

## The Relationship between Socio-Demographics and Financial Literacy with Financial Planning Among Young Adults in Klang Valley, Malaysia

*(Hubungan Antara Sosio-Demografi dan Literasi Kewangan dengan Perancangan Kewangan dalam Kalangan Belia di Klang Valley, Malaysia)*

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### ABSTRACT

*This study aims to explore the relationship between socio-demographics and financial literacy with an individual's engagement in personal financial planning, with the target population being the youths residing in Klang Valley, Malaysia. Questionnaires adopted from past literature were distributed to gather relevant data from the target population and 400 respondents participated in this study in total. The results show that age, education level, income level and financial literacy have relationships with personal financial planning, while gender does not. The limitations of this study include the omission of other variables such as behavioral, environmental, and psychological factors that may affect financial planning, as well as geographical constraints whereby other states and federal territories with varying state of development, cost of living and lifestyle may need to be considered to present a more comprehensive research framework and provide more accurate findings. Lastly, this research serves as a guide to the relevant authorities in reviewing the sufficiency and effectiveness of financial education currently in place in the country.*

*Keywords: Age; education level; income level; financial literacy; financial planning.*

### ABSTRAK

*Kajian ini bertujuan untuk mengkaji hubungan antara sosio-demografi dan literasi kewangan dengan penglibatan individu dalam perancangan kewangan peribadi. Populasi sasaran kajian ini adalah golongan belia yang tinggal di Lembah Klang, Malaysia. Soal selidik yang diterimapakai dari literatur masa lalu telah diedarkan untuk mengumpulkan data yang relevan dari populasi sasaran dan 400 responden telah mengambil bahagian dalam kajian ini secara keseluruhan. Hasilnya menunjukkan bahawa usia, tahap pendidikan, tahap pendapatan dan literasi kewangan mempunyai hubungan dengan perancangan kewangan peribadi, sementara jantina tidak. Batasan kajian ini merangkumi peninggalan pembolehubah lain seperti faktor tingkahlaku, persekitaran, dan psikologi yang dapat mempengaruhi perancangan kewangan, serta kekangan geografi di mana negeri dan wilayah persekutuan dengan keadaan pembangunan, kos sara hidup yang berbeza-beza dan gaya hidup perlu dipertimbangkan untuk menghasilkan kerangka penyelidikan yang lebih komprehensif dan memberikan penemuan yang lebih tepat. Akhir sekali, penyelidikan ini berfungsi sebagai panduan kepada pihak berkuasa yang berkenaan dalam mengkaji kecukupan dan keberkesanan pendidikan kewangan di negara ini.*

*Kata kunci: Umur; tahap pendidikan; tahap pendapatan; literasi kewangan; perancangan kewangan.*

### INTRODUCTION

Over the past decade, dynamic changes and developments have been taking place in the economic environment, most notably the globalization of financial markets. According to Nicolini et al. (2013), individuals now have opportunities to access financial products and services from anywhere, while those from countries with less sophisticated financial markets are not isolated from better choices. As a result, consumers in the globalized financial markets must make purchase decisions more carefully as the inherent characteristics of such markets are not known. Moreover, more complex innovations of financial products are offered by various players, thus complicating financial decision-making. Consequently,

individuals need sufficient financial understanding and skills for wise decision-making (Ahmad et al. 2016). Furthermore, Sabri and Zakaria (2015) mentioned that the escalating living costs in Malaysia has made consumers more conscious of managing their finance. The increase in the prices of essential items has made it tough for consumers to get by, especially the B40 and M40 groups (Dhesi 2019). Hence, it is crucial to plan financial affairs ahead to avoid financial problems.

Unfortunately, Mohd et al. (2016) in citing Bank Negara Malaysia (2013), stated that the household debt-to-GDP in the country reached a new high at 86.8% in 2013 from 80.5% in 2012, which was a big leap by 6.3% over a year. This ratio then continued to rise to 89.1% amid the moderate growth in 2015 (Gho 2016). Moving

forward to recent times, as reported by Bank Negara Malaysia (2020), the same ratio edged higher to 82.7% as at the end of 2019, a 0.5% increase from the First Half 2019 amid slower GDP growth. Although the statistics had dropped compared to 2013, it remained elevated relative to regional peers, with Thailand at 78.7% while Singapore at only 65%. This occurrence points towards that indebtedness among Malaysians is a serious warning and imply poor financial management in terms of their expenditures and liabilities. Malaysian Department of Insolvency reported that on average, 1,812 individuals declared bankruptcy each month in the year 2012, and not only the figure increased by 11% a year later, but there has also been a steady rise in the number of bankruptcies, especially among young adults (Sabri 2016). According to AKPK, over 3,400 of youths aged between 20 and 30 years had been seeking its assistance in the first half of 2017, which is close to the 3,450 reported for the full year in 2016. Murugiah (2016) also noted that the ages of the individuals declared bankrupt are getting younger over time. These non-ideal statistics imply that Malaysians, especially the youths, lack skills on financial management to make effective financial decisions for their well-being (Yong et al. 2018). These statistics would not be this alarming had they regularly utilized financial planning.

The objective of this research is to explore the relationship between socio-demographics and financial literacy with engagement in the process of personal financial planning among young adults in Klang Valley, Malaysia. The outcome of this research will give a clearer insight into how socio-demographic attributes and financial knowledge level will influence young adults' financial planning.

This study fills the gap in literature as past studies did not consider incorporating socio-demographics together with financial literacy in a single framework thus disregarding the interrelation or collinearity between these variables and their influence on financial planning, including the studies by Mansor et al. (2015), Ayuub et al. (2015), and Gautam and Matta (2016) which only considered demographic factors, while the study by Tan et al. (2011) only took financial literacy into account. Moreover, some previous studies though integrated socio-demographics and financial literacy in their framework, but included other factors as well, thus impacting the analysis of the data. For instance, in addition to the two variables, Lee et al. (2019) also included financial attitude and financial planners in their research framework. Therefore, this study examines the way socio-demographics and financial literacy exclusively and collectively influence an individual's financial planning, and the results will contribute and thus provide inputs for the regulatory bodies and authorities to strengthen the financial literacy and education among Malaysians.

## LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### FINANCIAL PLANNING

Financial planning is generally defined as the process of managing financial resources to accomplish financial goals set beforehand (Surendar & Sarma 2017). Apart from that, there exist other definitions of the term. In brief, individuals are required to sustain a continuous effort to execute a proper financial planning to achieve long-term financial needs.

As mentioned by Billingsley et al. (2017), a sound financial planning will benefit individuals by helping in wise spending and accumulating wealth, besides reflecting financial uncertainties, and allowing them to quickly adapt to changes as contingency plans are well prepared beforehand. Eventually, it will lead to improvements in their standard of living in the society. According to Nissenbaum et al. (2004), there are many ways to approach financial planning, ranging from receiving information from books, navigating it using computer software programs, watching financial planning tutorials, attending seminars, to finally seeking help from a professional personal financial planner.

In this financial planning process, it encompasses multiple financial decisions that will eventually lead to a desired monetary state. Safari et al. (2016) explained that these financial decisions involved in financial planning include the management of cash flow, debt, risk and insurance, investment, education, retirement, tax, and estate. Setyowati et al. (2018) also described financial planning as a set of planning concerning money management, debts, taxes, investments, insurance, retirement fund, and housing planning, in line with the explanation by Dam and Hotwani (2017), who stated that financial planning reflects how individuals progressively improve in managing their finance based on the components said. In short, financial planning consists of various smaller components, all of which ought to be applied to accomplish financial independence.

### SOCIO-DEMOGRAPHICS AND FINANCIAL PLANNING

*Age and Financial Planning* Many relevant studies in this field are present, but the findings are rather inconsistent. First, a study conducted by Brounen et al. (2016) across 1253 Dutch households in Netherlands found out that a person's willingness to save money declines with age, and saving behavior is significantly dominant amongst baby boomers. Hence, there exists a relationship between age and financial planning in terms of saving behavior and money management. Mansor et al. (2015) whose study focused on the workers in health sectors in Malaysia discovered that age is a significant factor contributing to retirement planning. Gautam and

Matta (2016) who studied the determinants of financial behavior of investors in India, discovered that age is a significant factor, whereby it is consistent that as age increases, a person becomes more responsible in his financial behavior. An empirical study by Chattopadhyay and Dasgupta (2015) of demographic impacts on risk attitudes among Indian investors in India also found out that aged investors are more risk averse and more reluctant to take risks than young investors, thus age is positively associated with risk aversion and consequently affects investment planning. However, in contrast to the study by Mansor et al. (2015), Kaur and Hassan (2018) discovered that age has an insignificant impact on retirement planning amongst Generation Y in Malaysia. Moreover, the study by Ayuub et al. (2015) in Pakistan discovered that age has no significant manipulation on financial risk tolerance and thus having no effects on investment planning in terms of the selection of investment portfolio and investment decision-making. Therefore, a hypothesis is formed:

H<sub>1</sub> There is a positive relationship between age and financial planning.

*Gender and Financial Planning* The results of past literature reviewed are contradictory. Loke (2017) discovered that gender is significant in determining individuals' financial management behavior, whereby males execute better financial management than females. Moreover, the study by Ayuub et al. (2015) in Pakistan also mentioned that gender has a major impact in identifying a person's financial risk tolerance level. Moreover, Chattopadhyay and Dasgupta's (2015) study in India discovered the presence of a prominent relationship between gender and risk tolerance level among Indian individual investors, thus affecting their investment planning. Lastly, according to Farrar et al. (2018) whose study was on pre-retirement planning in U.K. with a sample of 516 respondents, the findings confirm lower levels of planning amongst women, suggesting that a relationship exists between gender and pre-retirement planning. However, Mansor et al. (2015) and Kaur and Hassan (2018) both found out gender does not have a relationship with, nor a significant impact towards retirement planning among Malaysians, as the former's findings contradicted previous literature reviewed, while the latter found no significant distinctions between different genders in financial knowledge and their planning for retirement. This corresponds with the findings of Gautam and Matta (2016) in India who concluded that gender does not significantly correlate with the financial behavior. Thus, a hypothesis is formed:

H<sub>2</sub> There is a positive relationship between gender and financial planning.

*Education Level and Financial Planning* An empirical study conducted by Loke (2017) in Malaysia found out that education has a significant impact on financial management, as the results showed that individuals with tertiary education show a better financial behavior compared to individuals with secondary school education. Kaur and Hassan (2018) also discovered that education is a significant variable contributing towards retirement planning as those with Degree demonstrate better retirement planning compared to those with lower than tertiary education. This is supported by Mansor et al. (2015) whose study was on retirement planning, but instead targeted at health sector-based employees. Meanwhile, a study conducted by Chattopadhyay and Dasgupta (2015) among investors in India found that a higher level of education results in financial risk tolerance attitude, which affects their financial planning especially in financial risk management, insurance planning and investment planning. However, according to a study by Gautam and Matta (2016) targeting the same population in India, it was found out that the education level is not significantly associated with financial behavior, as the research outcome showed mixed effects of education on financial behavior and was inconsistent with previous studies. This is further backed by Ayuub et al. (2015) who stated that education has no significant manipulation on financial risk tolerance and financial planning. Based on the literature reviewed, a hypothesis is formed:

H<sub>3</sub> There is a positive relationship between education level and financial planning.

*Income Level and Financial Planning* Several past studies on the relationship between level of income and financial planning have been reviewed. First, both studies by Mansor et al. (2015) and Kaur and Hassan (2018) in Malaysia found that income level significantly and positively correlates with retirement planning, as those earning higher income are more inclined to having a retirement saving plan, which is a part of personal financial planning. Loke's (2017) study among Malaysians also yielded the same results as the study showed that low-income earners exhibit a poorer financial management while those earners of middle and high income are able to manage their financial matters better. A study conducted by Sabri and Zakaria (2015) on the financial well-being of young employees below the age of 40 found that high income earners are doing better financially. Lastly, Ahmad et al. (2016) mentioned that the level of income would contribute to good financial behavior. Nonetheless, Ayuub et al. (2015) who studied financial risk tolerance in Pakistan discovered that the relationship between income level and risk tolerance is rather insignificant. Additionally, they concluded that the income level of any person cannot be used to identify

their financial risk tolerance level, thus having no effects on their choice of investments. Henceforth, a hypothesis is formed:

H<sub>4</sub> There is a positive relationship between income level and financial planning.

#### FINANCIAL LITERACY

The concept of financial literacy has been defined by various scholars in different ways by assigning unique connotations to it. The definition of financial literacy has also developed and become more sophisticated over time. According to Basu (2005) as cited in Murugiah (2016), financial literacy was simply defined as a set of skills that contribute to a wiser money management and a better financial well-being. In a more specific approach, financial literacy was defined by Surendar and Sarma (2017) along with Ahmad et al. (2016) as “the ability to apply knowledge and skills to manage financial resources and make financial decisions effectively for financial well-being of a lifetime”. In another way, Hung et al. (2009) as cited in Yong et al. (2018), stated that financial literacy broadly consists of not merely knowledge and skills, but knowledge, attitude, behavior and skill for financial decision-making. This is consistent with the way financial literacy is addressed by the OECD in three distinctive facets: financial knowledge, behavior, and attitude (Potrich et al. 2015).

Being financially literate helps one to be financially competent and effectively manage his income and expenses, investments and financial risks besides ensuring financial security after retirement to avoid financial difficulties (Murugiah 2016). Furthermore, financial literacy encourages good financial behavior such as savings and budgeting, and it guides efficient and effective financial decisions (Surendar & Sarma 2017). For instance, financial literacy allows individuals to realize the significance of retirement savings, continually earning income after retirement, and investing in financial assets to generate return and increase future wealth. In short, as mentioned by Sabri and Zakaria (2015), financial literacy not only deals with the knowledge on financial matters, but it empowers individuals to make more appropriate and effective financial decisions that result in better financial well-being.

#### FINANCIAL LITERACY AND FINANCIAL PLANNING

Most previous studies concluded that financial literacy level directly correlates with the engagement in financial planning. Brounen et al. (2016) found out that an individual's propensity to save is higher among the financial literate in Netherlands. Consumers with higher level of financial literacy are more inclined to actively

participate in the derivatives markets, thus facilitating personal financial planning, as revealed by Hsiao and Tsai's (2018) study in Taiwan. Dalkilic and Kirkbeşoğlu (2015) through their study in Turkey also discovered that financial literacy level influences a person's perception of purchasing insurance, thus affecting insurance planning among consumers and households.

In Malaysia's context, Lee et al. (2019) through their study in Kuala Lumpur, Malaysia found out that financial literacy is significant and can positively influence the level of financial planning among young adults. A study conducted in Klang Valley, Malaysia by Tan et al. (2011) concluded that financially literate individuals are more likely to focus on financial planning to prevent adverse effects resulted from poor execution of financial decisions. Another study throughout the entire Malaysia carried out by Ali et al. (2015) also suggested that financial literacy is a key determinant that is positively associated with financial planning activities. Furthermore, Sundarasan et al. (2016) found out that financial literacy plays a prominent role in money management. Additionally, Ahmad et al. (2016) claimed that high financial literacy contributes to good financial behavior while poor financial literacy will positively associate with bad behavior such as over-indebtedness. Lastly, according to Kimiyaghalam and Yap (2017), financially illiterate individuals are associated with the lack of financial planning and insufficient retirement savings. In short, financially literate individuals generally pay more attention to financial planning, in terms of the management of credit, insurance, and investment (Setyowati et al. 2018).

Even so, a study by Loke (2017) stated that in Malaysia, individuals with high financial knowledge still nonetheless encounter financial troubles, which contradicts the findings of the previous studies. A study by Gangwar and Singh (2018) with 309 respondents across India also discovered that financial literacy level does not affect investment behavior in their financial planning. Lastly, Farrar et al. (2018) through their study of surveying 516 U.K. residents of pre-state retirement age indicated that financial literacy has no impact on retirement planning. These findings help formulate a hypothesis, as follows:

H<sub>5</sub> There is a positive relationship between financial literacy and financial planning.

#### CONCEPTUAL FRAMEWORK

Based on the past literature reviewed, it is shown that socio-demographics and financial literacy influence financial planning among individuals. Henceforth, deriving from the findings, the conceptual framework of this study is illustrated in Figure 1.

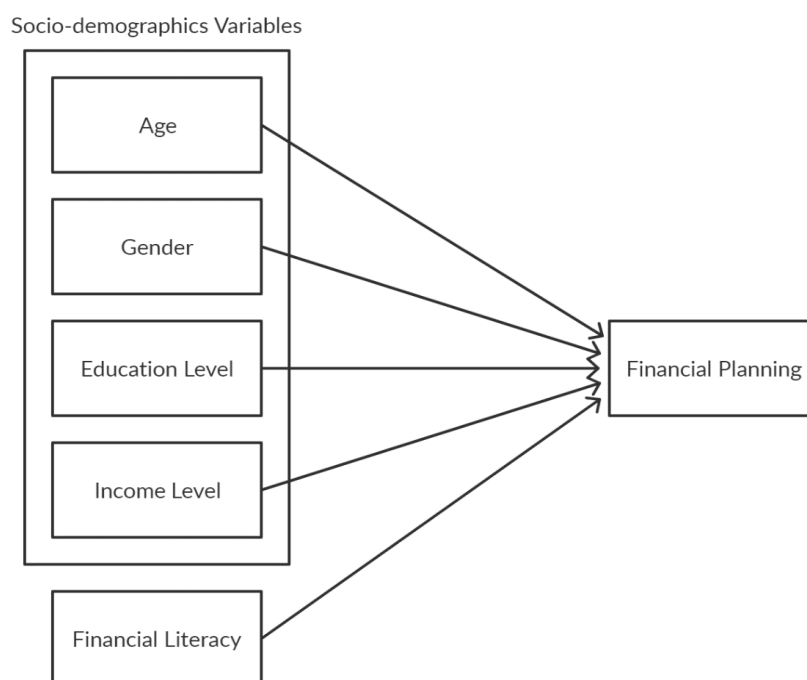


FIGURE 1. Conceptual framework

## METHODOLOGY

### SAMPLING DESIGN

The target population of this study is the young adults that are aged between 18 and 35 years old currently residing in Klang Valley, Malaysia, which is one of the most developed regions in Malaysia and represents the nation's overall decades-long development (Abdul Rashid 2017). As reported by New Straits Times (2020), the financial literacy level among Malaysians, especially the youths, is exceptionally low, whereby youngsters below the age of 34 made up 26% of the bankruptcy cases in the reported year, hence the set age criterion of the target population. The confidence level and the margin of error were set at 95% and 5% respectively. Purposive sampling was applied to determine the respondents within the age bracket for its efficiency and the lower cost required.

### DATA COLLECTION

Primary data were gathered using an online questionnaire, mainly by sharing it with those easily approachable and geographically accessible such as friends and neighbors who were close with the researchers. A pilot test with 10% of the total sample was performed before conducting the full-scale study to ensure all items in the questionnaire are valid. Ultimately, 400 responses were collected and 389 of them were valid after filtering the ineligible ones.

## RESEARCH INSTRUMENT

The online questionnaire was designed via Google Form in a close-ended form, comprising four sections. Section A consists of screening questions set to determine whether the respondents are aged between 18 and 35 years old, and currently residing in Klang Valley, Malaysia to ensure that the respondents belong in the target population. Subsequently, Section B determines the respondents' demographic information. Then, Section C measures financial literacy of the respondents using multiple-choice questions. Lastly, the respondents' engagement in personal financial planning is assessed in Section D with a 5-point Likert Scale. Questions or statements proposed in Section C and Section D were directly adopted from past literature as shown in Table 1.

### MEASUREMENT OF VARIABLES

Age is measured on an ordinal scale. There are three age categories used to separate young adults into different age groups: 18-23, 24-39 and 30-35 years old.

Gender is measured on a nominal scale as it contains no ranking but serves as identification without numerical significance. The answer can either be male or female.

Education level is measured on an ordinal scale. The categories of highest education level achieved include: UPSR; PMR or PT3; SPM or UEC; Pre-university such as STPM, A-Levels, Foundation or equivalent; Diploma; Undergraduate Degree; Postgraduate Degree; Master's

TABLE 1. Sources of questionnaire

Section	Number of Items	Authors
Section A: Screening Questions	2	N/A
Section B: Demographic Profile	6	N/A
Section C: Financial Literacy	11	Au Yong & Tan (2017)
Section D: Financial Planning	29	Tan et al. (2011)

Degree; Doctor of Philosophy; and other Professional Qualifications.

Income level is measured on an ordinal scale. Income level is divided into different categories with either RM1,000 or RM2,000 intervals, including below RM1,000, RM1,001-RM3,000, RM3,001-RM5,000, RM5,001-RM7,000, RM7,001-RM9,000, and above RM9,000.

Financial literacy is measured in the form of multiple-choice questions with only one correct answer to each question. There are 11 questions, as shown in Appendix A. The percentage of questions answered correctly would demonstrate the level of financial literacy.

Financial planning is measured on a 5-point Likert scale, which allows the respondents to show their agreement level, ranging from strongly disagree (1) to strongly agree (5). There are 29 items in this construct, as shown in Appendix A. A higher scale indicates that the respondent practices a more comprehensive financial planning.

#### DATA ANALYSIS

The research instrument was assessed through reliability test and sent to the supervisor for validation. Then, the data collected were assessed through normality tests and descriptive statistics, and subsequently analyzed using Chi-Square test, correlation analysis and regression analysis on SPSS Statistics 26.

Chi-Square test was adopted to test whether age ( $IV_1$ ), gender ( $IV_2$ ), education level ( $IV_3$ ) and income level ( $IV_4$ ) are independent of or associated with financial planning (DV), as these variables are categorical in nature. Next, Pearson's Correlation Coefficient is adopted to assess the presence and the strength of the relationship between financial literacy ( $IV_5$ ) and financial planning (DV). Regression analysis is used to identify which variables, among age ( $IV_1$ ), gender ( $IV_2$ ), education level ( $IV_3$ ), income level ( $IV_4$ ) and financial literacy ( $IV_5$ ), predict or have an impact on financial planning (DV). Table 2 shows the multiple linear regression equation or model

conducted to predict financial planning from age, gender, education level, income level and financial literacy.

TABLE 2. Regression equation

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$	
Y	Financial Planning
$X_1$	Age
$X_2$	Gender
$X_3$	Education Level
$X_4$	Income Level
$X_5$	Financial Literacy
$\beta_0$	Regression Constant (Intercept)
$\beta_1 - \beta_5$	Regression Beta Coefficient
e	Error Term

#### RESULTS

##### DESCRIPTIVE STATISTICS

The demographics information of the 389 qualified respondents is shown in Table 3. The number of male and female respondents is almost equal. Two-third of them were aged between 18 to 23, while others were aged between 24 to 35. Majority of the respondents were local Malaysians (94%), undergraduate degree holders (66%), and relatively lower-income earners, earning RM3,000 or less monthly (76%).

##### RELIABILITY TEST

The reliability test is only conducted on the dependent variable, i.e., financial planning, as other variables are not measured on a Likert scale.

Based on Table 4, Cronbach's alpha is 0.954, representing an excellent reliability and a high internal consistency of the statements for dependent variable, financial planning. Therefore, each statement used for

TABLE 3. Demographic profile of respondents

Variable	Category	Frequency	Percentage (%)
Age	18–23	255	65.6
	24–29	102	26.2
	30–35	32	8.2
Gender	Male	193	49.6
	Female	196	50.4
Education Level	PMR/PT3	1	0.3
	SPM/UEC	9	2.3
	Pre-university	19	4.9
	Diploma	45	11.6
	Undergraduate Degree	258	66.3
	Postgraduate Degree	23	5.9
	Master's Degree	24	6.2
Income Level	Doctoral Degree	5	1.3
	Professional Qualifications	5	1.3
	RM1,000 and below	184	47.3
	RM1,001-RM3,000	110	28.3
	RM3,001-RM5,000	55	14.1
	RM5,001-RM7,000	25	6.4
Nationality	RM7,001-RM9,000	9	2.3
	RM9,001 and above	6	1.5
	Malaysian	365	93.8
	Non-Malaysian	24	6.2

measuring the engagement in personal financial planning among the respondents was acceptable and reliable.

TABLE 4. Reliability statistics of financial planning

Construct	Number of Items	Cronbach's Alpha
Financial Planning	29	0.954

## NORMALITY TEST

The normality of the data was tested using the Kolmogorov-Smirnov and Shapiro-Wilk tests. Both tests are used to provide more accurate results due to their sensitivity to sample size.

Based on Table 5, the significance values of all independent variables are 0.000 ( $p < 0.05$ ), signaling that the data are not normally distributed. However, for dependent variable, financial planning, both tests yielded different results, where the Kolmogorov-Smirnov test generated a p-value of 0.058 ( $p > 0.05$ ), which indicates a normal distribution, while the Shapiro-Wilk test generated a p-value of 0.016 ( $p < 0.05$ ) which suggests otherwise. Here, the p-value of 0.016 generated by the Shapiro-Wilk test is more appropriate to be referred to, as it is deemed the most powerful test in most situations. Therefore, the dependent variable, along with all independent variables, significantly deviates from a normal distribution, and non-parametric tests are utilized to test for the relationships between the variables.

TABLE 5. Results of normality test

	Kolmogorov-Smirnov (Sig.)	Shapiro-Wilk (Sig.)
Age	0.000	0.000
Gender	0.000	0.000
Education Level	0.000	0.000
Income Level	0.000	0.000
Financial Literacy	0.000	0.000
Financial Planning	0.058	0.016

## CHI-SQUARE TEST

According to Table 6, there is a relationship between age and financial planning ( $X=34.124$ ,  $p<0.05$ ) as the significance value provides adequate support to infer that a relationship exists between them. Then, there is no relationship between gender and financial planning ( $X=7.877$ ,  $p>0.05$ ), as there is sufficient indication to suggest that no relationship exists between the variables. Next, there is a relationship between education level and financial planning ( $X=51.225$ ,  $p<0.05$ ), as the rejection of the null hypothesis is supported by the result. Lastly, there is an association between income level and financial planning ( $X=64.246$ ,  $p<0.05$ ), as there is adequate evidence to assume that a relationship exists between them.

## REGRESSION ANALYSIS

A multiple linear regression was calculated to predict financial planning based on an individual's age, gender, education level, income level and financial literacy. Table 7 shows that the multiple correlation coefficient ( $R$ ) is 0.582, which implies a low level of prediction of the dependent variable in the model. Next, the coefficient of determination ( $R^2$ ) of 0.339 indicates that the independent variables being studied only explains about 34% of the variability of the dependent variable. This reveals that there is a huge possibility that other factors explain the financial planning among young adults. Even so, the

output also signifies that the overall regression model significantly predicts the outcome variable and is a good fit for the data [ $F(5, 383)=15.409$ ,  $p<0.05$ ].

Based on Table 8, it is concluded that there is no severe presence of multicollinearity associated with the independent variables, as indicated by the VIF values of less than 5.

Next, the regression equation is determined as follows:

$$Y = 2.684 + 0.201X_1 + 0.026X_2 + 0.34X_3 + 0.241X_4 + 0.405X_5 + e$$

The regression equation suggests that one unit increase in age is associated with a 0.201 unit increase in financial planning, and one unit increase in education level is associated with a 0.34 unit increase in financial planning. Next, a unit increase in income level is correlated with a 0.241 unit increase in financial planning, and one unit increase in financial literacy would lead to a 0.405 unit increase in the engagement in financial planning. Moreover, the Regression table also shows the significance value of the individual independent variables, indicating how each of them contributes to the model and predicts the dependent variable. Based on Table 8, age, education level, income level and financial literacy ( $p<0.05$ ) are significant predictors of financial planning, while gender is not ( $p>0.05$ ).

In summary, age, education level, income level and financial literacy significantly contribute to the model and predicts the dependent variable, financial planning,

TABLE 6. Chi-square test

	Value	Sig. (2-sided)
Age and Financial Planning	34.124	0.000
Gender and Financial Planning	7.877	0.096
Education Level and Financial Planning	51.225	0.017
Income Level and Financial Planning	64.246	0.000

TABLE 7. Model summary

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	F	Sig.
1	.582	.339	.328	15.409	.000

TABLE 8. Regression results

Model		Unstandardized Coefficients		t	Sig.	Collinearity Statistics	
		B	Std. Error			Tolerance	VIF
1	(Constant)	2.684	.188	14.296	.000		
	Age	.201	.056	3.020	.042	.836	1.194
	Gender	.026	.075	.349	.727	.654	1.533
	Education Level	.340	.037	4.933	.000	.731	1.369
	Income Level	.241	.042	4.691	.000	.666	1.501
	Financial Literacy	.405	.016	5.332	.000	.437	2.290



while gender does not. Therefore, the hypotheses  $H_1$ ,  $H_3$ ,  $H_4$ , and  $H_5$  are accepted while  $H_2$  is rejected.

## DISCUSSION

The results show that individuals' age has a significant relationship with their engagement in financial planning. Alternatively, the application of personal financial planning depends upon or varies according to age over time. These outcomes are coherent with those of the studies conducted by Mansor et al. (2015), Gautam and Matta (2016), and Chattopadhyay and Dasgupta (2015). Therefore, it is evident that the engagement in financial planning is dependent upon his or her age. As age increases, an individual becomes more responsible in his financial behavior and is driven to undertake more components of personal financial planning.

Gender does not have a significant relationship with the engagement in personal financial planning. In other words, an individual's gender being either male or female does not associate or correlate with the individual's undertaking of personal financial planning. This is coherent with the disclosures of the studies by Mansor et al. (2015), Kaur and Hassan (2018) and Gautam and Matta (2016). In short, a person's engagement in financial planning is not dependent upon his or her gender, and gender differences should be excluded when it comes to researching the application of personal financial planning.

Moreover, that an individual's education level has a significant relationship with his or her financial planning. Alternatively, the highest level of education attained by an individual associates with or is a factor influencing the individual's financial planning. Similarly, the studies conducted by Mansor et al. (2015), Loke (2017) and Kaur and Hassan (2018) in Malaysia and another conducted by Chattopadhyay and Dasgupta (2015) in India yielded identical results. Hence, it is concluded that financial planning application is highly associated with the level of education achieved.

Income level has a significant relationship with the engagement in financial planning. That is, the level of monthly income earned by individuals correlates with the level of their engagement in financial planning. These findings are coherent with the past research studies carried out by Mansor et al. (2015), Kaur and Hassan (2018), Loke's (2017), Sabri and Zakaria (2015) and Ahmad et al. (2016). Therefore, the results show that income level is indeed a factor determining the engagement of financial planning, as the higher the income earned, the more the surplus funds or savings to be used in different aspects of financial planning such as investments, retirement, and education planning.

Lastly, an individual's financial literacy has a significant and weak positive relationship with the engagement in personal financial planning. This outcome indicates that the level of financial literacy directly

correlates with the application of personal financial planning. Brounene et al. (2016), Hsiao and Tsai (2018), Dalkilic and Kırkbeşoğlu (2015) through their studies in other countries provided similar findings, and so did the studies by Lee et al. (2019), Tan et al. (2011), Ali et al. (2015), Sundarasan et al. (2016), Ahmad et al. (2016) and Kimiyaghalam and Yap (2017) that targeted at those residing in Malaysia. Henceforth, the results show that a higher financial literacy will lead to more engagement in personal financial planning, as individuals have financial knowledge and make more effective financial decisions to achieve a desired monetary situation.

## THEORETICAL IMPLICATION

This study contributes to the literature as it integrates socio-demographics with financial literacy as independent variables in one conceptual framework that influences the extent of one's engagement in financial planning. For instance, Mansor et al. (2015), Ayuub et al. (2015), and Gautam and Matta (2016) only studied demographic factors, whereas Tan et al. (2011) only took financial literacy into account in their study. In short, this research focuses on how socio-demographical factors and financial literacy of an individual collectively influence his or her financial planning.

Furthermore, this study also differs from previous literature by examining a more comprehensive definition of financial planning, which encompasses multiple aspects that are rarely explored as a whole in past literature. Hence, the findings of this study contribute to the literature by expanding the existing literature on financial planning. The results are imperative as past studies found on the same field of interest focused on only one or a few areas of personal financial planning, as summarized in Table 9.

Additionally, some of the related studies were conducted in other countries. Although a number of such studies were conducted in Malaysia, they mostly targeted at population or respondents of all ages or specific professions (Mansor et al. 2015; Sabri 2016; Gautam & Matta 2016; Kaur & Hassan 2018; Tan & Singaravelloo 2019) whilst this study focused only on young adults who are aged between 18 and 35. Targeting at young adults is heavily emphasized because their current level of financial literacy and financial planning will greatly affect their financial situation in the future. Hence, this study bridges the gap by providing for the lack of research studies on personal financial planning that target at youths in Malaysia.

Lastly, these findings could provide a cross-reference or a secondary source for future researchers who intend to conduct a study on a similar field of interest. In addition, this research could also serve as the cross-reference that gives future researchers an insight into the current level of financial literacy among youths residing in Klang Valley, Malaysia.

TABLE 9. Past literature on financial planning

Author(s)	Year	Area(s) of Financial Planning
Chattopadhyay & Dasgupta	2015	Investment planning in terms of risk tolerance
Mansor et al.	2015	Retirement planning
Brounen, Koedijk & Pownall	2016	Savings behavior
Gautam & Matta	2016	Investment planning in terms of behavior
Sabri	2016	Investment planning
Zakaria et al.	2016	Insurance planning
Farrar et al.	2018	Pre-retirement planning
Gangwar & Singh	2018	Investment planning in terms of behavior
Kaur & Hassan	2018	Retirement planning
Tan & Singaravello	2019	Retirement planning

#### MANAGERIAL IMPLICATION

The findings of this study are useful to the government. This study revealed that an individual's engagement in financial planning is directly correlated with the individual's age, education level, income level and financial literacy. Henceforth, the government is able to contribute to increasing the overall engagement in financial planning among the people through financial education. For instance, the government or relevant authorities such as the Ministry of Education could take initiatives based on the relationships between the variables, such as by incorporating more finance-related courses and syllabi into the curriculum and academics at an early age or stage of education so that individuals are aware of and engage in financial planning much earlier. Yew et al. (2017) also greatly emphasized that the incorporation of financial education in schools and universities is essential to strengthen financial education in a country. In short, financial education facilitates financial literacy, which consequently empowers and improves financial management for long-term financial security (Sundarasan et al. 2016).

For other relevant parties such as non-governmental organizations such as credit counseling and management agencies, the findings allow them to more appropriately and effectively adjust their programmes or activities aimed to raise financial awareness among individuals. These bodies could take initiatives to set up new programmes or campaigns targeting at youths with lower education level, income level and financial knowledge to enhance their awareness of the importance of applying each component of personal financial planning as early as possible to effectively achieve their financial goals down the road.

#### CONCLUSION

Financial planning is becoming an essential skill for every single individual across the globe. The key findings show that four hypotheses ( $H_1$ ,  $H_3$ ,  $H_4$ ,  $H_5$ ) are supported and

one is rejected ( $H_2$ ). Out of five independent variables proposed, four of them: age, education level, income level, and financial literacy have significant relationships with the dependent variable, which is the engagement in the financial planning process among young adults in Klang Valley, Malaysia, while gender shows no relationship with personal financial planning. By identifying the factors that correlate with the engagement in financial planning, recommendations can be made as to whether the relevant parties or authorities should take initiatives in enhancing young adults' financial awareness. In short, financial planning is a crucial skill that helps informed decision-making in the monetary context of life and achieving financial goals in this progressively sophisticated financial environment.

Limitations of this study include geographical constraints, existence of other factors and changes in current responses over time. Future researchers are recommended to target at respondents from all states and federal territories in Malaysia. The number of responses collected from different areas and states in Malaysia needs to be balanced throughout, to avoid bias in data collection and provide more accurate results. Moreover, future researchers are suggested to employ different variables in their studies such as financial attitude and awareness, as well as mediating and moderating variables into their framework to further explore the relationships between the existing variables. Lastly, future researchers are recommended to conduct their studies on a continuous basis. For instance, future researchers may conduct such a study over years to identify the alterations in respondents' behaviors and obtain reliable results as inconsistencies of the results can be eliminated after years of studies.

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## APPENDIX A

Variable	Items
Financial Literacy	<p>1. Suppose you had RM 100 in a savings account and the interest rate was 2% p.a. After 5 years, how much do you think you would have in the account? a. More than RM 100 b. Exactly RM 102 c. Less than RM 102 d. Do not know</p> <p>2. Suppose you had RM 100 in a savings account and the interest rate is 20% p.a. and you never withdraw money or interest payments. After 5 years, how much would you have on this account? a. More than RM 200 b. Exactly RM 200 c. Less than RM 200 d. Do not know</p> <p>3. Imagine that the interest rate on your savings account was 1% p.a. and inflation was 2% p.a. After 1 year, how much could you buy with the money in this account? a. More than today b. The same c. Less than today d. Do not know</p> <p>4. Assume a friend inherits RM 10,000 today and his sibling inherits RM 10,000 three years from now. Who is richer because of the inheritance? a. My friend b. His sibling c. Equally rich d. Do not know</p> <p>5. In the year 2017, your income has doubled, and prices of goods have doubled too, how much will you be able to buy with your income? a. More than today b. The same c. Less than today d. Do not know</p> <p>6. Net worth is: a. Difference between expenditures and income b. Difference between liabilities and assets c. Difference between cash inflow and outflow d. None of the above</p> <p>7. A company issues shares in the: a. Secondary markets b. Primary markets c. Stock exchange d. Derivative markets</p> <p>8. Who regulates the banks and financial institutions in Malaysia? a. Securities Board b. Securities Commission c. Insurance Board d. Bank Negara Malaysia</p> <p>9. The main reason to purchase insurance is to a. Protect you from a loss recently incurred b. Provide you with excellent investment returns c. Protect you from sustaining a severe loss d. Protect you from small incidental losses e. Improve your standard of living by filing fraudulent claims</p> <p>10. What is the general corporate tax rate in Malaysia? a. 20% b. 22% c. 24% d. 26%</p> <p>11. What deserves primary attention when one has to compare between banks to obtain a loan? a. Bank's reputation and reliability b. View of the bank office and qualifications of its personnel c. Interest rate and other costs d. Gifts and advertising campaigns</p>

*cont.*

*cont.*

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- Financial Planning
- Six-step financial planning
- I know what is financial planning.
  - I set financial goals and objectives in life.
  - I gather relevant data and analyze my financial position before making financial decisions.
  - I execute my financial plan with the help of experts.
  - I review my financial plan periodically after implementation.

Managing taxes

- I utilize tax relieves and rebate that I am entitled to when filing in my tax return.
- I am happy to pay tax as the amount I am paying is very minimal as compared to others.
- I manage my own taxes.

Managing liabilities

- I pay off the credit card outstanding amount monthly.
- Interest charged by financial institutions on credit card outstanding amount is reasonable.
- I pay my mortgage and hire purchase installments on time monthly.
- Personal loans offer by financial institutions in the market is a convenient tool.

Managing insurance

- I have enough insurance to ensure that if I were to pass away or become disabled, my family and I would not suffer financially.
- Currently I have life insurance but no other type of insurance.
- I can distinguish the different types of insurance policies offer in the market.
- I do not have any insurance.

Managing investment

- I invest my money based on the opinions of others.
- I understand my risk profile: high-risk, medium-risk, or low-risk taker.
- I invest in different instruments: share, unit trust, real estate, bond with minimal knowledge.
- The principal of compounding interest works for me in my investment.
- If I were given an amount equal to six-month salary to invest, I would know exactly what to do.

Managing retirement

- I know the amount I need to fund a comfortable retirement.
- I have started my retirement planning.
- I have a formal retirement plan developed in consultation with financial professionals.
- The mandatory EPF contributions made by employer and myself are sufficient for my retirement.

Estate planning

- I have a will.
  - I understand what a trust is.
  - Estate planning is important.
  - Having estate planning leave me peace of mind.
-