

The Significance of Personal Value, Risk Attitude and Trust on Life Insurance  
Ownership in the Northern Regions of Malaysia  
(*Kepentingan Nilai Peribadi, Sikap terhadap Risiko dan Kesediaan Mempercayai berhubung  
dengan Pemilikan Insurans Hayat di Kawasan Utara Malaysia*)

Lim Chee Chee  
Tan Suang Sin  
(School of Economics, Finance and Banking, Universiti Utara Malaysia)

ABSTRACT

*This paper examines the relationships of life insurance ownership with personal value, risk attitude and trust among the individuals in the northern regions of Malaysia to enable the undertaking of appropriate actions in promoting life insurance ownership by individuals (residing in the northern regions of Malaysia) who have not owned life insurance yet. A structured questionnaire was used to collect data. Stratified random sampling method was used to approach respondents. The data were subject to binary logistic regression analysis. The major finding shows that only trust is found to have a (positive and) significant relationship with life insurance ownership. Thus, this paper proposes that life insurance agents are required to undergo professional trainings in life insurance selling to minimize the incidents of misconducts among agents. This can promote a greater trust among the prospects in agents and increase the likelihood of owning life insurance. In addition, directions for future research are also highlighted.*

*Keywords: Personal value; risk attitude; trust; life insurance ownership; Malaysia*

ABSTRAK

*Kertas ini mengkaji hubungan pemilikan insurans hayat dengan nilai peribadi, sikap terhadap risiko dan kesediaan mempercayai di kalangan individu di kawasan utara Malaysia supaya tindakan wajar boleh diambil untuk meningkatkan pemilikan insurans hayat di kalangan individu (yang tinggal di kawasan utara Malaysia) yang masih belum memiliki insurans hayat. Soal selidik yang berstruktur digunakan untuk mengutip data. Persampelan berstrata rambang digunakan untuk mendapatkan responden. Data dianalisa menggunakan analisis regresi logistik binar. Penemuan penting kajian menunjukkan hanya kesediaan mempercayai mempunyai hubungan (positif) yang ketara dengan pemilikan insurans hayat. Oleh itu, kertas ini mencadangkan ejen insurans hayat perlu menghadiri latihan profesional berhubung dengan penjualan insurans hayat supaya peristiwa salah laku di kalangan ejen boleh dikurangkan. Ini dapat meningkatkan kepercayaan prospek pada ejen dan meningkatkan pemilikan insurans hayat. Di samping itu, hala tuju untuk penyelidikan pada masa depan juga dicadangkan.*

*Kata kunci: Nilai peribadi; sikap terhadap risiko; kesediaan mempercayai; pemilikan insurans hayat; Malaysia*

INTRODUCTION

Insurance is a form of risk management used to protect against fortuitous losses in an uncertain world. Therefore, a rational individual would be willing to pay premium to life insurers in exchange for protection against unexpected financial risks due to unfortunate events such as premature death. Sethu Karuppan, former president of National Association of Malaysian Life Insurance and Financial Advisors (NAMLIFA), highlighted that life insurance will play an even more important role and become necessary for breadwinners to protect their beneficiaries against any possible adverse effects when the costs of living increase over time (Money Compass 2012). Despite the importance of life insurance for financial security, the market penetration rate (measured by total number of policies/certificates in force divided by total population) for both the conventional and Islamic life insurance of Malaysia was only about 53.4% in 2015 (Bank Negara Malaysia 2016). The rate is far below the target of 75% by 2020 set by Malaysia's Economic Transformation Programme (Performance Management and Delivery Unit 2013).

Why only about half of the population in Malaysia has owned life insurance? Do the psychographic (intangible) characteristics of an individual such as his attitude, value, opinion, interest and emotion (Cambridge University

Press 2019; Merriam-Webster Incorporated 2019) motivate his/her desire to purchase life insurance? According to Global Consumer Insurance Survey 2012 conducted by Ernst & Young, its findings show that the psychographic characteristics of an individual have an influence on his/her decision in purchasing life insurance. The survey shows that about 95% of Malaysian respondents consider personal interactions with life insurance agents as an important factor in their decision making process to purchase life insurance. Malaysians prefer to purchase life insurance from agents they believe are trustworthy after having established a long-term relationship with them, and when they are confident that the agents are able to provide satisfactory services. On the other hand, will the (risk) attitude for risky choices or certainty of Malaysian individuals have an influence on their decision in owning life insurance? Are the Malaysian individuals with collectivistic or mixed (personal) value (who concern about the welfare of others) more likely to own life insurance for leaving behind a sum of money to care for others financially than those with individualistic (personal) value (who concern about their self-interest)?

Past studies about the influence of the psychographic characteristics of an individual on life insurance ownership have examined (not collectively) either the individual's personal value, risk attitude or trust, and these studies are mainly focused on U.S. (e.g. Burnett & Palmer 1984; Ferber & Lee 1980; Gutter & Hatcher 2008; Leary, Kane & Woods 2014). Only a little attention has been paid to the examination of the psychographic characteristics of an individual in motivating him/her in owning life insurance in Malaysia (Annamalah 2013; Loke & Goh 2012; Wan Aris, Sahak & Shaadan 2009). Therefore, this study has been undertaken to include the three commonly examined psychographic characteristics together in one study to empirically examine the significance of the personal value, risk-taking attitude and trusting belief of Malaysian individuals on life insurance ownership. In specific, this study extended the work of Tan and Lim (2017) by widening the geographical area of the study from a city (i.e. Alor Setar in Kedah) to cover the four states located in the northern regions of Malaysia (i.e. Kedah, Perlis, Penang and Perak) with a bigger sample size. However, this study is not able to cover the whole Malaysia due to financial constraints.

The findings of this study would provide further insights into the influence of personal value, risk attitude and trust to explain 'why' Malaysians purchase life insurance. As such, this study could help life insurers to better understand the purchasing behaviour of Malaysians towards life insurance so that life insurers could implement appropriate measures in retaining their existing policyholders and in motivating prospective policyholders to purchase life insurance. When more Malaysians own life insurance, their financial security is assured, so the burden of government to care for the society is reduced and this frees up resources for nation building. Life insurance market penetration rate will increase and life insurance industry makes a bigger contribution to the nation's gross domestic production.

The subsequent parts of this paper are organized as follows: the second section reviews related past studies that have examined the relationships of life insurance ownership with personal value, risk attitude and trust, the third section describes research methodology, the fourth section provides and discusses the results, the fifth section highlights the contributions of this study to management and academic, states its limitations and proposes the directions for future research, and the final section concludes the findings of this study.

## LITERATURE REVIEW

A number of past studies have examined the relationships of life insurance ownership with personal value, risk attitude and trust. A brief review of these studies is provided below.

### PERSONAL VALUE

Making a decision to own life insurance is an individual's lifetime allocation process in which he must split his (uncertain) labor income between a consumption plan and a bequest plan based on his (subjective) utility functions in line with his psychological traits (e.g. personal value) (Campbell 1980) acquired from the cultures unique to his country or society (Outreville 2018). As such an individual's personal value, whether individualistic value – emphasizing the individual's personal interest, collectivistic value – prioritizing the needs and goals of the group over the individual's self-interest, or mixed value – concerning about both the individual's self-interest and the welfare of others, will determine his actions and the way he is aspired (Hofstede 1983). Therefore, life insurance ownership could be influenced by the (individualistic, collectivistic or mixed) value transposed to the individuals from the society they come from. This has been proven by several past studies that have found personal value to have a significant relationship with life insurance ownership (Burnett & Palmer 1984; Chui & Kwok 2008; Ferber & Lee 1980; Omar 2007; Outreville 2018; Park & Lemaire 2011).

Ferber and Lee (1980) have examined life insurance ownership by couples in their early married life in two cities of Decatur and Peoria in Illinois. Their data were collected via 13 rounds of interviews with 149 couples between 1968 and 1976. Their findings show that a couple is more likely to own life insurance if the husband is optimistic (a dimension of individualistic value defined as being satisfied with life and considering life to be full of opportunities). Ferber and Lee (1980) explained that people who are optimistic plan for their future, so they are more likely to own life insurance. This is because by owning life insurance, they will be able to secure their financial position and to prepare for financial support for their family members in time of unforeseen events (e.g. premature death) to protect them against financial hardships.

Burnett and Palmer (1984) have examined the relationships between the psychographic characteristics of household heads and life insurance ownership (measured by amount of life insurance purchased) in U.S. The data used in their study were obtained from a middle-sized south-western city consumer panel. They have found that (i) the household heads who owned greater than average amount of life insurance are self-sufficient, do not believe in fate but believe that they are in control of their own welfare, and have a relatively low interest in religion, and (ii) the household heads who owned significantly larger amount of life insurance have exceptionally low reliance on government support. Self-reliance is a psychographic characteristic of individualistic value, so the individuals with individualistic value believe that relying on others is a sign of weakness and they can manage their own risks by purchasing life insurance. On the other hand, Burnett and Palmer's (1984) findings also show that the individuals who owned a larger amount of life insurance are those who consider the involvement in community activities to be important. Active involvement of oneself in community activities is a psychographic characteristic of mixed value, so the individuals with mixed value are concerned about the welfare of both themselves and the society as a whole. They believe that having enough life insurance coverage is necessary to protect their beneficiaries against financial difficulties, and to reduce the financial burdens of the government in providing for the old and those who have lost their breadwinners.

Omar (2007) has examined life insurance ownership in Nigeria. The finding of this study shows that the main reason discouraging life insurance ownership among Nigerians is the cultural characteristic of Nigerian society. Nigerian society exhibits high fatalism orientation (a dimension of collectivistic value defined as believing in fate and submitting to destiny) and often relies on family members and/or other relatives for aids in emergencies. Omar's (2007) finding shows that the individuals with high collectivistic value are less likely to own life insurance. This is because the individuals with high collectivistic value emphasize on the commitment to care for the interests of their in-group members (e.g. extended family, tribe or village) by protecting each other when they are in trouble. As a result, life insurance is not really needed as the risks are pooled among their in-group members.

The findings of cross-countries studies on life insurance ownership also show that there is a significant relationship between national culture and life insurance ownership. Chui and Kwok (2008) have conducted a study across 41 countries to examine the relationships between cultural differences and life insurance ownership (measured by premium per capita) from 1979 to 2001. Their findings show that life insurance ownership is higher among countries that are more feminine (a dimension of mixed value) and countries that exhibit higher individualistic value. Although uncertainty avoidance (a dimension of mixed value) is found to have a weak relationship with life insurance ownership, countries with stronger uncertainty avoidance have a slightly higher level of life insurance ownership.

Park and Lemaire (2011) extended Chui and Kwok's (2008) work to examine life insurance ownership (measured by premium to GDP) of 27 countries from 2000 to 2008. They found that individualistic value has a weak positive relationship with life insurance ownership. Meanwhile, life insurance ownership is higher among countries with stronger uncertainty avoidance and higher femininity index.

Later, Outreville (2018) has conducted a study to examine the influence of national culture on life insurance ownership (measured by the natural logarithm of insurance density) of 15 emerging countries for the years of 2000, 2010 and 2015. Outreville (2018) has employed Hofstede's (power distance, uncertainty avoidance, individualism and masculinity) and Schwartz's (egalitarianism/hierarchy, harmony/mastery and conservatism/autonomy) cultural variables in his study. The findings show that uncertainty avoidance has a significant relationship with life insurance ownership for all the years of 2000, 2010 and 2015. Meanwhile, individualism is found to have a significant relationship with life insurance ownership only in year 2000.

The findings of both Chui and Kwok (2008) and Park and Lemaire (2011) show that life insurance ownership is influenced by the personal value of the individuals transposed to them from their national culture. The individuals from a feminine society with strong uncertainty avoidance culture exhibit mixed value, so they are concerned about both their self-interest and the well-being of others. They emphasize on quality of life and at the same time they are anxious about uncertainties. Thus, they seek for security to protect against uncertainties in life so that they can live in a more predictable environment. As such individuals with mixed value are more likely to own life insurance to

care for their own welfare and the needs of their dependents as well as their society. Meanwhile, the findings on uncertainty avoidance and individualism in Outreville's (2018) more recent study provide further support to the findings of Chui and Kwok (2008) and Park and Lemaire (2011).

#### RISK ATTITUDE

Risk attitude refers to an individual's preference for risky choices (Wärneryd 1996). Expected utility theory with or without life insurance has been used to explain the decisions of individuals with different risk attitudes in purchasing life insurance (Annamalah 2013; Gutter & Hatcher 2008; Loke & Goh 2012; Tan & Lim 2017). The individual who has decided to purchase life insurance is opting for a certain level of utility over an uncertain level of utility. The purchase of life insurance is regarded as a demand for certainty, or equivalently for avoiding risk. As such, a risk-averse individual is more likely to purchase life insurance for assured protection against unforeseen events (e.g. premature death).

Gutter and Hatcher (2008) have examined life insurance ownership in U.S. Their findings are in line with expected utility theory. Individuals who are not willing to take investment risk (a proxy for highly risk-averse individuals) are more likely to own life insurance than those who are willing to take a moderate level of investment risk (a proxy for moderately risk-averse individuals).

Loke and Goh (2012), Annamalah (2013) and Tan and Lim (2017) have examined life insurance ownership in Malaysia. Their findings on the relationship between risk attitude and life insurance ownership are mixed. Tan and Lim's (2017) findings are in line with expected utility theory. Risk-averse individuals are found to be more likely to own life insurance. However, Loke and Goh's (2012) findings show otherwise, and Annamalah's (2013) findings show that risk attitude does not have a significant relationship with life insurance ownership.

#### TRUST

Trust is an essential element in transactions that involve other people's money (including life insurance ownership). Trust refers to the confidence an individual (e.g. prospective policyholder) placed on another individual (e.g. life insurance agent) with the belief that the latter would act at the best interest of the former (McKnight, Cummings & Chervany 1998). Several past studies have found that an individual's trust in life insurance agents has a significant relationship with life insurance ownership (Amron, Usman & Ali Mursid 2018; Leary et al. 2014; Omar 2007; Rajendran & Balamurugan 2017; Wan Aris et al. 2009).

Omar (2007) has examined life insurance ownership in Nigeria. The data were collected from a survey conducted in Abuja, the federal capital of Nigeria. The respondents are aged between 25 and 54 years old, belong to middle and high income groups, do not own life insurance and have at least one dependent. Omar's (2007) findings show that the main reason for not owning life insurance among Nigerians is the lack of trust and confidence in life insurers.

Wan Aris et al. (2009) have examined Islamic life insurance ownership in Malaysia. Their sample consists of the Malay individuals residing in Shah Alam. Their findings show that the main reasons for the respondents not owning Islamic life insurance are their dissatisfaction with the services provided by life insurance agents and the lack of confidence in life insurers.

Leary et al. (2014) have examined the potential causes of decline in life insurance ownership among U.S. households over a period of 40 years. Their data were provided by Life Insurance and Market Research Association (LIMRA) for years 2010, 2012 and 2013. They found that prospective customers desire a trusted advisor who is knowledgeable and able to provide appropriate financial advice as well as care for their welfare. The lack of trusted professional is the main reason prospective customers are hesitant to own life insurance.

Rajendran and Balamurugan (2017) have conducted an exploratory study to examine the importance of nine factors (namely (i) trust in insurance company, (ii) trust in insurance agent, (iii) product/policy features, (iv) excellent claim settlement, (v) employee's behavior towards customer, (vi) premium charged and flexibility of premium payment, (vii) extensive distribution channel, (viii) advertisement and promotion, and (ix) excellent infrastructure) considered by the policyholders in their purchase of life insurance from both the public and private life insurance companies in Perambalur District, India. A weighted ranking method was used to analyze and prioritize the nine factors examined in their study. Their findings show that trust in insurance company and trust in insurance agent appear to be the most important factors that have influenced the policyholders to purchase life insurance. The trustworthiness of the life insurance company and its agent (with respect to company performance, long established relationship with policyholders and the ability of agent in fulfilling the policyholders' needs) is the major concern of the policyholders in making a purchase decision of life insurance.

In a recent study, Amron et al. (2018) have examined the influence of trust on the purchase decision of individuals from the Muslim society of Indonesia who have owned Islamic life insurance for at least one year. Their findings show that the existing policyholders' trust in the insurance company and its agent would encourage the circulation of positive word of mouth (WOM) about Islamic life insurance products, which in turn would increase the tendency of other individuals to purchase Islamic life insurance.

Based on the above discussion, this study will examine the following hypothesized relationships:

- (1) Personal value has a relationship with life insurance ownership.
  - (a) Individualistic (personal) value has a positive relationship with life insurance ownership.
  - (b) Collectivistic (personal) value has a negative relationship with life insurance ownership.
  - (c) Mixed (personal) value has a positive relationship with life insurance ownership.
- (2) In line with expected utility theory, risk-taking attitude has a negative relationship with life insurance ownership.
- (3) Trusting belief has a positive relationship with life insurance ownership.

The hypothesized relationships of life insurance ownership with personal value, risk attitude and trust examined in this study are summarized in the research framework presented below:

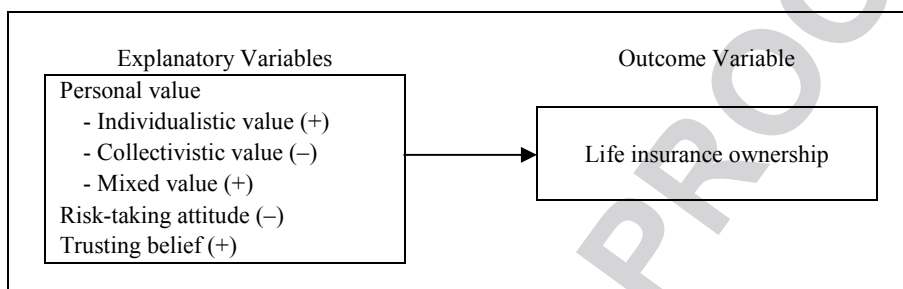


FIGURE 1. Research framework

## RESEARCH METHODOLOGY

This section describes data collection, questionnaire design and the methods of analysis of this study.

### DATA COLLECTION

This study employed stratified random sampling method to collect its data. According to Krejcie and Morgan (1970), for a population of 6,202,000, a sample size of 384 is required. Taking into account that a sample size greater than 400 is recommended to run binary logistic regression analysis (Hair et al. 2010), this study has approached 500 respondents in a stratified sampling manner as detailed in Table 1. Stratified sampling was used so that the sample of this study is representative of the population composition (Malay, 62.4%; Chinese, 27.2%; Indian, 9.8%; other races, 0.6%) of Kedah, Perlis, Penang and Perak (the northern regions of Malaysia) which also resembling the population composition of Malaysia (Malay, 68.1%; Chinese, 23.7%; Indian, 7.2%; other races, 1.0%) in 2015 (Department of Information Malaysia 2015). Therefore, the findings of this study could be generalized to the whole Malaysia.

TABLE 1. Stratified random sampling by states and ethnic groups

A. Population (N=6,202,000)										
State	Malay		Chinese		Indian		Other Races		Total	
	('000)	%	('000)	%	('000)	%	('000)	%	('000)	%
Kedah	1574.4	79	263.2	13	143.2	7	19.6	1	2000.4	100
Perlis	211.4	89	19.2	8	3.1	1	4.7	2	238.4	100
Penang	699.4	44	689.6	44	166.0	11	4.7	1	1559.7	100
Perak	1386.7	57	713.0	30	293.3	12	10.5	1	2403.5	100



Source: Department of Information Malaysia (2015)

**B. Sample (n=500)**

State	Malay		Chinese		Indian		Other Races		Total	
		%		%		%		%		%
Kedah	126	79	21	13	11	7	2	1	160	100
Perlis	17	89	1	8	1	1	1	2	20	100
Penang	55	44	55	44	14	11	1	1	125	100
Perak	111	57	59	30	23	12	2	1	195	100

Note: If the total percent does not equal 100%, it is because of rounding effects.

Data collection was conducted from mid July to end of December 2015. The units of analysis of this study were individuals approached at their work places and shoppers intercepted in shopping malls. Out of the 500 sets of questionnaires distributed, 450 sets were returned but 417 sets were found to be completely filled up. After screening for outliers, four cases with out-of-range standardized residual (ZResid) values were excluded from the sample. Hence, only 413 cases (representing a response rate of 82.6%) were available for further analysis.

**QUESTIONNAIRE DESIGN**

A structured questionnaire was used to collect the data required by this study. There are four sections in the questionnaire. The first three sections examine the respondents' personal value, their risk-taking attitude and their trusting belief in life insurance agents. The last section gathers information about the respondents' life insurance ownership and their demographic characteristics (i.e. gender, age, marital status, education level, number of dependents, ethnicity and monthly income).

To measure personal value, this study adopted the shorter version of portrait values questionnaire (PVQ) employed by Schwartz (2003) in European Social Survey to examine the personal value of individuals in Finland, Israel, Poland, Slovenia, Sweden and U.K. The PVQ is able to determine whether the respondents have individualistic (10 items), collectivistic (six items) or mixed (five items) personal value by answering how similar each description as compared to their opinions or behaviors based on a five-point interval scale of '(1) – not like me at all' to '(5) – very much like me'.

To measure risk attitude, this study incorporated the instruments developed by Blais and Weber (2006) and Butler et al. (2012). The former instrument is the shorter version of Domain-Specific Risk-Taking (DOSPERT) scale that contains three domains, namely financial, safety and recreational domains. This instrument has been employed by Blais and Weber (2006) to examine the risk attitude of English- and French- speaking North Americans. The latter instrument contains four domains, namely financial, safety, recreational and medical domains. This instrument has been employed by Rosman et al. (2013) and Schwartz et al. (2013) to examine the risk attitude of citizens in U.S. and Japanese in Tokyo respectively. The inclusion of different domains is meant to mimic the many types of risky activities an individual would possibly come across in his life situations in obtaining a general measure of risk attitude for the individual. There are a total of 23 items to measure risk attitude in the four domains, namely financial (six items), safety (six items), recreational (five items) and medical (six items) domains. The respondents were asked how likely they would engage in each risky activity or behavior if they were found to be in that situation (i.e. respondents' risk-taking attitude) based on a five-point interval scale of '(1) – very unlikely' to '(5) – very likely'.

No specific instrument has been developed to measure an individual's trust in life insurance agents. So this study adapted the instrument developed by Mcknight, Choudhury and Kacmar (2002) to examine the consumers' trust in electronic commerce vendor they have no prior experience with in order to measure an individual's trust in life insurance agents. The instrument has 11 items. The respondents were asked to what extent they would agree with each description of the behaviors of life insurance agents as compared to their beliefs (i.e. respondents' trusting belief in life insurance agents) based on a five-point interval scale ranging from '(1) – strongly disagree' to '(5) – strongly agree'.

The fourth and last section of the questionnaire gathers information about life insurance ownership. The respondents were required to answer a question of "Do you own life insurance?" to indicate whether they owned (conventional or Islamic) life insurance or otherwise. The respondents were also required to indicate their gender (male or female), ethnicity (Malay, Chinese, Indian or other races), marital status (single, married, divorced/separated or widowed), education (low – completed secondary/high school, average – obtained other academic qualifications, or high – acquired a bachelor, master or doctoral degree) and monthly income (either low –

earning less than RM2,000, low-middle – earning between RM2,000 and RM4,000, high-middle – earning between RM4,001 and RM6,000, or high – earning more than RM6,000). Meanwhile, for age and number of dependents, the respondents were required to state their age and number of persons in the household depending on their financial support respectively.

The survey questionnaire has been tested in a pilot study. Based on the results of reliability tests, the original 55 items were reduced to 42 items – individualistic value (10 items, reduced to six items), collectivistic value (six items, no deletion), mixed value (five items, no deletion), risk attitude (23 items, reduced to 14 items) and trust (11 items, no deletion). Then, the 42 items were subject to factor analysis. Another 10 items were being removed: two items from collectivistic value, five items from risk attitude and three items from trust. Ultimately, the 42 items were reduced to 32 items. This study has employed the refined version of the instrument containing a total of 32 items to measure individualistic value (six items), collectivistic value (four items), mixed value (five items), risk attitude (nine items) and trust (eight items). (Refer to Table 4 and Table 5 to view the items in personal value, risk attitude and trust.)

#### METHODS OF ANALYSIS

Binary logistic regression analysis was used to examine the relationships of life insurance ownership with personal value, risk attitude and trust. Prior to performing binary logistic regression analysis, the items in personal value, risk attitude and trust were being assessed for their reliability (based on corrected item-total correlation and Cronbach's alpha values) and interrelatedness (by performing factor analysis). An item with a low corrected item-total correlation value of less than 0.3 is to be removed because it is measuring something different from the remaining items. As the rule of thumb, a construct must have a Cronbach's alpha value at or above 0.6 in order for the items in the construct to be considered reliable (Pallant 2013). Meanwhile, factor analysis was conducted using principal components analysis with varimax rotation to reduce a large number of items to a set of items that are highly interrelated. Before factor analysis was conducted, the items were examined for their suitability to be subject to factor analysis with Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity. The KMO index must be greater than 0.6 and the Bartlett's test of sphericity is significant (i.e.  $p < 0.05$ ) in order to proceed with factor analysis (Pallant 2013). In factor analysis, for a sample size of 413, items with factor loadings (correlation between item and factor) of 0.3 is enough to be considered significantly interrelated to the underlying factors (Hair et al. 2010). As a guide, the items must have communalities values not less than 0.5 in order to be considered having sufficient explanation power (Hair et al. 2010).

Finally binary logistic regression analysis was used to examine the relationships of life insurance ownership with personal value, risk attitude and trust. It is a regression of the binary choice of owning life insurance or not (i.e. life insurance ownership) on the mean scores of the items in individualistic value, collectivistic value, mixed value, risk attitude and trust. In order to confirm that the estimated model is free from collinearity problem, multicollinearity diagnostic test was performed to ensure that no tolerance values are less than 0.1 or no variance inflation factor (VIF) values are above 10 (Pallant 2013). Then, Omnibus Tests of Model Coefficients and Hosmer and Lemeshow Test were used to examine the overall goodness of fit of the estimated binary logistic regression model. The model is regarded as a good fit model when the result of Omnibus Tests of Model Coefficients is significant, while the result of Hosmer and Lemeshow Test is not significant (Pallant 2013). On the other hand, the Cox & Snell and Nagelkerke R-squared values were used to measure how much variance in life insurance ownership (outcome variable) could be explained by personal value, risk attitude and trust (explanatory variables) collectively. Meanwhile, the overall correct percentage was used to gauge the percent of cases for which life insurance ownership (outcome variable) is correctly predicted by the estimated model.

#### DISCUSSION OF RESULTS

This section presents and discusses the results of this study. Firstly, it describes the sample of this study. Next, it provides the results of reliability test and factor analysis. Then, discussions are made regarding the goodness of fit of the estimated binary logistic regression model, and the relationships of life insurance ownership with personal value, risk attitude and trust.

DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

This study has 413 cases in its sample. Most of the respondents are female, single, have low education level, Malay and in low income group. The number of respondents who owned life insurance is greater than those who did not. The average age of the respondents is 30 years old and the average number of persons in the household depending on their financial support is two persons. Refer to Table 2 for more details about the demographic characteristics of the respondents in this study.

TABLE 2. Demographic characteristics of the respondents (n=413)

Demographic Characteristic	Attribute	Frequency	Valid Percent (%)
Gender	Female	211	51.1
	Male	202	48.9
Marital status	Single	231	55.9
	Married	170	41.2
	Divorced/Separated	7	1.7
	Widowed	5	1.2
Education level	Low	264	63.9
	Average	63	15.3
	High	86	20.8
Ethnicity	Malay	274	66.3
	Chinese	112	27.1
	Indian	22	5.3
	Others	5	1.2
Income level	Low	260	63
	Low-middle	109	26.4
	High-middle	26	6.3
	High	18	4.4
State	Kedah	154	37.3
	Penang	103	24.9
	Perak	134	32.4
	Perlis	22	5.3
Life insurance ownership	Yes	227	55
	No	186	45
Demographic Characteristic (Continuous Variable)	Average	Minimum	Maximum
Age	30	16	64
Number of dependents	2	0	11

RESULTS OF RELIABILITY TEST

The results of reliability test show that the corrected item-total correlation values for the 32 items in the five constructs of individualistic value, collectivistic value, mixed value, risk attitude and trust range from 0.339 to 0.774. No item has corrected item-total correlation value less than 0.3. Meanwhile, the Cronbach's alpha values for the five constructs range from 0.636 to 0.914. Their values are above 0.6. As such, the 32 items in the five constructs are considered reliable. The summary results of reliability test are shown in Table 3.

TABLE 3. Summary results of reliability test

Construct	No. of Items	Mean (Std. Dev)	Cronbach's Alpha
Individualistic value	6	4.040 (0.614)	0.754
Collectivistic value	4	4.084 (0.624)	0.636
Mixed value	5	4.271 (0.567)	0.698
Risk attitude	9	2.346 (0.746)	0.771
Trust	8	3.408 (0.750)	0.914
Total	32		



FACTOR ANALYSIS

Factor analysis was performed to ensure that each set of items in the five constructs distinctively belongs to one single construct (discriminant validity) and all the items within a single construct are highly interrelated (convergent validity) so that the dataset with a ‘clean’ factor structure was being subject to further analysis. Before performing factor analysis, the 32 items in the five constructs were first tested for their suitability for factor analysis with KMO measure of sampling adequacy and Bartlett’s Test of Sphericity. The results show that all KMO values are greater than 0.6 for the five constructs: individualistic value (0.775), collectivistic value (0.674), mixed value (0.720), risk attitude (0.801) and trust (0.924). Meanwhile, the result of Bartlett’s Test of Sphericity is highly significant ( $p=0.000$ ). Hence, the 32 items in the five constructs are considered suitable to be subject to factor analysis.

Principal components analysis with varimax rotation was employed as an extraction method. Three items in risk attitude were being removed because they have problems of cross-loadings between factors that violating discriminant validity and convergent validity. Eventually, the 32 items were reduced to 29 items: (i) six items in individualistic value can explain 45.25% of the variance with eigenvalues at 2.715, (ii) four items in collectivistic value can explain 47.86% of the variance with eigenvalues at 1.914, (iii) five items in mixed value can explain 45.77% of the variance with eigenvalues at 2.288, (iv) six items in risk attitude can explain 45.04% of the variance with eigenvalues at 2.703, and (v) eight items in trust can explain 62.52% of the variance with eigenvalues at 5.002.

The factor loadings for the 29 items are found to be significant. Their values range from 0.597 to 0.838 implying that these items are highly interrelated to their underlying factors. The communalities values for 12 items are satisfactorily above 0.50. Their values are in the range of 0.535 to 0.702. However, there are 17 items with communalities values less than 0.5: five items in individualistic value, two items in collectivistic value, five items in mixed value, four items in risk attitude, and one item in trust. Despite not having satisfactory communalities values, these 17 items are retained in this study because they have significant factor loadings. The summary results of factor analysis are shown in Table 4 and Table 5.

TABLE 4. Summary results of factor analysis for personal value

Individualistic Value (6 Items)			
Code	Attribute	Communalities Value	Factor Loadings
I1	Like surprises and always look for new things to do.	0.559	0.747
I2	Like to do things in my own original way.	0.487	0.698
I3	Like to be free to plan and choose own activities.	0.375	0.612
I4	Seek every chance to have fun.	0.482	0.694
I5	Look for adventures and like to take risks.	0.409	0.640
I6	Want to enjoy life.	0.404	0.635
Eigenvalues			2.715
Percentage of Total Variance (%)			45.247
Collectivistic Value (4 Items)			
Code	Attribute	Communalities Value	Factor Loadings
C1	Devote myself to people close to me.	0.360	0.600
C2	Follow rules at all times.	0.477	0.690
C3	Not to draw attention to myself.	0.543	0.737
C4	Avoid doing anything people said is wrong.	0.535	0.731
Eigenvalues			1.914
Percentage of Total Variance (%)			47.862
Mixed Value (5 Items)			
Code	Attribute	Communalities Value	Factor Loadings
M1	Want justice for everybody.	0.495	0.703
M2	Want to understand people.	0.402	0.634
M3	Want to look after the environment.	0.490	0.700
M4	Avoid anything that might endanger my safety.	0.428	0.654
M5	Want my country to be strong and can defend its citizens.	0.474	0.688
Eigenvalues			2.288
Percentage of Total Variance (%)			45.768

TABLE 5. Summary results of factor analysis for risk attitude and trust

Risk Attitude (6 Items)			
Code	Attribute	Communalities Value	Factor Loadings
R3	Walking alone at night.	0.363	0.602
R4	Camping in the wilderness.	0.557	0.747
R5	Holidaying in a third-world country without pre-arranged travel and hotel accommodation.	0.384	0.619
R6	Engaging in a dangerous sport.	0.596	0.772
R7	Piloting a small plane.	0.446	0.668
R8	Participating in a clinical trial for drug effectiveness.	0.357	0.597
		Eigenvalues	2.703
		Percentage of Total Variance (%)	45.044
Trust (8 Items)			
Code	Attribute	Communalities Value	Factor Loadings
T1	Life agent would act in my best interest.	0.544	0.737
T2	Life agent would do his/her best to help me.	0.666	0.816
T3	Life agent is interested in my well-being.	0.641	0.801
T4	Life agent is truthful in his/her dealings with me.	0.686	0.828
T5	Life agent would keep his/her commitments.	0.642	0.801
T6	Life agent is sincere and genuine.	0.702	0.838
T7	Life agent is competent and effective in providing financial advice.	0.655	0.810
T8	Life agent is capable and proficient.	0.465	0.682
		Eigenvalues	5.002
		Percentage of Total Variance (%)	62.523

THE RELATIONSHIPS OF LIFE INSURANCE OWNERSHIP WITH  
PERSONAL VALUE, RISK ATTITUDE AND TRUST

Table 6 presents the results of the estimated binary logistic regression model in panel A and the results on the goodness of fit of the estimated model in panel B. As a guide for decision, the p-value of 0.05 or lower is considered as significant. This section will highlight and discuss the goodness of fit of the estimated model first. Then, it is followed by the discussion on the relationships of life insurance ownership with personal value, risk attitude and trust.

The results of multicollinearity diagnostic test show that no variable in the model has a tolerance value less than 0.10 or a VIF value above 10. Hence, the estimated model is free from collinearity problem. From the panel B of Table 6, the result of Omnibus Tests of Model Coefficients is significant (Chi-square=27.763, df=5, p=0.000). This shows that the estimated model is significantly better than the baseline model. Meanwhile, the result of Hosmer and Lemeshow Test is not significant (Chi-square=15.415, df=8, p=0.052). This indicates that the predicted outcomes for life insurance ownership (from the estimated model) are not significantly different from the observed samples for life insurance ownership. Personal value, risk attitude and trust collectively are able to explain 6.5% (Cox & Snell R-squared value) to 8.7% (Nagelkerke R-squared value) of the variance in life insurance ownership. The estimated model correctly predicts 58.1% of the cases (i.e. 240 out of 413 cases are correctly predicted).

From the panel A of Table 6, trust (B=0.702, p=0.000) is the only factor found to have a positive and significant relationship with life insurance ownership. A greater trust in life insurance agents will increase life insurance ownership. The result shows that the individuals who have a greater trust in life insurance agents are two times more likely to own life insurance. The finding of a significant positive relationship between trust and life insurance ownership provides further support to the findings of Amron et al. (2018), Leary et al. (2014), Omar (2007), Rajendran and Balamurugan (2017) and Wan Aris et al. (2009).

On the other hand, personal value fails to show significant relationship with life insurance ownership, although mixed value is found to have the hypothesized positive relationship with life insurance ownership. These results do not provide support to the findings of Burnett and Palmer (1984), Chui and Kwok (2008), Ferber and Lee (1980), Omar (2007), Outreville (2018) and Park and Lemaire (2011). Likewise, risk attitude also shows insignificant relationship with life insurance ownership. This result is similar to the finding of Annamalah (2013). The possible reason to explain these insignificant findings could be the homogeneous nature of the sample respondents of this

study (being confined to the northern regions of Malaysia) that they do not show distinct differences in their personal value and risk attitude in connection with life insurance ownership.

TABLE 6. Estimated model showing the relationships of life insurance ownership with personal value, risk attitude and trust and its goodness of fit (n=413)

A. Estimated Model						
Variable	B	S.E.	Wald	Exp(B)	95.0% C.I. for EXP(B)	
					Lower	Upper
Individualistic value	-0.147	0.192	0.583	0.864	0.593	1.258
Collectivistic value	0.106	0.216	0.241	1.112	0.728	1.699
Mixed value	0.184	0.247	0.554	1.201	0.741	1.948
Risk attitude	0.060	0.125	0.230	1.062	0.831	1.358
Trust	0.702	**	0.148	22.439	2.018	2.698
Constant	-2.951	1.029	0.112	0.052		
Note: ** p<0.01						
B. Goodness of Fit of Estimated Model						
Omnibus Tests of Model Coefficients, Chi-square (df=5, p=0.000)						27.763
Hosmer and Lemeshow Test, Chi-square (df=8, p=0.052)						15.415
Cox & Snell R-Squared						0.065
Nagelkerke R-Squared						0.087
Overall Correct Percentage						58.1%

## MANAGERIAL AND THEORETICAL IMPLICATIONS

### MANAGERIAL IMPLICATIONS

This study suggests that trust is the predominant factor for life insurance ownership. Individuals are more willing to purchase life insurance from the agents who have gained their trust. Trust is built from a firm and established relationship that goes beyond the typical customer-agent relationship. Life insurance agents who have managed to make a personal connection with their prospective policyholders are able to propose the right life insurance policy that suits the needs of the prospective policyholders. The trustworthiness of life insurance agents is judged by their knowledge about life insurance products and their honesty in dealing with the customers. Therefore, based on the findings of this study, life insurers and Life Insurance Association of Malaysia (LIAM) could devise a strategy to shape their agents to become a trustworthy individual who can be relied upon in promoting the ownership of life insurance. A such, it is suggested that life insurers and LIAM could require life insurance agents to undergo professional trainings from time to time to gain knowledge about new products of life insurance, to keep them abreast of regulatory changes in insurance industry, and to acquaint themselves with the code of ethics and conduct in life insurance selling in maintaining their professional image. This could minimize the incidents of misconducts among life insurance agents (e.g. giving false information about an insurance plan) and the occurrence of force selling. This strategy could promote a greater trust of prospective policyholders in life insurance agents and increase their likelihood to purchase life insurance, so this will increase the new business of insurance company. Moreover, the long-term established trust of the existing policyholders in their life insurance agents will uphold life insurance persistency rate in retaining the business in force of insurance company.

### THEORETICAL IMPLICATIONS

This study is important for market research. It provides a better understanding to life insurers that the trusting belief of prospective policyholders in life insurance agents is an important factor in promoting life insurance. This finding demonstrates the important roles of life insurance agents and implies that life insurers could increase their life insurance business through a group of trustworthy life insurance agents to convince prospective policyholders to purchase life insurance.

This study has enriched the literature and hopefully it could motivate other researchers to further examine the relationships of life insurance ownership with other psychographic characteristics of customers for more insightful information of why people want to own life insurance. Although the finding of this study shows no support for

expected utility theory in life insurance ownership, the theoretical contribution of expected utility theory in life insurance ownership is worth a more in-depth of study in the future.

#### LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

This study has several limitations. First, the scope of this study is confined to the northern regions of Malaysia. It is recommended that future studies widen their geographical scope to cover whole Malaysia and to include a much bigger sample size for reliable findings to validate the findings of this study.

Second, the inclusion of the three psychographic characteristics of customers, namely personal value, risk attitude and trust, commonly examined separately in past studies are not sufficient to explain the motivation (the 'why' factor) of Malaysians in life insurance ownership. It is recommended that future studies include other psychographic characteristics of customers not being examined in this study at the time they further examine the relationship between personal value and life insurance ownership, and the theoretical contribution of expected utility theory in substantiating the relationship between risk attitude and life insurance ownership (which are found to be not significant in this study).

Third, this study does not differentiate Malaysians by their ethnic groups. There are three major ethnic groups of Malay, Chinese and Indian in Malaysia. It is believed that these three different ethnic groups could possibly exhibit different psychological traits that influence their life insurance ownership patterns. Therefore, it is recommended that future studies be conducted to examine these three ethnic groups separately in order to better understand their respective patterns of life insurance ownership. This will enable the policymakers to devise more specific policies to increase the life insurance ownership of different ethnic groups in a more effective manner. With the formulation of specific policies in addressing the issues of low life insurance ownership of the different ethnic groups, this could probably help accelerate the market penetration rate of life insurance in Malaysia.

In view of Malaysia is a multi-ethnic and multi-cultural country, there is a possibility that the findings on the relationships between the psychographic characteristics of its population and life insurance ownership are different from the findings of studies administrated in other countries. As such, further studies in this respect in Malaysia are still worth to be undertaken.

#### CONCLUSION

The major finding of this study shows that the respondents in the northern regions of Malaysia who have a stronger trusting belief in life insurance agents are two times more likely to own life insurance. This is simply because the individuals who have a greater trust in life insurance agents are more willing to be guided by the agents to purchase life insurance. Based on the findings of this study, it is suggested that life insurance agents be made compulsory by insurers and LIAM to undergo professional trainings to maintain their professional image in shaping them to become a trustworthy individual in promoting life insurance ownership.

#### ACKNOWLEDGEMENT

The authors wish to thank Universiti Utara Malaysia in funding this study under the Research Grant Scheme for Postgraduate Program (S/O code 15927).

#### REFERENCES

- Amon, Usman & Ali Mursid. 2018. Buying decision in the marketing of Sharia life insurance (evidence from Indonesia). *Journal of Islamic Marketing* 9(2): 370-383.
- Annamalah, S. 2013. Profiling and purchasing decision of life insurance policies among married couples in Malaysia. *World Applied Sciences Journal* 23(3): 296-304.
- Bank Negara Malaysia. 2016. Monthly statistical bulletin December 2016. Available at [http://www.bnm.gov.my/index.php?ch=en\\_publication&pg=en\\_msb&ac=238&lang=en&uc=2](http://www.bnm.gov.my/index.php?ch=en_publication&pg=en_msb&ac=238&lang=en&uc=2).
- Blais, A-R. & Weber, E.U. 2006. A domain-specific risk-taking (DOSPERT) scale for adult populations. *Judgment and Decision Making* 1(1): 33-47.
- Burnett, J.J. & Palmer, B.A. 1984. Examining life insurance ownership through demographic and psychographic characteristics. *Journal of Risk and Insurance* 51(3): 453-467.

- Butler, S., Rosman, A., Seleski, S., Garcia, M., Lee, S., Barnes, J. & Schwartz, A. 2012. A medical risk attitude subscale for DOSPERT. *Judgment and Decision Making* 7(2): 189-195.
- Cambridge University Press. 2019. Dictionary provided meaning for psychographic. Available at <https://dictionary.cambridge.org/dictionary/english/psychographics?q=psychographic>.
- Campbell, R.A. 1980. The demand for life insurance: An application of the economics of uncertainty. *Journal of Finance* 35(5): 1155-1172.
- Chui, A.C.W. & Kwok, C.C.Y. 2008. National culture and life insurance consumption. *Journal of International Business Studies* 39(1): 88-101.
- Department of Information Malaysia. 2015. Population by states and ethnic group, 2015. Available at <https://web.archive.org/web/20160212125740/http://pmr.penerangan.gov.my/index.php/info-terkini/19463-unjuran-populasi-penduduk-2015.html>.
- Ernst & Young. 2012. Global consumer insurance survey 2012: Voice of the customer time for insurers to rethink their relationships (global overview). Available at <https://thecustomerblog.files.wordpress.com/2012/02/ey-global-report-global-consumer-insurance-survey-2012.pdf>.
- Ferber, R. & Lee, L.C. 1980. Acquisition and accumulation of life insurance in early married life. *Journal of Risk and Insurance* 47(4): 713-734.
- Gutter, M.S. & Hatcher, C.B. 2008. Racial differences in the demand for life insurance. *Journal of Risk and Insurance* 75(3): 677-689.
- Hair, J.F.Jr., Black, W.C., Babin, B.J. & Anderson, R.E. 2010. *Multivariate Data Analysis: A Global Perspective*. 7th edition. Upper Saddle River, New Jersey: Pearson Education.
- Hofstede, G. 1983. The cultural relativity of organization practices and theories. *Journal of International Business Studies* 14(2): 75-89.
- Krejcie, R.V. & Morgan, D.W. 1970. Determining sample size for research activities. *Educational and Psychological Measurement* 30: 607-610.
- Leary, P., Kane, K.M. & Woods, D.F. 2014. Reversing the decline in life insurance ownership. *Journal of Financial Service Professionals* 68(4): 33-41.
- Loke, Y.J. & Goh, Y.Y. 2012. Purchase decision of life insurance policies among Malaysians. *International Journal of Social Science and Humanity* 2(5): 415-420.
- Mcknight, D.H., Choudhury, V. & Kacmar, C. 2002. The impact of initial consumer trust on the intentions to transact with a website: A trust building model. *Journal of Strategic Information System* 11: 297-323.
- Mcknight, D.H., Cummings, L.L. & Chervany, N.L. 1998. Initial trust formation in new organizational relationships. *Academy of Management Review* 23(3): 473-490.
- Merriam-Webster Incorporated. 2019. Dictionary provided meaning for psychographic. Available at <https://www.merriam-webster.com/dictionary/psychographic>.
- Money Compass. 2012. NAMLIFA to defend the agency system and create a favorable environment for agents. Available at <http://moneycompass.com.my/en/namlifa-to-defend-the-agency-system-and-create-a-favourable-environment-for-agents>.
- Omar, O.E. 2007. The retailing of life insurance in Nigeria: An assessment of consumers' attitudes. *Journal of Retail Marketing Management Research* 1(1): 41-47.
- Outreville, J.F. 2018. Culture and life insurance ownership: Is it an issue? *Journal of Insurance* 41(2): 168-192.
- Pallant, J. 2013. SPSS Survival Manual: A Step by Step Guide to Data Analysis Using IBM SPSS. 5th edition. New York, NY: McGraw-Hill.
- Park, S.C. & Lemaire, J. 2011. Culture matters: Long-term orientation and the demand for life insurance. *Asia-Pacific Journal of Risk and Insurance* 5(2): 1-21.
- Performance Management and Delivery Unit. 2013. EPP 5: Insuring most, if not all of our population. Available at [http://etp.pemandu.gov.my/Financial\\_Services-@-Financial\\_Services\\_-\\_EPP\\_5-;\\_Insuring\\_Most,\\_If\\_Not\\_All,\\_of\\_Our\\_Population.aspx](http://etp.pemandu.gov.my/Financial_Services-@-Financial_Services_-_EPP_5-;_Insuring_Most,_If_Not_All,_of_Our_Population.aspx).
- Rajendran, R. & Balamurugan, P. 2017. Factor influencing policyholders decision on purchasing life insurance products with reference to public and private life insurance companies in Perambalur district. *International Research Journal of Commerce Arts and Science* 8(12): 36-46.
- Rosman, A., Garcia, M., Lee, S., Butler, S. & Schwartz, A. 2013. DOSPERT + M: A survey of medical risk attitudes in the United States. *Judgment and Decision Making* 8(4): 470-481.
- Schwartz, A., Yamagishi, K., Hirahara, N., Onishi, H., Barnes IV, J., Rosman, A., Garcia, M., Lee, S. & Butler, S. 2013. Risk perception and risk attitudes in Tokyo: A report of the first administration of DOSPERT + M in Japan. *Judgment and Decision Making* 8(6): 691-699.



- Schwartz, S.H. 2003. A proposal for measuring value orientations across nations. In *Questionnaire Development Report of the European Social Survey*, 259-319. Available at [https://www.europeansocialsurvey.org/docs/methodology/core\\_ess\\_questionnaire/ESS\\_core\\_questionnaire\\_human\\_values.pdf](https://www.europeansocialsurvey.org/docs/methodology/core_ess_questionnaire/ESS_core_questionnaire_human_values.pdf).
- Tan, S.S. & Lim, C.C. 2017. A preliminary study on the relationship between psychographic factors and the purchase of life insurance. *International Journal of Management Studies* 24(1): 1-22.
- Wan Aris, Y.B., Sahak, S.Z. & Shaadan, N. 2009. A relook into awareness, perceptions, barriers and future insurance needs: A case study of Takaful and the Malays. *Conference of the International Journal of Arts and Sciences* 1(19): 10-21.
- Wärneryd, K-E. 1996. Risk attitudes and risky behavior. *Journal of Economic Psychographic* 17: 749-770.

Lim Chee Chee (corresponding author)  
School of Economics, Finance and Banking  
Universiti Utara Malaysia  
06010 UUM Sintok, Kedah, MALAYSIA.  
E-Mail: [cclim@uum.edu.my](mailto:cclim@uum.edu.my)

Tan Suang Sin  
School of Economics, Finance and Banking  
Universiti Utara Malaysia  
06010 UUM Sintok, Kedah, MALAYSIA.  
E-Mail: [suangsintan@gmail.com](mailto:suangsintan@gmail.com)

GALLEY PROOF