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CONSUMER KNOWLEDGE EFFECT ON INTENTION TO PURCHASE LIFE INSURANCE

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ABSTRACT

Package as a financial product, life insurance is created to provide protection to the insured individual from the risk of unfavourable events such as sudden death and total disability of the policyholder that may affect the family that depends on the breadwinner in their lives. Though the market shows improvement in penetration, many still do not own life insurance. Statistically speaking 5 out of 10 Malaysians have yet protected themselves of risk in life. This study applied the modified theory of planned behaviour (TPB) mediation which includes direct and indirect effects of consumer knowledge and consumer attitude towards the intention to purchase life insurance. Non-probability purposive sampling was conducted on civil servants here in Sabah, Malaysia (N = 206) to examine their purchasing intention. The data were analysed by using partial least squares structural equation modelling (PLS-SEM) using SmartPLS 3.0. The results found that consumer knowledge and consumer attitude had significant effects on the purchasing intention of life insurance products. The findings provide a better understanding of the roles of consumer knowledge and consumer attitude on civil servants purchasing intention on life insurance products. Future study should examine how technology such as fintech and Artificial Intelligence will shape the insurance industry, particularly in Malaysia as the world are currently moving towards 4.0 industrial revolution.

ABSTRAK

Pakej sebagai produk kewangan, insurans hayat diciptakan untuk memberi perlindungan kepada individu yang diinsuranskan dari risiko kejadian yang tidak diingini seperti kematian mendadak dan hilang upaya menyeluruh pemegang polisi yang boleh mempengaruhi keluarga yang bergantung kepada pencari nafkah dalam kehidupan mereka. Walaupun pasaran menunjukkan peningkatan penembusan, masih banyak yang tidak memiliki insurans hayat. Secara statistik, 5 daripada 10 rakyat Malaysia belum melindungi diri dari risiko hidup. Kajian ini mengaplikasikan teori modifikasi perilaku terancang (TPB) yang dimodifikasi yang merangkumi kesan langsung dan tidak langsung pengetahuan pengguna dan sikap pengguna terhadap niat untuk membeli insurans hayat. Persampelan bertujuan bukan bertujuan dilakukan kepada penjawat awam di sini di Sabah, Malaysia (N = 206) untuk memeriksa niat membeli mereka. Data dianalisis dengan menggunakan pemodelan persamaan struktur kuadrat separa terkecil (PLS-SEM) menggunakan SmartPLS 3.0. Hasil kajian mendapati bahawa pengetahuan pengguna dan sikap pengguna mempunyai pengaruh yang signifikan terhadap niat membeli produk insurans hayat. Penemuan ini memberikan pemahaman yang lebih baik mengenai peranan pengetahuan pengguna dan sikap pengguna terhadap penjawat awam yang ingin membeli produk insurans hayat. Kajian masa depan harus mengkaji bagaimana teknologi

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seperti fintech dan Artificial Intelligence akan membentuk industri insurans, khususnya di Malaysia ketika dunia sedang menuju revolusi industri 4.0.

Keywords: Theory of Planned Behaviour, Intention, Attitude, Civil Servant, Malaysia

1. Introduction

Life insurance involves the transfer of risk to a settlement provider known as the insurance company (Fier & Liebenberg, 2013). The life insurance agreement obligates the issuer's company to pay a sum amount of money (based on paid insurance sum) to an insured person (beneficiary) or an individual nominated by the insured person as a dependent beneficiary, in case of sudden death or in case of reaching a certain age (Hosseini, 2015). Social development is manifested by many as people's determination and ambition to achieve self-prosperity and self-defence against unexpected events such as sudden death, total permanent disability, paying off debt or replacing income to protect themselves or their love ones (Maynard & Ranger, 2016; Anagol & Sarkar, 2017; Lin, Hsiao & Yeh, 2017). We may try our very best to avoid unfortunate events in our lives, and most of these events are out of our control. Therefore, life insurance is essential to everyone as part of financial strategy. This is because a life insurance policy can help to ensure that your loved ones have a secure financial future after you pass away or cannot work due to total permanent disability (Eling & Kiesenbauer, 2014).

Adverse events such as calamities of nature, accidents, loss or reduction of work capacity following illness or old age may imply trauma or significant financial loss. Thus, life insurance emerged from man's need for protection against unexpected events and finding appropriate solutions to remove them. Life insurance provides two benefits to policyholders and their beneficiaries. The demand for life insurance was primarily ascribed to individual's need to provide protection to their dependents against the premature death of the insured, or providing lifetime income to the insured in the event of lower incomes after retirement or incomes were affected due to total permanent disability or the insured was diagnosed with a critical illness such as cancer, heart attack, coronary artery bypass surgery, coronary severe artery disease, and angioplasty to name few. Therefore, the need for life insurance is basically to protect the family from financial crises caused by the premature death of breadwinner (Eling & Kiesenbauer, 2014).

Life insurance is a financial product that protects individuals from the risk of unfavourable events such as death and disability. Though the market shows improvement in penetration, many still do not own life insurance. Statistically speaking, only 40.3% in 2015 and 40% in 2016 Malaysians have protected themselves of risk in life (Loke & Goh, 2013; BNM, 2018). In the long run, such an event may affect the quality of life of the individual and family. Many research mainly finance and economics address the demand for life insurance; however, it is found out that there is still limited research in the marketing perspective primarily on consumer knowledge. Khalid *et al*. (2017) argued that although agents become the primary source of information, the consumer, on the other hand, should equip themselves with life insurance knowledge so that it may improve and lead towards the intention to purchase. The understanding of consumer behaviour is deemed crucial to be studied so that issues regarding customer intention to purchase can be addressed.

Previous literature provides the foundation to develop our research framework. We espouse the modified theory of planned behaviour as the underpinning theory to investigate the relationships of endogenous and exogenous variables (Ajzen & Madden, 1986; Ajzen, 1991). Consumer knowledge is knowledge associated with products that consumers acquire over time from experience through advertising, sales information or product use (Alba & Hutchinson, 2000) that leads to their purchase intention. Besides, consumers' purchase intention towards certain products is influenced by consumers' attitude (Chaniotakis

et al. 2010). Therefore, we hypothesised that consumer knowledge to have a positive influence on consumer attitude and the consumer attitude subsequently influence the intention to purchase a life insurance policy. At the same time, consumer attitude also acts as a mediator between consumer knowledge and intention to buy a life insurance policy.

2. Literature review

In Malaysia, life insurance is widely used for financial planning purposes by most family, e.g. financial security, ease the burden of the affected family members or meeting outstanding financial obligations if the policyholders die unexpectedly. Therefore, having knowledge of the benefits of various life insurance products is essential (Chui & Kwok, 2008; Md Saad, Idris & Edzalina, 2011). This study tested consumer knowledge to have a direct influence on consumer knowledge. In the same vein, consumers' attitude is considered as an essential factor in inducing consumers' purchase intention towards private label product (Chaniotakis *et al*. 2010). Consumers' attitude includes 'trust in private label product', 'familiarity' and 'perceived economic situation'. Thus, in this study, consumer attitude was tested to have direct influence and mediate the relationship between consumer knowledge and purchase intention of life insurance.

Consumer Knowledge

Consider as a multidimensional construct; consumer knowledge comprises of experience, expertise, and familiarity (Kolyesnikova *et al*., 2010; Kerstetter & Cho, 2004; Alba & Hutchinson, 1987). Consumer knowledge often associated with product-related knowledge that internalised information that consumers need when making decisions (Kolyesnikova, Laverie, Duhan, Wilcox, & Dodd, 2010). In other words, consumer, Consumer knowledge describes the knowledge related to the products that consumers acquire over time from experience through advertising, sales information or product use (Alba & Hutchinson, 2000), and on which contributes to their purchasing decision-making. The consumer knowledge is, therefore, an essential determinant of the purchase intention that requires more research attention.

Knowledge is defined as the information deposited in an individual's long-term memory (Ratchford, 2001). Thus, consumer knowledge is referred to as consumers' perceptions of what or how much they know or amount and nature of information deposited in long-term memory (Park, Motherbaugh, & Feick, 1992; Alba & Hutchinson, 2000). Consumer knowledge can be divided into three: objective knowledge, subjective knowledge, and prior experience Brucks (1985). Subjective knowledge examines a person's perception of how much s/he knows and objective knowledge measures the amount, type, or organisation of what the person has in memory (Ghalandari & Norouzi, 2012). For this study, a consumer's life insurance knowledge is considered for operationalisation of consumer knowledge that influences the intention to purchase life insurance.

Consumer Attitude

An attitude can be characterised as a learned behaviour to act in favour or unfavoured way concerning a given situation (Schiffman & Kanuk, 2000). In other words, it put people into a position to like or to dislike things, of moving toward or away from them (Kolter & Armstrong, 2008). People may have attitudes towards almost anything such as religion, politics, clothes, music, food or financial products, e.g. life insurance policy and mutual funds (Kotler, 2003). From a marketing perspective, consumers are able to change attitudes towards any product or service or any aspect about the marketing mix (Brassington & Pettitt, 2003). In this study, consumer's attitude is considered a variable that influences the intention to purchase a life insurance policy and at the same time, act as a mediator between consumer knowledge and purchase intention.

Attitude involves the continuous organisation of motivation, emotion, perception, and cognitive processes that take into account the condition of our environment. In other word, attitudes are spurred from

environmental stimuli; for example, the products or services offered to consumers and how they were communicated (Hawkins *et al*., 2001). Consumers' purchase intention towards certain product brands is a crucial determinant influenced by consumers' attitude (Chaniotakis *et al*. 2010) that includes trust in a specific brand, familiarity, and perceived economic situation. Thus, in this study, we firmly believe that consumer attitude positively influences the intention to purchase life insurance. In addition, consumer attitude also act as a mediator between consumer knowledge and intention to purchase a life insurance policy.

Purchase Intention

The consumer purchase decision is very complicated. Usually, the intention to buy is linked to the behaviour, perception and attitude of consumers. Purchase behaviour is a significant determinant for consumers when examining and evaluating a particular product (Keller, 2001). Purchase intention provides future indicators of which customers will patronise the brand. In other words, it explains the preparedness and willingness, an ideal situation to do business with a brand. Therefore, intention to purchase is an essential indicator of consumer behaviour (Fishbein & Ajzen, 1975). Companies are concerned about the intention to purchase because it specifies the consumers' preference for a specific product in the product category mostly because of profitability connection (Pooladireishahri, Asgari, Hamid, & Asgarpour, 2015). Businesses can encourage intention to purchase by providing prompt responses to customer enquires (Nwulu & Asiegbu, 2015) and by offering value-adding services to customers' experience, e.g. after-sales service that able to reinforce customer's repurchase intention through pleasant purchase experience (Chiu, Hsu, Lai, & Chang, 2010).

Life insurance, as noted earlier, is a complex financial product that relies on promises more than a tangible product. Although many customers aware that insurance is a vital instrument to mitigate risk, yet numerous studies documented that limited knowledge and understanding of life insurance product has caused them not to engage in any life insurance policy (Oldenboom & Abratt, 2000; Ejye Omar & Owusu-Frimpong, 2007) eventually affects the customer's purchase intention of the products. The modified TPB, which has been applied previously to predict consumer behaviour, and robustness of the theory has been confirmed (Thompson & Panayiotopoulos, 1999; Bhattacherjee, 2000; Armitage, 2005; Al-Maghrabi & Dennis, 2011; Jin & Kang, 2011; Chun & Chun, 2012; Amin, 2012), is used to explain the antecedents of intention to buy life insurance products. Specifically, this study considers consumer knowledge as an antecedent of consumer attitude as a predictor of purchase intention. Thus, as researchers, we believe consumer knowledge is capable of influencing consumer attitude that will subsequently influence the intention to purchase life insurance.

3. Methodology

In conducting this study, we employed a quantitative method. Our samples include civil servants that are currently serving in Sabah, Malaysia. Purposive sampling under a non-probability technique was utilised to make sure the data collected for this survey was indeed secured from reliable sources. To measure the independent variables and dependent variable, we adopt a 5-point Likert scale from "strongly disagree" (1) to "strongly agree" (5). We use G*power 3.0 software to estimate sample size (Faul *et al*., 2007) by applying the effect size of f^2 0.15, α error pro 0.05, and power Gf 0.95 with two tested predictors. Thus, we need a hundred and seven as our minimum sample for this study. However, for this study, we distributed 300 questionnaires, and 206 completed, and usable copies were recollected. Figure I depicted the research framework that contained statements of three variables under investigation. The variables were examined using multiple items (Hayduk & Littvay, 2012), and the data were then analysed using Smart PLS 3.0 (Ringle *et al*., 2020) to assess the hypotheses.

Previous literature revealed that consumer knowledge and consumer attitude are able to influence the

intention to purchase life insurance in Malaysia. Consumer knowledge is treated as an exogenous variable while consumer attitude and intention to purchase life insurance are the endogeneous variables in this study. Based on the literature mentioned above, this study proposes a conceptual model, as illustrated in Figure 1.

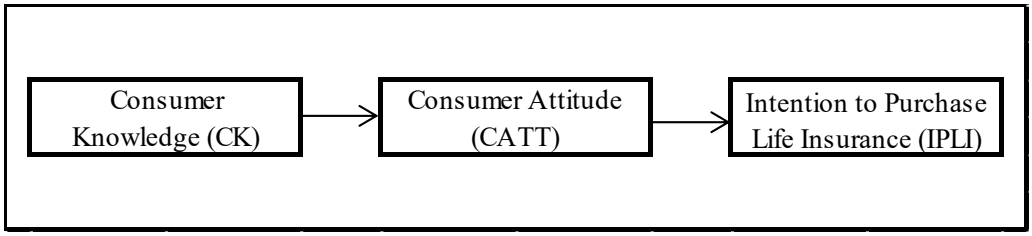

Figure 1. Research framework

The literature above pointed out that consumer knowledge is essential to drive consumer attitude towards the intention to purchase a life insurance policy. Therefore, we conceptualise three hypotheses to direct the research problems and aims of the study that will benefit many stakeholders, including the policymakers and the insurance companies in Malaysia.

H_1: Consumer knowledge positively influences consumer attitude.
H_2: Consumer attitude positively influences the intention to purchase life insurance.
H_3: Consumer knowledge positively influences intention to purchase life insurance mediated by consumer knowledge.

4. Findings

A total of 206 respondents of civil servants in Sabah, Malaysia was reachable through the survey, and most of the respondents were females (53.4%) while the remaining were males (46.6%). About 57% who take part in this survey are between the age of 18-33 years old. When it comes to education, 41.7% of our samples have a degree followed by SPM/O-Level (31.1%), STPM/A-Level (26.2%), and master's degree (1.0%) respectively. The respondents' profile is summarised in Table I. Majority who take part in this survey were Sabah Natives (40.3%) followed by the Chinese (36.4%), Malays (20.4%), and other ethnicities (2.9%). 22.8 per cent who participate in this study earn around RM1000-RM2000, 28.2 per cent earned RM2001-RM3000, 30.1 per cent earned RM3001-RM4000, 16 per cent earned RM4001-5000, and 2.9 per cent earned above RM5000.

Table 1. Respondent profile

Variable	Frequency	Percent
Gender		
Male	96	46.6
Female	110	53.4
Age		
18-25	68	33.0
26-33	51	24.8
34-41	48	23.3
42-49	39	18.9
Religion		
Muslim	86	41.7
Christian	75	36.4
Buddha	39	18.9

Others	6	2.9
Education		
SPM/O-Level	64	31.1
STPM/A-Level/Diploma	54	26.2
Degree	86	41.7
≥ Master	2	1.0
Ethnicity		
Malay	42	20.4
Chinese	75	36.4
Sabah Natives	83	40.3
Others	6	2.9
Income (RM)		
1001-2000	47	22.8
2001-3000	58	28.2
3001-4000	62	30.1
4001-5000	33	16.0
≥ 5000	6	2.9

Table II demonstrates the findings of construct reliability (CR) and convergent validity testing. The results confirm that the constructs (or variables under investigation) to have high internal consistency (Roldán & Sánchez-Franco, 2012) and sufficient average variance extracted (AVE) to validate the convergent validity (Hair *et al*., 2017). There were no items deleted as Cronbach's Alpha, and composite reliability was above 0.708 (Hair *et al*., 2010; 2014).

Indicators for all constructs indicate satisfactory loadings value consistent with the threshold value of 0.708 as advocated by Hair *et al*. (2017). The composite reliability (CR) values of all constructs possess high internal consistency with Consumer Attitude 0.919, Consumer Knowledge 0.853, and Purchase Intention 0.911. On another note, the average variance extracted (AVE) for each construct is more than 0.5. Thus, we conclude that all constructs to have satisfactory convergent validity as the indicators could explain more than 50 per cent of the constructs' variance.

Table 2. Measurement model assessment

Construct	Item	Loadings	CA	CR	AVE	Convergent Validity (Ave > 0.5)
Cosumer Attitude	CA1	0.769	0.894	0.919	0.655	Yes
	CA2	0.855				
	CA3	0.753				
	CA4	0.782				
	CA5	0.858				
	CA6	0.832				
Consumer Knowledge	CK1	0.780	0.754	0.853	0.660	Yes
	CK2	0.798				
	CK3	0.857				
Purchasing Intention	INT1	0.880	0.870	0.911	0.720	Yes
	INT2	0.900				
	INT3	0.854				
	INT4	0.753				

Note: No item was deleted due to poor loading Composite Reliability < .708 (Hair *et al*., 2014).

Table III presented HTMT criterion to assess discriminant validity (Ringle *et al*., 2020). The result specifies that discriminant validity is well-established at HTMT0.85 (Diamantopoulos & Siguaw, 2006). In assessing discriminant validity, this study applies Henseler's (2015) heterotrait-monotrait ratio of correlations criterion. The findings suggest that the correlation values corresponding to the respective constructs follow the most conservative criterion ($HTMT_{.85}$), which implies that the discriminant validity issue is of no concern. The findings specified that it is appropriate to proceed with the structural model assessment to examine the hypotheses of the study as there is no issue of multi-collinearity between items loaded on different constructs in the outer model.

Table 3. HTMT criterion

	CATT	CK	PINT
CATT			
CK	0.381		
PINT	0.649	0.301	

Note: Criteria-Discriminant validity is established at HTMT0.85

We conduct a 500-bootstrap resampling of data to examine the hypotheses (Hair *et al*., 2017). In Table IV, the Beta values for each path coefficient specify that consumer knowledge (CK), and consumer attitude (CATT) positively influence the purchasing intention of life insurance products. Besides, consumer attitude (CATT) was also shown to mediate the relationship between consumer knowledge (CK) and the purchasing intention towards life insurance products.

As depicted in Table IV, all of the proposed relationships are significant. Specifically, the study found support for H_1 (Consumer Knowledge → Consumer Attitude, $\beta = 0.334$, $p < 0.000$, LLCI = 0.172, ULCI = 0.449), H_2 (Consumer Attitude → Purchase Intention, $\beta = 0.578$, $p < 0.000$, LLCI = 0.441, ULCI = 0.681), and H_3 (Consumer Knowledge → Purchase Intention, $\beta = 0.193$, $p < 0.000$, LLCI = 0.088, ULCI = 0.278).

Table 4. Path coefficients

Direct Effect	**Beta**	**S.E.**	**t-value**	**p-value**	**5.00%**	**95.00%**	**Decision**
H1: CK -> CATT	0.334	0.070	4.793	0.000	0.172	0.449	Supported
H2: CATT -> PINT	0.578	0.058	10.024	0.000	0.441	0.681	Supported
Indirect Effect	Beta	S.E.	t-value	p-value	5.00%	95.00%	Decision
H3: CK -> CATT -> PINT	0.193	0.048	4.000	0.000	0.088	0.278	Supported

Note: Path coefficient 0.01, 0.05 (Hair *et al*. 2017).

The results show all hypotheses were indeed supported. Table IV also exhibits the quality of the model. These hypotheses did possess substantial effect sizes. The predictive relevance values for the dependent variable are more significant than 0, indicating that the independent variables, specifically consumer knowledge and consumer attitude are capable of predicting the purchasing intention of life insurance as anticipated by Q^2 using the blindfolding procedure (Hair *et al*., 2017).

Next, we assess the coefficient of determination (R^2), the effect size (f^2) and the predictive relevance (Q^2) of exogenous variables on the endogenous variable in this study. Table V also displays the quality of the model. Consumer attitude was shown to carry substantial effect size f^2 on the intention to purchase life insurance while consumer knowledge moderately influences purchase intention (Cohen, 1988). The results expose that consumer knowledge (CK) has a medium effect size on attitude ($f^2 = 0.125$). This

implies that consumer knowledge (CK) are moderate element influencing purchase intention (IPLI). On the other hand, consumer attitude (CATT) exerts substantial effect size ($f^2 = 0.503$) on purchase intention (IPLI). Therefore, the relationship was significant substantially.

The coefficient of determination represented by $R^{2,}$ which explains whether the consumer knowledge (CK) and consumer attitude (CATT) could disclose the purchase intention indicate moderate and substantial effects respectively (Chin, 1998). Specifically, the R^2 value for consumer attitude is 0.335, suggesting that consumer knowledge was able to explain consumer knowledge substantially. Meanwhile, R^2 value for consumer attitude towards intention to purchase is 0.111, implying that the consumer attitude moderately explains purchase intention.

Besides, multi-collinearity between indicators were also assessed. Both indicators satisfy the VIF values, and there are consistently below the threshold value of 5.0 (Hair *et al*., 2014) and 3.3 (Diamantopoulos & Siguaw, 2006). Therefore, it can be concluded that collinearity issues do not reach critical levels in for both variables and are not an issue for the estimation of the PLS path model. The predictive relevance values of all exogenous (independent) variables towards endogenous (dependent) variable were more substantial than 0, indicating that the independent variables (consumer knowledge and consumer attitude) could predict the purchase intention, as presented by Q^2 using blindfolding procedure (Hair *et al*., 2017).

Table 5. Model quality assessment

Direct Effect	f^2	R^2	VIF	Q^2
H1: CK -> CATT	0.125	0.111	1.000	0.065
H2: CATT -> PINT	0.503	0.335	1.000	0.221

Note: Lateral Collinearity: VIF 3.3 or higher (Diamantopoulos & Siguaw 2006).
R2 ≥ 0.26 consider Substantial (Cohen, 1989).
f2 ≥ 0.26 consider Substantial (Cohen, 1989).
Q2 > 0.00 consider large (Hair, 2017).

5. Discussion

Life insurance product is essential to provide protection against unexpected risks such as premature death and total permanent disability. The study revealed that consumer knowledge could influence consumer attitude to purchase life insurance in Malaysia. This finding provides essential information to insurance companies in Malaysia, particularly life insurance companies. Ironically, even though most Malaysians know the importance of life insurance, the statistic shows only 40.3% in 2015 and 40% in 2016 among Malaysians to have protected themselves of risk in life (Loke & Goh, 2013; BNM, 2018). Consumer knowledge and consumer attitude are vital to encourage someone to purchase life insurance. However, intention without action will not mean anything if no real decision been made by Malaysians as in future, not covered by life insurance may affect the life quality of their dependents financially.

Life insurance Association of Malaysia (LIAM) in 2017 reported life insurance policies currently cover only 12.6 million Malaysians. A trivial growth of 0.1% compared to 2016. We believe that most Malaysians still have the thinking that life insurance policy is too expensive or perhaps only meant for those who have more money in their pockets. This is the most common misconception not just for Malaysians but also to people around the globe. For instance, the B40 (low-income earners) and M40 (middle-income earners) groups may find it a bit challenging to make additional monthly income to buy a life insurance policy. Most likely, they may already be burdened by other expenditure such as hire purchase loan, housing loan, to name a few.

Some Malaysians also cited that it is too difficult for them to understand the life insurance policy's terms

and conditions as a reason not to bother to have life insurance. Apart from that, young people also do not find it necessary for them to get life insurance believing that they are young and healthy. To them, life insurance is for older folks or that the company will cover them. The reality, however, it is quite the opposite, young people should get life insurance when they are young and healthy as the premium is relatively cheaper compared if they decide to get it in later years. Life insurance is, therefore, not a luxury but a necessity. Malaysians need to act now; otherwise, they may lose as it is always wise to take life insurance, especially when you are young and healthy.

6. Conclusion

The findings revealed that consumer knowledge influences the consumer's attitude and subsequently affect the purchase intention of life insurance. Thus, insurance companies should concentrate on educating and promoting awareness on the benefits of having a life insurance policy as consumer's attitudes are mainly depend on consumer knowledge that will trigger purchase intention on life insurance policy among civil servants in Malaysia. This is important because consumer knowledge is the prime motivator in the intention to purchase life insurance. To entice those who have yet to be insured, insurance companies should provide sufficient training to their insurance agents to prepare them with the latest knowledge of the benefits of being insured by having a life insurance policy. Yet, insurance companies should take the initiative to conduct more innovative and creative roadshows or campaigns, promoting the importance of purchasing a life insurance policy.

These strategies would allow insurance companies to attract those who require life insurance but have insufficient knowledge and awareness of the importance of being insured. Future study should examine how technology such as fintech and Artificial Intelligence will shape the insurance industry, particularly in Malaysia as the world are currently moving towards 4.0 industrial revolution. Our study is focusing on how consumer knowledge among civil servants in Sabah, Malaysia will drive their attitudes towards intention to purchase life insurance. Thus, we advocate future research to explore deeper into broader perspectives such as comparing the differences between regions in Malaysia (East Malaysia: Sabah and Sarawak; and West Malaysia) on the intention to purchase life insurance as they are different geographically and historically.

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