

PERSONAL FINANCIAL LITERACY AMONG  
TERTIARY LEVEL STUDENTS

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## DECLARATION

We hereby declare that:

- (1) This undergraduate research project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.
- (2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.
- (3) Equal contribution has been made by each group member in completing the research project.
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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
FBF	Faculty of Business and Finance
GPA	Grade Point Average
SPSS	Statistical Package for Social Science
PTPTN	Perbadanan Tabung Pendidikan Tinggi Nasional
UTAR	University Tunku Abdul Rahman

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## PREFACE

Nowadays, still have a lot of tertiary student don't know how to manage their personal finance in reality life. Especially for those receive student loan from government are unable methodically allocation of the funds go to daily expenses and efficiency to deal with financial matter. However, there are students who tell you that the ways they are adopt for using funds are based on their personal traits such as personal believe in feeling or follow to their nearest people make the financial decision.

Being one of the universities in the Malaysia, we found that students are easily affected by the various kind of factor surrounding them. It causes them hardly to do the decision or making the wrong judgment. Hence, this motivates our group to conduct the study on the personal financial literacy affected by other relevant factors in order to create an efficient guideline to control and monitor their financial behavior.

For the following investigation in this research paper, we apply various statistical methods to analyze and comprehend the significance and relationships of the factors that affect the personal financial literacy of students in Malaysia. The data deployed within this study is primary data collected from conducting a questionnaire survey in the UTAR Perak campus.

## ABSTRACT

The purpose of this study is to identify the factors that affect personal financial literacy among the tertiary level. There are many independent variables by past researchers for this variable such as monthly savings, money management, and monthly expenditure. Thus, our research is to study the relationship and significance of the independent variables with the dependent variable. The independent variables of this research are the sources of finance, monthly expenditure, monthly savings, and the general financial knowledge. This study also tests the relationship between the independent variables and dependent variable based on the moderating variables. The two moderating variables are the gender and subject taken.

The questionnaire survey was being conducted for this study in order to obtain primary data from the respondents which are UTAR FBF students. These respondents help the researchers to do the analysis on the personal financial literacy level. There were a total 257 questionnaires being conducted for this research. This survey is done by using the SPSS software.

The results from SPSS have shown that except the source of finance, other variables: monthly expenditure, monthly savings and general financial knowledge are significant to the personal financial literacy. There is no significant relationship between the independent variables and dependent variable based on gender. However, there is a significant relationship between monthly savings and personal financial literacy based on subject taken. After that, the researchers used Dunnett's Pos Hoc Test and Duncan Post Hoc Test to find out the significant difference. The group haven't taken and not offer for the subject is significant different with the group which are taking.



## **CHAPTER 1: RESEARCH OVEVIEW**

### **1.0 Introduction**

The lack of finance capability is a key challenge for society, to those which fail to make adequate decision for personal finance and this may lead to bankruptcy or financial problem. For this reason, it is vital that good personal finance education is provided in schools. Most of the student require to study and engage in the personal finance management. It teaches skills in business, management team work and other key qualities invaluable to the future in the workplace and the life. And it is a good example of how skills acquired early in life can be a sound investment for the future. That way we can help to ensure young people have a solid grounding in financial matters at any early stage before they begin to take some financial responsibilities.

It is because in the future, people must plan for long term investment for their retirement and children education. They must also decide on short-term monthly savings and borrowing for a vacation, a down payment for a house, a car loan, and other big-ticket item. Additionally, they must manage their own medical and life insurance needs (Chen and Volpe, 1998).

In the past, many people may face the financial problem when dealing with the day-to-day financial activities that require them to manage their personal economic resources. The term of financial problem defined as an unbalance between financial resources and demands (Kerkmann, Lee, Lown & Allgood, 2000). To make improvement to this situation, individuals should learn to understand and control several variables in the life which is source of finance, expenditures and saving. On the other hand, we can further restructure the management such as making investment, setting goal and target, recording any transaction daily.

The important of personal finance management have been proved by evidence from many researchers in the past. Previous researchers stated that students expose to financial concept in their early stage of school will have positive effect in their money management skill (Danes, Huddleston Casas, & Boyce, 1999). Besides, the evaluator found that increase general financial knowledge through financial planning program can improve their financial behavior and having a better financial insight (Danes, Huddleston Casas, & Boyce, 1999). The sound personal finance education enables people to make correct decision (HSR, 1993; Hira, 1993; O'Neill, 1993).

## **1.1 Research Background**

Nowadays, there have many researches and studies discussed on personal financial literacy among tertiary students. In general, as we know that, the personal financial literacy is an important role for all stage of the life including the youth, adults, middle aged and even the retirement people.

It will have the different financial literacy knowledge hold by the different level of stage in the life. The example showed that it needs to have different knowledge to the different stage such as kids must be setting a saving account to train their financial literacy, the college students need to have the knowledge to budget their money to cover all the expenditures as they live by their own. Besides that, the college or university students also need to have knowledge about how to use their credit card properly, how to review, obtain and repay to loan and so on. The financial literacy are very important knowledge for the retirement planning such as it have the knowledge it is important to save for the retirement and retirement wealth accumulation (Behrman, Mitchell, Soo, & Bravo, 2010).

It is important to have the financial literacy knowledge by a person. The kids should have a better financial education since the personal financial literacy is important throughout their whole life. The kids should have a better foundation for the general financial knowledge if they start to learn about the general

financial knowledge in their school. With the better knowledge of the financial literacy, they can handle well for their financial resources throughout their life (McCormick, 2009).

In contrary, other researchers illustrates that some of the personal finance management course students failed to implement the skills that have been taught in school (Morris & Lown, 1991).

The researchers are interested in investigating on this study about the personal financial literacy among tertiary students. The aim of this study is to examine whether the tertiary students have well personal financial literacy or not. This study is to examine the tertiary students' personal financial literacy which influenced by various variables such as source of finance, monthly savings, monthly expenditures, and general financial knowledge based on gender and subject taken for our following section of research paper.

## **1.2 Problem Statement**

This research seeks to determine whether the source of finance, monthly savings, monthly expenditures and general financial knowledge based on gender and subject taken will affect tertiary students' financial literacy.

There are several sources of finance for the tertiary students such as government educational loan (PTPTN), pocket money from parents, salary from the part time job, scholarship and so on. According to the researchers, the amount for the tertiary students to get their allowances from doing the part time job to support their expenditures has been increased (Nonis & Hudson, 2006).

Some of the students' family not able to support their tuition fees which are costly. Thus, PTPTN loan is apply by the students to support their tuition fees. According to the requirement of educational loan, the PTPTN loan will be cut off immediately if the students are not able to achieve their Grade Average Point (GPA) for their semester final exam higher than 2.0. It will lead the tertiary

students to face the financial problem when the PTPTN is being cut off due to their result. Most of the students are rely on the PTPTN loan to support their life expenses and preserve for future emergency needs. When the PTPTN loan is being stopped, the students will start to have the shortage and lack of the source of finance for them. Therefore students will learn to spend their money wisely and develop well financial literacy. However there are some students not only received allowance from their parents, they also received payment from PTPTN loan. The surplus of funds may cause them overspending which will bring negative impact on their financial literacy.

Although people are saving for all the time, but they will confuse what is the level of saving conduced are considered adequate. What is seen as adequate may differ whether we have an individual perspective or a collective perspective. It must be stressed that there is limited information about the rate at which individual are actually saving, making it difficult to establish a solid benchmark against which to measure adequacy. In additional, saving also limited by the income generated. All of these will lead to bad personal finance management which is mismatch the goal and the financial resource.

According to Scobie, Gibson and Le (2004), as have superannuation as the backup of the retirement, people would not reduce their present consumption in order to save further for their retirement. Existing social insurance rule also reduce the need for such saving while current tax rules reduce the return on monthly savings (Feldstein, 1992). These reasons will become the encumbrance of saving.

Besides that, many people have faced the problems of debt in the world today. Most people do not know how much had they spend on food, housing and entertainment every month. They do not keep track of their expenses and they just thinking about today which leads them cannot organize their finances well (KNS Financial, 2011). This situation also leads them to an unhealthy spending behavior with the bad attitudes (Yates & Ward, 2011). According to Salmons (2007) spending plan will make people able to utilize their money to obtain the things which are most important to them. If people able to prepare their monthly

spending plan, they will have a bit concept of where their money gone and which is an essential element of financial control system. Thus, monthly expenditure can be an important variable in financial literacy problem.

General financial knowledge is important for individual to well manage their finance. However, it comes to a question that whether a person has general financial knowledge will have a higher financial literacy. Is general financial knowledge important for each individual to understand better in finance? According to Ansong and Gyensare (2012), there is a different point of view in financial literacy between business and non-business students. The findings pointed out that business students display higher financial literacy level than non-business students. In addition, most of the non-business students especially science students are lack of the general financial knowledge and poor in the technique to manage their finance. However it is hard to apply the financial knowledge in the real world's financial transactions and activities.

On the other hand, a lot of people are interested in finding out whether males of females among tertiary students are more knowledgeable in personal finance, well management of their savings and expenditures. In addition, some people may interest to know that whether boys or girls can get more money from their parents. There are some arguments stated that men are knowledgeable in personal finance management compare to women. This statement was proved by Chen and Volpe (1998), women have less knowledge in financial compare to men. Besides, Falahati and Paim (2011) also found that male students are more knowledgeable in financial than female students because male students were socialized earlier in financial matters. However, some people may argue that women are well in personal finance management compare to men. Based on Goldsmith and Goldsmith (1997), males know more knowledge in insurance and personal loans but they are poor in financial management compare to women. Therefore it is difficult to determine whether male or female have higher level of financial literacy.

Herman and Maniam (2007) showed that individual manage their finance on a daily basis, such as pay for rental, allocate money for savings and buy ingredients for lunch. The financial decision made by different individual may provide different consequence in the future for example overspending can reduce an individual purchasing power. It is challenging for an individual who lack of experience with financial planning to manage their money wisely. Therefore taking a subject that related to financial management is important for individuals such as Personal Financial Planning and Management. However, the outcome of taking this subject may not same due to students' learning attitude. Although the student had taken this subject, he may fail to manage his fund wisely as he always absent for the class.

Due to the phenomena as stated in the problem statement, the researchers conduct a study on personal financial literacy among tertiary students.

### **1.3 Research Objectives**

#### **1.3.1 General Objective**

The main objective of our research is to analyze what are the factors that affect the personal financial literacy among tertiary students. Lack of personal financial literacy will influence a person to make financial decisions and directly influence his or her financial position. By understanding the factors of the problem, we will have an explicit direction to solve them.

### **1.3.2 Specific Objectives**

1. To test whether there is a significant relationship between source of finance and personal financial literacy.
2. To investigate whether there is a significant relationship between monthly savings and personal financial literacy.
3. To determine whether there is a significant relationship between monthly expenditures and personal financial literacy.
4. Is there any significant relationship between the general financial knowledge and the personal financial literacy among tertiary students?
5. To identify whether there is a significant difference between the independent variables (source of finance, monthly savings, monthly expenditures and general financial knowledge) and personal financial literacy based on gender.
6. To examine whether there is a significant difference between independent variables (source of finance, monthly savings, monthly expenditures and general financial knowledge) and personal financial literacy based on the subject taken.

## **1.4 Research Questions**

1. Is there any significant relationship between the source of funds and the personal financial literacy?
2. Is there any significant relationship between the monthly savings and the personal financial literacy among tertiary students?

3. Is there any significant relationship between the monthly expenditures and the personal financial literacy among tertiary students?
4. Is there any significant relationship between the general financial knowledge and the personal financial literacy among tertiary students?
5. Is there any significant difference between the independent variables (source of finance, monthly savings, monthly expenditures and general financial knowledge) and personal financial literacy based on gender?
6. Is there any significant difference between the independent variables (source of finance, monthly savings, monthly expenditures and general financial knowledge) and personal financial literacy based on the subject taken?

## **1.5 Hypothesis of the Study**

The conceptual framework was established to state out the dependent and independent variables. The dependent variable in this study is personal financial literacy and the independent variables are source of finance, monthly savings, monthly expenditures and general financial knowledge. The gender and subject taken will be the moderating variable. These factors will influence the personal financial literacy among tertiary students. According to all of these dependent and independent variables, there are 6 hypotheses regarding the study had shown below:

Ho: There is a no significant relationship between source of finance and personal financial literacy.



H<sub>1</sub>: There is a significant relationship between source of finance and personal financial literacy.

H<sub>0</sub>: There is no significant relationship between monthly savings and personal financial literacy.

H<sub>1</sub>: There is a significant relationship between monthly savings and personal financial literacy.

H<sub>0</sub>: There is no significant relationship between monthly expenditures and personal financial literacy.

H<sub>1</sub>: There is a significant relationship between monthly expenditures and personal financial literacy.

H<sub>0</sub>: There is no significant relationship between general financial knowledge and personal financial literacy.

H<sub>1</sub>: There is a significant relationship between general financial knowledge and personal financial literacy.

H<sub>0</sub>: There is no significant difference between the independent variables (source of finance, monthly savings, monthly expenditures and general financial knowledge) and personal financial literacy based on gender.

H<sub>1</sub>: There is a significant difference between the independent variables (source of finance, monthly savings, monthly expenditures and general financial knowledge) and personal financial literacy based on gender.

H<sub>0</sub>: There is significant difference between the independent variables (source of finance, monthly savings, monthly expenditures and general financial knowledge) and personal financial literacy based on subject taken.

H<sub>1</sub>: There is significant difference between the independent variables (source of finance, monthly savings, monthly expenditures and general financial knowledge) and personal financial literacy based on subject taken.

## **1.6 Significance of Study**

The importance and contribution of this study is to understand how the factors affect the level of personal financial literacy of a tertiary student. The purpose of this study is to let the top management of higher education institutions found out the significance of the students' level of financial literacy. Based on our research, higher education institution able to find out which factor will contribute to the students' financial literacy the most. Thus, this research can provide the management of the higher education institutions some ways to improve the financial literacy of the students.

Based on the research, students may find out the importance of the financial management. Students can understand which factors they should concern and try to improve in the future. Besides, the result of the research can be used as a guideline for the students how to increase their level of personal financial literacy. By possessing high level of financial literacy, students able to manage their finance well.

## **1.7 Chapter Layout**

There are 5 chapters being consisted in this research. The 5 chapters are: research overview, literature review, methodology, data analysis, as well as the discussion, conclusion and implication. At first, an overview of the research background will be introduced by the researchers. The following part will be the problem statement. After that, the research objective, the research questions, the hypotheses and also the significance of the study have been mentioned by the researchers.

The literature review of the research which is the chapter 2 had been executed by the researchers. The dependent, independent and moderating variables are defined clearly in the chapter 2 of this research. It is a review of secondary information about the theories which are related to this research. Moreover, this chapter also included the conceptual framework that according to investigation and hypotheses testing that to test the effectiveness of theory that being formulated.

Chapter 3 which is the research methodology, the researchers states how the research is being conducted in terms of research design, data collection methods (primary data or secondary data), sampling design (consists of target population, sampling frame and sampling location, sampling elements, sampling technique and sampling size), research instruments (include questionnaire survey and pilot testing), constructs measurement (scale and operational definitions), data processing and data analysis.

The data analysed and the research result is being shown in the chapter 4. The researchers use the Statistical Package for Social Science version 16.0 (SPSS) to illustrate the charts and tables of this research.

Chapter 5 which is the last chapter consists of discussion, conclusion and implication. The findings of this research will be summarized in this chapter. The major findings of this research are also will be discussed by the researchers in the discussion part. The implication of this research will be stated after the discussion part. Furthermore, the limitation in this research will listed by the researchers and the recommendation will be given for the future research.

## **1.8 Conclusion**

As a conclusion, financial literacy is very significant for an individual as it will direct affect a person's financial decisions. Therefore individuals should develop positive characteristics and habits to improve their financial literacy such as attend talks about how to manage their finance, set monthly budget expenses and record

daily expenses. According to this research, the researchers have identified two theoretical frameworks which include source of finance, monthly savings, monthly expenditures and general financial knowledge have impact on personal financial literacy. Besides, the frameworks also include whether there are significant difference between independent variables (source of finance, monthly savings, monthly expenditures and general financial knowledge) and personal financial literacy based on gender and the subject taken. In chapter 2, the literature review will provide more theories to support these factors.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.0 Introduction**

In this chapter, the independent variables which include source of finance, monthly savings, monthly expenditures and general financial knowledge and the dependent variable which is personal financial literacy. Besides the dependent variable and independent variables, it also will discuss about the moderating variables such as gender and subject taken. There have several steps need to be discussed in this chapter. First, it is the literature review for the researchers about the relevant definition, discussions, methodologies and findings regarding the dependent variable, independent variables and moderating variables. Next, it starts to review the theoretical models for the several researchers. Then, it needs to determine which variables are more important to the research and start to develop for the proposed theoretical or conceptual framework. Forth, it continues with the hypothesis development. In this step, it is to test the theory formulated whether is valid or not. Lastly, the conclusion is carrying out for this chapter.

### **2.1 Review of the Literature**

#### **2.1.1 Personal Financial Literacy**

An ability to manage a person's money is important to being successful in life. One of the main factors to being financial well is financial literacy. Personal financial literacy generally defined as a person's ability to understand, analyze and manage personal finance matters (Bryce & Jyoti, 2010). Specifically, personal financial literacy is an individual's capability to make appropriate judgments and effective decisions in everyday life (Chinen & Endo, 2012). A person who possess general financial

knowledge able to solve financial problems such as have enough money for retirement and able to pay a huge amount for medical fees.

Recently, financial literacy becomes more important in our life as low level of financial literacy may cause an individual fail to make financial decisions (Nyamute & Maina, 2010). Cude et al. (2006) showed that student's expenditure practices such as paying rental fees and buying daily necessities provide a significant impact on his personal financial literacy.

Tertiary students are primary focus on their study. A research team from Malaysia estimated that a tuition fees for 3 years degree program at private colleges or universities are cost around RM40000. Thus, monthly savings are important as it can facilitate long term financial planning Although monthly savings are important, there are some studies shows that consumers do not save enough (Ulkumen & Cheema, 2011).

Besides, the researchers have found gender will affect an individual in financial managing (Falahati et. al., 2011). Prior studies showed that one of the reasons caused the Americans managed their finance poorly is women have less knowledge on financial management than man (Ansong & Gyensare, 2012; Bryce & Jyoti, 2010). Chen and Volpe (2002) found that there is slightly difference between the levels of financial literacy on gender as women are less knowledgeable.

In recent studies, either young or older adults are lack of basic knowledge required to make wise financial decisions (Mandell & Klein, 2009). Dan and Chris (2011) found that the rate of bankruptcies and loan default is high in America. Therefore many states in America require students to take subject that related to financial management.

There is a past study shows that source of finance such as PTPTN loan, allowances received from parents and income get from part time job will affect individual financial literacy ( Alcon, 1999). Ansong and Gyensare

(2012) found that university students who doing part time job have higher financial literacy compare with non-working students.

Individuals with higher level of general financial knowledge will make good financial decisions (Chen & Volpe, 1998). Ibrahim, Harun and Mohamed Isa (2009) stated that the levels of financial literacy in Malaysia are low compare with other countries. Despite there are many book stores and institution have provided information on financial management, people who read or seek for professional financial advice are basically people who are familiar with money management.

Although previous studies have clearly identified a number of variables related to personal financial literacy, the current study combines these factors (such as source of finance, monthly savings, monthly expenditures, general financial knowledge, gender and subject taken) and targeted on tertiary students to improve students understanding of the issue.

### **2.1.2 Source of finance**

Source of finance for the students is mean by how the money or the allowance can the students get from. For the economics nowadays, the expenses and the tuition fee for the tertiary students are high and it is important to know where the allowances for the students come from to determine the ability of the student's personal financial literacy. According to the research by Falahati et al. (2011), the tertiary students are requiring having the strong personal financial literacy to their money because most of the allowances for the majority of the students are come from the government loan. This government loans is named as National Higher Education Fund Corporation loan (PTPTN).

Besides than educational loan, there have various type of source of finance for the students to get the allowances such as pocket money from the parents, scholarship, salaries from doing the part time job and so on.

The educational loan is enough to cover the tuition fees and some of the simple living cost for the tertiary students. Hence, the tertiary students need to have sufficient knowledge to the personal financial literacy to distribute their allowances and make us of it effectively. In contrary, if the students do not have the enough knowledge to the management to their allowances will lead them to financial problems. With this, it will make them often to meet the problem that lack of money at the end of the time. There are some of the subjects being taught in the university to provide the knowledge to manage the personal finance such as Personal Finance Planning and Management. According to such subjects, the tertiary students should have ability to control the expenditures such as tuition fees, daily expenses, saving for emergency use, future needs and others in order to make sure the educational loan is enough for them to support their expenditures between the specific periods of getting the PTPTN.

In addition, the research by Falahati et al. (2011) was distributed the questionnaires to 11 universities which including the both public and private universities located in Malaysia. After collected all the questionnaires from the universities, the researchers used t-test and ANOVA analysis to test whether the students have used the loans effectively. The result showed the majority of the students only have moderate knowledge to personal financial management. Besides that, there is only only minority of them have the strong personal financial literacy.

The result in the research by Ibrahim, Harun and Isa (2009) was same with the result done by Falahati et al. (2011). Ibrahim et al. (2009) showed the students are lack of the financial management knowledge. The researcher also mentioned that the students do not know how to manage the allowance accurately and just simply use the money once the allowances is getting by them. They do not have any plan before using their money. Thus, the students were just simply use the money for both necessary and unnecessary expenditures.



Then, it followed by the research by Ansong and Gyensare (2012), there is some relationship between the working experience and the personal financial literacy. The researchers found that if the source of finance for the students is salaries from part time job to support their expenditures, they will have a better knowledge about how to manage their money spending. In this research, it also distributed the questionnaires to university students and using the SPSS to run the correlation and ANOVA for the collected data.

The result from the research by Ansong and Gyensare showed the better financial management because they will need to raise the funds if their salaries of part time job are not able to cover all the expenditures. With this, the students with the part time job will plan to use their salaries accordingly to cover all the expenses. Hence, the students without rely on the education loans will have better experiences to manage their allowances to make sure the money are always using in the correct way and useful things.

Lastly, even though the education loans, pocket money given by parents and the salaries from part time job are known as the source of finance, but it has the different result for these to measure the personal financial literacy. The tertiary students having the part time job to earn the pocket money to support the tuition fees, catering and the living costs will have better personal financial literacy than others.

### **2.1.3 Monthly Savings**

Saving is being introduced as one of the factors influence the personal financial management because we always make the financial decision based on the saving available we have. In the study of Chieffe and Rakes (1999), student must manage the expenses and save the money for a finance plan at any income level. It is a way to ensure that the available

funds are prepaid for the important goal and unexpected events. Because saving act as cushion against shortage of fund and facilitate the long term financial planning (Modigliani 1985).

Hilgert, Hogarth and Beverly (2003) introduce a “Financial Practice Index” based upon self-benefiting behavior. The index include saving as one of the factors determine the score. The higher general financial knowledge test scores have the higher financial literacy. Indirectly indicate that these people will more encourage to monthly savings behaviour based on their high general financial knowledge. Early work by Mohamad and Maurice (2010) states that through the understanding the financial literacy relation to saving behavior and financial problem, it can design more effective financial education for college students in the future job market. Based on this understanding, delivery more suitable knowledge for every student based upon their likelihood of financial education delivery method (Goetz, Cude, Nielsen, Chatterjee and Mimura 2011).

According to Mandell (1997), report that low saving will indirectly cause the students after graduation without the ability to make critical decision affecting their lives. Early work by Chen and Volpe (1998) also indicate that low financial literacy will lead to informed decision. It shows the relationship between saving and making decision. They fail to make correct decision because they are not received a sound personal finance education (HSR 1993; Hira 1993; O’Neill 1993; Perry 2008; Braunstein & Welch 2002). It supported by the research demonstrate a positive impact for those taking the financial education course (Mandell & Klein, 2009).

Clancy, Weiss and Schreiner (2001) collect the data from the participants who have at least one monthly savings account statement. The result showed that positive relationship between saving and the financial education through the two Heckman two-step regressions. The result also support by several researcher (Mandell and Klein, 2007; Mohamad & Maurice, 2010). Falahati, Sabri and Paim (2012) found the similar result

which is student with high financial literacy will conduct better financial behaviour.

If it is lack of financial education, it will influence the financial planning to goal in real life. Setting a goal is necessary for develop saving behavior due to it enhance our perception to save and give motivation to drive us in right direction toward the goal (Soman & Shi 2003). In particular, the most common goals of people set to are children education, health care and retirement (Soman & Zhao 2011). As we can see the role of saving play in the real life, it is not only for well fund management, but also help to achieve goal in different stage of life.

Even though for retirement as last financial stage of our life we still need saving to drive it well. But lack of general financial knowledge will result poor saving decision for retirement (Olsen & Whitman 2007). Chen and Volpe (1998) conclude that people from different class rank have different level of general financial knowledge through ANOVA method.

#### **2.1.4 Monthly Expenditure**

The tuition cost which are gradually higher and the increasingly complicated financial decisions are confronted by the tertiary level students nowadays. Those students cannot decide the time and the methods to invest in the education areas (Lusardi, 2010). According to the researches which show that they also don't have sufficient financial management knowledge when facing decision-making problems (Chen & Volpe, 1998; Jump\$tart Coalition for Personal Financial Literacy, 2008).

Based on the research of Chinen and Endo (2012), minds of young adults in the world today have evolved to "buy now think later" consumption behavior for the satisfaction or the desire. Warren Buffett, the most successful investor who argued and shared his idea about overspending

habits through Fox Business News (2009), that “if you start with a good financial habit, then it will be an easier life in all kinds of ways”.

According to Mandell (2008), he found that students with credit cards had got a higher score on Spending and Debt regression. Thus, they are knowledgeable in financial knowledge. Besides that, De’ Armond (2010) had shown that the expenditures of college students nowadays are more than their income and caused the low income circumstances. This situation means that the needs of spending of college students cannot meet or might be students with higher income will spend more. This causes an increase in consumption and indirectly leads to debt problems.

Based on Insurance Information Institute (2012), unpredictable expenses and the difficulty of planning income levels upcoming make the students’ financial decisions harder. In addition, the competency of students to rent apartment, the qualification for a loan and as well as the interest rate of borrowing or lending and insurance premium will be influenced by their credit histories. Based on the Project on Student Debt 2010, tertiary level students who left with some fundamental knowledge of investment and less debt and a well planning financial plan for their tomorrow might be more possible achieve their life goals and experience higher level of financial welfare compared to others (U.S. Department of Education, 2010).

According to Falahati et al. (2011), spendthrift attitude have a positive effect and financial behavior have a negative effect on financial problems. If a student spending too much means that they don’t have the financial literacy and how to manage their personal finance. Moreover, an unfit between the demands and financial resources will lead to financial problems (Kerkmann, Lee, Lown, & Allgood, 2000).

Average civic working household in Korea will put a quarter of the forecasting monthly disposable income to settle their debt payments. This

ratio of debt to income increasingly has been proved that will cause personal bankruptcy (Choi, 2005). The character of money attitude and financial experience sure will influence the literacy of Korean youth (Cho, 2010). According to Hayhoe et al. (2005), if a person spend more then it will face more debts. There are more and more students do not want to attend graduate tertiary level because it will make them have student loan debt. Money attitude is a very important component towards the credit and spending of students.

There are also many studies find that the money attitude has a relationship with the compulsive buying behavior. Hong (2005) use a sample of Korean secondary and post-secondary students that indicated that there is a significant relationship between money attitude and obsessive buying. Moreover, Sohn et al. (2012) also discovered that there is significant relationship between money attitude and the spending patterns of college students in Korea.

Based on the regression analysis made by Sohn et al. (2012), Korean high school students performed badly on the test of financial literacy score because it just got an average score 49.8 out of 100.0. As a compared it is less than American high school which with 52.4 score in a similar test in the same year (National Jumpstart Coalition, 2004).  $R^2$  statistics in this research also found that spending and credit get a higher score on financial literacy score analysis compared to other components. Besides that, attitude of money avoidance and achievement were found negatively related to financial literacy of Korean adolescents.

Lachance and Legault (2007) found that college students who sensed consumption as a method to or be accepted by their peer group were less possible to be the capable customer but those who looking for consumer information from the peers will have the higher possibility to be a capable customer.

Three factors linking up with individuals being more possible to seek financial help by a study which is indentified by Sohn et al. (2012) which are displaying more maladaptive financial behaviors, experiencing more financial stressors and cannot have own house.

### **2.1.5 General Financial Knowledge**

General financial knowledge can be defined as the financial knowledge that a person had. A person can obtain the financial knowledge through their parents, peers, school and media. A person who studied economics or business courses are more likely to be financial knowledgeable (Chen & Volpe, 2002; Lusardi & Mitchell, 2007). In addition, Falahati et al. (2011) also stated that a student who had attend for the finance education program, they have more knowledge in manage their fund. Moreover, Hogarth (2006) mentioned that some professional are agreed that a person who are financial knowledgeable, they are more likely to control their saving behavior.

According to the findings of Chen and Volpe (1998), students with less financial knowledge tends to give the wrong opinions or even make a wrong decision in the area of general knowledge such as savings, borrowings and investments. Furthermore, the researchers also found that students who are poor in knowledge of personal finance, they are unable to make the correct decisions. At the same time, Bianco and Bosco (2001) had done a research in American public and they found that the persons who lack of personal finance education are facing difficulty to manage their fund.

In addition, general financial knowledge has been noted as significant to the personal financial literacy. It is because a person can learn a lot of financial knowledge as they are kept practicing the financial activities (Johnson & Sherraden, 2007). Next, the findings of Mandell and Klein (2009) pointed out that financial education also plays an important role in

determining the knowledge of personal finance topics. For example, the researchers had provided evidence on the long-term behavioral effects of high school financial education by showing that the financial education is significantly increases with the saving rates at the household level.

Other the other side, parents also plays an important role in influential their children financial skills and financial futures through modelling, reinforcement and intention teaching of skills (Lusardi & Mitchell, 2009). The existing literature suggests that most of the children gain the knowledge of money management from their parents than many other sources (Ibrahim, Harun & Isa, 2009). For example, most of the parents like to discuss sound money management practices with their children at a young age or even some of the parents teach their children regarding financial knowledge since they are young.

Same as the research by Ansong and Gyensare (2012), there is a difference between the financial literacy of business and non-business students. The research stated that business students can display higher financial literacy level that the non-business students. It showed that the business students who initially have the financial knowledge can scores well in their financial literacy. However, Wagland and Taylor (2009) stated that business students does not necessary score better than non-business students. Some of the science course students are performing much better than both business students and the students whose study in the areas of compound interest knowledge. The findings showed that business students have more knowledge about financial but there only 34.5 percent of business students get correct in financial test.

### **2.1.6 Personal Financial Literacy based on Gender**

Demographic are current statistical characteristic of a population. There are a lot of researcher found that different gender will give the different point of view in monthly saving, monthly expenditures and financial

knowledge. According to Chen and Volpe (2002), women have lesser financial knowledge than men as men are prefer in Mathematics subjects while women are prefer in language and theoretical arts subjects such as History. It shows that the subject of Personal Financial Planning and Management are not attractive to women as women have less interest in financial compared to men. Furthermore, women are found to have lesser financial knowledge than men. It is because most of the women gained the financial knowledge from their parents while men are learn from college or their workplace. It seems to suggest that parents are poor in financial knowledge or their informal way of teaching and the learning process between parents and children are ineffective. At the same time, the findings of Wagland and Taylor (2009) also indicate that males can perform well in both financial and macroeconomic questions than female.

Similarly, Goldsmith and Goldsmith (1997) stated that women score worse in financial related question than men as women have less interest in the topics of investment and personal finances, some more, they are seldom use of financial services. Besides, Falahati et al. (2011) also stated that male students are more knowledgeable in financial and they have well management in savings and expenditures than female students because male students were socialized earlier in financial matters such as involve in the investment, savings, expenditures and others. In addition, Newcomb and Rabow (1999) indicated that guys are socialized earlier than girls and most of the guys are like to involve in the financial discussion with their family and friends where they like to discuss about the ways to invest their money. Hence, guys are able to gain more financial knowledge than girls.

Based on the findings of Chen and Volpe (2002), boys had grown up with the expectation of being the householder while girls had grown up with the expectation of being the caregiver. Besides, boys have the responsibility to take care of their family and also manage the fund of their family. For example, they had planned to invest part of the total salary and limited the money expenditures for every month. Therefore, men are more likely to



understand better financial concepts than women (Ansong & Gyensare, 2012). According to the findings of Falahati and Paim (2011), males and female have different view in financial issues such as knowledge, attitude and overall behavior is due to different financial socialization during childhood. Therefore, the researcher had carry out the research to find out whether male or female are better in general financial knowledge, monthly expenditures and savings.

### **2.1.7 Personal Financial Literacy based on Subject Taken**

There is some subjects offer in the University for the business students which are about the financial management such as Personal Financial Planning and Management and so on. The researchers mentioned that the students with taken the subject that teach about the financial management will be more financial literate than those who did not attend such subject (Mandell & Klein, 2009). In addition, some of the researchers did the difference among the students with the financial education and the students who do not touch with such subject in their personal financial literacy (Meier & Sprenger, 2012). The researcher finds that the students hold with more financial information, knowledge or taken the financial subject will maintain the better personal financial literacy than the other

## **2.2 Review of Relevant Theoretical Model**

Falahati et al. (2011) framework is built on the premise that tertiary students from Malaysian public and private university with different attitudes, future needs, social interaction and career planning. Personal financial literacy is based upon different factors such as management, sources of funds, expenses, monthly savings, skills adopted and demographic factors. However the framework in Falatahi et al. (2011), the researchers only concern on five dimensions which are

sources of finance, monthly expenditures, general financial knowledge, gender and the subject taken.

Besides Sohn et al. (2012) determines the factors which are income, money management, savings and investment, and spending and credit related to financial literacy. The researchers just focus on one dimension which is savings.

### **2.2.1 Sources of Finance**

The first dimension to determine the personal financial literacy was source of finance. There have a lot of studies had shown that the students need to have the strong financial literacy to make use of their money effective way. The sources of finance for the tertiary students can be obtained from various ways such as PTPTN, scholarship, pocket money from parents and salaries from part time job. The source of finance mentioned by the past researchers such as Falahati et al. (2011) mentioned that it has the negative correlation between the source of finance and the personal financial literacy for the tertiary students. The researchers mentioned that the sources of finance provide the chances for the students to purchase more of the goods and it will leads for the higher financial problems.

In the research by Falahati et al. (2011), there has several ways to explain the personal financial literacy for tertiary students. This research was focused on the main source of finance to the students which is PTPTN. The researchers have carried out the survey to measure the financial management of the students to their education loans.

In addition, Ibrahim et al. (2009) mentioned that the sources of finance for the tertiary students are money given by parents, PTPTN, credit card and so on. UiTM Kedah campus students are the target population for this research to examine their financial literacy.

Lastly, the researchers Ansong and Gyensare (2012) also showed that the source of finance for the students may also come from the salaries of doing the part time job. In this research, the researchers illustrated that the working students will have better knowledge to the personal financial literacy.

### **2.2.2 Monthly Expenditure**

The second dimension is – monthly expenditure- represents the students every month will spend how much of money in term of Ringgit Malaysia. Besides that, the research of Falahati et al. (2011) stated that if a student spend too much means that they don't have the financial literacy and how to manage their personal finance. It had showed that there is negative correlation between monthly expenditure and financial literacy.

According to Leskinen and Raijas (2005), personal attitudes in spending will affect one's capability in managing finance and which is according to their financial education knowledge and understanding. Besides that, the competence to administer financial resources can make a people have personal financial satisfaction. However there is a shortage of financial skills and able among most of the students nowadays and which causes them easily confront financial problems (Masud et al., 2004).

Sabri and MacDonald (2010) indicated most of the college students do not know where the money they had spent and they always lent out their money to friends. They do also not have any ideas about the reasons they bought the unneeded things. There is a strong relationship between financial education knowledge and financial behaviour. It also is a factor for financial problems.

In addition, there are many ways that students can get their financial resources which included the loans and debts. The more financial resources they have is giving them have more chance to spend their money.

They will spend the money no matter is the use of basic needs or for the luxury entertainments.

Due to the growth of students in purchasing goods and services for social display value, there is a signal that students are suffering with financial problems significantly (Fan & Burton, 2002; Roberts & Jones, 2001)

### **2.2.3 General Financial Knowledge**

The third dimension – is the general financial knowledge. Financial education is the ability of an individual to understand the finance. According to Falahati et al. (2011), there is a positive relationship between general finance knowledge and financial literacy. As the students who had attend for the finance education programme, they are able to change their attitude towards their finance management compare to the students who did not attend. It is same as the research of Hogarth (2006), there is a positive relationship between general finance knowledge and the saving. Besides, some experts are agree that a person who have the general financial knowledge are able to have a better saving behavior.

Similarly, the research of Bianco and Bosco (2001) stated that there is a positive relationship between financial education and financial literacy. At the same time, the research mentioned that the public who lack of personal financial education in America had faced some difficulties in the management of their fund. On the other hand, Chen and Volpe (2002) noted that the person who takes subjects that related to finance will more likely to have a well management of their finance and the person who studied business and economics related subjects are more likely to be financially knowledgeable.

According to Johnson and Sherraden (2007), general financial knowledge is significant to the personal financial literacy as the person who able to learn financial knowledge by involving in the financial activities. Next,

Mandell & Klein (2009) noted that financial education also plays an important role in determining the knowledge of personal finance topics.

Based on the findings of Lusardi and Mitchell (2009), parents also play an important role in influencing their children's financial skills and financial futures through modeling, reinforcement and intentional teaching of skills. Besides, the existing literature suggests that most of the children gain the knowledge of money management from their parents than many other sources. (Ibrahim, Harun & Isa, 2009)

Similarly, the research of Ansong and Gyensare (2012) showed that there is a difference in financial literacy of business and non-business students. Moreover, the findings found that business students can display higher literacy level than non-business students.

#### **2.2.4 Personal Financial Literacy based on Gender**

The fourth dimension – is then gender. Gender can be defined as male or female. According to Falahati et al. (2011), male has a positive relationship with financial literacy. Besides, male students are more knowledgeable in financial and have a well management in saving and expenditures than female students. It is because male students were socialized earlier in financial matters such as involved in investment, savings, expenditures and others. Besides, Chen and Volpe (2002) also noted that women have a negative relationship with the personal finance literacy. It is because women have lesser financial knowledge than men as most of the men are preferred in the subjects like Mathematics, Finance, Economics and other calculate subjects while women are preferred in language and theoretical subjects such as History. Similarly, Goldsmith and Goldsmith (1997) also pointed out there is a negative relationship between women and financial literacy. Therefore, women score worse in

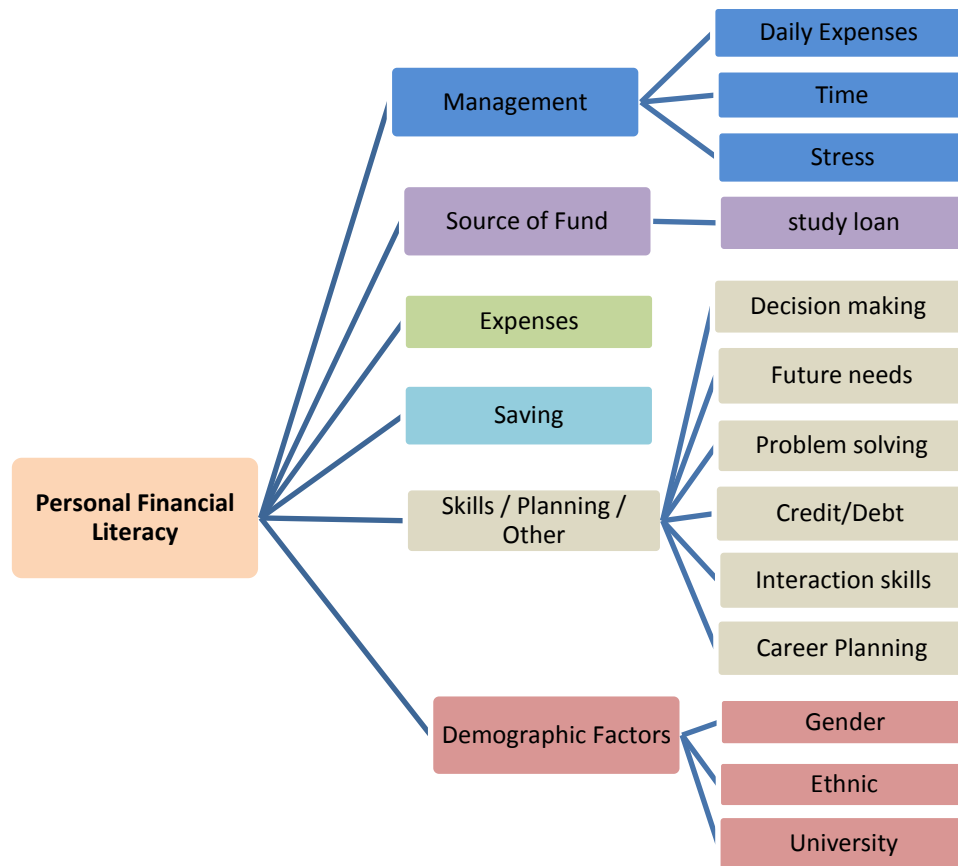
financial related question as women have less interest in the topics of investment and personal finances.

Besides, the findings of Wagland and Taylor (2009) indicated that males have a positive relationship with financial literacy where males can perform well in both financial and macroeconomic questions than female. In addition, Newcomb and Rabow (1999) stated that there is a positive relationship between male and personal financial literacy where guys are socialized earlier than girls. It same as the research of Hogarth (2006) where male has positive relationship with financial literacy because men can manage their fund better than female as boys are grown up with the expectation of being the householder while girls had grown up with the expectation of being the caregiver.

### **2.2.5 Personal Financial Literacy based on Subject Taken**

The fifth dimension which the subject is taken with the subject named as Personal Financial Planning and Management. The research by Falahati et al. (2011) has showed that the financial education is important to maintain the good personal financial literacy. The researchers mentioned that the financial subject is a necessary for the students to have the better financial management skill in order to control all the savings, expenditures, decision making and so on.

Figure 2.1: Factors Affect the Personal Financial Literacy



Source: Falahati et al. (2011), Assessment of university students’ financial management skills and educational needs, African Journal of Business Management Vol. 5(15), pp. 6085-6091.

### 2.2.6 Monthly Savings

Past researchers have discovered that financial education influence the saving behavior; and we implement the saving behavior based on our goals and establish well personal finance management. According to the result of Sohn et al (2012) research, he found that significant relationship between saving behavior and money attitude and also the money attitude is

significant associated with personal financial literacy, it implies that who have positive attitude toward money will actively seek out money management knowledge as a way to enhance they skill sets. And they point out that this knowledge seeking behavior could produce higher level of personal finance literacy.

Several researchers report positive link between financial education provided and participation in retirement plans (Bernheim & Garrett, 1996; Garman, Kim & Kratzer, 1999). It means more financial education will more likely engage in saving behavior and well retirement management proved by Sabri and MacDonald (2010). Furthermore, other researchers Clancy, Grinstein-Weiss and Schreiner (2001) found that high school offer such subject like personal finance class for students will positively influence their general financial knowledge and saving behaviour, and eventually raise the individuals saving rate during their adult live (Bernheim, Garrett and Maki, 1997). Mandell and Klein (2009) also found that positive impact of financial education in financial behavior. Chen and Volpe (1998) indicate that lack of finance education will lead to inadequate finance knowledge in personal finance.

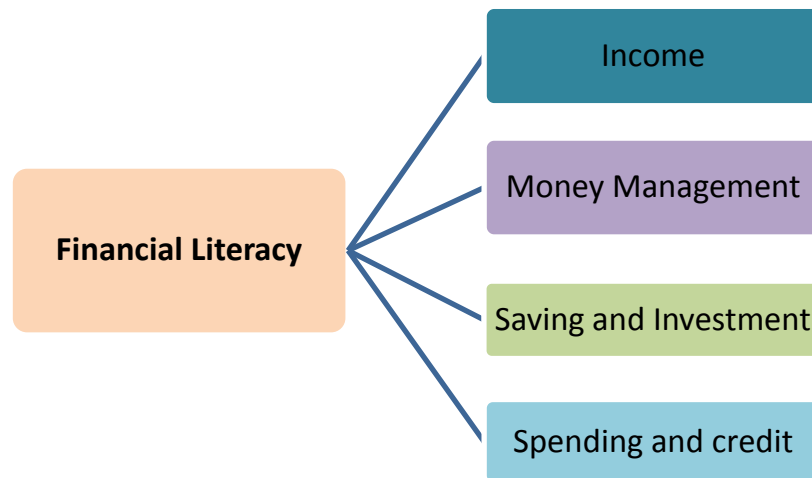
In the study of Chieffe and Rakes (1999), they introduce finance planning model incorporate the time and expected nature of financial events. It is useful for anyone personal finance management which is includes saving as a part of the element of people should careful about it. Trope and Liberman (2003) had proposed a construal level theory which states that by construing action which is directed by a goal at high level, it will make it possible for a person to focus his attention on the importance on the goal. On the other hand, by having the similar action to be low level construed, the person will focus or divert his attention more on the degree of whether the goal is achievable and how to achieve it.

Clancy, Grinstein-Weiss and Schreiner (2001) indicate that additional hours of education have large positive impact on saving and have more



intention to conduct frequency on saving. On the other hand, specific goals have effective restrict to temptation and increase persistence toward specific matter (Ulkumen & Cheema, 2011). Furthermore, establishing goals will enable oneself to have a clear target to achieve. This result suggests that increasing goal specifically will improve performance on saving.

Figure 2.2: Factors Affect Financial Literacy



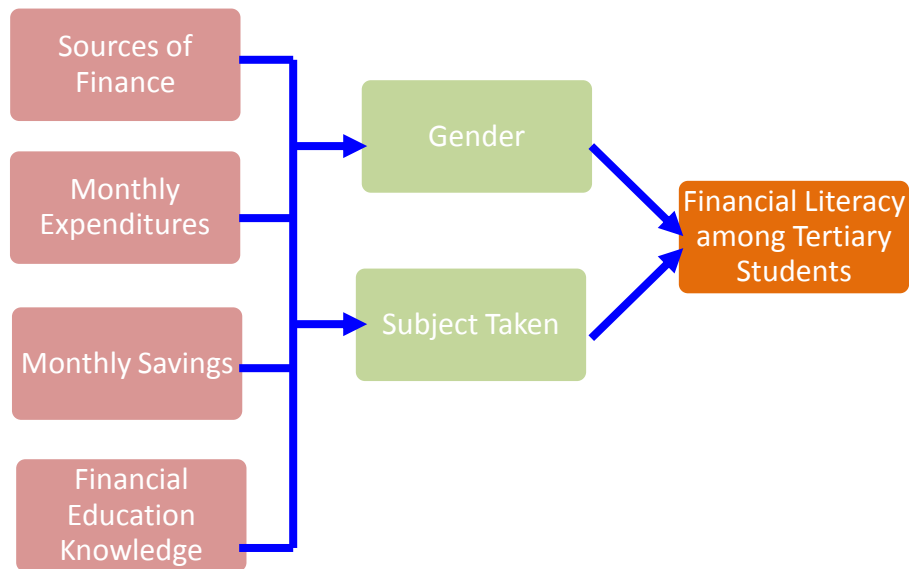
Source: Sohn, S.-H., Joo, S.-H., Grable, J. E., Lee, S., & Kim, M. (2012). Adolescents' financial literacy: The role of financial socialization agents, financial experiences, and money attitudes in shaping financial literacy among South Korean youth. *Journal of Adolescence* , 1-12.

### **2.3 Conceptual Framework**

A conceptual framework is a structure to support a theory of a research and shows what is the theory defines. Theoretical framework provides researchers a general guidelines and a clear picture on the variables in the research. Researchers based on theoretical framework to identify the relationships of the dependent variable and independent variables toward the factors that affect tertiary students. In our research, there are four independent variables which are source of finance, monthly savings, monthly expenditures and general financial knowledge. The

moderating variable is the gender while the dependent variable is the financial literacy among tertiary students. The relationship between dependent variable and independent variable is shown below:

Figure 2.3: Factors Contributing to Personal Financial Literacy Among Tertiary Students



Adapted from: Falahati, L., Paim, L., Ismail, M., Haron, S. A., & Masud, J. (2011). Assessment of university students' financial management skills and educational needs. *African Journal of Business Management*, 5(15), 6085-6091 and Sohn, S.-H., Joo, S.-H., Grable, J. E., Lee, S., & Kim, M. (2012). Adolescents' financial literacy: The role of financial socialization agents, financial experiences, and money attitudes in shaping financial literacy among South Korean youth. *Journal of Adolescence*, 1-12.

## 2.4 Hypothesis Development

H<sub>0</sub>: There is a no significant relationship between source of finance and personal financial literacy.

H<sub>1</sub>: There is a significant relationship between source of finance and personal financial literacy.

H<sub>0</sub>: There is no significant relationship between monthly savings and personal financial literacy.

H<sub>1</sub>: There is a significant relationship between monthly savings and personal financial literacy.

H<sub>0</sub>: There is no significant relationship between monthly expenditures and personal financial literacy.

H<sub>1</sub>: There is a positive significant relationship between monthly expenditures and personal financial literacy.

H<sub>0</sub>: There is no significant relationship between general financial knowledge and personal financial literacy.

H<sub>1</sub>: There is a positive significant relationship between general financial knowledge and personal financial literacy.

H<sub>0</sub>: There is no significant difference between the independent variables (source of finance, monthly savings, monthly expenditures and general financial knowledge) and personal financial literacy based on gender.

H<sub>1</sub>: There is a significant difference between the independent variables (source of finance, monthly savings, monthly expenditures and general financial knowledge) and personal financial literacy based on gender.

H<sub>0</sub>: There is significant difference between the independent variables (source of finance, monthly savings, monthly expenditures and general financial knowledge) and personal financial literacy based on subject taken.

H<sub>1</sub>: There is significant difference between the independent variables (source of finance, monthly savings, monthly expenditures and general financial knowledge) and personal financial literacy based on subject taken.

## **2.5 Conclusion**

In conclusion, this chapter had discussed the literature of past researches, including the definition and theories of personal finance literacy as well as the four independent variables. This has provided a better understanding of the concept of the variables which had been discussed in this study. From the review, a theoretical framework had developed and shows the relationships of the independent variables and dependent variable. At last, hypothesis had developed to test in the chapter 4.

## **CHAPTER 3: METHODOLOGY**

### **3.0 Introduction**

This chapter will discuss on the overview of the research methodology. We will describe about how the research is carried out with conducting research design, data collection methods, sampling design, operational definition of constructs, measurement scales, and methods of data analysis. The main purpose is to determine whether there are significant relationship between the independent variables (source of finance, monthly savings, monthly expenditure and general financial knowledge) and personal financial literacy. Besides, this research also determines whether there are significant differences between independent variables and personal financial literacy based on gender and subject taken.

### **3.1 Research Design**

Quantitative method is employed by this research because the data from this technique is more sufficient and capable of doing the testing on the hypothesis. The researcher found that the quantitative method is effectively being used to determine the correlation, frequency, mean, descriptive analysis differences between the groups, causal comparative and so on which is perfectly match with the tests carried on in this research (Castellan, 2010).

Other than that, the causal effect is focuses on the investigation into an issue that one variable may affect on another. The research objective is to determine the cause and effect relationship between the independent variables (source of finance, monthly savings, monthly expenditures and general financial knowledge) and the

dependent variable (personal financial literacy). Hence, this research will be conducted based on the causal research.

### **3.2 Data Collection Methods**

There are two sources can be used for the research study such as primary data and secondary data. In this study, primary data was used to conduct the research to ensure the research project has enough information and data to support. The definition of the primary data is that the source of data is directly collected or gathered by the researchers which are not previously published. In other words, it is the data which is new derived and is the original research study by the researchers. There are several methods to conduct for the primary data such as questionnaires, focus group, interviews and observation (Leeuw, 2005).

In this study, questionnaire is adopted as the main sources as the data collection method. The primary data can have the strong control to the research design, procedures, planning for the design and observing the effect of the independent variables to the dependent variable. Thus, the primary data can be used to meet the specific need of the researchers. In addition, it can provide the up-to-date information to the researchers which are more accurate for the research.

For this research, the researchers are using the questionnaire surveys as the main sources of the data collection method. The questionnaires were distributed to students in Universiti Tunku Abdul Rahman Perak Campus. It consists of 257 respondents from UTAR Perak Campus students. The data from questionnaires will be transfer to Statistical Package for Social Sciences Version 16.0 (SPSS) descriptive and inferential analysis.

## **3.3 Sampling Design**

### **3.3.1 Target Population**

Our research is to determine the factors influencing personal finance literacy among tertiary students. Thus, the targeted population will be the Faculty of Business and Finance (FBF) students. The number of FBF students is around 5000 students. However this population cannot be representing of all tertiary students in Malaysia.

### **3.3.2 Sampling Frame and Sampling Location**

Sampling frame is the list of all people in the appropriate population. Hence, to find out the factors influencing the personal finance literacy among tertiary students, the FBF students in UTAR Perak Campus are respondents for our research. The sampling location of this research will be in FBF.

The courses included in FBF are shown below:

- A. Bachelor of Commerce (Hons) Accounting
- B. Bachelor of Business Administration (Hons)
- C. Bachelor of Business Administration (Hons) Entrepreneurship
- D. Bachelor of Business Administration (Hons) Banking and Finance
- E. Bachelor of Economics (Hons) Financial Economics
- F. Bachelor of Marketing (Hons)
- G. Bachelor of Finance (Hons)

### **3.3.3 Sampling Element**

In this research, questionnaires distributed to the respondents are studying the courses that researchers addressed before. To maintain a level of reliability on the responses by the respondents, certain students due to the factor such as courses (for example, students that are from science course.) Besides that, the staffs of the university may not be the suitable respondents.

### **3.3.4 Sampling Technique**

There are two types of sampling techniques, which are probability and non-probability sampling technique. Both techniques were chosen become our sampling techniques in this research. This study involved stratified and convenience sampling. Stratified sampling is one of the probability sampling techniques. The researchers applied this technique as the UTAR students are divided into several group based on their course selected. However, convenience sampling is a non-probability sampling technique where subject are selected because ease of access. The researchers decide to combine these two sampling techniques to choose students according to the difference course based on previous technique result, and find the helpful respondents to complete the survey.

They distributed the questionnaire during the lecture and tutorial classes in FBF. In order to ensure the quality of respondent, the researchers used face to face method to explain how to answer the questionnaire. This technique is chosen because it is faster and efficient way to complete the survey.



### **3.3.5 Sampling Size**

Sample size refers to the number of observations in this research. The larger the sample size, the more accurate is the result of this research. According to Krejcie and Morgan's (1970), with a given population of 5000, a sample size of 257 would be needed in conducting this research. The researchers are recommending using the sampling size at 257.

## **3.4 Research Instrument**

Questionnaire is used to collect information in this research which in the form of self-administrated questionnaire from few journals.

The questionnaire consists sections which are section A, section B, section C, section D, section E and section F. Section A is demographic profile and Section B is the personal financial literacy of the respondent. Section C, D, E and F are design for other independent variables such as source of finance, monthly savings, monthly expenditures and general financial knowledge

The target population is FBF students in UTAR Perak campus. Therefore the researchers distribute questionnaires during weekdays. The questionnaires will be answered in 15 minutes.

30 respondents are selected to test on the reliability through pilot test before testing on the relationship between dependent variable and independent variables. At first, questions were set and draft. After that, the questions were amended and made some corrections in order to let respondent can fully understand the question needs. Then the questions are released to the respondents. Respondents are required to read the questions carefully and fully express their idea toward each question. After few days, researchers summarized the questionnaires which done by the initial respondents. The data ran with SPSS version 16.0 and the

Cronbach's Alpha value is 0.623386. After obtaining the consistency and reliability of the questions, the relationship between independent variables and dependent variables will be tested.

### **3.5 Constructs Measurement (Scale and Operational Definitions)**

#### **3.5.1 Scale of Measurement**

A scale of measurement is an assignment of numbers to objects where we can measure the personality characteristic by assigning a number (a score on the test) to an object (a person). Besides, a scale is a tool or mechanism by which individuals are distinguished as to how they differentiate from each other on the variables of interest to our study (McIntyre, 2005). In this research, nominal scale, ordinal scale, and interval scale (i.e. Likert scale) were used.

##### **3.5.1.1 Nominal Scale**

The nominal scale is simply place the data into categories without any order or structure. It allows the researchers to assign subjects to certain groups or categories such as race, gender, ethnicity, nationality, political affiliation and religion (McIntyre, 2005). Based on the questionnaire, question 1, 2 and 4 in section A, section C are designed according to nominal scale.

### **3.5.1.2 Ordinal Scale**

The ordinal scale indicates direction by providing nominal information and the data is placed into groups that are in order. Besides, the ordinal scale is a ranking. There are two questions were used for ordinal scale in the questionnaire where the respondents will answer when they start to saving (below 10 years old, 11-15 years old, 16-20 years old, above 21 years old and do not have any saving habit) in question 3 of section A. This question can assign numerical scores to the outcome of the age variable. On the other hand, the respondents are also required to answer how frequently they attend talks and activities that related to finance (weekly, monthly, quarterly, yearly and never attend) in question 5 of section A.

### **3.5.1.3 Likert Scale**

A Likert scale is a psychometric response scale which often used in questionnaire to obtain participant's preferences whether how strong they agree or disagree with a statement or set of statement. In section D and E of questionnaire, we have used five-point Likert-type scales to measure the psychological agreement of respondents. There are five responses that may be checked and numerical score was assigned to each of the questions which using Likert scale as following:

1 = Strongly Disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly Agree

On the other hand, section B of the questionnaire, we used five-point Likert-type scales to measure the psychological agreement of respondents which is different from section D as following:

- 1 = Never
- 2 = Seldom
- 3 = Sometimes
- 4 = Often
- 5 = Always

However, in section F, we also applied the five-point Likert-type scales which are different from section B, D and E as following:

- 1 = Nothing
- 2 = Little
- 3 = Some
- 4 = A fair amount
- 5 = A lot

### **3.6 Data Processing**

The movement that organized and manipulated the data is called data processing. According to Hair, Brush and Ortinau (2006) to convert the data into useful information is the final goal of processing. There are few steps be needed in order to get ready for the questionnaire. The process included is we need to determine which question should be embraced inside questionnaire and the respondents of it. After collecting the questionnaire from the respondents, researches will execute several processes to eliminate the mistake can be avoided.

### **3.6.1 Checking**

Firstly, researchers need to check for the jargon and the wording that might be hard to be understood by the respondents, the questions maybe incomplete and grammar mistakes being found. For the purpose of getting accurate information, researchers must ensure that the respondents can understand all questions. The quality of research will also be guaranteed by the questionnaire checking of the researches.

### **3.6.2 Editing**

Editing the data is an action to target that observing and correcting the errors of data. (Hair, Brush & Ortinau, 2006) Those responses are not logical and consistent with the majority, the codes are illegal, and the omissions will be removed by the researches. The unsatisfactory responses will also be managed by retuning the questionnaire back or abandoned it (Malhotra, 2006).The purpose of editing is to ensure that the step in future will not be disrupted.

### **3.6.3 Coding**

Coding which is turning the collected data into variables that are appropriate for Statistical Package for Social Science (SPSS) to run. Each response will be allocated with certain code while the process. There are some editing procedures are contrived specifically to reduce the process of coding thus careful editing in previous activities can make the coding work easier and faster.

### **3.6.4 Transcribing**

Data are ready to be analyzed while all the corrections have been done. The first step is to allocate the responses of the participants then transferred and entered it into the database in order to be resolved by the SPSS program.

## **3.7 Data Analysis**

The aim of carried out the data analysis is to conduct the process of evaluating the data that collected by the researchers. This process is to analyze the collected data which gather from many sources such as online survey, interview, past research and so on. No matter it is primary data or secondary data, both of it has many different kind of test used to interpret the data. According to researcher, the purpose of test being adopted is to examine the variables of the data with provide all the logical, analytical reasons, problem face by the real and so on (Hoaglin, 2003). In this study, the program named Statistical Package for Science Social (SPSS) will be adopted to analyze the collected data. This program is able to generate the result on descriptive and inferential analyses. 257 questionnaires were distributed to the FBF students from UTAR Perak to test the hypothesis by using the SPSS.

### **3.7.1 Descriptive Analysis**

Descriptive analysis is the test to summarize and analyze the large amount of the data into the way which is easier to understand by the reader. As in other previous research, the researcher mentioned that the descriptive analysis is presented the data by more meaningful way such as mean, median, percentage, average, frequency and so on (Kelechi, 2012).

This analysis is easier for the researchers to interpret the result gathered from the questionnaire which get from the respondents. It is the analyses that convert the raw data get from respondents which are messy and difficult to understand by reader into the easier and meaningful result.

### **3.7.2 Reliability Test**

According to the researchers, reliability test is used to analysis the degree of the consistency for the result for each time it is employed to evaluate the procedures (Bruton, Conway, & Holgate, 2000).

For the reliability test, the Cronbach's alpha test will be employed to determine the consistency of the result for repeated research to be carried on (Iacobucci & Duhachek, 2003). In addition, the Cronbach's alpha will be in the range of 0 to 1. The value which is close to 1 is high consistency for the result and vice versa.

According to previous research, cicchetti's standards will used for reliability test (Riggs, Verdi, & Arlin, 2009). The cicchetti standards for the Cronbach's alpha is that the result which is below 0.40 is poor, 0.40 to 0.59 is fair, 0.60 to 0.74 is good, and 0.75 and above is excellent. In this study, 30 questionnaires are distributed to the respondents to run for the pilot test. After the pilot test is passing with the Cronbach's alpha, we distributed 257 questionnaires to the respondents and successfully collect all back.

### **3.7.3 Pearson's Correlation**

The data analysis such as Pearson's correlation is used to measure the strength of the association between the two variables. According to past research, the correlation can also be explained by the test which is helpful

to determine the relationship between two different variables (Goodwin & Leech, 2006).

In general, the result carried out by the Pearson's correlation will be range from -1.00 to +1.00. The standard mentioned by the researchers is that the correlation between two variables which is close to +1.00 is positive relationship among each other. In contrary, the correlation with the -1.00 indicates that it has negative relationship among two variables. Lastly, with the correlation 0.00 means that there is no relationship among the two variables.

In addition, there also has the researcher mentioned about the correlation is used to determine the relationship between two or more different variables (Shaban, 2005). This researcher illustrates that the result +1.00 showed perfect positive correlation and -1.00 showed perfect negative correlation and 0.00 is lack of correlation.

Table 3.1: Rule of Thumb for Interpreting the Size of Correlation Coefficient

Size of Correlation	Interpretation
0.90 to 1.00 (-0.90 to -1.00)	Very high positive (negative) correlation
0.70 to 0.89 (-0.70 to -0.89)	High positive (negative) correlation
0.50 to 0.69 (-0.50 to -0.69)	Moderate positive (negative) correlation
0.30 to 0.49 (-0.30 to -0.49)	Low positive (negative) correlation
0.00 to 0.29 (0.00 to -0.29)	Little if any correlation

Source: Mukaka, M. (2012). Statistics Corner: A guide to appropriate use of Correlation coefficient in medical research. *Malawi Medical Journal*, 24(3), 69-71.



### **3.7.4 Independent Sample T-test**

T-test is the most common use hypothesis testing to be used to compare the differences of the mean value between the two variables. In the independent sample t-test, it is comparing the means among two independent variables.

The means that we reject  $H_0$  and believe that there has the difference between the two groups. The probability that we often used is  $p= 0.05$ . If the probability is sufficiently small which is less than 0.05, it can conclude that it has difference between the group and the mean is equal in the population and then we can accept the alternative hypothesis and reject  $H_0$ .

### **3.7.5 One Way ANOVA**

One way ANOVA is known as one-way analysis on variances. This test is used to determine the mean differences which obtained from the data are sufficiently large to justify the conclusion whether there is mean differences between the populations from the samples. One-way ANOVA is similar to t-test. It is used to determine the three or more variables differences between the groups.

According to the researcher, the One-way ANOVA is to assist the researcher to group the complicated data into a model. Besides that, ANOVA test is also helped to summarize a model that has already fitted (Gelman, 2005). One way ANOVA is very important method for the explanatory and confirmatory data analysis (Vijayvargiya, 2009).

### **3.8 Conclusion**

In the conclusion of Chapter 3, this specific how the research is carried out in term of research design, data collection methods, sampling design, research instrument used, constructs measurement, data processing and data analysis. This information indicates that researchers how and what should do in the sampling, collect and analysis data.

And for our Chapter 4, we will interpret the collected data and further analysis it in order to bring significance to the reader. This will help the reader understand information collected from the survey is use for bring out the significance of four variables in personal finance management.

## **CHAPTER 4: DATA ANALYSIS**

### **4.0 Introduction**

As mentioned in chapter 3, there are some tests will be used to run the test in order to get the result for the data from the questionnaires. The purpose of doing this chapter is to present the findings and results of the data after analysis have been run based on the research question and hypothesis.

There are some sequences to present this chapter systematically. Firstly, it will mention the result for the descriptive analysis (gender, course of study, age of start saving habits, have taking the course “Personal Financial Planning and Management” and how frequent to attend finance talk). After that, it followed by the reliability test which is carried out the Cronbach’s Alpha test. Next, it continued to explain the result for the Pearson correlation, independent sample t-test and lastly is the one-way ANOVA for this study.

### **4.1 Descriptive Analysis**

#### **4.1.1 Respondent Demographic Profile**

Table 4.1. Demographic Profile of the Respondents

		Frequency	Percentage (%)
Gender	Male	108	42.0
	Female	149	58.0

Course of study	Accounting	37	14.4
	Business Administration	36	14.0
	Entrepreneurship	36	14.0
	Banking and Finance	37	14.4
	Financial Economics	38	14.8
	Marketing	36	14.0
	Finance	37	14.4
Age of start saving habits	Below 10 years old	110	42.8
	11-15 years old	65	25.3
	16-20 years old	39	15.2
	Above 21 years old	22	8.6
	No saving habits	21	8.2
Taking UBFF Personal Financial Planning	Yes	77	30.3
	Haven't taken	71	27.6
	No offer	109	42.4
Attend Finance Talk	Weekly	0	0.0
	Monthly	15	5.8
	Quarterly	38	14.8
	Yearly	52	20.2
	Never attend	152	59.1
Source of finance	PTPTN loans	211	82.1
	Scholarship	12	4.7
	From Parents	25	9.7
	Doing part time job	9	3.5

Source: Developed for the research

The respondents were categorized into 2 genders: male and female. The table 4.1 showed the gender of the respondents in this research with the total 257 respondents. The target of the respondents is the FBF students

from UTAR Kampar. There have 108 male respondents (42%) out of the total 257 respondents, and the rest of 58% respondents which are 149 female respondents.

Next, the table 4.1 continued to show the course of study of the respondents. As mentioned before, the respondents for this study are the FBF students in UTAR Perak campus. The questionnaires were distributed to seven different courses in Faculty of Business and Finance such as Accounting, Business Administration, Entrepreneurship, Banking and Finance, Financial Economics, Marketing and Finance. The number of the respondents for each course is quite equal which respondents for each course are in the range of 36 to 38.

The age of start having the saving habits for the respondents divided into 5 parts: "Below 10 years old", "11-15 years old", "16-20 years old", "Above 21 years old" and "No saving habits". Refer to table 4.1.1, it illustrates the age of the respondents start to have their saving habits. From the table above, it showed that majority which is 42.8% of respondents (110 respondents) were started their saving habits below 10 years old. Then, the 65 of the respondents (25.3%) were starting the saving habits on the category 11 until 15 years old. The age of 16 until 20 years old, it has lesser UTAR respondents were start the saving habits on the particular age which is only 39 respondents (15.2%). Next, it only has 22 respondents (8.6%) start having their saving habit above 21 years old. Lastly, it has 21 of the respondents (8.2%) do not have any saving habits.

There has 3 categories are served for the respondents in this study: "Yes", "No, I haven't taken this subject" and "No, my course does not offer this subject". Table 4.1 above showed the number of the FBF students who are taking the subject "Personal Financial Planning and Management". It has only 77 respondents (30%) taken this subject before this study. 71 out of 257 respondents(27.6%) haven't taken this subject yet although their

course has provided such subject. Lastly, the rest of the 42.4% which is 109 respondents does not have such subject for their course.

The average of time of the respondents to attend the finance talk and activities that related to finance was categories into: weekly, monthly, quarterly, yearly and never attend. According to table 4.1, it can be seen that the majority of the UTAR FBF students do not attend for the finance talk, which included 152 respondents out of 257 respondents, which is 59.1%. Some of them are only attending the finance talk quarterly (38 respondents) or yearly (52 respondents). There only have 15 respondents will attend the finance talk every month. There still have one category in the questionnaire which is attend the finance talk weekly. There has no one out of 257 respondents is attending talk every week.

Finally, the table 4.1 followed by the data explaining the source of finance for the students. In this study, the majority of the respondents are getting their allowance from PTPTN loans which are 211 out of 257 students (82.1%). There has only 12 respondents are getting the scholarship as their allowance which is 4.7%. Besides the scholarship, there has 25 respondents (9.7%) are getting their allowance from parents. Lastly, only 3.5% of the respondents which is 9 respondents are getting their allowance through doing the part time job.

#### 4.1.2 Central Tendencies Measurements of Construct

Table 4.2: Mean of variables

<b>Variables</b>	<b>N</b>	<b>Mean</b>
<b><u>Personal Financial Literacy</u></b>	257	4.1907
1. Paying students bill on time.		
2. Managing finances.	257	3.4786
3. Record Expenditures.	257	3.2412
4. Compare prices when shopping.	257	3.7782

5. Avoid maxing out the limit in my ATM card.	257	3.8599
<b><u>Monthly Savings</u></b>	257	3.8171
1. I save money for future emergency use.		
2. I save money in order to buy items for my personal grooming.	257	3.5370
3. I hope to take dream vacation, therefore I save my money.	257	3.5642
4. I save money to buy present for my partner or friends.	257	3.2724
5. I save money to buy the durable items such as car and house.	257	3.5486
<b><u>Monthly Expenditures</u></b>	257	3.0117
1. I prefer to have Business Class seat and accommodation for a long trip.		
2. I have a habit of buying souvenirs on vacation.	257	3.2335
3. I will spend on magazines and newspaper regularly.	257	2.7237
4. I prefer to have a meal outside rather than cook by my own.	257	2.8988
5. I do not consider the price when I purchase items.	257	2.5019
<b><u>General financial knowledge</u></b>	257	3.1790
1. Interest rate, finance charges and credit terms.		
2. Credit ratings.	257	2.8366
3. Pensions.	257	2.8444
4. Current account.	257	3.4786
5. Certificate of deposits.	257	3.0350

Source: Developed for the research

**Table 4.3: Personal Financial Literacy**

<b>Variables</b>	<b>Never</b>	<b>Seldom</b>	<b>Sometimes</b>	<b>Often</b>	<b>Always</b>	<b>Mean</b>
1. Paying students bill on time.	4 (1.6%)	19 (7.4%)	42 (16.3%)	51 (19.8%)	141 (54.9%)	4.1907
2. Managing finances.	1 (0.4%)	25 (9.7%)	115 (44.7%)	82 (31.9%)	34 (13.2%)	3.4786
3. Record Expenditures.	6 (2.3%)	41 (16.0%)	124 (48.2%)	57 (22.2%)	29 (11.3%)	3.2412
4. Compare prices when shopping.	2 (0.8%)	19 (7.4%)	73 (28.4%)	103 (40.1%)	60 (23.3%)	3.7782
5. Avoid maxing out the limit in my ATM card.	2 (0.8%)	23 (8.9%)	65 (25.3%)	86 (33.5%)	81 (31.5%)	3.8599

Source: Developed for the research

According to table 4.2, it showed the sample size and the mean for each questions in this study. The table 4.3 is stated the frequency and the percentage for the different desired answer for each question in dependent variable among 257 respondents. The highest mean is for the “Paying the student bill on time” which is 4.1907. There has 141 respondents (54.9%) answer that they always pay the student bill on time. In contrary, there has only 4 respondents (1.6%) never paid their student bill on time. The lowest mean is the “Record expenditures” which is 3.2412. It showed that 124 or 48.2% of respondents answer for sometimes that they will record expenditures. For the question “Managing finances”, sometimes is the most desired answer for the majority respondents which are 115 respondents out of 257 respondents (44.7%). Besides that, it also showed 103 respondents (40.1%) will often compare the prices and 86 respondents (33.5%) will often avoid maxing out the limit in my ATM card.



**Table 4.4: Source of Finance**

<b>Variables</b>	<b>PTPTN loans</b>	<b>Scholarship</b>	<b>From Parents</b>	<b>Doing part time job</b>
1. How you get your allowances for every month?	211 (82.1%)	12 (4.7%)	25 (9.7%)	9 (3.5%)

Source: Developed for the research

Table 4.4 showed that there has 211 respondents which is 82.1% of all the respondents will get their allowances from PTPTN loans and only 9 respondents or 3.5% of respondents are getting their allowances through doing part time job.

**Table 4.5: Monthly Savings**

<b>Variables</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>DA</b>	<b>Mean</b>
1. I save money for future emergency use.	3 (1.2%)	20 (7.8%)	64 (24.9%)	104 (40.5%)	66 (25.7%)	3.8171
2. I save money in order to buy items for my personal grooming.	9 (3.5%)	18 (7.0%)	97 (31.7%)	92 (35.8%)	41 (16.0%)	3.5370
3. I hope to take dream vacation, therefore I save my money.	3 (1.2%)	30 (11.7%)	81 (31.5%)	105 (40.9%)	38 (14.8%)	3.5642
4. I save money to buy present for my partner or friends.	7 (2.7%)	33 (12.8%)	122 (47.5%)	73 (28.4%)	22 (8.6%)	3.2724
5. I save money to buy the durable items such as car and house.	6 (2.3%)	31 (12.1%)	90 (35.0%)	76 (29.6%)	54 (21.0%)	3.5486

Source: Developed for the research

The table 4.5 showed the mean for each question in the independent variable named monthly savings. The question with the highest mean is 3.8171. There have 104 respondents (40.5%) agree with that to save the money for future emergency use. The question with the lowest mean (3.2724) is asked about is that the respondents save money to buy the present for partners and friends. There has 122 respondents (47.5%) respond that they are neutral in such question. In addition, the question “I save money in order to buy items for my personal grooming” and “I save money to buy durable items such as car and house” also neutral to the respondents which is 97 respondents (31.7%) and 90 respondents (35.0%) respectively. Lastly, there has 40.9% of the respondents which is 105 respondents are agree to save money for their dream vacation.

**Table 4.6: Monthly Expenditures**

<b>Variables</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>DA</b>	<b>Mean</b>
1. I prefer to have Business Class seat and accommodation for a long trip.	11 (4.3%)	53 (20.6%)	129 (50.2%)	50 (19.5%)	14 (5.4%)	3.0117
2. I have a habit of buying souvenirs on vacation.	8 (3.1%)	34 (13.2%)	118 (45.9%)	84 (32.7%)	13 (5.1%)	3.2335
3. I will spend on magazines and newspaper regularly.	15 (5.8%)	91 (35.4%)	110 (42.8%)	32 (12.5%)	9 (3.5%)	2.7237
4. I prefer to have a meal outside rather than cook by my own.	15 (5.8%)	75 (29.2%)	99 (38.5%)	57 (22.2%)	11 (4.3%)	2.8988
5. I do not consider the price when I purchase items.	47 (18.3%)	84 (32.7%)	85 (33.1%)	32 (12.5%)	9 (3.5%)	2.5019

Source: Developed for the research

The table 4.6 stated that the highest mean is for the “I have a habit of buying souvenirs on vacation” which is 3.2335. There has 118 respondents (45.9%) are neutral to this habits. In contrary, there have only 8 respondents (3.1%) strongly disagree to this habits. The lowest mean is the “I do not consider the price when I purchase items” which is 3.2412. It also showed that 85 or 33.1% of respondents are neutral to this. Besides that, most of the respondents are neutral to all the questions for this independent variable. There has 129 respondents (50.2%) are neutral to have Business Class seats and accommodation for long trip, 110 respondents (42.8%) are neutral to spend on magazines and newspaper regularly and 99 respondents (38.5%) feel neutral to have meals outside rather than cook by themselves.

**Table 4.7: General Financial Knowledge**

<b>Variables</b>	<b>Nothing</b>	<b>Little</b>	<b>Some</b>	<b>A fair amount</b>	<b>A lot</b>	<b>Mean</b>
1. Interest rate, finance charges and credit terms.	10 (3.9%)	51 (19.8%)	93 (36.2%)	89 (34.6%)	14 (5.4%)	3.1790
2. Credit ratings.	24 (9.3%)	65 (25.3%)	111 (43.2%)	43 (16.7%)	14 (5.4%)	2.8366
3. Pensions.	28 (10.9%)	56 (21.8%)	108 (42.0%)	58 (22.6%)	7 (2.7%)	2.8444
4. Current account.	5 (1.9%)	34 (13.2%)	89 (34.6%)	91 (35.4%)	38 (14.8%)	3.4786
5. Certificate of deposits.	24 (9.3%)	48 (18.7%)	96 (37.4%)	73 (28.4%)	16 (6.2%)	3.0350

Source: Developed for the research

Table 4.7 stated that the highest mean is for the understanding to the “current account” by the respondents which is 3.4786. There have 91 or 35.4% of respondents’ answer that they have a fair amount of knowledge about it. In contrary, there have only 5 or 1.9% of respondents are nothing understanding about the knowledge of current account. The lowest mean is the “credit ratings” which is contributed 2.8366. It also showed that 111 respondents (43.2%) have some knowledge about this. Besides that, most of the respondents have some knowledge to the other questions in this independent variable. There has 93 respondents (36.2%) are having some knowledge to the “interest rate, finance charges and credit items”, 108 respondents (42.0%) are having some knowledge about the “pensions” and 96 respondents (37.4%) have some knowledge to the “certificate of deposits”.

## 4.2 Scale Measurement

### 4.2.1 Reliability Test

Table 4.8: Reliability Test (Cronbach’s Alpha)

<b>Variables</b>	<b>Cronbach’s Alpha</b>
<b><u>Personal Financial Literacy</u></b>	0.703
1. Paying students bill on time.	
2. Managing finances.	
3. Record Expenditures.	
4. Compare prices when shopping.	
5. Avoid maxing out the limit in my ATM card.	
<b><u>Monthly Savings</u></b>	0.704
1. I save money for future emergency use.	
2. I save money in order to buy items for my personal grooming.	
3. I hope to take dream vacation, therefore I save my money.	
4. I save money to buy present for my partner or friends.	
5. I save money to buy the durable items such as car and house.	
<b><u>Monthly Expenditures</u></b>	0.700
1. I prefer to have Business Class seat and accommodation for a long trip.	
2. I have a habit of buying souvenirs on vacation.	
3. I will spend on magazines and newspaper regularly.	

4. I prefer to have a meal outside rather than cool by my own.	
5. I do not consider the price when I purchase items.	
<b><u>General financial knowledge</u></b>	0.823
1. Interest rate, finance charges and credit terms.	
2. Credit ratings.	
3. Pensions.	
4. Current account.	
5. Certificate of deposits.	

Source: Developed for the research

According to the researchers (Tavakol & Dennick, 2011), Cronbach’s Alpha test is the most common used test to determine the reliable of the questions in the questionnaires in the study. It tests the Cronbach’s Alpha in order to get the consistency of the result to ensure the accuracy of the study. Besides that, Tavakol and Dennick also stated that the Cronbach’s Alpha test was developed by the Lee Cronbach in the year 1951.

As mentioned in previous chapter (chapter 3), the researchers (Riggs, Verdi, & Arlin, 2009) showed that Cicchetti standards will be employed to the reliability test with Cronbach’s Alpha test are below 0.40 is poor, 0.40 to 0.59 s fair, 0.60 to 0.74 is good and 0.75 and above is excellent. The Cronbach’s Alpha started with the 0.60 can be accepted whereas the result which is lower than 0.60 will be rejected to be continued using as the research question in the study.

Table 4.8 showed the result for the Cronbach’s Alpha test in this study. The variables in this study such as personal financial literacy, monthly savings and monthly expenditures have the good reliability since it has the result with 0.703, 0.704 and 0.700 respectively. The variable such as the general financial knowledge with the Cronbach’s Alpha 0.823 showed that

it has the excellent reliability. Lastly, it can be concluded that overall reliability of the research question in this study is considered good.

### 4.3 Inferential Analyses

#### 4.3.1 Pearson’s Correlation Analysis

Table 4.9: Correlation Matrix Among Items In Construct (Source of finance, Monthly savings, Monthly expenditures and General financial knowledge)

		<b>N</b>	<b>Pearson Correlation</b>
<b>Personal Financial Literacy</b>	<b>Source of finance</b>	257	-0.003
	<b>Monthly savings</b>	257	0.273
	<b>Monthly expenditures</b>	257	-0.221
	<b>General financial knowledge</b>	257	0.241

Source: Developed for the research

According to table 4.9, the Pearson’s correlation for each construct (source of finance, monthly savings, monthly expenditures and general financial knowledge) are -0.003, 0.273, -0.221 and 0.241 respectively. According to Lena and Margara (2010), the correlation between the variable X and variable Y close to +1.00 indicates that it has the positive relationship among each other. In contrary, the correlation -1.00 means that it has negative relationship among X and Y.

As the rule of thumb for interpreting the correlation coefficient mentioned in previous chapter, the correlation between personal financial literacy and source of finance was -0.003 which is negative relationship among personal financial literacy and source of finance. It is consistent with the

theory mentioned by the past researchers that there is the negative correlation between personal financial literacy and source of finance.

Next, the correlation between the personal financial literacy and monthly savings is showed positive relationship since that its correlation is 0.273. The result of the monthly savings is also consistent with the theory by the past researchers mentioned in Chapter 2 which is positive correlation between personal financial literacy and monthly savings.

Then, it followed by the correlation between the personal financial literacy and monthly expenditures which is -0.221 which is negative correlation. For the result of the monthly expenditures in this research, it also has the same theory as mentioned by the past research that it has the negative correlation between personal financial literacy and monthly expenditures.

Lastly, the correlation between personal financial literacy and general financial knowledge is 0.241 which is positive correlation. According to the past research mentioned in Chapter 2, the result by this research is consistent with the result get by the past research which is positive correlation between personal financial literacy and general financial knowledge.

From the result, all the correlation within the range of 0.00 until 0.29 is considered that it only has a little if there has any relationship between the variables.



Table 4.10: Pearson Correlation between Independent Variables and Personal Financial Literacy

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	Beta	Std. Error	Beta		
<b>Constant</b>	3.019	0.289		10.431	0.000
<b>Source of finance</b>	-0.014	0.037	-0.021	-0.0371	0.711
<b>Monthly savings</b>	0.239	0.058	0.238	4.089	0.000
<b>Monthly Expenditures</b>	-0.254	0.059	-0.247	-4.285	0.000
<b>General financial knowledge</b>	0.193	0.050	0.227	3.874	0.000

Source: Developed for the research

Table 4.11: Hypothesis of Study

<p>H<sub>0</sub>: There is no significant relationship between source of finance and personal financial literacy.</p> <p>H<sub>1</sub>: There is a significant relationship between source of finance and personal financial literacy.</p>	<p>The significant value of source of finance is 0.711 which is higher than p-value 0.05. So, do not reject H<sub>0</sub>. There is no significant relationship between source of finance and personal financial literacy.</p>
<p>H<sub>0</sub>: There is no significant relationship between monthly savings and personal financial literacy.</p> <p>H<sub>1</sub>: There is a significant relationship between monthly savings and personal</p>	<p>The significant value of monthly savings is 0.000 which is lower than p-value 0.05. So, reject H<sub>0</sub>. There has the significant relationship</p>

financial literacy.	between monthly savings and personal financial literacy.
H <sub>0</sub> : There is no significant relationship between monthly expenditures and personal financial literacy. H <sub>1</sub> : There is a significant relationship between monthly expenditures and personal financial literacy.	The significant value of monthly expenditures is 0.000 which is lower than p-value 0.05. So, reject H <sub>0</sub> . There has the significant relationship between monthly expenditures and personal financial literacy.
H <sub>0</sub> : There is no significant relationship between general financial knowledge and personal financial literacy. H <sub>1</sub> : There is a significant relationship between general financial knowledge and personal financial literacy.	The significant value of general financial knowledge is 0.000 which is lower than p-value 0.05. So, reject H <sub>0</sub> . There has the significant relationship between general financial knowledge and personal financial literacy.

Source: Developed for the research

According to the table 4.11, it showed that the hypothesis of study mentioned in chapter 1. With the four hypothesis mentioned before, here is the main hypothesis that concluded from the entire four hypothesis in table 4.10.

**H<sub>0</sub>: There is no significant relationship between independent variables (source of finance, monthly savings, monthly expenditures and general financial knowledge) and personal financial literacy.**

**H<sub>1</sub>: There is significant relationship between independent variables (source of finance, monthly savings, monthly expenditures and general financial knowledge) and personal financial literacy.**

### 4.3.2 Independent Sample T-test

Table 4.12: Independent Sample T-test for Gender

Independent Variables	Gender	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Source of finance	Male	107	1.3645	1.16872	-0.281	0.779
	Female	150	1.4000	0.85922		
Monthly savings	Male	107	3.4972	0.73324	-1.068	0.287
	Female	150	3.5840	0.56877		
Monthly expenditures	Male	107	2.8262	0.62046	-1.035	0.302
	Female	150	2.9080	0.62761		
General financial knowledge	Male	107	3.0729	0.70008	-0.032	0.974
	Female	150	3.0760	0.79551		

Source: Developed for the research

**H<sub>0</sub>: There is no significant difference between the independent variables (source of finance, monthly savings, monthly expenditures and general financial knowledge) and personal financial literacy based on gender.**

**H<sub>1</sub>: There is a significant difference between the independent variables (source of finance, monthly savings, monthly expenditures and general financial knowledge) and personal financial literacy based on gender.**

According to table 4.12, it showed that there have 107 male respondents and 150 female respondents in this study. The table showed the mean for both male and female respondents to each independent variable. The mean for the male respondents to the source of finance is 1.3645 and the mean for female respondents for this variable is 1.4000. Next, the mean for the male respondents to the monthly savings is 3.4972 and the mean for female respondents for this variable is 3.5840. After that, it followed by the mean for the male respondents to the monthly expenditures is 2.8262 and the mean for female respondents for this variable is 2.9080. Lastly, the

mean for the male respondents to the general financial knowledge is 3.0729 and the mean for female respondents for this variable is 3.0760.

Then, the significant values (2-tailed) for each variable (source of finance, monthly savings, monthly expenditures and general financial knowledge) are 0.779, 0.287, 0.302 and 0.974 respectively, which is greater than p-value 0.05. According to the result, p-value is greater than 0.05, so, we do not reject  $H_0$ . Therefore, this showed that there is no significant difference between source of finance, monthly savings, monthly expenditures and general financial knowledge based on gender.

### 4.3.3 One Way ANOVA

Table 4.13: One-way ANOVA for Subject Taken

	ANOVA (Sig.)		Test of Homogeneity of Variances (Sig.)
Source of finance	0.058	> 0.05, no difference	0.000
Monthly savings	0.001	< 0.05, difference	0.000
Monthly Expenditures	0.477	> 0.05, no difference	0.926
General financial knowledge	0.307	> 0.05, no difference	0.946

Source: Developed for the research

**$H_0$ : There is no significant difference between the independent variables (source of finance, monthly savings, monthly expenditures and general financial knowledge) and personal financial literacy based on subject taken.**

**$H_1$ : There is significant difference between the independent variables (source of finance, monthly savings, monthly expenditures and general financial knowledge) and personal financial literacy based on subject taken.**

According to table 4.13, the significant value for the source of finance, monthly expenditures and general financial knowledge are 0.058, 0.477 and 0.307 respectively which are higher than p-value 0.05, it does not reject  $H_0$ . So, there is no significant difference between taking the subject Personal Financial Planning and Management with the source of finance, monthly expenditures and general financial knowledge.

Besides, the significant value of monthly savings is 0.001 which is smaller than p-value 0.05. Thus, we reject  $H_0$ . There is significant difference between taking the subject Personal Financial Planning and Management with the monthly savings, it needs to refer to the significant value for the test of homogeneity of variances. We need refer to Dunnett’s Post Hoc Test if the significant value for homogeneity of variance is smaller than 0.05, whereas if the significant value is higher than 0.05, thus we can refer to Duncan’s Post Hoc Test.

Since there is significant difference between taking the subject Personal Financial Planning and Management and monthly savings and the significant value for homogeneity of variance is 0.000 which is lower than 0.05, so we need to refer to Dunnett’s Post Hoc Test. From table 4.14 below, it showed that the group haven’t taken and not offer for the subject Personal Financial Planning and Management is significant different with the group which are taken for the subject Personal Financial Planning and Management.

Table 4.14: Dunnett’s Post Hoc Test for Monthly Savings

	<b>Mean Difference</b>	<b>Sig.</b>	
Had taken – Haven’t Taken	0.15947	0.223	> 0.05, no difference
Had taken – Not Offer	0.19619	0.141	> 0.05, no difference
Haven’t Taken – Not Offer	0.35565	0.000	< 0.05, difference

Source: Developed for the research

## **4.4 Conclusion**

In this chapter, the tests are conducted for the 257 questionnaires that distributed among the FBF Faculty students in UTAR Perak campus. There are several tests have been used such as the descriptive analysis, reliability test, Pearson's correlation analysis, multiple regression model, independent sample t-test and one-way ANOVA. We are able to derive our research findings after performing the tests. These major findings will be presented and discussed in the Chapter 5.

## **CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS**

### **5.0 Introduction**

In this chapter, discussion of the research result which presented in the chapter 4 and the summaries of the research findings will be include. Moreover, this chapter also contains explanation of each result based on the result that we obtained and the evidences will be providing to support the research hypotheses. The implications will be discussed in chapter 5.3 while chapter 5.5 will discuss about the recommendations for future study. In addition, any limitation of our studies will be discussed in chapter 5.4 and there is a conclusion of our research in the last part of this chapter.

In this research, we had done a survey to a sample size of 257 students who studies business courses in University Tunku Abdul Rahman (UTAR). All the constructs were tested by the Reliability Test by using Cronbach's Alpha test, Pearson correlation, the Independent Sample T-Test and one-way ANOVA.

## **5.1 Summary of Statistical Analyses**

### **5.1.1 Descriptive analysis**

#### **5.1.1.1 Respondents' Demographic Profile**

There are some summary descriptions for the respondents' demographic profile that presented and discussed in the previous chapter. There are 257 respondents in this study and 42% of them are male respondents and the rest of 58% are female respondents.

The target respondents are the FBF students from UTAR Perak. It has seven courses in the Faculty of Business and Finance such as Accounting, Business Administration, Entrepreneurship, Banking and Finance, Financial Economics, Marketing and Finance. The questionnaires are fairly distributed for each course. There is around 14% until 14.8% of the questionnaires are distributed to each course.

Besides gender and the course of the respondents, the age of start having the saving habits is also being included in the questionnaires. The descriptive analysis showed the most of the students are start having their saving habits before 10 years old which take up for 42.8% of all the respondents. The other selection group available are "11-15 years old", "16-20 years old", "above 21 years old" and "no saving habits" which are occupied for another 57.2% such as 25.3%, 15.2%, 8.6% and 8.2% respectively.



Next, the descriptive analysis also mentioned about whether or not the respondents taking the subject names Personal Financial Planning and Management. It illustrates that 30% of the students had taken this subject, 27.6% haven't taken and 42.2% of the respondents are not offer this subject in their course.

Lastly, the descriptive analysis showed that how frequently the students will attend the finance talk. There is given 5 choices for the students such as weekly, monthly, quarterly, yearly and never attend. The result showed that no students are attend to finance talk weekly, 5.8% of them are attend monthly, 14.8% of them attend quarterly, 20.2% of them attend yearly and 59.1% of them does not attend for the finance talk.

#### **5.1.1.2 Central Tendencies Measurements of Construct**

The central tendencies measurement of construct has measured the mean to each question for the dependent variables and independent variables. Besides the mean being conducted, the result also showed which category of the answer is the most desired by the majority of the respondents for each question.

The question with the highest mean get by the dependent variables is 4.1907 which are "Paying the students bill on time". Majority of the students are answer that they always pay their student bill on time.

The question for the source of finance asked the main sources of the finance for the students. In the result, there have 211 respondents (82.1%) are get their allowances from the PTPTN loans.

Next, it followed by the question for the monthly savings with the highest mean which is 3.8171. The question for this highest mean is “I save money for future emergency”. There have 40.5% of the respondents agree for this question.

Then, the question with the highest mean get by the monthly expenditures is 3.2335 which is “I have a habit of buying souvenirs on vacation”. But, for this result, majority of the students (45.9%) are answer that they are neutral for such question.

Lastly, it was the general financial knowledge. The highest mean is 3.4786. Most of the students have a fair amount of knowledge about the “current account” which occupied 35.4%.

## **5.1.2 Inferential Analyses**

### **5.1.2.1 Pearson’s Correlation Analysis**

The summary of the Pearson’s Correlation for each construct with the dependent variable (Personal Financial Literacy) such as source of finance, monthly savings, monthly expenditures and general financial knowledge are -0.003, 0.273, -0.221 and 0.241 respectively. So, the source of finance and monthly expenditures has the negative relationship with the dependent variable. Whereas, the monthly savings and the general financial knowledge having a little of relationship with the dependent variable.

Besides that, the correlation also showed the significant value for the variables. The sources of finance do not reject  $H_0$  means that it does not has the significant relationship between source of finance and personal financial literacy. Whereas, the rest of the

independent variables (monthly savings, monthly expenditures and general financial knowledge) are reject  $H_0$ . It means that it has significant relationship between such independent variables and personal financial literacy. As mentioned in Chapter 2, all of the independent variables will have significant relationship with the dependent variables. With the result in Chapter 4, all of the independent variables have significant relationship with the Personal Financial Literacy except for the sources of finance. In chapter 2, it mentioned the students' sources of finance will affected their personal financial literacy. It is contrast with the result in Chapter 4.

#### **5.1.2.2 Independent Sample T-test**

The independent sample t-test is test whether there have the differences between the genders to the variables in this study. The result showed that the equality of variance is assumed that for each variable are approximately equal with the two genders. In conclusion, there have no differences between the genders in the personal financial literacy. It in contrary with the theory illustrates in Chapter 2. In Chapter 2, it mentioned that the male have a better knowledge for the personal financial literacy than female.

#### **5.1.2.3 One-way ANOVA**

In this study, the One-way ANOVA test is used to determine the relationship between the independent variables with taking the subject Personal Financial Planning and Management. In One-way ANOVA, if the significance value is less than p-value 0.05, it does not reject  $H_0$ . It means that there has significant difference between the construct and the item being tested. In contrary, if the significant value higher than 0.05, then it does not have the differences between the construct and the items being tested. If

there is significant difference, it needs to continue to refer to the Dunnett's Pos Hoc Test and Duncan Post Hoc Test. In the result in previous chapter, it showed that the group haven't taken and not offer for the subject Personal Financial Planning and Management is significant different with the group which are taking for the subject Personal Financial Planning and Management.

## 5.2 Discussion of Major Findings

Table 5.1: Summary of the Result of Hypotheses Testing

Hypothesis	Supported	Not Supported
There is a significant relationship between source of finance and personal financial literacy.		$\beta = -0.014$ $p = 0.711 > 0.05$
There is a significant relationship between monthly savings and personal financial literacy.	$\beta = 0.239$ $p = 0.000 < 0.05$	
There is a significant relationship between monthly expenditures and personal financial literacy.	$\beta = -0.254$ $p = 0.000 < 0.05$	
There is a significant relationship between general financial knowledge and personal financial literacy.	$\beta = 0.193$ $p = 0.000 < 0.05$	

<p>There is a significant difference between independent variables (source of finance, monthly savings, monthly expenditure and general financial knowledge) and personal financial literacy based on gender.</p>		<p>p(source of finance) = 0.779 &gt; 0.05                  p(monthly savings) = 0.287 &gt; 0.05                  p(monthly expenditures) = 0.302 &gt; 0.05                  p(general financial knowledge) = 0.974 &gt; 0.05</p>
<p>There is significant difference between independent variables (sources of finance, monthly savings, monthly expenditures and general financial knowledge) and personal financial literacy based on the subject taken.</p>	<p>p(monthly savings) = 0.001 &lt; 0.05</p>	<p>p(source of finance) = 0.058 &gt; 0.05                  p(monthly expenditures) = 0.477 &gt; 0.05                  p(general financial knowledge) = 0.307 &gt; 0.05</p>

Source: Developed for the research

### 5.2.1 Source of Finance

From the findings in chapter 4, the correlation coefficient shows that there is an insignificant and also negative relationship between source of finance and personal financial literacy which carries the value of -0.014. The negative relationship between the source of finance and personal financial literacy is consistent with the theoretical model of Falahati et al. (2011). The students who get the more sources will purchase more goods and this leads them to a higher financial problems. Eitel and Martin (2009) indicate the there is an insignificant relationship between sources of finance and personal financial literacy. Students who work part time will cause their graduation progress slower than others. However, the students who are based on the educational loan, they have more time to spend in their study.

Hence, their progress to graduation will quickly than the students who works part time job. Thus, the sources of finance received by the students do not affect their level of personal financial literacy but the graduation process.

Nowadays, most of the students are borrowing money from the government during their university life. However, the student loan has become a debt or burden after they had graduated. Besides, there are many students does not have the knowledge to manage their money in the future semester of college and it will lead to financial problems in their future. In addition, there are a lot of students have fully utilize the student loan before the semester end and it will seriously affect their financial problems in the following semester. In other words, the students have the money and the finance knowledge but they still do not know how to manage their fund.

Therefore, the source of finance of a student will not affect their personal financial literacy but it will affect the student to face the difficult in financing their money (CreditInfoCenter Announces The Release of Their New Student Finance Series, 2012). In a nutshell, there is no significant relationship between the sources of finance and personal financial literacy.

### **5.2.2 Monthly Savings**

According to previous findings, it shows that monthly savings have a positive relationship with personal financial literacy which the correlation coefficient is 0.2339. The results is consistent with theoretical framework in chapter 2 that that there is a positive relationship between monthly savings and personal financial literacy (Sohn et al, 2012). In addition, the researchers stated that students who had the financial knowledge, they will save their money in order to prevent any emergency. The more they save, the higher the level of their personal financial literacy. Therefore, there is a

significant relationship between money savings and personal financial literacy.

Furthermore, this significant independent variable is supported by the research of Sabri and MacDonald (2010) which indicated that personal financial literacy has positive relationship with the savings. Their results also show that the students who have greater knowledge on personal financial literacy are more likely to saving compared to others. This means that the monthly savings and the personal financial literacy are connected with each other significantly.

The result of research from Nyamute and Maina (2010) is same as our research that there is a significant relationship between the monthly savings and personal financial literacy. For example, the person who has financial background are often finding the opportunities to saving, planning for the future needs, and save their payment in every month.

### **5.2.3 Monthly Expenditures**

The monthly expenditures make a significant relationship towards the personal financial literacy. The correlation coefficient indicates that there is a negative relationship between the monthly expenditures and personal financial literacy which is -0.254. These findings are supported by Sabri & MacDonald (2010), Danes, Huddleston, & Boyce (1999), Nyamute & Maina (2010) and Falahati et al (2011).

The results consistent with Falahati et al. (2011) mentioned in chapter 2 that the spendthrift attitude has positive effect on financial problems. It means that the more the students spend, the possibility they faced financial problems is higher. At the same time, we will be told that they do not have the personal financial literacy.

Sabri and MacDonald (2010) showed that there are a lot of the students had finished spent their money before the end of the semester. The students who spend much are more likely lead to financial problems. There is a negative relationship between the personal financial literacy and the financial problems among Malaysia college students. In another words, it is same as our findings that the monthly expenditures is negatively affect the personal financial literacy. Danes, Huddleston, and Boyce (1999) found that most of the college students who had low level of personal financial literacy are spending a lot. The more a student spent, the lower the personal financial literacy level he had.

Based on the report from National Foundation for Credit Counselling in 2010, there is a significant relationship for the monthly expenditures and the personal financial literacy. A person who spends lesser by comparing the prices for their major expenses is having a higher level in personal financial literacy. Besides, the participants who know how to plan budget, track their expenditure and view the amount of spending will have a better personal financial literacy. According to Nyamute and Maina (2010), debts will turn a person's life as it is a burden for an individual.

#### **5.2.4 General Financial Knowledge**

There is a positive relationship for the general financial knowledge and the personal financial literacy which shows that 0.193 in the correlation coefficient. This result is consistent with Falahati et al. (2011), the theoretical framework, that students who had attend for finance education programs are more able to change their attitudes compared to those did not attend.

Sabri and MacDonald (2010) also proved that the positive relationship of general financial knowledge and personal financial literacy. The better general financial knowledge will lead to the students have a greater level of personal financial literacy. In addition, Gitman and Bacon (1985) also



show that tertiary level students without general financial knowledge will lead to inadequate in the level of personal financial literacy.

According to Lusardi (2008), the students with general financial knowledge will be more expert in decision-making. They have higher personal financial literacy level when taking part in the borrowing and lending. Besides, the students with wide access to financial services such as education loans and credit will cause them lack of the financial management knowledge and experience to manage money. Thus, they always borrow money in order to pay their educations without understanding of their financial problems in futures. It also proved that students without general financial knowledge will be lower in personal financial literacy (Gladieux & Perna, 2005). Therefore, there is a significant relationship between general financial knowledge and personal financial literacy.

### **5.2.5 Personal Financial Literacy based on Gender**

Based on the results from chapter 4, there is no significant difference between source of finance, monthly savings, monthly expenditures, general financial knowledge and personal financial literacy according to gender.

Falahati et al. (2011) found that male students with a spendthrift attitude will lead them to more financial problems. Spendthrift attitude means that students who will spend a lot in their monthly expenditures. It indirectly means that they will have lower level in personal financial literacy level. Yet, female students with a spendthrift attitude will also cause them face many financial problems. Thus, there is no significant difference between personal financial literacy and monthly expenditures based on gender. Gender will have no significant difference with their income. The income is the source of finance of the students is defined as where the money comes from such as PTPTN loan and allowance given by their parents. It

is support to our findings that there is no significant difference between sources of finance based on gender. (DePianto, 2011)

Findings of Chen and Volpe (1998) showed that male students are knowledgeable than female students based on the results of their survey. It is different with our results on chapter 4 that there is no significant different between general financial knowledge according to the gender. However, studies of Falahati et al. (2011) is support the findings of our research that there is no significant different between the general financial knowledge and skills according to gender. In addition, women are tend to save more than man which the finding is different with our results that there is no significant different monthly savings based on the gender. (Nguanbanchong, 2013)

#### **5.2.6 Personal Financial Literacy based on Subject Taken**

The result in chapter 4 showed that there is no significant difference between personal financial literacy and the independent variables such as source of finance, monthly expenditures and general financial knowledge based on subject taken. However, there is significance difference between subject taken and monthly savings. Based on the results from monthly savings with subject taken, the group who had taken the subject is significant different to the group haven't taken the subject and the group who did not get offer the subject in their study.

According to Yates and Ward (2011), the person who had taken the personal financial will knowledgeable than those who tertiary level does not offer. They always cannot make decision when facing the problems such as when people asking borrowing from them or they do not have a well-planning for future such as retirement. Nyamute and Maina (2010) found that there is a significant difference between finance students and the non-finance students. The finance students are knowledge in financial than non-finance students due to they must have already taken the subject

in their university or college life. Thus, there is significant difference between those who had taken the subject and those who do not take the subject or there is no offer for them.

Falahati et al. (2011)'s findings have also proved that those students who are business majors will be knowledgeable than those non-business major students and they are significantly different to the personal financial literacy level. Business major students normally will take the subject about finance, thus the independent variable that those who had taken the subject of Personal Financial Planning has a significant difference from the group that does not offer this subject.

### **5.3 Implications of the Study**

The result of this study is aimed to provide a clear whole picture about the personal financial literacy of students affected by several factors. These provide a guideline to students regarding how to build up well personal financial literacy through relevant factors and improve their financial behavior under strict supervision by themselves. Furthermore, this paper helps people recognize the basic factors and habits that need to be noticed to build a good and sound financial literacy. By understanding the ways of developing personal financial literacy, the economy of a nation will grow over time and make it competitive to rapidly changing global.

#### **5.3.1 Managerial Implications**

With the growing awakening consciousness about the importance of financial literacy, people start to believe that financial literacy acts as a critical part of our study life. The subject related to finance should be provided to make sure students will be instilled with a sound personal finance literacy regarding how to manage their finance and motivate their consciousness of implementing

well finance management. Our research has provided result to proof that the several factors which is monthly savings, monthly expenses and general financial knowledge for this purpose. But from the result of the research, either male or female, these factors are consistently affecting our finance literacy.

Beside, the subject taken should be introduced in the high level institution since the result we obtain in university shows that significant difference toward monthly savings between taken the subject already and have not taken the subject. Maybe this merely due to subject taken only teach and convert valuable information to students make them ability conducting their own financial behavior especially in saving. By understanding this, high level institution can start to apply other types of method or way from different aspect such as offer seminar or talks related to finance to students throughout all the courses. Because the result we obtained shows that significant relationship between three factors (monthly saving, monthly expenses and general financial knowledge) and personal financial literacy. Thus different types of way should implemented by promoting an intention to guild them a comprehensive financial management.

On the other hand, people start to be aware of monthly savings, monthly expenditures and general financial knowledge after reading this research. They will be continuously monitoring and evaluating their new financial behavior, keep reform and make the most satisfy performance on dealing with financial matter. Last but not least, specific saving program or spending plan can be designed to help people achieve higher personal financial literacy. For example, Student Saving Club can be suggested into campus or institution gives students discount or more valuable payment fee. It is most valuable student discount program now in North America.

The research provides support that shows several factors will affect the individual personal financial literacy. Personal financial literacy plays an important role to every basis of factor because it like skill and knowledge

enable people to judge and to take effective actions. Only have sufficient personal financial literacy, make us to be able judged by ourselves about how many saving we needed, how much expenses we need to do in order to make correctly financial decision.

## **5.4 Limitations of the Study**

In this present study, there are a number of limitations. The first limitation is the number of sample size is too small in which only distributed 257 sets of questionnaires. The sample size is too small as the population is big. Therefore, the result of the research may not accurate. The final result of this research cannot be representing of all tertiary students in Malaysia. The larger of the sample size, the result get will be more reliable.

Besides, there is a limitation of geographical on the respondent in which the research is focus on FBF students in UTAR Perak campus. This will cause a selection bias as the final result may not accurate. The researchers should conduct at other campus in Malaysia as it may provide any different views and perspective. The target respondent in the research is FBF students. However there may have some students from other faculties. The respondents may provide inappropriate answers and this will cause the result of the study not reliable. Besides, the researchers distribute the questionnaire to the respondents during tutorial class or lecture hall. The students may simply answer the questions as they are rushing to attend for the next class or the class is going to start. The answer provided may cause the result inaccurate.

Furthermore, the factors that affect a tertiary student's financial literacy level not only the independent variables conducted by the researchers. There are many factors that may contribute to the level of personal financial literacy of a tertiary student. Thus, the result of the research may not enough to represent the Malaysian tertiary students' level of financial literacy.

## **5.5 Recommendations for Future Research**

In order to get more reliable result, future researchers should focus on respondents in different faculties and select the right respondents for conducting the survey. This will reduce the selection bias and get a more accurate result.

Besides, the future researchers should expand to wider geographical location instead of focus on students in UTAR Perak campus. The size of respondents should increase as the larger sample size, the more accurate the result. Therefore, the data obtaining may bring significant contribution to the results.

The researchers should inform the respondents that the questionnaire is distributed to the FBF students in order to avoid distribute to the wrong respondents. Furthermore the researchers need to distribute the survey at the right time such as students having lunch or waiting for the following class. Thus, the data obtained will be more accurate.

Lastly, future research needs to include other variables that can affect the level of financial literacy of tertiary student. The role of parents can be included in the current study as it may affect the dependent variable.

## **5.6 Conclusion**

In conclusion, this research is to bring a better understanding of the factors that affect the personal financial literacy among tertiary students. This research become an interest as most of the students today are unable to manage their money, overspending, lack of financial management knowledge and others. Therefore, this study is to give a better understanding about the attitude of a person should have in order to have a well management of their fund. Actually, there are a lot of factors that affect the personal financial literacy. However, we just look for the common factors in this research which are source of finance, money expenditures, monthly savings, general financial knowledge and gender.

From the study, we had done all the requirements to carry out the research and we have a better understanding of the objective in this study and the literature reviews by previous researchers. The first two chapters in this research bring about the understanding of the reasons of our study and proven of how relevant the study which done by the previous researchers. Besides, Chapter 3 is explained of the research methodology and the way to carry out the research while Chapter 4 is presented the data analysis from the data obtained and the tested that carried out from the questionnaire. Finally, Chapter 5 explained the major findings, limitations during the research, some recommendations and implications for future researchers.

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## Appendices

### Appendix 3.1: Research Questionnaire Sample



Dear respondents,

We are Year Three Semester Three students from Universiti Tunku Abdul Rahman, of Bachelor of Business Administration (Hons) Banking and Finance programme.

We are conducting a research project with the topic '**Personal Finance Literacy among Tertiary Level Students.**' Thus, we need your collaboration completing the questionnaire. The purpose of this research is to analyze what are the factors that affect the personal financial literacy among tertiary students.

The collection of data from this survey will be reported only in aggregate. As a result, your responses will be held strictly confidential and it is meant for academic purpose only. It will take you about 10-15 minutes to complete this survey.

Thank you for your precious time and sincere participation.

Name	ID
Ng ChingHwa	10ABB02347
Vivien Kuan Wai Ying	10ABB02927
Too Siaw Bei	10ABB02339
Yong Yun Cheng	10ABB02701
Yong Gah Hee	10ABB02550

**Section A: Demographic Profile**

Please circle the answer in Section A, B and C for each following question:

1. Gender

A. Male

B. Female

2. Course of study

A. Bachelor of Commerce (Hons) Accounting

B. Bachelor of Business Administration (Hons)

C. Bachelor of Business Administration (Hons) Entrepreneurship

D. Bachelor of Business Administration (Hons) Banking and Finance

E. Bachelor of Economics (Hons) Financial Economics

F. Bachelor of Marketing (Hons)

G. Bachelor of Finance (Hons)

3. When you start your saving habit?

A. below 10 years old

B. 11 ~ 15 years old

C. 16 ~ 20 years old

D. above 21 years old

E. I don't have any saving habit.

4. Have you taken or currently taking the subject of UBFF Personal Financial Planning and Management?

A. Yes

B. No, I haven't taken this subject.

C. No, my course does not offer this subject.



5. On average, how frequently you attend talks and activities that related to finance?

- A. Weekly
- B. Monthly
- C. Quarterly
- D. Yearly
- E. Never attend

**Section B: Personal Financial Literacy**

For each statement, please circle the number indicate your degree of frequency.

1	2	3	4	5
Never	Seldom	Sometimes	Often	Always

1.	Paying student bills on time.	1	2	3	4	5
2.	Managing finances.	1	2	3	4	5
3.	Record expenditures.	1	2	3	4	5
4.	Compare prices when shopping.	1	2	3	4	5
5.	Avoid maxing out the limit in my ATM card.	1	2	3	4	5

**Section C: Source of Finance**

1. How you get your allowance for every month?

- A. PTPTN loan
- B. Scholarship
- C. From parents
- D. Doing part time job

**Section D: Monthly Savings**

In this section, we would like to know what your purpose to save money. For each statement, please circle the number indicate your degree of agreement.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

6	I save money for future emergency use.	1	2	3	4	5
7.	I save money in order to buy items for my personal grooming.	1	2	3	4	5
8.	I hope to take a dream vacation, therefore I save my money.	1	2	3	4	5
9.	I save money to buy present for my partner or friends.	1	2	3	4	5
10.	I save money to buy durable items such as car and house.	1	2	3	4	5

**Section E: Monthly Expenditure**

In this section, we would like to know how is your spending behaviour. For each statement, please circle the number indicate your degree of agreement.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

11.	I prefer to have Business Class seat and accommodation for a long trip.	1	2	3	4	5
12.	I have a habit of buying souvenirs on vacation.	1	2	3	4	5
13.	I will spend on magazines and newspapers regularly.	1	2	3	4	5
14.	I prefer to have a meal at outside rather than cook by own.	1	2	3	4	5
15.	I do consider the price when I purchase any items.	1	2	3	4	5

**Section F: Financial Knowledge**

In this section, we would like to know how much do you understand about the following statements. Please circle the answer to indicate your degree of financial knowledge.

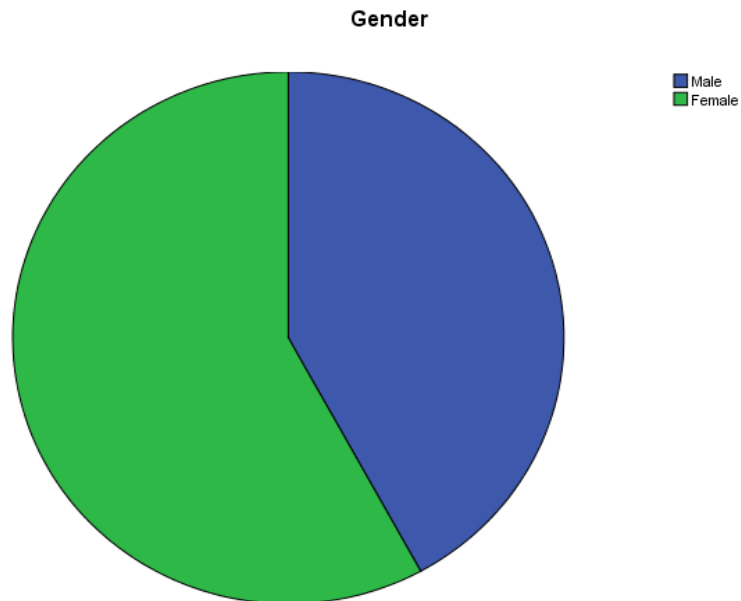
1	2	3	4	5
Nothing	Little	Some	A fair amount	A lot

16.	Interest rate, finance charges and credit terms.	1	2	3	4	5
17.	Credit ratings.	1	2	3	4	5
18.	Pension.	1	2	3	4	5
19.	Current account.	1	2	3	4	5
20.	Certificate of deposit.	1	2	3	4	5

## Appendix 4.1: The Frequencies of Demographic

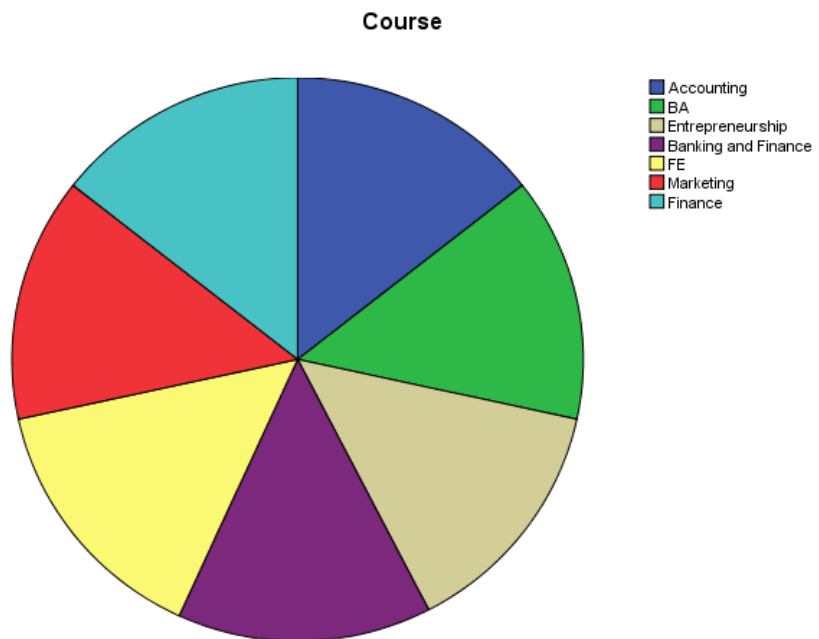
### 1. Gender

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	108	42.0	42.0	42.0
	Female	149	58.0	58.0	100.0
Total		257	100.0	100.0	



## 2. Course of Study

		Course			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Accounting	37	14.4	14.4	14.4
	BA	36	14.0	14.0	28.4
	Entrepreneurship	36	14.0	14.0	42.4
	Banking and Finance	37	14.4	14.4	56.8
	FE	38	14.8	14.8	71.6
	Marketing	36	14.0	14.0	85.6
	Finance	37	14.4	14.4	100.0
	Total	257	100.0	100.0	

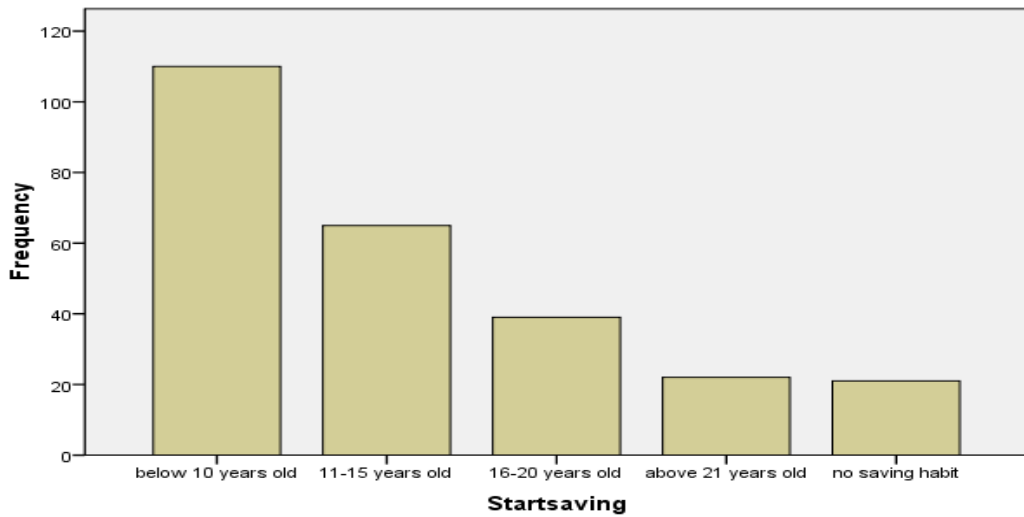


### 3. Age of Start Saving Habits

**Startsaving**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	below 10 years old	110	42.8	42.8	42.8
	11-15 years old	65	25.3	25.3	68.1
	16-20 years old	39	15.2	15.2	83.3
	above 21 years old	22	8.6	8.6	91.8
	no saving habit	21	8.2	8.2	100.0
	Total	257	100.0	100.0	

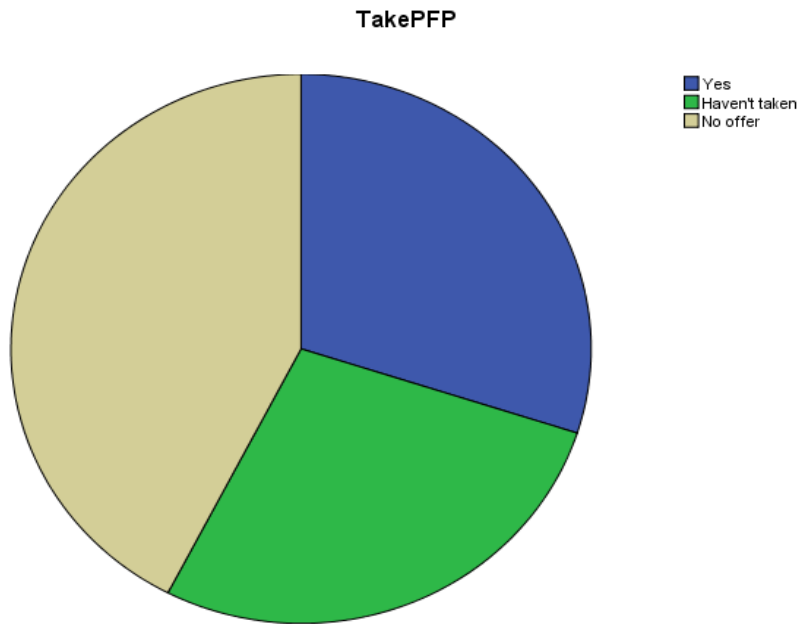
**Startsaving**



#### 4. Taking “Personal Financial Planning and Management”

**TakePFP**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	77	30.0	30.0	30.0
	Haven't taken	71	27.6	27.6	57.6
	No offer	109	42.4	42.4	100.0
	Total	257	100.0	100.0	



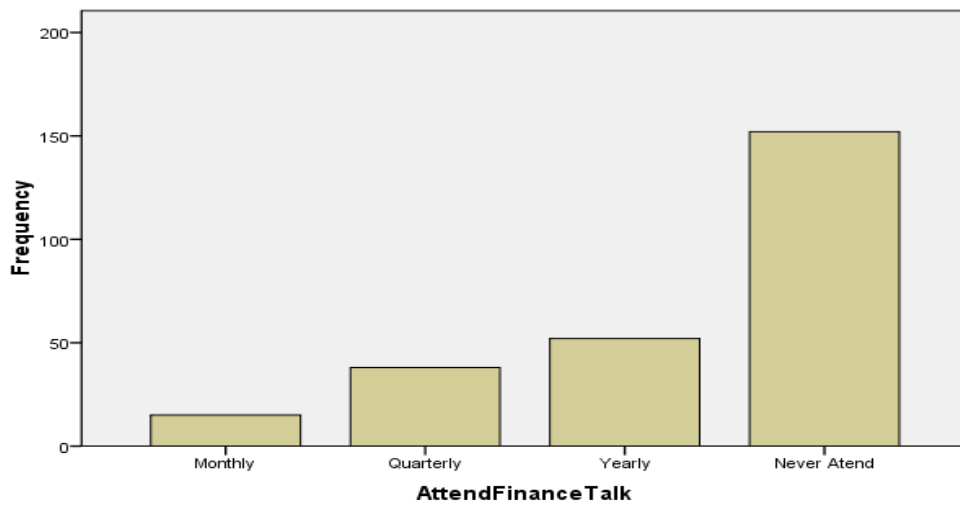


### 5. Attend Finance Talk

AttendFinanceTalk

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Monthly	15	5.8	5.8	5.8
	Quarterly	38	14.8	14.8	20.6
	Yearly	52	20.2	20.2	40.9
	Never Attend	152	59.1	59.1	100.0
	Total	257	100.0	100.0	

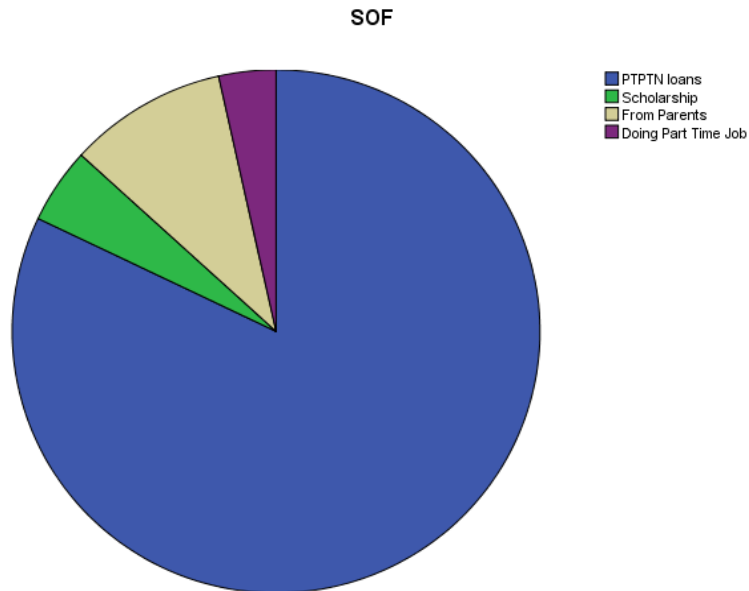
AttendFinanceTalk



### 6. Source of Finance

**SOF**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid PTPTN loans	211	82.1	82.1	82.1
Scholarship	12	4.7	4.7	86.8
From Parents	25	9.7	9.7	96.5
Doing Part Time Job	9	3.5	3.5	100.0
Total	257	100.0	100.0	



## Appendix 4.2: Mean of Variables

### i) Personal Financial Literacy

#### Statistics

		PF1	PF2	PF3	PF4	PF5
N	Valid	257	257	257	257	257
	Missing	0	0	0	0	0
Mean		4.1907	3.4786	3.2412	3.7782	3.8599

#### PF1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	4	1.6	1.6	1.6
	Seldom	19	7.4	7.4	8.9
	Sometimes	42	16.3	16.3	25.3
	Often	51	19.8	19.8	45.1
	Always	141	54.9	54.9	100.0
	Total	257	100.0	100.0	

#### PF2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	1	.4	.4	.4
	Seldom	25	9.7	9.7	10.1
	Sometimes	115	44.7	44.7	54.9
	Often	82	31.9	31.9	86.8
	Always	34	13.2	13.2	100.0
	Total	257	100.0	100.0	

Personal Financial Literacy Among Tertiary Level Students

**PF3**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	6	2.3	2.3	2.3
	Seldom	41	16.0	16.0	18.3
	Sometimes	124	48.2	48.2	66.5
	Often	57	22.2	22.2	88.7
	Always	29	11.3	11.3	100.0
	Total	257	100.0	100.0	

**PF4**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	2	.8	.8	.8
	Seldom	19	7.4	7.4	8.2
	Sometimes	73	28.4	28.4	36.6
	Often	103	40.1	40.1	76.7
	Always	60	23.3	23.3	100.0
	Total	257	100.0	100.0	

**PF5**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	2	.8	.8	.8
	Seldom	23	8.9	8.9	9.7
	Sometimes	65	25.3	25.3	35.0
	Often	86	33.5	33.5	68.5
	Always	81	31.5	31.5	100.0
	Total	257	100.0	100.0	

**ii) Monthly Savings**

**Statistics**

		Savings1	Savings2	Savings3	Savings4	Savings5
N	Valid	257	257	257	257	257
	Missing	0	0	0	0	0
Mean		3.8171	3.5370	3.5642	3.2724	3.5486

**Savings1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	1.2	1.2	1.2
	Disagree	20	7.8	7.8	8.9
	Neutral	64	24.9	24.9	33.9
	Agree	104	40.5	40.5	74.3
	Strongly Agree	66	25.7	25.7	100.0
Total		257	100.0	100.0	

**Savings2**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	9	3.5	3.5	3.5
	Disagree	18	7.0	7.0	10.5
	Neutral	97	37.7	37.7	48.2
	Agree	92	35.8	35.8	84.0
	Strongly Agree	41	16.0	16.0	100.0
Total		257	100.0	100.0	

**Savings3**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	1.2	1.2	1.2
	Disagree	30	11.7	11.7	12.8
	Neutral	81	31.5	31.5	44.4
	Agree	105	40.9	40.9	85.2
	Strongly Agree	38	14.8	14.8	100.0
	Total	257	100.0	100.0	

**Savings4**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	7	2.7	2.7	2.7
	Disagree	33	12.8	12.8	15.6
	Neutral	122	47.5	47.5	63.0
	Agree	73	28.4	28.4	91.4
	Strongly Agree	22	8.6	8.6	100.0
	Total	257	100.0	100.0	

**Savings5**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	6	2.3	2.3	2.3
	Disagree	31	12.1	12.1	14.4
	Neutral	90	35.0	35.0	49.4
	Agree	76	29.6	29.6	79.0
	Strongly Agree	54	21.0	21.0	100.0
	Total	257	100.0	100.0	

**iii) Monthly Expenditures**

**Statistics**

		Expenditure1	Expenditure2	Expenditure3	Expenditure4	Expenditure5
N	Valid	257	257	257	257	257
	Missing	0	0	0	0	0
Mean		3.0117	3.2335	2.7237	2.8988	2.5019

**Expenditure1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	11	4.3	4.3	4.3
	Disagree	53	20.6	20.6	24.9
	Neutral	129	50.2	50.2	75.1
	Agree	50	19.5	19.5	94.6
	Strongly Agree	14	5.4	5.4	100.0
Total		257	100.0	100.0	

**Expenditure2**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	8	3.1	3.1	3.1
	Disagree	34	13.2	13.2	16.3
	Neutral	118	45.9	45.9	62.3
	Agree	84	32.7	32.7	94.9
	Strongly Agree	13	5.1	5.1	100.0
Total		257	100.0	100.0	

**Expenditure3**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	15	5.8	5.8	5.8
	Disagree	91	35.4	35.4	41.2
	Neutral	110	42.8	42.8	84.0
	Agree	32	12.5	12.5	96.5
	Strongly Agree	9	3.5	3.5	100.0
	Total	257	100.0	100.0	

**Expenditure4**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	15	5.8	5.8	5.8
	Disagree	75	29.2	29.2	35.0
	Neutral	99	38.5	38.5	73.5
	Agree	57	22.2	22.2	95.7
	Strongly Agree	11	4.3	4.3	100.0
	Total	257	100.0	100.0	

**Expenditure5**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	47	18.3	18.3	18.3
	Disagree	84	32.7	32.7	51.0
	Neutral	85	33.1	33.1	84.0
	Agree	32	12.5	12.5	96.5
	Strongly Agree	9	3.5	3.5	100.0
	Total	257	100.0	100.0	



**iv) General Financial Knowledge**

**Statistics**

		FK1	FK2	FK3	FK4	FK5
N	Valid	257	257	257	257	257
	Missing	0	0	0	0	0
Mean		3.1790	2.8366	2.8444	3.4786	3.0350

**FK1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nothing	10	3.9	3.9	3.9
	Little	51	19.8	19.8	23.7
	Some	93	36.2	36.2	59.9
	A Fair Amount	89	34.6	34.6	94.6
	A Lot	14	5.4	5.4	100.0
	Total	257	100.0	100.0	

**FK2**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nothing	24	9.3	9.3	9.3
	Little	65	25.3	25.3	34.6
	Some	111	43.2	43.2	77.8
	A Fair Amount	43	16.7	16.7	94.6
	A Lot	14	5.4	5.4	100.0
	Total	257	100.0	100.0	

**FK3**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nothing	28	10.9	10.9	10.9
	Little	56	21.8	21.8	32.7
	Some	108	42.0	42.0	74.7
	A Fair Amount	58	22.6	22.6	97.3
	A Lot	7	2.7	2.7	100.0
	Total	257	100.0	100.0	

**FK4**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nothing	5	1.9	1.9	1.9
	Little	34	13.2	13.2	15.2
	Some	89	34.6	34.6	49.8
	A Fair Amount	91	35.4	35.4	85.2
	A Lot	38	14.8	14.8	100.0
	Total	257	100.0	100.0	

**FK5**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nothing	24	9.3	9.3	9.3
	Little	48	18.7	18.7	28.0
	Some	96	37.4	37.4	65.4
	A Fair Amount	73	28.4	28.4	93.8
	A Lot	16	6.2	6.2	100.0
	Total	257	100.0	100.0	

## Appendix 4.3: Cronbach's Alpha for Independent Variables

**Case Processing Summary**

		N	%
Cases	Valid	257	100.0
	Excluded <sup>a</sup>	0	.0
	Total	257	100.0

a. Listwise deletion based on all variables in the procedure.

### 1. Personal Financial Literacy

**Reliability Statistics**

Cronbach's Alpha	N of Items
.703	5

### 2. Monthly Savings

**Reliability Statistics**

Cronbach's Alpha	N of Items
.704	5

### 3. Monthly Expenditure

**Reliability Statistics**

Cronbach's Alpha	N of Items
.700	5

#### 4. General Financial Knowledge

**Reliability Statistics**

Cronbach's Alpha	N of Items
.823	5

## Appendix 4.4: Pearson's Correlation Analysis

### Inferential Analyses

**Correlations**

		Total_PF	SOF	Total_SV	Total_EXP	Total_FK
Total_PF	Pearson Correlation	1	-.003	.273**	-.221**	.241**
	Sig. (2-tailed)		.964	.000	.000	.000
	N	257	257	257	257	257
SOF	Pearson Correlation	-.003	1	.085	-.040	-.051
	Sig. (2-tailed)	.964		.174	.527	.418
	N	257	257	257	257	257
Total_SV	Pearson Correlation	.273**	.085	1	.003	.164**
	Sig. (2-tailed)	.000	.174		.957	.008
	N	257	257	257	257	257
Total_EXP	Pearson Correlation	-.221**	-.040	.003	1	.105
	Sig. (2-tailed)	.000	.527	.957		.093
	N	257	257	257	257	257
Total_FK	Pearson Correlation	.241**	-.051	.164**	.105	1
	Sig. (2-tailed)	.000	.418	.008	.093	
	N	257	257	257	257	257

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Model summary**

R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
			R Square Change	F Change	df1	df2	Sig. F Change
.174	.161	.58997	.174	13.298	4	252	.000

a. Predictors: (Constant), Total\_FK, SOF, Total\_EXP, Total\_SV

b. Dependent Variable: Total\_PF

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.019	.289		10.431	.000
	SOF	-.014	.037	-.021	-.371	.711
	Total_SV	.239	.058	.238	4.089	.000
	Total_EXP	-.254	.059	-.247	-4.285	.000
	Total_FK	.193	.050	.227	3.874	.000

a. Dependent Variable: Total\_PF

### Appendix 4.5: Independent Sample T-test

**Group Statistics**

	Gender	N	Mean	Std. Deviation	Std. Error Mean
SOF	Male	107	1.3645	1.16872	.11298
	Female	150	1.4000	.85922	.07015
Total_PF	Male	107	3.6168	.74181	.07171
	Female	150	3.7760	.55752	.04552
Total_SV	Male	107	3.4972	.73324	.07088
	Female	150	3.5840	.56877	.04644
Total_EXP	Male	107	2.8262	.62046	.05998
	Female	150	2.9080	.62761	.05124
Total_FK	Male	107	3.0729	.70008	.06768
	Female	150	3.0760	.79551	.06495

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
SOF	Equal variances assumed	.022	.881	-.281	255	.779	-.03551	.12649	-.28461	.21358
	Equal variances not assumed			-.267	184.032	.790	-.03551	.13299	-.29790	.22687
Total_PF	Equal variances assumed	5.892	.016	-1.964	255	.051	-.15918	.08106	-.31881	.00046
	Equal variances not assumed			-1.874	187.029	.062	-.15918	.08494	-.32674	.00839
Total_SV	Equal variances assumed	6.119	.014	-1.068	255	.287	-.08680	.08127	-.24686	.07325
	Equal variances not assumed			-1.024	191.433	.307	-.08680	.08474	-.25395	.08035
Total_EXP	Equal variances assumed	.054	.817	-1.035	255	.302	-.08183	.07904	-.23749	.07383
	Equal variances not assumed			-1.037	230.026	.301	-.08183	.07889	-.23727	.07361
Total_FK	Equal variances assumed	1.641	.201	-.032	255	.974	-.00310	.09583	-.19182	.18562
	Equal variances not assumed			-.033	243.957	.974	-.00310	.09381	-.18787	.18167



## Appendix 4.6: One-way ANOVA

### Subject taken- Personal Financial Planning and Management

#### Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Total_SV	7.871	2	254	.000
Total_EXP	.077	2	254	.926
Total_FK	.056	2	254	.946
Total_SOF	9.856	2	254	.000

#### ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Total_SV	Between Groups	5.607	2	2.803	7.117	.001
	Within Groups	100.054	254	.394		
	Total	105.661	256			
Total_EXP	Between Groups	.581	2	.290	.742	.477
	Within Groups	99.335	254	.391		
	Total	99.915	256			
Total_FK	Between Groups	1.354	2	.677	1.187	.307
	Within Groups	144.891	254	.570		
	Total	146.246	256			
Total_SOF	Between Groups	.352	2	.176	2.873	.058
	Within Groups	15.577	254	.061		
	Total	15.929	256			

**Dunnett's Post Hoc Test**

**Multiple Comparisons**

Dependent Variable	(I) TakePFP	(J) TakePFP	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Total_S Dunnett T3 V	Yes	Haven't taken	-.15947	.09078	.223	-.3788	.0598
		No offer	.19619	.09915	.141	-.0428	.4351
	Haven't taken	Yes	.15947	.09078	.223	-.0598	.3788
		No offer	.35565*	.08759	.000	.1446	.5667
	No offer	Yes	-.19619	.09915	.141	-.4351	.0428
		Haven't taken	-.35565*	.08759	.000	-.5667	-.1446
Total_E Dunnett T3 XP	Yes	Haven't taken	.10152	.10324	.694	-.1478	.3508
		No offer	-.00772	.09335	1.000	-.2328	.2174
	Haven't taken	Yes	-.10152	.10324	.694	-.3508	.1478
		No offer	-.10924	.09512	.581	-.3388	.1204
	No offer	Yes	.00772	.09335	1.000	-.2174	.2328
		Haven't taken	.10924	.09512	.581	-.1204	.3388
Total_F Dunnett T3 K	Yes	Haven't taken	-.02462	.12250	.996	-.3204	.2712
		No offer	.13385	.11281	.555	-.1382	.4059
	Haven't taken	Yes	.02462	.12250	.996	-.2712	.3204
		No offer	.15847	.11459	.424	-.1181	.4350
	No offer	Yes	-.13385	.11281	.555	-.4059	.1382
		Haven't taken	-.15847	.11459	.424	-.4350	.1181
Total_S Dunnett T3 OF	Yes	Haven't taken	.06516	.02998	.091	-.0073	.1376
		No offer	-.02454	.03878	.894	-.1180	.0689
	Haven't taken	Yes	-.06516	.02998	.091	-.1376	.0073
		No offer	-.08971*	.03452	.030	-.1730	-.0065
	No offer	Yes	.02454	.03878	.894	-.0689	.1180
		Haven't taken	.08971*	.03452	.030	.0065	.1730

\*. The mean difference is significant at the 0.05 level.

**Homogeneous**

**Total\_SV**

TakePFP		N	Subset for alpha = 0.05	
			1	2
Duncan <sup>a</sup>	No offer	109	3.3908	
	Yes	77		3.5870
	Haven't taken	71		3.7465
	Sig.		1.000	.103

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 82.768.

**Total\_EXP**

TakePFP		N	Subset for alpha = 0.05
			1
Duncan <sup>a</sup>	Haven't taken	71	2.7972
	Yes	77	2.8987
	No offer	109	2.9064
	Sig.		.293

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 82.768.

**Total\_FK**

		N	Subset for alpha = 0.05
TakePFP			1
Duncan <sup>a</sup>	No offer	109	2.9908
	Yes	77	3.1247
	Haven't taken	71	3.1493
	Sig.		.206

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 82.768.

**Total\_SOF**

		N	Subset for alpha = 0.05	
TakePFP			1	2
Duncan <sup>a</sup>	Haven't taken	71	.2887	
	Yes	77	.3539	.3539
	No offer	109		.3784
	Sig.		.092	.524

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 82.768.