Influential Factors of Retirement Planning On Malaysian Youth

Tan Kock Lim[1], Kuek Thiam Yong[2] , Chiang Tit Yean [3], Tan Hong Hooi[4,] , Loo Teck Khun[5]

UOW Malaysia KDU Penang University College, Malaysia[1] (kocklim.tan@kdupg.edu.my)
Faculty of Business and Finance, Universiti Tunku Abdul Rahman[2] (kuekty@utar.edu.my)
UOW Malaysia KDU Penang University College, Malaysia[3] (tityean.chiang@kdupg.edu.my)
UOW Malaysia KDU Penang University College, Malaysia[4] (honghooi.tan@kdupg.edu.my
UOW Malaysia KDU Penang University College, Malaysia[5] (teckkhun.loo@kdupg.edu.my)

ABSTRACT

With an increase in human life expectancy due to better living standards, retirement planning is increasingly important. Good retirement planning means a better life security when one gets old. Retirement planning is also best to practice from young. The current research view to understand the factors that might influence retirement planning among Malaysian youths. There are 120 respondents aged ranging between 18 to 23 were surveyed through self-administered questionnaires using G-Power analysis. The results showed that saving attitude has positively and significantly influenced retirement planning among Malaysian youths.

Keywords: Retirement planning, financial literacy, risk attitude, saving attitude, family education.

1.0 INTRODUCTION

According to the Minimum Retirement Age Act 2012, with effect from 1 July 2013, the minimum retirement age of an employee will be 60. This lengthen the time for one to plan and save for their retirement. However the increase in life expectancy has increased the difficulty for Malaysians to save enough money for their retirement (Hadi, 2019). So, the influential factors like financial literacy, risk aversion, family education and saving attitude have been conducted in this paper to investigate whether they can have any contribution to the retirement planning behaviour.

Financial Literacy is the extent to how people know and effectively use their knowledge in financial or learning skills in managing their monetary issue. It is the foundation of relationship between money and lifelong learning journey. A person with good financial literacy, more or less, will own the other 2 influential factors which are risk aversion and saving attitude (Fernando, 2021). Risk aversion, financially and economically, means behaviour that tend to seek low uncertainty rather than high uncertainty to any outcome (Chen, 2020). While saving attitude can be explained as the understanding of how someone save money in order to realize the country's economic condition (UKEssays, 2018).

As we know very well family education might seem to be a crucial indicator because there are so many examples where a person's success more and less relate to their family education (Durisic & Bunijevac, 2017). With this saying, a good education since young may likely to affect a youth's behaviour towards retirement planning.

2.0 Problem Statement

According to a statistic from Abridged Life Tables of Malaysia, it shows that the life expectancy at birth has been slightly rising since 2014, for both male and female (Department of Statistic Malaysia, 2020). The statistic shows that as of 2020, a newborn female is expected to live longer up to 77.6 years old while a newborn male is expected to live longer up to 72.6 years, both increased 0.6 and 0.2 years relatively since 2014. On average, Malaysian's life expectancy at birth has increased from 74.5 to 74.9 years. In line with the increasing life expectancy, citizen retirement saving should actually be parallel to ensure that those who reach the age of retirement, can have adequate fund to enjoy their happy retirement days. However, in reality it is far from the truth.

According to Hadi (2019), statistics from Credit Counselling and Debt Management Agency (AKPK), there are more than 50% of Malaysian citizens who may not be financially ready for their 60's retirement. AKPK has conducted a study on a thousand of Malaysians aged between 18 to 55. Even though most of the respondents were able to save some portion of their salary as savings, but 20percents of them were saving lesser than 1 out of 10 of their monthly income and among the 14million members of Employees Provident Fund (EPF), only half of the members are actively contributing the income.

Based on New Straits Times report on 16.11.2021, some 6.1 million Employees Provident Fund (EPF) contributors are now left with savings of less than RM10,000, according to Finance Minister Tengku Datuk Seri Zafrul Tengku Abdul Aziz. Of this figure, some 3.6 million have less than RM1,000 in their savings. Tengku Zafrul said this was based on assessments as of Sept 30, 2021following a total RM101 billion in withdrawals through the i-Lestari, i-Sinar and i-Citra schemes. He said the depletion of savings among EPF Bumiputera members was even more alarming, as some 4.4 million of them or 54 per cent now have less than RM10,000 and two million or 25 per cent of them have less than RM1,000 in their EPF accounts. Meanwhile, of the 1.62 million active EPF members aged between 45 and 59 as of Sept 30, it was found that 479,000 of them or 29.6 per cent have savings not exceeding RM50,000.

In conclusion, the non-parallel movement direction of life expectancy and the capabilities of citizens' retirement requirement has become a crucial issue, hence the influential factors of the retirement planning behaviour are worth to be acknowledged to assist the youth in their retirement planning.

3.0 Research Objectives

As per the problem statement, the research objectives of this study are:

i. To examine the relationship between financial literacy & retirement planning behaviour among Malaysian youth.
ii. To examine the relationship between risk aversion & retirement planning behaviour among Malaysian youth.
iii. To examine the relationship between saving attitude & retirement planning behaviour among Malaysian youth.
iv. To examine the relationship between family education & retirement planning behaviour among Malaysian youth .

4.0 Literature Review

Retirement Planning

In the career life cycle, retirement is the last phase in career development for all working people either in public sectors or private sectors. It is defined as "an event, a formal departure from paid work that occurs on a given day, a status with new rules to learn and a process that begins the day an employee acknowledges that the worker role will end". According to Mahdzan, Mohd-Any & Chan (2017), to obtain the findings of respondents' retirement planning, they had conducted a simple binary scale modified by asking respondent whether the planning for retirement has been started or not (yes = 1, no = 0). Few researchers used the investment in financial institutions such as Amanah Saham Berhad ASB) , Pensioners, Unit Trust and Employee Provident Fund (EPF) as the element (Haron, et al., (2019). The elements chosen to indicate retirement planning in this research will refer to various questions conducted by Kimiyaghalam, Safari, Mansori & Yap (2017) and the respondents' approaches to retirement planning like whether they have started to do their retirement plan.

Financial Literacy

According to Mohamad F. S. & Teo. T.J (2014), financial literacy is a key factor that may affect someone to make effective financial decision. It is one's understanding towards financial concepts and risks, and how they apply the knowledge confidently to make effective financial decisions in terms of improving financial matters and being able to participate in economic life. Tan & Singaravelloo, 2019) acknowledged high level of financial literacy is claimed to having good spending and saving behaviour which in returns effectively affect their financial independence during their retirement. According to Haron. et al., 2019), the two main element of financial literacy are financial knowledge and ability. These elements can assist individual, with the past education and experience, on the application of finances products for instances retirement planning. So, it is claimed that the higher the financial education level, the higher the financial literacy, and in return there will be a greater impact, which is positive impact, to the retirement planning. Besides, there is a study concluded that if someone is financially literate, he or she may have the knowledge of some basic financial theory such as risk diversification, inflation, interest, compounding, and all of these will ultimately affect someone's perspective towards retirement planning in a positive way (Yap, Chong, Leow & Chok, 2017). Agnew, Baterman & Thorp (2013) also found out that there is a significant relationship between financial literacy and retirement planning by working on Australian's financial knowledge and ability in terms of their understanding of interest rate, understanding of inflation and understanding of risk diversification. Therefore, the youth's financial knowledge and ability are the elements to be deployed.

Risk Aversion

When deciding financial decisions, financial risk aversion is someone attitude towards financial risk, which reflects the degree of uncertainty that an individual is willing to accept (Nurul S.M., Amrul A., & Chan, 2017). A survey done in Germany has showed that risk averse type of investor tend to hold a high portion of risk-free assets in their investment portfolio (Barasinska et al., 2012). A research, samples from UK and Hong Kong, was carried out for identifying individual risk behaviours towards retirement planning. The finding from the research indicated that risk-averse individual tends to be more conservative than risk neutral individuals in their retirement planning. Apart from having different methods of retirement schemes in UK and HK, which are mandatory MPF from HK and voluntary ISA from UK, the findings consistently proved that the relationship between risk attitude and the retirement planning is significant (Wong R.S. et al., 2018). Besides, according to Nurul , et al. (2017) also proved that risk averse individual is less likely to hold lot of risk assets in their portfolio, and they found out that risk averse oriented people tend to be female aged within 41-50 years , and mostly from Malay ethnic group. Based on the findings, it seems reasonable that someone's risk attitude might have relationship with their retirement planning decision and the element of risk attitude deployed are the preferences between risk-free and risk investment products which are name as risk-averse, risk-seeking and risk-neutral (Wong R. S, et al., 2019).

Saving Attitude

According to Mohamad Fazli Sabri (2014), some Malaysians rely solely on their accumulated saving after their retirement. Thus, it is important that an individual's saving attitude towards their retirement planning. Based on the result of a research carried in Malaysian Public Sector, by using Pearson correlation analysis, there is a positive correlation between saving attitude and retirement confidence, and this positive correlation can be shown as there is a positive relationship between saving amount and retirement planning (Mohamad Fazli Sabri, 2014). According to Kimiyagahlam, S & Mansori (2019), results found saving regularly out of income portion or spend money on strictly necessary thing can prove a better retirement life. Highly aware and deliberate of saving behaviour or attitude can affect the decisions to allocate income for retirement savings. The element to deploy for saving attitude is the youth's regular saving income portion.

Family education

It is essential for family education or influence on child's financial knowledge. It is claimed to be one of the most recommended solutions to financial literacy problem. The reason is because the cultivation of saving habits since childhood can help them to manage and make better financial decision when they grow up (Metcalf & Atanec, 2011). A research was carried out among Dutch and American workers about the influences of parents on the financial planning and saving behaviours. Results obtained are that when the child turns 20 and above, they tend to have a longer future time perspective in their financial planning (Hershey, Henkens & Dalen, 2010). From the result, we can see that parent's influence since childhood may develop child's perspective about the importance of saving in advance and subsequently affect their retirement planning behaviours. A study done by Kimiyaghalam et al. (2017) also shown that there is significant positive relationship between family education and retirement planning. They continued that parents' influence might shape child's saving behaviour, which is the other independent variable, and this can indirectly affect the retirement planning. The element to deploy for family education is the influence of parents on the retirement planning decisions.

5.0 Theoretical Framework

This research consists of one dependent variable and four independents. There are retirement planning, financial literacy, risk aversion, saving attitude, family education relatively. The relationship is shown in Figure 1.

Figure 1: Factors Affecting Retirement Planning
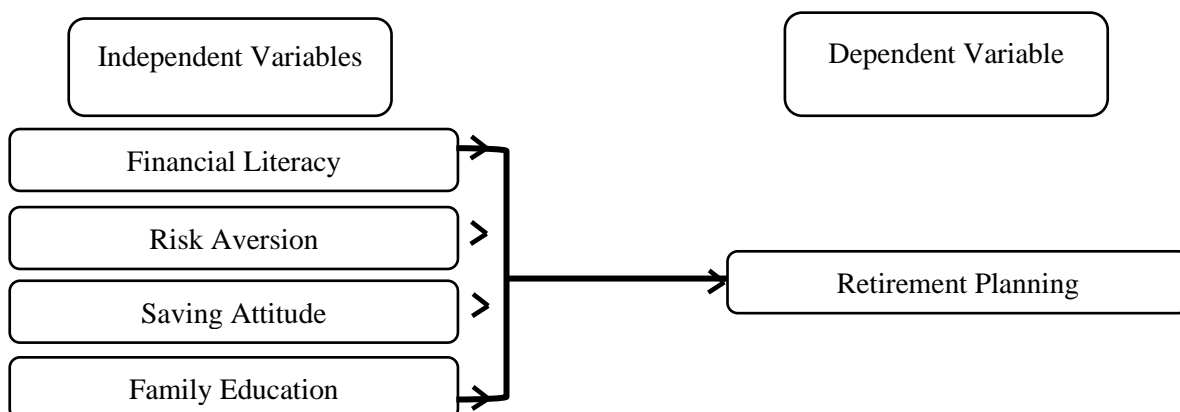
6.0 Research Methodology

Research Population and Sample size

The targeted population for this research was Malaysian youth aged between 18 to 23 in peninsular Malaysia. Respondents were not restricted where any background of youth will be targeted to avoid the result is constraint to a particular group of youth such as youth who have taken tertiary study, youth have never work as part timer or youth who came from high income families. Sample size was, n=120 which is justified by G Power Analysis. This paper is focusing on factors that will contribute Malaysian youth towards their financial planning. Partial Least Squares Structural Equation Modelling (PLS-SEM) was used in this paper. Respondents' risk of adverse, family education, financial literacy and saving behaviour will be observed, in the form of questionnaire survey.

Description of Sample

Target population are Malaysian youth aged between 18 to 23. The purpose of this research is to examine the factors that influence retirement planning among Malaysian youth. A total of 120 surveys were conducted.

Demographic Profile

Table 1: Demographic Profile of Research

Variable	Item	Mean	Median	Mode	Std. Deviation	Min	Max	Frequancy	Percent
Age	18-20	2.3000	2.0000	2.00	0.68108	1.00	3.00	15	12.5
	20-21							54	45.0
	22-23							51	42.5
Gender	Male	1.5167	2.0000	2.00	0.50182	1.00	2.00	58	48.3
	Female							62	51.7
Ethnicity	Malay	2.0083	2.0000	2.00	0.57242	1.00	3.00	19	15.8
	Chinese							81	67.5
	Indian							20	16.7
Education	Secondary and below	2.3667	2.0000	2.00	0.69733	1.00	4.00	12	10.0
	Diploma							55	45.8
	Degree							50	41.7
	Degree and above							3	2.5
Income level	<RM1,200	3.4083	4.0000	4.00	0.69204	1.00	4.00	2	1.7
	RM1,201-RM1,800							8	6.7
	RM1,801-RM2,500							49	40.8

	>RM2,501							61	50.8
Do you have a retirement plan?	Yes							40	33.3
	No	1.6667	2.0000	2.00	0.47338	1.00	2.00	80	66.7

Table 1 above shows the demographic profile which covers age, gender, ethnicity, education, income level, and presence of retirement plan. The age demographic shows a relative balance age composition among all age ranges. Most respondents are distributed within the range of 18-20 (12.5%) 20-21 (45%) and 22-23 (42.5%). In the gender composition, it shows there is quite an even distribution between male and female, with 48.3% of male and 51.7% of female. There is no skewed bias. In ethnicity, majority of the respondents are from Chinese (67.5%), Indians (16.7%) and Malay (15.8%). In education, the mode is diploma student (45.8%), followed by degree students (41.7%). 10% of respondents have a qualification of secondary and below; and 2.5% of respondents have a qualification of degree and above.

In income level, more than 50% income of RM 2,501 and above. This reflect the wage condition for young Malaysians. There is only 8.4% of respondents have an income of RM 1,800 or less. Through this survey of 120 respondents, when asked if they do have a retirement plan, 66.7% had indicated that they don't have. The other , 33.3% stated that they are already started in retirement planning.

Descriptive Statistics

Table 2. Descriptive Results of Research

Item	Mean	Median	Mode	Std. Deviation	Minimum	Maximum
FL1	3.7583	4.00	4.00	0.78853	2	5
FL2	3.7417	4.00	4.00	0.855	1	5
FL3	3.6917	4.00	4.00	0.73102	2	5
FL4	3.7917	4.00	4.00	0.74355	2	5
RA1	3.7667	4.00	4.00	0.78573	2	5
RA2	3.6833	4.00	4.00	0.91655	1	5
RA3	3.675	4.00	4.00	0.74656	2	5
RA4	3.7667	4.00	4.00	0.78573	2	5
SA1	3.5333	4.00	4.00	0.66019	2	5
SA2	3.5917	4.00	4.00	0.6546	2	5
SA3	3.6083	4.00	4.00	0.72525	2	5
SA4	3.7583	4.00	4.00	0.75588	2	5
FE1	3.6917	4.00	4.00	0.89627	1	5
FE2	3.6417	4.00	4.00	0.74242	2	5
FE3	3.7583	4.00	4.00	0.76692	2	5
FE4	3.425	3.00	3.00	0.77419	1	5

From table 2 above, the descriptive analysis shows respondents are generally agreed to the statements given that all the mean value observe exceeds 3.00 out of 5.00. A mean above 3.00 would basically mean that respondents agree to the statements. Standard deviation is below 1.00 which shows that there is no large deviation to the observation. The highest mean goes to "1 have a considerable degree of finance knowledge" with a mean value of 3.7917, and the second highest value goes to "I am reluctant to invest on risky assets" with a mean value of 3.7667. This shows that majority of the respondents

would perceive that they have good financial knowledge. The finding also show that most respondents are actually conservative when it comes to investment.

Reliability Analysis

Cronbach Alpha

Table 3. Reliability Analysis of Study

Variables	No. of Items Tested	Cronbach Alpha
Finance Literacy	4	0.816
Risk Aversion	4	0.868
Saving Attitude	4	0.735
Family Education	4	0.650
Retirement Planning	4	0.618

Table 3 above shows the Cronbach Alpha results is good reliability among the variables tested. All the elements tested shows a Cronbach Alpha value above 0.6 which means good reliability. The Cronbach Alpha value in this study ranges from 0.618 to 0.868.

Normality Analysis

Table 4: Normality Analysis of Study

Test Statistics	FL	RA	SA	FE	RP
Skewness	-.358	-.301	-.468	-.631	-.735
Std. Error of Skewness	.221	.221	.221	.221	.221
Kurtosis	-.150	-.476	-.182	.365	1.883
Std. Error of Kurtosis	.438	.438	.438	.438	.438

The finding shows that there are no issues of normality. The skewness is within the range of -1.0 to 1.0, and the kurtosis is within 7.0.

KMO and Bartlett's Test

Table 5: KMO and Bartlett's Test of Study

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.786
Bartlett's Test of Sphericity	Approx. Chi-Square	511.507
	df	10
	Sig.	.000

The results of KMO is 0.786 which indicates fair reliability, and the sample is adequate. The Bartlett's Test of Sphericity shows a p-value of 0.000, $p<0.05$ which indicates that there are no issues of homogeneity in this study.

Pearson Correlation

Table 6: Pearson Analysis of Study

Correlations

		FL	RA	SA	FE	RP
FL	Pearson Correlation	1	.855**	.622**	.845**	.445**
	Sig. (1-tailed)		.000	.000	.000	.000
	N	120	120	120	120	120
RA	Pearson Correlation	.855**	1	.506**	.890**	.375**
	Sig. (1-tailed)	.000		.000	.000	.000
	N	120	120	120	120	120
SA	Pearson Correlation	.622**	.506**	1	.636**	.706**
	Sig. (1-tailed)	.000	.000		.000	.000
	N	120	120	120	120	120
FE	Pearson Correlation	.845**	.890**	.636**	1	.508**
	Sig. (1-tailed)	.000	.000	.000		.000
	N	120	120	120	120	120
RP	Pearson Correlation	.445**	.375**	.706**	.508**	1
	Sig. (1-tailed)	.000	.000	.000	.000	
	N	120	120	120	120	120

**. Correlation is significant at the 0.01 level (1-tailed).

The Pearson Correlation shows a correlation range of 0.375 to 0.890 which is moderately weak to moderately strong. All correlation shows a positive direction. Among all, savings attitude has the strongest correlation with retirement planning. Risk aversion has a positive and strong correlation of 0.890 with retirement planning. This shows risk aversion to be an important element in retirement planning.

Regression Analysis

Table 7: Model Summary of Study

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.716a	.513	.496	1.50384

a. Predictors: (Constant), FE, SA, FL, RA

The adjusted R Square of the study shows a value of 0.496. This shows that the financial literacy (FL), risk attitude (RA), saving attitude (SA), and family education (FE) is able to explain as much as 49.6% of retirement planning (RP) the dependent variable of this research.

Table 8: ANOVA Test of Study

ANOVAª

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	273.789	4	68.447	30.266	.000ᵇ
	Residual	260.077	115	2.262		
	Total	533.867	119			

a. Dependent Variable: RP

b. Predictors: (Constant), FE, SA, FL, RA

The ANOVA results of the study shows a value of p=0.000, p<0.05. This indicates that there are significant differences between the items tested in this study. There is a significant relationship shown in the ANOVA results.

Table 9: Coefficient Analysis of Study

Coefficientsª

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	3.212	1.038		3.096	.002	1.157	5.267
	FL	-.069	.119	-.082	-.579	.564	-.306	.167
	RA	-.110	.127	-.143	-.864	.389	-.362	.142
	SA	.649	.091	.641	7.105	.000	.468	.830
	FE	.281	.157	.296	1.791	.076	-.030	.593

a. Dependent Variable: RP

Through the results of regression analysis, it can be seen that only savings attitude (SA) is significant towards retirement planning (RP). Savings attitude has a p-value of 0.000, p<0.05. The beta coefficient of saving attitude is 0.649. This shows that with every unit increase in savings attitude, there will be a 0.649 unit increase in retirement planning. H3 is accepted.

For the variables financial literacy (FL), risk attitude (RA), and family education (FE), the p-value shows a significant value of p>0.05 respectively. This shows that there is no significant statistical relationship between financial literacy (FL), risk attitude (RA), and family education (FE) with retirement planning among youths. H1, H2, and H4 are rejected.

Through the findings, it can be seen that it is the practical actions such as savings that contribute to retirement planning. Other factors such as financial literacy and family education can be important, however, it is still the attitude and discipline of actual actions that matters most when it comes to retirement planning.

Result of the hypotheses as follows:

Hypotheses	Results	Decisions
H1: Financial literacy is significant towards retirement planning of youth in Malaysia.	.564, p>0.05	Rejected
H2: Risk aversion is significant towards retirement planning of youth in Malaysia.	.389, p>0.05	Rejected
H3: Saving attitude is significant towards retirement planning of youth in Malaysia.	.000, p<0.05	Accepted
H4: Family education is significant towards retirement planning of youth in Malaysia.	.076, p>0.05	Rejected

7. Conclusion

Through this research, it shows that there is no relationship between financial literacy and retirement planning behavior among youth in Malaysia. But, it is important to instil the understanding of financial literacy as this will improve the understanding of the youth's financial risks and concept to make better decisions. This will aid them to obtain better financial independence when they retire (Yap, Chong, Leow & Chok, 2017). Otherwise, if there is no proper planning for their retirement days, with the rising rate of inflation, this may result in struggles and debts when they reach old age.

While there is also no relationship between risk aversion with the youths in Malaysia's retirement planning behavior, there are many other low levels of risk investments which may help these youths to have better retirement planning when they retire. Diversification is important as this will increase the source of income for the youths when they retire therefore it is crucial to have sound education towards available types of investment portfolio so that this can help the youths in Malaysia to be more financially free in the future.

One important advice that can help the youth to build financial knowledge is via family education. The parents will be able to provide the most trusted advice and help them to make proper savings habit so that the youths will make better financial decisions in the future (Metcalf and Atanec, 2011). While this research shows that there is no relationship between family education with their behavior to retirement planning, an additional trusted source of recommendation will help to contribute to better financial decisions. As such this should not be taken lightly.

The relationship between the saving attitude of the youth and the retirement planning behavior is the only variable that is positively related. As such, it is important to start at a young age, which is why the emphasis to jumpstart the youths through family education. This will enable the youths to grow up learning that saving for rainy days is crucial as there are many Malaysians who need to rely on their savings to go through their retirement. Otherwise, this will likely lead to the lack of saving intention among the youths in Malaysia which will result in great difficulty to them when they are in their retirement age. This will also burden the country's economic system as the government will need to ensure additional allocation of funds to help the lower tier people to thrive.

The study finds that only variable "saving attitude" is significant towards "retirement planning", with a strong beta of 0.649. The study concludes that it is important to develop a good attitude in saving which is a pre-condition towards efficient retirement planning.

References

Abridged Life Tables, Malaysia, 2018-2020. (2020). *Department of Statistics Malaysia Official Portal*. [online] Available at: https://www.dosm.gov.my/v1/index.php?r=column/cthemeByCat&cat=116&bul_id=R0VPdE1mNEdRQms2S0M4M1ZsSlVEdz09&menu_id=L0pheU43NWJwRWVSZklWdzQ4TlhUUT09.

Agnew, J., Bateman, H. and Thorp, S. (2013). Financial Literacy and Retirement Planning in Australia. *Numeracy*, 6(2).

Barasinska, N., Schafer, D., & Stephan, A. (2012). Individual risk attitudes and the composition of financial portfolios: Evidence from German household portfolios. *The Quarterly Review of Economics and Finance*, 52, 1–14.

Chen, J. (2020). *What It Means to Be Risk-Averse*. [online] Investopedia. Available at: https://www.investopedia.com/terms/r/riskaverse.asp.

Đurišić, M and Bunijevac, M. (2017). *Parental Involvement as a Important Factor for Successful Education*, c e p s Journal, 7 (3). Pp 137-153.

Fernando, J. (2021). *Financial Literacy*. [online] Investopedia. Available at: https://www.investopedia.com/terms/f/financial-literacy.asp

Hadi, A. (2019). Do Malaysians Have Enough To Retire Hadi, A.A. (2019). *Retirement adequacy in Malaysia*. [online] Malaysiakini. Available at: https://www.malaysiakini.com/news/489817.

Haron, H., Nadiah Salihah Mat Razali, N. and Mohamad, F. (2019). Factors Influencing Financial Planning Retirement amongst Employees in The Private Sector in East Coast Malaysia: Literature Review and Research Agenda. *KnE Social Sciences*.

Hershey, D. A., Henkens, K., & van Dalen, H. P. (2010). Aging and financial planning for retirement: Interdisciplinary influences viewed through a cross-cultural lens. *International Journal of Aging and Human Development*, 70, 1–38. doi:10.2190/AG.70.1.

Kimiyagahlam, F., Safari, M. and Mansori, S. (2019). Influential Behavioral Factors on Retirement Planning Behavior: The Case of Malaysia. *Journal of Financial Counseling and Planning*, 30(2). pp. 244-261.

Kimiyaghalam, F., Mansori, S., Safari, M. and Yap, S. (2017). Parents' Influence on Retirement Planning in Malaysia. *Family and Consumer Sciences Research Journal*, 45(3), pp.315–325.

Mahdzan, N.S. and Mohd-Any, A.A. and Chan, M.K. (2017) *The Influence of Financial Literacy, Risk Aversion and Expectations on Retirement Planning and Portfolio Allocation in Malaysia.* Gadjah Mada International Journal of Business, 19 (3). pp. 267-289. ISSN 1411-1128, DOI https://doi.org/10.22146/gamaijb.24441.

Metcalf, J.L. and Atance, C.M. (2011). Do preschoolers save to benefit their future selves? *Cognitive Development*, 26(4), pp.371–382.

Mohamad F.S and Teo T. J (2014), *The Influence of Financial Literacy, Saving Behaviour, and Financial Management on Retirement Confidence among Women Working in the Malaysian Public Sector,* Asian Social Science 10(14), DOI: 10.5539/ass.v10n14p40

Nurul, S., Mahdzan, Asraf Mohd-Any, A. and Chan, M.-K. (2017). The Influence of Financial Literacy, Risk Aversion and Expectations on Retirement Planning and Portfolio Allocation in Malaysia. *Gadjah Mada International Journal of Business*, 19(3), pp.267–288.

Tan, S. and Singaravelloo, K. (2019). Financial Literacy and Retirement Planning among Government Officers in Malaysia. *International Journal of Public Administration*, 43(6), pp.486–498.

UKEssays. (2018). *Saving Behaviour | Research Study*. [online]. Available at: https://www.ukessays.com/essays/economics/an-analysis-of-saving-behaviour-in-malaysia-economics-essay.php?vref=1

Wong, R.S., Osman, M., Wong, W.H., Lin, Y. and Ho, K. (2018). Saving for a Better Retirement: How Risk Attitudes Affect Choice of Retirement Scheme. *Psychological Reports*, 122(1), pp.305–322.

Yap, S., Chong, W.Y., Leow, H.H. & Chok, N.V. (2017). The Importance of Financial Literacy on the Malaysian Household Retirement Planning. *International Business Management*, 11(7), pp. 1457-1461.