and interpret information for the purpose of clarification. Statistical instrument used for the research analysis is mainly inferential statistics, specifically correlation matrix and multiple regression analysis. The researcher employs the survey strategy for the study. This strategy is proposed because it allows the collection of a large amount of data from a sizable population in an economical manner. Saunders, Saunders, Lewis and Thornhill (2011) recommends this strategy because the method allows

researchers to collect quantitative data which can be analyzed quantitatively using inferential statistics. The method is also perceived as authoritative by people in general and is both comparatively easy to explain and to understand.

### **3.5 Conceptual and Operational Definition of Terms**

#### **3.5.1 Financial Behaviour**

Gudmunson and Danes (2011) define two general types of financial behaviour that appear in the literature. One type includes behaviours that represent a pattern of actions over time, such as earning, saving, spending and gifting. The other type includes financial behaviour processes that are event-like rather than immediate financial transactions. Such behaviours include opening or closing retirement or college savings accounts. According to Xiao (2009), financial behaviour refers to human behaviour relevant to money management. The current study considers the type of financial behaviour in terms of cash management among students, including budgeting and spending behaviour.

#### **3.5.2 Financial Literacy**

Hogarth (2002) defines financial literacy as a familiarity, awareness or understanding gained through experience or study of personal finance (Hogarth, 2002). Financial literacy has also been defined as the basic tools to begin to take responsibility for financial wellbeing and allows the exploration of many new possibilities in life (Lusardi & Mitchell, 2007; Calvet et al. 2005). Hence, for the current study, financial literacy is defined as the ability to use knowledge and skills to manage individual finances as well as to allocate resources effectively for financial security.

### **3.5.3 Islamic Finance Awareness**

According to Demirguc-Kunt et al. (2014), Islamic finance awareness could be defined as a knowledge that combines successful strategies and informed judgments for making thoughtful spending, saving, and credit use decisions based on Islamic perspective or views. Hence, for the current study, the term ‘Islamic finance awareness’, is defined as level of knowledge about financial awareness from the Islamic perspective which helps in thoughtful spending, savings and credit use decisions.

## **3.6 Research Instrument**

The current study uses the survey questionnaires as its instrument. A questionnaire is a means for a survey ‘consisting of a set of questions (items) intended to capture responses from respondents in a standard manner’ (Bhattacharjee, 2012); and in the form of numeric data (Creswell, 2009).

## **3.7 Measurement of Variables**

The questionnaire is designed based on the conceptual framework of the study. Overall, the questionnaire consists of four sections. The first section consists of respondents' demographic profile and the other three sections deal with questions to help the researcher to test the research hypotheses. The questions require respondents to indicate their level of agreement to the items in the research model. Items for financial behaviour and Islamic finance awareness in the questionnaire are measured using a five-point Likert Scale, with 1 to 5, while items for financial literacy are measured by multiple choice true and false answers. Below are the items of the four sections in the questionnaire:



### **3.7.1 Financial Behaviour**

Financial behaviour aspects in the questionnaire ask about respondents' behaviour with regards to their financial management as well as the frequency of their preference for each question asked. The questions are adapted from Dew & Xiao (2011) neglecting the question related to retirement due to non-relevant for foundation students. This study also add two more questions related to Islamic finance and comprises nine questions as follows:

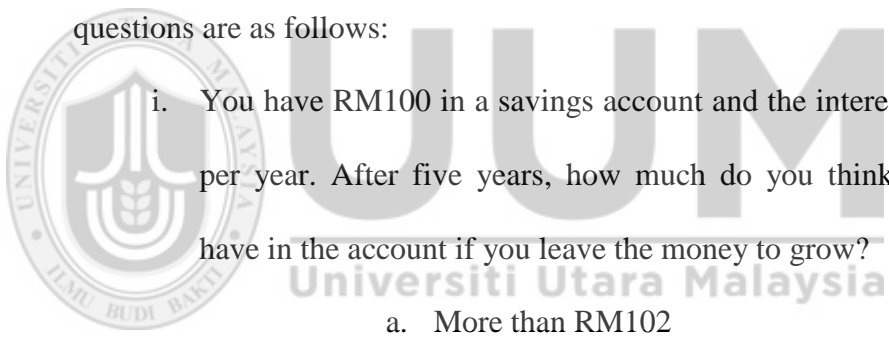
- i. I do some comparison when purchasing a product or service
- ii. I keep a record of my monthly expenses
- iii. I stay within my budget or spending plan
- iv. I begin or maintain an emergency savings fund
- v. I saved money from every allowance I received from MARA
- vi. I save for a long-term goal, such as for car, education and home
- vii. I buy bonds, shares or mutual funds, such as ASB, SSPN
- viii. I check whether the saving, bonds or shares that I applied are shariah compliant
- ix. I prefer Islamic banking products

### **3.7.2 Demographic Background**

The demographic background includes gender (male, female), course enrolled (business or science), recent CGPA, previous school attended (boarding school, Sekolah Menengah Kebangsaan Agama, Sekolah Menengah Teknik/Vokasional, Sekolah Menengah Kebangsaan, private school), hometown locality (rural, urban), parents' monthly income and parents' highest education level.

### 3.7.3 Financial Literacy

Lusardi and Mitchell (2011) have designed a standard set of questions and have been used to measure financial literacy among people in numerous surveys in the United States, Germany, Netherlands, Italy, Sweden, Japan, New Zealand and Russia. This study use the same questions with a few modifications which are: change the \$ sign to RM and use present tense rather than past tense. This financial literacy section asks respondents three questions which measure the respondents' literacy in their financial aspects, particularly about interest rate on savings account as well as the tendency to spend their money or put it in savings account. The questions are as follows:

- 
- i. You have RM100 in a savings account and the interest rate is 2% per year. After five years, how much do you think you would have in the account if you leave the money to grow?
    - a. More than RM102
    - b. Exactly RM102
    - c. Less than RM102
    - d. I do not know
  - ii. Imagine that the interest rate in your savings account is 1% per year and inflation is 2% per year. After one year, how much would you be able to spend with the money in this account?
    - a. More than today
    - b. Exactly the same
    - c. Less than today
    - d. I do not know

iii. Buying a single company's share usually provides a safer return than a mutual funds share.

- a. True
- b. False
- c. I do not know

#### **3.7.4 Islamic Finance Awareness**

In Islamic finance awareness section, there are eight questions asked to the respondents which include whether they have ever heard about Islamic finance in Malaysia that offers financial services to them. Then, respondents are required to answer the next seven question pertaining to their awareness of Islamic finance. They are asked whether they can explain each of the Islamic financial terms, such as riba and gharar, Shariah compliant, ijarah, mudharabaaah, musyarakah, murabahah and takaful. The items of the questionnaire were adapted from a study by Gerrard & Cunningham (1997) to investigate the awareness of Islamic finance in Singapore.

### **3.8 Instrument's Validity and Reliability**

Healy & Perry (2000) explain that validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are. It estimates how accurately the data obtained in the study represents a given variable or construct in the study (Mugenda, 2008). A pilot study was conducted on the instrument to pre-test the instrument before the main survey. The questionnaire was reviewed by several experts in research to seek their opinion about

the adequacy and representativeness of the instrument to ensure it covers all the variables being measured as a way of eliminating content validity. The study ensured reduction of construct validity by deriving the research variables from existing theoretical frameworks. The questionnaire was distributed to five lecturers from Universiti Utara Malaysia, three finance lecturers from KMKCN, two English lecturers and a statistics lecturer. The questionnaire was also distributed to eight students to represent the respondents. All the experts' comments on every part of the questionnaire are based on their view. The students also gave their feedback by providing their views as respondents as to whether the questions can be understood or not.

The reliability of a measurement can be seen when the items and the subsets of the items are highly correlated. The most common test used for testing internal reliability is Cronbach's alpha coefficient (Sekaran & Bougie, 2009) developed by Lee Cronbach in 1951, ranging from 0.00 (completely unreliable); to 1.00 (perfectly reliable). There is no rule that determines the minimum alpha score that can be said to be reliable. An alpha score of 0.8 (Osborne, Christensen & Gunter, 2001) can be used as a reference. The current study therefore used Cronbach's alpha coefficient to measure the reliability of the constructs in the current study. Table 3.1 represents the Cronbach's alpha value for financial behaviour, financial literacy and Islamic finance awareness constructs. According to Nunnally & Benstein (1994), all Cronbach's Alpha coefficient values above 0.6 are considered to be acceptable. As shown, all the variables show values between the acceptable ranges. Hence, it can be concluded that the questionnaire for the current study is reliable.

Table 3.1: *Reliability analysis*

<b>Construct/ Variable</b>	<b>Cronbach's Value</b>
Financial Behaviour	0.79
Financial Literacy	0.61
Islamic Finance Awareness	0.89

### **3.9 Survey Administration**

The survey was conducted using online survey method. The students answered the questionnaires during their computer class in the computer lab. There are benefit and drawbacks of using an online survey. According to Dillman (2000), there is no other method of collecting survey data that offers so much potential for so little cost as web surveys. There are some concerns about using online surveys. The percentage of people without internet access, in particular, the more vulnerable populations (e.g., elderly and poor) is still fairly large (Dillman, 2000; Eysenbach, 2004). Also, many who have access to a computer and internet may have a slower internet connection or an older computer model that will not handle the website user specifications (Dillman, 2000; Eysenbach, 2004). Since everyone in the sample are students of KMKM with easy access to internet within the campus and are knowledgeable on how online surveys work, these limitations are not applicable in the study

#### **3.9.1 Population and Sampling Strategy**

Population is an entire group of people where findings are to be generalised (Salkind, 2012). The larger group is the population. The researchers have generalised a population as a group of potential participants to develop the results in the study. The target population for the

current study are registered students of KMKN, comprising of 530 students. Out of this number a sample of 350 active students are selected during the survey period. The remaining 180 students were not accessible because they are on their semester break.

### **3.9.2 Sample Size**

The sample size determination is the act of selecting the number of observations to be included as the sample. The main criteria for the sample is they must be students of KMKN. However, only active and available students during the survey period are selected.

In terms of sample size, it has been suggested that the ideal sample size should be between 30 and 500 (Sekaran and Bougie, 2009). For a correlation study, a minimum of 30 responses is needed (Gay & Diehl, 1996); while for factor analysis purposes, a minimum of 300 responses is considered necessary (Tabachnick & Fidell, 1996). However, there is no fixed rule about how big a sample should be. According to Hussey and Hussey (1997), the number in the sample depends on the particular research area. . Based on the table for determining sample size of a known population by Krejcie & Morgan (1970), the number of sample for this study should be 226 or more. Previous research can be taken as guidance. Hence, this current study had about 350 respondents over the two-week data collection period.

### **3.10 Techniques of Data Analysis**

According to Sarantakos (1998), the analysis of data allows the researcher to organise data collected during the study in order to assess and evaluate the findings and to arrive at some valid, reasonable and relevant conclusion. The study employs descriptive statistics method for presenting and summarising data. The statistical instrument for the research analysis is mainly inferential statistics, specifically, independent t-test, ANOVA and multiple regression analysis. According to Chatterjee & Hadi (2012), the method allows a researcher to digest and understand large quantities of data and effectively communicate their important aspects in a research study. Data was analysed using Statistical Package for Social Sciences (SPSS), which is a software tool for data analysis.

The analysis focuses on the influence of financial literacy and Islamic finance awareness on financial behaviour. Multiple regression statistical tests were used to find out the relationship between independent variables and dependent variable. The statistical analysis used to test the hypotheses are summarized as below.

Table 3.2: *Statistical analysis for each research hypothesis*

	Hypotheses	Statistical Analysis
H <sub>1</sub>	There is a significant difference of students' financial behaviour between genders.	Independent t-test
H <sub>2</sub>	There is a significant difference of students' financial behaviour between courses enrolled.	Independent t-test
H <sub>3</sub>	There is a significant difference of students' financial behaviour among different categories of recent CGPA	ANOVA
H <sub>4</sub>	There is a significant difference of students' financial behaviour among different school backgrounds.	ANOVA
H <sub>5</sub>	There is a significant difference of students' financial behaviour between locality statuses.	Independent t-test
H <sub>6</sub>	There is a significant difference of students' financial behaviour among different parents' total income.	ANOVA
H <sub>7</sub>	There is a significant difference of students' financial behaviour among different parents' level of education	ANOVA
H <sub>8</sub>	There is a significant influence of financial literacy on student's financial behavior	Linear Regression
H <sub>9</sub>	There is a significant influence of Islamic finance awareness on student's financial behavior	Linear Regression



## Chapter 4: Results and Discussion

### 4.1 Introduction

This chapter presents the results for each test stated in the previous chapter. The data was analysed using SPSS version 16. Statistical instruments for inferential statistics, such as independent T- Test, One-Way ANOVA and multiple regression analysis were used to examine the relationship between students' demographic background, financial literacy, Islamic finance awareness and financial behaviour in order to test all the hypotheses.

### 4.2 Demographic Profile

The analysis on KMKN students' demographic background solicited information regarding their gender, course enrolled, recent CGPA, previous school, hometown location, parents' total monthly income and parents' education level. The following table shows the results obtained from the students' responses on their demographic background.

Table 4.1: *Students' demographic background*

Demographic Factors	No. of Respondents	Percentage
<b>GENDER</b>		
Male	126	36.0
Female	224	64.0
<b>COURSE ENROLLED</b>		
Business	157	44.9
Science	192	54.9
Missing System	1	.2
<b>RECENT CGPA</b>		
3.50 – 4.00	246	70.3
3.00 – 3.49	86	24.6
2.50 – 2.99	12	3.4
2.00 – 2.49	2	.6
Below 2.00	2	.6
Missing System	2	.6

Table 4.2: (continued)

Demographic Factors	No. of Respondents	Percentage
<b>PREVIOUS SCHOOL</b>		
Boarding School (MRSM / SBP)	144	41.1
SMKA	46	13.1
SM Teknik / Vokasional	9	2.6
SMK	145	41.4
Other	4	1.1
Missing System	2	.6
<b>HOMETOWN</b>		
Rural	223	63.7
Urban	123	35.1
Missing System	4	1.1
<b>PARENTS' TOTAL MONTHLY INCOME</b>		
More than RM20,000	7	2.0
RM10,000 – RM20,000	44	12.6
RM5,000 – RM9,999	108	30.9
RM1,000 – RM4,999	130	37.1
Below RM1,000	59	16.9
Missing System	2	.6
<b>PARENTS' EDUCATION LEVEL</b>		
PhD	8	2.3
Masters	39	11.1
Degree	118	33.7
Diploma	33	9.4
School (STPM, SPM and Lower)	146	41.7
Other	3	.9
Missing System	3	.9

It is found that 64% of the students who participated in this study are female and 36% are male. The data indicates that 54.9% are science students and 44.9% are enrolled in business subjects as their course. During their last semester examination, it is found that almost 70% scored CGPA between 3.50 – 4.00 and the rest of them managed to obtain CGPA below 3.49. Most of the KMKN students' previous schools are either boarding school, such as Maktab Rendah Sains MARA (MRSM) and Sekolah Berasrama Penuh (SBP) (41%) or SMK (41%). About 63% of the students come from rural areas, such as settlements, villages or towns with less than 10,000 people and 35% are from large towns or cities.

Only seven students (2%) have parents whose monthly income is more than RM20,000 and 44 students (13%) have parents whose monthly income is between RM10,000 – RM20,000. Most students' parents' monthly income is between RM5,000 – RM9,999 (31%) and between RM1,000 – RM4,999 (37%). A total of 59 students parents' income is below RM1,000 per month (17%).

As for their parents' education levels, it is found that only 2% or eight parents have PhD, Master's degree (11%), first degree (34%), Diploma (9%), school leavers with STPM, SPM and Lower (42%) and others (1%).

A few respondents did not provide any answer on several questions during their participation in this survey or are missing in the system. However, the number is too small and does not affect the overall analysis.

### **4.3 Analysis on Students' Level of Financial Literacy, Islamic Finance Awareness and Financial Behaviour**

The first research question of this study is to examine the level of financial literacy, Islamic finance awareness and financial behaviour among KMKN students. The level of financial literacy among KMKN students was examined by evaluating their basic understanding on finance concepts. The findings on students' responses are shown below.

Table 4.3 : *Students' financial literacy*

Questions	Answers	Students' Response Percentage
1. Have RM100 in savings account and interest rate is 2% per year. After 5 years, how much do you have in the account?	Correct	80.0
	Incorrect	19.4
	Missing	0.6
2. The interest rate for savings account is 1% per year and inflation 2% per year. After one year, how much would you spend from this account?	Correct	41.1
	Incorrect	58.4
	Missing	0.6
3. Buying a single company's share usually provides a safer return than a mutual fund share.	True	34.9
	False	24.0
	Missing	0.9

The result shows the number of students who correctly answered question 1 is 80% while only 19.4% answered the question incorrectly or do not know the answer. As for question 2, it is found that 41% out of 350 students answered the question correctly and 58.4% chose the wrong answer or do not know the answer. For question 3, only 24% answered the question correctly while the remaining failed to provide the correct answer or do not know the answer. Slightly less than half (48%) of the total respondents portrays that the level of students understanding on basic concepts of financial, particularly related to bonds, stocks and mutual fund is not satisfactory.

Furthermore, the study also analysed KMKN students' level of awareness and understanding on Islamic finance terms, such as Riba, Shariah Compliant, Ijarah, Mudharabah, Musyarakah, Murabahah and Takaful. A Likert scale was used as a tool for them to rate their understanding on Islamic finance terms. Before they began to rate their understanding on Islamic finance terms, they were asked about their

awareness on Islamic Finance services that are offered in Malaysia. The result from the survey is shown in Table 4.2:

Table 4.4 : *Islamic finance services awareness*

<b>Islamic Finance Services</b>	<b>No. of Respondents</b>	<b>Percentage</b>
<b>AWARENESS</b>		
Yes	225	72.9
No	84	24.0
Missing System	11	3.1

From the above table, 73% of KMKN students have heard about Islamic finance in Malaysia that offers services and 24% are not aware about this service. Only 11 students (3%) did not answer either ‘Yes’ nor ‘No’ for this question.

There is a small number of the respondents who did not provide any answer on several questions during their participation in this survey. However, the percentage is small and assumed to not affect the whole analysis.

To assess the students’ level of understanding of Islamic finance terms, itemised rating scale was used to interpret the usability of data. The findings on their levels of understanding are shown in Table 4.3. The responses were measured by five points:-

1 = Never – Not aware / Never heard

2 = Weak – Aware & Have low ability to explain

3 = Average – Aware & Have the knowledge but limited ability to explain

4 = Good – Aware & Have the moderate ability to explain

5 = Excellent – Aware & Have the maximum ability to explain

Table 4.5 : *Students' level of understanding on Islamic finance terms*

Islamic Finance Terms	Never	Weak	Average	Good	Excellent	Mean
Riba and Gharar	16	29	139	103	61	3.4713
Shariah Compliant	38	94	140	59	18	2.7851
Ijarah	114	119	85	22	8	2.1121
Mudharabah	79	98	110	42	18	2.4870
Musyarakah	81	103	108	36	19	2.4496
Murabahah	92	107	99	34	17	2.3610
Takaful	6	43	120	114	57	3.5088
Overall understanding on Islamic Finance terms						2.5560

The mean for level of understanding on Riba and Gharar is 3.4713 which explains that KMKN students are aware on this specific Islamic finance term. The above table also shows that students are not or less aware and have limited or low ability to explain the Islamic finance terms of Shariah Compliant (mean of 2.7851). From the results above, it is shown that KMKN students are not or less aware and have limited or low ability to explain the Islamic Finance terms of Ijarah (mean of 2.1121). It is also found that the students are not or less aware and have limited or low ability to explain the Islamic finance terms of Mudharabah (mean of 2.4870); Musyarakah (mean of 2.4496); and Murabahah (mean of 2.3610). However, the students (mean of 3.5088) are aware and have moderate ability to explain the term, Takaful. From the survey, it shows that overall, students are either not or less aware and have limited or low ability in understanding the Islamic finance terms (mean of 2.5560).

Lastly, students' financial behaviour was measured based on their financial activities for the past six months to examine the level of financial behaviour among KMKCN students. Itemised rating scale was used in order to indicate the students' attitude toward their financial behaviour. A five-point scale was provided for each item and the students stated the appropriate number in the boxes provided in the questionnaire.

1 = Never

2 = Seldom

3 = Sometimes

4 = Often

5 = Always

Table 4.6 : *Students' financial behaviour results*

Financial Behaviour	Never	Seldom	Sometimes	Often	Always	Mean
I do some comparison when purchasing a product or service	10	16	72	106	145	4.0315
I keep a record of my monthly expenses	46	93	140	48	22	2.7335
I stay within my budget on spending plan	19	45	135	97	53	3.3438
I begin or maintain an emergency savings fund	22	61	113	95	56	3.2939
I saved money from every allowance I received from MARA	22	46	126	94	60	3.3563
I save for a long-term goal, such as a car, education, home, etc.	59	60	84	75	69	3.1009
I buy bonds, shares or mutual funds, such as ASB, SSPN, etc.	167	51	59	49	21	2.1527
I prefer Islamic banking products and services	115	65	78	46	44	2.5374
Overall students' financial behaviour						3.0698

The findings on students' financial behaviour show that KMKN students (mean of 4.0315) do some comparison when purchasing a product or service during the past six months. Keeping a record of their monthly expenses for the past six months (mean of 2.7335) is either 'never' or 'seldom' after they purchase a product or service. Besides, KMKN students stay within their budget on spending activities (mean of 3.3438); began or maintained an emergency savings fund for the last six months (mean of 3.2939); saved their allowance from MARA that they received (mean of 3.3563); and prepared a long-term saving plan, such as for car, education, home, etc. (mean of 3.1009). They also bought bonds, shares or mutual funds as their investment instruments (mean of 2.1527) and did not choose Islamic banking products or services as their preference (mean of 2.5374). However the overall results (mean of 3.0698) show that KMKN students have the right financial attitude in several aspects, such as product or service comparison, budget planning, maintaining emergency saving funds and having long-term goals during the past six months.

#### **4.4 Hypotheses Testing**

Next, Independent T-Test and One-Way ANOVA are used to analyse the significant differences of financial behaviour between the unrelated groups of students' demographic background.



Table 4.7 : *T-Test financial behaviour with gender, course and hometown*

		N	Mean	Mean Difference	Standard Deviation	Sig. (2-tailed)
Gender	Male	125	3.1903	0.1877	0.72672	0.020
	Female	224	3.0026		0.71387	
Course	Business	157	2.9520	-0.2142	0.72785	0.006
	Science	192	3.1662		0.70654	
Hometown	Rural	223	3.0814	0.1850	0.75128	0.820
	Town	123	3.0629		0.66715	

a. Dependent variable: financial behaviour

*H<sub>1</sub> There is a significant difference of students' financial behaviour between genders.*

Table 4.6 shows the mean for male students is 3.1903. The mean for female students is 3.0026. It shows that the significance value is 0.020. Since the significance value is less than 0.05, it means that the variability in the two conditions is equally variant assumed. It can be concluded that there is a significant difference between students' financial behaviour and their gender. This indicate that male perform better than female students in financial behaviour.

*H<sub>2</sub> There is a significant difference of students' financial behaviour between courses enrolled.*

The same Table 4.6 shows the mean for business course is 2.9520 and the mean for science course is 3.1662. It is found that the mean for students from science course is higher compared to students from business course. The number of students (N) for business course is 157 and science course is 192. Since the number of participants for this survey is 350 and it is found

that  $N = 349$ , therefore this would be an indication that all of the participants data in the data file has not been completely keyed-in.

The significance value is 0.006 and since the value is less than 0.05, it can be concluded that there is significant difference between students' financial behaviour and their course enrolled. This means that business students are more financially literate than non-business students.

*H<sub>3</sub> There is a significant differences of students' financial behaviour among different categories of recent CGPA*

This is an inferential statistical test to determine whether there is a significant difference between the means on the students' category of recent CGPA and their financial behaviour. As shown in Table 4.7, One-Way ANOVA was used to determine if the means of the students' category of their recent CGPA are significantly different.

The mean for CGPA category 3.50 – 4.00 is 3.0710; mean for 3.00 – 3.49 is 3.0183; mean for 2.50 – 2.99 is 3.3512; mean for 2.00 – 2.49 is 3.3750 and below 2.00 is 2.7500. Since the number of participants for this survey is 350 and it is found  $N = 348$ , therefore this would be an indication that all of the participants' data in the data file has not been entered completely.

The significance value is 0.56. This value is greater than 0.05 and the result shows that there is no significant difference between students' financial behaviour and their recent CGPA. Since the result shows students' level of financial behaviour are not difference among various CGPA. Students from different level of CGPA responded similarly on financial behaviour

Table 4.8 : ANOVA financial behaviour with academic and family background

		N	Mean	Standard Deviation	Sig.
Recent CGPA	3.50 – 4.00	246	3.0710	0.73457	0.560
	3.00 – 3.49	86	3.0183	0.67931	
	2.50 – 2.99	12	3.3512	0.85275	
	2.00 – 2.49	2	3.3750	0.17678	
	Below 2.00	2	2.7500	0.53033	
	Total	348	3.0675	0.72284	
Previous School	Boarding School	144	3.1687	0.64103	0.314
	SMKA	46	2.9887	0.72318	
	SMTeknik /Vokasional	9	3.0139	0.49783	
	SMK	145	2.9990	0.81120	
	Other	4	3.1563	0.37326	
	Total	348	3.0700	0.72412	
Parents' monthly income (RM)	More than 20,000	7	3.4566	0.69901	0.101
	10,000 – 20,000	44	3.2001	0.68444	
	5,000 – 9,999	108	3.0488	0.68677	
	1,000 - 4,999	130	3.1030	0.73411	
	Below 1,000	59	2.8829	0.77167	
	Total	348	3.0682	0.72352	
Parents' highest education level	PHD	8	3.4598	0.68709	0.409
	Master	39	3.1241	0.72885	
	Degree	118	3.1091	0.68292	
	Diploma	33	3.0974	0.75410	
	School	146	3.0095	0.75339	
	Other	3	2.6250	0.45069	
Total	347	3.0717	0.72452		

a. Dependent variable: financial behaviour

*H<sub>4</sub> There is a significant difference of students' financial behaviour among different school background.*

This is an inferential statistical test to determine whether there is a significant difference between the means on the students' school background and their financial behaviour. A One-Way ANOVA was used to determine if the means of the students' school backgrounds are significantly different.

As indicated in Table 4.7, the mean for boarding school (either from MRSM or SBP) is 3.1687; mean for SMKA is 2.9887; mean for SM Teknik/ SM Vokasional is 3.0139; mean for SMK is 2.9990 and Other is 3.1563. Since the number of participants for this survey is 350 and it is found N = 348, therefore this would be an indication that all of the participants' data in the data file has not been entered entirely.

The significance value is 0.314. This value is greater than 0.05 and the result shows that there is no significant difference between students' financial behaviour and their school background.

*H<sub>5</sub> There is a significant difference of students' financial behaviour between locality statuses.*

This is an inferential statistical test to determine the significant difference between the means in two unrelated groups which are financial behaviour and their hometown. Independent T – Test results are as in Table 4.6.

The table shows the mean for students who are from rural area is 3.0814. The mean for students from towns is 3.0629. It is found that the mean for students from the rural area is higher compared to those coming from town. The number of students who are from rural area (N) is 223 and

students coming from town is 123. Since the number of participants for this survey is 350 and it is found  $N = 346$ , therefore, this would be an indication that all of the participants' data in the data file has not been entered entirely.

At equal variance assumed row, the significance value is 0.820 and since the value is greater than 0.05, it can be concluded that there is no significant difference between students' financial behaviour and their hometown location.

*H<sub>6</sub> There is a significant difference of students' financial behaviour among different parents' total income.*

This is an inferential statistical test to determine whether there is a significant difference between the means on the students' parents' monthly income and their financial behaviour. A One-Way ANOVA was used to determine if the means of the students' parents' monthly income are significantly different.

The mean for parents whose income is more than RM20,000 per month is 3.456; income between RM10,000 – RM20,000 is 3.2001; income between RM5,000 – RM9,999 is 3.0488; income between RM1,000 – RM4,999 is 3.1030 and mean for monthly income below RM1,000 is 2.8829. Since the number of participants for this survey is 350 and it is found that  $N = 348$ , therefore this would be an indication that all of the participants' data in the data file has not been entered entirely.

The significance value is 0.10 (when rounded). This value is greater than 0.05 and the result shows that there is no significant difference between students' financial behaviour and their parents' monthly income level.

*H<sub>7</sub> There is a significant difference of students' financial behaviour among different parents' level of education*

This is an inferential statistical test to determine whether there is a significant difference between the means on the students' parents' level of education and their financial behaviour. A One-Way ANOVA was used to determine if the means of the students' parents' level of education are significantly different.

Based on Table 4.6, the mean for the parents who have PhD is 3.4598; Master's is 3.1241; Degree is 3.1091; Diploma is 3.0974, SPM / STPM and lower is 3.0095 and Other, such as Certificate is 2.6250. Since the number of participants for this survey is 350 and it is found  $N = 347$ , therefore this would be an indication that all of the participants' data in the data file has not been entered entirely

The significance value is 0.41. This value is greater than .05 and the result shows that there is no significant difference between students' financial behaviour and their parents' level of education. Therefore, there are no significant difference between students' financial behaviour and their parents' level of education.

Besides T-Test and ANOVA, there is an inferential statistics test to predict the value of a variable based on the value of other variables. Multiple liner regression was used to predict the influence of financial literacy and Islamic finance awareness based on KMKM students' financial behaviour. The results of the regression analysis used to test the three main hypotheses are shown in Table 4.8.

Table 4.9 : *Regression Analysis*

Variables	Hypothesis	Coefficient	Std Error	t-value	p-value
(Constant)	-	2.378	0.195	12.182	0.00
Financial Literacy	H <sub>8</sub>	-0.021	0.058	-0.362	0.718
Islamic Finance Awareness	H <sub>9</sub>	0.288	0.053	5.388	0.00
R Square		0.080			

The regression analysis was used to determine the significant influence of students' financial literacy and Islamic finance awareness on their financial behaviour as reported in Table 4.8. The table shows that  $R^2 = 0.080$  which indicates that 8% of the variance can be explained by the set of predictors. In other words, 8% of the students' financial behaviour is influenced by their financial literacy and Islamic finance awareness. Therefore, concurrently it can be inferred that the remaining of 92% was due to other factors that were not taken into considerations in this study.

*H<sub>8</sub> There is a significant influence of financial literacy on students' financial behaviour.*

The p-value for financial literacy is 0.718 which is greater than 0.05. Thus, it can be concluded that the financial literacy does not significantly influence students' financial behaviour. This indicates that students' financial behaviour are not determined by their level of financial literacy. Therefore, H<sub>8</sub> is not supported.

*H<sub>9</sub> There is a significant influence of Islamic finance awareness on students' financial behaviour.*

Further, the p-value of Islamic finance awareness is 0.000 with a positive direction. Therefore, it can be concluded that students' Islamic awareness significantly and positively influences their financial behaviour. It seem that students with Islamic finance awareness would behave better for the financial matters.

As a conclusion, all the hypotheses are not supported except for H<sub>1</sub>, H<sub>2</sub> and H<sub>9</sub>. The finding shows that there are no significant differences in students' financial behaviour among KMKN students in terms of family and academic background, except for gender and course enrolled. This study also find that students' financial behaviour is not influence by their financial literacy. While students' Islamic awareness significantly and positively influences their financial behaviour.



## Chapter 5: Conclusion and Recommendation

### 5.1 Introduction

This chapter summarises and draws general conclusions from the study, including the discussion on findings based on the research objectives. This chapter also provides recommendations for intervention strategies, educational programmes and public policies that can assist college students to achieve financial success in their life. Lastly, the limitations of the study are discussed.

### 5.2 Discussion of the Study

The study is based on data from a survey collected to capture the real picture on the level of financial literacy, Islamic finance awareness and financial behaviour among KMKN students. This study focuses on examining the influence of students' financial literacy and Islamic finance awareness on their financial behaviour. The main finding of this study are demonstrated in Table 5.1 below:-

Table 5.1: *Finding Summary*

Research Questions	Research Objective	Finding	
What is the level of financial literacy, Islamic finance awareness and financial behaviour?	To examine the level of financial literacy, Islamic finance awareness and financial behaviour.	Financial Literacy Islamic finance awareness Financial behaviour	Q1 - 80% answer correctly Q2 - 41% answer correctly Q3 - 24% answer correctly Average 48% 2.5560 (overall mean) 3.0698 (overall mean)
Does students' financial behaviour make differences among various KMKN students' demographic background?	To examine the difference of students' financial behaviour among various demographic backgrounds.	$H_1$ Accepted $H_2$ Accepted $H_3$ Not Accepted $H_4$ Not Accepted $H_5$ Not Accepted $H_6$ Not Accepted $H_7$ Not Accepted	Gender : Male (3.19) > Female (3.00) Course : Science (2.95) > Business (3.17) CGPA : Not significantly different Previous School : Not significantly different Locality : Not significantly different Parents' income : Not significantly different Parents' education level : Not significantly different
Does financial literacy have an influence on financial behaviour?	To examine the influence of Islamic finance awareness on financial behaviour.	$H_8$ Not Accepted	No significant influence of financial literacy on financial behaviour.
Does Islamic finance awareness have an influence on financial behaviour?	To examine the influence of financial literacy on financial behaviour.	$H_9$ Accepted	Significant influence of Islamic finance awareness on financial behaviour.

### **5.2.1 Reflection on Level of Financial Literacy, Islamic Finance Awareness and Financial Behaviour**

The average score on the 3-item test of financial literacy is < 50%, i.e., less than half of the questions were answered correctly. This study provides evidence on financial illiteracy problem among college students in Malaysia. The findings also show that KMKN students are aware and have the knowledge about Islamic finance but they have limited ability to explain the terms (overall mean 2.5560). Meanwhile, students' financial behaviour is at a moderate level (overall mean 3.0698).

When it comes to Islamic finance awareness among the KMKN students, the finding shows that most of them are either not or less aware and have limited ability in understanding the Islamic finance terms although they are aware of the Islamic finance services offered to the customers. A study by Doraisamy et al. (2011) on customers' preferences for Islamic banking products and services in Sungai Petani reveals that 79% of the respondents are aware about the Islamic banking products and services but they have no knowledge on specific Islamic financial products, such as Murabahah, Musyarakah, Mudharabah, Ijarah, Qard Hassan and Al – Ijarah Thumma Al Bai'.

Moving on with the students' perspective on financial behaviour, the finding indicates that they have financial planning on budgeting, price comparison, emergency saving funds and thinking of long-term objectives, such as car, home, etc. for the past six months. The finding is similar to Shaari et al. (2013), where according to her research, students who study in universities are mostly living apart from their families and they learn to

manage their finances from time to time. Based on this situation, they will be able to save money and make their own budget plan.

Although the reasons why KMKN students tend to have less financial literacy are unknown, this result indicates collage administrators, educators and parents should be informed that they need to encourage the students to learn more about personal financial management. In support of this recommendation, it is noteworthy that Huang & Kisgen (2013) mention that it is necessary for students to attend some additional classes on financial management to develop their skills and learn how to manage their money.

### **5.2.2 Reflection on Demographic Background and Financial Behaviour**

Table 5.1 show that there are no significant differences of demographic background among KMKN students, except for gender and course enrolled. KMKN male students are more knowledgeable on finance and can manage their money better than KMKN female students. Chen and Volpe (1998) indicate that males are better in financial knowledge than females because they are more literate and have more expertise in this field. It is also supported by Markovich & DeVaney (1997) who find that male college students have higher levels of financial literacy than their female counterparts. However, it is contradicted by Ibrahim et al. (2009) that there is no significant difference between female and male students' level of financial knowledge. The most important thing is they know how to manage their own money without having problems.

With regards to differences between science and business students' financial behaviour, the finding shows that there is a significant difference between students' financial behaviour and their course enrolled. This is

similar to Murphy (2005) where undergraduate business students tend to be more financially literate compared to their non-business major colleagues. James, Leavell & Maniam (2002) supports this hypothesis where students who are taking business courses are doing well compared to students taking other courses because they study about the related topics which enable them to achieve the highest financial literacy scores. Chen and Vope (1998) also support the finding because they state that business major courses, for example finance and accounting, are more relevant for personal financial management.

However, the result of this study actually shows that KMKN science students are more knowledgeable in managing their monthly allowance compared to business students. Therefore, it is not in line with all other research discussed above. This result might be influenced by their family and location factors. Most KMKN science students come from educated and high income parents, while KMKN business students mostly come from rural areas and less educated family background. It is similar to Murphy's (2005) statement in the previous chapter that a person who comes from educated or family with business background, is more literate than those from less educated families because they have less knowledge.

Chiteji and Stafford (1999) posit that parents' income can influence the family's financial situation and when someone becomes richer, the level of knowledge in the areas of financial management will be higher. Lusardi & Mitchell (2007) also agree that higher income families seem to have better financial knowledge compared to low income families. Chiteji and Stafford (1999) state that children whose parents have higher education can help in

increasing their knowledge of finances, ultimately enabling them to manage their own finances independently.

Furthermore, science students have high interest in financial matters; they like to read topics related to finance, like investment and current financial issues.

Overall, the finding shows that there are no significant differences in students' financial behaviour among KMKN students in terms of family and academic background, except for gender and course enrolled. In a nutshell, the results conclude that KMKN students' financial behaviour is affected by their demographic background, including their family and academic background.

### **5.2.3 Reflection on Financial Literacy and Financial Behaviour**

Besides demographic background, the study also finds that KMKN students' financial behaviour is not influenced by their financial literacy. The finding contradicts Huston (2010) who states that financial literacy involves knowing and understanding the often complex principles of spending, saving and investing. It is also the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial wellbeing. Therefore, finance literacy should supposedly affect students' financial behaviour.

KMKN students' level of financial behaviour (overall mean 3.07 – more than 0.5) is higher than their level of financial literacy (average 48% – less than half). Again, it seems that family plays an important role in managing their children's finances. Although the students have less

knowledge on finances, they could manage their personal finances with help from their educated and high income families.

#### **5.2.4 Reflection on Islamic Finance Awareness and Financial Behaviour**

Another finding from this study shows that KMKN students are aware and have the knowledge about Islamic finance but they have limited ability to explain about it. This indicated that the level of awareness on Islamic finance products is acceptably high while the level of understanding about Islamic finance products is still considered as minimal. The finding also indicates that Islamic finance awareness has a strong positive influence on the students' financial behaviour portrays that students with Islamic finance awareness would perform in their personal financial management.

### **5.3 Conclusion of The Study**

This study look at the influence of financial literacy and Islamic finance awareness on KMKN students' financial behaviour. Financial literacy among the students is relatively low because less than half of them are able to answer questions related to interest and inflation rates and mutual fund shares correctly. While the students level of awareness on Islamic finance considered high with 73% of KMKN students have heard about Islamic finance in Malaysia that offers services. They have ability in understanding the Islamic finance terms, such as Riba/Gharar, Shariah Compliant and Takaful.

However, from the findings, it is surprising to find out that majority of the students have their own financial planning on budgeting, price comparison, emergency saving funds and long-term objectives. Their financial behaviour is a

result of their parents' level of education; students mainly are living apart from their families and so, they have to learn to manage their finances from time to time. This situation encourages them to save and do a basic budget plan. Since living away from their parents, they learn about financial management indirectly through their interaction with their parents. It can be concluded that the students' demographic background, especially their parents' level of education, has a significant relationship and simultaneously influences their financial behaviour compared to financial literacy and Islamic financial awareness.

#### **5.4 Recommendation of the Study**

The findings of this study indicate that financial literacy and Islamic finance awareness among KMKN students are low because they are less aware and have limited understanding of financial knowledge. In order for them to increase their financial knowledge or literacy, it is recommended that the students attend additional courses on financial management for them to develop their skills and learn how to practically manage their money. The information and skills that they gain can help them to improve themselves in every aspect of financial management. The students can read some books related to financial management to manage their current finances or meet with the experts in the financial field to seek advice on basic financial management. According to Yunus (2008), responsible parties should offer courses and organise seminars and workshops, whereby the students can take part and be exposed to the information related to finance.

The students can improve their awareness and understanding on Islamic finance when the Islamic retail banks conduct regular seminars and conferences, especially on Islamic products and ensure the right type of information is passed on.



The seminars or conferences can educate the students to adapt to the new ways of doing banking transactions, and help them understand that Islamic finance involves the sharing of both profits and losses. These Islamic retail banks also can develop an effective communication plan that goes beyond just marketing and advertisement to ensure not only KMKN students but the public as well on how Islamic banking products operate. With these recommendations, it is hoped that the future and existing KMKN students can increase their financial literacy and at the same time, build awareness on Islamic financial terms.

## **5.5 Limitation of the Study**

There are several limitations to this study that may provide opportunities for future research. The first limitation is the cross-sectional nature of this study which prevents the possibility of drawing conclusions about causal relationships between the variables studied. Second, the study is restricted to science and business students in KMKN only without involving other MARA educational centres. All data analysis processes and findings are based on a survey conducted on this group limited to students who are foundation students. Hence, results may not be generalisable to other students in the country.

The third inevitable limitation is related to the measure of financial behaviour, financial literacy and Islamic finance awareness. Although respondents were informed that all answers will be kept confidential, the items are personal in nature and may have affected the responses as the issue of financial behaviour is not usually solicited and discussed openly. Since only self-report measures are used, the variance with the method and response consistency effects may bias the relationship observed.

## References

- Ahmad, N., Haron, S. (2002). "Perceptions of Malaysian Corporate Customers An Analysis of Gender-Based Choice Decisions". *European Journal of Economics, Finance and Administrative Sciences*. (16), 18-29.
- Ajzen, I. (2008). The theory of planned behaviour: Frequently asked questions. Retrieved from University of Massachusetts, Icek Ajzen Faculty Website: <http://www.people.umass.edu/aizen/faq.html>
- Amy D. K. (2001). Evaluating the health significance of hazardous air pollutants using monitoring data. *Public Health Reports*. 116(1): 32-44
- Bank Negara Malaysia (2016). Kestabilan Kewangan. [http://www.bnm.gov.my/index.php?ch=fs\\_ovr&pg=fs\\_ovr\\_what&lang=bm](http://www.bnm.gov.my/index.php?ch=fs_ovr&pg=fs_ovr_what&lang=bm) as at 28 April 2016
- Beal, D.J. & Delpachitra, S.B. (2003). Financial literacy among Australian university students, *Economic Papers*, 22, 65-78.
- Bernama. (2015, October 23), Masalah kewangan faktor utama penceraian . *Sinar Online*, Retrieved from <http://www.sinarharian.com.my/nasional/masalah-kewangan-faktor-utama-penceraian-1.443488>.

Bernama. (2016, Mac 24), Hampir 663,000 peminjam PTPTN gagal buat bayaran balik. *Utusan Malaysia*, Retrieved from <http://www.utusan.com.my/berita/parlimen/hampir-663-000-peminjam-8232-ptptn-gagal-buat-bayaran-balik-1.203957>.

Bernama. (2014, Mac 14), Celik kewangan bantu tangani kos hidup, *Utusan Malaysia*, Retrieved from [http://ww1.utusan.com.my/utusan/Ekonomi/20140314/ek\\_05/Celik-kewangan-bantu-tangani-kos-hidup](http://ww1.utusan.com.my/utusan/Ekonomi/20140314/ek_05/Celik-kewangan-bantu-tangani-kos-hidup).

Bhattacharjee, A. (2012). Social science research: principles, methods, and practices.

Bourdieu, P. (1984) *Distinctions*, Cambridge, MA, Harvard University Press

Bujang, N.A., (2007). Pengurusan kewangan mahasiswa: Tinjauan terhadap pelajar tahun 1 dan 2, Sarjana Muda Sains serta Pendidikan (Pengajian Islam), Fakulti Pendidikan, UTM. Universiti Teknologi Malaysia, Johor.

Calvet, L., Campbell, J., & Sodini, P. (2005). Down or out: Assessing the welfare costs of household investment mistakes. *Harvard Institute of Economic Research Discussion Research Paper No. 2107*.

Chatterjee, S., Hadi, A.S. (2012). *Regression Analysis by Example (5 th Edition)*. John Wiley & Sons, Hoboken, NJ.

- Chen, H., & Volpe, R. P. (1998). An analysis of personal financial literacy among college students. *Financial Services Review*, 7(2), 107-128.
- Chen, H., & Volpe R.P. (2002). Gender differences in personal financial literacy among college students. *Financial Services Review*, 11, 289-307.
- Chiteji, N., Stafford, F. (1999). " Portfolio Choices of Parents and Their Children as Young Adults: Asset Accumulation by African-American Families," *American Economic Review*.
- Creswell, J. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. SAGE Publications, Incorporated.
- Danes, S.M., Huddleston, C.C., & Boyce, L. (1999). Financial planning curriculum for teens: Impact evaluation. *Financial Counseling and Planning*, 10(1), 25-37.
- Davis, G. "Financial Problems facing College and University Museums," *Curator* 19, 1 (1976): 116-122.
- Demircuc-Kunt, A., Klapper, L., & Randall, D. (2014). Islamic finance and financial inclusion: measuring use of and demand for formal financial services among Muslim adults. *Review of Middle East Economics and Finance*, 10(2), 177-218.

- Dew, J.P., & Xiao, J. J. (2011). The financial management behaviour scale: development and validation. *Journal of financial counselling and planning*, 22(1), 19-35.
- Dillman, D. A. (2000). *Mail and internet surveys: The tailored design method* (Vol.2). New York: Wiley.
- Doraisamy, B., Shanmugam, A., and Raman, R. (2011). "A Study on Consumers" Preferences of Islamic banking Products and Services in Sungai Petani". *Academic Research International*, 1(3).
- Dowling, N. A., Tim, C., 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*, Vol. 20, No. 2.
- Eysenbach, G. (2004). Improving the quality of Web surveys: the Checklist for Reporting Results of Internet E-Surveys (CHERRIES). *Journal of medical Internet research*, 6(3), e34.
- Fadzil, F.H., Haron, H. and Jantan, M. (2005). Internal auditing practices and internal control system. *Managerial Auditing Journal*, 20(8), 844-866.
- Fung, L. (2012). Financial management. The London School of Economics and Political Science.

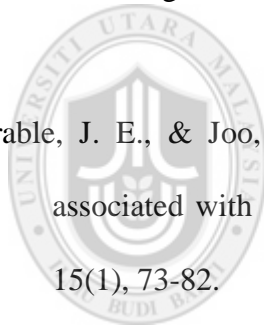
Garman, E.T., & Fogue, R. (2000). *Personal finances* (6th ed.) Boston: Houghton Mifflin.

Gay, L.R., & Diehl, P.L. (1996). *Research Methods for Business and Management*. Singapore: International Edition. Simon & Schuster (Asia) Pte. Ltd

Gerrard, P. and Cunningham, J. B. (1997). "Islamic Banking: a Study in Singapore", *International Journal of Bank Marketing*, 15/6 [1997]

Goldsmith, E., & Goldsmith, R. E. (1997). Gender differences in perceived and real knowledge of financial investments. *Psychological Report*, 80, 236-238.

Grable, J. E., & Joo, S. H. (2004). Environmental and biopsychosocial factors associated with financial risk tolerance. *Financial Counseling and Planning*, 15(1), 73-82.



UUM  
Universiti Utara Malaysia

Greenspan, A. (2001). Remarks by Chairman Alan Greenspan: The importance of financial education and literacy, *e-Perspectives*, Volume 1, Issue 2, 2001

Gudmunson, C. G., & Danes, S. M. (2011). Family financial socialization: Theory and critical review. *Journal of Family and Economic Issues*, 32(4), 644-667. doi:10.1007/s10834-011-9275-y.

Hamid, M. A., Yaakub, N. I., Mujani, W. K., Sharizam, M., and Jusoff, K. (2011). "Factors Adopting Islamic Home Financing: A Case Study Among

Consumers of Islamic Banks in Malaysia”. *Middle-East Journal of Scientific Research*, 7 (Special Issue of Diversity of Knowledge on Middle-East), 47-58.

Haron, S., Ahmad, N., Planisek, L. (1994). “Bank patronage factors of Muslim and non-Muslim customers”. *International Journal of Bank Marketing*, 12 (1), 32-40.

Harris/Scholastic Research, (1993). Liberty financial young investor survey. New York, NY.

Hayes, D. (2012). Higher education and financial literacy – a new paradigm.

Retrieved from [www.diverseeducation.com](http://www.diverseeducation.com).

Healy, M., & Perry, C. (2000). Comprehensive criteria to judge validity and reliability of qualitative research within the realism paradigm. *Qualitative market research: An international journal*, 3(3), 118-126.

Hilgert, M.A., Hogarth, J.M., & Beverly, S.G. (2003). Household financial management: The connection between knowledge and behavior. *Federal Reserve Bulletin*, 309-322.

Hira T.K., (1997), Financial attitudes, beliefs and behaviors: Differences by age. *Journal of Consumer Studies and Home Economics*, 1997; 21: 271-290.

Huang, J., & Kisgen, D. J. (2013). Gender and corporate finance: Are male executives overconfident relative to female executives? *Journal of Financial Economics*, 108(3), 822-839.

Hogarth, J. M. (2002). Financial literacy and family and consumer sciences. *Journal of Family and Consumer Sciences*, 94(1), 14–28.

Hussey, J. and Hussey, R. (1997) Business research: a practical guide for undergraduate and postgraduate students. Basingstoke: Macmillan.

Huston, S.J. (2010). Measuring financial literacy. *The Journal of Consumer Affairs*, 44(2), 296-316.

Ibrahim, D., Harun, R., Mohamed Isa, Z., (2009). A study on financial literacy of Malaysian degree students. *Cross-cultural Communication*, 5(4), 51-59.

James, J, Leavell, W. H., Maniam, B., (2002). Financial planning, managers, and college. *Managerial Finance*, 28(7), 35- 42. Doi: 10.1108/03074350210767960

Khattak, N. A., Rehman, K. (2010). Customer satisfaction and awareness of Islamic banking system in Pakistan. *African Journal of Business Management*, 4(5), 662-671.



- Kim, J. H. (2001). Financial knowledge and subjective and objective financial well-being. *Consumer Interests Annual*, 47, 1-3.
- Krejcie, R.V. & Morgan, D.W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607-610.
- Lawson, M. F (2006). Personal financial planning for medical residents: What is personal financial planning?
- Lee, S. (2013). The Malaysian Insider. Gaya Hidup Rakyat Malaysia Dorong Hutang Tidak Berpenghujung. Retrieved from <http://www.themalaysianinsider.com/bahasa/article/gaya-hidup-rakyatmalaysia-dorong-hutang-tidak-berpenghujung/>
- Lusardi, A. & Mitchell, O. S. (2007). The importance of financial literacy: Evidence and implications for financial education programs. *The Wharton School*.
- Lusardi, A., Mitchell, O. S. (2011). Financial Literacy around the World: An Overview. *Journal of Pension Economics and Finance*, 10(4): 497–508.
- Lusardi, A. (2011). Americans' Financial Capability. NBER Working Paper n.17103.
- Lusardi, A. and Tufano, P. (2009) 'Debt literacy, financial experience and over indebtedness', *National Bureau of Economic Research Working Paper No. 14808*, Cambridge: Mass.

- Mandell, L. (2008). Financial literacy of high school students. In J.J. Xiao (Ed.), *Handbook of consumer finance research* (pp.163-183). New York: Springer.
- Mangleburg, T. F. & Bristol, T., (1998). Socialization and adolescents' scepticism toward advertising. *Journal of Advertising* ,27
- Markovich, C.A., & DeVaney, S.A. (1997). College seniors' personal finance knowledge and practices. *Journal of Family and Consumer Sciences, Fall*, 61-65.
- Mohd-Karim, M. S. (2010). Profit-Sharing Deposit Accounts in Islamic Banking: Analysing the Perceptions and Attitudes of the Malaysian Depositors. Doctoral thesis, Durham University.
- Mokhlis, s. (2009). Determinants of Choice Criteria in Malaysia Retail Banking: An Analysis of Gender Based Choice Decisions. *European Journal of Economics, Finance, and Administrative Sciences* Iss: 16
- Mugenda, A.G. (2008).Social science Research: Theory and Principles. Nairobi, Arts Press.
- Mugenda, O. M., Mugenda. A. G., (2003). Research Methods, Qualitative and Quantitative Approaches.

Murphy, J. L. (2013). Psychosocial factors and financial literacy. *Social Security Bulletin*, 73(1), 73-81.

Murphy, A. J. (2005). Money, Money, Money: An Exploratory Study on the Financial Literacy of Black College Students. *College Student Journal*, 39(3), 478-488.

Muske, G., & Winter, M. (2004). Personal financial management education: An alternative paradigm. *Association for Financial Counseling and Planning Education*, 15(2), 79-88. Vol. 28. IACSIT Press, Singapore.

Nunnally, J. C., & Bernstein, I. H. (1994). The assessment of reliability. *Psychometric theory*, 3(1), 248-292.

OECD (2013), Women and financial education: evidence, policy responses and guidance, OECD Publishing, Paris, <http://www.oecd.org/daf/fin/financial-education/women-and-financial-education-2013.htm>

Official Portal Malaysia Department of Insolvency (2014). Kebankrapan Individu. <http://www.insolvensi.gov.my/ms/about-us/core-business/core-business/personal-bankruptcy>.

Official Portal Malaysia Department of Insolvency (2016) <http://www.insolvensi.gov.my/about-us/resources/statistics/bankruptcy/217-bankruptcy-statistic> Last Modified: Thursday 28 April 2016, 17:46:37.

- Osborne, J. W., Christensen, W. R., & Gunter, J. (2001). Educational psychology from a statistician's perspective: A review of the power and goodness of educational psychology research. In *national meeting of the American Education Research Association (AERA), Seattle, WA*.
- Paramasivan, C. (2008). Financial Management. New Delhi: New Age International (P) Limited Publisher. De Nederlandsche Bank Working Paper.
- Peng, T. M., Bartholomae, S., Fox, J. J., & Cravener, G. (2007). The Impact of Personal Finance Education Delivered in High School and College Courses. *Journal of Family and Economic Issues*, 28(2), 265-284.
- Raj, P.S., Zakaria, S. R., & Mohd Yusof, N. H. (2013), Ringgit: Rakan Kewangan Anda. Pekerja Muda Hadapi Masalah Hutang Serius. Selangor: Consumer Research and Resource Centre (CRRC).
- Remund, D.L. (2010). Financial literacy explicated: The case for a clearer definition in an increasingly complex economy. *The Journal of Consumer Affairs*, 44(2), 276-295.
- Sabri, M.F. & MacDonald, M. (2010). Savings behaviour and financial problems among college students: The role of financial literacy in Malaysia. *Cross-cultural Communication*, 6(3), 103-110.

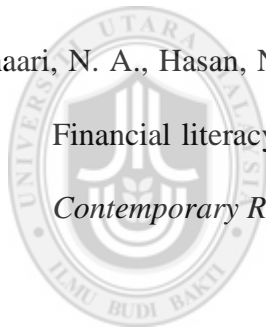
Salkind, N.J.(2012. *Statistic for people who (think they) hate statistics: Excel 2010* edition. Los Angeles, CA: Sage.

Saunders, M. N., Saunders, M., Lewis, P., & Thornhill, A. (2011). *Research methods for business students, 5/e. Pearson Education India.*

Sarantakos S (1998). *Social Research.* London Macmillan Press.

Sekaran, U. and Bougie, R. (2009). *Research Method for Business, a Skill Building Approach.* Wiley, Singapore.

Shaari, N. A., Hasan, N. A., Mohamed, R. K. M. H., & Sabri, M. A. J. M. (2013). *Financial literacy: a study among the university, Interdisciplinary Journal of Contemporary Research in Business, 5(2), 279-299*



UUM  
Universiti Utara Malaysia

Tabachnick, B. G., & Fidell, L. S. (1996). *Using multivariate statistics (3rd ed.)*. New York: HarperCollins.

Usera, J. J. (2002). *Personal financial literacy: A national needs assessment. Institute for Educational Leadership and Evaluation, 1-36.*

Volpe, R.P., Chen, H., & Pavlicko, J.J. (1996). *Personal investment literacy among college students: A survey. Financial Practice and Education, Fall/Winter, 86-94.*

Xiao, J. J. (2009). Applying behavior theories to financial behavior. In J. J. Xiao (Ed.), *Handbook of consumer finance research* (pp. 69–81). New York, NY: Springer.

Yuen, M. (2014, April 9) Bankruptcy cases on the rise in Malaysia. *The Star*.  
<http://www.thestar.com.my/news/nation/2014/04/09/bankruptcy-on-the-rise-in-malaysia/>

Yunus, M., (2008), Social business entrepreneurs are the solution. In A Nicholls, ed. *Social entrepreneurship. New models of sustainable social change*. Oxford: Oxford University Press, pp 39-44.

Zainal, N.R., Ismail.N. (2012). Debt Composition of University Graduates and Their Attitude towards Education Loan. *Journal of Asian Behavioural Studies*, Volume 2, Number 6.

Zakaria, R.H. (2012). Burgeoning Household Debt: an Islamic Economic Perspective. *Middle- East Journal of Scientific Research*. 12 (9): 1182-1189.

Zakaria, S. R., & Kannan, S. (2014), Ringgit: Perangkap Hutang. Selangor: Pusat Penyelidikan & Sumber Pengguna (CRRC).