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LIFE INSURANCE PURCHASING BEHAVIOR IN NON-HIGH INCOME COUNTRIES: CASE STUDY IN INDONESIA

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ABSTRACT

Background: Life insurance demand in Indonesia is still low, despite its positive contributions to the social and financial sectors, and income continues to grow. The increase in literacy and inclusion of insurance also cannot positively affect life insurance demand.
Purpose: This study analyzes the effects of economic and demographic factors on life insurance purchasing behavior, including income, interest rates, inflation, education, and life expectancy.
Design/methodology/approach: This study uses secondary data with annual frequency from 2002 to 2022 that obtained from Financial Services Authority, Bank Indonesia, and World Bank. This study employs ordinary least squares (OLS) to estimate data using Eviews 10 software.
Findings/Result: This study shows that income, inflation, education, and life expectancy have a positive effect on life insurance purchasing, while interest rates have a negative effect. Interest rates and life expectancy show significant effects. Demographic factors better explain life insurance demand than income factors, and the use of life insurance density provides better predictions than the use of penetration. This finding helps insurers in demand prediction and the government in developing life insurance policies.
Conclusion: Economic and demographic factors affect life insurance demand in Indonesia.
Originality/value (State of the art): Nowadays, there is a growing consensus to better use the term "non-high-income country" than "developing country" in country level analysis. This study is one of the first in a non-high-income country on the topic of life insurance purchases within the context of Indonesia.

Keywords: consumer purchase behaviour, determinant, Indonesia, life insurance, non-high-income country

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INTRODUCTION

The life insurance industry in Indonesia has provided financial protection for consumers and become a profitable business model for companies. In 2022, the total sum insured in the life insurance industry reached IDR4,626 trillion, with claims paid amounting to IDR191 trillion. Total investments reached IDR514 trillion, yielding a profit of IDR2.33 trillion. Life insurance industry has allocated large amounts of funds to stocks (IDR148.58 trillion), government securities (IDR136.94 trillion), and mutual funds (IDR101.95 trillion).

Life insurance premiums have increased sixteen times over the last two decades to IDR191.73 trillion, or 0.98% of the Gross Domestic Product (GDP). However, the density and penetration of life insurance in Indonesia are still lower than in other countries in Asia (Table 1). Furthermore, low penetration and density have been accompanied by an increasing claims ratio (Figure 1).

Moreover, low penetration occurs GDP per capita has increased from IDR36.51 million in 2013 to IDR71.3 million in 2022, with literacy and inclusion rates rising from 17.8% and 11.8% in 2013 to 31.72% and 16.63% in 2022.

This phenomenon contrasts with the long-held view that an increase in income should raise life insurance purchases because higher income improves affordability and strengthens the need against the risk of premature death (Li et al. 2007). This view has been tested for over fifty years (Hammond et al. 1967, Srinivasan and Mitra, 2024). The rise of literacy and inclusion should also increase the purchasing of life insurance because it improves access and knowledge of risk management (Lin et al. 2017). Thus, the question remains open, "What factors affect life insurance purchasing behavior in Indonesia?".

Previous research analyzes the determinants of life insurance demand to understand the dynamics of life insurance demand and the factors that significantly affect purchasing behavior (Bhatia et al. 2021, Zietz 2003). However, to the best of the authors' knowledge, the study of life insurance demand in Indonesia is still rare.

Economic factors are the most frequently studied by researchers (Ward and Zurbruegg, 2002). Zuckerman (1994) argues that demographic differences can be used as an alternative hypothesis to explain social phenomena. A survey by Outreville (2013) shows that demographic factors can explain the demand for insurance

Therefore, this study fill the gap and address the problem by analyzing the determinants of life insurance purchases in Indonesia. The dependent variables are life insurance penetration and density, while the independent variables include economic factors, represented by income, interest rates, and inflation, and demographic factors, represented by education and life expectancy. The analysis covers the period from 2002 to 2022 with an annual frequency.

METHODS

This study is a quantitative research that uses secondary data. The research was conducted from January to March 2025 for data collection, processing and analysis. The data obtained from the Financial Services Authority (OJK), Bank Indonesia (BI), and the World Bank (WB) with annual frequency from 2002 to 2022.

Table 1. Penetration and density comparison in various country

	Density (USD per capita)					Penetration (% of GDP)				
Country	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Singapore	2895	3835	3944	3844	4528	16.7	17.9	17.5	16.5	14.0
Malaysia	298	339	361	380	415	3.7	3.6	3.6	3.3	3.4
Thailand	222	237	262	258	244	3.0	2.8	2.9	2.9	3.0
China	190	225	221	230	241	2.3	2.7	2.3	2.3	2.4
India	47	55	54	58	59	2.7	2.8	2.7	2.8	2.4
Vietnam	22	30	39	49	56	1.0	1.3	1.6	1.4	1.6
Indonesia	59	73	58	58	54	1.2	1.2	1.3	1.2	1.2

Source: AAJI (2022)

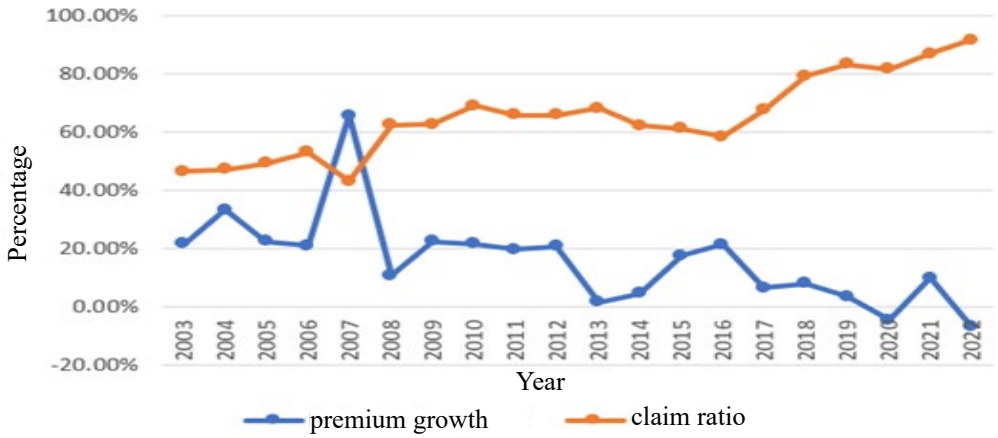

Figure 1. Life insurance premium growth and claim ratio in Indonesia

Data estimation following Juanda (2012), uses Ordinary Least Squares (OLS), with Eviews 10, and performs a unit root test using Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP). Then, diagnostic tests are conducted, such as multicollinearity, heteroskedasticity, and autocorrelation, based on Wahyudi (2020). Multicollinearity is analyzed by examining the correlation and variance inflation factor (VIF), heteroskedasticity is assessed using the Breusch-Pagan-Godfrey test, and the autocorrelation test uses the Durbin-Watson statistic. If there are problems in the diagnostic tests, we follow Damodar and Potter (2009) solutions for transforming variables. This study transforms the variables into growth variables.

The dependent variable of life insurance demand is measured by penetration, the ratio of premiums to GDP, and density, the ratio of premiums to the population. The independent variables are economic and demographic factors. Economic factors include income, measured by GDP per capita, and interest rates, measured by BI rate. Demographic factors include education, measured by tertiary school enrollment, and life expectancy.

Life insurance plays a major role as income replacement for a breadwinner's premature death and encourages long-term savings (Beck and Webb, 2003). Its development is crucial for non-high-income countries, as it contributes to economic growth and social stability (UNCTAD, 1982). The World Bank (2023) classifies non-high-income countries as those with income lower than $13,845.

Life insurance needs to be promoted in non-high-income countries. This types of countries experience transitions in their economic and demographic structures that result in non-formal economic security no longer being provided, which can present an opportunity for the development of life insurance sectors (Hwang and Gao, 2003). They also have a growing urbanization trend, which impacts their traditional perception of risk, thereby increasing the purchasing of life insurance (Mare et al. 2019).

However, this type of country also surrounded by informal behavior. For example, in Indonesia, Altuntas et al. (2019) show that informal security mechanisms, such as Rotating Savings and Credit Associations (ROSCAs), also known as arisan, lead consumers to avoid purchasing insurance. Platteau et al. (2017) also show that informal risk-sharing becomes one of the mechanisms that reduces insurance purchases. Moreover, previous research often uses high-income countries as unit observations (Zietz, 2003). While high-income countries can exhibit different behaviors because they can easily purchase insurance substitutes (Beenstock et al. 1986). Thus, it is necessary to deepen the analysis of life insurance purchase behavior in non-high-income countries.

Previous research tends to analyze life insurance purchase behavior without a clear distinction between non-high and high-income countries. However, all the research often uses Yaari's (1965) theory on life insurance demand as a grand theory. Yaari explained that consumers, facing uncertain lifetimes, purchase life insurance for bequest and retirement motives. This theory posits income and interest rates as determinants.

Beck and Webb (2003) tested Yaari's theory and showed that income and interest rates have a positive effect on the purchasing of life insurance policies (hereafter referred to as LIP). Lewis (1989) developed the theory by adding risk aversion and probability of death as

determinants. Consumers are risk-averse individuals, so the decision to purchase life insurance is a rational decision that needs to engage in an educational process by assessing the benefits and costs of their decisions (Outreville, 2015). Therefore, this study will test the effects of income, interest rates, inflation, education, and life expectancy on LIP.

LIP should increase as income grows because the rise in income will result in greater losses from the breadwinner's death, and premiums will become more affordable. This perspective has been tested for over fifty years (Zietz, 2003). Thus, income is expected to have a positive effect on LIP.
H1: Income has a positive effect on the purchase of LIP.

Low interest rates present a challenge for consumers seeking retirement savings, thus reducing LIP. Higher interest rates predict a positive effect on LIP because they offer higher returns and enhance consumer profitability, which in turn improves life insurance's attractiveness. Studies show a positive effect of interest rates on LIP (Siliwinski et al. 2013).
H2: Interest rates have a positive effect on LIP.

Consumers can use interest rates as indicator of inflation because BI rate decision depends on how Bank Indonesia anticipates Indonesia's inflation (Laksmono et al. 2003). Life insurance offers monetary benefits in the long term, creating a greater need for price stability (Beck and Webb, 2003). Higher inflation will erode the value of life insurance, making it less attractive and decrease the purchase of LIP (Emamgholipour et al. 2016).
H3: Inflation has a negative effect on the purchase of LIP.

Hwang and Gao (2003) find a positive effect of education on LIP because an increase in educational level leads to greater awareness and understanding of life insurance. Other studies using various countries also show a positive effect of education on LIP (Akhter et al. 2020, Ondruska et al. 2020).
H4: Education has a positive effect on the purchase of LIP.

As the probability of death rises , the need for life coverage also increases. Some research uses life expectancy as the proxy and finds it has a negative effect on life insurance purchases (Li et al. 2007). Life expectancy has an inverse relationship with the probability of death. Thus, it is expected that life expectancy has a negative effect on LIP.
H5: Life expectancy has a negative effect on the purchase of LIP.

Models 1 and 2 are estimated to test the first to five hypothesis

$$Ln(P_t) = \alpha_0 + \alpha_1 Ln(W_{ti}) + \alpha_2 Ln(I_t) + \alpha_3 Ln(V_t) + \alpha_4 Ln(E_t) + \alpha_5 Ln(L_t) + \varepsilon$$

$$Ln(D_t) = \beta_0 + \beta_1 Ln(W_t) + \beta_2 Ln(I_t) + \beta_3 Ln(V_t) + \beta_4 Ln(E_t) + \beta_5 Ln(L_t) + \varepsilon$$

Where, t denote year t (t = 2002, …, 2022), P_t is life insurance penetration of year t, D_t is density of year t, W_t is income of year t, I_t is interest rate of year t, V_t is inflation of year t, E_t is education of year t, L_t is life expectancy of year t and ε is error term. Table 2 shows all operational variables in this study.

Figure 2 illustrates the research framework of this study, explaining that income, interest rate, inflation, education, and life expectancy factors influence life insurance penetration and density in Indonesia.

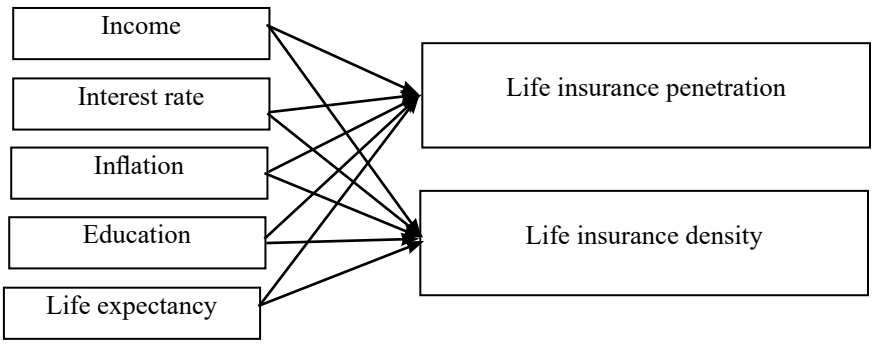

Figure 2. Research framework

RESULTS

Table 3 shows the stationarity test results for all variables and there is no unit root problems in levels or first differences at $\alpha = 0.1$. Variable P, D, W, I, V, E, and L, as Table 2 shows, represents the life insurance penetration, life insurance density, income, interest rate, inflation, and education, respectively. Thus, all variables are used for estimation.

Table 4 presents descriptive statistics for all variables from 2002 to 2022. The mean penetration and density are 1.08% and Rp 408.112, while income, interest rate, inflation, education, and life expectancy have averages of Rp 35.22 million, 7,1%, 5.81%, 27,83%, and 68.62 years, respectively. All variables exhibit low data variation.

For the last twenty-one years, life insurance penetration has increased by 59%, and density has increased almost twelve times. GDP per capita has grown seven times, from Rp 8.83 million (2002) to Rp 71.03 million (2022), while the interest rate has been reduced by 57.7%, from 12.93% (2002) to 5.5% (2022). Education has increased by 188%, while life expectancy has experienced a slight increase of 1.66%, or an increase of 1.12 years.

The results for Models 1 and 2 are shown in Table 5. Income, inflation, and life expectancy have positive and significant effects on LIP, while education and the interest rate have a negative and significant effect on LIP. However, Table 6 shows that there is a high correlation among independent variables, indicating a multicollinearity problem.

Table 2. Operational variable

Variable	Code	Measurement	Data Source	H	
				P	D
Dependent Variable					
Penetration	P	P= Premium/GDP	Secondary Data		
Density	D	D = Premium/Populaion	Premium: OJK		
			GDP: OJK		
			Population: OJK		
Independent Variable					
GDP Per Capita	W	W= GDP/Population	Secondary Data	+	+
Interest Rate	I	I = BIrate	GDP: OJK	-	-
Inflation	V	V= Inflation	Population: OJK	+	+
Education	E	E= School Enrollment, Tertiary	BIrate: BI	-	-
Life Expectancy	L	L= Life Expectancy	Inflation: OJK		
			Education: WB		
			Life expectancy: WB		

Table 3. Stationary test using ADF and PP

Variable	ADF		PP	
	t-stat	Prob	t-stat	Prob
Penetration (P)	-1.160	0.892	-0.403	0.980
Density (D)	-0.870	0.776	-0.873	0.775
GDP Per Capita (W)	-3.091	0.136	-3.353	0.087
Interest Rate (I)	0.126	0.959	0.690	0.989
Inflation (V)	-3.628	0.015	-3.628	0.015
Education (E)	-14.298	0.000	-10.712	0.000
Life Expectancy (L)	-1.328	0.591	-1.761	0.388
D(P)	-5.567	0.001	-12.209	0.000
D(D)	-3.755	0.012	-3.753	0.012
D(W)	-4.481	0.012	-2.839	0.202
D(I)	-4.416	0.003	-4.437	0.003
D(V)	-6.852	0.000	-17.361	0.000
D(E)	-19.160	0.000	-17.384	0.000
D(L)	-3.671	0.015	-4.704	0.002

Table 4. Descriptie statistics for all variables

Variable	P	D	W	I	V	E	L
Mean	1.08	408,112	35.22	0.07	5.81	27.83	68.62
Median	1.17	442,347	33.78	0.07	5.06	29.57	68.68
Maximum	1.33	753,189	71.03	0.13	17.11	42.63	70.52
Minimum	0.61	54,201	8.83	0.04	1.68	14.80	65.75
Std. Dev.	0.21	250,259	19.64	0.03	3.69	9.35	1.17
Skewness	-0.88	-0.02	0.18	0.84	1.46	0.02	-0.41
Kurtosis	2.58	1.53	1.74	3.33	5.22	1.56	3.00
Jarque-Bera	2.88	1.89	1.49	2.57	11.76	1.82	0.60
Probability	0.24	0.39	0.47	0.28	0.00	0.40	0.74
Observations	21	21	21	21	21	21	21

Note: Penetration (P); Density (D); GDP Per Capita (W); Interest Rate (I); Inflation (V); Education (E); Life Expectancy (L)

Table 5. Result for model 1 and 2

Variable	1	2
C	-24.05**	-14.84
Log(W)	0.57**	1.57***
Log(I)	-0.49**	-0.49**
Log(V)	0.08	0.08
Log(E)	-1.08**	-1.08**
Log(L)	5.73**	5.73**
R-squared	0.8341	0.9891
Adjusted R-squared	0.7788	0.9854
F-statistic	15.0828	271.6179
Prob(F-statistic)	0.0000	0.0000
Durbin-Watson stat	1.8037	1.8036

Note: *** p < 0.01, ** p < 0.05, * p < 0. 1

Table 6. Correlation test

Variable	W	I	V	E	L
GDP Per Capita (W)	1.0000	-0.7740	-0.5829	0.9922	0.6305
Interest Rate (I)	-0.7740	1.0000	0.8442	-0.8008	-0.4645
Inflation (V)	-0.5829	0.8442	1.0000	-0.6016	-0.3906
Education (E)	0.9922	-0.8008	-0.6016	1.0000	0.6429
Life Expectancy (L)	0.6305	-0.4645	-0.3906	0.6429	1.0000

Moreover, Table 7 also shows that the income and education factors have a VIF of more than 10, while other factors have a VIF below 10. Thus, there is severe multicollinearity in the model. Gujarati and Porter (2009) explain that one solution to the severe multicollinearity problem is transforming a variable(s). In this study, we transform education to "growth of education," denoted by "GE," while income remains the same.

The formula of GE is $GE_t = (E_t/E_{t-1}) - 1 + \varepsilon$, where t is year 2002 to 2022, is education tertiary in year , and is error term. The hypothesis remains the same; with positive education, the expectation is that the purchase of life insurance tends to increase. The estimation for GE is not in logarithmic form to avoid the negative value of education's growth. The variable of GE has a positive value for each year.

The stationarity test shows there is no unit root for GE. Then, Table 8 presents the results for models 1 and 2, transforming education into growth of education, and Table 9 indicates that there is no severe multicollinearity, as the VIF of each factor is below 10. Thus there is no necessary to transform the income variable. we'll used this model for further diagnostic test and analysis.

Table 7. Results of VIF for model 1 ,2, and auxiliary

Variable	VIF	Description
C	NA	-
GDP Per Capita (W)	53.4789	Severe multicolinearity
Interest Rate (I)	8.4462	No severe multicolinearity
Inflation (V)	4.2410	No severe multicolinearity
Education (E)	51.4742	Severe multicolinearity
Life Expectancy (L)	2.9364	No severe multicolinearity

Table 8. Result for model 1 and 2 with adjustment

Variable	1	2
C	-28.87**	-19.66*
Log(W)	0.04	1.04***
Log(I)	-0.41*	-0.41*
Log(V)	0.099	0.099
GE	0.86	0.86
Log(L)	6.5**	6.5**
R-squared	0.8054	0.9872
Adjusted R-squared	0.7406	0.9829
F-statistic	12.4192	231.1430
Prob(F-statistic)	0.0001	0.0000
Durbin-Watson stat	1.6365	1.6362

Note: *** p < 0.01, ** p < 0.05, * p < 0. 1

Table 9. Result multicolinearity test for model 1 and 2 with adjustment

Variable	VIF	Description
C	NA	-
GDP Per Capita (W)	6.6971	No severe multicolinearity
Interest Rate (I)	8.2289	No severe multicolinearity
Inflation (V)	4.2296	No severe multicolinearity
Growth of education (GE)	1.0141	No severe multicolinearity
Life Expectancy (L)	2.8579	No severe multicolinearity

The Durbin-Watson statistics of models 1 and 2 with adjustment, respectively, are 1.6365 and 1.6362. The Durbin-Watson table at 5%, using k=4 and a total sample size of 21 for independent variables, shows the value 0.9272. The values of statistics 1 and 2 are higher than the value in the table, indicating a positive autocorrelation. Furthermore, Table 10 shows that there is no heteroscedasticity. Therefore, Models 1 and 2 with adjustment are the selected models for life insurance purchase behavior in Indonesia.

Table 8 shows that income, inflation, growth of education, and life expectancy have a positive effect on life insurance penetration and density, while the interest rate shows a negative effect. The interest rate and life expectancy show a significant effect.

This finding explains the problem in the introduction, that income does not significantly affect life insurance penetration, but income still shows a positive effect, as we expected in hypothesis 1. The positive effect of education is also consistent with hypothesis 4. Conversely, we find that the effects of the interest rate, inflation, and life expectancy on the purchase of LIP differ from those in hypotheses 2, 3, and 5.

Further analysis of this study also shows that income and demographic factors have a higher R-squared than income and economic factors (Table 11). All models have no severe multicollinearity and heteroscedasticity, but income and economic factors show a Durbin-Watson statistic lower than 1.0262 or the value of Durbin-Watson at 5%, with k=3 and n=21. Therefore,

this study shows that, in Indonesia, demographic factors better explain LIP than income factors. This study also shows life insurance density also better explain LIP than penetration as dependent variable.

Nowadays, there is concern about the use of the terms "developing" and "developed" in country-level analysis. Mahler et al. (2024) argue against referring to these terms because they suggest a hierarchical level, and the terms do not align well with history. Khan et al. (2022) also argue that these terms are outdated concepts implying that labeled countries have reached their full potential, whereas the terms "potential" and "developed" are not clearly defined . In fact, the World Bank has not distinguished between "developing" and "developed" countries since 2016 (Fantom et al., 2016). However, previous research on insurance purchase has often used these terms (Dragos et al. 2017, Outreville 1996).

Rapi et al. (2025b) utilized the terms "non-high-income" and "high-income" and showed that non-high-income countries tend to purchase life insurance as income grows, while high-income countries do not. Rapi et al. also demonstrated a positive effect of education and life expectancy on non-high-income countries. Akhter et al. (2020) studied Asia and OECD countries and also supported a positive effect of income, inflation, education, and life expectancy on LIP. The case study in Indonesia, as a non-high-income country, supports this perspective.

The use of the term "emerging country" in previous studies is arguably similar to the term "non-high-income country" used in this study. This term is utilized by the Swiss Re Institute (2024) in their insurance database. Elango and Jones (2011) also employed this term and showed that there is a positive effect of income on LIP, and demographic factors explain a greater variance relative to economic and institutional factors.

Kakar and Shukla (2010) also use the term "emerging" in their analysis, focusing on India as a unit of observation. Their study reveals that education and occupation are motivating factors for purchasing life insurance, while financial perception is an important dimension. However, consumers in India is not an efficient planner and has low insurance purchase rates.

Table 10. Result heteroscedaasticity test for model 1 and 2 with adjustment

Model	Prob. Chi-Square(4)	Description
1	0.5038	No heteroscedaasticity
2	0.5036	No heteroscedaasticity

Table 11. Further analysis for model 1 and 2 with adjustment

Variable	1		2	
C	-1.18*	-17.5*	8.03***	-8.28
Log(W)	0.22**	0.2***	1.22***	1.2***
Log(I)	-0.17		-0.17	
Log(V)	0.032		0.032	
GE		0.92		0.92
Log(L)		3.98		3.98
R-squared	0.6824	0.7488	0.9791	0.9835
Adjusted R-squared	0.6263	0.7044	0.9754	0.9805
F-statistic	12.1743	16.8873	265.2777	336.8190
Prob(F-statistic)	0.0002	0.0000	0.0000	0.0000
Durbin-Watson stat	0.6882	1.5863	0.6881	1.5860

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Hwang and Gao (2003) analyzed LIP in China and found that income and demographic factors can explain the high purchase of life insurance despite low economic growth, while education has a positive effect on income. Haryanto et al. (2021) also demonstrated a positive effect of income and education on urbanization in Indonesia. Thus, as consumers' income and education rise, the level of urbanization also grows. Therefore, more people in Indonesia will purchase life insurance.

More studies are using groups of countries rather than the terms "developing" or "emerging" in LIP analysis. OECD countries have become one of the preferred units of observation due to the availability of data. Srinivasan and Mitra (2024), using 30 OECD countries, also support a positive effect of income, education, and life expectancy on LIP. Li et al. (2007) also used OECD countries and found a positive effect of income and life expectancy but a negative and significant effect of interest rates on LIP.

The positive effect of inflation and the negative effect of interest rates suggest that consumers in Indonesia are attracted to higher prices and do not take advantage of the higher interest rates to increase life insurance purchases . Han and Hung (2017) also find a positive effect on inflation and argue that this can occur if consumers ' wages are indexed to inflation. Thus, as inflation grows , income also increases, including LIP. Segodi and Sibindi (2022) also find a negative effect of interest rates in their study. Arguably, this is because consumers in Indonesia mostly prefer immediate consumption as opposed to deferred consumption as the BI rate increases.

The positive effect of life expectancy arguably exists because it is difficult to separate the increase in life expectancy from the growth of income in non-high-income countries. Table 11 also shows that the impact of income is significant, but not life expectancy. Thus, the growth of income for increase in life expectancy among Indonesian consumers has a more significant effect, meaning that people will buy more life insurance.

This study has the limitation of analyzing only a few factors, relatively classified as "common factors," despite an analysis of growth determinants in life insurance demand. Many factors have been analyzed in LIP studies, such as Bah and Abila (2024), who used institutional factors from World Governance Indicators. Dragota et al. (2023) show a positive effect of investment freedom and foreign direct investment, and a negative effect of bank concentration on LIP. Rapi et al. (2025a), using data from nineteen countries, show that risk aversion has a positive and significant effect on LIP. Whereas, Nagy et al. (2019) showed that loss aversion behavior better explains the purchase of LIP than risk aversion.

This study is also analyzed from the consumer's perspective, using factors that are associated with consumers. Nevertheless, it is arguably impossible for consumers to behave without the effects from the microenvironment or macroenvironment (Heo 2020). Beck and Webb (2003) also argue that the supply side, such as insurers, also affects the purchase of LIP because it influences the price and investment benefits for consumers. Consumers also face opportunistic behavior from insurers, the government's commitment to protecting consumers will also affect life insurance purchase decisions (Ward and Zurbruegg 2002).

However, this study shows a contribution to analyzing life insurance determinants in non-high-income countries, especially in Indonesia. This study contributes to starting the analysis in this classification of countries because prior studies (Rapi et al. 2025b) show the huge opportunity for the life insurance sector to develop in non-high-income countries. Nevertheless, life insurance research in Indonesia is relatively few, with only 25 articles on "life insurance" in "Indonesia" in Scopus, despite the assets in this industry being over Rp 500 trillion. Thus, considering its positive contribution and the substantial amount of money at stake, it is very important to improve research on the topic of life insurance.

Managerial Implications

Life insurance demand determinant studies help insurers predict consumers who tend to buy life insurance and what factors are associated with this decision. Thus, significant results from the economic and demographic factors in this study indicate that there are factors that can be used as predictors of life insurance consumers. It is essential to raise concern for older consumers, as they show a positive and significant effect on LIP. This study also emphasizes the importance for Bank Indonesia to maintain their BI rate and price stability to support life insurance development.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This study shows that income, inflation, education, and life expectancy have a positive effect on LIP, while the interest rate has a negative effect. The interest rate and life expectancy show a significant effect on LIP. Moreover, demographic factors better explain LIP than income factors and the use of life insurance density provides a better prediction of life insurance purchase behavior than life insurance penetration.

Recommendations

Further studies also needed, specially in household context, as this study uses time series data at the country level. The study of life insurance demand will assist insurers since the development of the life insurance business depends on how much insurers can sell their products. This idea stems from the law of large numbers (Rejda and McNamara 2017), as increased purchasing of insurance enhances the accuracy of pricing and further analysis.

Furthermore, it is also important for insurers to have a deeper knowledge of their consumers, especially regarding their risk behavior, because there is an asymmetric information problem in the insurance sector (Einav et al. 2022). Despite the increase in life insurance purchases, more consumers are riskier than others, and these consumers tend to secretly hide their medical history, resulting in some consumers having premiums lower than they should.

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