FACTORS THAT EFFECT AND INFLUENCE ON PERSONAL FINANCIAL MANAGEMENT OF YOUNG ADULT

FACTORS THAT EFFECT AND INFLUENCE ON PERSONAL FINANCIAL MANAGEMENT OF YOUNG ADULT

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Study of Factors that Effect and Influences on The Personal Financial Management of The Young Adult (187 pp.)

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ABSTRACT

The role of financial literacy with regards to sound personal finance management practice is a question many struggles with. Young Adults in nowadays are easy to access the financial products. So that the young adults are important to have knowledge of the financial literacy to capable of managing their personal finance better than their counterparts in other industries. The main research question is "What is the structural relationship among all the variables and how Financial Literacy Factor, Financial Product Knowledge Factor, Family and Peer Factor will effect on the Personal Financial Management of Young Adult". The 400-sample data are collected in Bangkok, Thailand. The Factor Analysis statistical method is employed to analyze the collected data with the purpose of analyze the factors that Effect and Influences on The Personal Financial Management of The Young Adult. This present research is using the (CFA) Confirmatory Factor Analysis because the measurement model in the Structural Equation Modeling (SEM) is used for (CFA) Confirmatory Factor Analysis using Amos followed by the specification and estimation of the models. SEM is a powerful quantitative data analytical technique, which can be estimates and tests the theoretical relationship between/ among latent variables and/or observed variables and it is also combines the regression and factor analysis.

The present research show that the Financial literacy does not affect Personal Financial Management of Young Adult. This result is contrary to the previous research papers showing that Financial literacy path to Personal Financial Management is significant. Financial literacy does affect Financial Product Knowledge of Young Adult. This significant effect of Financial literacy path to Financial Product Knowledge is a new discovery and could be considered as a major contribution from this paper.

Keywords: Financial Literacy, Personal Financial Management, Financial Product Knowledge, SEM, Causal Model

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TABLE OF CONTENTS

Page

ABSTRACT..... iv

ACKNOWLEDGEMENT..... vi

LIST OF TABLES..... x

LIST OF FIGURES..... xii

CHAPTER 1: INTRODUCTION..... 1

1.1 Background of the Study..... 1

1.2 Background Data of Thailand…… 6

1.3 Statements of Problem……..... 11

1.4 Purposes of Study..... 12

1.5 Scope of Study..... 13

1.6 Limitations of Research Study..... 13

1.7 Contribution of the Study..... 14

1.8 Future Academicians and Researchers..... 14

1.9 Outlines of Research..... 14

CHAPTER 2: LITERATURE REVIEW..... 16

2.1 Theoretical Background..... 16

2.2 Financial Literacy 24

2.3 The Measurement Strategies of Financial Literacy 28

2.4 Financial Literacy over Family and Peer Influence 35

2.5 Financial Literacy over Personal Financial Management 37

TABLE OF CONTENTS (Continued)

Page

CHAPTER 2: LITERATURE REVIEW (Continued)

2.6 Structural Equation Modelling (SEM) ……..... 51

2.7 Conceptual Framework …..... 63

2.8 Hypothesis..... 65

CHAPTER 3: METHODOLOGY..... 66

3.1 Research Strategy..... 66

3.2 Research Instrument 67

3.3 Measurement of Instrument 76

3.4 Population and Sample Size ……..... 79

3.5 Data Collection ……..... 82

3.6 Data Collection Places 83

3.7 Data Analysis 84

CHAPTER 4: DATA ANALYSIS..... 86

4.1 Demographic Data…….... 86

4.2 Examination on Data Entry and Missing Data…..... 97

4.3 The Analysis of all variables by Mean ($\bar{X}$) and Standard Deviation (S.D.) 98

4.4 Measurement, Model Fit and Modification …..... 99

4.5 Hypotheses Testing of Initial Model and Final Model 114

TABLE OF CONTENTS (Continued)

Page

CHAPTER 5: CONCLUSION AND DISCUSSION 116

5.1 Summary of the research findings ..……..... 116

5.2 Discussion …….…..... 118

5.3 Managerial Implication 121

5.4 Recommendations for Future Research ……..... 123

BIBLIOGRAPHY..... 124

APPENDIX..... 143

BIO DATA ……..... 187

LICENSE OF AGREEMENT 188

LIST OF TABLES

Page

Table 2.3.1 Surveys Used by Different Countries to Measure the Financial Literacy Level ……..…. 30

Table 2.3.2 Comparison of International Approach of the Measurement for the Financial Literacy ……..... 32

Table 3.2 Level of Information Measurement and Criteria 73

Table 3.3.1 Criteria of Cronbach's Alpha Coefficient 78

Table 3.3.2 The result of Cronbach's Alpha Test from 30 samples: All Factors .. 79

Table 3.5 The three different types of questionnaire ……..... 82

Table 3.6.1 The places of data collection for the 30 samples ……... 83

Table 3.6.2 The places of data collection for the 400 samples …..... 83

Table 4.1.1 Gender ……..…..... 87

Table 4.1.2 Age Group ….……..…..... 87

Table 4.1.3 Marital Status ……..…..... 88

Table 4.1.4 Numbers of Children ……..…..... 88

Table 4.1.5 Numbers of Family Members ……..…..... 89

Table 4.1.6 Education Level ……..…..... 90

Table 4.1.7 Main Field of Study ……..…..... 91

Table 4.1.8 Job ….. ……..…..... 92

Table 4.1.9 Job Positions ……..…..... 93

Table 4.1.10 Income ……..…..... 94

Table 4.1.11 Financial Literacy Training ……..…..... 95

LIST OF TABLES (Continued)

Page

Table 4.1.12 The place of Financial Literacy Training ……..…..... 95

Table 4.1.13 Credit Card ……..…..... 96

Table 4.1.14 Rating of Personal Financial Management ..…….…..... 96

Table 4.4.1 Initial Fit Indices …….…. 103

Table 4.4.2 Regression Weights, Direct and Indirect Effects of Initial Mode 105

Table 4.4.3 Output from Factor Analysis ……..... 107

Table 4.4.4 Final Fit Indices ……..... 110

Table 4.4.5 Summary of Overall Measurement Model …….. 112

Table 4.4.6 Regression Weights, Direct and Indirect Effects of Final Model 112

Table 4.5.1 Hypotheses Testing of Initial Model …….……... 114

Table 4.5.2 Hypotheses Testing of Final Model ……..... 115

LIST OF FIGURES

Page

Figure 1.1 Financial Knowledge, Attitudes and Behavior (average scores) 8

Figure 1.2 House Hold Debt to GDP of Thailand ……..... 10

Figure 2.1 Risk and Return ……..... 19

Figure 2.2 The Conceptual Framework of Financial Capability (Literacy) 28

Figure 2.7.1 Conceptual Framework…… 63

Figure 2.7.2 Initial Model (Propose Model) …… 64

Figure 4.1 Initial Model ….……..... 104

Figure 4.2 Final Model ……..... 111

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Nowadays financial literacy has been playing as a more important role in our daily life which is influences on the personal financial management (PFM). As the technologies has been rapidly developing and growing, the role of financial products and services has been developed. So that peoples in nowadays can easy to access the developing financial products and services such mobile banking, internet banking etc. With the developing of financial products and services, the way of investment has been developed with the new sources. In the developing way of investment, we can be seen two main ways such as traditional investment and alternative investment. The traditional investment is the invest the money into the well-known assets such as cash, bond and stock.

The alternative investment is does not need money to invest. However, the alternative investment includes real estate, commodities and hedge funds. So that the people are more easily to access the investment products and services than before. As easier to access the investment products and services, peoples need more understanding on financial literacy and knowledge of financial products and services to make the right financial decisions. The steadiness of world economy has been in down turn over the past decade and that collapse has triggered the increasing on inflation, unemployment and lower the levels of income. The collapse of economic and the complexity of financial decision has exposed to the individual's quality of lives and work, and has made researchers to inspect ways to deal with them (Taft ,

Hosein , & Mehrizi, 2013).The success of personal financial management has been measured by the capability of individuals to manage their own savings, spending and investments of their own financial resources (Garman & Forgue, 2011).

The worries on the financial literacy of consumers has been increasing in the recent years and the researchers suggests that they sometime do what seem to reducing the welfare decisions. Such as many people do not have a checking account (Hilgert, et al., 2003) having the large amount of credit card balances while the cheaper methods of credit are available (Gartner, Kimberly, Richard, & Todd, 2005) accept the payday loans with astronomical APRs even though in the existence of other cheaper credit sources (Agarwal, Sumit, Skiba, & Tobacman, 2009) sub-optimally pick the credit contracts (Agarwal, Sumit, Chomsisenphet, Liu, & Souleles, 2006); failure to refinancing loans while it would be best condition to do so (Agarwal, Sumit, Driscoll, Gabiax, & Laibson, 2008); and failure to planning for retirement with having small amount or lack of savings (Lucardi, Annamaria, & Mitchell, 2006). The leading description for these behaviors is showing that the consumers are financially illiterate or they have insufficient and lacking the information about financial concepts and utensils to make the optimal financial decisions. According to Al-Tamimi, Hassan, & Kalli (2009), the level of financial literacy has been measured by the percent of correct answer on the knowledge test where each question possesses a right answer.

Many studies on the financial had been assumed that there is a relation between financial literacy and savvy personal financial management behavior. One study in Malaysia which is conducted by Boon, Yee, & Ting (2011), studied the relation between the financial literacy (FL) and personal financial planning (PFP). The

primary data was collected in the Klang Valley by using the questionnaire survey which is self-administered and the relationship was surveyed by using the cross-tabulation method. The findings recommend that in differentiation to their non-financially literate counterparts, the eagerness of individual's financial literate is mirrored to their contribution in the multiple aspects of personal financial planning. However, the further study of public perception showed that many people did not see the significance of financial goals and objectives settings in their life, there is existing a knowledge gap over an individual level that hinders one from managing their financial affairs effectively. It was also initiate that the public are appeared to be tentative to trust on professional advice over financial practices to understand their goals.

There is a study conducted by Klapper, et al., (2013) observed that the effect of financial literacy on financial literacy on financial behavior, financial and real outcomes in Russia. The study is based on an individual level survey data collected from the Russians during 2008 and 2009 to measure the level of financial literacy over the basics of personal finance and awareness of financial service, financial behavior, results across the socioeconomic profiles. According to the results of financial literacy, they found that the high level of financial literacy was related to the high spending capacity and high amount of unspent income during the financial crises. As a result of the above study shows the relationship that the financial literacy is related with the different financial management behavior such as financial management practices: financial planning, saving and credit management which enables individuals to keep the stable financial status even though during the time of financial crises. A study in Lithuania which is conducted by Krajnakova, et al.,

(2014) inspected the level of financial literacy and its influence on personal finance management of Lithuanian population targeted on the age between 18 to 30. The data has been collected on 437 sample respondents from the different parts of the country via online survey. The result of descriptive data analysis showed that the low level of financial literacy, which is related to the unsatisfactory personal financial management that they argued, lead to spending a lot of money in case of unnecessary or unthinking buying, which actually leads to lower saving rates and lower investment returns.

Many studies on financial literacy also show that the individuals lack of basic knowledge to make sound financial decisions. A study conducted by the Organization for Economic Cooperation and Development (OECD, 2006) showed that financial illiteracy is widespread over all age groups and geographical areas. This was confirmed by a study in America which is conducted by Volpe, et al., (2006), which determined that the Americans are lacking the ability to make the good personal financial choices. According to the Xu & Zia (2012), the needs of design and instrument for financial literacy enhancement policies have been also recognized in developing countries and low-income countries. Financial education in developing countries are offered along with the financial services assuming the financial literacy will be developed the demand for improving the financial services such as savings account, microcredit, insurance, and finest management of household finance, which can be expected as a result in better saving, low debt, participating in income generating activities and wealth accumulation.

The lack of information and financial illiteracy which deliver a fertile base for mistakes in financial decision making (Delafrooz & Paim, 2011). Financial illiteracy demonstrates through the indicators of financial instability such as heavy liabilities, very little savings, poor planning for the future such as foreseen expenses, precautionary savings for an eventual unpredicted fall of the financial situation, retirement savings) and lack of the optimal investment practices (Kozup & Hogarth, 2008). Young Adults can be accessed earlier age as compared to their parents. According to a study in America which is conducted by Bankrate.com in 2015, 32% of people who are the ages between 30 and 49 owe more credit card debt which is comparing with 21% for those who are in ages between 18 and 29 and 14% for those who are in ages of 69 years old and more. Younger consumers are mainly challenged when they come to try to build savings. Most are struggling with the needs of young families, the cost of old student loan debt and the attractive of more stylish ways to spend money. Therefore, they need an in-depth understanding of credit, compound interest and which is meant to have a poor credit score.

The Standard & poor global financial literacy survey conducted in 2014, the survey used the questions that affected the concepts of risk diversification, inflation, numeracy and compound interest. The result of survey showed that at a global level only 38% of bank account holders are financially literate. The further research shows that out of 60% of the population in major emerging economies who own bank accounts of 30% are financially literate. Regardless of having a bank account, low levels of financial literacy make it difficult for individuals to utilize financial services which often lead to poor financial decisions especially for the financially unfortunate.

1.2 Background data of Thailand

1.2.1 General information of Thailand

Thailand is located on the Indo-china peninsula in South East Asia. The entire area of Thailand is 513,120 square kilometers. Thailand is bordered with the east by Laos and Cambodia, with the north by Myanmar and Cambodia, with the south by the gulf of Thailand and Malaysia and with the west by Andaman Sea. The southern of part of Thailand is mainly bordered with Myanmar. The total population of Thailand is 69millions (National Statistical Office of Thailand, 2017).

1.2.2 Thailand Economics Factors

Thailand is an emerging economy and can be recognized as a newly industrialized country. Thailand economy is mainly depended on exporting, two-third of GDP is receiving from exporting. According to the IMF (2017), the GDP of Thailand is 15.450 Trillion (US$455Billions) in 2017, standing as 8th ranked in the largest economy in Asia. Thailand is the 2nd largest economy in the Southeast Asia behind the leader Indonesia. However, the GDP of Thailand is standing 4th place in Southeast Asia after Singapore, Brunei and Malaysia. According to the National statistical Office Thailand, the unemployment rate of Thailand is 1% in July 2018. The Average amount of Monthly Income per household is 26,496 Baht in 2017 (NSO, 2019). The average amount of monthly expenditure per household is 21,437 Baht in 2017 according to National Statistical office of Thailand. The average amount of debt per household is 178,894 baht based on the credit card in 2017 (NSO, 2019).

1.2.3 Financial Literacy of Thailand

The financial literacy level of Thailand is conducted by the OECD which research is based on the three main areas such as individual aspect of Financial knowledge, behavior and attitude. The research had been collected by 10000 peoples around the around Thailand and targeted the age between 14-69 years old. As we seen in the table 1, it showed the all the financial literacy level of OECD member countries. According the research result, France is leading with 14.9 points and as we see in knowledge score 4.9, behavior score 6.7 and Attitude score 3.2 respectively. Poland is standing last with 11.6 points and as we see in knowledge score 4.4, behavior score 4.4 and Attitude score 2.8 respectively. As an average of points over all countries is 13.2 points and we see in knowledge score 4.6, behavior score 5.4 and Attitude score 3.3 respectively. Thailand's financial literacy score 12.8 is a little bit lower than the average score 13.2. Thailand has the good behavior score with 5.8 which is higher than average but in knowledge score 3.9 and attitude score 3.1 is lower than average.

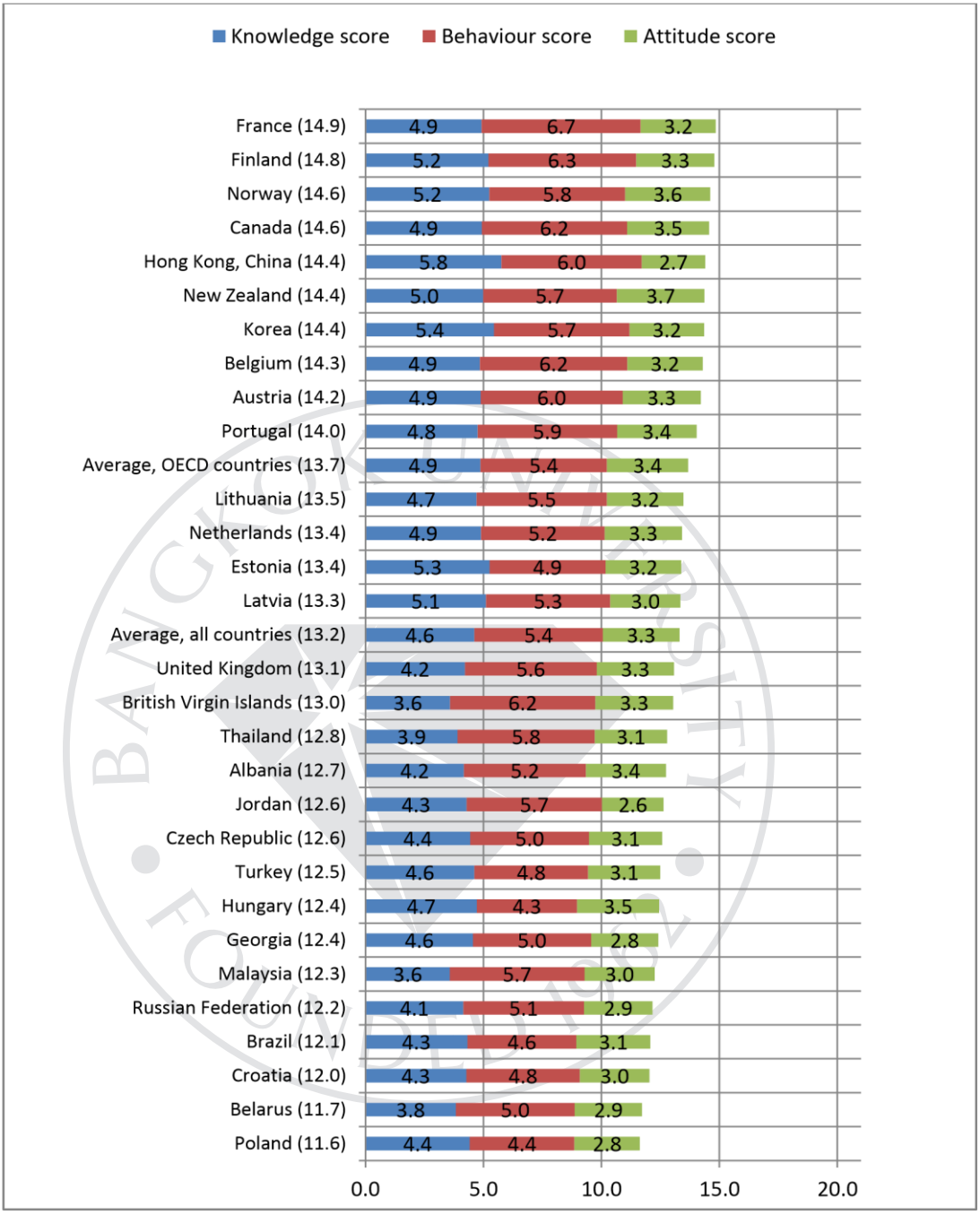

Figure 1.1: Financial knowledge, attitudes and behavior (average scores)

Stacked points (weighted data): all respondents, sorted by overall

1.2.4 Thailand Household Dept to GDP

According to the statement from the Bank of Thailand, the household dept to GDP of Thailand in 2019 is about 79% of the total GDP which is approximately equivalent to 8 Trillion Baht (Bank of Thailand, 2019). After 2011 the technology is developed very rapidly and financial products are also adapted with the technology. By this way, peoples can access to financial products easily by terms of developing technologies. Peoples can use credits cards easier than before. Companies offers more discounts if we buy their product or service with credit card plus 10 months installment. Before 2018, if we buy with credit card, we have to pay interests and down payments. Now no need to pay for interests and down payments, you can buy the product or service directly with credit cards and get 10 months installment plus zero interest rate. As a result, peoples buy unnecessary products and expensive products as they never think to buy. So that they met the problem with balance of income and spending. Income is not sufficient for monthly households needs and pay for the installment; peoples started to struggle with their personal financial management. Household depts to GDP of Thailand is rapidly growing after 2011.

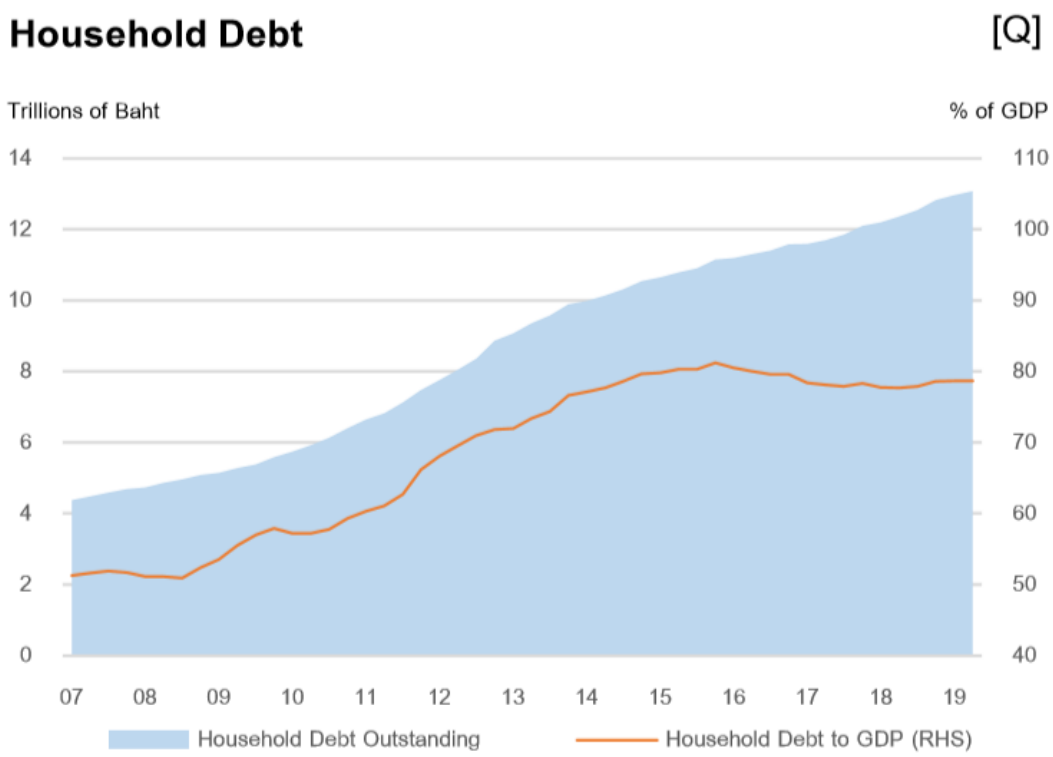

Figure 1.2: House Hold Debt to GDP of Thailand

Source: Bank of Thailand. (2019). *(Household Debt Outstanding)*

(Household Debt to GDP)

Retrieved from https://www.bot.or.th

Remark: Household debt consists of overdrafts, general loans, non-negotiable bills and investments in account receivable with financial institutions.

1.3 Statement of Problem

The role of financial literacy with regards to sound personal finance management practice is a question many struggles with. Young Adults in nowadays are easy to access the financial products. So that the young adults are important to have knowledge of the financial literacy to capable of managing their personal finance better than their counterparts in other industries. According to Wachira & Kihiu (2012), financial literacy facilitates decision making process and provides for a greater control over one financial future, a more effective use of financial products and services and reduces vulnerability to fraudulent schemes.

Although the significance of the effect of financial literacy on the personal financial management, there has a limited study have taken place in Thailand. OECD 2016 has been studied 10,000 peoples who were the age of 18-69 years old across Thailand and which is only study on the Financial literacy. The research study by Suwanaphan (2013), the study is targeted on the Academic Support Staff of Chiang Mai University in Thailand and the study is focused to determine the financial literacy and their spending and saving behaviors.

Research question:

Ensuing to the background and statement of problems, with the aim of conduct the research study, the researcher creates the research question as follow:

Main question:

The main research question is “What is the structural relationship among all the variables and how financial literacy factor, Financial product knowledge factor, Family and peer factor will effect on the personal financial management of young adult”.

Hence, the researcher is interested in the factors that effect and influence on personal financial management of young adults in Bangkok population, Thailand.

1.4 Purposes of Study

The purposes of this present study are demonstrated as follows:

1. To study the effect of Financial literacy factor on Personal Financial Management of Young Adults.
2. To study the effect of Financial literacy factor on Financial Product Knowledge of Young Adults.
3. To study the effect of Financial literacy factor on family and peers influences of Young Adults.
4. To study the effect of Financial Product Knowledge factor on Personal Financial Management of Young Adults.
5. To study the effect of family and peers influences factor on Personal Financial Management of Young Adults.

1.5 Scope of the Study

The research study surveys the factors that effect and influence on personal financial management of young adults. The questionnaire is used as tool for survey in this research.

The scope of the research study as follow:

1. The research is focus on Financial Literacy, Financial Product Knowledge, Family and Peers factors that effect and influence on Personal Financial Management of Young adults.
2. The research is focus on young adults who are in Bangkok and including both males and females.
3. The research study is conducted over a survey research with the use of questionnaires with a sample size of 400 respondents. Questionnaires are distributed within the areas of Bangkok, Thailand only.
4. The research study was conducted from the period of August 2019 - September 2019.

1.6 Limitations of Research Study

The output of this research study can be applicable only for the young adults in area of Bangkok, Thailand. The output of this research study cannot be applied reliably to other factors, age groups, different locations on collection of data and other research methodologies. For the users of this research study should be aware of these inherent limitations.

1.7 Contribution of the Study

The findings of this present study can be contributed to the individuals, and the related organizations in terms of academic performance and business managerial implication. For individuals, they can know their own personal financial management conditions and can be used for the purpose of self-developing on their own financial management to avoid the risks of over spending and debt matters.

The findings can be used by academic policy and planning for purpose of better academic performance, better financial literacy and better personal financial management of High school students to college student.

For the business managerial implications, the policy makers from the government such as Banking and economics can make the suitable policies for financial products and services to get a better result for country by using the findings.

1.8 Future Academicians and Researchers

This study has designed a foundation that may help future researchers who may want to make the research in the area of financial literacy and personal financial management. This research study offers the gaps that have not been covered and future researchers can strive to fill.

1.9 Outlines of Research

Chapter 1: The researcher outlines the background of the research study and discusses the related economic and financial issues in the Kingdom of Thailand and the consequences of such issues on the research topic. The researcher also sets the

research question as well as discusses the purpose, scope, limitations of the research, and contribution of the study.

Chapter 2: The researcher defines the concept of financial literacy and related factors such as financial knowledge, decision making skills, behaviors and attitude toward personal financial management. Concept of Financial product Knowledge and related factor such as product knowledge and concept of family and peers influences. In addition, past researches conducted on personal financial management are also explored from sources including but not limited to published research journals. The theoretical framework that is effect and influences on personal financial management in which this research is based upon is also presented and discussed.

Chapter 3: The researcher presents the methodology used to explore the research topic. Moreover, the specific tools used to for data collection in addition to questionnaire design will be presented and discussed. The comments from Experts and the reliability of questionnaire are also shown.

Chapter 4: The results of the research is presented subsequent to statistical analysis undertaken.

Chapter 5: The results of the research is discussed along with managerial implication and recommendations for future research.

CHAPTER 2

LITERATURE REVIEW

2.1 Theoretical Background

2.1.1 Theory of Investment

The item or an asset acquired with the aim of generating income or appreciating the income is called Investment. In the view of economic, investment is the purchase of goods which are not used today but they will be used in the future with purpose of creating the wealth. In the finance view, the investment is the financial asset which is purchased with the purpose that asset will provide the income in the future or will be sold later with a higher price for the profit (Chen, 2019). Investment are the decisions which involved the revenues and expenditures for the certain activity that are expected to continue over a period of time. The investment decisions are generally including the outflows of funds in the early and in the later time inflows of funds. The time element is significant in the theory of investment (Serup, 1998).

There are five fundamentals of Investment theory. They are (1) Discount Rate, (2) Present Value, (3) Internal Rate of Return, (4) Payback Period and (5) Choice of Investment. The discount rate can be defined into two different definitions and usages which is depend on the context. Firstly, the discount rate is referring as an interest rate which is charged to the commercial banks and the other financial institutions for the loans from the Federal Reserve Bank through the process of discount window loan. Secondly, the discount rate is referring to the interest rate used in analysis of discounted cash flow (DCF) with the purpose to determine the present value of future

cash flows (Chappelow, 2019). The discount rate can be calculated by the following formula,

$$PV = \frac{1}{(1+r)^t}$$

Where PV is present value, r is the interest or discount rate, and t is the periods.

The present value is the current value of a future amount of money or the cash flows given with a specified rate of return. The future cash flows are discounted at the discount rate. So that the higher discount rate, the lower the present value of the cash flows of future. Hence, determining the proper discount rate is the important key to valuing the future cash flows, whether they can be earnings or obligations (Murphy C. , 2019). The present value can be calculated from the following formula:

$$PV = \frac{FV}{(1+r)^n}$$

Where PV is Present Value, FV is Future Value, r is refer to rate of return and the n is refer to the numbers of periods.

Internal Rate of Return (IRR) is a metric which is used in the capital budgeting to estimate the profitability from the potential investments. The internal rate of return is the discount rate which makes the net present value (NPV) of the all cash flows from the certain project equal to zero. The calculation of internal rate of return (IRR) is based on the same formula as the net present value (NPV).

$$NPV = \sum_{t=1}^{T} \frac{C_t}{(1+IRR)^t} - C_0 = 0,$$

Where C_t is net cash inflow during the period t, C_0 is total initial investment costs, IRR is internal rate of return, and t is the number of time periods.

The amount of time which takes to recover the investment cost is called payback period. The payback period is the length of the time where the investment reaches the breakeven point. The attractiveness of an investment is directly associated to its payback period. It is means that the shorter paybacks period is more attractive in investments. So that the investors and managers are using the payback period to make quick decisions on their investments. The concept of the payback period is generally used in financial and capital budgeting (Kagan, 2019). The payback period can be calculated with the following formula by Williams, Haka, Bettner, and Carcello (2012):

$$\text{Payback Period} = \frac{\text{Amount to be Invested}}{\text{Estimated Annual Net Cash Flow}}$$

The choice of investment has been made by after calculating the above fundamentals of investment theory. So that individuals can decide which kind of investment should be chosen.

2.1.2 Risk and Return Theory

There is a direct relationship between the risk and return which is supported by the efficient market theory. The investment associated with the higher risk has a higher return. The investment associated with the lower risk gives a lower return. Normally, when we choose the investments which are likely to have riskier and we obviously expect to get the higher return. Unfortunately, this relationship does not exist in the real world. We have been forced to deal with the perceived risk and expected return because of imperfect information (Isaacs , 2014). The following figure 2.1 show that the range of potential outcomes for at any level of perceived risk.

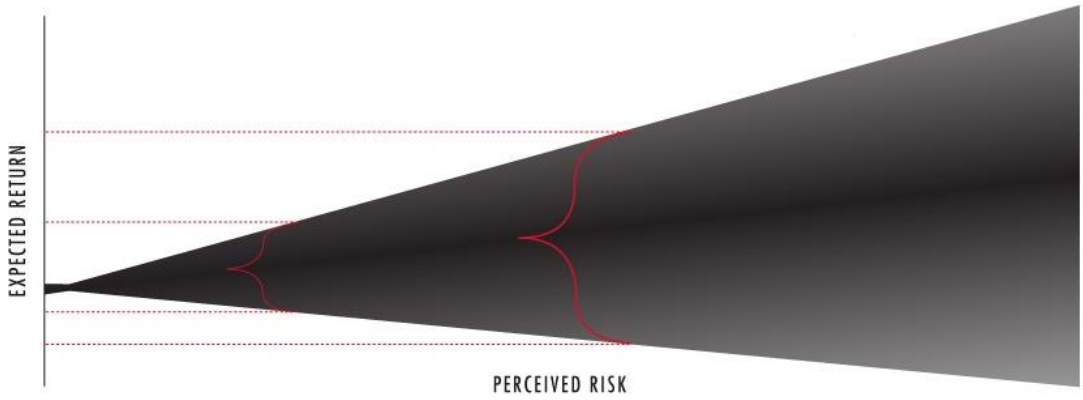

Figure 2.1: Risk and Return

By the definition, the risk increases when the range is wider, making it more and more challenging to predict the outcomes with any certainty. The actual return can be far higher or lower than the expectations. Even though having the perfect information and analysis, taking the higher risk does not guarantee the higher returns. However, the return is determined by the price we pay for the investment which is not only related to its yield but also related to the price we sell for it. The price we pay is

the most effective factor for both future risk and return and it is also the factor that we can control for the outcomes (Isaacs , 2014).

2.1.3 Asset Allocation Theory

The asset allocation is the application for the strategy of investment which attempts the risk of balance against the reward by fine-tuning the percentage of each asset in the investment portfolio regarding to the tolerance of the investor's risk, goals and time frame of investment (Chen, 2019). There are three types of approaches for the asset allocation such as (1) Asset-only, (2) Liability-relative, and (3) Goals-based. All of these approaches of asset allocation are target to match the goals of investors with their optimal level of risk (CFA, 2018).

The Asset-only approaches is making the decisions of asset allocation which is based on the assets of an investor. Mean-variance optimization (MVO) is an example of an asset-only, which combines the expected returns, volatility, and the correlations of the asset classes. Maximizing the expected return per unit of risk (such as maximizing the sharp ratio) is the investment objective of this approach. The chosen investment should consider not only the investor constraints but also the tolerance of the investor's risk (CFA, 2018).

The Liability-relative approaches is relating the decisions of asset allocation which is based on the funding liabilities, with the objective of paying the liabilities when they come due. Surplus optimization is the example of Liability-relative approach which is based on the principles of mean-variance asset allocation. The surplus is calculated as the value of investor assets minus the present value of the investor liabilities. Modeling liabilities might be achieved by shorting the amount of

bonds which matches not only with the duration but also with the present value of liabilities (CFA, 2018). Asset allocation target on the funding liabilities is also called as liability-driven investing (LDI).

The Goals-based approaches are the asset allocations geared toward for sub-portfolios, which is helping the individuals or families to achieve lifestyle and aspirational financial objectives. As an example, the goal may be involve maintaining the current lifestyle or donating the money to the university with the same idea in the future. For achieving the stated goals, it is important to classify the type of needed cash flows (such as even, uneven, or bullet payment), the time horizon, and the risk tolerance level by means of the probabilities for achieving the certain goal. The investor's overall portfolio strategic asset allocation has been produced by summing these asset allocations (CFA, 2018). Asset allocation target on the investor's goals is also called as goals-based investing (GBI).

The strategic asset allocation combines the expectations of capital market (such as expected return, correlation and volatility) with the risk of investor's, return of investor's and the constraints of investment. The strategic asset allocation has the nature of long term and the targets (CFA, 2018). There are 9 steps to selecting and justifying the strategic asset allocation which is based on the investor's target and constraints has outlined as follows:

(1) Determine the objective of an investor.

How investor will use these assets? What investor would like to achieve? What are the goals and liabilities of investor? How to measures the objectives of the investor?

(2) Determine the investor's tolerance for risk.

What are the investor's passions to risk? How to measure the risk in terms of asset allocation?

(3) Determine the time horizon of investor.

What investment horizon should be used to evaluate the objectives of investor and the risk tolerance of investor?

(4) Determine the constraints of investor.

What is the tax situation of investor? Are there any consideration on environmental, social or governance?

(5) Choosing the asset allocation approach.

The asset allocation approach (such as Asset-only, Liability-relative, and Goals-based) is the most important for the investor's situation.

(6) Specify the asset classes.

Capital market expectations can be established when the appropriate asset classes have been specified.

(7) Developing the potential asset allocations.

With the procedures of optimizations, a number asset allocation can be constructed for the consideration of investor.

(8) Simulate the outcomes of potential asset allocations.

The potential asset allocations should be tested to see if the outcomes align with the objectives of investor and the risk tolerance of investor for the chosen investment horizon.

(9) Repeat the step 7 until the optimal asset allocation has been discovered.

When the strategic allocation has been applied, it should be regularly monitored. The process of monitoring should have the feedback loop so that the changes in the factors of long-term market can be incorporated back into the model. An assessment can be made to determine the adjustments to the strategic allocation are justified (CFA, 2018).

2.1.4 Traditional investment vs Alternative Investment Theory

The traditional investment is the invest the money into the well-known assets such as cash, bond and equities with the expectation of dividends, capital appreciation and interest earnings. The traditional investment is for long term investment (CFA, 2018). The alternative investment is collectively referring to many asset classes which separate the traditional definitions of bond and stock. The alternative investment is including the hedge funds, private equity, real estate, commodities, infrastructure, and other alternative investments. Each type of alternative investment has the unique characteristics which need the different approaches to analyze (CFA, 2018).

BlackRock, Inc. is the world largest Asset Management company and the example of the traditional investment company. BlackRock, Inc. was founded in 1988 and offer the risk management and fix incomes. BlackRock, Inc. is serving for the companies, foundations and the governments worldwide. According to the end Q4 of 2019, BlackRock, Inc. own the 7.3 trillion-dollar assets under management.

BlackStone, Inc. is the world largest Private Equity Management company and the example of the alternative investment company. BlackStone, Inc. was founded in the 1985 and offer the private equity, real estate, hedge funds, senior debts, leveraged lending and rescue the financing. However, BlackStone, Inc. is only serving for

customers worldwide. According to the end Q4 of 2019, own the 545 billion-dollar assets under management.

2.2 Financial Literacy

Financial literacy is the capability to interpret the way of how money works. Which is how someone making the money, managing, and invests it. According to the Organization of Economic Co-operation and Development (OECD/INFE), financial literacy is the combination of enlightenment, knowledge, ability, attitude and behavior which are important to make the right financial decisions and finally to accomplish the personal financial wellness. Financial literacy (financial knowledge) is the general contribution to the essential model for financial education and describing the differences in financial outcomes (Huston, 2010).

Financial literacy is a person's capability to understand the use of financial concepts (Servon & Kaestner, 2008). Financial education is the process which is related to the financial consumers or investors to improve their understanding on the financial products and concepts through over the information, instruction and objective advice, which can develop the abilities and confidence to getting more awareness of financial risks and opportunities to make up-to-date choices, to know where to go for aids, and to take effective actions for improving their personal financial well-being (Lusardi & Mitchelli, 2007).

Healthy or general financial literacy can be conceptualized by two main dimensions. They are understanding the personal financial knowledge and know how to use it (Huston, 2010). It can be defined as measuring the level of wellness of an

individual can understand and using the information which is related to the personal finance.

Financial literacy is the ability to evaluate the new and complex financial gadgets and make informed judgements in both choice of gadgets and extent of use that would be in their own best long-term interests (Mandell, Lewis, Klein, & Linda, 2009). President's Advisory Council on Financial Literacy (PACFL) in 2008 defined that the financial literacy is "The ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being." However, Lusardi & Tufano (2009) defined that the financial literacy is the ability to make simple decisions about the debt contracts, especially how one applies their basic knowledge about the interest compounding, measured in the context of everyday financial choices. According to Remund (2010), financial literacy is a measurement of the level to the ones how they understand key financial concepts and having the capability and confidence to manage personal finances through proper, short-term decision-making, long-range financial planning, whereas aware of life events and ever-changing economic conditions.

According to Atkinson & Messy (2012), financial literacy can be divided into three distinct factors such as financial knowledge, financial behavior and financial attitudes and preferences. Firstly, the financial knowledge is including such as knowledge of financial products and services, and knowledge of financial terms (yields, inflation, leverage, etc.), and these factors are clearly contributed to financial behavior. Secondly, financial behavior can be possibly to the most important thing of the financial literacy which is determining the personal financial wellness (Atkinson

& Messy, (2012) ; Pintye & Kiss (2016)). Finally, financial attitudes and preferences are playing an important role of the financial culture (Atkinson & Messy, 2012).

According to the description of Nagy & Tóth (2012), there is a rapport between the three factors of financial literacy, who claimed that the people are started to gain the knowledge which is related to the finance during their childhood, with the assistance of their common family purchases, and management of pocket money. This is the way of learning process which is the young peoples are associated with the different way of attitude to money, which is becoming the critically affected on the habits of money management.

Although it is difficult to describe the definition of financial literacy, the above definitions are widely accepted and it can be realized as the conversion of the financial literacy concept over these years. The existing definitions were demonstrated that after the previous Global Financial Crisis in 2008, the financial literacy concept is built on the concept such as familiarity, knowledge, awareness and people being informed. Simultaneously, the applied aspects and real application of the financial literacy were not concentrated by the professionals. Although, the definition mention by the PACFL is prominent by the fact that it sights the financial literacy is not just as reserve of information and knowledge, but as an instrument which allows people to accomplish financial well-being. In these days, the concept of financial literacy become more wider in skills keen to the real practice of the knowledge, as well as the appropriate attitude and inspiration to be financially included and proper financial behavior.

During these years, the Development and policies in financial literacy allows the policy makers, researchers and different organizations to use the other related concepts of financial literacy such as financial education, the financial capability and financial capable person. The Organization of Economic Co-operation and Development (OECD) were enthusiastically participated in the global policy targeting to increase the level of financial literacy through the population. The polices and issues in the scope of financial literacy, the financial education concept can be defined as follows: “the process by which financial consumers/investors improve their understanding of financial products and concepts and, through information, instruction and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being” (OECD, 2005).

In the mid of 2000s, United Kingdom has been proposed that the financial capability concept which is wider than the former traditional financial literacy concept and including not only financial skills and knowledge, but also behavior and attitude. Financial capable person has been defined by the FSA of UK as follow: the ones who “are able to make informed financial decisions. They are numerate and can budget and manage money effectively. They understand how to manage credit and debt. They are able to assess needs for insurance and protection. They can assess the different risks and returns involved in different saving and investment options. They have an understanding of the wider ethical, social, political and environmental dimensions of finances” (Kempson, Collard, & Moore, 2005).

The World Bank (WB) is another significant organization which provide the provision to global policies on consolidation the financial capability of population. The World Bank (WB) is enthusiastically participating in promoting the responsible way of personal financial management. Hung, Parker, & Yoong (2009) delivered the theoretical framework for financial literacy which is primarily grounded on the definition given by the PACFL (2008), along with the other researcher's operational and theoretical definitions.

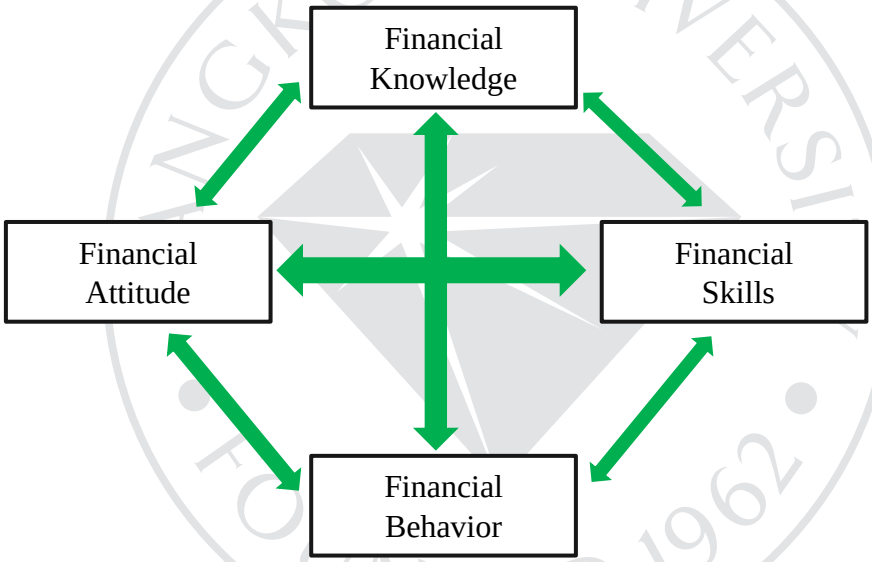

Figure 2.2: The conceptual framework of Financial Capability (Literacy)

2.3 The Measurement strategies of Financial Literacy

The importance of financial education and literacy has been emphasized on a global scale during the presidency meeting of G20 in 2012. Furthermore, the improving the financial literacy has been appeared as a tactical policy objective which accompaniments the governments' consumer protection and financial inclusion plans. So that the National Strategies of Financial Education (NSFE) got more attention on

the role of significant policy vision for the development of financial literacy among the population. According to the Atkinson & Messy (2012), at least thirty sixth countries has been already established or are in the progression of designing the NSFE. In addition, Eighty percent of these countries already using the survey as a diagnostic method to classify the key significances for their national strategies which allows the corresponding public authorities to set the precise and realistic target measures that will acting as the base for measuring the success. Most of these countries conducted the financial literacy measurement and used as a national financial literacy survey which is relying on the methodologies developed by the international organization and/or elaborated national methodologies on financial literacy assessment (OECD, 2015). While globally, there is an agreement related to the importance of financial literacy and many countries have the polices on national level keen to this issue, there is not a common generally accepted approach for measuring the financial literacy level, which can be seen in table 2.3.1 taken from (OECD, 2015).

Table 2.3.1: Surveys used by different countries to measure the financial literacy level

	Measurement Tool	Number	Economies
International Surveys	OECD/INFE Survey	31	Armenia (2010), United Kingdom (2010), British Virgin Islands (2010), Czech Republic (2010), South Africa (2010, 2012), Estonia (2010), Germany (2010), Ireland (2010), Hungary (2010), Malaysia (2010), Poland (2010), Norway (2010), Peru (2010, 2013), Albania (2011), Iceland (2011), Japan (2011), Indonesia (2012), Jamaica (2012), Lithuania (2012), Serbia (2012), Bolivia (2013), Colombia (2013), Ecuador (2013), Korea (2013), New Zealand (2013), Thailand (2013), Finland (2014), Latvia (2014),France (2014), Saudi Arabia (2014)
	WB/RTF Survey	12	Federation (2008, 2012, 2015), Azerbaijan (2009), Bosnia and Herzegovina (2011), West Bank and Gaza (2011), Armenia (2012), Colombia (2012), Lebanon (2012), Mexico (2012), Mongolia (2012), Russian Tajikistan (2012), Turkey (2012), Uruguay (2012),
National Surveys	Financial Literacy Surveys	18	Australia (2003, 2005, 2008, 2011, 2014), Singapore (2005, 2013), New Zealand (2005, 2009, 2013), United Kingdom (2006, 2013), Czech Republic (2007), Brazil (2008), Canada (2009, 2014), United States (2009, 2012), Portugal (2010), Japan (2011), Hong Kong (2012, 2014), Israel (2012), China (2013), Indonesia (2013), Netherlands (2013), Armenia (2014), Austria (2014), France (2014)
	Household Surveys only	6	Spain (2002, 2005, 2008), Argentina (2008, 2010, 2012), Chile (2008, 2010, 2012), Italy (2008, 2010, 2012), Philippines (2009), Russia (2013)

Most of the country used the international surveys to conduct a nationwide survey. International organizations such as Organization of Economic Co-operation and Development (OECD) along with its International Network on Financial Education (INFE) and the World Bank (WB) in cooperation with the Russian Trust Fund (RTF) have expanded the methodologies for measuring the Financial literacy. OECD method has been used 31 countries and World Bank (WB/RTF) method has been used in 12 countries. The main purposes of these methodologies were to produce a integrated approach which will be assist to obtain the globally comparable data associated to the financial literacy level among the different countries. These tactics facilitated many countries including Thailand to set up a starting point measurement related to the financial literacy level, several issues appear and remain to unsolved for the policy makers based on different aspects associated to national situation.

In OECD approach, the financial literacy measurement has been developed by the standardized survey questionnaire which is broadly used in OECD member countries. The questions of the OECD approach questionnaire are mainly correlated to choosing the financial services, planning and money management. The measurement of financial literacy by OECD/INFE is focus in three main components such as Knowledge, Behavior and Attitude. The result of the questions has been separately calculated by these components such Knowledge score, Attitude score and Behavior score respectively. As in the financial literacy definition, OECD mention about the skills but there is no separate score for calculation.

As we see in the WB/RTF approach, the way of measuring the financial literacy is different from OECD. The WB/RTF approach questionnaire is mainly focus on the groups which are used to identify the main indicators of financial capable

person in a relation to knowledge, skills, behaviors and attitudes. They can be gathered into four main thematic dimensions such as money managing, making choices, planning ahead, and getting help. So that the survey questionnaire for financial literacy contained the questions which is related to the core feature of financial literacy which is reflecting those thematic areas. The WB/RTF approach is calculating the financial literacy score by the 12 scores in four main thematic dimensions of financial literacy.

The brief comparison table of discussed international methodologies which were developed by the OECD/INFE and WB/RTF as shown as below and which is consist of several important aspects of both methodologies.

Table 2.3.2: Comparison of International Approach of the Measurement for the Financial Literacy

	OECD Pilot Survey in 2011	World Bank Survey in 2012
Definition of financial literacy/capability	"A combination of awareness, knowledge, skill, attitude and behavior necessary to make sound financial decisions and ultimately achieve individual financial wellbeing".	"Financial capability constitutes the financial behavior demonstrated by an individual that is considered by his peers to be desirable as it leads to good financial outcomes".
Topics and Thematic areas	Budgeting and money management, short and long-term financial plans, and financial product choice	money managing, planning ahead, making choices, and getting help

(Continued)

Table 2.3.2 (Continued): Comparison of international Approach of the measurement for the financial literacy

	OECD Pilot Survey in 2011	World Bank Survey in 2012
Components of Financial capability	Knowledge, Attitude, Behaviors	Knowledge, Skills, Attitude, Behaviors
Methodology	The methodology offers 3 types of scores. Financial knowledge score is created by counting the number of correct responses given by each respondent, financial behavior score counts positive behaviors exhibited and the score of attitude tells us whether the respondent tends towards short-term gratification, or long-term security. In order to assess overall level of financial literacy, the three scores for knowledge, behavior and attitudes are summed. The score can take a minimum value of 1, and and a maximum value of 22. As the three	The methodology offers, 12 robust scores. 10 scores are applied to the whole population: budgeting, not overspending, living within one's means and not borrowing for essentials, keeping track of money, saving money when possible, covering unexpected expenses, gathering information and three more general motivations—not being impulsive, not focusing on

(Continued)

Table 2.3.2 (Continued): Comparison of international Approach of the measurement for the financial literacy

	scores have different maximum values, the combined score is implicitly weighted. 9 point out of 22 is formed from the score of behavior, 8 from knowledge and 5 from attitude.	the present, and being achievement oriented. The remaining 2 scores are applied to only part of the population: planning for one's old age (only people aged under 60), and choosing appropriate financial products, which encompasses shopping around and checking the features of the product bought, and only applied to people who are active product purchasers
Scoring model	3 scores for knowledge, attitude and behavior as well as financial literacy overall score	10 main scores and 2 specific scores calculated for specific target

2.4 Financial Literacy over Family and Peer Influence

2.4.1 Family Influence

It is very important for children to acquire the competencies in financial literacy which are the effective functions in today's society (Martin & Oliva, 2001). Literature proposes that the most impact on the consumer socialization of children are their parents ((Alhabeeb, 1999), (Brown, Mounts, Lamborn , & Steinberg, 1993), (Clarke, Heaton, Israelsen, & Eggett, 2009), (Danes, 1994), (John , 1999), (Moschis G. P., 1985)). TIAA Institute (2001) found that 94 percent of students favor to their parents for financial education, and parents are not only the great financial educators for children but also their responsible to teach the finance to their children. The influence of financial literacy from a young age through the teen years by the strong parenting practices such as modeling and teaching (Clarke, Heaton, Israelsen, & Eggett, 2009) and may have more influence than their child's peers (Brown, Mounts, Lamborn , & Steinberg, 1993). Sometimes children can be tracking the poor financial forms of their parents and repeating the financial risks faced by their parents (Clarke, Heaton, Israelsen, & Eggett, 2009). Robert Fulghum says that "Do not worry that your children never listen to you; worry that they are always watching you" which is mention by (Alhabeeb, 1999). Helping children to get awareness of financial principles in early ages is very important because it will affect their financial competency in their adult's life (O'Neill & Brennan, 1997). The important thing for parents is to realize when will be their children are ready to involved in various financial decisions which can take advantage of these windows of opportunity by creating purposive learning experiences (Danes, 1994).

Harris (1995) mention that children are having their own source of development and that will be over time because they select the environments where they want to spent their time. Children learn about their finances over observations, positive fortification, practice and participation, and careful instruction by their parents (Alhabeeb, 1999) (Bowen, 1996) (Danes, 1994) (Lachance & Choquette-Bernier, 2004). Children get the direct influences for their finances such as family discussions and keeping track of allowance can be consist of an increase in knowledge and formation of attitudes, values, and behaviors ((Allen, Edwards, Hayhoe, & Leach, 2007), (Moore & Stephens, 1975), (Moschis G. P., 1985), (Moschis, Prahasto , & Mitchell, 1986)).

Along with the influence on children, the parents can directly influence, indirectly influences may also affect the consumer behavior. (Ward, Wackman, & Wartella, 1977) found that the purposive consumer training in home is rare. (Lachance & Choquette-Bernier, 2004) suggest that most of the consumer learning comes from family communication by indirectly. The consumer learning of children is occurred by the mass media which is bring into home by decision of their parents such as television, magazines and newspapers, and radio (Moore & Moschis, 1981). Therefore, what parents choose to watch or listen to is indirectly teaches their children by not only seeing but also hearing the information as well as noticing the parents give certain subjects such as listening to a radio talk show on being financially savvy. So, it is important for parents to teach financial matters to their children in the home by communicating their financial knowledge, attitudes, and behaviors explicitly as well as implicitly.

2.4.2 Family Influence

The influence of each socialization agents such as family, school, media, and peer group has been determined by the level to which the child is willing on each (Alhabeeb, 1999). This is pointing that it is very important for parents to start early in teaching their children's knowledge, attitudes, and behaviors along with the benefits and consequences of handling money and that they repeat these teachings often. John (1999) suggest for the parents to start early by pointing that even though parents are more influential at the stage of information gathering, peers become more influential at the stage of product evaluation.

Harris (1995)argued that peer influence is increased because youth spend more time with peers when they get older, thus being influenced more by this environment. Parents do not lose their influence even though youth spend more time with peers but parent still having the indirect influence over their child's peers (Brown, Mounts, Lamborn , & Steinberg, 1993).So that the positive financial communication is happened in the home especially by parents, will affect how influential peers will be on their children.

2.5 Financial Literacy over Personal Financial Management

2.5.1 The effect of financial literacy on Saving

It is supposed that person who has the high levels of financial literacy have a positive effect on saving than other. An increased literacy implies that peoples who have a better understanding of their financial situation will be in the better position to planning their finances for future, which means that they make the good financial decisions. The result of analyzing the individual behaviors in developed countries showed that financial literacy has critical implications for retirement arrangement and saving decisions. Numerous prior studies have shown that the people who plan for retirement, they accumulate on more retirement savings. For instance, the study of Lusardi (1999), exposed that the 1992 HRS question are asking the people how much they thought about their retirement (a lot, some, a little, or hardly at all) was a strong analyst of retirement had a double the wealth of those who had not thought about their retirement

The research conducted by the Bernheim, Garrett, & Maki (2001)and Bernheim & Garrett (2003) showed that the people who had the early experience in monetary studies in their high school, college or in the workplace were saved more. Correspondingly, Lusardi & Mitchelli (2007) and Lusardi & Mitchell (2011) claimed that the people who possessing low financial literacy is do not want to plan for retirement, which is end up accumulating much less wealth in their prime years. Lusardi & Mitchelli (2007) and Lusardi & Mitchell (2011) also show that less financially literate are less likely to save for retirement. This argument has been supported by Lusardi & Mitchell (2011) and Banks, O'Dea, & Oldfield (2010) who

observed that more financially sophisticated individuals are more likely to be ready for retirement and they have a higher retirement income.

The studied of the Delafrooz, Paim, & Laily (2011) show that the low financial literacy is combined with the lack of information which is effects on one's ability to maintain the savings as a way of securing comfortable retirement life. According to the research conducted by Lusardi & Mitchell (2011) in the U.S found that the absence of getting ready for retirement is across the board and associated with financial literacy, evidence from divorce, poor mental wellbeing and an assortment of other negative and miserable encounters (Kinnunen & Pulkkinen, 1998) and the cause of emotional stress, depression and hopelessness (Murphy, 2013).

A study conducted by Nyamute & Maina (2011) in Kenya which studied about the personal financial management practices that encompass saving practices of both employees who are financially literate and those that are not. In the study, it was perceived that those that were financially literate were assumed to have undergone some level of financial training such as bankers, accountants, auditors amongst others. The survey data was obtained from 192 employees using a structured questionnaire. The results showed that most respondents embrace a savings culture which is displayed by them setting aside some money out of each payment they receive. It was also found that most financially educated persons were always looking for opportunities to save money, setting aside money for future needs and saving out of each payment they received unlike those that are less financially educated. Similar results have been seen in a study on developing nations by Klapper & Panos (2011) which examined the impact of financial literacy on the retirement saving in Russia.

They discovered that higher financial literacy is positively related to retirement planning.

The study of investor behavior by MurithiSuriya, Narayanan, & Arivazhagan (2012) in India, revealed that 76% of the respondents have a habit of saving. However, 36% of respondents out of the 76% have saved between 0-10% of their monthly income, 32% of the respondents saved between 10-20% of their monthly income, 24% of their respondents saved between 20-30% of their monthly income and only 8% saved above 30% of their monthly income respectively. The further study revealed that the majority of the respondents are ideal to saving in the banks which is 80%. But very few respondents are preferred to in more complex investment plans like real estate, equities and government bonds. In addition, the results of the study showed that the majority of the respondents are saved in a very low percentage of their monthly income.

A study conducted by Bhushan (2014) showed that the respondents who got the high score in financial literacy have a higher level of awareness for all financial products, and statistically difference in awareness level was found in bank fixed deposits, savings account, public provident fund, mutual funds, stock market investments and bonds. Mahdzan & Tabiani (2013) conducted a study which is similar to the study of Boon, Yee, & Ting (2011) on the impact of financial literacy on individual savings in Malaysia. The survey data from 200 respondents with the various demographic and economic characteristics were analyzed by using the regression analysis. The result showed that the financial literacy, both basic and advanced knowledge are associated with the high level of saving. The study advised

the government to encourage the financial education for the purpose to improve the saving in the population.

A study conducted in Thailand which is targeted on the analysis of a sample survey of the 400 respondents of the academic support staffs of Chiang Mai University of Thailand, the result showed that the overall low level of financial literacy is negatively affected on saving behavior or leads to overspending (Suwanaphan, 2013). The researcher suggested that the government have to encourage financial education with the purpose of improving the saving in the population which is similar to the Malaysian researchers. The international survey of adult financial literacy competencies which is conducted by OECD (2015). The survey was interviewed 51,650 adults from 30 developed and developing countries. The result showed that 58% of adults can compute a percentage to calculate a simple interest on their saving. But 42% of adults across all participating countries and economies are aware of the additional benefits of interest compounding on savings.

There is significant evidence that financial literacy affects savings, and that personal savings will also affect the national savings (Marquis, 2002). Jappelli & Padula (2013) examined reports from 39 nations and found that financial literacy is a determinant of the level of national savings and that its impact is potential as it gives 3.6% increase in national savings. It is therefore important for employees and furthermore the national government to encourage savings and promote savings culture through financial literacy workshops.

2.5.2 The effect of financial literacy on Investment

Beal & Delpachitra (2003), stress that having financial literacy knowledge about the risks, investment portfolio, returns and diversification of the portfolio enable fund managers to make more informed investment decisions about their money and minimize the chances of being misled on financial matters. In a study conducted by Volpe, et al. (2006), the study aimed to identify the important questions in personal financial literacy and the deficiencies in the employee's knowledge in the areas. The researchers surveyed benefit administrators in 212 U.S companies, and found that the participants rated retirement planning, and personal finance basics as two important topics, where there are deficiencies in employee knowledge, the researchers also observed deficiencies in other important aspects of personal finance management such as investment and real estate knowledge. The researchers also noted that in contrast to the deficiencies, the employees seemed to be well informed about company benefits.

Researchers such as Guiso & Jappelli (2008) have concluded in one of their studies that portfolio diversification is a sign of high financial literacy and a lack of diversification of investments is a sign of financial illiteracy. The researchers argue that financially illiterate investors would choose only bonds over a portfolio of a combination of bonds and equity, as they do not understand the relationship between portfolio diversification and market returns. They also do not understand the benefits and risks involved in choosing different types of investment avenues in the financial markets. Financially illiterate investors assume no correlation between diversification and the returns gained at the end of the investment period (Guiso & Jappelli, 2008). Investors mostly show overconfidence, herding behavior and disposition effect

because they are illiterate and so, they are unable to make any decisions and they would rather copy other investors in the market assuming they will benefit the same way. When other investors sell the stock they sell, when they see little profit in their stock, they immediately dispose it and do not wait for an increase in price, they show overconfidence while choosing stocks to invest and, in the process may fall trap to wrong decisions. A study conducted by Grinblatt, Keloharju, & Linnainmaa (2011) concludes similar findings and have also added that investors with high intelligence quotient coupled with financial literacy levels and average cognitive ability always use portfolios to group their investments before investing. Doing so protects them from the risky nature of investments. It is also important to note that portfolios with mutual funds are the most preferred by these types of individuals.

In a research conducted by Cole & Shastry (2009), found that household participation in financial markets is limited. They found that education has important effects on investment income. Individuals with one more year of schooling are 3% more likely to report positive investment income. Kimball & Shumway (2010) found that investors with low levels of financial literacy are more likely to assume and get emotionally involved in investment choices they make in the financial markets. Thus, they apply strategies based on their own emotions and perceptions, which would eventually fail them at some point in their investment cycle. Grinblatt, Keloharju, & Linnainmaa (2011) also found that the financially illiterate investors are momentum investors. This speaks volumes about the strategies that they use; strategies based on emotions. Investing with emotions can only expose an investor towards risky investments. A large number of individuals rely on financial advisors, friends and family for financial investment advice. In a study of a representative sample of the

Dutch population, Rooij, Lusardi, & Alessie (2011) found that many families shy away from the stock market because they have little knowledge of stocks and the stock market.

In the study of the behavior of investor in India by MurithiSuriya, Narayanan, & Arivazhagan (2012) found that the investors are aware of the concept of portfolio allotments and risk return of investments with an aspect of financial literacy relevant to investors. They also found that most of their respondents were at least graduates or above. However, despite being educated their portfolio was not diversified, and their investment decisions were majorly low risk, this is evidenced by the majority, i.e. 80% preferred to save in banks, invest in gold or mutual funds than other high-risk avenues such as real estate or equity. The researchers also concluded that the investors make investment decisions after discussing with their family members or friends. This shows the influence of social groups on individual investments. Schmidt & Sevak (2006) found that there are large gender gaps in current and planned retirement income and that saving behavior has a significant gender gap. The study showed that there is a significant difference in risk-taking among men and women, such that women are more risk-averse compared to men. The authors showed that, in general, males are more risk taking when they want to attract their future partner, and females are more risk- averse in their child- bearing periods.

A research conducted by Bhattacharjee (2014), assessed the financial literacy and its influencing factors in India by using a questionnaire to survey investors in three villages of Barpeta district of Assam the researchers collected data on basic and advanced personal financial knowledge which was focused on; financial products and

services, and instruments as indicators of financial literacy. The results indicated that, the majority of respondents have basic financial knowledge about savings accounts and basic financial instruments like life insurance policies, public provident fund and national saving certificate. However, advanced knowledge pertaining to financial market instruments, existence of capital market, and mutual funds were found low. The study also showed that demographic factors such as age, income, nature of employment and place of work, play a major role in determining the level of financial knowledge. An increase in age, income and education showed more impact on financial literacy, and there was no significant effect of gender on financial literacy. The findings in this study were found to be consistent with MurithiSuriya, Narayanan, & Arivazhagan (2012), where they concluded that investors in India have basic knowledge of personal finance, however lack advanced knowledge. In a study conducted by Bhushan (2014), respondents having low financial literacy primarily invest in traditional and safe financial products and do not invest much in those financial products which are comparatively riskier and can give higher returns. Thus, it can be said that the financial literacy level of individuals affects investment preferences towards financial products.

A study in the UAE was conducted by Al-Tamimi, Hassan, & Kalli (2009), to assess the relationship between financial literacy of individual investors in the UAE and their investment decisions. The results were similar to a study conducted by Abdeldayem (2016) in Bahrain, which used a questionnaire survey and approach of Lusardi & Mitchelli (2007), the results demonstrated that participants in high financial literacy group expressed higher preferences for life insurance, mutual fund, stocks, bonds, pension funds, credit card, mortgage and foreign exchange market as

compared to those in the low financial literacy group. Participants in low financial literacy group showed higher preferences for bank deposits, saving account and post office savings. Hence, this indicates that the Bahraini investors who have low financial literacy mainly prefer to invest in traditional and safe financial products and do not invest significantly in complex financial products which are comparatively riskier and can give a higher return. This indicates that the investment decisions of Bahraini investors rely on their financial literacy level.

The findings above all point out the importance of financial literacy and its relation to investment decisions. Having financial literacy not only helps you at a household level, but also at work when the bank employees are expected to advise customers on loans or other basic term deposit products.

2.5.3 The effect of financial literacy on Borrowing

Evidence shows that those who are less financially literate are more likely to have problems with debt, less likely to save, more likely to engage in high-cost mortgages, and are less likely to plan for retirement. Without a certain level of financial literacy, consumers might not purchase the financial products and services they need and might be ill-equipped to fully appreciate their rights and responsibilities as financial consumers, and to understand and appropriately manage the variety of risks. Excessive indebtedness presents an important and widespread problem that endangers the financial well-being of many individuals and households. A poor level of financial literacy is one of the factors that may influence debt behavior and contribute to an increase in indebtedness. Debt management is pegged on the ability of one to be financially literate hence their ability to make informed personal financial

decisions on how to minimize their debts. Excess high debt levels are a propellant to one being susceptible to investment fraud, delinquency on credit cards and bankruptcy all of which are pointers to financial illiteracy in individuals (Kim, 2000).

Research has indicated that many different factors influence attitude toward a particular behavior. The attitude has been defined as the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question. Among attitudes that influence financial behavior are debt tolerance, money specific attitudes, unrealistic optimism, and level of financial knowledge. Psychological constructs, such as cognitive dissonance and locus of control have also been found to influence attitudes toward financial behaviors, more specifically credit borrowing. Of the attitudinal factors that are associated with debt, tolerance may be one of the most important. Davies & Lea (1995) found that individuals who expected to make more money in the future were more tolerant of debt. When coupled with unrealistic optimism that many individuals have about their financial futures, this influences the level of debt tolerance to the point at which individuals tolerate levels of debt that have a negative impact on other aspects of their lives. This point is further illustrated through the findings of Davies & Lea (1995). They suggested that individuals, as a result of their young age and early stage in their career, are more tolerant of debt than the general population due to optimism that they will be in a good position to reconcile their debts in their later stages of their career.

The key Studies in the past have attempted to study the relationship between financial literacy and personal finance management in terms of personal debt. Personal financial management and personal debt have an impact on people's lives.

This affects their personal lives and their work lives. Personal debt can directly affect whether a person can get a loan for their home, car or a child's education (Dean, Joo, Gudmunson, Fischer, & Lambert, 2013). Personal debt can even have effects that go as far as causing people to have anxiety and depression. Some people who have a significant amount of debt, and are having trouble repaying report that they experience thoughts of suicide (Meltzer, et al., 2011). The number one cause of stress for Americans is their worry about money (Prawitz & Cohart, 2014). Gurchiek (2008), states that thirty million employees in the United States are financially distressed. Personal finance causes five times more concern than health issues. Stress results in lower employee productivity.

Hilgert, Hogarth, & Beverly (2003) reported that most Americans fail to understand basic financial concepts, particularly those relating to bonds, stocks, and mutual funds. In a survey of Washington state residents, Moore (2003) found that people frequently failed to understand the terms and conditions of consumer loans and mortgages. Consistent with the findings of Moore (2003) and Miles (2004) reported that UK borrowers have a poor understanding of mortgages and interest rates, Lusardi & Mitchell (2007) module on planning and financial literacy for the 2004 Health and Retirement Study (HRS) provides further evidence of financial illiteracy. They find that many older (50+) individuals cannot do simple interest-rate calculations, such as calculating how the money would grow at an interest rate of 2%, and do not know about the workings of inflation and risk diversification. Similar results are seen in a sample of early Baby Boomers (ages 51–56): most respondents displayed low numeracy and a very limited knowledge of the power of interest compounding (Lusardi & Mitchelli, 2007). Campbell (2006) reports that individuals with lower

incomes and lower education levels—characteristics that are strongly related to financial literacy—are less likely to refinance their mortgages during a period of falling interest rates.

Individual productivity at the workplace is considerably affected by financial problems employees face Kim & Garman (2004). Employees in financial institutions are increasingly suffering from stress and this is as a result of money problems. This included financial problems from behaviors such as over indebtedness, overspending, unwise or poor credit habits, poor spending decisions and money management as well as lack of sufficient money to make ends meet. This is irrespective of the fact that most of the employees in financial institutions enjoy salaries and remuneration packages that are the envy of many employees in other sectors.

Atkinson & Kempson (2004) found that youngsters (aged 18 to 24) in Britain are progressively over-borrowed, prompting financial challenges as a result of financial illiteracy. Workers end up in financial crisis invariably from the need to spend their income on immoderate goods, for example, marked clothes and cell phones, with the end goal of fitting into a society where these goods have turned into a need, instead of an extravagance.

The report showed that 73% of participants in his research believed that it would take them less time than the average household to get out of debt. By contrast, only 6% thought that it would take them longer than the average household to get out of debt, and 21% believed it would take them an average amount of time. These results also revealed that 33% of the sample surveyed expected to earn more than the average household in the future; 43% thought that they would earn average salaries,

and 23% thought that they would earn less than average salaries. These figures illustrate the unrealistic optimism that many households have regarding their financial future, including their estimated future income, which for many households has great influence on the amount of debt that they are able to tolerate. Furthermore, unrealistic optimism towards future finances is a matter of lack of financial knowledge which has also been found to influence borrowing by many individuals (Norvilitis, et al., 2006). Their research contended that financial knowledge is one of the strongest 20 predictors of debt and is also one of the most amenable to change.

For the peoples who are with low financial literacy were more likely to involve in costly credit card behavior Mottola (2013). Additionally, both of the self-assessed and actual literacy is originate to have an effect on credit card behavior over the life cycle (Allgood & Walstad, 2013). The measurement for the individual's numerical ability to administrative records that provide information on subprime mortgage holders' payments they found that numerical ability was a strong predictor of mortgage defaults (Gerardi, Goette, & Meier, 2013).

According to Dean L. R., Joo, Gudmunson, Fischer, & Lambert (2013), personal debt is not determined by race, sex or even income. People with higher levels of income have even higher debt, especially when it comes to automobile debt. This review is relevant to employees across all income levels. Personal financial debt is more the result of attitudes and behaviors than it is the result of not having enough money. The findings show that having debt leads to acquiring more debt.

2.6 Structural Equation Modelling (SEM)

The Structural Equation Modelling (SEM) is a form of causal modelling which consist of a various set of mathematical models, computer algorithms, and statistical methods that fitting the network of concepts to data (Kaplan, 2008). Confirmatory factor Analysis (CFA), confirmatory composite analysis, latent growth modeling, partial least squares path modeling and path analysis are including SEM (Kline, 2011). Structural equation models are often used to measure the unobservable 'latent' constructs. They often appeal as a measurement model which defines that the latent variables are using one or more observed variables, and a structural model that imputes relationships between latent variables (Kaplan (2008) & Kline (2011)). There are two fundamental components of SEM. They are the path model and the measurement model. The path model or path analysis is quantifies the specific cause-and-effect relationships between observed variables. The measurement model is quantifies the linkages between hypothetical constructs that might be known but unobservable components, and observed variables that represent a specific hypothetical construct in the form of a linear combination. LISREL (Linear Structural Relations) was developed as a unifying and flexible mathematical framework to specify these linkages (Goldberger, 1972). The detail of the frame work has been described by (Hayduk (1987) & Kelloway (1998)). The following summary has been concluded from (Kline (2011); Grace (2006) & Lomax & Schumaker (2004)).

2.6.1 Path Model

The specification of path model is including the hypothesized cause-and-effect relationships between observed variables. These relationships are generally based on the theoretical considerations or evidence from previous studies. There are three conditions of cause-and-effect such as time precedence, functional relationship, and non-spuriousness (Kenny, 1979). As in the time precedence condition of cause-and-effect, the variable A to cause variable B, A has to precede B in time, so that precedence indicates an asymmetric relationship between the two variables A and B. Secondly the functional relationship condition of cause-and-effect, the variable A and variable B should be functionally related because there is no causal relationship if they are independent. In the non-spuriousness condition of cause-and-effect, if the relationship between variable A and B is spurious because of a common cause, it will be disappeared when the common cause is identified and signified in the model. The recent reviewed of advances in causal implication, and stressed the typical shift needed to move from traditional statistical analysis to causal analysis (Pearl, 2009).

In SEM, there are two types of variables such as exogenous and endogenous. As in SEM, an exogenous variable can be considered only as a cause. The causes of exogenous variable itself were usually unknown or the little interest, so that they are not represented in the model. As in SEM, an endogenous variable can be considered as an effect, but it can also be a cause for other endogenous variables. So that the path model can be look similar to multiple regression (Shipley, 2000), when an exogenous variable is corresponding to the predictor variable and the endogenous variable is become the response. However, the endogenous the endogenous variable can be both a predictor and a response in a system of equations. The exogenous variables are

measured without error. The errors of measurement are data entry, field recording, or other causes (Hayduk, 1987), which may lead to bias in estimated path coefficients (Bollen, 1989). However, endogenous variables are supposed to have the error. Those error terms are reflecting to all unmeasured causes of variation which is associated with the endogenous variable and true measurement error (Kline, 2011).

According to the Grace & Bollen (2005), the direct and indirect effect have to interpret with the caution. An effect can be interpreted as the change made by fixing the other variables in the model and changing only the target variable in the multiple regression. A direct effect can be seen when all the variables in a model remained constant (Shipley, 2000). To estimate the indirect effect, all variables in the model should be controlled and except the mediating variables in the path are representing the interest of indirect effect (Shipley, 2000).

The path coefficients can be seen as the standardized or unstandardized coefficients. The unstandardized coefficients are more inherent. The unstandardized coefficients are representing the changes in the response variable per unit change in the causal variables which means that the both response and causal variables were remained on the scale consistent with original units of measurements. Moreover, the results of unstandardized are very important because the significance tests on the coefficients are constructed on standard errors of the unstandardized solutions (Grace, 2006). The standardized coefficients are normally computed not only by the first standardizing of all variables (subtracting their Mean and dividing by their Standard Deviation) and computing the path coefficients but also by the ratio of the standard deviations of all variables. Those coefficients can be seen in the units of standard deviations for the corresponding variables. The standardized coefficients are allowed

direct comparison of the magnitude of effects of two causal variables measured on different scales (Grace, 2006).

2.6.2 Measurement Model

Confirmatory factor analysis (CFA) is the common method for evaluating the measurement model. Confirmatory factor analysis (CFA) is the procedure of specifying the number and types of observed variables which were associated with one or more hypothetical constructs and analyzing how well the observed variables measure the constructs. The hypothetical construct are the conceptual variables which cannot be measured directly. On the other hand, an observed variable can be measured and which can be used to suppose the construct. Latent variable and composite variable are the two ways of representing the construct. A latent variable can be seen as a cause. Because of its corresponding to the observed variables. On the other hand, the composite variable can be seen as an effect because they are collective (Grace & Bollen, 2008).

The validity and reliability of the observed variables are considered to choose the observed variables for the measurement model. The accuracy of an observed variable for representing the effect of a latent variable is determined by the validity. Because a latent variable can be complicated, so that the selected observed variables should measure over different sides (Thompson, 2003). However, reliability is to test the consistency in the measurement of an observed variable or the error amount of random measurement.

There is a general recommendation for each latent variable is to have three or more observed variables to get effectively account for measurement error and to meet the model identification requirements, which makes ensures the convergence of

model and suitable solutions (Kline, 2011). To make the measurement of the latent variables, the observed variable should have both validity and reliability. The measurement error of observed variables with greater than 40% may likely to have estimation problems (Hayduk, 1987). Further details for the use of latent variables is provided by (Bollen, 1989).

2.6.3 Structural Regression Model

The path model with the latent variables is called structural regression model. The structural regression model is combining the principles of both path model and measurement models. The goal of the structural regression model is to take the measurement error of observed variables into the interpretation when evaluating a path model. The structural regression model is the most general type of core model which is widely used in structural equation modelling (SEM) (Kline, Principles and Practice of Structural Equation Modeling, 2011). There are two types of latent structural regression model. They are fully latent structural regression model and partially latent structural regression model. In the fully latent structural regression model, it has only latent variables. The partially latent structural regression model has the mix of both observed and latent variables. Model identification is the important stage of analysis in the structural regression model which is similar to path model and measurement model. A property that determines whether the model allows for unique parameter estimates is called model identification. The two key factor that can determine the model identification is whether achieved or not are:

(1) The model degrees of freedom is equivalent or greater than 0 ($df_M \geq 0$) and

(2) Every latent variable in the model have to assign the scale.

Total degrees of freedom for the structural regression model is v (v + 1) / 2, where v is refers to the number of observed variables. The model degrees of freedom (df_M) is the total degrees of freedom minus the number of estimated parameters. There are three identified model. They are the just-identified model, overidentified model, and under-identified model. The just-identified model ($df_M = 0$) is possess the unique parameter estimates. The overidentified model ($df_M > 0$) is required for model testing and assessment. The under-identified model ($df_M < 0$) is do not having the unique solutions for all parameters. The under-identification is happened when the effective degree of freedom was reduced because of two or more observed variables are having the very high level of correlation such as correlation is ≥ 0.90 which can giving the problem in parameter estimation (Kenny, 1979) and (Kline, Principles and Practice of Structural Equation Modeling, 2011). Even though the structural regression model is having these conditions on the scale and the degree of freedom (df_M) will not guarantee on identification. However, there are two step rules for checking the identification in the structural regression model which is suggested by (Bollen, 1989). For the first step, structural regression model should be seeing as a confirmatory factor analysis (CFA) model. To get the result of identified CFA model, it should have the following assumptions and requirements:

(1) Every latent variable should have at least two observed variables,

(2) The independence between latent variables and measurement errors, and

(3) Independence between measurement errors.

Checking the iterative for the path model which is the part of the structural regression model is the second step. The second step is for ignoring any observed

variables using to measure the latent variables. The path model has been identified when it is having the following requirements for iterative:

(1) The errors which is related to endogenous latent variables are uncorrelated,

(2) All of the causal effects are unidirectional.

The structural regression model has been identified when the both confirmatory factor analysis (CFA) model and the path model were identified by their respective sets of requirements, the model fit process can be procced.

2.6.4 Model Estimation

The three matrix equations can be summarized from the LISREL framework, one matrix equation for the component of path model and two matrix equation for the component of measurement model (Grace, 2006). For the two matrix equations of measurement model component are as follow:

(1) $x = \Lambda_x \xi + \delta,$

(2) $y = \Lambda_y \eta + \varepsilon,$

where x is a p × 1 vector of observed exogenous variables, which is the linear function of a j×1vector of exogenous latent variables ξ and a p×1 vector of measurement error δ. Λ_x is a p× j matrix of factor loadings which is relating x to ξ. Correspondingly, y is a q×1 vector of observed endogenous variables, η is a k×1 vector of endogenous latent variables, ε is a q ×1 vector of measurement error for the endogenous variables, and Λ_y is a q × k matrix of factor loadings relating y to η. Related to equation (1) and (2), there are two variance-covariance matrices, Θ_δ and Θ_ε. The matrix Θ_δ is a p × p matrix of variances and covariances among measurement errors δ, and Θ_ε is a q × q matrix of variances and covariances among measurement

errors ε. The LISREL defines the relationship between the latent variables for the component of path model with purpose of flexibility,

(3) $$\eta = B_\eta + \Gamma\xi + \zeta,$$

where B is a k×k matrix of path coefficients which is describing the relationships between endogenous latent variables, Γ is a k× j matrix of path coefficients which is describing the linear effects of exogenous variables on endogenous variables, and ζ is a k×1 vector of errors of endogenous variables. Relating to the equation (3), there are two variance-covariance matrices such as Φ is a j × j variance-covariance matrix of latent exogenous variables, and Ψ is a k × k matrix of covariances among errors of endogenous variables. Referring to the three equations, LISREL is the flexible mathematical framework which can accommodate the SEM model with any types of specification.

The structural equation modelling is typically applied through the covariance structure modeling where the variance-covariance matrix which is the basic statistic for the modeling. Model fit is built on the fit function which minimizes the difference between the model-implied variance-covariance matrix Σ and the observed variance-covariance matrix S,

(4) $$\min \int (\Sigma, S),$$

where S is the estimated from observed data, Σ is predicted from the causal and noncausal relations specified in the model, and $\int (\Sigma, S)$ is a generic function of the difference between Σ and S based on an estimation method which follows. According to (Shipley, 2000) mention that the causation implies the correlation,

which means that if there are causal relationship between two variables and it should exist a systematic relationship between them. While specifying the set of theoretical causal paths which can recreate the model implied variance-covariance matrix Σ from total effects and unanalyzed relations. The process of formulation under the mathematical framework of the LISREL has been stated by the (Hayduk, 1987). Specifying the mathematical equation for Σ as follow:

(5) $$\Sigma = \begin{matrix} \Lambda_y A(\Gamma\Phi\Gamma' + \Psi)A' \Lambda_y' + \Theta_\varepsilon & \Lambda_y A\Gamma\Phi \Lambda_x' \\ \Lambda_x \Phi\Gamma' A' \Lambda_y' & \Lambda_x \Phi \Lambda_x' + \Theta_\delta \end{matrix}$$

Where $A = (\Gamma - B)^{-1}$. As in the equation (5), the root of Σ is not contain in the observed and latent exogenous and endogenous variables (such as x, y, ξ, and η). Maximum likelihood (ML) is the common method in the SEM for the purpose of estimating the parameters in Σ. (Grace, 2006) described that the iterative algorithm has been searches for the values of parameter set which minimizes the deviation between the elements of S and Σ in the estimation of maximum likelihood (ML).The minimization has been achieved by deriving the fit function (the equation 4) which is based on the likelihood ratio logarithm, where the ratio is the likelihood of a given fitted model to the likelihood of a perfectly fitting model. The process of maximum likelihood is requiring the endogenous variables to follow a multivariate norm (MVN) distribution, and S have to follow the distribution of Wishart. The steps in the derivation and expressed the fit function F_{ML} has been described by (Hayduk, 1987) as follow:

(6) $$F_{ML} = \log|\Sigma| + tr(S\Sigma^{-1}) - \log|S| - tr(SS^{-1}),$$

Where $tr(\ )$ is referring to the trace of matrix and S & Σ can be defined as above. The suitable application for the equation (6) require the observations should be independently and identically distributed, and the matrices S & Σ should be definitely positive (Hayduk, 1987). After minimization has been succeed through an iterative process of parameter estimation, the output of final results was estimated variance-covariance matrices and the path coefficients for the specified model.

2.6.5 Model Assessment

The complete listing of indices and criteria to measure the model fit has been described by the (Kline, Principles and Practice of Structural Equation Modeling, 2011) & (Lomax & Schumaker, 2004). However, the summary of the four basics of fit statistics will be show in here. The purpose of the model assessment is to test the causal implications of a model (Shipley, 2000). The first basic of fit statistics is the overall model chi-square test which is based on the function of the mentioned fit function F_{ML} as follows:

(7) $$\chi 2_{\mathrm{M}} = (n-1)F_{ML},$$

Where n is the sample size. The $\chi 2_{\mathrm{M}}$ is following the distribution of chi-square with degree of freedom (df_M) has been defined as above. Consequently, the P value has been estimated and evaluated against the level of significance. However, the test of an overall model chi-square can only be applied to an overidentified model ($df_M > 0$). (Shipley, 2000) mention that the just-identified model ($df_M = 0$) such as the path model with a multiple regression, do not need the degree of freedom for model testing. The null hypothesis which is related to the test has no difference between the data and model estimates, and the alternative hypothesis. Consequently, it is failed to

reject the null hypothesis which is the ultimate objective for the process of modeling. However, it is look like differ from the intent of common hypothesis testing in ANOVA. This kind of approach is reliable with the context of accept-support where the researcher's belief has been signified the null hypothesis (Harlow, Mulaik, & Steiger, 2016).

The second basic of fit statistics is the "Root Mean Square Error of Approximation" (RMSEA). RMSEA is the parsimony-adjusted index which describe the complexity of the model. The parsimony-adjusted index approximates the distribution of the noncentral chi-square with the estimated noncentrally parameter as follows:

(8) $$\hat{\delta}_M = \max(\chi 2_{\mathrm{M}} - df_{M,} 0),$$

Where the $\chi 2_{\mathrm{M}}$ will be calculated from equation (7) and df_M has been defined as above. The degree of misspecification of the fit model has been reflected by the magnitude of $\hat{\delta}_M$. The RMSEA has been defined as follows:

(9) $$RMSEA = \sqrt{\frac{\hat{\delta}_M}{df_M(n-1)}},$$

The degree of misspecification per model degree of freedom and sample size adjustment is measured by the RMSEA. The RMSEA is also covered the view of the model fit with the reality approximation which means that RMSEA also measured the approximation error (Raykov & Marcoulides, 2006). The values of RMSEA has been suggested by (Browne & Cudeck, 1993). If the value of RMSEA is ≤ 0.05, it is indicating a fit or close approximation. If the value of RMSEA is between 0.05 and

0.08, it is indicating that the approximation is reasonable. When the value of RMSEA is ≥0.1, it is indicating the poor fit.

The third basic of fit statistics is the standardized root mean square residual (SRMR). The SRMR is easy to calculate. When the both of S and Σ were changed into matrices of correlation and the matrix of the residual will be different between two. So that the SRMR is the mean square of the elements in the residual matrix. The good fit can be defined when the value of SRMR is <0.10.

The final basic of fit statistics is the Jöreskog and Sörbom's Goodness of Fit Index (GFI). GFI is the measurement of the related number of variances and covariances which is combined the account by the model. Goodness of Fit Index (GFI) has been defined by the (Jöreskog & Sörbom, 1982) as follows;

(10) $$GFI = 1 - \frac{tr(\Sigma^{-1}S - I)^2}{tr(\Sigma^{-1}S)^2},$$

Where I refers to the identity of matrix. The value of GFI is between 0 to 1.0. If the value is indicating 1.0, it is means that the best fit.

2.7 Conceptual Framework

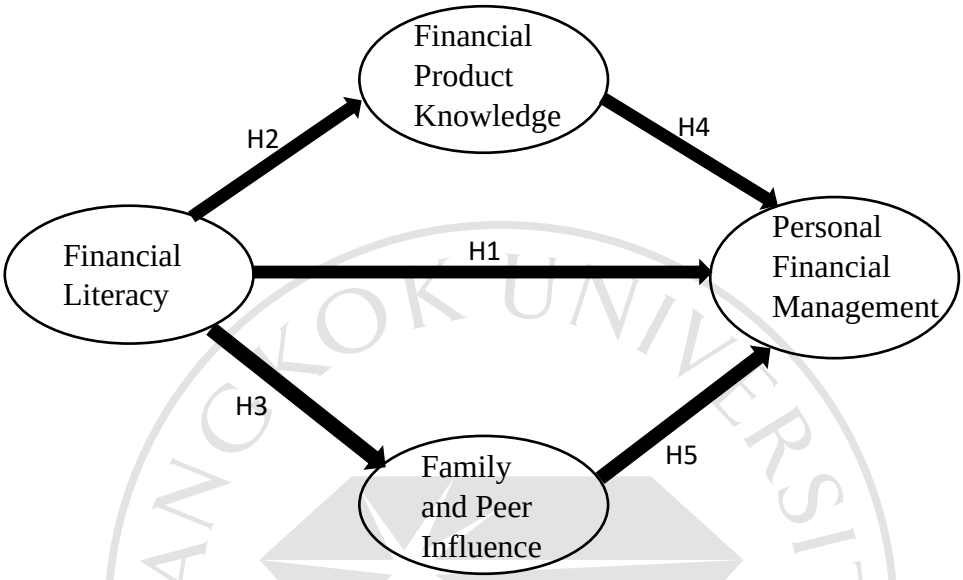

Figure 2.7.1: Conceptual Framework

This type of complex Conceptual Framework is suitable for the SEM.

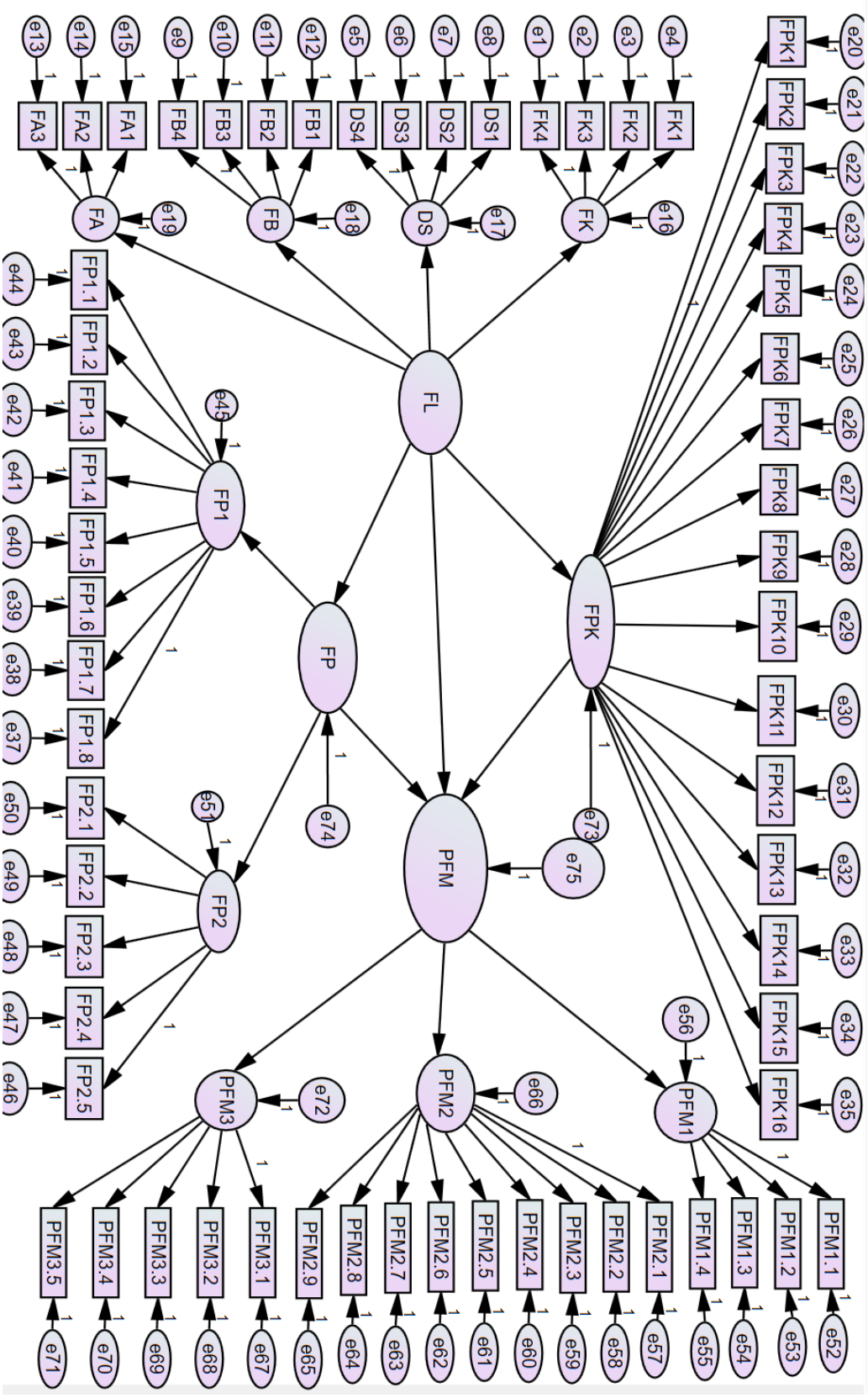

Figure 2.7.2: Initial Model (Propose Model)

2.8 Hypothesis

The hypothesis testing of this research as follow:

H1: Financial literacy is affected on Personal Financial Management of Young Adult.

H2: Financial literacy is affected on Financial Product Knowledge of Young Adult.

H3: Financial literacy is affected on Family and Peer Influence of Young Adult.

H4: Financial Product Knowledge is affected on Personal Financial Management of Young Adult.

H5: Family and Peer Influence is affected on Personal Financial Management of Young Adult.

Chapter 3

RESEARCH METHODOLOGY

In this chapter, the researcher described research strategy and methods used in this present research. Methodology is suggested and reasoned as well as strategies used in this present research. It includes research strategy, identifying the population and sample size, explaining the research instrument for collecting data and the data collection process.

3.1 Research Strategy

The present research has applied the quantitative research method to accomplish the purposes of the study. The researcher collected and analyzed data through the use of questionnaires as a survey tool to fulfill the purpose of the research in order to study the factors that effect and influence on the personal financial management of young adult in Bangkok, Thailand. The questionnaire has been used as the research instrument to which is constructed by applying the related theories and approved by the expertise.

There are three general classifications in quantitative research. They are descriptive, experimental and casual comparative. The research is conducted the casual comparative approach. In this approach, the research explores how the dependent variable is affect by the independent variables as part of the cause and effect relationships. Precisely, the research focus to study the interaction between independent variables on the dependent variable (Williams C. , 2007).

The samples of the research were selected from the population which is the methodology used for conducting the research about the factors that effect and influence on the personal financial management of young adult. Moreover, the samples were randomly selected regarding the convenient and purposive sampling method. The statistical techniques used for data analysis and interpretation including descriptive, inferential statistics and Structural Equation Modelling for Factor Analysis. The details as mentioned above were described as these followings:

3.2 Research Instrument

The Researcher is designed the questionnaire as the instrument for research by applying the explanations and evidences of the related theories and the precious findings. The questionnaire is consisted of five parts as follows:

Part 1**:** Refers to the factors that effect on Financial Literacy of Young Adult.

This part consists of four factors which are Financial Knowledge, Financial Decision-Making Skills, Financial Behaviors and Financial Attitude factors are shown as below:

1. Financial Knowledge factor consists of four questions as listed below:
    1. My current money is always worth more than my future money.
    2. Saving in the bank is better interest than buying the bonds.
    3. An investment with a high return is likely to be high risk.
    4. High inflation means that the cost of living is increasing rapidly.

2. Financial Decision-Making Skills factor consists of four questions as listed below:
    1. I know how to conduct a break-even analysis.
    2. I agree that sources of income should be diversified.
    3. I can analyze the financial statements by means of ratios.
    4. I know how to make budgeting.
3. Financial Behavior factor consists of four questions as listed below:
    1. I set long term financial goals and strive to achieve them.
    2. I pay my bills on time.
    3. I keep a close personal watch on my financial affairs.
    4. Before I buy something, I carefully consider whether I can afford it.
4. Financial Attitude factor consists of three questions as listed below:
    1. I cannot afford any possible loss of capital regardless of potential return.
    2. I find it more satisfying to spend money than to save it for the long term.
    3. Spending less than our income is very important.

All factors will be rated by the respondents which is based on the Ten-point Likert scale. Each question is scaled from a minimum of "0" which represent "Not Agree" to a maximum of "10" which represent "Totally Agree".

Part 2: Refers to the factors that effect on Financial Product Awareness of Young Adult.

This part consists of one factor which is Financial Product Knowledge shown as below:

1. Financial Product Knowledge factor consists of Sixteen questions as listed below:
    1. Savings Account
    2. Bank term deposits (Fixed Deposits)
    3. Call Deposit
    4. Government securities
    5. Mutual funds
    6. Equities (Stock & Share)
    7. Insurance
    8. Corporate Bonds
    9. Pension
    10. Mortgage
    11. Credit Card
    12. Debit Card
    13. Micro Finance Loan
    14. Mobile Payment (Mobile Banking, etc.)
    15. Prepaid Payment Card
    16. Crypto Currency (Electronic Currency)

All factors will be rated by the respondents which is based on the Ten-point Likert scale. Each question is scaled from a minimum of “0” which represent “No Knowledge” to a maximum of “10” which represent “Perfect Knowledge”.

Part 3: Refers to the factors of Family and Peers Influences on Young Adult.

This part consists of two factors which are influence on money management and Handling the Financial issues in Family factors are shown as below:

1. Influence on money management factor consists of four questions as listed below:
    1. Parents
    2. Friends
    3. School
    4. Books
    5. Social Media
    6. Job Experiences
    7. Life Experiences
    8. Financial Advisor

All factors will be rated by the respondents which is based on the Ten-point Likert scale. Each question is scaled from a minimum of “0” which represent “No Effect” to a maximum of “10” which represent “Totally Effected”.

2. Handling the Financial issues in Family factor consists of four questions as listed below:

    1. My parents usually discussed about the finances.

    2. Within the family we openly discussed our finances.

    3. My parents explicitly taught me about finances (e.g., credit cards, debt, budgeting, savings).

    4. We didn't' talk much about finances but I learned from their examples.

    5. My parents included me in various financial decisions

All factors will be rated by the respondents which is based on the Ten-point Likert scale. Each question is scaled from a minimum of “0” which represent “Not Agree” to a maximum of “10” which represent “Totally Agree”.

Part 4: Refers to the factors that influence on Personal Financial Management of Young Adult.

This part consists of three factors which are Saving, Investing and Borrowing factors are shown as below:

1. Saving factor consists of four questions as listed below:

    1. Savings Account

    2. Call Deposits (CD)

    3. Bank term deposits (Fixed Deposits)

    4. Retirement Saving

2. Investing factor consists of eight questions as listed below:

    1. Government securities

    2. Mutual funds

    3. Equities (Stock & Share)

    4. Insurance

    5. Corporate Bonds

    6. Real Estate

    7. Gold

    8. Commodities

    9. Crypto Currency (Electronic Currency)

3. Borrowing factor consists of five questions as listed below:

    1. Borrow from family or friends.

    2. Borrow from the non-banking sources.

    3. Use credit card for a cash advance or to pay bills/buy food.

    4. Take out a personal loan from a bank.

    5. Others

All factors will be rated by the respondents which is based on the Ten-point Likert scale. Each question is scaled from a minimum of “0” which represent “Not Agree” to a maximum of “10” which represent “Totally Agree”.

Part 5: Refers to factors of demographics, and personal financial management. Demographic factors consist of age, gender, marital status, number of children, number of family members, highest education level, occupation and monthly income. Personal Financial Management Factor consist of Financial literacy training, place of financial literacy taken, credit card holding, and level of personal financial management.

Table 3.2: Level of Information Measurement and Criteria

Variables	Measurement Levels	Classification of Criteria
1. What is your gender?	Nominal	1. Male 2. Female
2. What is your age?	Ordinal	1. 18 - 21 2. 22 - 25 3. 26 - 30
3. What is your marital status?	Nominal	1. Single 2. Married 3. Divorced
4. How many Children you have?	Ordinal	Please Specify

(Continued)

Table 3.2(Continued): Level of Information Measurement and Criteria

Variables	Measurement Levels	Classification of Criteria
5. How many family members you have?	Ordinal	Please Specify
6. What is your education level?	Nominal	1. High school 2. Diploma or certificate 3. Undergraduate degree 4. Master degree 5. PHD
7. What was your main field of study?	Nominal	Please Specify
8. Do you have a job?	Nominal	1. Yes 2. No
9. If you choose YES what is your job position?	Nominal	Please Specify
10. What is your Income?	Ordinal	1.under 15,000 baht 2. 15,001– 25,000baht 3. 25,001 – 35,000 baht 4. 35,001 – 45,000 baht 5. more than 45,000baht
11. Have you taken financial literacy training?	Nominal	1. Yes 2. No

(Continued)

Table 3.2 (Continued): Level of Information Measurement and Criteria

Variables	Measurement Levels	Classification of Criteria
12. If Yes, where did you take financial literacy raining?	Nominal	1. Workplace 2. Media 3. Investment groups 4. Others (Please Specify)
13. Do you have a Credit Card?	Nominal	1. Yes 2. No
14.How would you rate your overall Personal Financial Management skills?	Nominal	1. No financial Management Skill 2. Extremely poor 3. Poor 4. Somewhat poor 5. Well 6. Extremely well 7. Perfect financial Management Skill

3.3 Measurement of Instrument

3.3.1. Content Validity

The Researcher has tested the validity of each question of the questionnaire, Item Objective Congruence (IOC) result which measuring the objective and content or questions and objective will be utilized. The validity was calculated by considering the mean value of the opinions of four experts toward each statement of questionnaire. The statement of the questions in the questionnaire were developed based on their comments. The names, job titles and company of the four qualified experts utilized to review consistency between the objective and content or questions and objective of the questionnaire are listed below.

1. Dr.Rapeesorn Fuangkasem
   Lecturer
   Business Administration School, Bangkok University
2. Chanut Sriphyak
   Sales Trader/ Vice President
   May Bank Kim Eng Thailand
3. Dr.Sansanee Thebpanya
   Instructor
   Bangkok University
4. Arun Pawa
   Investment Analyst
   Manulife Asset

To calculate the consistency between the objective and content or questions and objective, the researcher applied the Item Objective Congruence (IOC) method below.

$$IOC = \frac{\sum R}{N}$$

IOC = Consistency between the objective and content.

$\sum R$ = Total assessment points given from all qualified experts.

N = Number of qualified experts.

There are 3 levels of assessment for each question of the questionnaire in the process of IOC as shown as below.

• +1 means that the question is consistent with the objective of the questionnaire

• 0 means that the unsure if question is consistent with the objective of the questionnaire

• -1 means that the question is inconsistent with the objective of the questionnaire

The Item Objective Congruence index must have the value of at least 0.5 or above to be accepted. After receiving the feedback from the four qualified experts, the reviews were made to ensure that each question has an index value more than 0.5. The result of the IOC is listed below

$$IOC = \frac{65.25}{78}$$

$$= 0.84$$

According to the IOC results of the 78 questions in the questionnaire, the Item

Objective Congruence (IOC) index value is 0.84 with two questions are lower than the value of 0.5. Those two questions cannot be acceptable and the researcher omitted those two questions. The detail IOC result for each questionnaire can be seen in Appendix 1.

3.3.2. Reliability

The researcher used the value of Cronbach's alpha coefficient to measuring the reliability of the Questionnaire. The researcher was conducted a sample of 30 peoples as a pilot test and subsequently input the data into IBM SPSS 25 statistical software. The value of Cronbach's alpha coefficient of the questionnaire must be greater than 0.70 for all parts, therefore the questionnaire is considered as reliable (Taber, 2018).

Table 3.3.1: Criteria of Cronbach's Alpha Coefficient

Cronbach's alpha coefficient	Reliability Level	Desirability Level
0.80 – 1.00	Very High	Excellent
0.70 – 0.79	High	Good
0.50 – 0.69	Medium	Fair
0.30 – 0.49	Low	Poor
Less than 0.30	Very Low	Unacceptable

Table 3.3.2: The result of Cronbach's Alpha Test from 30 samples: All Factors

Statement of each part	Alpha Coefficient	Accepted/ Not
Financial Literacy	0.762	Accepted
Financial Product Knowledge	0.918	Accepted
Family and Peers Influences	0.851	Accepted
Personal Financial Management	0.824	Accepted
All Variables	0.938	Accepted

Table 3.2 showed that the result of all factor conducted by the Cronbach's Alpha based 30 samples pilot test. The result of Cronbach's Alpha test for each factor are Financial Literacy factor with 0.762, Financial Product Knowledge factor with 0.918, Family and Peers Influences factor with 0.851, Personal Financial Management factor with 0.824 respectively. All of the results are greater than the 0.70, so that each factor is highly reliable. The total result of Cronbach's Alpha test is 0.938 which greater than 0.70, hence the whole set of questionnaires is very high reliable.

3.4 Population and Sample Size

3.4.1. Population

Population can be defined as the people who lived in the area of Bangkok, Thailand. The research targeted young adult from the age 18 to 30. The target population including the native and foreigners who live, work and study in Bangkok not lower than 1 year.

3.4.2 Sample size

Structural equation modeling is not only a flexible extension but also the powerful extension of the general linear model. Like any statistical method, it features a number of assumptions. These assumptions should be met or at least approximated to ensure trustworthy results. Determination for the appropriate sample size is a critical issue in Structural Equation Modeling (SEM). Unfortunately, there is no agreement in the literature regarding that what would be the appropriate sample size for SEM.

According to James Stevens' Applied Multivariate Statistics for the Social Sciences, a decent general rule for sample size is 15 cases per forecaster in a standard ordinary least squares multiple regression analysis (Stevens, 2009). Since SEM is closely associated with multiple regression in some respects, fifteen cases per measured variable in SEM is not unreasonable. Bentler and Chou (1987) note that researchers could go as low as 5 cases per parameter estimate in SEM analysis, however provided data are absolutely well-behaved (i.e., commonly distributed, no missing data or outlying cases, etc.). Notice that Bentler and Chou mention **5** cases per parameter estimate instead of per measured variable. Measured variables generally have a minimum of one path coefficient related to another variable within the analysis, and a residual term or variance estimate, therefore it is important to identify that the Bentler and Chou and Stevens recommendations dovetail at approximately 15 cases per measured variable, minimum. Many researchers recommend that using the sample sizes of at least 200 or 5/10 cases per parameters (Kline, 2005).

More commonly, Loehlin (1992) reports the outcomes of Monte Carlo simulation studies which is using confirmatory factor analysis models. Afterward reviewing the literature, he accomplishes that for this class of model with 2 to 4 factors, the researcher should plan on collecting at minimum 100 cases, with 200 being better (if possible). Significances of using the smaller samples consist of more convergence failures (the software cannot reach a satisfactory solution), improper solutions (including negative error variance estimates for measured variables), lowered accuracy of parameter estimates and, especially, standard errors – SEM program standard errors are computed under the assumption of large sample sizes.

When data are not ordinarily distributed or are otherwise flawed in some way (almost always the case), larger samples are required. It is tough to make the complete recommendations as to what sample sizes are needed when data are skewed, kurtotic, incomplete, or otherwise less than perfect. The general recommendation is to acquire more data when possible. However, this present research study is focusing on 400 samples. A sample size of 400 is often thought as the most “cost effective” sample size and it gives the statistical accuracy of ±5% (see appendix 3).

3.5 Data Collection

The three types of questionnaires are Structured questionnaire, Semi-Structured questionnaire, and Unstructured questionnaire. The functions of each type of questionnaire can be seen as follow:

Table 3.5: The three different types of questionnaire

Questionnaire Type	Areas of Use	Method of Administration
Structured	Large, Quantitative Studies	Telephone/ Face-to-Face/ Self-Completion
Semi-Structured	Qualitative consumer studies, business to business value	Telephone/Face-to-Face
Unstructured	Qualitative studies	Depth Telephone/ Face-to-Face/ Group discussion

Source: (Hauge, Morgan, & Hague, 2013) *Market Research in Practice: How to Get Greater Insight from Your Market*. Kogan Page, Hong Kong.

Structured questionnaire is the closed question to require the respondent makes the selection from the list. Semi-Structured questionnaire is the combination of closed and opened question which the respondent will makes the selection from the list and answer the questions by their own ways. Unstructured questionnaire is the opened question which the respondent will answer the question by their own way (Hauge, Morgan, & Hague, 2013). In the process of collecting the data, the structured questionnaire was used in this research.

3.6 Data Collection Places

This present research is about the study of the factors that Effect and Influences on The Personal Financial Management of The Young Adult in Bangkok, Thailand. So that the researcher collected the data from the young adults who lived in area of Bangkok. The places of data collection for the 30 samples (Pilot Test) and 400 samples are as follow:

Table 3.6.1: The places of data collection for the 30 samples

No.	Place	Date	Total Number of Respondents
1.	Phaya Thai	11/08/2019	6
2.	Siam	12/08/2019	8
3.	Klong Toei	13/08/2019	9
4.	Bangkapi	15/08/2019	7

Table 3.6.2: The places of data collection for the 400 samples

No.	Place	Date	Total Number of Respondents
1.	Klong Toei	20/08/2019	40
2.	Siam	21/08/2019	40
3.	Phaya Thai	23/08/2019	40
4.	Bangkapi	24/08/2019	40
5.	Suan Luang	25/08/2019	40
6.	Victory Monument	27/08/2019	40
7.	Hway Kwang	28/08/2019	40
8.	Ding Dang	29/08/2019	40
9.	Asok	30/08/2019	40
10.	Pinklao	31/08/2019	40

3.7 Data Analysis

The collected Data was analyzed by using the IBM SPSS Statistics 25.0.0.0 and IBM SPSS Amos 25.0.0.0 software. The data will be presented in the research with the format of tables along with the respective descriptions. The appropriate descriptive statistics of the sample are reported in Chapter 4. The Factor Analysis statistical method is employed to analyze the collected data with the purpose of analyze the factors that Effect and Influences on The Personal Financial Management of The Young Adult. The Factor Analysis is origins from the early 1900s from the Charles Spearman's interest in human ability and subsequently directed to the development of mathematical principles of factor analysis. The Factor Analysis has the two main different types. They are (EFA) Exploratory Factor Analysis and (CFA) Confirmatory Factor Analysis (Pearce & Yong, 2013).

This present research is using the Second Ordered latent variables because there are a lot of observed variables (which has been assigned with the 11 points scale) under the latent variables and there are a lot of latent variable under each factor. As an example, the second ordered latent variable is the Financial literacy whose indicator were the financial knowledge, Financial decision-making skills, Financial behavior and the financial attitude and the second ordered latent variable cause the determination on young adult's personal management. SEM is a powerful quantitative data analytical technique, which can be estimates and tests the theoretical relationship between/among latent variables and/or observed variables and it is also combines the regression and factor analysis (Tabachnick & Fidell, 1996). SEM is also a path analytical method for handling the multiple relationships and assessing the relationships from (EFA) Exploratory Factor Analysis to (CFA) Confirmatory Factor

Analysis (Hair, Anderson, Tatham, & Black, Multivariate Data Analysis: With Readings, 1998). The SEM estimate a series of causal relationship and shows the estimates of parameter as well as the path links among the variables in the conceptual model. SEM also estimates the multiple regression equations simultaneously over specifying the structural model. This also allows the modeling with latent variables through modeling the measurement errors that may be related with observed variables (Wickramasekera & Oczkowski, 2006). Although there are some limitations, SEM is used as a significant tool for testing the proposed model and final model Chapter 4.

CHAPTER 4

DATA ANALYSIS

In this chapter, the researcher will present the research findings which is derived from the data analysis were presented in 4 parts as follows:

Part 1: Demographic Data

Part 2: Mean and Standard Deviation

Part 3: Model Fit

Part 4: Hypothesis

4.1 Demographic Data

The research findings of this part will be presented the respondent's personal data including gender, age, marital status, number of child they have, number of family members they have, education level, main field of study, have a job or not, job position, monthly income, financial literacy training taken or not, location of the financial literacy taken, they have credit card or not, and rating of their own personal financial management level based on their thinking. In terms of sample demographics, the respondent characteristics are varied and widely (Morgan & Hunt, 1994).

Descriptive Statistics of Demographic Factor

Table 4.1.1: Gender

		Frequency	Percent	Valid Percent
Valid	Male	109	27.2	27.2
	Female	291	72.8	72.8
	Total	400	100.0	100.0

The above table showed that most of the respondent are Female. Based 400 sample Female is 291 and Male is 109. As we see in percentage, Female is 72.8 Percent and Male is 27.2 percent. Female respondent covered the three fourth of the sample 400. It is showed that the Female respondent are willing to cooperate the survey.

Table 4.1.2: Age Groups

		Frequency	Percent	Valid Percent
Valid	18-21	237	59.2	59.2
	22-25	129	32.3	32.3
	26-30	34	8.5	8.5
	Total	400	100.0	100.0

The above table showed that the majority of respondent are in the age group of 18-21 with the frequency of 237 and 59.3 percent. Secondly, the age group of 22-25 with the frequency of 129 and 32.3 percent. Finally, less respondent is the age group of 26-30 with frequency of 34 and just 8.5 percent.

Table 4.1.3: Marital Status

		Frequency	Percent	Valid Percent
Valid	Single	391	97.7	97.7
	Married	7	1.8	1.8
	Divorced	2	.5	.5
	Total	400	100.0	100.0

As reported in the above table, almost all of the respondents are Single. As see in Frequency, Single 391, married 7 and divorced 2 respectively. By means of percentage, Single is leading with 97.7 percent, secondly married is 1.8 percent and lastly divorced is with just 0.5 percent.

Table 4.1.4: Numbers of Children

		Frequency	Percent	Valid Percent
Valid		392	98.0	98.0
	0	2	.5	.5
	1	3	.8	.8
	2	3	.8	.8
	Total	400	100.0	100.0

The above table shows that the numbers of children. As we refer to table 4.3, there are 7 married respondents and 2 divorced respondents. There are no children by 2 respondents, 1 child by 3 respondents and 2 children by 3 respondents respectively.

Table 4.1.5: Number of Family Members

		Frequency	Percent	Valid Percent
Valid		38	9.5	9.5
	10	1	.3	.3
	2	3	.8	.8
	3	69	17.3	17.3
	4	155	38.8	38.8
	5	95	23.8	23.8
	6	24	6.0	6.0
	7	8	2.0	2.0
	8	5	1.3	1.3
	9	2	.5	.5
	Total	400	100.0	100.0

As reported in the above table, most of the respondents have 4 family members with the frequency of 155. Secondly, 5 family members with frequency of 95, 3 family members with frequency of 69, 6 family members with frequency of 24, 7 family members with frequency of 8, 8 family members with frequency of 5, 2 family members with frequency of 3, 9 family members with frequency of 2 and finally 10 family members with frequency of 1. 38 respondents did not mention about their family size.

Table 4.1.6: Education Level

		Frequency	Percent	Valid Percent
Valid	High School	13	3.3	3.3
	Diploma or Certificate	2	.5	.5
	Undergraduate Degree	344	86.0	86.0
	Master Degree	39	9.8	9.8
	PHD	2	.5	.5
	Total	400	100.0	100.0

The above table showed that most of the respondents possess or study in the Undergraduate Degree with frequency of 344 which is covered the 86 percent. Secondly, Master degree with the frequency of 39 and about 10 percent is covered. 13 respondents are still study in High School. There are 2 PHD respondents and 2 respondents who hold the Diploma or Certificate.

Table 4.1.7: Main Field of Study

Main Field of Study

		Frequency	Percent	Valid Percent
Valid		47	11.8	11.8
	Accounting	23	5.8	5.8
	Advertising	2	.5	.5
	Airline Business	7	1.8	1.8
	Arts	7	1.8	1.8
	Biology	1	.3	.3
	Business Administration	29	7.2	7.2
	Business English	5	1.3	1.3
	Chemistry	1	.3	.3
	Chinese	1	.3	.3
	Commerce	1	.3	.3
	Communication Arts	16	4.0	4.0
	Computer Animation	2	.5	.5
	Computer Graphic	2	.5	.5
	Counseling	1	.3	.3
	Creative Media Design	4	1.0	1.0
	Economics	5	1.3	1.3
	Education	2	.5	.5
	Engineering	6	1.5	1.5
	English	13	3.3	3.3
	Entrepreneurship	12	3.0	3.0
	Event Management	1	.3	.3
	Fashion Design	3	.8	.8
	Finance	3	.8	.8
	Finance and Banking	1	.3	.3
	Food Engineer	1	.3	.3
	Graphic Design	1	.3	.3
	Health Science	1	.3	.3
	Hospital and Tourism	1	.3	.3
	Hotel Management	8	2.0	2.0
	Humanity	10	2.5	2.5
	Insurance	1	.3	.3
	International Business	24	6.0	6.0
	International Relation	1	.3	.3
	IT	5	1.3	1.3
	Japanese	7	1.8	1.8
	Law	28	7.0	7.0
	Logistics	5	1.3	1.3
	Logistics and Supply Chain	2	.5	.5
	Marketing	34	8.5	8.5
	Mass Communication	3	.8	.8
	Medical Technology	1	.3	.3
	Music	6	1.5	1.5
	Nursing	7	1.8	1.8
	Pharmacy	1	.3	.3
	Philosophy	1	.3	.3
	Physical Education	1	.3	.3
	Political Science	16	4.0	4.0
	Programming	1	.3	.3
	Psychology	4	1.0	1.0
	Public Relations	1	.3	.3
	Science	9	2.3	2.3
	Spanish	4	1.0	1.0
	Sport Science	1	.3	.3
	Statistic	2	.5	.5
	Thai	6	1.5	1.5
	Tourism Management	11	2.8	2.8
	Western Dancing Art	1	.3	.3
	Total	400	100.0	100.0

According to the above table, most of the respondent's main field of study is Marketing with the Frequency of 34. Secondly, Business Administration with the frequency of 29, 28 respondents study the Law, 24 respondents study the International Business, Accounting with the frequency of 23, Communication Arts with the frequency of 16 and 16 respondents study the Political Science. 47 respondents did not mention about their main field of study. Most of the respondent are study in the Business field according to the above table.

Table 4.1.8: Job

		Frequency	Percent	Valid Percent
Valid	Yes	92	23.0	23.0
	No	308	77.0	77.0
	Total	400	100.0	100.0

The above table showed that the respondent has a job or do not have a job. According to above table, there are 308 respondents do not have a job which is covered the 77 percent of total respondents. 92 respondents have job.

Table 4.1.9: Job Position

Valid		339	84.8	84.8
	Business development Manager	1	.3	.3
	Business Owner	7	1.8	1.8
	Cashier	1	.3	.3
	Club Lounge	1	.3	.3
	Consultant	1	.3	.3
	Consultant Psychologist	1	.3	.3
	Customer Service	2	.5	.5
	Database Updater	1	.3	.3
	Editor	1	.3	.3
	Educator	1	.3	.3
	Employee	1	.3	.3
	Free Lance Model	2	.5	.5
	Graphic Designer	1	.3	.3
	Instructor	1	.3	.3
	Investment Analyst	1	.3	.3
	Management Trainee	1	.3	.3
	Manager	3	.8	.8
	Managing Director	1	.3	.3
	Marketing	1	.3	.3
	Nurse	3	.8	.8
	Officer	1	.3	.3
	Online Shopping	1	.3	.3
	Paper Cutter	1	.3	.3
	Part Time	7	1.8	1.8
	PC Officer	1	.3	.3
	Programmer	1	.3	.3
	Project Manager	2	.5	.5
	Purchaser	1	.3	.3
	Sales	1	.3	.3
	Singer	1	.3	.3
	Social Media Editor	1	.3	.3
	Teacher	6	1.5	1.5
	Tour Operator	1	.3	.3
	Tour Staff	2	.5	.5
	Translator	1	.3	.3
	Tutor	1	.3	.3
	Total	400	100.0	100.0

The above table show that the respondent's job positions who had job. Firstly, 7 respondents own the business and 7 respondents are working part time job.

Secondly, there is a teacher with the frequency of 6. There are 3 managers and 3 nurse, 2 freelance model, 2 customer service, 2 project manager and 2 tour staff. There is 1 respondent on each position such as business development manager, cashier, club lounge, consultant, consultant psychologist, data base editor, educator, editor, employee, graphic designer, instructor, investment analyst, management trainee, managing director, marketing, officer, online shopping, paper cutter, PC officer, programmer, purchaser, sales, singer, social media editor, tour operator, translator, and tutor respectively.

Table 4.1.10: Income

		Frequency	Percent	Valid Percent
Valid	Under 15000 Bahts	263	65.8	65.8
	15001 - 25000 Bahts	90	22.5	22.5
	25001 - 35000 Bahts	22	5.5	5.5
	35001 - 45000 Bahts	10	2.5	2.5
	More Than 45000 Bahts	15	3.8	3.8
	Total	400	100.0	100.0

The above table indicating that the respondent's monthly income. According to the above table, the monthly income of most of the respondents are under 15000 Bahts with frequency of 263 which is covered the 65.8 percent that is two third of the total respondents. Secondly, 90 respondents have monthly income between 15001 – 25000 Bahts, 22 respondents have monthly income between 25001 – 35000 Bahts, and 15 respondents have monthly income more than 45000 Bahts. Finally, 10 respondents have monthly income between 35001 – 45000 Bahts.

Table 4.1.11: Financial Literacy Training

		Frequency	Percent	Valid Percent
Valid	Yes	146	36.5	36.5
	No	254	63.5	63.5
	Total	400	100.0	100.0

The above table showed that the respondents are taken the financial literacy training or not taken. According to the above table, there are 146 respondents had taken the financial literacy taken which is one third of the total respondents. 254 respondents did not take the financial literacy training.

Table 4.1.12: The Place of Financial Literacy Training

		Frequency	Percent	Valid Percent
Valid	Workplace	22	5.5	15.3
	Media	101	25.3	70.1
	Investment Groups	11	2.8	7.6
	Others (Please Specify)	10	2.5	6.9
	Total	144	36.0	100.0
Missing	System	256	64.0	
Total		400	100.0	

The above table showed that the places of Financial literacy training has been taken by the respondents. Most of the respondents were taken the financial literacy training on Media with the frequency of 101 which is 70 percent of the total respondents. Secondly, 22 respondents had been taken the financial literacy training on their Work Place and 11 respondents had been taken the financial literacy training at Investment Groups. Finally, 10 respondents had been taken the financial literacy

training on other places and according to their comments that they were taken the financial literacy training at seminars.

Table 4.1.13: Credit Card

		Frequency	Percent	Valid Percent
Valid	Yes	115	28.7	28.7
	No	285	71.3	71.3
	Total	400	100.0	100.0

The above table describe about the respondents have Credit Card or do not have the Credit Card. According to above table, 115 respondents have the Credit Card and 285 respondents do not have the Credit Card.

Table 4.1.14: Rating of Personal Financial Management

		Frequency	Percent	Valid Percent
Valid	No financial Management Skill	35	8.8	8.8
	Extremely poor	29	7.2	7.2
	Poor	93	23.3	23.3
	Somewhat poor	49	12.3	12.3
	Well	176	44.0	44.0
	Extremely well	12	3.0	3.0
	Perfect financial Management Skill	6	1.5	1.5
	Total	400	100.0	100.0

The above table showed that the respondent's opinion on their level of personal financial management skills. Firstly, 176 respondents thinking that their personal financial management skill is Well. Secondly, 93 respondents thinking that their personal financial management skill is Poor. 49 respondents thinking that their personal financial management skill is somewhat poor. There are 35 respondents

think that they have no financial management skill. 29 respondents thinking that their personal financial management skill is extremely poor. 12 respondents thinking that their personal financial management skill is extremely well. Finally, 6 respondents thinking that their personal financial management skill is in perfect condition.

4.2 Examination on Data Entry and Missing Data

The data analysis is progressed with the investigation on data entry and checking on missing data. This is significantly appropriate to gain some critical insights into the characteristic of data and analysis (Hair, Anderson, Tatham, & Black, Multivariate Data Analysis: With Readings, 1998). Therefore, to get a high level of precision in the process of data entry, the researcher was performed the treble check. For the first check, all the data entries were verified on case by case. As for the second check, the data entries were verified by each respondent. Finally, descriptive statistics such as frequency distribution was conducted and verified. The frequency distribution showed that there is no mistake in the data entry process and which is ensured the accuracy of data entry. So that the accuracy of the data entry into the data set was 100% accurate.

In the process of examining the completeness of the returned questionnaire, it was found that there are 27 questionnaires contained the missing data for some part of the construct measurement sectors. All of these 27 cases had 25% or more of the overall unanswered questionnaire. In order to data reliability, all of those cases were omitted from the initial analysis (Hair, Anderson, Tatham, & Black, Multivariate Data Analysis: With Readings, 1998). In relation to this deletion, it is important to note that the researcher was made the new data collection and replace on that cases.

Before going the Data entry, the researcher was checking all returned questionnaire for all the questions were answered carefully or not. During the process, the researcher found that there are 21 cases were not answered carefully and including all the measurement section were giving the same number on Likert scales such as choosing 1 on all questionnaires. As a result, all of those cases were invalid and not reliable. So that the researcher omitted these cases and replace with the new data collections.

4.3 The Analysis of all variables by Mean ($\bar{X}$) and Standard Deviation (S.D.)

The researcher carried out the analysis of Financial Literacy, Financial Product Knowledge, Family and Peers, and Personal Financial Management by Mean ($\bar{X}$) and Standard Deviation (S.D.). All of the above analysis can be seen in the Appendix 4.

4.4 Measurement, Model Fit and Modification

4.4.1 Fit Indices

The use of Structural Equation Model (SEM) has been steadily increased in the business literature, there are three forms of SEM can be found. The First form consists of measurement models (type 1), the second from consists of structural models (type 2) and the final one is combining the measurement and structural parameters (type 3) in a single analysis (McQuitty, 2004). In this study, the researcher approached the type 3.

The Structural Equation Model (SEM) is a quantitative data analytical approach which specifies, estimates and testing the theoretical relationships between the observed variables (Endogenous) and latent, unobserved variables exogenous variables (Byrne, 2001). SEM is not designate a single statistical technique but rather a family of the appropriate procedures including the analysis of covariance structure which combines the regression and factor analysis. The SEM approach is start with the model specification which links the variable supposed to affect other variables and directionalities of those effects (Kline, Principles and Practice of Structural Equation Modeling, 2005). Specification is a way for visual representation of practical (theoretical) hypotheses and a measurement scheme consists of relevant theory, information and ultimately a developed model (Diamantopoulos & Siguaw, 2000). As in the process of Estimation, SEM produces the regression weights, variances, covariances, and correlations in its iterative process converged on the set of parameter estimates (Holmes-Smith, Coote, & Cunningham, 2006).

After the process of estimation, fit statistics should be used to check whether the proposed model is fit with the data or not, or whether any modification is required to increase the fit. The model fit statistics can be seen into three types (Holmes-Smith, Coote, & Cunningham, 2006). The three types of model fit are as follows:

- Absolute fit indexes,
- Incremental fit or Comparative fit index, and
- Indices of model parsimony

In each type of model fit, there are different ways of fit indices and some rules of thumb about the minimum requirement level of value/score to get good fit (Byrne, 2001). Although the researchers pointing that many different value of fit indices are found to have some problems in the evaluation process (Kline, 2005), because different value of fit indices are reported in different articles and different reviewers of the same kind of manuscript will be recommend the indices that they prefer (Maruyama, 1998) (Ping Jr., 2004). As an example, (Kenny & McCoach, 2003) argue that there is no reliable standard for evaluate an acceptable model fit and they only focus on CFI, TLI, and RMSEA are common to use fit indexes. (Steenkamp, Batra, & Alden, 2003) stressed that x^2/df (CMIN/DF), CFI and TLI as measurement of fit to test the effect of the proposed model. In this study, x^2/df (CMIN/DF), CFI, TLI and RMSEA are considered for evaluating the fit indices.

The x^2 (Chi-square) is to measure the absolute inconsistency between the matrix of implied variances and covariances ($\hat{\mathbf{E}}$) to the matrix of empirical sample variances and covariances (**S**). This test the matrix of implied $\hat{\mathbf{E}}$ is significantly different to the matrix of **S**. To access the discrepancy between $\hat{\mathbf{E}}$ and **S**, the

probability (α = 0.05) of achieving x^2 value is used to show whether the alternative hypothesis is rejected or null hypothesis is accepted, even though there is no significance between $\hat{\mathbf{E}}$ and **S**. Although this could be evaluated through its associated degree of freedom (df) and probability of significant difference. According to the Holmes-Smith et al., 2004, some researchers prefer and refer to use the "normed" x^2 where x^2 is divided by the degree of freedom (df) to deliver an x^2 measure per degree of freedom with an index of model parsimony. The equation for the normed is x^2 as follow:

$$x^2 = {}^{x^2}/_{df}$$

The value of normed x^2 is greater than 1 or less than 2 is show that the very good model fit (Byrne (2001), & Hair, Anderson, Tatham, & Black (1998), &Holmes-Smith, Coote, & Cunningham (2006)).

In the baseline comparisons, the researcher's widely used indices in SEM to evaluate the relative improvement in fit to the models are as follow:

- Incremental Fit Index (IFI) proposed by (Bollen, 1989)
- Tucker Lewis Index (TLI) also known as Non-Normed Fit Index (NNFI) proposed by (Tucker & Lewis, 1973)
- Comparative Fit Index (CFI) proposed by (Bentler P. M., 1990)

The value of IFI, NFI, and CFI are meant to be lie between zero to one but the value should be closer to one. The value between 0.90 – 0.95 indicates that the model is adequate fit and if greater than 0.95 indicates that the model is very well fit (Hulland, Chow, & Lam, 1996).

RMSEA is possess the many interest among the evaluation of the fit indices because of its unique relative power of the combination of properties. RMSEA fit statistic is one of the most informative principles in covariance structure modelling (Byrne, 2001). The value of RMSEA is less than 0.05 indicates the good fit and value higher than 0.08 indicate that there are reasonable errors of the approximation in the population (Browne & Cudeck (1992) & Byrne (2001)). However, MacCallum, Browne, & Sugawara (1996) argued that RMSEA values from 0.06 to 0.10 indicate the mediocre fit, and values greater than 0.10 can be considered as a poor fit. Hulland, Chow, & Lam (1996) also argued that the values of RMSEA between 0.05 – 0.10 are sometimes considered as an adequate fit.

These model fit indices will be used in evaluating the initial measurement models and the final structural model report.

4.4.2 Initial Measurement of Model Fit

In this section, the researcher will focus on all key findings which is related to the initial measurement model fit along with the confirmatory factor analysis (CFA). CFA combines the testing of unidimensional and evaluates a data set by approving the underlying structure on the basis of the theoretical ground (Mueller, 1996). CFA also suggests the simplification, modification, and any required improvement in the measurement model for theory testing and examining the level of fit.

Model Identification is necessary in CFA, modification and standardized loadings (standardized regression weights) in AMOS output are the ways to validate the dimensionality of the measurement or the model fit. Variances, Covariances and regression weights are included in Modification indices. These indices are examining

during the evaluation process of model fit to acquire the direction of modification. As an example, if required to get the better model fit, whether freeing or incorporating parameters either between or among unobserved variables. (Anderson & Gerbing, 1988) proposed that under unacceptable but converged and suitable solutions, relating or deleting the indicator from the model are the preferred basic ways to modification of the model. This means that to get a better fit, the best ways are item deletion and adding a new path indicator. Any changes or deletion of items in the iterative process may be changes the result in the parameters and model fit statistics.

Table 4.4.1: Initial Measurement Findings

Table 4.4.1	Initial Fit Indices			
Fit Measures	CMIN/ DF	RMSEA	TLI	CFI
Initial Values	2.974	0.07	0.708	0.729
Scale for good fit	> 1 - < 2	< 0.08	≥ 0.90	≥ 0.90
Interpretation	Not Good Fit	Good Fit	Not Good Fit	Not Good Fit

According to the table 4.4.1, the RMSEA value is a good fit for model. The value of TLI and CFI need to increase for becoming a good fit. So that the researcher goes for the modification process for acquire the good fit.

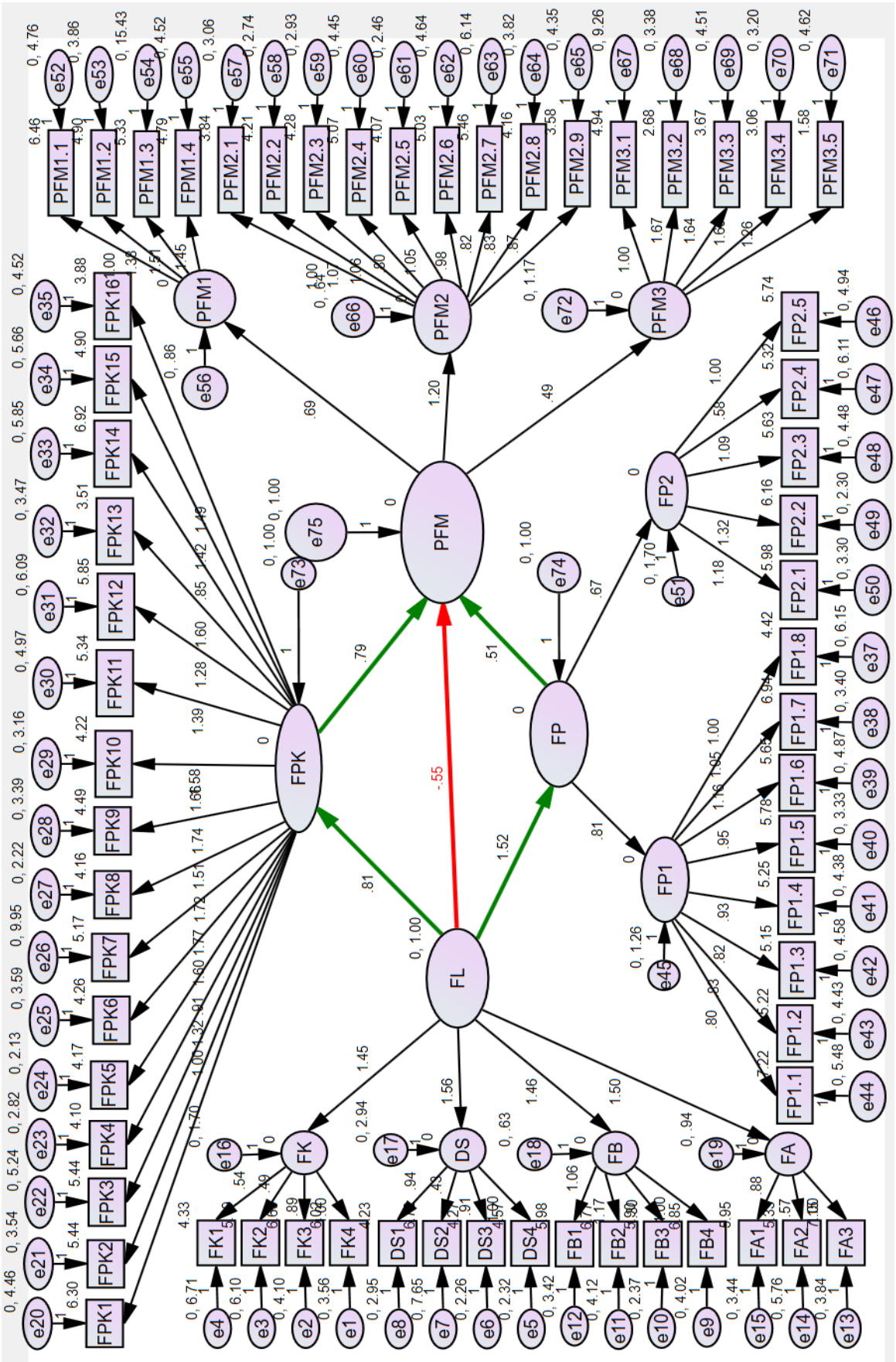

Figure 4.1: Initial Model

Table 4.4.2 Regression Weights, Direct and Indirect Effects of Initial Model

			Estimate	S.E.	C.R.	P	Label
FPK	<---	FL	.808	.077	10.527	***	par_54
FP	<---	FL	1.518	.257	5.896	***	par_64
PFM	<---	FP	.511	.160	3.201	.001	par_53
PFM	<---	FPK	.792	.113	7.004	***	par_55
PFM	<---	FL	-.545	.321	-1.697	.090	par_56
FK	<---	FL	1.448	.134	10.784	***	par_57
DS	<---	FL	1.558	.131	11.849	***	par_58
FB	<---	FL	1.457	.123	11.848	***	par_59
FA	<---	FL	1.496	.132	11.347	***	par_60
PFM1	<---	PFM	.688	.088	7.810	***	par_61
PFM2	<---	PFM	1.199	.124	9.692	***	par_62
PFM3	<---	PFM	.485	.082	5.952	***	par_63
FP1	<---	FP	.808	.133	6.061	***	par_65
FP2	<---	FP	.671	.108	6.206	***	par_66
FK4	<---	FK	1.000				
FK3	<---	FK	.886	.092	9.606	***	par_1
FK2	<---	FK	.489	.082	5.977	***	par_2
FK1	<---	FK	.539	.087	6.222	***	par_3
DS4	<---	DS	1.000				
DS3	<---	DS	.909	.053	17.190	***	par_4
DS2	<---	DS	.431	.067	6.470	***	par_5
DS1	<---	DS	.938	.057	16.585	***	par_6
FB4	<---	FB	1.000				
FB3	<---	FB	1.300	.103	12.591	***	par_7
FB2	<---	FB	1.169	.104	11.272	***	par_8
FB1	<---	FB	1.065	.094	11.269	***	par_9
FA3	<---	FA	1.000				
FA2	<---	FA	.574	.089	6.453	***	par_10
FA1	<---	FA	.881	.092	9.614	***	par_11
FPK1	<---	FPK	1.000				
FPK2	<---	FPK	1.318	.091	14.554	***	par_12
FPK3	<---	FPK	.915	.098	9.312	***	par_13
FPK4	<---	FPK	1.596	.091	17.585	***	par_14
FPK5	<---	FPK	1.774	.089	19.824	***	par_15
FPK6	<---	FPK	1.721	.100	17.149	***	par_16
FPK7	<---	FPK	1.509	.139	10.870	***	par_17
FPK8	<---	FPK	1.742	.089	19.497	***	par_18
FPK9	<---	FPK	1.655	.097	17.041	***	par_19
FPK10	<---	FPK	1.579	.093	16.919	***	par_20
FPK11	<---	FPK	1.391	.104	13.393	***	par_21

(Continued)

Table 4.4.2 (Continued): Regression Weights, Direct and Indirect Effects of Initial Model

			Estimate	S.E.	C.R.	P	Label
FPK12	<---	FPK	1.276	.110	11.579	***	par_22
FPK13	<---	FPK	1.596	.096	16.568	***	par_23
FPK14	<---	FPK	.846	.102	8.284	***	par_24
FPK15	<---	FPK	1.424	.110	12.984	***	par_25
FPK16	<---	FPK	1.491	.102	14.558	***	par_26
FP1.8	<---	FP1	1.000				
FP1.7	<---	FP1	1.054	.095	11.091	***	par_27
FP1.6	<---	FP1	1.161	.108	10.792	***	par_28
FP1.5	<---	FP1	.950	.088	10.753	***	par_29
FP1.4	<---	FP1	.927	.092	10.091	***	par_30
FP1.3	<---	FP1	.822	.087	9.432	***	par_31
FP1.2	<---	FP1	.832	.087	9.575	***	par_32
FP1.1	<---	FP1	.798	.090	8.844	***	par_33
FP2.5	<---	FP2	1.000				
FP2.4	<---	FP2	.575	.085	6.767	***	par_34
FP2.3	<---	FP2	1.095	.100	10.944	***	par_35
FP2.2	<---	FP2	1.320	.106	12.502	***	par_36
FP2.1	<---	FP2	1.182	.100	11.831	***	par_37
PFM1.1	<---	PFM1	1.000				
PFM1.2	<---	PFM1	1.375	.147	9.362	***	par_38
PFM1.3	<---	PFM1	1.513	.204	7.421	***	par_39
FPM1.4	<---	PFM1	1.454	.156	9.313	***	par_40
PFM2.1	<---	PFM2	1.000				
PFM2.2	<---	PFM2	1.074	.063	17.111	***	par_41
PFM2.3	<---	PFM2	1.063	.063	16.798	***	par_42
PFM2.4	<---	PFM2	.803	.063	12.745	***	par_43
PFM2.5	<---	PFM2	1.049	.060	17.336	***	par_44
PFM2.6	<---	PFM2	.985	.069	14.326	***	par_45
PFM2.7	<---	PFM2	.823	.071	11.559	***	par_46
PFM2.8	<---	PFM2	.828	.061	13.671	***	par_47
PFM2.9	<---	PFM2	.866	.064	13.494	***	par_48
PFM3.1	<---	PFM3	1.000				
PFM3.2	<---	PFM3	1.674	.223	7.491	***	par_49
PFM3.3	<---	PFM3	1.641	.223	7.348	***	par_50
PFM3.4	<---	PFM3	1.693	.225	7.518	***	par_51
PFM3.5	<---	PFM3	1.260	.180	6.983	***	par_52

4.4.3 Modification

In the process of modification to get a better model fit, item deletion and adding a new path indicator are best ways. To carry out the process of item deletion, the researcher undergoes for the factor analysis to get a score of each items and the lowest scored items will be deleted to get good model fit.

Table 4.4.3: Output from Factor Analysis

Table 4.4.3		1	2	3	4	5	6	7	8	9	10	11
My current money always worth more than my future money.	FK1	.139	-.027	-.006	.130	.072	.052	.141	.131	.190	-.062	.650
Saving in the bank is better interest than buying the bonds.	FK2	.036	-.053	.203	.123	-.010	-.112	-.020	.005	.318	.138	.571
An investment with a high return is likely to be high risk.	FK3	.083	.125	.101	.043	.206	.031	-.073	.018	.674	.130	.183
High inflation means that the cost of living is increasing rapidly.	FK4	.052	.147	.098	.085	.061	.177	-.014	.259	.701	.099	.133
I know how to conduct a break-even analysis.	DS1	.253	.104	.082	.097	.123	.012	.156	.752	.153	.048	.114
I agree that sources of income should be diversified.	DS2	.037	.038	.114	.097	.254	.068	-.035	.147	.644	.030	.047
I can analyze the financial statements by means of ratios.	DS3	.220	.093	.050	.088	.152	.086	.056	.768	.164	.064	.079
I know how to make budgeting.	DS4	.303	.089	.106	.088	.189	.180	.119	.746	.062	.011	.021
I set long term financial goals and strive to achieve them.	FB1	.147	.000	.139	.103	.630	-.021	-.027	.311	.168	.199	.076
I pay my bills on time.	FB2	.056	.052	.094	.137	.635	.218	-.079	.224	.050	.130	.150

(Continued)

Table 4.4.3 (Continued): Output from Factor Analysis

I keep a close personal watch on my financial affairs.	FB3	.261	.054	.187	.125	.665	.114	.035	.240	.122	.085	.095
Before I buy something, I carefully consider whether I can afford it.	FB4	.102	.082	.218	.131	.658	.205	.064	-.030	.232	-.071	-.057
I cannot afford any possible loss of capital regardless of potential return.	FA1	-.038	.264	.144	.014	.543	.060	.031	-.039	.298	.069	.230
I find it more satisfying to spend money than to save it for the long term.	FA2	.020	.162	.053	-.030	.270	.117	.131	.100	-.057	.089	.663
Spending less than our income is very important.	FA3	.005	.041	.195	.006	.489	.253	.072	-.017	.521	.042	-.026
Savings Account	FPK1	.295	-.017	.167	.079	.176	.334	.024	.204	.282	.533	-.165
Bank term deposits (Fix Deposits)	FPK2	.451	.132	.207	.081	.096	.232	-.011	.263	.167	.502	-.058
Call Deposit	FPK3	.259	.207	.148	.141	.247	.100	-.092	-.061	.125	.569	.093
Government securities	FPK4	.629	.281	-.003	.104	.048	.144	.060	.263	.040	.221	.022
Mutual funds	FPK5	.782	.199	.000	.176	.019	.085	.138	.207	.036	.209	.013
Stock & Shares	FPK6	.763	.085	.039	.132	.057	.080	.131	.177	.053	.078	-.013
Insurance	FPK7	.608	.172	-.028	.112	.050	.155	.060	.076	.006	.080	-.019
Bonds	FPK8	.769	.309	.053	.141	.049	.066	.145	.140	.008	.113	.070
Pension	FPK9	.768	.225	.059	.092	.174	.116	.023	-.003	.122	.018	.072
Mortgage	FPK10	.759	.221	.147	.076	.080	.089	.125	.056	.023	.022	.104
Credit Card	FPK11	.449	.070	.147	.030	.215	.610	.160	.059	.097	.034	.034
Debit Card	FPK12	.280	.105	.097	.098	.195	.724	.157	.113	.107	.074	-.025
Micro Finance Loan	FPK13	.576	.314	.006	.076	.048	.265	.160	.267	-.103	.014	.128
Mobile Payment (Mobile Banking, etc.)	FPK14	.096	.107	.131	.158	.227	.699	-.084	-.005	.229	.118	.084
Prepaid Payment Card	FPK15	.306	.263	.100	.131	.009	.568	.027	.252	-.005	.036	.062
Crypto Currency (Electronic Currency)	FPK16	.443	.364	.064	.094	-.069	.362	-.022	.310	-.111	.053	.139
Parents	FP1.1	-.009	-.042	.543	.357	.230	.210	.035	-.102	.186	.095	.033
Friends	FP1.2	.137	.148	.348	.551	-.086	.131	.096	-.084	.223	.021	.237
School	FP1.3	.136	.098	.066	.716	-.096	.024	.052	.046	.159	.108	.241

(Continued)

Table 4.4.3 (Continued): Output from Factor Analysis

Books	FP1.4	.291	.078	.043	.686	.220	-.010	.075	.110	-.064	.069	.090
Social Media	FP1.5	.144	.200	.083	.658	.266	.207	.071	-.015	-.024	.128	.021
Job Experiences	FP1.6	.156	.129	.252	.561	.165	.167	.048	.139	.164	.061	-.293
Life Experiences	FP1.7	.072	.141	.244	.514	.309	.396	-.025	.091	.166	.063	-.216
Financial Advisor	FP1.8	.094	.283	.048	.619	.045	-.017	.168	.235	-.042	.172	-.018
My parents usually argued about the finances	FP2.1	-.030	.091	.747	.142	.201	.014	.063	.063	.130	.072	-.015
Within the family we openly discussed our finances	FP2.2	.059	.139	.805	.065	.146	.051	-.018	.090	.134	.090	-.044
My parents explicitly taught me about finances (e.g., credit cards, debt, budgeting, savings)	FP2.3	.110	.056	.721	.043	.098	.114	-.025	.197	-.094	.196	.148
We didn't' talk much about finances but I learned from their examples	FP2.4	.101	.195	.298	.026	.219	-.028	.112	-.045	.189	.142	.202
My parents included me in various financial decisions	FP2.5	.103	.128	.703	.095	.073	.126	-.025	-.013	.124	.079	.103
Savings Account	PFM1.1	.070	.118	.354	.186	.238	.280	.100	-.009	.250	.492	-.038
Call Deposits (CD)	PFM1.2	.076	.398	.190	.197	.048	-.038	-.037	.056	.057	.601	.151
Bank term deposits (Fix Deposits)	PFM1.3	.108	.323	.128	.123	-.036	-.018	.129	.022	-.043	.504	.126
Retirement Saving	PFM1.4	.112	.536	.010	.225	.082	-.016	.109	.085	.172	.331	-.102
Government securities	PFM2.1	.229	.702	.024	.083	.089	.004	.222	.093	-.046	.056	-.005
Mutual funds	PFM2.2	.378	.672	.022	.133	.100	.016	.195	-.020	.134	.064	-.087
Stock & Shares	PFM2.3	.401	.660	.098	.123	.085	.029	.129	.021	.144	.006	-.106
Insurance	PFM2.4	.247	.567	.175	.139	.088	.066	.024	.062	.099	.091	-.023
Corporate Bonds	PFM2.5	.403	.686	.127	.108	-.028	.016	.185	.076	.007	.058	.029
Real estate	PFM2.6	.136	.675	.131	.073	.103	.225	.111	.056	.149	.123	-.046
Gold	PFM2.7	.067	.636	.124	-.033	.170	.139	.072	-.021	.080	.136	.114
Commodities	PFM2.8	.091	.720	.073	.116	-.060	.101	.056	.063	.069	.119	.163
Crypto Currency (Electronic Currency)	PFM2.9	.142	.695	.004	.100	.037	.109	.134	.090	-.087	.061	.084
Borrow from family or friends	PFM3.1	-.001	.017	.193	-.025	.043	.133	.652	-.083	.235	-.059	-.005

(Continued)

Table 4.4.3 (Continued): Output from Factor Analysis

Borrow from the non-banking sources	PFM3.2	.125	.189	.028	.113	-.008	-.041	.775	.099	-.142	.047	.085
Use credit card for a cash advance or to pay bills/buy food	PFM3.3	.185	.237	.028	.043	.014	.171	.687	.107	.034	.031	.134
Take out a personal loan from a bank	PFM3.4	.217	.277	-.125	.182	.023	.019	.681	.124	-.050	.002	.052
Others	PFM3.5	.184	.241	-.096	.078	-.031	-.100	.606	.096	-.152	.055	.028

After the factor analysis is carried out, the output comes up with the 11 factors. Referring to the table 4.4.3, the score of each variable which is greater than 0.5 are highlighted. FPK 16, FP 2.4 and PFM 1.1 are not greater than 0.5 and will be deleted from the initial model. After the deleted the 3 variables, the CFI score is still lower than 0.9. So that the researcher further deleted the lowest score variables in each factor. As an example, as we see in the Financial knowledge factor, there are four items such as FK1, FK2, FK3, FK4. Among the Financial Knowledge factor, FK 2 has lowest score with 5.71 and deleted from the initial model. Final model with good fit index is shown as below.

Table 4.4.4: Final Fit Indices

Table 4.4.4				
Fit Measures	CMIN/ DF	RMSEA	TLI	CFI
Final Values	2.239	0.056	0.90	0.91
Scale for good fit	> 1 - < 2	< 0.08	≥ 0.90	≥ 0.90
Interpretation	Acceptable Fit	Good Fit	Good Fit	Good Fit

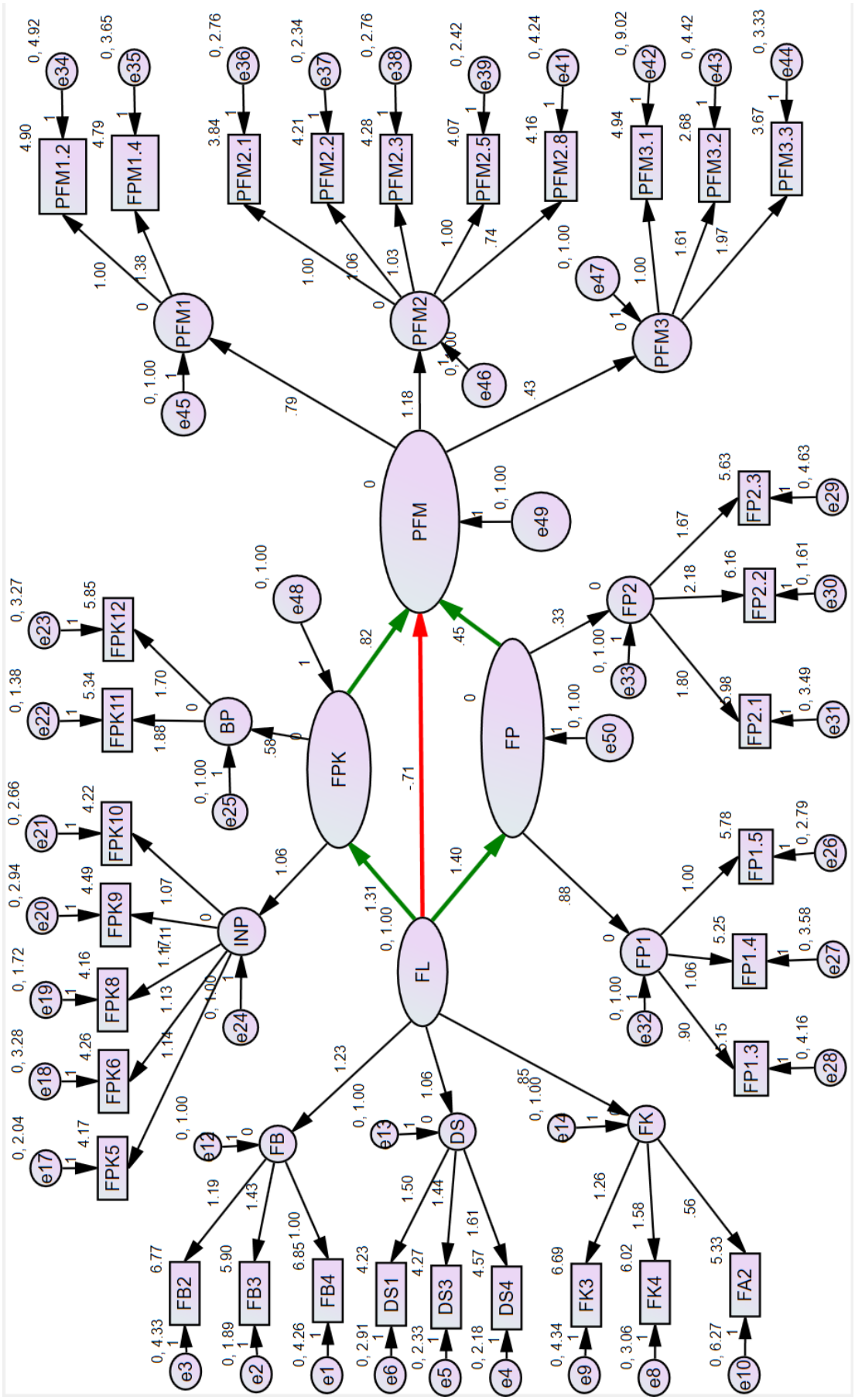

Figure 4.2: Final Model

The Figure 4.2 showed that the final model with good fit after modification. In the modification process, the researcher deleted the items, deleted the path and input the new path.

Table 4.4.5: Summary of Overall Measurement Model

Table 4.4.5	Overall Measurement Model	
Fit Indices	Initial 62 Items	Final 32 Items
CMIN/ DF	2.974	2.239
RMSEA	0.07	0.056
TLI	0.708	0.90
CFI	0.729	0.91

The table 4.4.5 showed that summary of overall measurement model. It is showed that the comparison fit indices values of initial model 62 items and final model 32 items.

Table 4.4.6: Regression Weights, Direct and Indirect Effects of Final Model

			Estimate	S.E.	C.R.	P	Label
FPK	<---	FL	1.312	.190	6.906	***	par_37
FP	<---	FL	1.396	.258	5.409	***	par_41
PFM	<---	FPK	.820	.201	4.083	***	par_38
PFM	<---	FP	.452	.186	2.426	.015	par_39
PFM	<---	FL	-.710	.455	-1.560	.119	par_40
FB	<---	FL	1.229	.121	10.168	***	par_8
DS	<---	FL	1.058	.117	9.012	***	par_9
FK	<---	FL	.848	.119	7.131	***	par_10
INP	<---	FPK	1.063	.213	4.983	***	par_16

(Continued)

Table 4.4.6 (Continued): Regression Weights, Direct and Indirect Effects of Final

			Estimate	S.E.	C.R.	P	Label
BP	<---	FPK	.581	.080	7.298	***	par_19
FP1	<---	FP	.884	.147	5.996	***	par_22
FP2	<---	FP	.326	.065	5.057	***	par_26
PFM1	<---	PFM	.791	.119	6.638	***	par_28
PFM3	<---	PFM	.431	.070	6.125	***	par_35
PFM2	<---	PFM	1.178	.148	7.974	***	par_36
FB4	<---	FB	1.000				
FB3	<---	FB	1.431	.106	13.525	***	par_1
FB2	<---	FB	1.187	.097	12.234	***	par_2
DS4	<---	DS	1.612	.113	14.313	***	par_3
DS3	<---	DS	1.436	.103	13.911	***	par_4
DS1	<---	DS	1.500	.110	13.651	***	par_5
FK4	<---	FK	1.582	.164	9.651	***	par_6
FK3	<---	FK	1.262	.130	9.730	***	par_7
FPK5	<---	INP	1.141	.133	8.581	***	par_11
FPK6	<---	INP	1.131	.135	8.386	***	par_12
FPK8	<---	INP	1.165	.135	8.637	***	par_13
FPK9	<---	INP	1.107	.132	8.418	***	par_14
FPK10	<---	INP	1.067	.127	8.430	***	par_15
FPK11	<---	BP	1.883	.133	14.140	***	par_17
FPK12	<---	BP	1.697	.114	14.871	***	par_18
FP1.5	<---	FP1	1.000				
FP1.4	<---	FP1	1.055	.091	11.583	***	par_20
FP1.3	<---	FP1	.903	.085	10.612	***	par_21
FP2.3	<---	FP2	1.670	.127	13.111	***	par_23
FP2.2	<---	FP2	2.180	.129	16.914	***	par_24
FP2.1	<---	FP2	1.800	.123	14.691	***	par_25
PFM1.2	<---	PFM1	1.000				
FPM1.4	<---	PFM1	1.383	.142	9.749	***	par_27
PFM2.1	<---	PFM2	1.000				
PFM2.2	<---	PFM2	1.063	.055	19.210	***	par_29
PFM2.3	<---	PFM2	1.031	.056	18.292	***	par_30
PFM2.5	<---	PFM2	1.004	.054	18.634	***	par_31
PFM2.8	<---	PFM2	.735	.056	13.068	***	par_32
PFM3.1	<---	PFM3	1.000				
PFM3.2	<---	PFM3	1.607	.134	11.990	***	par_33
PFM3.3	<---	PFM3	1.967	.161	12.241	***	par_34
FA2	<---	FK	.560	.118	4.722	***	par_42

4.5 Hypotheses Testing of Initial Model and Final Model

Table 4.5.1: Hypotheses Testing of Initial Model

Hypotheses	Path	SEM Output Initial Model				Result
		Estimate	S.E.	C.R.	P	
H1 Financial Literacy is Affected on Personal Financial Management of Young Adults	FL→ PFM	-.710	.455	-1.566	.119	Insignificant
H2 Financial Literacy is Affected on Financial Product Knowledge of Young Adults	FL→ FPK	1.312	.190	6.906	***	Significant
H3 Financial Literacy is Affected on Family and Peers Influence of Young Adults	FL→ FP	1.396	.258	5.409	***	Significant
H4 Financial Product Knowledge is Affected on Personal Financial Management of Young Adults	FPK→PFM	.820	.201	4.083	***	Significant
H5 Family and Peers Influence is Affected on Personal Financial Management of Young Adults	FP→ PFM	.452	.186	2.426	0.015	Significant

Table 4.5.2: Hypotheses Testing of Final Model

Hypotheses	Path	SEM Output Final Model				Result
		Estimate	S.E.	C.R.	P	
H1 Financial Literacy is Affected on Personal Financial Management of Young Adults	FL→ PFM	-.545	.321	-1.697	.090	Insignificant
H2 Financial Literacy is Affected on Financial Product Knowledge of Young Adults	FL→ FPK	.808	.077	10.527	***	Significant
H3 Financial Literacy is Affected on Family and Peers Influence of Young Adults	FL→ FP	1.518	.257	5.896	***	Significant
H4 Financial Product Knowledge is Affected on Personal Financial Management of Young Adults	FPK→PFM	.792	.113	7.004	***	Significant
H5 Family and Peers Influence is Affected on Personal Financial Management of Young Adults	FP→ PFM	.511	.160	3.201	.001	Significant

CHAPTER 5

CONCLUSION AND DISCUSSION

In this chapter, the researcher will summarize and analyze the result of the research from the method of Structural Equation Modeling (SEM) of the factor of Financial Literacy, factor Financial Product Knowledge, factor of Family and Peer influence and the factor of Personal Financial Management. The research was using the quantitative approach and collected the data from 400 respondents to study the factors that effect and influence on personal financial management of young adults in Bangkok Thailand. The respondents were who live in the area of Bangkok, Thailand. This research is targeted on young adult from the ages between 18 to 30 years old. The target population including the native and foreigners who live were work and study in Bangkok not lower than 1 year.

5.1 Summary of the research findings

The research findings can be divided into two parts. The first part is the findings from descriptive statistics and the second part is the finding from Structural Equation Modeling (SEM). The first part includes demographic data and the second part carried out the hypothesis result of the research which is analyzing by using the Structural Equation Modeling (SEM).

5.1.1 The finding from the demographic data and four factors

The study found that the majority of the respondents were female, the age between 18-21 years old, and the marital status is single. The majority of the respondents are having the four members, holding the bachelor degree or studying the

bachelor degree and studying in the business field. Most of the respondents does not having a job and does not taken the financial literacy training. The majority of the respondents does not hold a credit card. Most of the respondents believed that their level of personal financial management is well.

5.1.2 Hypothesis Result

The hypothesis testing result of this research which is carried out by Structural Equation Modeling (SEM) is shown as follows:

H1o: Financial literacy does not affect Personal Financial Management of Young Adult.

H1a: Financial literacy does affect Personal Financial Management of Young Adult.

H2o: Financial literacy does not affect on Financial Product Knowledge of Young Adult.

H2a: Financial literacy does affect on Financial Product Knowledge of Young Adult.

H3o: Financial literacy does not affect on Family and Peer Influence of Young Adult.

H3a: Financial literacy does affect on Family and Peer Influence of Young Adult.

H4o: Financial Product Knowledge does not affect on Personal Financial Management of Young Adult.

H4a: Financial Product Knowledge does affect on Personal Financial Management of Young Adult.

H5o: Family and Peer Influence does not affect on Personal Financial Management of Young Adult.

H5a: Family and Peer Influence does affect on Personal Financial Management of Young Adult.

5.2 Discussion

This research was developed the basic conceptual framework model (Initial model) and the final model for answer the research questions and achieve the objectives of the research. To get the good model fit, both initial model and final model were analyzed based on the model fit indices of the Structural Equation Modeling (SEM). In the result of model fit indices for an initial model, only RMSEA is good fit and other indices such as CMIN/DF, TLI and CFI were not in the range of good fit. So that the researcher carried out the modification. In the result of model fit indices for the final model, the value of RMSEA, TLI and CFI showed the good fit and value of CMIN/DF showed that the acceptable fit.

In the result of the SEM output for both initial model and final model, Financial Literacy factor has been significantly affected by the four latent variables such as financial knowledge, decision-making skills, financial behavior and the financial attitude. So that the definition of the financial literacy of this research is supported the definition of the financial literacy by PACFL and World Bank which were mentioned in the chapter 2. For the financial product knowledge factor, all of the components were significantly affected in the output of SEM. In the family and peer factor, the latent variables such as family and peer, and the family issues were

significantly affected in both initial model and final model. In the personal financial management factor, the latent variables such as saving behavior, investment behavior and borrowing behavior were significantly affected in both initial model and final model.

Our SEM result shows that Financial literacy path to Personal Financial Management is insignificant. Therefore, we cannot reject H1o and conclude that Financial literacy does not affect Personal Financial Management of Young. This result is contrary to the previous research papers showing that Financial literacy path to Personal Financial Management is significant. This could be because of the young adults financial concept and decision makings will be lead to wrong way or over confident. From the result of present research showed that the 44 percents of respondents rated that their personal financial management is well. This could be the over confident on their financial literacy and their personal financial management.

The result of our SEM shows that Financial literacy path to Financial Product Knowledge is significant. Therefore, we reject H2o and accept H2a that Financial literacy does affect Financial Product Knowledge of Young Adult. This significant effect of Financial literacy path to Financial Product Knowledge is a new discovery and could be considered as a major contribution from this paper.

Our SEM result shows that Financial literacy path to Family and Peer Influence is significant. Therefore, we reject H3o and accept H3a that Financial literacy does affect Family and Peer Influence of Young Adult. The result for H3 is same with the result of former research such as college student financial literacy survey. The result showed that young adult's financial literacy has been influenced by

the family and peer which are the environments they were spending most of their time.

The result of our SEM shows that financial product knowledge path to personal financial management is significant. Therefore, we reject H4o and accept H4a that Financial Product Knowledge does affect personal financial management of Young Adult. However, there is no previous research has been done for the H4. The result showed that the personal financial management of young adult has been affected by the financial product knowledge. It is means that Financial Product Knowledge is take parts in the important role to make the wellness of personal financial management. This significant effect could be another new discovery and considered as a major contribution from this paper.

Our SEM result shows that Family and Peer Influence path to Personal Financial Management is significant. Therefore, we reject H5o and accept H5a that Family and Peer Influence does affect Personal Financial Management of Young Adult. This could be because of the ways of personal financial management has been learned automatically from their parents and peers in their early age.

This significant effect of Family and Peer Influence path to Personal Financial Management is another new discovery and could be considered as a major contribution from this paper.

5.3 Managerial Implication

The findings of this research will be useful for individuals, and the related organizations in terms of academic performance and business managerial implication. For individuals, they can be known and managing their own personal financial management conditions and can be used for the purpose of self-developing on their own financial management to avoid the risks of over spending and debt matters. The findings can be used for the academic policy and planning for purpose of better academic performance, better knowledge on financial literacy, better knowledge on financial products and services, and better personal financial management of High School students to College Students.

For the business managerial implications, the policy makers from the government such as Banking and economics can make the suitable policies for financial products and services to get a better result for country by using the findings. The above managerial implications are general managerial implications from this paper. Therefore, there is another managerial implication which is based from the SEM results will be shown as below.

Our SEM result shows that Financial literacy path to Personal Financial Management is insignificant. The result is contrary to the previous research papers showing that Financial literacy path to Personal Financial Management is significant. Therefore, the individuals, academic policy and planning makers should be carefully focus on the factors under the financial literacy because it can lead young adults to make wrong financial decisions and overconfident on their financial decisions.

The result of our SEM shows that Financial literacy path to Financial Product Knowledge is significant. It is means that the financial literacy is very important to understand the financial products. The individuals, academic policy and planning makers should consider to put the financial product knowledge along with the financial literacy lessons and courses.

Our SEM result shows that Financial literacy path to Family and Peer Influence is significant. So that the individuals, academic policy and planning makers have to study and learn about the young adult's family and peers financial literacy. It is because young adults are learning their financial concepts, behavior and decisions from their environment during their very young age.

The result of our SEM shows that Financial Product Knowledge path to Personal Financial Management is significant. It is means that Financial Product Knowledge is take parts in the important role to make the wellness of personal financial management. The individuals, academic policy and planning makers should consider to put the information about the financial products clearly on advertisements and teach in the school along with the financial literacy courses.

Our SEM result shows that Family and Peer Influence path to Personal Financial Management is significant. It is supposed that the influences of family and peer are very affected to the personal financial management of young adults. So that the individuals, academic policy and planning makers should be study more deeply on the behaviors, attitudes and decision making for the personal financial management of the family and peers.

5.4 Recommendations for Future Research

The limitation of the present study could be the generalizability of the findings. Especially, the sample were that use was self-selected age groups. Hence, the future research should be choosing the different age groups for the different outcomes of the factors that effects and influences on the personal financial management. The different aspects of confirmatory factor analysis (CFA) can also be used on the factors which were discussed in this research to get further inside on the effects and influences on the factors were discussed and personal financial management. Moreover, the different Structural construct and model can be used based on the factors discussed in the paper.

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APPENDIX

Appendix 1: IOC Result

Financial Knowledge and Financial Decision-Making Skills		1	2	3	4	Total	$\frac{\sum R}{X}$	Remark
FK1	My current money always worth more than my future money.	1	0	1	1	3	0.75	Acceptable
FK2	Saving in the bank is better interest than buying the bonds.	1	0	1	1	3	0.75	Acceptable
FK3	An investment with a high return is likely to be high risk.	1	1	1	1	4	1	Acceptable
FK4	High inflation means that the cost of living is increasing rapidly.	1	1	1	1	4	1	Acceptable
DS1	I know how to conduct a break-even analysis	1	0	0	1	2	0.5	Acceptable
DS2	I agree that sources of income should be diversified	1	1	1	1	1	1	Acceptable

DS3	I can analyze the financial statements by means of ratios	1	1	0	1	3	0.75	Acceptable
DS4	I know how to make budgeting.	1	1	1	1	1	1	Acceptable

Financial Behavior and Financial Attitude		1	2	3	4	Total	$\frac{\sum R}{X}$	Remark
FB1	I set long term financial goals and strive to achieve them	1	0	1	1	3	0.75	Acceptable
FB2	I pay my bills on time	1	-1	1	1	2	0.5	Acceptable
FB3	I keep a close personal watch on my financial affairs	1	1	0	1	3	0.75	Acceptable
FB4	Before I buy something, I carefully consider whether I can afford it	1	-1	1	1	2	0.5	Acceptable
FA1	I cannot afford any possible loss of capital regardless of potential return.	1	0	1	1	3	0.75	Acceptable

FA2	I tend to live for today and let tomorrow take care of itself.	1	-1	1	0	1	0.25	Unacceptable
FA3	I find it more satisfying to spend money than to save it for the long term.	1	1	1	1	4	1	Acceptable
FA4	Spending less than our income is very important.	1	1	1	1	4	1	Acceptable

I have knowledge about what is the		1	2	3	4	Total	$\frac{\sum R}{X}$	Remark
FK1	Savings Account	1	1	1	1	4	1	Acceptable
FK 2	Bank term deposits (Fixed Deposits)	1	1	1	1	4	1	Acceptable
FK 3	Call Deposit	1	0	1	1	3	0.75	Acceptable
FK 4	Government securities	1	0	1	1	3	0.75	Acceptable
FK 5	Mutual funds	1	1	1	1	4	1	Acceptable
FK 6	Equities (Stock & Shares)	1	1	1	1	4	1	Acceptable
FK 7	Insurance	1	1	1	1	4	1	Acceptable
FK 8	Corporate Bonds	1	1	1	1	4	1	Acceptable
FK 9	Pension	1	0	1	1	3	0.75	Acceptable
FK10	Foreign exchange market	1	0	0	0	1	0.25	Unacceptable
FK11	Mortgage	1	1	1	1	4	1	Acceptable

FK12	Credit Card	1	0	1	1	3	0.75	Acceptable
FK13	Debit Card	1	1	1	1	4	1	Acceptable
FK14	Micro Finance Loan	1	1	1	1	4	1	Acceptable
FK15	Mobile Payment (Mobile Banking, etc.)	1	1	1	1	4	1	Acceptable
FK16	Prepaid Payment Card	1	1	1	1	4	1	Acceptable
FK17	Crypto Currency (Electronic Currency)	1	1	1	1	4	1	Acceptable

FP1 What I learnt from …..are effect my money Management.		1	2	3	4	Total	$\frac{\sum R}{X}$	Remark
1	Parents	1	1	1	1	4	1	Acceptable
2	Friends	1	0	1	1	3	0.75	Acceptable
3	School	1	0	1	1	3	0.75	Acceptable
4	Books	1	1	1	1	4	1	Acceptable
5	Social Media	1	1	1	1	4	1	Acceptable
6	Job Experiences	1	0	1	1	3	0.75	Acceptable
7	Life Experiences	1	1	1	1	4	1	Acceptable
8	Financial Advisor	1	0	1	1	3	0.75	Acceptable

FP2 How Finance issues are handled in your Family?		1	2	3	4	Total	$\frac{\sum R}{X}$	Remark
1	My parents usually discussed about the finances	1	0	0	1	2	0.5	Acceptable
2	Within the family we openly discussed our finances	1	0	1	1	3	0.75	Acceptable
3	My parents explicitly taught me about finances (e.g., credit cards, debt, budgeting, savings)	1	0	1	1	3	0.75	Acceptable
4	We didn't' talk much about finances but I learned from their examples	1	1	1	1	4	1	Acceptable
5	My parents included me in various financial decisions	1	1	1	1	4	1	Acceptable

PFM1 I prefer to save my monthly income in the following sources?		1	2	3	4	Total	$\frac{\sum R}{X}$	Remark
1	Savings Account	1	1	1	1	4	1	Acceptable
2	Call Deposits (CD)	1	1	1	1	4	1	Acceptable
3	Bank term deposits (Fixed Deposits)	1	0	1	1	3	0.75	Acceptable
4	Current Account	1	0	1	0	2	0.5	Acceptable
5	Retirement Saving	1	0	1	1	3	0.75	Acceptable

PFM2 I prefer to invest my monthly income in the following sources?		1	2	3	4	Total	$\frac{\sum R}{X}$	Remark
1	Government securities	1	0	1	1	3	0.75	Acceptable
2	Mutual funds	1	1	1	1	4	1	Acceptable
3	Equities (Stock & Shares)	1	0	1	1	3	0.75	Acceptable
4	Insurance	1	0	1	1	3	0.75	Acceptable
5	Corporate Bonds	1	0	1	1	3	0.75	Acceptable
6	Foreign exchange market	1	0	-1	1	1	0.25	Unacceptable
7	Real estate	1	0	1	1	3	0.75	Acceptable
8	Gold	1	0	1	1	3	0.75	Acceptable

9	Commodities	1	0	1	1	3	0.75	Acceptable
10	Crypto Currency (Electronic Currency)	1	0	1	1	3	0.75	Acceptable

PFM3 I prefer to borrow for fulfill the monthly needs in the following sources?		1	2	3	4	Total	$\frac{\sum R}{X}$	Remark
1	Borrow from family or friends	1	0	1	1	3	0.75	Acceptable
2	Borrow from the non-banking sources	1	0	1	1	3	0.75	Acceptable
3	Use credit card for a cash advance or to pay bills/buy food	1	1	1	1	4	1	Acceptable
4	Take out a personal loan from a bank	1	0	1	1	3	0.75	Acceptable
5	Others ……..	1	0	1	1	3	0.75	Acceptable

Demographic Factor		1	2	3	4	Total	∑R / X	Remark
1	What is your gender?	1	1	1	1	4	1	Acceptable
2	What is your age?	1	1	1	1	4	1	Acceptable
3	What is your marital status?	1	1	1	1	4	1	Acceptable
4	What is your education level?	1	1	1	1	4	1	Acceptable
5	What was your main field of study?	1	1	1	1	4	1	Acceptable
6	Do you have a job?	1	1	1	1	4	1	Acceptable
7	If you choose YES what is your job position?	1	1	0	1	3	0.75	Acceptable
8	What is your Income?	1	1	1	1	4	1	Acceptable
9	Have you taken financial literacy training?	1	1	1	1	4	1	Acceptable
10	If Yes, where did you take financial literacy raining?	1	1	0	1	3	0.75	Acceptable
11	How would you rate your overall Personal Financial Management skills?	1	1	1	1	4	1	Acceptable
12	Do you have a Credit Card?	1	1	1	1	4	1	Acceptable

Appendix 2: Questionnaire

Study of Factors that Effect and Influences on The Personal Financial Management of The Young Adult

Direction: This questionnaire is designed to collect data on study of the factors that Effect and Influences on The Personal Financial Management of The Young. This questionnaire will be utilized by a student of the Master of Business Administration (M.B.A.) Program of Bangkok University Graduate School of Business (International) as part of the Thesis. Your information will be treated with strict confidentiality, the researcher is thankful for your time in completing the survey.

Questionnaire: The questionnaire composes of factors that Effect and Influences on The Personal Financial Management of The Young Adult together with demographic questions.

Demographic Information

Answer every question by marking (√)

1. What is your gender?

☐ 1. Male

☐ 2. Female

2. What is your age?

☐ 1. 18 - 21

☐ 2. 22 - 25

☐ 3. 26 – 30

3. What is your marital status?

☐ 1. Single

☐ 2. Married

☐ 3. Divorced

4. How many Children you have?

Please Specify ……..

5. How many family members you have?

Please Specify ……

6. What is your education level?

☐ 1. High school

☐ 2. Diploma or certificate

☐ 3. Undergraduate degree

☐ 4. Master degree

☐ 5. PHD

7. What was your main field of study?

Please Specify ……..

8. Do you have a job?

☐ 1. Yes ☐ 2. No

9. If you choose YES what is your job position?

Please Specify ……..

10. What is your Income?

☐ 1.under 15,000 baht

☐ 2. 15,001– 25,000baht

☐ 3. 25,001 – 35,000 baht

☐ 4. 35,001 – 45,000 baht

☐ 5. more than 45,000baht

11. Have you taken financial literacy training?

☐ 1. Yes ☐ 2. No

12. If Yes, where did you take financial literacy training?

☐ 1. Workplace

☐ 2. Media

☐ 3. Investment groups

☐ 4. Others (Please Specify) ……

13. Do you have a Credit Card?

☐ 1. Yes ☐ 2. No

14.How would you rate your overall Personal Financial Management skills? Choose only one by marking (√)

☐ 1. No financial Management Skill

☐ 2. Extremely poor

☐ 3. Poor

☐ 4. Somewhat poor

☐ 5. Well

☐ 6. Extremely well

☐ 7. Perfect Management Skill

Q1. Factors that influence on Financial Literacy

Please indicate your response on factors that influence on your financial literacy (Knowledge & Decision-Making Skills) by marking (√) in the box that corresponds to your opinion. Answer every question by marking (√)

0 = Not agree, 1= Very little agree, ……., 10= Totally Agree

Financial Knowledge and Financial Decision-Making		0	1	2	3	4	5	6	7	8	9	10
FK1	My current money always worth more than my future money.	0	1	2	3	4	5	6	7	8	9	10
FK2	Saving in the bank is better interest than buying the bonds.	0	1	2	3	4	5	6	7	8	9	10
FK3	An investment with a high return is likely to be high risk.	0	1	2	3	4	5	6	7	8	9	10
FK4	High inflation means that the cost of living is increasing rapidly.	0	1	2	3	4	5	6	7	8	9	10
DS1	I know how to conduct a break-even analysis.	0	1	2	3	4	5	6	7	8	9	10
DS2	I agree that sources of income should be diversified	0	1	2	3	4	5	6	7	8	9	10

DS3	I can analyze the financial statements by means of ratios.	0	1	2	3	4	5	6	7	8	9	10
DS4	I know how to make budgeting.	0	1	2	3	4	5	6	7	8	9	10

Which of the following factors influence on your Financial Literacy (Behavior and Attitude) by marking (√) in the box that corresponds to your opinion? Answer every question by marking (√)

Financial Behavior and Financial Attitude		**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
FB1	I set long term financial goals and strive to achieve them	0	1	2	3	4	5	6	7	8	9	10
FB2	I pay my bills on time	0	1	2	3	4	5	6	7	8	9	10
FB3	I keep a close personal watch on my financial affairs	0	1	2	3	4	5	6	7	8	9	10
FB4	Before I buy something, I carefully consider whether I can afford it	0	1	2	3	4	5	6	7	8	9	10
FA1	I cannot afford any possible loss of capital regardless of potential return.	0	1	2	3	4	5	6	7	8	9	10

FA2	I find it more satisfying to spend money than to save it for the long term.	0	1	2	3	4	5	6	7	8	9	10
FA3	Spending less than our income is very important.	0	1	2	3	4	5	6	7	8	9	10

Q2. Factors that influence on Financial Product Awareness

Which of the following factors Effect on your Financial Product Awareness (Product Knowledge) by marking (√) in the box that corresponds to your opinion? Answer every question by marking (√)

0 = No knowledge, 1= Very little Knowledge, ……., 10= Perfect Knowledge

I have knowledge about what is the		0	1	2	3	4	5	6	7	8	9	10
FPK1	Savings Account	0	1	2	3	4	5	6	7	8	9	10
FPK 2	Bank term deposits (Fixed Deposits)	0	1	2	3	4	5	6	7	8	9	10
FPK 3	Call Deposit	0	1	2	3	4	5	6	7	8	9	10
FPK 4	Government securities	0	1	2	3	4	5	6	7	8	9	10
FPK 5	Mutual funds	0	1	2	3	4	5	6	7	8	9	10
FPK 6	Equities (Stock & Share)	0	1	2	3	4	5	6	7	8	9	10
FPK 7	Insurance	0	1	2	3	4	5	6	7	8	9	10
FPK 8	Corporate Bonds	0	1	2	3	4	5	6	7	8	9	10
FPK 9	Pension	0	1	2	3	4	5	6	7	8	9	10
FPK10	Mortgage	0	1	2	3	4	5	6	7	8	9	10
FPK11	Credit Card	0	1	2	3	4	5	6	7	8	9	10

FPK12	Debit Card	0	1	2	3	4	5	6	7	8	9	10
FPK13	Micro Finance Loan	0	1	2	3	4	5	6	7	8	9	10
FPK14	Mobile Payment (Mobile Banking, etc.)	0	1	2	3	4	5	6	7	8	9	10
FPK15	Prepaid Payment Card	0	1	2	3	4	5	6	7	8	9	10
FPK16	Crypto Currency (Electronic Currency)	0	1	2	3	4	5	6	7	8	9	10

Q3: Factors that influence on Financial Decisions from Family and Peers

Which of the following factors Effect on your Financial Decisions (Family and Peers) by marking (√) in the box that corresponds to your opinion? Answer every question by marking (√)

0 = No Effect, 1= Very little Effect, ……., 10= Totally Effected

FP1 How much did you learn about managing your money from the following?												
What I learnt from …..are effect my money Management.		0	1	2	3	4	5	6	7	8	9	10
1	Parents	0	1	2	3	4	5	6	7	8	9	10
2	Friends	0	1	2	3	4	5	6	7	8	9	10
3	School	0	1	2	3	4	5	6	7	8	9	10
4	Books	0	1	2	3	4	5	6	7	8	9	10
5	Social Media	0	1	2	3	4	5	6	7	8	9	10
6	Job Experiences	0	1	2	3	4	5	6	7	8	9	10
7	Life Experiences	0	1	2	3	4	5	6	7	8	9	10
8	Financial Advisor	0	1	2	3	4	5	6	7	8	9	10

Which of the following factors influence on your Financial Decisions (Family) by marking (√) in the box that corresponds to your opinion? Answer every question by marking (√)

0 = Not agree, 1= Very little agree, ……., 10= Totally Agree

	FP2 How Finance issues are handled in your Family?	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
1	My parents usually discussed about the finances	0	1	2	3	4	5	6	7	8	9	10
2	Within the family we openly discussed our finances	0	1	2	3	4	5	6	7	8	9	10
3	My parents explicitly taught me about finances (e.g., credit cards, debt, budgeting, savings)	0	1	2	3	4	5	6	7	8	9	10
4	We didn't' talk much about finances but I learned from their examples	0	1	2	3	4	5	6	7	8	9	10
5	My parents included me in various financial decisions	0	1	2	3	4	5	6	7	8	9	10

Q4: Factors that influence on Personal Financial Management

Which of the following factors influence on your Personal Financial Management (Saving, Investment and Credit) by marking (√) in the box that corresponds to your opinion? Answer every question by marking (√)

0 = Not agree, 1= Very little agree, ……., 10= Totally Agree

	PFM1 I prefer to save my monthly income in the following sources?	0	1	2	3	4	5	6	7	8	9	10
1	Savings Account	0	1	2	3	4	5	6	7	8	9	10
2	Call Deposits (CD)	0	1	2	3	4	5	6	7	8	9	10
3	Bank term deposits (Fixed Deposits)	0	1	2	3	4	5	6	7	8	9	10
4	Retirement Saving	0	1	2	3	4	5	6	7	8	9	10

	PFM2 I prefer to invest my monthly income in the following sources?	0	1	2	3	4	5	6	7	8	9	10
1	Government securities	0	1	2	3	4	5	6	7	8	9	10
2	Mutual funds	0	1	2	3	4	5	6	7	8	9	10
3	Equities (Stock & Share)	0	1	2	3	4	5	6	7	8	9	10
4	Insurance	0	1	2	3	4	5	6	7	8	9	10
5	Corporate Bonds	0	1	2	3	4	5	6	7	8	9	10
6	Real estate	0	1	2	3	4	5	6	7	8	9	10

7	Gold	0	1	2	3	4	5	6	7	8	9	10
8	Commodities	0	1	2	3	4	5	6	7	8	9	10
9	Crypto Currency (Electronic Currency)	0	1	2	3	4	5	6	7	8	9	10

PFM3 I prefer to borrow in the following sources to fulfill the monthly need?		0	1	2	3	4	5	6	7	8	9	10
1	Borrow from family or friends	0	1	2	3	4	5	6	7	8	9	10
2	Borrow from the non-banking sources	0	1	2	3	4	5	6	7	8	9	10
3	Use credit card for a cash advance or to pay bills/buy food	0	1	2	3	4	5	6	7	8	9	10
4	Take out a personal loan from a bank	0	1	2	3	4	5	6	7	8	9	10
5	Others ……..	0	1	2	3	4	5	6	7	8	9	10

การศึกษาปัจจัยที่มีอิทธิพลและอิทธิพลต่อการบริหารการเงินส่วนบุคคลของผู้ใหญ่วัยหนุ่มสาว

ทิศทาง: แบบสอบถามนี้ถูกออกแบบมาเพื่อรวบรวมข้อมูลเกี่ยวกับการศึกษาปัจจัยที่มีผลและอิทธิพลต่อการบริหารการเงินส่วนบุคคลของคนหนุ่มสาว แบบสอบถามนี้จะใช้โดยนักศึกษาของหลักสูตรบริหารธุรกิจมหาบัณฑิต (M.B.A.) หลักสูตรบัณฑิตวิทยาลัยมหาวิทยาลัยธุรกิจบัณฑิต (นานาชาติ) ของมหาวิทยาลัยกรุงเทพเป็นส่วนหนึ่งของวิทยานิพนธ์ ข้อมูลของคุณจะได้รับการรักษาเป็นความลับอย่างเข้มงวดนักวิจัยขอบคุณสำหรับเวลาของคุณในการทำแบบสำรวจแบบสอบถาม : แบบสอบถามประกอบด้วยปัจจัยที่มีผลกระทบและมีอิทธิพลต่อการจัดการการเงินส่วนบุคคลของคนหนุ่มสาวพร้อมกับคำถามเชิงประชากร

ข้อมูลประชากร

ทำเครื่องหมาย (√) เพื่อตอบคำถ

1.เพศของคุณคืออะไร?

☐ 1. ชาย

☐ 2. หญิง

2. คุณอายุเท่าไหร่?

☐ 1. 18 - 21 ปี

☐ 2. 22 - 25ปี

☐ 3. 26 - 30ปี

3. สถานภาพของคุณคืออะไร?

☐ 1. โสด

☐ 2. แต่งงาน

☐ 3. หย่าร้าง

4. คุณมีบุตรกี่คน?

โปรดระบุ.....

5. คุณมีสมาชิกในครอบครัวกี่คน?

โปรดระบุ.....

6. ระดับการศึกษาของคุณคืออะไร?

☐ 1. มัธยมศึกษา

☐ 2. อนุปริญญาหรือประกาศนียบัตร

☐ 3. ระดับปริญญาตรี

☐ 4. ปริญญาโท

☐ 5. ปริญญาเอก

7. คุณเรียนสาขาวิชาอะไร?

โปรดระบุ .....

8. คุณทำงานหรือไม่?

☐ 1. ทำ ☐ 2. ไม่ทำ

9. ถ้าตอบทำ โปรดระบุตำแหน่ง?

โปรดระบุ .....

10. คุณมีรายได้เท่าไหร่?

☐ 1. ต่ำกว่า15,000 บาท

☐ 2. 15,001– 25,000 บาท

☐ 3. 25,001 – 35,000 บาท

☐ 4. 35,001 – 45,000 บาท

☐ 5. มากกว่า 45,000 บาท

11. คุณเคยได้รับความรู้ทางด้านการเงินไหม?

☐ 1. เคย ☐ 2. ไม่เคย

12. ท่านตอบเคย ท่านได้รับความรู้ทางการเงินที่ไหน?

☐ 1. ที่ทำงาน

☐ 2. สื่อ

☐ 3. สถาบันการเงิน/การลุงทน

☐ 4. อื่นๆ (โปรดระบุ).....

13. คุณใช้บัตรเครดิตหรือไม่?

☐ 1. มี ☐ 2. ไม่มี

14.คุณให้คะแนนทักษะการจัดการการเงินส่วนบุคคลโดยรวมอย่างไร? เลือกเพียงอันเดียวโดยทำเครื่องหมาย (√)

☐ 1. ไม่มีความรู้ทางด้านการเงินเลย ☐ 2. แทบไม่ทราบเลย

☐ 3. ค่อนข้างน้อยมาก ☐ 4. น้อย

☐ 5. พอทราบ ☐ 6. ทราบเป็นอย่างดี

☐ 7. มีความรู้ด้านการเงินอย่างเชี่ยวชาญ

Q1. ปัจจัยที่มีอิทธิพลต่อความรู้ทางการเงิน

โปรดระบุการตอบสนองของคุณเกี่ยวกับปัจจัยที่มีอิทธิพลต่อความรู้ทางการเงินของคุณ (ทักษะความรู้และการตัดสินใจ) โดยการทำเครื่องหมาย (√) ในช่องที่สอดคล้องกับความคิดเห็นของคุณ?ตอบคำถามทุกข้อด้วยการทำเครื่องหมาย (√)

0 = ไม่เห็นด้วย 1 = เห็นด้วยน้อยมาก....., 10 = เห็นด้วยทั้งหมด

ความรู้ทางการเงินและทักษะการตัดสินใจทางการเงิน		0	1	2	3	4	5	6	7	8	9	10
FK1	เงินในปัจจุบันของฉันมีค่ามากกว่าเงินในอนาคตของฉันเสมอ	0	1	2	3	4	5	6	7	8	9	10
FK2	การออมในธนาคารนั้นดีกว่าการซื้อพันธบัตร	0	1	2	3	4	5	6	7	8	9	10
FK3	การลงทุนที่ให้ผลตอบแทนสูงมีความเสี่ยงสูง	0	1	2	3	4	5	6	7	8	9	10
FK4	เงินเฟ้อที่สูงหมายความว่าค่าครองชีพเพิ่มขึ้นอย่างรวดเร็ว	0	1	2	3	4	5	6	7	8	9	10

DS1	ฉันรู้วิธีการวิเคราะห์จุดคุ้มทุน	0	1	2	3	4	5	6	7	8	9	10
DS2	ฉันเห็นด้วยว่าแหล่งที่มาของรายได้ควรมีความหลากหลาย	0	1	2	3	4	5	6	7	8	9	10
DS3	ฉันสามารถวิเคราะห์งบการเงินโดยใช้อัตราส่วน	0	1	2	3	4	5	6	7	8	9	10
DS4	ฉันรู้วิธีทำงบประมาณ	0	1	2	3	4	5	6	7	8	9	10

ปัจจัยใดต่อไปนี้ที่มีอิทธิพลต่อการรู้หนังสือทางการเงินของคุณ (พฤติกรรมและทัศนคติ) โดยการทำเครื่องหมาย (√) ในช่องที่สอดคล้องกับความคิดเห็นของคุณ? ตอบคำถามทุกข้อด้วยการทำเครื่องหมาย (√) 0 = ไม่เห็นด้วย 1 = เห็นด้วยน้อยมาก....., 10 = เห็นด้วยทั้งหมด

พฤติกรรมทางการเงินและทัศนคติทางการเงิน		0	1	2	3	4	5	6	7	8	9	10
FB1	ฉันตั้งเป้าหมายทางการเงินระยะยาวและมุ่งมั่นที่จะบรรลุเป้าหมาย	0	1	2	3	4	5	6	7	8	9	10
FB2	ฉันจ่ายบิลตรงเวลา	0	1	2	3	4	5	6	7	8	9	10

FB3	ฉันเฝ้าดูเรื่องการเงินอย่างใกล้ชิด	0	1	2	3	4	5	6	7	8	9	10
FB4	ก่อนที่จะซื้ออะไรฉันจะพิจารณาอย่างรอบคอบว่าฉันสามารถซื้อได้หรือไม่	0	1	2	3	4	5	6	7	8	9	10
FA1	ฉันไม่สามารถสูญเสียเงินทุนที่เป็นไปได้ใด ๆ โดยไม่คำนึงถึงผลตอบแทนที่เป็นไปได้	0	1	2	3	4	5	6	7	8	9	10
FA2	ฉันพบว่าการใช้จ่ายเงินมีความพึงพอใจมากกว่าการประหยัดในระยะยาว	0	1	2	3	4	5	6	7	8	9	10
FA3	การใช้จ่ายน้อยกว่ารายได้ของเราเป็นสิ่งสำคัญมาก	0	1	2	3	4	5	6	7	8	9	10

Q2. ปัจจัยที่มีอิทธิพลต่อการรับรู้ผลิตภัณฑ์ทางการเงิน

ปัจจัยใดต่อไปนี้ส่งผลต่อการรับรู้ผลิตภัณฑ์ทางการเงินของคุณ (ความรู้เกี่ยวกับผลิตภัณฑ์) โดยการทำเครื่องหมาย (√) ในกล่องที่สอดคล้องกับความคิดเห็นของคุณ? ตอบคำถามทุกข้อด้วยการทำเครื่องหมาย (√) 0 = ไม่มีความรู้ 1 = ความรู้น้อยมาก....., 10 = ความรู้สมบูรณ์แบบ

ความรู้เกี่ยวกับผลิตภัณฑ์ทางการเงิน ฉันมีความรู้เกี่ยวกับสิ่งที่เป็น		0	1	2	3	4	5	6	7	8	9	10
FPK1	บัญชีออมทรัพย์	0	1	2	3	4	5	6	7	8	9	10
FPK 2	เงินฝากระยะยาวของธนาคาร (แก้ไขเงินฝาก)	0	1	2	3	4	5	6	7	8	9	10
FPK 3	เงินฝาก	0	1	2	3	4	5	6	7	8	9	10
FPK 4	หลักทรัพย์รัฐบาล	0	1	2	3	4	5	6	7	8	9	10
FPK 5	กองทุนรวม	0	1	2	3	4	5	6	7	8	9	10
FPK 6	ตราสารทุน (หุ้น &ผู้ร่วมหุ้น)	0	1	2	3	4	5	6	7	8	9	10
FPK 7	ประกันภัย	0	1	2	3	4	5	6	7	8	9	10
FPK 8	ขององค์กร พันธบัตร	0	1	2	3	4	5	6	7	8	9	10

FPK 9	เงินบำนาญ	0	1	2	3	4	5	6	7	8	9	10
FPK10	จำนอง	0	1	2	3	4	5	6	7	8	9	10
FPK11	บัตรเครดิต	0	1	2	3	4	5	6	7	8	9	10
FPK12	บัตรเดบิต	0	1	2	3	4	5	6	7	8	9	10
FPK13	สินเชื่อไมโครไฟแนนซ์	0	1	2	3	4	5	6	7	8	9	10
FPK14	ชำระเงินมือถือ (ธนาคารบนมือถือฯลฯ)	0	1	2	3	4	5	6	7	8	9	10
FPK15	บัตรชำระเงินแบบชำระล่วงหน้า	0	1	2	3	4	5	6	7	8	9	10
FPK16	สกุลเงิน Crypto (สกุลเงินอิเล็กทรอนิกส์)	0	1	2	3	4	5	6	7	8	9	10

Q3: ปัจจัยที่มีอิทธิพลต่อการตัดสินใจทางการเงินจากครอบครัวและเพื่อน

ปัจจัยใดต่อไปนี้ส่งผลต่อการตัดสินใจทางการเงินของคุณ (ครอบครัวและเพื่อน) โดยการทำ

เครื่องหมาย (√) ในช่องที่สอดคล้องกับความคิดเห็นของคุณ? ตอบคำถามทุกข้อด้วยการทำ

เครื่องหมาย (√) 0 = ไม่มีผลกระทบ 1 = ผลกระทบน้อยมาก....., 10 = ผลกระทบโดยสิ้นเชิง

FP1 คุณเรียนรู้มากแค่ไหนเกี่ยวกับการจัดการเงินของคุณจากสิ่งต่อไปนี้?												
สิ่งที่ฉันเรียนรู้จาก... .. มีผลต่อการจัดการเงินของฉัน		0	1	2	3	4	5	6	7	8	9	10
1	พ่อแม่	0	1	2	3	4	5	6	7	8	9	10
2	เพื่อน	0	1	2	3	4	5	6	7	8	9	10
3	โรงเรียน	0	1	2	3	4	5	6	7	8	9	10
4	หนังสือ	0	1	2	3	4	5	6	7	8	9	10
5	สื่อสังคม	0	1	2	3	4	5	6	7	8	9	10
6	ประสบการณ์การทำงาน	0	1	2	3	4	5	6	7	8	9	10
7	ประสบการณ์ชีวิต	0	1	2	3	4	5	6	7	8	9	10
8	ที่ปรึกษาทางการเงิน	0	1	2	3	4	5	6	7	8	9	10

ปัจจัยใดต่อไปนี้ที่มีผลต่อการตัดสินใจทางการเงิน (ครอบครัว) ของคุณโดยการทำเครื่องหมาย (√) ในช่องที่สอดคล้องกับความคิดเห็นของคุณ? ตอบคำถามทุกข้อด้วยการทำเครื่องหมาย (√)

0 = ไม่เห็นด้วย 1 = เห็นด้วยน้อยมาก....., 10 = เห็นด้วยทั้งหมด

FP2 ครอบครัวของคุณมีปัญหาเรื่องการเงินอย่างไร?		0	1	2	3	4	5	6	7	8	9	10
1	พ่อแม่ของฉันมักจะพูดคุยเกี่ยวกับการเงิน	0	1	2	3	4	5	6	7	8	9	10
2	ภายในครอบครัวเราพูดถึงการเงินของเราอย่างเปิดเผย	0	1	2	3	4	5	6	7	8	9	10
3	พ่อแม่ของฉันสอนฉันเกี่ยวกับการเงินอย่างชัดเจน (เช่นบัตรเครดิตหนี้การจัดทำงบประมาณการออม)	0	1	2	3	4	5	6	7	8	9	10
4	เราไม่ได้พูดถึงเรื่องการเงินมากนัก แต่ฉันได้เรียนรู้จากตัวอย่างของพวกเขา	0	1	2	3	4	5	6	7	8	9	10
5	พ่อแม่ของฉันรวมอยู่ในการตัดสินใจทางการเงินต่างๆ	0	1	2	3	4	5	6	7	8	9	10

Q4: ปัจจัยที่มีอิทธิพลต่อการจัดการการเงินส่วนบุคคล

ปัจจัยใดต่อไปนี้ที่มีผลต่อการจัดการการเงินส่วนบุคคลของคุณ (การออมการลงทุนและเครดิต) โดย

ทำเครื่องหมาย (√) ในช่องที่สอดคล้องกับความคิดเห็นของคุณ? ตอบคำถามทุกข้อด้วยการทำ

เครื่องหมาย (√) 0 = ไม่เห็นด้วย 1 = เห็นด้วยน้อยมาก....., 10 = เห็นด้วยทั้งหมด

PFM1 ฉันต้องการบันทึกรายได้ต่อเดือนในแหล่งข้อมูลต่อไปนี้หรือไม่		0	1	2	3	4	5	6	7	8	9	10
1	Savings Account	0	1	2	3	4	5	6	7	8	9	10
2	Call Deposits (CD)	0	1	2	3	4	5	6	7	8	9	10
3	Bank term deposits (Fixed Deposits)	0	1	2	3	4	5	6	7	8	9	10
4	Retirement Saving	0	1	2	3	4	5	6	7	8	9	10

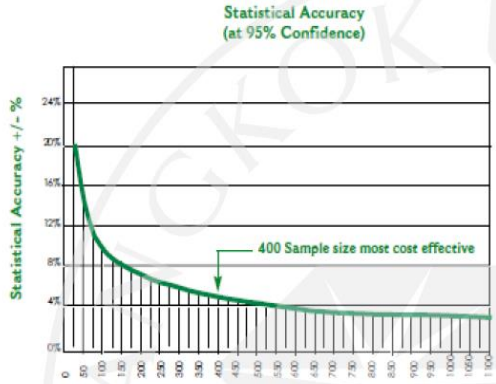
PFM2 ฉันต้องการลงทุนรายได้ต่อเดือน ในแหล่งข้อมูลต่อไปนี้หรือไม่?		0	1	2	3	4	5	6	7	8	9	10
1	หลักทรัพย์รัฐบาล	0	1	2	3	4	5	6	7	8	9	10
2	กองทุนรวม	0	1	2	3	4	5	6	7	8	9	10
3	ตราสารทุน (หุ้น &ผู้ร่วมหุ้น)	0	1	2	3	4	5	6	7	8	9	10
4	ประกันภัย	0	1	2	3	4	5	6	7	8	9	10
5	ขององค์กร พันธบัตร	0	1	2	3	4	5	6	7	8	9	10
6	อสังหาริมทรัพย์	0	1	2	3	4	5	6	7	8	9	10
7	ทอง	0	1	2	3	4	5	6	7	8	9	10
8	สินค้าโภคภัณฑ์	0	1	2	3	4	5	6	7	8	9	10
9	สกุลเงิน Crypto (สกุลเงินอิเล็กทรอนิกส์)	0	1	2	3	4	5	6	7	8	9	10

PFM3 ฉันต้องการยืมในแหล่งข้อมูลต่อไปนี้เพื่อตอบสนองความต้องการรายเดือนหรือไม่?		0	1	2	3	4	5	6	7	8	9	10
1	ยืมจากครอบครัวหรือเพื่อน	0	1	2	3	4	5	6	7	8	9	10
2	ยืมจากแหล่งที่ไม่ใช่ธนาคาร	0	1	2	3	4	5	6	7	8	9	10
3	ใช้บัตรเครดิตสำหรับการเบิกเงินสดล่วงหน้าหรือชำระค่า / ซื้ออาหาร	0	1	2	3	4	5	6	7	8	9	10
4	นำสินเชื่อส่วนบุคคลออกจากธนาคาร	0	1	2	3	4	5	6	7	8	9	10
5	อื่น ๆ	0	1	2	3	4	5	6	7	8	9	10

Appendix 3

Sample Size – What is Magic About the #400?

Statistical accuracy is a function of the sample size. The larger the sample size, the greater the statistical accuracy of the results. Keep in mind that we often look at a subset of the entire sample that we call a "cell" or "cut" (i.e. small companies versus large companies). The statistical accuracy depends on the number of people in each cell. The charts below show that gains in statistical accuracy are not proportional to increases in the sample size. There are "diminishing returns." At some point, the increase in statistical accuracy may not be worth the additional cost. A sample size of 400 gives a statistical accuracy of ±5% and is often thought of as the most "cost effective" sample size. The table below shows the statistical accuracy calculated for various cell sizes.



Number of Responses per Cell	95% Confidence Level
1000	±3.1%
800	±3.5%
600	±4.0%
400	±4.9%
300	±5.7%
250	±6.2%
200	±6.9%
150	±8.0%

A cell size of 400 with a 95% confidence level can be interpreted as follows: If we repeated the survey 100 times, we would expect the answer to any question to vary less than +/- 4.9% in 95 of the 100 cases.

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Sample	Confidence Level		
	80%	90%	95%
	% Margin of Error + / -	% Margin of Error + / -	% Margin of Error + / -
100	6.4	8.3	9.8
150	5.3	6.7	8
200	4.5	5.8	6.9
250	4.1	5.2	6.2
300	3.7	4.8	5.7
350	3.4	4.4	5.2
400	3.2	4.1	4.9
450	3.0	3.9	4.6
500	2.9	3.7	4.4
550	2.7	3.5	4.2
600	2.6	3.4	4.0
650	2.5	3.2	3.8
700	2.4	3.1	3.7
750	2.3	3.0	3.6
800	2.3	2.9	3.5
850	2.2	2.8	3.4
900	2.1	2.7	3.3
950	2.1	2.7	3.2
1000	2.0	2.6	3.1

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Appendix 4: Mean and Standard Deviation

The Analysis of all variables by Mean ($\bar{X}$) and Standard Deviation (S.D.)

The researcher carried out the analysis of Financial Literacy, Financial Product Knowledge, Family and Peers, and Personal Financial Management by Mean ($\bar{X}$) and Standard Deviation (S.D.).

The Analysis of Financial Literacy by Mean ($\bar{X}$) and Standard Deviation (S.D.)

In Financial Literacy factor including four parts such as Financial Knowledge, Decision-Making Skills, Financial Behavior and Financial Attitude.

Financial Knowledge

	N	Mean	S.D.
My current money always worth more than my future money.	400	4.33	2.79
Saving in the bank is better interest than buying the bonds.	400	5.18	2.65
An investment with a high return is likely to be high risk.	400	6.68	2.66
High inflation means that the cost of living is increasing rapidly.	400	6.02	2.71
Total	400	5.56	1.83

Decision-Making Skills

	N	Mean	S.D.
I know how to conduct a break-even analysis.	400	4.22	2.77
I agree that sources of income should be diversified.	400	6.71	2.94
I can analyze the financial statements by means of ratios.	400	4.26	2.59
I know how to make budgeting.	400	4.57	2.77
Total	400	4.94	2.12

Financial Behavior

	N	Mean	S.D.
I set long term financial goals and strive to achieve them.	400	5.98	2.56
I pay my bills on time.	400	6.77	2.81
I keep a close personal watch on my financial affairs.	400	5.90	2.65
Before I buy something, I carefully consider whether I can afford it.	400	6.85	2.61
Total	400	6.28	2.10

Financial Attitude

	N	Mean	S.D.
I cannot afford any possible loss of capital regardless of potential return.	400	5.94	2.43
I find it more satisfying to spend money than to save it for the long term.	400	5.33	2.61
Spending less than our income is very important.	400	7.14	2.65
Total	400	6.14	1.89

Financial Literacy

	N	Mean	S.D.
Financial Literacy	400	5.72	1.55

The Analysis of Financial Product Knowledge by Mean ($\bar{X}$) and Standard Deviation (S.D.)

	N	Mean	S.D.
Savings Account	400	6.30	2.49
Bank term deposits (Fix Deposits)	400	5.43	2.54
Call Deposit	400	5.44	2.57
Government securities	400	4.09	2.66
Mutual funds	400	4.16	2.71
Equity (Stock & Shares)	400	4.25	2.92
Insurance	400	5.16	3.71
Bonds	400	4.15	2.70
Pension	400	4.49	2.82
Mortgage	400	4.21	2.70
Credit Card	400	5.34	2.86
Debit Card	400	5.84	2.97
Micro Finance Loan	400	3.50	2.78
Mobile Payment (Mobile Banking, etc.)	400	6.92	2.66
Prepaid Payment Card	400	4.90	3.01
Crypto Currency (Electronic Currency)	400	3.88	2.87
Total	400	4.88	1.93

The Analysis of Family and Peers by Mean ($\bar{X}$) and Standard Deviation (S.D.)

Family and Peers Influence

	N	Mean	S.D.
Parents	400	7.21	2.77
Friends	400	5.21	2.61
School	400	5.14	2.63
Books	400	5.25	2.71
Social Media	400	5.78	2.54
Job Experiences	400	5.64	3.08
Life Experiences	400	6.94	2.69
Financial Advisor	400	4.42	3.10
Total	400	5.70	1.90

Family Issues

	N	Mean	S.D.
My parents usually argued about the finances	400	5.98	2.79
Within the family we openly discussed our finances	400	6.16	2.80
My parents explicitly taught me about finances (e.g., credit cards, debt, budgeting, savings)	400	5.62	2.88
We didn't' talk much about finances but I learned from their examples	400	5.32	2.68
My parents included me in various financial decisions	400	5.74	2.85
Total	400	5.76	2.06

The Analysis of Personal Financial Management by Mean ($\bar{X}$) and Standard Deviation (S.D.)

Saving

	N	Mean	S.D.
Savings Account	400	6.45	2.63
Call Deposits (CD)	400	4.90	2.81
Bank term deposits (Fix Deposits)	400	5.33	4.51
Retirement Saving	400	4.79	3.01
Total	400	5.37	2.37

Investment

	N	Mean	S.D.
Government securities	400	3.84	2.76
Mutual funds	400	4.20	2.83
Equities (Stock & Shares)	400	4.28	2.84
Insurance	400	5.06	2.72
Corporate Bonds	400	4.07	2.73
Real Estate	400	5.03	3.01
Gold	400	5.46	3.04
Commodities	400	4.16	2.63
Crypto Currency (Electronic Currency)	400	3.58	2.79
Total	400	4.41	2.12

Borrowing

	N	Mean	S.D.
Borrow from family or friends	400	4.94	3.33
Borrow from the non-banking sources	400	2.68	2.91
Use credit card for a cash advance or to pay bills/buy food	400	3.67	3.07
Take out a personal loan from a bank	400	3.06	2.90
Others	400	1.58	2.74
Total	400	3.18	2.20

Personal Financial Management

	N	Mean	S.D.
PFM	400	4.28	1.79

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