International Journal of Latest Research in Engineering and Technology (IJLRET)
ISSN: 2454-5031
www.ijlret.com || Volume 06 - Issue 07 || July 2020 || PP. 48-59

Retirement Planning: An Analysis of the Factors Influencing Thai People

Assoc. Prof. Dr. Varughese Kizhakkacharuvil John*
Program Director, Master of Science in Management
Graduate School of Advanced Technology Management
Assumption University of Thailand

Ms. Supreeya Namchaisawadwong**
Graduate in Master of Science in Management
Graduate School of Advanced Technology Management
Assumption University of Thailand

Abstract: The purpose of this study was to examine the relationship of Retirement Planning with Attitude towards retirement planning, financial literacy, and goal clarity among Thai citizens. Also, the impact of demographic profile was tested as a moderator. A sample set of 151 units was used in the study which were collected through random sampling from different centers of Bangkok during the period of Oct-Nov, 2019. A moderated regression model was developed for hypothesis testing and the same was tested by the process of Andrew F. Hayes moderated regression model and the model is found significant at less than 1 percent level since the F-value (5,145) is 46.17, where $p < 0.01$. The explanatory power of the model is 61.42 percent (R-sq=0.6142) and there is high degree of positive correlation (R = 0.78) between Retirement Planning (DV) and the independent variables. The effect of the moderator variable 'income' on 'attitude' increases as the income level raises and that has a significant influence on retirement planning. The moderated regression model of Retirement Planning has been proved to be valid and significant for Thai people who are in the age group of 22 to 55 years and having a sufficient regular income of THB 20,000 or more per month. It was also proved that there exists a higher level of financial literacy and goal clarity among the above class of Thai citizens. Therefore, the investment products like pension plans, retirement plans, mutual funds, annuities, insurance etc. that are offered by investment / insurance companies shall be attractive among the above class of people in Thailand.

Keywords: Attitude, Investment, Pension Plan, Retirement Plan, Thailand

1. Introduction

1.1 Background and Rationale

According to Mutran, Reitzes, and Fernandez (1997) there exists a positive relationship between retirement planning and positive attitudes towards retirement life for retirees in a study conducted among a set of older workers in the United States of America. Individuals who have got a higher level of financial literacy tend to have set financial goals for their future (Atkinson & Messy, 2011). It was proved that higher level of financial literacy among the young leads to a better financial planning for their retired life (Lusardi & Mitchell, 2007). There is a positive and significant effect of advanced level of financial literacy and thinking about retirement among the employees in Netherlands (Rooij, Lusardi, & Alessie, 2011). Stawski, Hershey, and Jacobs-Lawson (2007) indicated that retirement goal clarity is a significant predictor of planning practices, and planning, in turn to predict saving tendencies. According to Moorthy et al. (2012) goal clarity statistically influences the working individuals' retirement planning behavior. Demographic factors such as age, education, gender, and income are related to retirement planning (Lusardi & Mitchell, 2007; Lusardi, Mitchell, & Curto, 2010). The results obtained in the above mentioned studies is the rationale to conduct a probe into the factors influencing Thai people in retirement planning.

1.2 Statement of Problem

Thailand is an 'Aging Society' as per the definition of the United Nations (a population above10 percent but below 20 percent at 60 years of age or over) where 16.2 percent of the population in 2015 is at 60 years of age or above, and this is expected to increase to 20 percent (aged society) by the year 2021 (Poonsatiansup, 2019). This is a national problem causing decrease in productivity and increased dependence of old age people to the working class and the society in general. Moreover, the state welfare scheme may become undependable by the higher number of the old, less people of working age, less collected taxation, insufficient

budgeting and over burden and will face a real major challenging problem (Poonsatiansup, 2019). In these circumstances the retirement planning is highly important for the healthy life of the old people in Thailand. Based on the theoretical background and the previous studies in different countries on this problem, retirement planning is considered as a behavioral change happening within an individual during the period of his/her employment with adequate income for savings. The main factor responsible for this change is the attitude towards retirement planning and it would be supported by financial literacy, and goal clarity with respect to the life after retirement. The problem to be investigated is the degree and direction of these factors on retirement planning of Thai people, particularly the salaried class who are earning a regular income with sufficient provision for savings. In addition to that it could be probed that the demographic profile of a Thai individual has any effect on his/her behavior towards retirement planning.

1.3 Research Objectives

The general objective of the study is to examine the factors which are influencing Thai people in retirement planning. The specific objectives are -

a) To examine whether 'attitude toward retirement planning' is influencing Thai people in retirement planning.
b) To examine whether 'financial literacy' is influencing Thai people in retirement planning.
c) To examine whether 'clarity of goals' is influencing Thai people in retirement planning.
d) To examine which are the demographic factors influencing Thai people in retirement planning.

2. Literature Review

2.1 Attitude toward retirement planning

Attitude towards retirement planning is referred to as the positive or negative feeling of individuals in performing a behavior (Fishbein & Ajzen, 1975). According to Dauda, Tolos, and Ibrahim (2017) attitude is the concept which guides intention that ultimately resulted in behavioral performance. The relationship between attitude and retirement planning behavior is guided by the assumption of the reasoning action approach. It states that people's behavior follows reasonably from their beliefs, attitudes, and intentions (Ajzen & Fishbein, 2000). Thus, in this study, attitude towards retirement planning can be defined as positive or negative perceptions of individuals towards retirement planning. Many studies on this causal relationship rallied within this conceptual framework. In a meta-analysis of Topa, Moriano, Depolo, Alcover, and Morales (2009) found that positive attitude towards retirement is positively related to both Retirement planning and Retirement decision.

2.2 Financial literacy

Financial literacy is an individual's ability to obtain, understand and evaluate the relevant information necessary to make decisions with an awareness of the likely financial consequences (Mason & Wilson, 2000). Maobe (2017) cited, Klapper, Lusardi, and Panos (2012) studied about relationship between financial literacy and retirement planning. The results indicate that higher financial literacy levels are significantly related to greater savings and spending. Miller, Reichelstein, Salas, and Zia (2014) in a meta- analysis study posit that financial literacy can have a positive effect on the individuals' savings and proper financial recording. As cited in Dijk (2012) many existing surveys fail to collect sufficiently detailed information on the effectiveness of financial education and the consequences of financial literacy on households' financial decision making. Furthermore, most of the existing research focuses on specific groups which lead to incomplete measures not representative for the entire population. The earlier researches indicated that financial literacy is lacking among different segments of the population (Beal & Delpachitra, 2003; Chen & Volpe, 1998; Lusardi & Mitchell, 2007; Lusardi & Mitchell, 2009; Rooij et al., 2011). In Thailand Financial literacy among people is found low. The Bank of Thailand conducted a survey in 2016 on financial skills using the OECD framework, encompassing the three financial pillars of knowledge, behavior, and attitude. The study found that the financial skills among the Thai people are below the average score of OECD countries. Among the three surveyed areas the score is lowest in the case of financial knowledge, which was measured in terms of time value of money, compound interest, and inflation (Kertbundit, 2020)

2.3 Goal clarity

Clear and specific goals provide a framework to help establish future intent, and guide the enactment of purposeful behavior (Gollwitzer, 1993). Stawski et al. (2007) indicated that retirement goal clarity is a significant predictor of planning practices, and planning, in turn to predict savings tendencies. The psychological variables of clarity of goals for retirement, and foreseen obstacles found no direct association with retirement planning behavior, while the attitude towards retirement was found to have a significant and positive

association with retirement planning behavior (Montemayor-Mallari, 2019). Moorthy et al. (2012) found that in respect of retirement goal clarity, the result reflected that the respondents have the act of thinking about, discussing, or setting general retirement goal for the future. The respondents are most opposed to financially-oriented in setting retirement goals for future.

2.4 Retirement planning

Retirement planning focuses on the economic aspects of retirement planning: the social insurance program within a country, pension plans of the individual and personal savings of the individual (Allen, Melone, Rosenbloom, & VanDerhei, 1997). Due to the increase of defined contribution plans the financial aspect of retirement planning continues to be the dominant factor (Allen et al., 1997). And, due to this focus the definition of retirement planning shifts towards the definition of investment planning (Dennis, 2002). Lusardi and Mitchell (2007) showed that planners accumulate large wealth than non-planners through saving, investment, probability of selling house to finance retirement and others. It was confirmed that thinking about retirement is positively related to the amount of accumulated wealth by the respondents. Those people who are concerned about their retirement have not only thought about it but also put in place schemes to use in their old age. Even though the foundation of retirement planning is finance, Dennis (2002) indicates that retirement planning includes more than just investment planning but include more important aspects like career planning, relationships, health, and life after retirement. This is supported by Taylor-Carter, Cook, and Weinberg (1997) who indicate that besides financial planning, leisure planning is also an important aspect of retirement planning. Leisure planning refers to retirement goals after retirement. Ngamjan (2016) has made a detailed pilot study of the attitude of Thai people towards retirement planning and observed that only 33.3 percent in the sample data have planned for retirement and 60 percent said that they would be spending around 10,000 to 15,000 Baht per month after retirement and the source of fund reported that 35 percent from their own savings and 30 percent say from a combination of their own source and pension fund and children's contribution.

3. Methodology

3.1 Research Design

The geographical area under the study is 'Bangkok' province which is the capital city of Thailand. According to the Strategy and Evaluation Department's website the number of households in this area is 2.96 million and the average number of person per household is 1.92 in 2018 (Strategy and Evaluation Department Office, 2018). The average monthly expenditure in this province during this period is 34,127.44 baht per household (National Statistical Office, 2018). The computation of household monthly expenditure has excluded savings and capital formation in the above statistics. Hence, for the purpose of this study the average monthly income per individual is considered as above the normal expenditure of 17,774.71 baht per month, and, therefore, the income shall be stipulated as a minimum of 20,000 baht per person per month. Only individuals having a regular income are capable of making savings for retirement planning and so salaried Thai nationals are the target population of the study. The size of the target population is not evident from any published source, and hence assumed as an unknown population for the study. A sample survey method was used for data collection and a pre-validated questionnaire was used as the research instrument. The first part of the questionnaire consists of three screening questions regarding Nationality, Age, and Income to confirm that the respondent is Thai national between the age group of 22 to 55 years with a monthly income not less than 20,000 baht. The second part is to collect demographic information about the respondents' gender, age, education level, marital status, income level, experience in investment for retirement planning, with a view to examining if demographical factors influence respondents' attitude on retirement planning. The third part consists of multiple choice questions to measure the respondents' financial literacy' with respect to numerical ability, literacy on interest compounding, literacy on inflation, literacy on time-value of money, and literacy on money illusion (Rooij et al., 2011). The fourth part is an opinion survey which is rated in a 5-point scale with respect to the variables 'Attitude towards retirement planning', ' Goal clarity', and 'Retirement Planning' (Moorthy et al., 2012). The items of these three variables are pre-tested through a pilot survey of 31 sample units and the reliability scores (Cronbach's alpha) are 0.694, 0.779, and 0.705 respectively (Appendix A) and the scores are considered in the acceptable range. The size of the population under study is unknown and therefore an adequate sample size for multiple linear regression analysis was determined on Green's formula (Green, 1991). Accordingly, the number of independent variables used for regression analysis was 4 and the therefore the size of the sample should not be less than 108 ($N \geq 104 + m$, where m is the number of independent variables).

3.2 Conceptual Framework

The conceptual framework used in this study, as presented by Fig.1, indicates the model relation between the focal independent variable 'Attitude towards retirement planning' and the dependent variable

'Retirement Planning' where 'income level' acts a moderator variable. 'Financial literacy' and 'Goal clarity' are the two co-variables which are supposed to have an impact on Retirement planning. The thick arrow heading from 'Attitude' to 'Retirement Planning' is to represent that the former is the focal predictor variable which is moderated by 'Income', the moderating variable. The two co-variables are connected by thin arrow on the assumption that they have less predictive power than the focal variable. The framework is developed from several previous studies, and are specifically based on the studies of Dijk (2012); Moorthy et al. (2012) Mohidin, Abdul Jamal, Geetha, Lim, and Karim (2013) with some modification for a moderated multiple regression analysis.

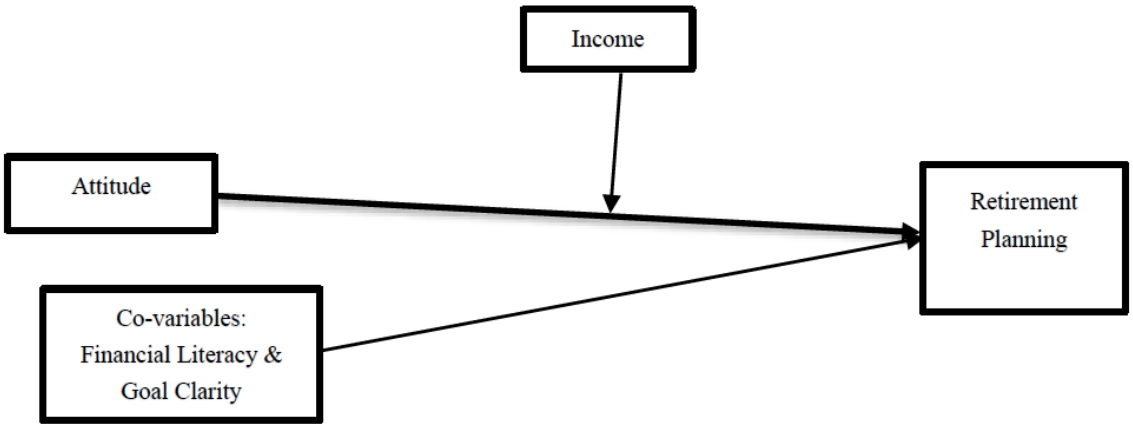

Fig. 1- Conceptual framework

3.3 Hypotheses

The relationship between attitude and retirement planning behavior is guided by the assumption of the theory of reasoned action approach. It states that people's behavior follows reasonably from their beliefs, attitudes, and intentions (Ajzen & Fishbein, 2000). Hence, the hypothesis;

H1: *Attitude towards retirement planning has significant influence on Retirement Planning*

Some of the demographic factors such as age, gender, education, and income are found to be related to retirement planning (Lusardi & Mitchell, 2007; Lusardi et al., 2010). Among these, income is proved to have a stronger relationship than the other demographic factors with retirement planning, and hence, the hypothesis;

H2: *Income of the individual has significant influence on Retirement Planning*

It is assumed that retirement planning is directly and indirectly influenced by the income of the individual, because income being directly related to savings. Therefore the attitude towards retirement planning has a direct and indirect influence on retirement planning and, hence, the hypothesis;

H3: *The interaction of Attitude towards retirement planning by Income has significant influence on Retirement Planning*

It was proved in several studies that individuals with higher financial literacy have more ability for savings and to plan effectively for meeting future needs at the time financial emergency (Klapper et al., 2012; Miller et al., 2014). Hence, the hypothesis;

H4: *Financial Literacy of the individual has significant influence on Retirement Planning.*

The findings of Stawski et al. (2007) proved that retirement goal clarity has a significant influence on planning for retirement, and, hence, the hypothesis;

H5: *Goal clarity towards retired life has significant influence on Retirement planning.*

4. Data Collection, Analysis, and Findings

4.1 Data collection

Thai nationals with a regular salaried income of 20,000 baht per month in the age group 22 to 55 years is defined as the target population of the study. The questionnaire was distributed to the target population in different parts of Bangkok (in companies and banks), randomly selected, during the months of Oct-Nov 2019 where the economic indices are normal in Thailand when compared to the previous months of the same financial year. Out of the distributed questionnaires 70 percent were returned with completed responses and few more questionnaires were distributed to get an almost equal representation of the 3 age groups in the study. Finally, 159 sample units were found with completed answers and they were subjected to editing for finding consistency in answering, and unengaged responses, and in this process 8 cases were further removed and a final data set of 151 cases were found valid and genuine for analysis.

4.2 Descriptive analysis - Demographic Profile

The demographic profile (Table 1) of the sample set indicates that 52 percent is female and 48 percent is male; the 3 sub-groups in the age group are almost equally distributed with 48 percent youngsters (22-32), 52 percent lower middle-aged (33-42), and 51 percent upper middle aged (43-55), due to the purposive sampling method used for the survey. Educational level of the respondents are either Bachelor degree (64%) or above Bachelor degree (36%). The marital status is classified into two – single/divorced/separated (52%) and married/living together (48%) and 72 percent of the respondents has no children. The monthly income of the respondents is classified into 5 groups – 32 percent are in the Lower middle income group (20,000 – 40,000 baht), 24 percent are in the super rich group (above 100,000 baht), 18 percent in the upper middle income group (40,001-60,000 baht), 17 percent in the high income group (60,001-80,000 baht), and 9 percent in the upper high income group (80,001-100,000 baht). The demographic profile suggests that the respondents in the sample set is a cross section of the middle and upper class Thai nationals of Bangkok.

Table 1- Frequency Distribution of Demographic Profile

Profile	**Profile class**	**N**	**Percent**
1.Gender	Male	73	48.3
	Female	78	51.7
	Total	**151**	**100.0**
2. Age	Youngsters (22-32)	48	31.8
	Lower middle-aged (33-42)	52	34.4
	Upper middle-aged (43-55)	51	33.8
	Total	**151**	**100.0**
3. Education	Bachelor degree	97	64.2
	Above Bachelor degree	54	35.8
	Total	**151**	**100.0**
4. Marital status	Single /Divorce /Separate	79	52.3
	Married /Living together	72	47.7
	Total	**151**	**100.0**
5. Children	No Child	109	72.2
	Have one or more	42	27.8
	Total	**151**	**100.0**
6. Monthly Income (THB)	Lower middle-income(20,000-40,000)	49	32.4
	Upper middle-income (40,001-60,000)	27	17.9
	High income (60,001-80,000)	25	16.6
	Upper high-income (80,001-100,000)	14	9.3
	Super Rich (Above 100,000)	36	23.8
	Total	**151**	100.0

4.3 Investment Analysis and Findings

The respondents are asked to indicate what type of investment plans they have from different options given, such as- Pension Fund, Mutual Fund, Retirement Mutual Fund, Provident Fund, Life Insurance, Annuity etc. The data reveals that 29 percent of respondents are holding three types of investment. 23 percent have two types, 22 percent have only one type, 17 percent have four types, and 9 percent are holding 5 to 6 types of

investment. The amount of investment per month was also asked to indicate and a comparison of mean monthly investment with five different levels of income groups is given in Table 2.

Table 2- Comparing Means: Income per month v. Monthly Investment

Income/month (THB)	**n**	**Mean Monthly Investment (THB)**	**sd**	**S.Er of Mean**
Lower Middle Income (20000-40000)	49	4,367	5,117	731
Upper Middle Income (40001-60000)	27	9,167	5,795	1,115
High Income (60001-80000)	25	14,080	11,725	2,345
Upper High Income (80001-100,000)	14	28,679	18,335	4,900
Super Rich (> 100,000)	36	26,931	16,784	2,797
Total	151	14,467	15,020	1,222

It is evident from Table 2 that as the income level increases the amount of investment increases as well, but it reaches to a peak point at the upper high income group, and shows a decline in the super rich group. Roughly, the percentage of savings/investment on monthly income is 15 percent, 18 percent, 20 percent, and 32 percent for lower middle-income, upper middle-income, high income, and upper high-income groups respectively, whereas, it is only 24 percent in the case of super-rich group.

4.4 Descriptive analysis- Attitude towards Retirement Planning

The attitude towards retirement planning, the main independent variable under study, is measured by four items of which the third and fourth items are negatively worded and the respective scores were reversed for data analysis (Refer Appendix A). The items are averaged to get the value of the variable and scaled in a 5-point scale with a class interval of 0.80 ranging from 'very low' to 'very high' (Table 3). The frequency distribution indicates that 62.9 percent of the respondents have above moderate level of attitude and 27.8 percent have a moderate level of attitude towards retirement planning. The mean score is 3.67 (Table 4) which shows that there is a high level of positive attitude for the respondents towards their retirement planning.

Table 3: Frequency Distribution of Variables

Variable	**Scale (Score)**	**n**	**Percent**
1. Attitude (IV)	Very Low (1.00-1.80)	3	2.0
	Low (1.81-2.60)	11	7.3
	Moderate (2.61-3.40)	42	27.8
	High (3.41-4.20)	50	33.1
	Very High (4.21-5.00)	45	29.8
	Total	**151**	**100.0**
2. Goal Clarity (IV)	Very Low (1.00-1.80)	8	5.3
	Low (1.81-2.60)	9	6.0
	Moderate (2.61-3.40)	27	17.9
	High (3.41-4.20)	50	33.1
	Very High (4.21-5.00)	57	37.7
	Total	**151**	**100.0**
3. Financial Literacy (IV)	Very Poor (0.00-0.20)	11	7.3
	Poor (0.21-0.40)	10	6.6
	Average (0.41-0.60)	26	17.2
	Good (061-0.80)	31	20.5
	Excellent (0.81-1.00)	73	48.4
	Total	**151**	**100.0**
4. Retirement Planning (DV)	Very Low (1.00-1.80)	4	2.6
	Low (1.81-2.60)	12	7.9
	Moderate (2.61-3.40)	42	27.8

	High (3.41-4.20)	62	41.2
	Very High (4.21-5.00)	31	20.5
	Total	**151**	**100.0**

Table 4: Descriptive Statistics – Variables

Variables	**N**	**Mean**	**S.Er.of Mean**	**SD**	**Skewness**	**S.Er.of Skew**
Attitude	151	3.67	0.060	0.74	(0.49)	0.197
Goal Clarity	151	3.88	0.073	0.90	(1.09)	0.197
Financial Literacy	151	0.78	0.022	0.27	(1.24)	0.197
Retirement Planning	151	3.67	0.062	0.75	(0.44)	0.197

4.5 Descriptive analysis - Financial Literacy

The financial literacy of the respondents were measured by 5 indicators, viz., Numeracy, Interest compounding, Inflation, Time value of money, and Money illusion which are adapted from the previous studies of Rooij et al. (2011) and Dijk (2012). There were multiple choice questions for each of the above item with one correct answer and four wrong answers. The descriptive statistics (Table 5) shows that the highest percentage of right answer is there in the case of Numeracy (93%) and lowest percentage for Time value of money (62%). The total score is averaged and scaled in a 5-point scale of 0 to 1 with an interval of 0.20 at an incremental scale ranging from 'very poor' to 'excellent' (Table 4), computation reveals a mean value of 0.78 (Table 5) indicating that the financial literacy is in the range of 'very good'. Moreover, 68.9 percent (Table 4) of the respondents are above average in financial knowledge and computation.

Table 5: Descriptive Statistics - Items of Financial Literacy (n=151)

Items	**Right answer**	**Wrong answer**	**Percent of Right answer**	**Mean**	S.Er.of Mean	**SD**
1.Numeracy	140	11	92.7	0.93	0.021	0.261
2.Interest compounding	129	22	85.4	0.85	0.029	0.354
3.Inflation	129	22	85.4	0.85	0.029	0.354
4.Time value of money	93	58	61.6	0.62	0.040	0.488
5.Money illusion	101	50	66.9	0.67	0.038	0.472

4.6 Descriptive analysis - Goal Clarity

The goal clarity regarding retirement planning, a co-variable under the study, is measured by five items and all of them are positively worded (Refer Appendix A). The items are averaged to get the value of the variable and scaled in a 5-point scale with a class interval of 0.80 ranging from 'very low' to 'very high' (Table 4). The frequency distribution indicates that 70.8 percent of the respondents have above moderate level of goal clarity and 17.9 percent have a moderate level of goal clarity with respect to retirement planning. The mean score is 3.88 (Table 5) which shows that there is a high level of goal clarity for the respondents towards their retirement planning.

4.7 Descriptive analysis - Retirement Planning

The retirement planning is the dependent variable under study and it is measured by five items of which the fourth and fifth items are negatively worded and the respective scores were reversed for data analysis (Refer Appendix A). The items are averaged to get the value of the variable and scaled in a 5-point scale with a class interval of 0.80 ranging from 'very low' to 'very high' (Table 4). The frequency distribution indicates that 61.7 percent of the respondents have above moderate level and 27.8 percent have a moderate level of a retirement planning. The mean score is 3.67 (Table 5) which points to a high level of positive behavior for retirement planning.

4.8 Moderated Multiple Regression Analysis and Findings

The basic assumption of normality of the independent variables were tested to run the multiple regression analysis. The normality test is conducted by calculating the z-values of skewness and kurtosis

(Appendix B) and it is found that all the z-values lies in between -1.96 and +1.96 and therefore it is presumed that all the independent variables are normally distributed as against the dependent variable 'retirement planning'.

Table 6: Regression Results (Process written by Andrew F. Hayes- Model No.1)

n = 151 R = 0.7837
F (5,145) = 46.1652 R-sq = 0.6142
p = 0.000 MSE = 0.2270

Retirement Planning (DV)	**Coeff.**	**S.Er.**	**t-value**	**p-value**	**LLCI**	ULCI
Constant	1.45	0.247	5.99	0.000	0.970	1.926
Attitude (IV)	0.28	0.062	4.60	0.000	0.162	0.406
Income (MV)	0.00	0.026	0.08	0.937	(0.494)	0.054
Interaction (Att x Inc)	0.07	0.037	1.98	0.049	0.000	0.147
Financial Literacy (CV)	0.33	0.149	2.24	0.027	0.039	0.630
Goal Clarity (CV)	0.50	0.052	9.69	0.000	0.399	0.604

The moderated regression analysis in the process of Hayes Model No.1 was employed to find out the influence of independent variables on the dependent variable and the results are given in Table 6. 'Attitude towards retirement planning' is the focal independent variable and income level of the individual is used as moderator on attitude on the proposition that as the income level increases the person's attitude towards retirement planning raises. The other independent variables are 'Financial literacy' and 'Goal clarity' which are tested as co-variables directly influencing the dependent variable of the model. The model is proved as significant at less than 1 percent level since the F-value (5,145) is 46.17, $p < 0.01$. The explanatory power of the model is 61.42 percent (R-sq=0.6142) and there is high degree of positive correlation (R = 0.78) between Retirement Planning (DV) and the independent variables. All the coefficients of the independent variables are positive except that of Income and it is not significant at 0.05 level. The predictor variable 'Attitude towards retirement planning' has a significant direct influence on the predicted variable 'Retirement planning' (b-value = 0.28, p=0.000), and hence, the alternative hypothesis (H1) is accepted at less than 1 percent level for the target population. The moderating variable 'Income level' of the individuals has no significant direct influence on the predicted variable 'Retirement planning' (b-value=0.00, p=0.937), and hence, the alternative hypothesis (H2) is rejected at 5 percent level. The interactive effect of Attitude by Income has a significant influence on the predicted variable Retirement planning (b-value=0.07, p=0.0494), and hence, the alternative hypothesis (H3) is accepted at 5 percent level for the target population. The co-variable 'Financial literacy' has a significant influence on the predicted variable 'Retirement planning' (b-value=0.33, p=0.027), and hence, the alternative hypothesis (H4) is accepted at less than 5 percent level for the target population. The co-variable 'Goal clarity' has a significant influence on the predicted variable 'Retirement planning' (b-value=0.50, p=0.000), and hence, the alternative hypothesis (H5) is accepted at less than 1 percent level for the target population.

Since the interaction term in the model is significant it is important to probe into the nature of the moderated relationship between Attitude (IV) and Retirement planning (DV) through the moderator variable Income. This is graphically represented in Fig.2. At -1 SD (i.e., at -1.57) on the centered income (representing low income) the relationship between Attitude and Retirement planning is positive and significant and the effect is 0.1685 (p=0.049, se=0.085). Similarly at the mean (i.e., at 0) on the centered moderator variable (representing medium income) the relationship is positive and significant and the effect is 0.2839 (p=0.000, se=0.062). Finally at +1 SD (i.e., at +1.57) on the centered income (representing high income) the relationship is positive and significant and the effect is 0.3993 (p=0.000, se=0.085). Thus the effect of income on attitude increases as the income level raises and that has a significant influence on retirement planning.

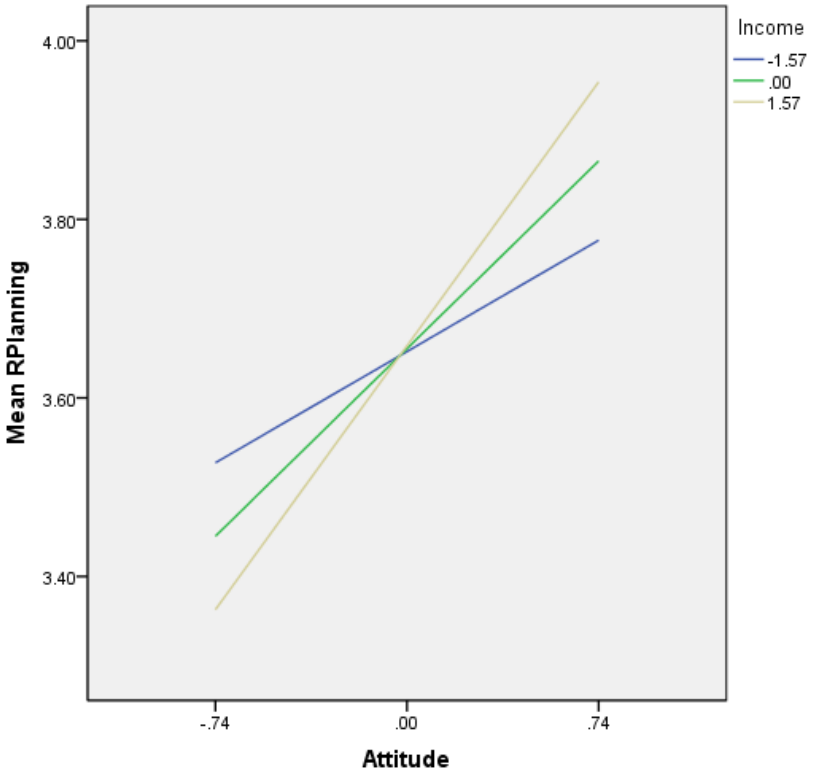

Fig. 2: Graph- Mean Retirement Planning by Attitude by Income

5. Discussion

The study was initiated with four clear set objectives with respective hypothesis, and they are probed by collecting data in a systematic manner which were analyzed by descriptive and inferential methods and the moderated regression model is proved to be statistically significant to establish the relationship between 'Retirement planning' (DV) and the predictor variables, Attitude, Income, Financial literacy, and Goal clarity among Thai people. There exists a significant positive relationship between attitude towards retirement planning and retirement planning among Thai people as it was proved in several previous studies conducted at different places in various data samples (Dauda et al., 2017; Mutran et al., 1997; Topa et al., 2009). A high level of positive attitude towards retirement planning (mean score 3.67) among Thai people has an effect of 0.28 unit increase in Retirement planning for every one unit increase in Attitude when other things remain the same. Thus, the first objective of the study is tested and confirmed through the hypothesis (H1). Among the various demographic factors such as gender, age, education, income, marital status, and children, the only factor having an influence on Retirement planning is the level of income (the others are rule out on the trial run) when it is moderated by attitude towards retirement planning. The direct impact of income on Retirement planning is not significant and hence H2 is rejected. The interaction effect of income by attitude is significant and a unit increase in interaction causes 0.07 increase in Retirement planning, when other things remain the same, and the effect of income on attitude is at an incremental scale from low income (0.1685) to high income level (0.3993) . These findings are in par with the finding of some other previous studies but at the same time against the findings of some other studies (Maobe, 2017; Mohidin et al., 2013; Moorthy et al., 2012). Thus, the fourth objective of the study is tested and statistically proved as significant by the third hypothesis (H3). Financial literacy has significant direct influence on retirement planning among Thai salaried class and their level knowledge and computation skill is 'very good' (mean score 0.78) and for every one unit increase in financial literacy has a corresponding 0.33 unit increase in retirement planning when other things remain the same. These findings support the findings of some other previous studies (Dijk, 2012; Maobe, 2017; Visyalini, 2018) as against the negative findings of some other studies (Aluodi, Njuguna, & Omboi, 2017; Kertbundit, 2020). Thus, the second objective of the study that financial literacy influences on retirement planning is proved statistically significant by the fourth hypothesis (H4) as far as Thai educated employees are concerned. Goal clarity of the individual is proved as highly influencing the retirement planning with a mean score of 3.88 (high level) and every one unit increase in goal clarity has a corresponding 0.5 unit increase in retirement planning when other things remain the same, supporting the findings in previous studies (Montemayor-Mallari, 2019; Moorthy et al.,

2012; Stawski et al., 2007). Thus, the third objective of the study that retirement planning is influenced by goal clarity of Thai people is proved as statistically significant through the fifth hypothesis (H5).

To sum up, the moderated regression model of Retirement Planning, where the focal predictor variable 'attitude' moderated by 'income' and with co-variables 'financial literacy' and 'goal clarity', has been proved to be valid and significant for Thai people who are in the age group of 22 to 55 years and having a sufficient regular income of THB 20,000 or more per month. Therefore, the investment products like pension plans, retirement plans, mutual funds, annuities, insurance etc. that are offered by investment / insurance companies shall be attractive among the above class of people in Thailand.

6. Limitations

The study is limited by a sample size from Bangkok, and did not cover other provinces in Thailand and hence a bigger sample size comprising different regions of Thailand would be more convincing and comprehensive for prediction for the whole Kingdom of Thailand. The demographic factors other than income level is not found effective for the current data set, however the other factors like gender, education, age, etc. can be tested in a different sample study.

7. Recommendations

The investment and insurance companies operating in Thailand can develop special products of pension plans or retirement plans for Thai citizen having regular monthly income of THB 20,000 or more. The policy makers can encourage the saving and investment habit of this group of individuals by formulating suitable attractive plans which are targeted for enhancing saving and investment culture in the country.

References:

[1]. Ajzen, I., & Fishbein, M. (2000). Attitudes and the Attitude-Behavior Relation: Reasoned and Automatic Processes. *European Review of Social Psychology - EUR REV SOC PSYCHOL, 11*, 1-33. doi:10.1080/14792779943000116

[2]. Allen, E., Jr. , Melone, J. J., Rosenbloom, J. S., & VanDerhei, J. L. (1997). *Pension planning: Pension, profit-sharing and other deferred compensation plans (8th ed.)*. New York: Irwin/McGraww-Hill.

[3]. Aluodi, E., Njuguna, A., & Omboi, B. (2017). Effect of Financial Literacy on Retirement Preparedness among Employees in the Insurance Sector in Kenya. *International Journal of Business and Management, 12*, 242. doi:10.5539/ijbm.v12n10p242

[4]. Atkinson, A., & Messy, F.-A. (2011). Assessing financial literacy in 12 countries: an OECD/INFE international pilot exercise. *Journal of Pension Economics and Finance, 10*(4), 657-665. doi:10.1017/S1474747211000539

[5]. Beal, D. J., & Delpachitra, S. B. (2003). Financial Literacy Among Australian University Students. *Economic Papers: A journal of applied economics and policy,, 22*(1), 65-78. doi:10.1111/j.1759-3441.2003.tb00337

[6]. Chen, H., & Volpe, R. P. (1998). An Analysis of Personal Financial Literacy Among College Students. *Financial Services Review, 7*(2), 107-128. doi:10.1.1.392.4650

[7]. Dauda, S., Tolos, H., & Ibrahim, Y. (2017). The Direct Predictors of Retirement Planning Behavior: A Study of Nigerian Workers. *IOSR Journal of Business and Management, 19*(12), 41-49. doi:10.9790/487X-1912064149

[8]. Dennis, H. (2002). The retirement planning specialty. *Generations (San Francisco, Calif.), 26*, 55-60.

[9]. Dijk, N. v. (2012). *The effect of financial literacy on retirement planning among Dutch students.* (Master), University of Amsterdam, Netherlands.

[10]. Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behaviour: An introduction to theory and research* (Vol. 27). United States of America: Addison-Wesley.

[11]. Gollwitzer, P. M. (1993). Goal Achievement: The Role of Intentions. *European Review of Social Psychology, 4*(1), 141-185. doi:10.1080/14792779343000059

[12]. Green, S. B. (1991). How many subjects does it take to do a regression analysis? *Multivariate Behavioral Research, 26*(3), 499-510. doi:10.1207/s15327906mbr2603_7

[13]. Kertbundit, B. (2020, Feb 18, 2020). Financial Illiteracy a big problem. *Bangkok Post*, p. 8.

[14]. Klapper, L. F., Lusardi, A., & Panos, G. A. (2012). Financial Literacy and the Financial Crisis. Retrieved from https://ssrn.com/abstract=2038765 doi:10.2139/ssrn.2038765

[15]. Lusardi, A., & Mitchell, O. (2007). *Financial Literacy and Retirement Planning: New Evidence from the Rand American Life Panel*. Retrieved from University of Michigan: https://ideas.repec.org/p/mrr/papers/wp157.html

[16]. Lusardi, A., & Mitchell, O. S. (2009). *How Ordinary Consumers Make Complex Economic Decisions: Financial Literacy and Retirement Readiness* United States of America.
[17]. Lusardi, A., Mitchell, O. S., & Curto, V. (2010). *Financial Literacy among the Young: Evidence and Implications for Consumer Policy*. Retrieved from
[18]. Maobe, A. (2017). Financial Literacy And Retirement Planning In Kenya. *Researchjournali's Journal of Finance, 5*(4), 1-24.
[19]. Mason, C. L., & Wilson, R. M. (2000). *Conceptualising Financial Literacy*: Loughborough Univ. Business School.
[20]. Miller, M., Reichelstein, J., Salas, C., & Zia, B. (2014). *Can you help someone become financially capable ? a meta-analysis of the literature (English)* (WPS 6745). Retrieved from Washington, DC: http://documents.worldbank.org/curated/en/297931468327387954/Can-you-help-someone-become-financially-capable-a-meta-analysis-of-the-literature
[21]. Mohidin, R., Abdul Jamal, A. A., Geetha, C., Lim, T. S., & Karim, M. (2013). Revisiting the Relationship Between Attitudes and Retirement Planning Behavior: A Study on Personal Financial Planning. *International Journal of Multidisciplinary Thought, Vol. 3*, 449-461.
[22]. Montemayor-Mallari, O. (2019). Interactions of Retirement Planning Behaviors, Personal and Psychological Indices of College Faculty Members. *Institutional Multidisciplinary Research and Development Journal, 2*, 178-183.
[23]. Moorthy, M. K., Chelliah, T. D. a. l., Sien, C. S., Leong, L. C., Kai, N. Z., Rhu, W. C., & Teng, W. Y. (2012). A Study on the Retirement Planning Behaviour of Working Individuals in Malaysia. *International Journal of Academic Research in Economics and Management Sciences, 1*(2), 54-72.
[24]. Mutran, E. J., Reitzes, D. C., & Fernandez, M. E. (1997). Factors that influence attitudes toward retirement. *Research on Aging, 19*(3), 251-273. doi:10.1177/0164027597193001
[25]. National Statistical Office. (2018). The Household Socio-Economic Survey. Retrieved from http://statbbi.nso.go.th/staticreport/page/sector/en/08.aspx
[26]. Ngamjan, P. (2016). Financial Literacy and Financial Behaviour in Thailand: A Pilot Test. *Kasetsart Applied Business Journal, 10*(13), 40-64.
[27]. Poonsatiansup, N. (2019). 'Poor when Old' is the major concern for Thailand (Stories and Tips) (Publication no. https://www.scb.co.th/en/personal-banking/stories/poor-when-get-old.html). from Siam Commercial Bank https://www.scb.co.th/en/personal-banking/stories/poor-when-get-old.html
[28]. Rooij, M. v., Lusardi, A., & Alessie, R. (2011). Financial literacy and retirement planning in the Netherlands. *Journal of Economic Psychology, 32*(4), 593-608. doi:10.1016/j.joep.2011.02.004
[29]. Stawski, R. S., Hershey, D. A., & Jacobs-Lawson, J. M. (2007). Goal Clarity and Financial Planning Activities as Determinants of Retirement Savings Contributions. *The International Journal of Aging and Human Development, 64*(1), 13-32. doi:10.2190/13GK-5H72-H324-16P2
[30]. Strategy and Evaluation Department Office. (2018). Population and Housing Statistics. Retrieved from http://www.bangkokgis.com/gis_information/population/#2561
[31]. Taylor-Carter, M. A., Cook, K., & Weinberg, C. (1997). Planning and Expectations of the Retirement Experience. *Educational Gerontology, 23*(3), 273-288. doi:10.1080/0360127970230306
[32]. Topa, G., Moriano, J. A., Depolo, M., Alcover, C.-M., & Morales, J. F. (2009). Antecedents and consequences of retirement planning and decision-making: A meta-analysis and model. *Journal of Vocational Behavior, 75*(1), 38-55. doi:10.1016/j.jvb.2009.03.002
[33]. Visyalini, S. (2018). *Financial literacy education and retirement planning of the urban elderly in Malaysia.* (Master), University of Malaya, Kuala Lumpur, Malaysia.

Appendix:

Appendix A- Reliability Analysis (n =31)

Variable	Items	Cronbach's Alpha
Attitude (IV)	1. Retirement enables me to pursue my unfulfilled dreams 2. I look forward to retirement plan 3. I am worried about my life after retirement (R) 4. Retirement makes me feel useless (R)	0.694
Goal Clarity (IV)	1. I set specific goals for how much will need to save for retirement 2. I think a great deal about quality for life in retirement	0.779

	3. I have clear vision of how life will be in retirement 4. I set clear goals for gaining information about retirement 5. I discussed retirement plans with spouse, friend, or significant other	
Retirement Planning (DV)	1. I bothered about the state of my financial preparation for my retirement 2. I am confident that I will have a decent standard of living in my retirement. 3. At present, I rate my financial preparation for retirement is good. 4. I expect my standard of living in retirement will decrease (R) 5. I am not confident that I could work out what my expected income and expenditure would be in retirement (R)	0.705

Appendix B: Normality Test (z-value between -1.96 and +1.96)

Retirement Planning (DV)	**Groups**	**Skewness**	**SE of Skew**	**z-value**	**Kurtosis**	**SE of Kurtosis**	**z-value**
Income/mth in THB (IV)	Lower middle-income (20K-40K)	(0.38)	0.34	(1.13)	(0.42)	0.67	(0.63)
	Upper middle-income (40001-60K)	(0.31)	0.45	(0.70)	(0.45)	0.87	(0.52)
	High income (60001-80K)	(0.84)	0.46	(1.82)	0.71	0.90	0.79
	Upper high-income (80001-100K)	0.61	0.60	1.02	(1.22)	1.15	(1.06)
	Super rich (above 100K)	(0.34)	0.39	(0.86)	(0.67)	0.77	(0.87)
Attitude (IV)	Very Low	(1.73)	1.22	(1.41)	-	-	-
	Low	(0.51)	0.66	(0.77)	(1.10)	1.28	(0.86)
	Moderate	0.09	0.37	0.25	(0.52)	0.72	(0.73)
	High	0.10	0.34	0.29	(0.65)	0.66	(0.98)
	Very High	(0.32)	0.35	(0.92)	(0.52)	0.69	(0.74)
Financial Literacy (IV)	Very Poor	(0.48)	0.66	(0.73)	0.34	1.28	0.27
	Poor	(0.57)	0.69	(0.83)	0.18	1.33	0.14
	Average	0.13	0.46	0.30	(0.26)	0.89	(0.29)
	Good	(0.62)	0.42	(1.48)	0.30	0.82	0.36
	Excellent	(0.51)	0.28	(1.82)	(0.22)	0.56	(0.40)
Goal Clarity (IV)	Very Low	(0.00)	0.75	(0.00)	(2.80)	1.48	(1.89)
	Low	1.22	0.72	1.71	(0.34)	1.40	(0.24)
	Moderate	0.69	0.45	1.54	0.48	0.87	0.55
	High	0.01	0.34	0.04	(0.55)	0.66	(0.83)
	Very High	(0.37)	0.32	(1.18)	(0.61)	0.62	(0.97)