CHAPTER IV

RESEARCH METHODOLOGY

4.0 Introduction

The previous chapter has given some detailed explanations on the research problems, which have finally led to the formulation of the eleven hypotheses (together with a conceptual framework) covering the area of (a) financial education/literacy, and (b) filial piety as possible factors contributing to retirement security adequacy within the Malaysian context. This chapter further provides a further overview of the research methodology adopted to achieve the study's objective. Specifically, this chapter comprises altogether 13 subsections namely: Sec. 4.1 Research design; Sec. 4.2 Documentary research; Sec. 4.3 Questionnaire design; Sec. 4.4 Data collection; Sec. 4.5 Problem, privacy and ethics; Sec. 4.6 Pilot study; Sec. 4.7 Data coding; Sec. 4.8 Dummy variables; Sec. 4.9 Data transformation; Sec. 4.10 Measurement of variables; Sec. 4.11 Scale development from sample; Sec. 4.12 Data analysis method; and Sec. 4.13 Summary.

4.1 Research Design

The study attempted to answer the research questions with quantitative methods, using surveys to obtain the relevant primary information. The quantitative method was found to be a powerful tool for testing theory and developing universal statements, and for providing a

"general" picture of a situation. This method was dominant in psychology, and much of the research base in education came from the application of psychological research. In order to reach an acceptable high standard, the method and approach used must be in accordance with the International Labour Standards established in the International Labour Office as confirmed by the world community. It was expected that adherence to these standards would lead to the formulation of a standard or practice suitable for developing a practical retirement planning strategy within the context of Malaysia.

4.2 Documentary Research

As a first step into the research methodology in order to obtain an in-depth knowledge of retirement security planning, the study had sourced secondary data from the Employees' Provident Fund (EPF) board, Ministry of Domestic Trade & Consumer Affairs, Statistics Department, and other consumer or published reports, through the Internet, wherever possible. Furthermore, references were made to relevant books, doctoral dissertations, refereed journals and other research papers, with a view to obtaining some relevant background information on provident funds, pension schemes and issues associated therewith. Needless to say, much time has also been spent on researching into the various relevant issues of financial learning and literacy as well as into the many aspects of filial piety. While much of these materials so obtained only described the provident fund schemes, pension schemes, financial learning education, and filial piety practices principally existing in countries (Canada, China, EU countries, Taiwan, United States), nevertheless, these study materials are extremely useful and have provided a large body of relevant knowledge to draw upon and the means to construct a

conceptual framework, which were related to the present study of financial planning and savings adequacy affecting the population in the Klang Valley(21) in Malaysia.

4.3 Questionnaire Design

As a second step, extensive use of questionnaires was inevitably an important supplement for information gathering or data collection from the public on issues pertaining to Malaysia's current pension and EPF retirement schemes and other issues which were considered important for the successful conclusion of the research. The questionnaire for this study comprised six different areas, namely: Personal particulars; Retirement planning behaviour; Saving and investment behaviour; Financial and investment knowledge; Filial piety; and Personal and household monthly income. The questionnaire had the following distinct advantages: simplicity, clarity and straightforwardness, which could provide more than subjective impressions. In this regard, questions were properly structured so as to allow the expected answers to automatically fall into a definite and manageable number of categories. Under this method, respondents were not permitted to volunteer 'free' answers referring to those questions, to which they might be at liberty to write everything or anything, which sometimes might make interesting materials but difficult to be classified or quantified to be of any practical use in a research study of this nature. To prevent any 'unwanted' ramifications from surfacing, the study has therefore used as many 'multiple choice' questions as possible within reasons, so that respondents would have a choice to pick only those which

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(21) Klang Valley refers to Kuala Lumpur and its suburbs or Kuala Lumpur metropolitan area unofficially comprising the Federal Territory of Kuala Lumpur, Federal Territory of Putrajaya, Selangor State of Petaling, Selangor District of Klang, Selangor District of Gombak, Selangor District of Hulu Langat, and Selangor District of Sepang.

were considered appropriate.

While some of the questions were developed and revised to suit some specific aspects of the Malaysian environment, many of the questions were those previously adapted by other researchers in somewhat similar circumstances, and have been proven to demonstrate a high level of reliability and validity. Accordingly, the questionnaires were formulated in such way as to guide data collection and analysis. Firstly, the questions were developed, based on financial experiences and the reading of various journals and articles relevant to retirement planning (Punch, 2005). Secondly, questionnaires handed out 90% of the target audience and collected back after completion, while the remaining sets were emailed to the target audience. Thus, a high completed return rate in excess of 50 percent was achieved. To prevent any likely error to occur in the designing of the questionnaire, proper steps were taken to ensure the credibility of the following: (a) The question must be read, (b) The question must be understood, (c) The respondent must create a response, and (d) The response must be translatable into the categories or values present for the question.

In view of the importance of validity of the data in a research, it was also vital to ensure that the questionnaire would gather only valid responses. Equally important was the issue of reliability i.e. the degree to which the same measurement was received, over time. Towards this end, it was of utmost importance to ascertain whether the same response was or would be given, if the respondent had answered the questionnaire earlier or later? Another significant and relevant factor was sensitivity i.e. the instrument's ability to accurately measure variability in stimuli or responses. In this respect, it was doubtful whether a dichotomous response category such as 'agree or disagree' would reflect subtle attitude changes, but a more sensitive measure (i.e. one with numerous items on the scale) might. For example, a more sensitive measure would involve the use of the following: 'neither strongly

agree nor mildly agree', 'neither agree nor disagree', 'mildly disagree and strongly disagree' in order to increase a scale's sensitivity.

In the light of the above, the majority of questions in this study had been structured to fall within the Likert-like response categories. This approach assumed that each item had about the *same intensity* as the rest, and that the overall scores (summation of weights) were used for analysis purposes resulting in the selection of the best items. In the course of analysis, each of the items was correlated with the composite measure, while items correlating highest with the composite measure were assumed to provide the best indicators of the variable, which would in turn be included in the index ultimately used for the analyses of the variable. The study had also used the itemised rating scale offering a category of responses out of which the respondent would be able to pick the one being the most relevant to him/her for answering the question. In this respect, some feedback on the initial list of questions was first obtained and incorporated therein, wherever appropriate, before the revised questions were given to a small but representative sample of potential respondents.

Furthermore, in order to maximise response probability, the questionnaire was also prepared in a bilingual form, namely: English and Chinese[(22)]. The questionnaire was first prepared in English and then translated into Chinese to form the Chinese version, which was then back-translated into English to ensure consistency. Most of the questions were close-ended. Finally, it was proposed to offer to email any interested party a free copy of the dissertation as an incentive for response. As briefly intimated earlier, the questionnaire was organised into the following six different Sections (see Appendix B).

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22) There was a need to have the questionnaire transtated into Chinese as many of the Chinese residing in the Klang Valley were more conversant with the Chinese language rather than with the English language.

Section A (demographic information on individuals),

Section B (respondents' retirement planning behaviour),

Section C (saving and investment behaviour, involving measurement of subjective financial risk tolerance, which was assumed to be a primary determinant of asset allocation choices, security choices, and goal planning strategies),

Section D (financial and investment knowledge),

Section E (filial piety) and

Section F (personal and household income).

4.4 Data Collection

As discussed earlier, the study was centred on Malaysians residing in the Klang Valley. As of 2008, Klang Valley had a estimated metropolitan population of 7.6 million mainly concentrated in the Kuala Lumpur city area, where, 38% of the population were ethnic Malays, 43% ethnic Chinese, 10% ethnic Indians and 9% foreign residents (Tourism Australia, 2008). A purposive sampling method of at least 380 people was drawn on the argument of these previous research findings. Purposive sampling can be very useful for situations where you need to reach a targeted sample quickly. Quota sampling is a type of purposive sampling that resembles a method of probability-based sampling known as stratified sampling. It is different, because although interviewers are constrained by the quotas, they are still using some element of judgement in the choice of the sample (Doherty 1994). The study looked at a sample of Malaysians of different ethnicities, pre-retirement age group, had some form of formal education and are residing in the Klang Valley. In a number of European countries, major official sample surveys of businesses use purposive selection, because of severe problems in getting respondent cooperation.

The primary objective was aimed at Malaysian households and individuals as the target population living and working in the Klang Valley. Accordingly, data sample was drawn from this specific population only and, for this purpose, 750 sets of structured questionnaires were initially distributed to individuals in various parts of Kuala Lumpur, Petaling Jaya, Shah Alam and Klang. Additional questionnaires were emailed to households and individuals with e-mail addresses (registered with popular websites). As anticipated, this 2-pronged approach method had significantly increased the response rate.

For the purpose of eliciting feedback on clarity and overall presentation of instructions and survey instrument items, a pre-test of the initial questionnaires was carried out and all constructive comments and suggestions from the feedback were incorporated into the final questionnaire in order to improve its content, format and quality (see further discussions later). The following was the gist of some of the questions included in the survey questionnaire: (a) Characteristics of job prior to retirement; (b) Household size; (c) Health insurance coverage; (d) Consumption expenditure; (e) Disposable income range; (f) Expected retirement age; (g) Investments in funds or unit trusts; (h) Ownership of property; and (i) Financial assistance from children or relatives. While the target population had included all the households and individuals as explained earlier, the sampling frame was only the source from which the sample would actually be drawn. Invariably, the target population had most likely included persons who were inaccessible or unidentifiable in advance, with the result that compromises were sometimes required to be made in developing the sampling frame (Diamond, 1986). Notwithstanding these weaknesses, the questionnaire survey had involved a relatively smaller number of individuals, not the whole Malaysian population residing and working in the Klang Valley and this was conducted on the basis of the following selection criteria:-

(a) Stochastic sample of individuals (determined both by the process's predictable actions and by a random element);

(b) Coverage of working adults over 21 years old in the sampling frame;

(c) Only heads of the households (or eventually the partner) are requested to answer the household questionnaire; and

(d) Outstation relatives and friends, who are temporarily staying in the same house for a period of less than one year, are to be excluded from the sampling frame as this would ensure ease of any follow-up interviews.

[*The term 'ordinary households' (sometimes referred to as the 'sociological household') includes all individuals living at the same address and more or less sharing their income and expenditure together*; *Stochastic social science theory is similar to systems theory in that events are interactions of systems, although with a marked emphasis on unconscious processes. The event creates its own conditions of possibility, rendering it unpredictable if simply for the amount of variables involved.*].

Previous studies had not considered housing wealth as a households' retirement resource. This argument was based on the assumption that, upon reaching retirement age, most of these households had their own homes and that, if they had not sold them or tapped their equity, these properties were not expected to contribute much to the retirement income adequacy, as in the case of other assets. For this study, the survey was designed as a non-probability survey, which might, in certain circumstances, end up in a non-probability situation. This could happen, if and when one or more of the following conditions were satisfied:-

(a) Substitution was allowed for non-respondents;

(b) Some large sets of units in the target population had no chance of selection;

(c) Units were selected judgmentally; and

(d) No adequate frame has existed.

Some of the above conditions had indicated a non-probability design, while others had implied a lack of control in implementing the design. Also, costs/quality tradeoffs were the main reasons for the non-probability sample design. It would have been ideal to take samples covering a larger geographic area such as from the rural areas. However, due to cost and time constraint, this was not possible. Consequently, in all forms of probability sampling, each element in the relevant population has a known, non-zero probability of being included in the sample, while probability sampling has offered two important advantages over other types of sampling. Firstly, probability sampling has provided an unbiased estimate of responses of all persons in the population, from which the sample was drawn i.e. the expected value of the sample estimate was actually the population value being estimated. Secondly, probability sampling has also provided a confidence interval, which explicitly described how reliable the sample estimate of the population would be.

4.5 Specification Problems, Privacy and Ethics

In this Section, discussions were concentrated on the following three disparate important issues associated with research work: (a) Specification problems, (b) Privacy, and (c) Ethics. These were further dealt with in the following Subsections.

4.5.1 Specification Problems

At the planning stage, there were always problems or specification errors brought about by inadequate and/or inconsistent data specifications, with regard to survey objectives. These specification errors would inevitably occur from poorly worded questionnaires and survey instructions or they reflect difficulties in the measuring abstract concepts. The term 'abstract concepts' was intended to mean consumer price index (CPI) i.e. a composite measure of several variables, which were used to account for saving erosions, over time. For example, there might be cases, where proxy data were used consequent upon the non-availability of primary data, even if the concepts have been clearly defined. Such occasions were likely to occur in circumstances, where, for example, (a) respondents have not known the true value of their homes, especially when they have been occupying them for years and have had no intention whatsoever of selling them, (b) there were ambiguous questions to which unique answers were impossible, (c) there were also unclear instructions causing response errors to occur, and (d) data misclassifications might also emerge causing respondents to report familiar data in an unfamiliar or inconsistent manner.

Such specification errors could also arise from a combination of factors. To minimise them, reliance would have to be placed on good questionnaire design, unambiguous instructions and reliable measurement techniques. The effective control mechanisms were none other than requirement reviews and pre-tests. In other words, questionnaires and instructions would have to be first subjected to a series of reviews and revisions to ensure that they were error-free as far as possible. Thereafter, they were pre-tested with a group of 10 graduate students and friends, before the pre test data were coded for computerised statistical analysis.

4.5.2 Privacy

From the psychological perspective, privacy has been regarded as an abstract concept difficult to define or comprehend, especially when it concerned other persons in different situations. In a nutshell, privacy would effectively refer to persons and their interests in controlling the access of others to themselves. It would also refer to a situation, where people have an interest in controlling (a) the time, place and nature of the information they would give to others, and (b) the information or experiences, which were proffered to them. Thus, an informed consent would serve as a control mechanism, if prospective respondents in a survey research were adequately informed of what they would be asked and what they might experience. Once they would agree to a small and benign request, they were likely to agree to a larger and less benign request, to which they would ordinarily never agree. In most cases, interviewers could easily lead respondents (who normally would refrain from answering highly personal or embarrassing questions about some particular aspects of their lives) to answer such questions by first requesting an answer to a rather tame question on the same topic. The trick of this approach was that people, who would normally want to appear consistent and cooperative in their behaviour, would continue to do so, even when they would otherwise judge it to be ill-advised (Cialdini, 1993; Orne, 1962).

4.5.3 Ethics

Ethics has to be observed in data collection and information gathering in a research study. Ethics was a normative discipline, which set rules and standards for behaviour to be followed, but survey research ethics would raise many empirical and methodological

questions. For example, ethics would require researchers to obtain children's informed assent to participate before approaching them, but was silent on the kind of information children could understand or the kind of decisions they were competent to make at a given age. In compliance with the research ethics, researchers were expected to respect the confidentiality of the information they obtained, but research ethics has made no mention of whether respondents would believe in promises of confidentiality or whether such promises would make any difference in their willingness to participate candidly. Fortunately, ethical issues have been well documented by researchers, who have performed empirical research on the process of such survey research, revealing that there were considerable individual differences among trained interviewers in the results they achieved. According to Singer and Frankel (1982) in their study of informed consent procedures in telephone interviews, there were two varied aspects of informed consent, namely: (a) information about the interview content, and (b) information about its purpose. These factors should theoretically make little difference in the quality of the data collected and the meaning of the experience for the respondents. Yet, largest variation response rates had actually occurred among interviewers. For example, the more experienced interviewers had produced a higher response rate by using the brief consent procedures, to which they were accustomed, while the less experienced interviewers had also obtained a higher response rate by using the more lengthy experimental procedures. Note that there were obviously advantages of using interviews for data collection as interviews could clarify questions for respondents, clarify responses made, and probe for additional information when necessary (Frey, 1989; Lavrakas, 1998).

4.6 Pilot Study

As an initial step for testing, the study had used a pilot study, or preliminary investigation designed to test research hypotheses, gather data, and validate the scientific approach and methodology for a particular area of research interest. This approach was important as a test bed for ideas and as an evaluation and assessment measure before going deeper into a major study. The pilot study was not just to test research hypotheses, but also to test protocols, data collection instruments, sample recruitment strategies, and other aspects in preparing for a larger study. The pilot study's characteristics had included the following:

(a) Should justify the number of subjects required.
(b) Designed to answer the question 'Is a trial/experiment worth pursuing?'
(c) Must provide details on how the decision of pursuing an experiment will be made.
(d) Must give evidence for designation as a 'pilot study', and one of the following three reasons may apply:
    (i) To learn how to do a new procedure e.g. to simultaneously try out (and correct problems in) a new questionnaire, and to de-bug a new data-entry system;
    (ii) To establish estimates of variances, correlations, and/or differences for use in power calculations that will guide selection of a sample size for the full-scale study; and
    (iii) To evaluate the total cost or timeliness of doing the experiment (For this purpose, a small sample size as low as N=1 may be sufficient).

The pilot test had revealed likely response rates and problems associated with data collection or sample. The test effectively had focused on -

(a) a group to explore respondents' reactions to certain aspects of the intended survey with a view to generating new hypotheses to be tested,
(b) the ethnographic study of one's research populations, and
(c) the study of meta-communication within the research process.

The experimental conditions were integral to the survey, such as the effects of anonymity or various kinds of confidentiality. It is important to note that the common practice in carrying out the pilot study was to try different wordings of sensitive questions and different ways to jog subjects' memories. This would cover how the requested data were stored, when the response was manual or computerized, when the data were disaggregated, or when the data were retrieved and assembled in the form desired. By using the pilot test results, the questionnaire was tailor-made to fit the recordkeeping practices and abnormalities of the target population. Thus, the pilot study was seen as a dress rehearsal for the full project, including the questionnaire, the interviewers, and all other aspects. For this purpose, a sample of around 30 responses from a seminar group was obtained, coded, and analyzed. Questions not providing useful data were discarded, before final revisions of the questionnaire were made.

4.7 Data Management

4.7.1 Data Coding

In the present study, the data were first extracted from useable questionnaires and then coded into a SPSS for Windows data sheet, which had a fixed column format. The first column was for the order in which the returned questionnaires were received. As from the second column onwards, actual data were entered according to the questionnaire's question

numbers. All the missing values were coded as 99, while this missing value was defined in the SPSS data sheet program, which could recognize it as such.

4.7.2 Dummy Variables

For regression analysis, several demographic variables need to be recoded as dummy variables. The coding was accomplished by assigning '1' if the respondent was a member of a group and '0' if non-membership. The questionnaire has included four categories of marital status: single, married, divorced, and widowed. Marital status has been combined into two groups: single and non-single. Because the majority of the respondents were single, single was coded as '1'. If the respondent was married all other categories were assigned '0' (DMarr1). Education level has also been combined into two groups: tertiary level and non-tertiary level. In view of the majority of the respondents being at the tertiary level, tertiary level was coded as '1'. In the event of the respondents having secondary, primary or no education, they were assigned '0' (DEduc).

Likewise, employment type has also been combined into two groups: private sector and non-private sector. As the majority of the respondents were in the private sector, private sector was coded as '1'. If, on the other hand, the respondents were public sector employees, self-employed and others, they were assigned '0' (DEmp1). To check whether the public sector was a significant variable, employment type has been further combined into two groups: public sector and non-public sector, with the public sector being coded as '1' and the other sector as '0' (DEmp2). Age group categories have been combined into two groups for each dummy variable resulting in five dummy variables, age groups 20-29, 30-39, 40-49, 50-59 and over 60.

4.7.3 Data Transformation

Some of the questionnaire items were computed to create indexes or scales. Those items related to the main areas of research: financial learning (Section 4.8.1), filial piety (Section 4.8.2) and economic well-being (Section 4.8.3), all of which were discussed below and further refined into sub-scales after various tests have been conducted (see Section 4.9).

4.8 Measurement of Variables

In this section, three main variables are measured. They are: (a) financial learning as an independent variable, (b) filial piety as an independent variable, and (c) economic well-being as a dependent variable.

4.8.1 Financial Learning

The study had examined two types of Financial Learning: the formal financial education (Bernheim, 1997) and the self-directed learning (Rodgers, 1982). Financial education was expanded to include information, education, and services provided by an employer to help workers or self-learning by individuals to make informed decisions on retirement planning or money management (Caffarella, 1994), whereas self-directed learning (Campbell, 2000) was covered by proxy variables. Essentially, the study assessed the degree to which respondents had used each of the four media (newsletter on 'Understanding Personal Finances', other financial planning publications, financial planning software and the Internet) as an information source for financial planning. Additionally, alternative independent

variables, being characteristic of self-directed learners were also used to see how strongly they related to self-directed learning readiness. These alternative independent variables included: age, employment type, homeownership, income, educational level and gender.

4.8.2 Filial Piety

Filial piety is a fundamental basis of social organization (Deuchler, 1977; Hsu, 1971; Osgood, 1965) and its social significance is evident in face of the drastic increase in aged population (Lee, 1989; Martin, 1990). Some aspects of filial piety have formed an integral part of the present study, where efforts were made to examine three domains concerning an adult child's support for his elderly parents. All these are alternative independent variables in this study. The domains were: (a) financial support, (b) service support, (c) emotional support (including advice, encouragement, and moral support), and (d) intergenerational relationships. All the questions were centered upon the frequency of respondents' assistance ranging from never too often.

To assess financial support, for example, respondents' were specifically asked in the questionnaire items to indicate the frequency in which they gave monetary support to their elderly parents. For rendering services to parents, they were required to rank similar questions on: (a) house sitting, (b) help with transportation, (c) help with repairs to home or car, and (d) help with other kinds of work around the house such as cleaning and cooking. Responses to these items were then analysed and summed up in order to create a scale of service provision, where the higher the numbers, the more frequent would be the assistance given. Finally, in the area of emotional support, the questionnaire items had dealt with giving advice on how to deal with problems, and confiding in personal matters. The result revealed

that a high number on the summed-up scale had indicated a more frequent provision of emotional support from an adult child to his parents. The following are examples of some of the specific questions which were included in the survey questionnaire.

Each respondent (adult child) was asked to evaluate the need for support on the part of the parent and vice versa. The specific question was: 'Do you think…. needs support?' There were four questionnaire items on norms about the role of children and parents in giving support and they were:

(a) Children and parents ought to support each other,
(b) Parents did a lot for their children in the past, so their children should give them support now.
(c) Elderly parents now still mean a lot to their children, so they deserve to receive support from them, and
(d) In a good relationship, it goes without saying that children do a great deal for their parents.

4.8.3 Economic Well-Being

Economic well-being is the dependent variable in this study. Economic or financial well-being is an important part of the present study, which was measured with a seven-item Likert-type scale ranging from very dissatisfied = 1 to very satisfied = 7. The term 'economic well-being' comprises three important components: financial adequacy, personal economic well-being, and satisfaction with level of living. In Draughn *et al.* (1994) view, financial adequacy is an objective assessment of income adequacy to meet overall economic survival, and personal economic well-well is related to the subjective assessment of overall economic survival while satisfaction with the level of living reflects the perception of an individual's

ability to meet financial demands for needs. For this purpose, the following seven questionnaire items had been adopted: (a) 'the way you've used your money', (b) 'your ability to make investment decisions with the money you have saved', (c) 'your preparation to meet long-term financial goals', (d) 'your ability to meet unexpected expenses', (e) 'the amount of your unpaid balances on your credit card/(s)', (f) 'the extent to which you have been able to control your financial situation', and (g) 'the estate planning you have done'. Additionally, the issue of respondents' satisfaction with their ability to achieve success was also probed with the question: 'During the past six months, how satisfied have you been with your ability to achieve success and to get ahead?' For measuring the question of economic well-being, four particular scales, (drawn from previous studies) were also used: (a) subjective perception scale, (b) behavior assessment scale, (c) financial satisfaction scale, and (d) perceived financial well-being scale (see discussions in 4.9.2 below).

4.9 Scale Development from Sample

The main crux of the research questions was the well-being issue of the elderly. Within this context, the issue of personal well-being was the dependent variable for the formulation of some of the hypotheses as the fundamental basis for the present study. In this respect, efforts were principally concentrated on the construction of various constructs applicable for use in the study.

4.9.1 Financial Literacy Scale

Relative to the Financial Literacy Scale (FLS), respondents were required to tackle a number of questions and rank 5 of them on a five-point scale ranging from Not at all = 1 to Very Well = 5 and the rest on a seven-point scale ranging from Strongly Disagree = 1 to Strongly Agree = 7. For purposes of consistency, the results of the seven-point scale were then recoded into a five-point scale for before the scale's internal consistency was checked using the Cronbach's alpha coefficient. Cronbach's Alpha was the most popular measurement to test the internal consistency of instrument's reliability (Peterson, 1996). The FLS was found to have a Cronbach Alpha of 0.894 indicating its high reliability. After applying the Factor Analysis Test to the FLS using Kaiser-Meyer-Olkin Measure of Sampling Adequacy or the rotated component matrix (KMO – 0.876), it was found that there were two components which fitted well separately as shown in Table 4.1. This had given rise to the following two scales (which had in turn further led to the testing of two sub-hypothesis as discussed later):

(a) Ability to Explain Scale (QD3a, b, c, d, e) (Coded as "LITEXPL")
(b) Literacy Knowledge Scale (QD5a, b, c, d, e) (Coded as "LITKNOW")

Table 4.1:
Factor Analysis – Financial Literacy

Kaiser-Meyer-Olkin Measure – Financial Literacy		.876
Bartlett's Test of Sphericity	Approx.Chi-Square	2515.398
	df	45
	Sig.	.000
	Rotated Component Matrix	
	1	2
D3(c)	.892	
D3(b)	.876	
D3(e)	.870	
D3(d)	.870	
D3(a)	.833	
D5(e)A		.823
D5(b)A		.795
D5(a)A		.770
D5(d)A		.743
D5(c)A		.726

4.9.2 Economic Well-Being Scale

The study had also used the above scale consisting of 12 questionnaire items i.e. the following statements: (a) 'The way you have used your money', (b) 'Your ability to meet large unexpected expenses', (c) 'The amount of your unpaid balances on your credit card', (d) 'I worry about being able to pay monthly living expenses' and so forth. These statements were used to measure subjective perception with income adequacy. The Cronbach Alpha has shown 0.877 indicating high reliability. Through application of the Factor Analysis Test using the rotated component matrix (KMO – 0.834) as stated earlier, the study had found four components or scales which had fitted well separately as displayed below in Table 4.2. The four scales (listed below immediately after Table 4.2) which would subsequently be used to test four sub-hypotheses are explained in the following ensuing paragraphs.

(a) Financial Satisfaction Scale (QB1b, c) (Coded as "FINSAT")

(b) Subjective Perception of Economic Well Being Scale (QB8, 9)
(Coded as "SUBPERC")

(c) Perceived Financial Well-Being Scale (QB1a, d, e, f, B5)

(Coded as "PERWELL")

(d) Behavioural Assessment of Personal Finance Scale (QB2a, b, c)

(Coded as "BEHASS")

Table 4.2:
Factor Analysis – Economic Well-Being

Kaiser-Meyer-Olkin Measure – Economic Well-Being				.834
Bartlett's Test of Sphericity	Approx. Chi-Square			2041.908
	Df			78
	Sig.			.000
	Rotated Component Matrix			
	1	2	3	4
B1(e)	.792			
B1(f)	.742			
B1(d)	.692			
B1(a)	.599			
B1(g)	.589			
B5A	.527			
B2(a)		.853		
B2(c)		.837		
B2(b)		.820		
B9			.863	
B8			.846	
B1(c)				.919
B1(b)				.735

(a) Financial Satisfaction Scale

For the present study, the financial satisfaction scale was found to be an appropriate construct comprising two questionnaire items with the following statements: (a) 'Your ability to make investment decisions with the money you have saved', and (b) 'Your preparation to meet long-term financial goals'. These statements would be used to measure respondents' ability to make investments with their savings especially to meet their long-term financial goals**.** It is expected that respondents' ability to make investments as their long-term goals would positively and eventually resolve their retirement security adequacy issue.

(b) Subjective Perception of Economic Well-Being Scale

This scale would be essentially used as a measuring tool to assess respondents' perception of their financial well-being during retirement years as people who are more included to think that they are personally responsible for securing retirement income are expected to have greater financial preparations for their retirement (Abel and Hayslip, 1987; Kim and Moen, 2001). The relevant questions had included the following different statements: (a) 'Do you feel you will be able to support your current lifestyle during your retirement years,...?' and (b) 'Do you feel you are adequately preparing yourself (financially) for your retirement years?'. These self-explanatory statements would need no further elucidations at this stage.

(c) Perceived Financial Well-Being Scale

The above-captioned scale would be used to measure respondents' subjective perception of their future financial heath including the satisfaction with material and non-material aspects of their financial situation (Williams, 1993). In the questionnaire, the following five different statements were adopted: (a) 'The way you've used your money', (b) 'Your ability to meet unexpected expenses', (c) 'The amount of your unpaid balances on your credit card', (d) 'The extent to which you have been able to control your financial situation' and (e) 'The estate planning you have done'. The purpose of using this scale was to ascertain: (f) the percentage of respondents who strongly disagreed with the optimism of their financial future, and g) the percentage of respondents who strongly disagreed with their financial

retirement preparedness. In this analysis, the Cronbach Alpha had shown 0.765 indicating high reliability.

(d) Behavioural Assessment Scale

For high reliability, the above behavioural assessment scale (BAS) was devised in order to obtain the target population's responses with the following three statements: (a) 'Made plans on how to use your money', (b) 'Saved for goals' and (c) 'Evaluated spending'. By the 'BAS' approach, the respondents were required to assess their behaviours using five-point scales: never, sometimes, moderately, usually, and always. In this case, a score of 0.840 on the Cronbach Alpha had indicated high reliability.

4.9.3 Filial Piety – Child Scale

This subsection deals with the issue of filial piety from the adult children's perspective. For purposes of measuring the child's perspective under the filial piety concept, the above-captioned Filial Piety – Child Scale (briefly referred to as the 'FPCS' construct) was devised and found appropriate. The FPCS construct would be used to cover altogether 14 items or areas such as: (a) 'Do you think your parents need support?', (b) 'Perception that their don't have enough money to live on', (c) 'perception about their health conditions', (d) 'perception about their loneliness', e) 'perception about their housing', (f) 'perception about having not enough to do to keep busy', and (g) 'perception about having not enough medical care'. Included in Section E of the questionnaire were also the following statements: (h) 'Frequency of giving regular allowances to parents', (i) 'Would you help your parents with

their living expenses?' (j) 'Do you feel morally obligated to provide your parents with financial support, familial support and income security?' and so forth. In analysing the data on the issue of filial piety from the child's perspective, the Cronbach Alpha had shown 0.670 indicating fairly high reliability. Through the application of the rotated component matrix (KMO – 0.827), the results had also revealed three different components referred to as scales which had fitted well separately. The three scales (as extracted from Table 4.3 below), which would be discussed later in this section, are appended hereunder:-

(a) Parents Support Scale (QE26, E6) (Coded as "SUPPO")
(b) Parents Need Scale (QE11 to E16) (Coded as "Need")
(c) Filial Obligation Scale (QE18, E19, E22) (Coded as "FilObli")

Table 4.3:
Factor Analysis - Filial Piety (Child's Perspective)

KMO – Filial Piety (Child Perspective)			.827
Bartlett's Test of Sphericity	Approx. Chi-Sq.		1442.663
	df		78
	Sig.		.000
	Rotated Component Matrix		
	1	2	3
E16A	.850		
E14A	.848		
E12A	.835		
E11A	.824		
E13A	.786		
E15A	.690		
E18		.806	
E19		.804	
E22		.549	
ChildDist			.796
E4A			.830

4.9.4 Filial Piety – Parent Scale

For purposes of the present study, the various aspects of the filial piety concept would also be examined from the parents' perspective, as it would also be necessary to apply the above-captioned scale (briefly referred to as the 'FPPS' construct) as well in the course of the examination. This FPPS construct would use the following six questionnaire items to measure parents' perspective with regard to the issue of filial piety: (a) 'How often in the past year did your child help you with daily chores in and around the house,..?', (b) 'How often during the past year did your child give you advice?', (c) 'How often during the past year did your adult child give you help when you needed it?' and so forth. The research findings had shown that the Cronbach Alpha had shown 0.713 indicating high reliability. After applying the Factor Analysis Test using the rotated component matrix (KMO – 0.714), the research had further revealed two components, which had fitted well separately (Table 4.4), thereby giving rise to the construction of the two following scales:

(a) Instrumental Support Scale (QE1A, 2A, 3A) (Coded as "InstrSupp")

(b) Parent Perception Scale (QE17, 23) (Coded as "ParPerc")

Table 4.4 :
Factor Analysis - Filial Piety – Parent's Perspective

KMO – Filial Piety (Parents Perspective)		.714
Bartlett's Test of Sphericity	Approx. Chi-Sq.	377.467
	df	10
	Sig.	.000
	Rotated Component Matrix	
	1	2
E3A	.914	
E2A	.892	
E1A	.884	
ParentDist		
E23		.862
E17		.821

4.9.5 Parent with Financial Resources Scale

For purposes of investigating financial resources from the parents' perspective under the filial piety concept, the above scale was used to elicit responses to the following four questionnaire items: (a) 'I am comfortable with the way I currently manage my personal financial planning' and (b) 'Do you feel you will be able to support your current lifestyle during your retirement years,....?' and so forth. The results had shown that the Cronbach Alpha was 0.610 indicating fairly high reliability.

4.9.6 Support Exchange Scale

From the child's perspective under the filial piety concept, the Support Exchange Scale was constructed and used to elicit answers from respondents with the following four questionnaire items: (a) 'Children and parents ought to support each other'(QE7), (b) 'Parents did a lot for their children in the past, so their children should give them support now'(QE8), (c) 'Elderly parents now still mean a lot to their children, so they deserve to receive support from them(QE9), and (d) 'In a good relationship, it goes without saying that children do a great deal for their parents(QE10). In this respect, a score of 0.760 on the Cronbach Alpha was obtained and this was indicative of a fairly high reliability.

4.9.7 Need for Assistance Scale

Finally, to investigate parents' perception of their need for assistance, it was necessary to use the Need for Assistance Scale with the following six questionnaire items to obtain the

relevant information: (a) ‘Don’t have enough money to live on’(QE11), (b) ‘Having poor health’(QE12), (c) ‘Loneliness’(QE13), (d) ‘Poor housing’(QE14), (e) ‘Not enough to do to keep busy’ (QE15), and (f) ‘Not enough medical care’(QE16). The result has shown a score of 0.899 on the Cronbach Alpha which was indicative of a very high reliability.

4.10 Data Analysis Methods

The relevant data were first analysed using descriptive statistics (frequencies, means, standard deviations, medians, modes, range, minimum, maximum) to capture respondents’ essential characteristics. The descriptive statistics were based on respondents’ demographics such as: age, gender, home ownership, income, employment type, number of children, education level, and occupation. The following explains how these data are treated through the application of various statistical tools, and eventually through the testing of eleven hypotheses.

4.10.1 Statistical Tests

Firstly, the data were analyzed, using the Statistical Package for Social Science version 16 (SPSS ver.16). Additionally, the frequency test was conducted with a view to observing respondents’ general characteristics before the reliability tests were carried out to assess measurement consistency. Note that the regression analysis was essentially a technique suitable for exploring the relationship between one continuous or metric dependent variable and a number of independent variables. For controlling their influence, some of the significant demographic characteristics and financial stressors had to be included in the regression

equations, where the alpha level was set at 0.05, throughout the analysis. Secondly, the t-test and ANOVA were both used for the purpose of comparing group demographic differences. The t-test was to ascertain whether the mean scores of two groups were significantly different, whilst ANOVA was to compare the mean of more than two groups. Differences for age, marital status, personal incomes and educational background were also obtained via ANOVA. Thirdly, the SPSS was used to test the reliability of scales and correlation, and the descriptive analysis was applied to describe respondents' characteristics. To identify the personal financial wealth of the sample necessitated the use of descriptive analysis. Correlation and hierarchical regression analysis were both conducted for exploring the personal financial wealth profile change, according to demographic characteristics and other independent variables.

For testing the various hypotheses in the present study, different types of statistical tool and tests would be employed. Some of the statistical tests used in the study are ANOVA, normality test, Pearson correlation, t-test and others. They were parametric tests on the assumption that the samples were randomly selected from a normal population. Specifically, the ANOVA test had an additional assumption i.e. the variances of the groups must be equal (Coakes and Steed, 2001; Cooper and Schindler, 1998). There are two types of normality test, namely: Shaphiro-Wilks and Kolmogorov-Smirnov, where the significant level is small ($p<05$). The normality test on the samples had, however, revealed a non-normal distribution. The three main types of regression analysis used in the study are hierarchical, simple and stepwise. The hierarchical regression analysis is used to test indirect relationship among variables of a model and to identify the mediating effect through the application of the Baron and Kenny's (1986) approach. The researcher, not a computer program, determines the order that the variables are entered into and removed from the regression equation. This hierarchical

procedure is an alternative to comparing betas for purposes of assessing the importance of the independents. The simple regression analysis is used to test the validity of hypothesis and provide information on the contribution of the independent variables by looking at the coefficient of R square (Ghiselli *et al.,* 1981). The stepwise regression test is a test where the independent variables enter the equation one at a time to find the best model. In stage one, the independent best correlated with the dependent is included in the equation. In the second stage, the remaining independent with the highest partial correlation with the dependent, controlling for the first independent, is entered. This process is repeated, at each stage partialling for previously-entered independents, until the addition of a remaining independent does not increase R-squared by a significant amount. The chi-square test evaluates the null hypothesis where two nominal variables are independent (Kinnear and Taylor, 1987).

4.10.2 Central Limit Theorem

In data analysis, reliance could be placed on the Central Limit Theorem (CLT), where the sample size inclusive of the different clusters was greater than 30. This would imply that, for all defined target populations, the sample means must be distributed around the population mean approximately in a normal distribution, and that the sample size was sufficiently large such that n was greater than or equal to 30 (Cooper and Schindler,1998; Hair *et al.,* 1998). With regard to the homogeneity of variance assumption, Coakes and Steed (2001) have stated that, when this assumption was violated, the interpretation of the F-test for ANOVA must be undertaken with caution. Notwithstanding this, Cooper and Schindler (1998) have however found that ANOVA was reasonably robust, and that minor variations from normality and equal variance were tolerable.

Data analyses were carried out by reliability tests, hierarchical regression analysis, and factor analysis, using several categorical independent variables. The appropriate statistical tool was ANOVA – a technique suitable for determining if the samples were populations with equal means. For consistency, all statistical tests were set at .05 as the significant level. The two-way ANOVA was used to test the hypothesis that no differences existed between the groups, namely: financial education and filial piety. Regression analysis was applied with a view to ascertaining whether the alternative variables have contributed to a regression equation model, which could predict economic well-being. Finally, the relationship between each variable and dependent variable was also examined, using the Pearson product moment correlation coefficient (PPMCC) and Spearman rank order correlation coefficient (SROCC).

4.10.3 Self-directed Learning

The question of self-directed financial learning was assessed by proxy variables. This analysis was aimed at examining the degree to which respondents had used each of the four media (newsletter, financial planning publications, financial planning software and the Internet). These four media were used as information sources for respondents' financial planning. Respondents were expected to indicate whether or not they had used each medium in response to the question: 'Which of the following sources of information have you used for financial planning over the past six months?' and to circle all that were applicable: (a) Newsletter on 'Understanding Personal Finances', (b) Other financial planning publications, (c) Financial planning software, and (d) the Internet.' Responses to the four items were then summed up, resulting in the variable 'self-directed financial learning' with values ranging from 0 = where no media were used to 4 = where all four media were used.

4.10.4 Financial Satisfaction Measurement

The issue of financial satisfaction was measured with the following questions on a 5-point Likert scale: 'During the past six months, how satisfied have you been with each of the following aspects of your life?

(a) The way you've used your money;
(b) Your ability to make investment decisions with the money you have saved;
(c) Your preparation to meet long-term financial goals;
(d) Your ability to meet large unexpected expenses;
(e) The amount of your unpaid balances on your credit card/(s);
(f) The extent to which you have been able to control your financial situation; and
(g) The estate planning you have done.

The results had indicated that, on the 5-item Likert scale, respondents' answers had varied substantially from: Very Dissatisfied = 1 to Very Satisfied = 5. Their responses were then summed up in order to produce the following results: 5 = very dissatisfied with all aspects to 35 = very satisfied with all aspects. As Hypotheses 1 and 2 were tested using hierarchical regression analysis, the nine demographic variables were first entered into the regression equation as independent variables in order to predict the financial literacy. Then, the financial learning variables were entered into the regression equation. Thereafter, comparison between the model (with demographic variables) and the other (with additional independent variables) was made to see whether there were significant differences between the two models. With regard to Hypothesis 2, in the first step, the nine demographic variables together with the learning variables were entered into the regression equation and in the second step, financial literacy variables were entered into the regression equation as independent variables to predict economic well-being. Finally, one model with demographic

variables and learning variables was then compared with another model (which has additional independent variables) to see whether there were significant differences between the two models.

The testing of Hypothesis 3 (using the hierarchical regression analysis) had suggested that financial literacy would mediate the relationship between financial learning and economic well-being. Accordingly, the testing was performed using the criteria established by James and Brett (1984) to see whether the mediation effect did exist, under three different conditions. To satisfy condition one, the independent variable must be significantly correlated with the mediator variable. To satisfy condition two, the mediator variable must be significantly related to the dependent variable. To satisfy condition three, the influence of the mediator variable was held constant, and the effect of the independent variable on the dependent variable should be non-significant (Allen, 2000). The significance of the regression coefficient associated with the step-two independent variable would finally be used to determine if mediation existed.

4.10.5 Filial Responsibility Models

Additionally, application of hierarchical regression analysis was also found appropriate for computing partial correlations controlling for the effects of the four control variables. Accordingly, further testing was performed using the criteria established by James and Brett (1984) with a view to determining whether the mediation effects did exist, by using three conditions. For Condition 1 to be met, the independent variable must be significantly correlated with the mediator variable. For Condition 2 to be met, the mediator variable must be significantly related to the dependent variable and for Condition 3 to be met, the influence

of the mediator variable was held constant, and the effect of the independent variable on the dependent variable should be non-significant (Allen, 2001). The significance of the regression coefficient associated with the step-two independent variable was used to determine if mediation effects had existed. Condition 3 was tested using three regression steps: first by entering the demographic variables into the regression equation, then by adding the independent variables Filial Obligation to the equation, and finally by adding the proposed mediator variable such as Income to the equation. The significance of the regression coefficient associated with the step-two independent variable was then used for determining if mediation existed. Arising from this process, the two following models were developed:

Model 1: Support data from parents as dependent variable.
Model 2: Support data from children as dependent variable.

From these two models, the following six sets of variable for ordinary regression equations have emerged for further testing:

E1 Parent-child support norms.
E2 Characteristics of parents – Ethnicity, gender, age, support need, partner status, children no., education, financial status.
E3 Characteristics of child – Ethnicity, gender, age, support need, education, living with parent, partner status, children no., employment status, financial status.
E4 Relationship characteristics – Contact frequency, travelling time.
E5 Gender characteristics – Partner status, children no., employment status.
E6 Parent supporting child.

Research results have indicated that the variables in E1 would either have a significant effect or significantly improved Model 1 and 2 or both, and that differences have also existed in E1

and E2 in both Model 1 and 2. Similarly, the results have also revealed that differences have also surfaced between Model 1 based on parents' reports and Model 2 based on children's reports. Likewise, it should be noted that Hypothesis 7 on the parent-child relationship had suggested that the support given by parents had influenced the support they received. At this stage, it might be concluded that the strong effect of support-giving in both models had indicated the mutual interdependence of giving and receiving support.

4.10.6 Children's Support Domains

As part of the research, three domains of support were investigated. These are financial support, services support, and emotional support including advice, encouragement, and moral support. In the area of financial support, respondents were required to indicate the frequency of giving monetary support to their elderly parents. In the provision of services to their elderly parents, they were also asked to state the frequency of (a) house sitting, (b) transportation to doctor, shopping, etc., (c) assistance in repairs to home or car, and (d) help with other kinds of work around house such as cleaning and cooking. Similar procedures were also adopted for obtaining relevant data in the area of moral support to elderly parents. The answers to these questions were then summed up to create a scale of service provision with higher numbers indicating more frequent assistance. Besides this, factor analysis was also used to discover any new set/(s) of factors, which were required to evaluate the data with reduced dimensional space.

4.10.7 Filial Obligation Assessment

To assess the level of filial obligations would require two types of response: responses from child's perspective and responses from parent's perspective. Three steps are involved in the assessment or evaluation of filial obligation or responsibilities. The first step was the examination of the extent of various support provided by the respondents for their elderly. Differences and similarities in explanatory variables were then compared across the various independent variables. The second step was centered upon the effects of the adult child's configuration, namely: distance between residence, financial resources, filial obligation, social embeddedness and need for assistance. The third step was essentially focused on the interplay between filial obligation or responsibility and configuration, namely: distance, financial resources, social embeddedness, and needs for assistance. At this stage, application of the hierarchical regression analysis had further revealed key independent variables on adult child's support for parents.

In the research questionnaire, there were five items specifically designed to assess individuals' general knowledge of financial planning for retirement (Hershey and Moven, 2000; Moen *et al.,* 2000). A sample item was 'I am very knowledgeable about financial planning for retirement'. Some other items were designed to use a seven-point response format (Strongly Disagree = 1 to Strongly Agree = 7). To measure retirement saving tendencies had, however, involved the use of a five-item scale designed to evaluate individuals' retirement saving practices (Neukam and Hershey, 2003).

4.10.8 Psychological Factors' Interaction

In conducting analyses, attention was drawn to distributions in order to check for normality, abnormal skewness, and irregular kurtosis. Furthermore, part of the study's goal was to examine interactions between the psychological factors predictive of retirement saving, but great emphasis had been placed on the predictors (i.e., future time perspective, financial knowledge, and financial risk tolerance) before conducting the analyses. Note that centering predictors would help reduce the problems associated with multi-collinearity, which might occur when examining interactions between variables. The term 'multi-collinearity' refers to excessive correlation of the predictor variables, where researchers would use the rule of thumb of $r > .90$). Note also that when correlation is excessive, standard errors of the b and beta coefficients become large, thereby making it difficult or impossible to assess the relative importance of the predictor variables, while tolerance is $1 - R^2$ for the regression of that independent variable on all the other independents, ignoring the dependent. There would be as many tolerance coefficients as there are independents, and the higher the inter-correlation of the independents, the more the tolerance would approach zero. If tolerance is less than .20, as a rule of thumb, a problem with multi-collinearity is indicated. For this study, SPSS was used to check for multi-collinearity. When tolerance is close to 0 there is high multi-collinearity of that variable with other independents, the b and beta coefficients will be unstable. Therefore, the more the multi-collinearity, the lower the tolerance and the more will be the standard error of the regression coefficients.

4.10.9 Saving Tendencies

The study had also employed a hierarchical regression model using retirement saving score as the criterion measure. The saving variable was regressed on risk tolerance at combinations of high and low levels of time perspective and financial knowledge. These procedures had involved four separate computations by regressing:

(a) Saving on risk tolerance at high levels of time perspective and knowledge,
(b) Saving on risk tolerance at high time perspective and low knowledge,
(c) Saving on risk tolerance at low time perspective and high knowledge, and
(d) Saving on risk tolerance at low levels of time perspective and knowledge.

One of the study's goals was to examine the effects of the three psychological variables on retirement saving tendencies. These variables were normally investigated in isolation of one another or in combination with other variables such as age, gender, and household income. Notwithstanding this, the study had simultaneously investigated all the three psychological variables, as this approach would allow the relative influence of the three predictors to be established.

4.10.10 Use of Stepwise Regression Analysis

For Hypothesis 6, the stepwise regression analysis was used to build a model different from those that are used to predict the effects on the dependent variables by removing those which did not contribute to the regression equation. The following steps were set up to deal with questionnaires on financial education and related issues. They were designed to ask respondents whether they had previously attended any financial education workshops and, if

so, whether they had managed to improve their credit management and financial planning skills. They were also requested to state how many investment or financial planning seminars they had attended in the last 5 years. The questionnaires had also sought information on financial well being, financial behavior and attitudes, financial stress, and self-reported measures of workplace productivity. As the data or factors required were normally 'associated with' problems, it was thought that either quantitative or correlation surveys were the best choice to obtain the relevant data. This was so because response options were predetermined and data were measurable, while the measurement was objective and statistically valid.

4.10.11 Financial Wealth Measurement

The issue of personal financial wealth was subjected to, at least, 10 different measurements in 4 specific areas, namely: subjective perception, behavioural assessment, financial satisfaction and perceived financial well-being scales. Furthermore, correlation was also employed to examine the relationship between financial stressors and personal financial wealth as well as financial stress. For the purpose of controlling the influence of demographic characteristics and financial stressors, some of the significant demographic characteristics and financial stressors were also included in the regression equations. The alpha level was set at the 0.05 throughout the study and, consequently, discussions of the results were centred upon the findings, which were deemed statistically significant at or beyond this alpha level.

4.11 Summary

This chapter has discussed research design, documentary research, questionnaire design, methods of collecting data from Malaysian people as well as the problem, privacy and ethics associated with the present research. It has also discussed (a) pilot study procedures, data collection instrument and sampling recruitment strategies, (b) data coding, (c) use of dummy variables, and (d) measurement of variables for financial learning, filial piety and economic well-being. Also covered in this chapter are the following matters: scales of financial literacy, economic well-being, issues of filial piety from children's and parents' perspective, the position of parents with financial resources, issues of support exchange between children and parents, and parents' need for assistance. Invariably, the chapter has also described the methods of analysing data (via factor, hierarchical, ordinary and stepwise regression analysis). Finally, the chapter has also provided some explanations on hypothesis testing including discussions of CLT application, self-directed learning, financial satisfaction measurement, filial responsibility models, children's support domain, filial obligation assessment, psychological factor's interaction, saving tendencies with three predictors, and financial wealth measurement in four specific areas.