

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

#### **3.1 Research Design**

This Research Design is a process of data collection and analysis that is carried out systematically and logically in order to achieve certain objectives. In this research, the type of research used is quantitative research. Quantitative Research is an analytical approach with mathematical or statistical calculations (Sugiyono, 2015). According to Sugiyono (2015), quantitative data is structured or patterned so that the variety of data obtained from the source (respondents who are questioned or objects observed) tend to have patterns that are easier to analyze by the researcher. This study also uses an associative approach, which shows the influence between two or more variables. The time horizon in this study is cross sectional where data is collected once in an annual period and this research is included in non-situational research because it is not included in certain situations or events.

#### **3.2 Data Sources**

The data sources used in this study is primary data using a hypothesis that aims to test the effect of Financial Knowledge, Financial Attitude, and Locus of Control on Personal Financial Management Behavior of University Students in Indonesia and Vietnam. This primary data is a data obtained directly through filling out the questionnaires that distributed by the researcher to the respondents, which are all the university students of IIB Darmajaya and UEL.

#### **3.3 Population and Sample Design**

##### **3.3.1 Population**

According to Sugiyono (2015), population is a general area consisting of objects or subjects that have certain quantities and characteristics that are determined by researchers to be studied and then drawn conclusions. The population used in this study is university students who study in Indonesia and Vietnam, especially in Institute of Informatics and Business Darmajaya and University of

Economics and Law (UEL). The university students were chosen as the research population because they have power over their own financial management. So that students are required to start independently in managing finances and start making responsible decisions.

### **3.3.2 Sample**

The sample shall be a representative part of the population to be researched. According to Sugiyono (2015), the sample chosen from the population is considered to represent the existence of the population. The sampling technique used in this research applied non-probability sampling, which is a sampling technique in which each participant does not get the same opportunity to be selected as a sample. The sample method used Snowball Sampling, which is a sampling where research participants recruit other participants for a test or study.

Snowball sampling is also a technique for sampling data sources, which at first are small in number, but gradually become large. This sampling is done because the small amount of data has not been able to provide satisfactory data, so the researcher will look for other people who can be used as data sources. Thus the number of samples of data sources will get bigger, like a snowball rolling, over time it becomes bigger. This snowball sampling technique was used to select university students as research subjects. The reason the researcher chose this technique was because the data taken was able to provide satisfactory data. So when the data from one source is still incomplete, the researcher can take data from other informants.

The samples used in this research are University Students who study in Institute of Informatics and Business Darmaja and University of Economics and Law (UEL).

### **3.4 Data Collection Techniques**

The data collection methods used in this research is:

- Questionnaire

According to Sugiyono (2012), the questionnaire is one of the commonly used methods for collecting data in surveys and observations to obtain primary quantitative data. The method of collecting data by distributing a list of questions to respondents who were used as research samples. This questionnaire was used to find out the data about the influence of Financial Knowledge, Financial Attitude and Locus of Control on Financial Management Behavior of University Students in Indonesia and Vietnam. The questionnaires were distributed online, using Google Forms. The questionnaire distributed was also addressed to the University Students in Indonesia and Vietnam, which is the Institute of Informatics and Business Darmajaya and University of Economics and Law.

**Table 3.1 Questionnaire Structure**

<b>Section</b>	<b>Question</b>
<b>Part A</b>	Respondent Identity
<b>Part B</b>	List of statement (Financial Knowledge, Financial Attitude, Locus of Control and Personal Financial Management Behaviors)

**3.5 Research Variables and Operational Definition**

According to Sugiyono (2015), Research variables are basically everything in any form that is determined by the researcher to be studied in order to obtain information on them, and also to draw any conclusions. Research variables are needed to determine the types, indicators, and scales of the variables involved in the research, so that hypothesis testing with statistical tools can be carried out correctly. This study also discusses the influence of Financial Knowledge, Financial Attitudes and Locus of Control on Personal Financial Management Behavior. The respondents in this study were University Students in Indonesia and Vietnam, which are Institute of Informatics and Business Darmajaya

students and University Economics and Law (UEL) students. The variables used in this study include:

### 3.5.1 The Dependent Variable

According to Hatch et al (1982), Dependent Variable is a variable which is selected, manipulated and measured by the researcher. The dependent variable in this research is to measure the personal financial management behavior of University students in Indonesia and Vietnam.

### 3.5.2 The Independent Variables

According to Hatch et al (1982), Independent Variable is a variable that may affect the dependent variable determined by a researcher. The independent variables in this research are financial knowledge, financial attitude and locus of control.

### 3.5.3 Operational Definition

**Table 3.2 Operationalisation of Variable**

<b>Variable</b>	<b>Variable Definition</b>	<b>Indicators</b>	<b>Measurement Scale</b>
<b>Financial Knowledge</b>	A person's control over various things about the financial, which refers to what individuals know about personal finance matters, as measured by their level of knowledge about various personal finance concepts.	<ul style="list-style-type: none"> <li>▪ General Knowledge of Personal Finance</li> <li>▪ Saving and Borrowing</li> <li>▪ Insurance</li> <li>▪ Investment</li> </ul> (Chen & Volpe, 1998)	Likert
<b>Financial Attitude</b>	The application of financial principles to create and maintain value through decision-	<ul style="list-style-type: none"> <li>▪ Saving Regularly</li> <li>▪ Budgeting</li> <li>▪ Money Saving</li> </ul>	Likert

	making and resources management.	<ul style="list-style-type: none"> <li>▪ Financial Planning</li> </ul> (Rajna et al., 2011)	
<b>Locus of Control</b>	There are two kinds of locus of control, namely internal locus of control where all events that occur are controlled and can be solved by oneself, and external locus of control where problem solving and control is based on the influence of others.	Internal Locus of Control: <ul style="list-style-type: none"> <li>▪ Ability</li> <li>▪ Effort</li> </ul> External Locus of Control: <ul style="list-style-type: none"> <li>▪ Life is determined by environmental forces.</li> </ul> (Rotter, 1966)	Likert
<b>Personal Financial Management Behavior</b>	Financial Management Behavior is a person's ability to plan, budget, manage, control, seek and store their daily financial funds.	<ul style="list-style-type: none"> <li>▪ Cash Management</li> <li>▪ Credit Management</li> <li>▪ Saving and Investment</li> </ul> (Xiao & Dew, 2013)	Likert

### 3.6 Research Instruments

The research instrument for this study is using the measurement, which is Likert scale. Both the dependent variable and the independent variable. Likert scale is a scale that is used to measure attitudes, opinions, and perceptions of a person or group of people about social phenomena. In a Likert scale, the variables to be measured are translated into variable indicators, then these indicators are used as a starting point for compiling instrument items which can be in the form

of statements or questions (Sugiyono, 2012). The likert scale uses five levels of answers as follows:

**Table 3.3 Likert Scale**

Categories	Weights
Strongly Agree (SA)	5
Agree (A)	4
Neutral (N)	3
Disagree (D)	2
Strongly Disagree (SD)	1

The following description below are the survey statement submitted to respondents in the questionnaire.

**Table 3.4 Survey Statement**

Variable	Statement Item	Statement
<b>Financial Knowledge</b>	1	I know how to manage my personal finances such as balancing income and expenditure, planning a budget, setting financial goals, having emergency fund, etc. <i>Tôi biết cách quản lý các vấn đề tài chính cá nhân của mình như cân đối thu chi, lập kế hoạch ngân sách, đặt mục tiêu tài chính, có quỹ dự phòng...</i>
	2	I have basic knowledge of financial management. <i>Tôi nắm được kiến thức cơ bản về quản trị tài chính</i>
	3	In order to save on daily expenses, it is very important for me to make personal financial reports. <i>Để kiểm soát các khoản chi tiêu và tiết kiệm, việc lập các báo cáo tài chính cá nhân như báo cáo dòng tiền thu chi, bảng cân đối tài sản cá nhân là rất quan trọng</i>

	4	I understand how to save properly. <i>Tôi biết cách tiết kiệm một cách hợp lý</i>
	5	I realize that setting aside a certain amount of money is important for urgent and future needs. <i>Việc để dành ra một khoản tiền nhất định mỗi tháng để lập một quỹ cho các nhu cầu khẩn cấp và các nhu cầu cần thiết khác trong tương lai là rất quan trọng</i>
	6	When I don't have enough money for a certain expenditure, I can apply for a loan. <i>Khi tôi không đủ tiền cho một nhu cầu chi tiêu nào đó, tôi có thể vay nợ.</i>
	7	I prefer to invest in the bank rather than the stock market. <i>Tôi ưu tiên gửi tiền ở ngân hàng hơn là đầu tư vào thị trường cổ phiếu</i>
	8	I clearly understand how to invest my money in stock market. <i>Tôi hiểu tường tận về đầu tư vào thị trường chứng khoán.</i>
	9	I will diversify my investments (put money in more than one type of investment) <i>Tôi sẽ đa dạng hoá các khoản đầu tư của mình (bỏ tiền vào nhiều hơn 1 phân lớp tài sản đầu tư)</i>
<b>Financial Attitude</b>	1	It is important for me to develop a regular pattern of saving and stick to it. <i>Việc tiết kiệm định kỳ thường xuyên là rất quan trọng</i>
	2	I feel the need to set aside money every month to save. <i>Tôi luôn cố gắng đều đặn tiết kiệm một khoản tiền mỗi tháng</i>
	3	Detailed budgeting is essential for successful personal financial management. <i>Việc ghi ra ngân sách một cách cụ thể chi tiết là yếu tố cần thiết để quản trị tài chính cá nhân thành công.</i>
	4	I believe that I can manage my income and expenses according to my personal budget. <i>Tôi tin rằng tôi có thể quản lý dòng tiền thu nhập và kiểm soát các khoản chi tiêu nghiêm ngặt như ngân sách tôi đề ra.</i>

	5	I spend quite simply (don't spend money on unnecessary or luxuries) <i>Tôi chi tiêu khá đơn giản (không tiêu tiền vào các thứ không cần thiết hay xa xỉ)</i>
	6	Saving is very important for me. <i>Tôi rất coi trọng việc tiết kiệm đều đặn hàng tháng.</i>
	7	Each individual should be responsible for his or her own financial wellbeing. <i>Mỗi cá nhân phải tự chịu trách nhiệm cho tình hình tài chính của mình.</i>
	8	I make a financial plan for the next 1,5 and 10 years <i>Tôi thường lập kế hoạch tài chính cho 1,5, hay 10 năm tới</i>
	9	I should write financial goals and objectives to help me determine priorities in spending. <i>Viết ra mục tiêu tài chính trong ngắn, trung và dài hạn giúp tôi cân nhắc mức độ ưu tiên khi chi tiêu</i>
<b>Locus of Control</b>	1	I believe that what happens in life depends on my own abilities. <i>Tôi tin rằng những gì xảy đến trong cuộc sống của tôi đều bởi năng lực và khả năng của tôi mà ra</i>
	2	I believe I can solve my financial problems. <i>Tôi tin rằng tôi có thể giải quyết các vấn đề tài chính của mình</i>
	3	I believe that what happens in life depends on my own efforts. <i>Tôi tin rằng những gì xảy đến trong cuộc sống phụ thuộc vào chính nỗ lực của tôi</i>
	4	I always try to improve my financial situation. <i>Tôi luôn cố gắng để cải thiện tình hình tài chính của mình</i>
	5	Most people don't realize that to some extent, their lives are always dominated by unforeseen events. <i>Hầu hết mọi người đều không nhận ra rằng ở một mức độ nào đó, cuộc sống của họ luôn bị chi phối bởi những điều xảy ra ngẫu nhiên không lường trước được</i>
	6	I am often passive financially before something unexpected happens to me

		<i>Tôi thường bị động về tài chính trước những gì bất ngờ xảy đến cho mình</i>
	7	Often I am the only one who copes with problems in life without anyone to help <i>Thường chỉ có mình tôi đương đầu với các vấn đề trong cuộc sống mà không có ai trợ giúp</i>
<b>Personal Financial Management Behavior</b>	1	I always compare prices when purchasing a product or service. <i>Tôi luôn so sánh giá cả khi mua 1 món đồ hay sử dụng dịch vụ nào đó</i>
	2	I sort things out when I want to buy something. <i>Tôi thường sắp xếp, chọn lọc khi tôi muốn mua thứ gì đó.</i>
	3	I always stay within my budget or spending plan. <i>Tôi luôn chi tiêu trong kế hoạch ngân sách đã dự trù từ trước</i>
	4	I always keep or save payment receipts to record monthly expenses. <i>Tôi luôn giữ lại hoặc lưu lại các hoá đơn thanh toán để ghi chép chi tiêu hàng tháng.</i>
	5	I tend to shop impulsively (buying something I didn't intend to) <i>Tôi hay mua sắm bốc đồng (mua cái không có trong dự định)</i>
	6	I always pay my bills on time (Eg. Cost of House Rent / Dormitory, Electricity, Water, Internet, etc). <i>Tôi luôn thanh toán các hoá đơn (tiền thuê phòng, điện, nước, internet...) đúng hạn.</i>
	7	I will borrow money only when it is really necessary. <i>Tôi sẽ mượn tiền chỉ khi nào thật sự cần thiết.</i>
	8	I always set aside my savings for the future. <i>Tôi luôn để dành ra một khoản tiết kiệm cho tương lai</i>
	9	I always maintain a separate savings fund for emergencies. <i>Tôi luôn duy trì 1 quỹ tiết kiệm riêng dành cho trường hợp khẩn cấp</i>
	10	I always set aside my income every month to invest.

		<i>Tôi luôn cố gắng để dành ra một khoản thu nhập mỗi tháng để đầu tư</i>
	11	I always make financial plans for the future. <i>Tôi luôn lập kế hoạch tài chính cho tương lai</i>

### 3.7 Data Analysis Method

#### 3.7.1 Validity and Reliability

##### - Validity

Validity is a measuring tool used in measurement, which can be used to measure what the researcher wants to measure. The validity test is intended to test the accuracy of the items in the questionnaire, whether the items are capable of describing and explaining the variables under research. This enables the researcher to test the validity of the questionnaire which is directly given to University students in IIB Darmajaya (Indonesia) and UEL (Vietnam). Valid or invalid each statement item on the questionnaire can be seen from a correlation value of 0.05 or 5% of the total score, if it is below that number then the questionnaire can be declared invalid.

Criteria for validation:

1. Hypothesis Formulas
  - a.  $H_0$  = if  $r_{count} > r_{table}$  then the instrument is valid
  - b.  $H_1$  = if  $r_{count} < r_{table}$  then the instrument is invalid
2. Instrument Validity Testing is conducted through the IBM SPSS (Statistical Program and Service Solution series 22) program.

##### - Reliability

Reliability means that it is reliable, which is also, if a measuring instrument is used repeatedly by the same researcher or by other researchers, it still contains the same results. The function of the reliability test is to know the extent to which the consistency of

measuring instruments can provide the same results in measuring the same thing and the same subject.

The results of the research can be said to be reliable if there is similarity of data in different times, and also a reliable instrument means an instrument that when used several times to measure the same object will produce the same data. In general, reliability is considered stable and consistent or in a sense already satisfactory if the range  $> 0.6$ . If the test criteria are met, the questionnaire is declared realistic.

**Table 3.5 Reliability Analysis**

Range	Strength of Association
$\geq 0.9$	Excellent
$\geq 0.8$	Good
$\geq 0.7$	Acceptable
$\geq 0.6$	Questionable
$\geq 0.5$	Poor
$\leq 0.5$	Unacceptable

Source: George and Mallery (2003)

### 3.7.2 Data Analysis Techniques

Data analysis technique is the process of grouping data based on variables and respondents, tabulating data based on variables and all respondents, presenting data for each variable studied, performing calculations to test the hypotheses that have been proposed. The data analysis techniques used in this research are:

- Descriptive Analysis

Descriptive analysis provides a description of each variable that is seen from the average-values (mean), standard deviation, maximum and minimum values.

- Pearson Correlation Coefficient

Pearson Correlation Coefficient is the easiest way to see if the variables have covarians. Understanding covariance demands that the concept of variance. The variance of a variable represents the average difference between the variable data and its mean value.

Pearson correlation coefficient can conduct a range of values from +1 to -1. A value of 0 representing that there are no correlation between each variables, while a value greater than 0 representing a positive correlation. The following table is the practical rules for interpreting the correlation values:

**Tabel 3.6 Practical Rules for Interpreting the Correlation Values**

Correlation Value	Interpretation
<b>0.90-1.00</b>	Very high positive correlation
<b>0.70-0.90</b>	High positive correlation
<b>0.50-0.70</b>	Moderate positive correlation
<b>0.30-0.50</b>	Low positive correlation
<b>0.00-0.30</b>	Little if any correlation
<b>0</b>	No relationship

Source: Hinkle, Wiersma and Jurs (2003)

– Multiple Linear Regression Analysis

In this research, the model and data analysis technique used a multiple linear regression analysis approach to determine how much influence the independent variables, which is financial knowledge, financial attitudes and locus of control had on the dependent variable, including personal financial management behavior.

Multiple linear regression analysis requires simultaneous testing using  $F_{count}$ . This significance is also determined by comparing  $F_{count}$  with  $F_{table}$  or looking at the significance of the SPSS output. Multiple linear regression analysis requires classical assumption testing to find out whether the regression estimation results are completely free from heteroscedasticity symptoms or multicollinearity symptoms.

### 3.8 Classical Assumption Test

#### 3.8.1 Normality Test

The normality test is used to test whether or not the data collected is normally distributed. Because a good regression model is one that has a

normally distributed residual value (Pranyoto, 2019). With the normality test, the research results can be generalized to the population. The normality of the data can be seen using the Kolmogorov – Smirnov test.

- Kolmogorov-Smirnov test.

This approach ensures that the data along the diagonal line is normally distributed by looking at the residual data whether it is normally distributed or not, with the decision:

- a. If the value of Asymp.Sig. (2-tailed)  $> 0.05$  then the residual data is normally distributed.
- b. If the value of Asymp.Sig. (2-tailed)  $< 0.05$ , then the residual data is not normally distributed.

### **3.8.2 Heteroscedasticity Test**

This test aims to test whether in the regression model there is an inequality of variance from the residuals of one observation to another observation. The researcher is using the statistical analysis of residuals (Glejser Test) to detect the presence of heteroscedasticity.

- Glejser Test.

The Glejser statistical test was chosen because it can guarantee the accuracy of the results more than the graph plot test which can cause bias. The Glejser test is carried out by regressing the independent variable to the absolute value of its residual on the dependent variable (Ghozali, 2011). The criteria used to state whether there is heteroscedasticity or not among the observational data can be explained by using the coefficient of significance. The coefficient of significance should be compared with the previously set significance level (5%). If the significance coefficient is greater than the specified significance level, it can be concluded that there is no heteroscedasticity (homoscedasticity). If the significance coefficient is smaller than the specified significance level, it can be concluded that there is heteroscedasticity.

### 3.8.3 Multicollinearity Test

The multicollinearity test aims to determine the existence of a perfect linear relationship between the independent variables in the regression model. To determine the presence or absence of multicollinearity symptoms, it can be seen from the value of the Tolerance and Variance Inflation Factor (VIF) through the SPSS program. According to (Situmorang & Lutfi, 2010), the common values that commonly used:

- a. Tolerance value  $< 0.1$  or  $VIF > 10$  (multicollinearity occurs)
- b. Tolerance value  $> 0.1$  or  $VIF < 10$  (no multicollinearity occurs)

### 3.9 Hypothesis Testing

Hypothesis testing is carried out to determine whether there is an influence of the independent variable, which are Financial Knowledge, Financial Attitude, and Locus of Control on the dependent variable, which is Personal Financial Management Behavior. Hypothesis testing is analyzed in the following way:

- Partial Test (t-test)

The Partial Test is used to determine the partial influence of each independent variable on the dependent variable. Do Financial Knowledge, Financial Attitudes and Locus of Control have a real effect or not on Personal Financial Management Behavior. The t-test is done by comparing the significance level of 5%.

The test criteria are carried out by:

If the significance value is  $< 0.05$  then the hypothesis is accepted.

If the significance value is  $> 0.05$  then the hypothesis is rejected.