On the Nexus of Life Insurance Participation in Emerging Countries: A Systematic Review*

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Abstract

Life insurance have an essential role both in micro and macro level. At micro level, life insurance serves as financial security provider in case of the family's incapacitation or premature death of the main wage earner in the family. Meanwhile, at macro level, life insurance serves as a source of investment capital and risk management provider. Considering these vital role, development of life insurance should be a concern. However, there is a significant gap between life insurance development in developed and developing countries which raise an urge to set the right benchmark on the development of life insurance in the developing countries instead of anchoring the results of the studies taken place in the developed ones. Therefore, this study aims to investigate the determinant of the life insurance participation in developing countries through a systematic review on the literatures following the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyses) Protocol to systematically review databases from 2010-2021. This review compiles 7 groups of variables associated to life insurance demand which proxied through 7 variables. Results of this study reflect various direction of each variable.

Keywords: life insurance participation, life insurance demand, emerging countries

JEL classification: G22, G23, G52

I. Background and Purpose

Life insurance provides financial security to individuals and their families. Life insurance has an essential role in financial planning and act as protection instrument as it fences against the financial uncertainty regarding the mortality risks (Guérineau & Sawadogo, 2015). Life insurance accommodates financial assistance for the beneficiaries to ensure the sustainability of income for the insured during the inactive period. For some certain types, life insurance may also serve as long-term saving or supplement retirement income.

At the macro level, life insurance has been a source of investment capital (Beck & Webb,

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2003), risk management provider (T. Chang et al., 2013), and an instrument that mobilize saving (Dickinson, 2018). Complementary with the development in banking sector, life insurance consistently contributes to economic growth (Haiss & Sümegi, 2008; Lee et al., 2013; Ouedraogo et al., 2016; Balcilar et al., 2018).

Life insurance also matters to the Sustainable Development Goals. It can minimize gaps in social safety nets and prevent households from falling (back) into poverty (Chiew, 2021). When integrated with other instruments such as savings, loans, payments and remittances, the effect will be more powerful. It can accelerate financial health, and help businesses grow and innovate.

In developed countries, life insurance is often viewed as a fundamental part of personal financial planning and is commonly offered as a benefit to employers. Consequently, many individuals in developed countries have access to a wide range of life insurance products and services. In contrast, in developing countries, access to life insurance can be limited because of a lack of awareness, affordability, and infrastructure. Many individuals and families in developing countries may not have the financial means to afford life insurance coverage and insurance providers may not have the necessary infrastructure to offer coverage in remote or rural areas. As a result, many households remain vulnerable to financial shocks after unfortunate loss of the breadwinner.

Those difference correspond to the different finding in the previous research comparing the effect of some variables to the life insurance penetration or participation between emerging and developed countries. For example, Hodula et al., (2021) find that gross domestic product is a significant variable in the increase of life insurance growth in developed countries, but the effect is not noteworthy in the developing countries. As for government's social security and foreign investment, the effect is more notable in the emerging countries. This finding supports the urge need of separating the study regarding the determinant of life insurance in the developed and developing countries to grasp the closest estimation of the effects in the less developed countries.

Understanding the factors that influence life insurance participation in emerging countries, including Indonesia is critical for improving access to this important financial service. Additionally, life insurance penetration in Indonesia is still low. The studies regarding factors affecting life insurance demand in Indonesia also remain underexplored. Therefore, this study aims to review the existing literature on the nexus of life insurance participation and development in emerging countries.

The review will follow the Preferred Reporting Items for Systematic Reviews and Meta-

Analyses (PRISMA) guidelines to ensure a rigorous and transparent approach to the literature review process. We clustered the effect into two main groups based on the level namely micro and macro scope. We then regroup the factors into seven criteria namely demographic related drivers, socioeconomic drivers, institution drivers, culture and religion related drivers, financial product and knowledge drivers, risk, experience and nature related drivers, and information sources. In collecting the evidence of each nexus, we exclude the case study, or the research specifically held in developed countries to grasp more similarity to Indonesian context.

This review makes the following significant contributions: underpin the determinant of life insurance in emerging market not only at macro level but also at micro level which based on individual and household characteristics. Sum up the effect in a systematic manner which allow future research in the same field to grow and obtain deeper findings.

II. Methodology

To conduct this systematic review, we follow the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyses) Protocol which consists of five fundamental steps, as follows: 1) defining the eligibility of literature, 2) defining information source, 3) study selection, 4) data compiling/collecting, and 5) critical appraisal of studies.

2.1. Eligibility Criteria

The studies selected in this systematic review is defined based on the following inclusion criteria:

IC1: Original and peer-reviewed research written in English and Bahasa Indonesia between 2010 and 2021.

IC2: The research aimed at investigating the factors that affect life insurance-taking decisions at the individual or household level or the factors affecting life insurance infiltration at the regional level.

IC3: The design of the study should empirically prove the relationship (could be correlation or association) between the outcome variable and variable of interest with a rigorous econometrical method, in the sense that we prioritize the stronger causal inference method to pass the eligibility and inclusion in this systematic review. We will exclude case series and case reports from the review.

IC4: The sample of the study should be held in a developing country or developing countries.

2.2. Information Sources

Literature search strategies is developed through conducting searches to published articles with large repositories of academic studies including PubMed, Science Direct, Sinta, Taylor and Francis, Emerald, Wiley, Springer, JSTOR, DOAJ and Sage. We check the reference lists of included studies or relevant articles discovered through the search to make sure there is enough literature.

2.3. Study Selection

Both qualitative and quantitative studies will be considered. The study design and period have been stated in the eligibility criteria. In selecting the study, we will follow the procedure trough following phases:

1. The keyword was chosen based on our research objective in investigating the determinants or factors in life insurance participation. The search string will be “life insurance” and related to determinant or factors including terms such as “determinant”, “nexus”, “factors”, “acceptance”, “motivation” and related to “participation” such as “decision”, “behaviour”, “take-up”, “infiltration”, “density”, “participate”, “participation”, and “contribution”. Those strings variables were searched one by one in each online database.
2. In accordance with the eligibility requirements, exploration and keyword selection were done for identified publications' titles, abstracts, and keywords.
3. The articles that were not deleted in the earlier stages were examined in full or in part to decide if they should be included in the review in compliance with the eligibility requirements.
4. The reference list of the articles will be scanned to find related studies and start this phase from Phase 2

These phases are carried out collaboratively by the three authors in an iterative process of the authors’ assessments. Thus, any disagreement will be discussed by the three authors until reach a unanimous agreement.

The systematic review only covers the study at individual level, household level, sub country level, country level, or regional level. We exclude the specific characteristic in sampling such as the survey within the customer of some certain insurance companies or the survey conducted in a small sample of immigrant in a developed country and perception survey.

2.4. Data Collection Process

Data collection is managed manually employing an information extraction frame comprising of the following content: type, journal name, year, subject, title, participant, keyword, country, and research methodology. Probable significant articles will be evaluated by each author.

To evaluate the eligibility of each publication, we separately checked the titles and abstracts from the search results of each database. The full-text article was retrieved if the title and/or abstract did not make the study's relevance clear. To consistently collect relevant information from all papers analysed, a data charting spreadsheet was created. The variables extracted included details about the study's objectives and general design, the area from which study samples were drawn, a description of the sample's characteristics (such as sample size, ethnicity distribution, and any unique characteristics), and the tools used to measure the variables in the study. The assessment consists of reading all the article content and the extracted data. Any disagreement will be settled through a discourse among the three authors.

After we completed data extraction based on the full-text article, this overall procedure also allowed us to identify which publications ultimately did not match the review eligibility. Articles were then divided into groups based on their macroeconomic and microeconomic perspectives. If they addressed the same issues, we considered any previously published systematic review research on life insurance to be suitable for inclusion in this review.

In the case of significance, we consider significant effect if the confidence level is 95% or more. For those lower significance, we consider the coefficient as insignificant although the reference study accepted the value. For multiple countries study, we take the partial result which portray more about the developing countries if exist.

2.5. Critical appraisal of studies: quality assurance process

Four steps were used to maintain quality assurance: Using the DOI of each tabulated search result (2), all duplicates were removed (1). We evaluated the titles and abstracts of the identified publications, removing those that were blatantly unrelated to our review. (3) The three writers evaluated the whole texts of the articles that were kept, and they discussed any differences they found. (4) Manual evaluation of the listed studies using an excel table by following STROBE standards.

III. Results

3.1. Selection Process

Our systematic review database are scrutinized by performing four general phase, they are

identification, screening, eligibility assignment and inclusion. (Moher et al., 2009). Figure 1 summarize the Article Selection Process for Systematic Review.

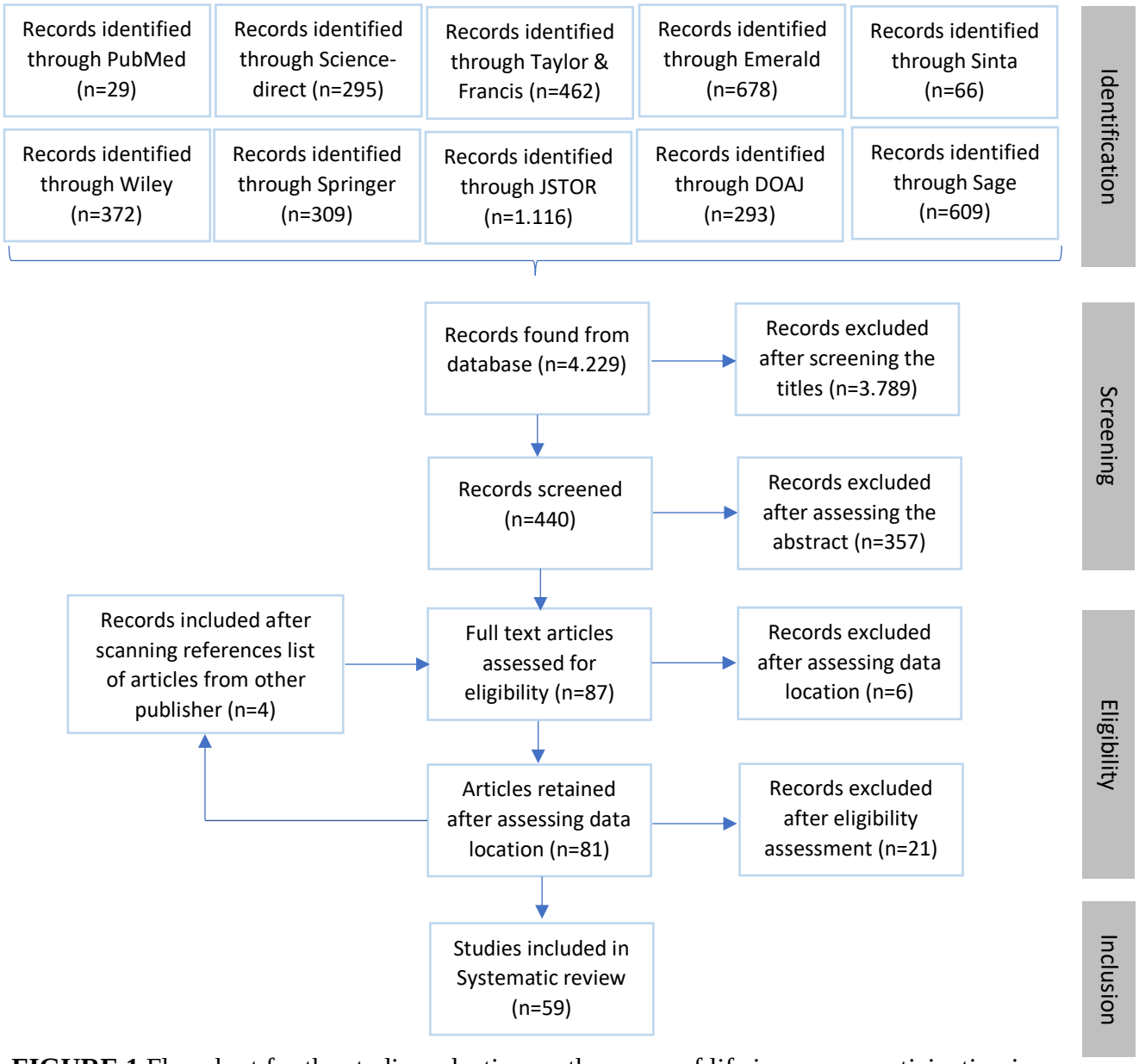


FIGURE 1 Flowchart for the studies selection on the nexus of life insurance participation in emerging countries using PRISMA Protocol

In the identification phase, we search 4.229 research or journal articles from top ten journal publisher which are published from 2010 to December 2021 using the keywords search that have been mention in study selection. All those keywords are used along with the keywords 'life insurance' based on the scope of the review. The initial search using all the keywords was performed in the title and abstract of the paper and restricted only in five subject area, they are: economic, econometric finance, business management, social science, and psychology.

The next phase of studies selection is screening phase. In this phase, we review the titles of all identified articles and also perform a duplication test. We exclude the article that are clearly irrelevant to “life insurance” study and duplication articles. After screening the title and excluding the duplication, we kept 440 studies for the next step. The further selection in the screening phase is assessing the abstract. For the criteria of assessing the abstract, we restricted only “life insurance” term and excluded all “non-life insurance” terms and we also excluded all the reverse selection to ensure that all the articles selected will meet the purpose of this study. After assessing the abstract, we exclude 357 articles and continue to the next step.

To ensure the comprehensive coverage of the topic, we include all articles related from other publisher. To do so, we perform an addition step by randomly scanning the reference list of the article to find related studies based on the objective of this systematic review. This can be valuable and effective to ensure that the literature review is comprehensive and rigorous and that the findings and conclusions are based on a broad and diverse range of evidence. By perform this step, we include 4 related studies from other publisher and restart to proceed the previous selection step of full text assessment in eligibility phase.

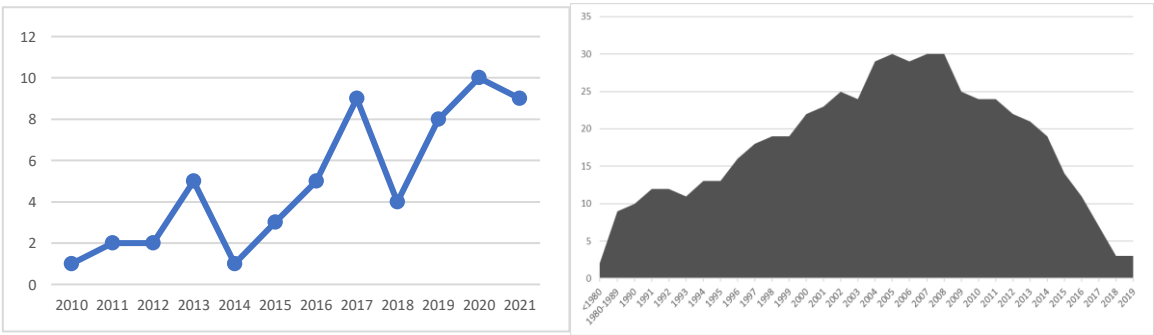
In the eligibility phase, we started assessing the country or location of the data. Country or location of the data in all article remains are only in emerging or developing country based on the purpose of this study, or at least several emerging or developing country are included in the locus of the articles selected. In this step, we exclude 6 articles and retained 81 articles for further assessment. The final step is full-text eligibility assessment. To perform full-text eligibility assessment, we set the eligibility criteria as follows :

- Life insurance measurement as a dependent variable included in this study are restricted to the life insurance categorization as follows: life Insurance penetration, life insurance density, growth premium of life insurance, gross premium of life insurance, insurance participation or ownership, and life insurance buying intention. All of the articles using other categorization are excluded in this step.
- The objective of the articles included in this study are clearly to examine the determinant of life insurance participation at individual/household level and regional level. The article focusing group or company life insurance or any other objective that does not meet the purpose of this study are excluded.
- The theoretical and simulation article of life insurance are excluded.

We perform manual content assessment of 81 remaining articles based on the eligibility criteria mentioned above and based on the discussion and consensus between the authors. After final assessment, 59 studies are included in systematic review for inclusion phase. In this phase, we perform in-depth review that focuses on extraction, organizing, and analyzing data from the final article remains.

3.2. Studies characteristics

The publication trend of the paper on life insurance is shown in Figure 2 spanning from 2010 to 2021 which showing increasing trend despite the fluctuation. More than 65% paper is published after 2016 which means that the research in the determinant of life insurance is increasing strongly since 2017. This result indicates that the interest towards life insurance has risen considerably in recent ears and confirm the sustainability of a literature review to analyse and summarise the key findings about this topic and point out ideas that can further develop this research field. Regardless, the data used are mostly in 2004 to 2009. Thus, there is an urgent need in a study with newer dataset.



(a) (b)

Figure 2. Studies in Life Insurance Determinant based on: Publication Year (a) and Data Year (b)

Based on geography, we identify that all continents are subject of the study, but at some certain point we do not include the result from the study which includes the developed countries such as USA, Canada, New Zealand, Australia, and other OECD countries. Despite we can infer that most studies held in Asia, followed by Africa, Europe and South America Respectively. Narrowed down to the level of countries in Asia, India becomes the country with the most study takes place.

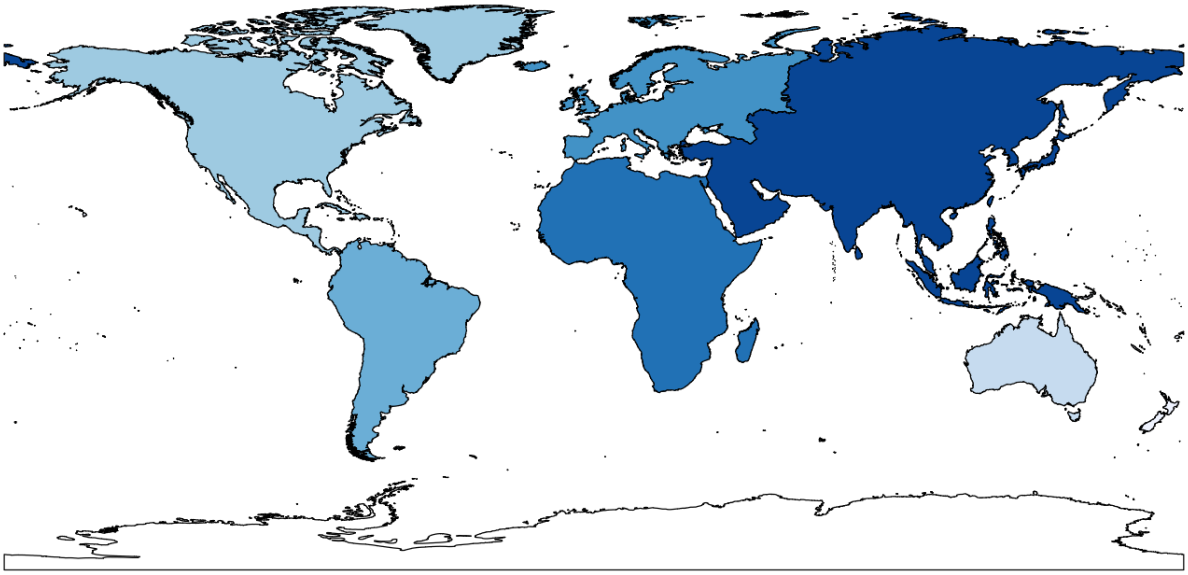


Figure 3. Studies in Life Insurance Determinant Based on Continent

Searching for the study using causal inference on Life Insurance is quite a challenge. From all the research we gathered, only 3 studies using Instrumental Variable and one study employs difference in difference method. Even though, we restrict ourselves from considering the method used as causal inference since the authors themselves avoid to state causality but state that the association is not driven by omitted variable bias (Wang et.al, 2021; Chang, 2012; Ahmed, 2021). Bauchet and Morduch (2019) is the only study implementing causal inference using difference in difference method that in the discussion we explore the variable of interest separately.

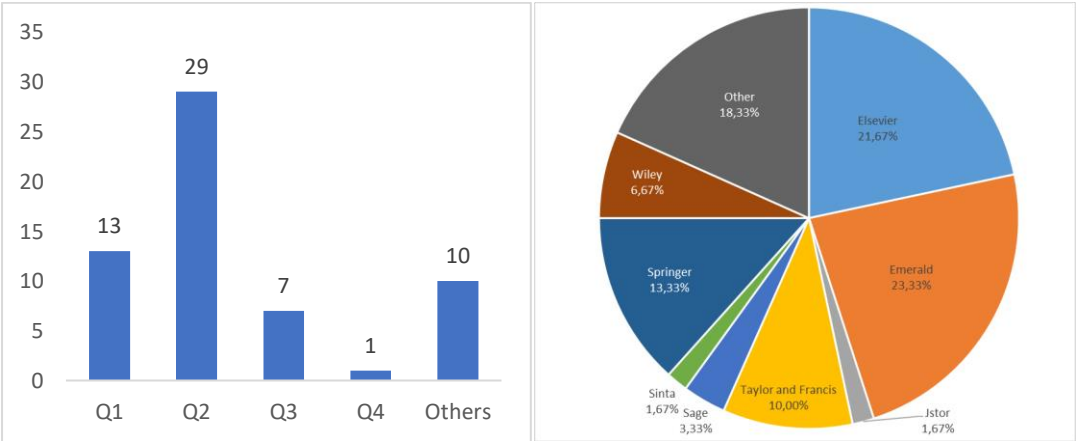


Figure 4. Studies in Life Insurance Determinant Based on Journal Rank and Database

Most studies using long panel data and employ static panel data method such as fixed effect and random effect. Regardless, almost a half of the paper are published in Q2 ranked paper.

More than half of the paper conducted at country level which consequently use macroeconomic factors. Only 26% is held in individual level and the smallest proportion is in household level. Building research setting in life insurance at microlevel is probably more difficult than those in macro level.

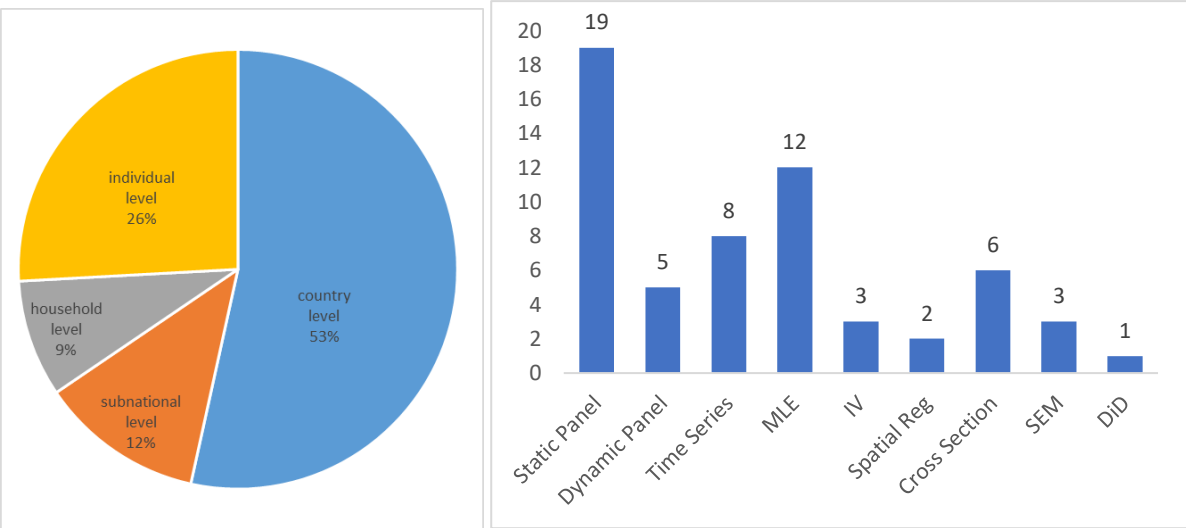


Figure 5. Studies in Life Insurance Determinants Based on Data Level and Method

3.3. Variables Definition and Grouping

<u>Output Variables</u>

Of all the studies reviewed, we obtain some general variables which are divided into micro and macro scope variables as follows:

a. Macro Variable

Macro Variable Output is the parameter in a regional level, such as subnational or national level.

- Life Insurance Penetration

  Insurance penetration is the ratio of direct premiums written to GDP (François Outreville, 2018). It shows the relative importance of the insurance sector within national economies or contribution of life insurance sector to the economy (Alhassan, 2016; Gaganis et al., 2020) and is not affected by currency fluctuations. However, it ignores differences in product design, price levels, and other market structure characteristics.

- Life Insurance Density

  Insurance density indicates the average annual per capita premium within a country, expressed in US dollars (François Outreville, 2018). It indicates how much each

inhabitant of the country spends on average on insurance, but currency fluctuations affect comparisons. It represents per capita spending on life insurance expressed in real international dollars (Zerriaa & Noubbigh, 2016)

- Life Insurance Growth

  Life insurance growth is the yearly change in gross written life premiums in percent (Hodula et al., 2021). It indicates how consumption on insurance changes every year.

- Life Insurance Gross Premium

  Life insurance gross premium can also be used to describe the life insurance demand. Life insurance Gross premium is the total premium paid by the customer. It is composed of the net premium plus all operating costs minus the interest. The premium amount is the whole premium, including discounts and brokerage.

b. Micro Variable

Micro variable output is considered to be the parameter estimated in individual or household level.

- Life Insurance Ownership

  Life insurance ownership relates to the decision on buying the life insurance product at individual or household level. The variable often defined as binary variable with 1 equal to own the life insurance product and 0 otherwise.

- Premium Expenditure

  Premium expenditure usually means the sum of money or out of pocket currency in the annual life insurance premium fee of a household or individual.

- Intention to buy Life Insurance Polices

  Intention to buy life insurance is a step before deciding to buy life insurance. It is important to differentiate between the intention and the decision because intention does not always translate into decision to buy life insurance.

<u>Variables that affect.</u>

In the process of determining the nexus of life insurance participation, either in macro or micro level, we compile the variables into 7 groups of variables, as follow:

- Socioeconomic related drivers
- Demographic related drivers
- Institutional related drivers
- Risk, experience, and nature related drivers

- Financial products and knowledge related drivers
- Culture and religion related drivers
- Information Sources

We display the relationship in cumulative manner displayed in Table 1. For the detail relationship map, we classify the drivers based on the study's output variables and beforehand we group the output variables into microeconomic and macroeconomic factors. Each factor is expressed by + for positively significant relationship, pns for positively nonsignificant relationship, - for negatively significant relationship, and nns for negatively nonsignificant relationship. The detail is depicted in Appendix 1-7.

Table 1. Cumulative Relationship Map of the Life Insurance Demand and the Potential Drivers

Drivers	**Macro**				**Total**	**Micro**				**Total**
	+	**pns**	**-**	**nns**		**+**	**pns**	**-**	**nns**	
Socioeconomic	98	49	53	40	240	47	18	10	9	84
Demographic	26	23	21	16	86	28	16	24	14	82
Institution	21	13	3	14	51	0	0	0	0	0
Culture and Religion	0	0	5	2	7	10	4	4	0	18
Financial product and knowledge	5	2	0	1	8	35	9	2	7	53
Risk, experience, and nature related	0	0	0	0	0	8	10	4	9	31
Information sources	4	0	0	2	6	0	0	0	0	0

IV. Discussion

4.1. Limitations

This study has several restrictions. First, we only looked at published items that were listed in the databases we choose to search. Second, publication bias, or the bias that develops when studies that find evidence for their hypothesis are often published more frequently than those that do not, may have an impact on our results. We are unable to determine how this potential bias would affect our conclusions. Furthermore, we could only use research that was authored in or translated into English. To advance the notion that life insurance must be implemented differently in emerging and developed countries, the other factors might also affect differently on the take up of life insurance, we had to constrain our focus to those who exploit life insurance participation in the developing countries. Due to the extensive read and limited time frame, we don't extend our study into data extraction. Following the most recent classification of econometrically significant variable, we only consider the variable as significant under 5%

significance or stronger. When assessing the implications of our findings, these restrictions should be kept in mind.

Lastly, in the following discussion we only review variables that often used in the studies and considered as important variables in the nexus of life insurance demand.

4.2. Socioeconomic Drivers

Socioeconomic drivers as the factors that influence level of life insurance participation consist of many variables in this systematic review. The variables include GDP, income, inflation, interest rate, financial development, education, social security, health expenditure, employment, credit, asset, saving, gini ratio, openness, government consumption, development, confidence, crisis, criminality, and saving motives.

Income

As household income gets higher, the affordability and probability of the household purchasing life insurance also gets higher. (Bhatia et al., 2021). Several studies have examined the impact of income on the demand for life insurance. From macroeconomic perspective, income is defined as GDP per capita or disposable income significantly influence life insurance participation (Ahmed et al., 2021; Bah & Abila, 2021a; C. H. Chang & Lee, 2012a; Elango & Jones, 2011b; François Outreville, 2018b; Gaganis et al., 2020; Ghosh, 2013; Grabova & Sharku, 2021a; Han & Hung, 2017; Lee et al., 2013; Luca, 2018; Sawadogo, 2021; Sen & Madheswaran, 2013a; Zerriaa et al., 2017b). In line with the micro perspectives that focus on individual or household level, income positively impacts individual life insurance decision subject to budget constraint and also individual preferences. (Dragos et al., 2020; Everlin et al., 2020; Kakar & Shukla, 2010; Wang et al., 2021a; Zhao, 2020a). From all the studies under review**,** we find that 87,63% of the studies selected in developing and emerging country confirm that income has a positive effect on life insurance participation. The interesting thing is that as income increases, life insurance participation tends to rise. However, at a certain level of income, the demand for life insurance diminishes with an increase of income. (Ampaw et al., 2018a; Lim, 2019). This inverted U-shape relationship shows that at lower income levels, individuals struggle to afford life insurance premiums although they have a greater need for life insurance to protect against financial vulnerabilities, resulting in lower participation rates. As income increases, individuals have more disposable income available to allocate towards life insurance premiums, leading to an increase in participation. However, as income continues to rise, individuals may feel more financially secure, reducing their demand for coverage and other financial priorities or lifestyle choices may compete for the available funds, resulting in

decline in life insurance participation. But it is important to note that inverted U-shape relationship between life insurance participation and specific level of income may vary across country and periods due to differences in socioeconomic condition.

Gross domestic product (GDP) describes the economic performance of a country for a certain period. The economy with a high level of GDP usually has an advanced insurance market and higher household's income, which positively influence the life insurance demand (Emamgholipour et al., 2017). Moreover, higher economic growth stimulates faster wealth accumulation and increases the spending on insurance. (Ertl, 2017). Ertl, (2017) identified a positive association between economic growth on life insurance premium both before and after financial crisis in 2008.

Inflation

Most of the studies in this systematic review find that inflation has adverse effect on life insurance penetration (Alhassan, 2016; Chang & Lee, 2012; Grabova & Sharku, 2021; Sen & Madheswaran, 2013), life insurance density (Ahmed et al., 2021; Chang & Lee, 2012; Grabova & Sharku, 2021; Sen & Madheswaran, 2013; Sawadogo, 2021) and life insurance premium (Emamgholipour et al., 2017). This finding might be understood since rising inflation erode the value of life insurance products. In other words, inflation devaluate the benefits that will be got in the future from purchasing life insurance.

Meanwhile, some studies also find a positive effect of inflation on life insurance participation. Zerriaa et al., (2017) found that inflation rate affects life insurance demand positively in MENA region. Meko et al., (2019) found negative effect of inflation on life insurance in Ethiophia. Han & Hung, (2017); Kaushal & Ghosh, (2017); Sliwinski et al., (2013) also found that inflation factor significantly stimulates the demand for life insurance premium. However, some studies shows that inflation has no effect on life insurance demand in developing and emerging countries (Ahmed et al., 2021; Akhter et al., 2020; Elango & Jones, 2011; Ertl, 2017; Gaganis et al., 2020; Hodula et al., 2021; Lee et al., 2013; Luca, 2018; Mathew & Sivaraman, 2017; Ose Iyawe & Osamwonyi, 2021; Sen & Madheswaran, 2013; Srbinoski, Poposki, & Čibej, 2021)

Interest Rate

The studies found that the real interest rate has both positive and negative effect on the life insurance demand. Higher interest rates increase life insurance companies' investment returns and profitability. Thus makes life insurance more attractive and leading to increased demand (Zerriaa & Noubbigh, 2016). This argument is supported by the study of Elango & Jones, (2011), Ertl (2017), Meko et al., (2019), Sliwinski et al., (2013) and Zerriaa et al., (2017) who

find a positive relationship between interest rate and life insurance demand. It is also in line with Lee et al., (2013) who find that interest rate is positively associated with life insurance density under political, financial, and economic risk in low middle countries.

On the contrary, some studies argue that interest rate has negative effect on life insurance demand (Ahmed et al., 2021; Emamgholipour et al., 2017; Han & Hung, 2017; Mathew & Sivaraman, 2017, 2021; Sen & Madheswaran, 2013). When interest rates are high, instead of life insurance policies, individuals tend to choose other financial product with higher yields such as term deposits (Mathew & Sivaraman, 2021). However some studies also found that interest rate has no effect on life insurance demand (Chang & Lee, 2012; Elango & Jones, 2011; Ose Iyawe & Osamwonyi, 2021; Srbinoski, Poposki, Born, et al., 2021).

Financial Development

Out of 21 estimation results, 19 results show positive relationship between financial development and life insurance demand. Financial development is measured by the ratio of board money supply to GDP (Sanjeewa et al., 2019; Zerriaa et al., 2017). Financial development positively correlate to life insurance penetration (Ahmed et al., 2021; Akhter et al., 2020; Alhassan & Biekpe, 2016; Chang & Lee, 2012; Pradhan et al., 2017; Sanjeewa et al., 2019; Sen & Madheswaran, 2013; Zerriaa et al., 2017), life insurance density (Pradhan et al., 2017; Sanjeewa et al., 2019; Sen & Madheswaran, 2013; Zerriaa et al., 2017; Zerriaa & Noubbigh, 2016), life insurance growth (Hodula et al., 2021), and life insurance premium (Mathew & Sivaraman, 2017, 2021; Sliwinski et al., 2013). Countries with high level financial development are supposed to have higher life insurance demand (Zerriaa et al., 2017). Financial sector development stimulates credits provide by financial institution and affects the life insurance directly since people require to buy life insurance policy as security in case of impossibility to pay debt due to incapacitation or premature death (Alhassan & Biekpe, 2016; Sanjeewa et al., 2019).

Education

The level of education determines people's ability and knowledge regarding financial matters, the benefits of risk management, and savings (Zerriaa & Noubbigh, 2016). So, it is reasonable to assume that level of education influences individuals' understanding of the importance of life insurance which leads to higher demand. Higher education attainment can indeed contribute to increase risk awareness and, in some cases, higher risk aversion (Ahmed et al., 2021). We find positive impact of education on life insurance demand (Arun et al., 2012; Buric et al., 2017; Dragos et al., 2020; Kakar & Shukla, 2010; Codruta Mare et al., 2019; Sanjeewa et al., 2019; Shi et al., 2015; Zerriaa & Noubbigh, 2016; Zhao, 2020). In line with this,

Strzelecka et al., (2020) find that primary education have negative impact on life insurance decision while secondary education has opposite effect. Furthermore, Ampaw et al., (2018) find a negative effect of primary education on life insurance ownership.

While higher education generally has a positive impact on life insurance participation, it can potentially have a negative effect too. Higher education level led to better capacity to manage risks and diverse the portfolios. Thus, more educated people tend to hold risky assets expecting higher returns instead of safe assets such as life insurance (Zerriaa et al., 2017). This result are also consistent with Lee et al., (2013) who find the negative impact of tertiary school enrollment rate on life insurance density under political, financial, and economic risk. However, further studies have shown varying results regarding the specific impact of different level of education on life insurance participation. Lin et al., (2017) find positive non significant effect of secondary education on life insurance participation, but high education have negative non significant on life insurance participation hinting that level of education has an inverted U-shape relationship pattern with life insurance participation. Life insurance participation is low at the lower level of education and peaks at certain level of education but then declines at higher education. We note that this generalized explanation may not apply to every individual or population in specific region which is very important to conduct further research to investigate more explanation.

Social security

Social security provides a safety net for retired or disabled individuals and their dependents. Meanwhile, life insurance offers financial protection to beneficiaries. An increase in social protection provided by the government makes people feel more secure and thus less likely to access protection from private schemes (Grabova & Sharku, 2021). Many studies identified the negative effect of social security on life insurance penetration (Zerriaa et al., 2017; Zerriaa & Noubbigh, 2016) and life insurance density (Ahmed et al., 2021; Gaganis et al., 2020; Hodula et al., 2021; Zerriaa et al., 2017) suggesting that social security provisions act as a substitute for private life insurance and reduce demand for private coverage. Health expenditure on the other hand as a proxy for social security system also has a negative association with life insurance penetration (Chang & Lee, 2012; Sanjeewa et al., 2019), life insurance density (Sanjeewa et al., 2019), and life insurance growth premium (Sliwinski et al., 2013). However, Ahmed et al., (2021) identified that social security positively associated with life insurance demand in OECD, suggesting that strong social security system provided by government improves life insurance products' demand.

Employment

The affordability of life insurance products is an important factors that can influence participation rates, particularly in regions with high unemployment rates. (Codruta Mare et al., 2019). When individuals face financial constraints due to unemployment or limited income, they may prioritize immediate necessities and find it challenging to allocate funds towards life insurance premiums. Conversely, self-employed have more flexibility in choosing their insurance coverage. They can select policies that align with their specific needs, financial goals, and business circumstances lead to higher participation rates of life insurance participation. Many studies find the positive effect of self employed to life insurance participation (Ampaw et al., 2018; Arun et al., 2012; Buric et al., 2017; Wang et al., 2021) and negative effect of unemployment rate on life insurance participation (Abdul-Fatawu & Abonongo, 2019; Codruta Mare et al., 2019; Sliwinski et al., 2013).

4.3. Demographic Drivers

Demographics drivers in this review include dependency, life expectancy, urbanization, gender, marital status, age, and population.

Dependency

At the macro level, dependency is measured using dependency ratio which is defined as the ratio of the total number of children younger than 15 and adults aged 65 and above to the total working-age people (15 to 64). Meanwhile, at the micro level, dependency can be expressed by the family size, the total of dependents, and the total of children in the household.

The nexus between dependency and life insurance purchase is somewhat ambiguous in literature. Yet major study finds a positive influence of dependency on life insurance demand. When life insurance is seen as financial security instrument in the demise of main income provider, higher dependency may lead to higher life insurance consumption. Some studies showed that total dependency ratio positively affects life insurance penetration (Grabova & Sharku, 2021), life insurance density (Grabova & Sharku, 2021; Lee et al., 2013) and gross written premiums (Sliwinski et al., 2013). Other Studies which specifically using young dependency ratio also showed that this variable positively affects life insurance penetration and density (Ahmed et al., 2021; Zerriaa & Noubbigh, 2016). At the micro level, family size also showed the positive effect on life insurance ownership (Shi et al., 2015; Wang et al., 2021; Zhao, 2020) and life insurance expenditure (Wang et al., 2021; Zhao, 2020), children number positively correlated to the purchased of life insurance (Arun et al., 2012; Kakar & Shukla, 2010) and insurance expenditure (Arun et al., 2012).

In contrary, when life insurance is viewed as tertiary need and dependency serves as strain on income because of the abundant level of present expenditure, higher dependency will result to lower life insurance demand (Sanjeewa et al., 2019). This hypothesis is supported by the finding that dependency ratio influence life insurance penetration (Ahmed et al., 2021; Alhassan, 2016; Chang & Lee, 2012; Srbinoski, Poposki, Born, et al., 2021; Zerriaa & Noubbigh, 2016) and life insurance density (Chang & Lee, 2012; Zerriaa & Noubbigh, 2016) in a positive direction. At the micro level, Nagy et al. (2020) showed that number of dependent reduced the willingness to insure.

Life expectancy

Life expectancy defined as average life expectancy at birth for both genders. Some studies find that life expectancy decrease the life insurance penetration (Alhassan, 2016; Bah & Abila, 2021; Chang & Lee, 2012; Gaganis et al., 2020; Sanjeewa et al., 2019), life insurance density (Ahmed et al., 2021; Chang & Lee, 2012; Gaganis et al., 2020; Lee et al., 2013; Sanjeewa et al., 2019), and life insurance growth (Hodula et al., 2021). Higher life expectancy may decrease the life insurance demand regarding low probability of premature death which implies on lowering the intention to buy life insurance (Alhassan, 2016).

Although most of literatures prove negative relationship between life expectancy and life insurance demand, some study showed the reverse impact. Higher life expectancy increases life insurance penetration (Zerriaa & Noubbigh, 2016) and density (Meko et al., 2019; Zerriaa & Noubbigh, 2016). Longer life expectancy which reflects the long-life span influence the insurance company to decrease the premium as they can generate high return by investing it on the long-term investment (Meko et al., 2019). Hence, stimulates the life insurance consumption. Furthermore, under the life cycle theory, higher life expectancy tends to increase the longevity risk, so that people need additional retirement income to live longer lifetimes (Sanjeewa et al., 2019; Zerriaa & Noubbigh, 2016). This implies on the higher demand of life insurance.

Urbanization

In the literature of life insurance determinant, urbanization is measured by the percentage of urban population to total population (Ahmed et al., 2021; Akhter et al., 2020; Srbinoski, Poposki, Born, et al., 2021). Urbanization can also be defined as the population of the urban area without regard to administrative boundaries (Sen & Madheswaran, 2013).

Major studies find that urbanization led to an increase of insurance penetration (Ahmed et al., 2021; Grabova & Sharku, 2021; Zerriaa et al., 2017), insurance density (Ahmed et al., 2021; Dragos, 2014; Grabova & Sharku, 2021; Codruta Mare et al., 2019; Codruța Mare et al., 2019;

Meko et al., 2019; Zerriaa et al., 2017). At the micro level, household living in rural area have lower tendency to buy life insurance compared to those living in urban area (Zhao, 2020). This phenomenon can be explained in two respects. Firstly, urban area has greater population concentration which facilitates life insurance distribution (Zerriaa & Noubbigh, 2016). Secondly, urban areas usually characterized by lower solidarity in the society, hence induce greater demand of life insurance to assure individual's financial security in the matter of inability and early death (Zerriaa & Noubbigh, 2016).

Nevertheless, Sanjeewa et al.(2019) showed that urbanization in South Asia decrease the life insurance penetration and density. Sliwinski 2013 also showed that urbanization lowers the life insurance gross premium. This can be justified by arguing that the urban population mostly come from the rural poor and must remit parts of their low earning to their rural homes (Sanjeewa et al., 2019). In this case, life insurance purchase can be viewed as unimportant expenditure.

Gender

Gender is a binary variable, valued 1 if the household head is male, and 0 if female. Most of the studies demonstrate that male household heads are less likely than females to own life insurance (Lin et al., 2017; Shi et al., 2015; Wang et al., 2021; Zhao, 2020), tend to pay lower premiums (Wang et al., 2021; Zhao, 2020), even have lower intention to buy life insurance (Dragos et al., 2020). Since males usually play as main income provider in the households, a female household head usually infer that the household head's earning is essential to the household lives (Shi et al., 2015). Therefore, motivate females to have life insurance. Even so, some of the studies also find the opposite result. The males have greater tendency to buy life insurance considering their role as the breadwinner of the family but having higher mortality rate. Realizing the responsibility of taking care of their family, they will be likely to own life insurance (Lim, 2019).

Marital status

Marital status is one of influential variables on the nexus of life insurance demand. Marital status usually serves as binary variables with value of 1 for married, and 0 otherwise (Bauchet & Morduch, 2019; Dragos et al., 2020; Kakar & Shukla, 2010; Lin et al., 2017; Wang et al., 2021; Zhao, 2020). The studies conclude that married household heads have higher intention to own life insurance (Dragos et al., 2020; Everlin et al., 2020), are more likely to own life insurance (Dragos et al., 2020; Kakar & Shukla, 2010; Lin et al., 2017; Wang et al., 2021; Zhao, 2020) and have higher premium expenditure on life insurance (Bauchet & Morduch, 2019; Wang et al., 2021; Zhao, 2020). This significant positive effect is related to the bequest

motives (Nagy et al., 2020). This is supported by the finding that household of a lonely or married individual in middle or older age without children has negative correlation with the life insurance ownership (Strzelecka et al., 2020).

Age

Age is referred to the actual age of household head, measured in years. Majority of the studies document adverse effect of age on life insurance participation. As getting older, people are less likely to own life insurance (Kakar & Shukla, 2010; Wang et al., 2021; Zhao, 2020) and tend to have lower life insurance premium expenditure (Wang et al., 2021; Zhao, 2020). Nonetheless, the correlation of age and life insurance ownership is varied in some cases in the studies. Everlin et al. (2020) find the positive relation between age and life insurance ownership. Meanwhile, Kakar 2010 only find positive relationship for the urban area, and oppositely in the urban area. Dragos 2020 suggest although age positively affect life insurance intention, its real effect on life insurance decision is insignificantly negative.

This mixed results, encourage some research to use both age and age square to capture the nonlinearity in the relationship of age and life insurance demand. Ampaw et al. (2018) and Arun et al. (2012) find that age has negative direction, in contrary with the age square. Meanwhile, Giesbert et al. (2011) and Bauchet & Morduch (2019) show the contradictory results.

As age increase, household head demand less life insurance until reach a turning point, and then request more of it (Ampaw et al., 2018; Arun et al., 2012). Arun et al. (2012) argued that middle-aged household head may hold fewer life insurance because they are less educated, have lower experience as well as understanding on insurance than the younger counterparts. But then, older household heads are more likely to demand life insurance considering greater benefit to protect their family against possibility of their premature death. However, insurance company seems to view older household heads as risky groups, thus rising their premium payments, which results limited access to the life insurance market.

Population

Population related drivers are used in the literature specifically on the macro level. Greater population in a country is indeed increasing life insurance premium (Emamgholipour et al., 2017). Besides population size, the birth rate also finds to be positively related to life insurance premiums (Sliwinski et al., 2013). The birth rate is proxied by crude birth rate or the average number of births per year per 1.000 persons. However, population growth has negatively insignificant on both life insurance density and life insurance growth (Elango & Jones, 2011).

4.4. Institutional Related Drivers

Institutional related drivers express the state of institution and the change in institution (the change in system and regulation). Alhassan & Biekpe (2016) follow North (1981) defines institution as human devised constraints the structure human behaviour. These constraints are reflected in the institution's effectiveness within a country. The institutions are built of the political and legal systems provide confidence and certainty for firms and individuals. While for the change in institution in terms of system and regulation means the existence of regulatory changes toward the easiness in doing business or life insurance related regulation which make it easier for insurance companies to run their business and reach more people acknowledging their existence and importance.

Institutional related drivers consist of 16 subgroups; based on Table 1, institution related drivers only appear in the studies using life insurance participation at macro level parameters as output variable. We cannot confirm the effect of institution related drivers onto the participation in aggregate measurement because most variables showing not significant effect. We must go through specific variables to obtain clearer result and confirming the effect inductively.

Alhassan & Biekpe (2016) and C. H. Chang & Lee (2012) defines institution quality as the average of six institution indicators in World Development Index. The indicators are rule of law, control of corruption, regulatory quality, government effectiveness, voice and accountability and political stability. While Bah & Abila (2021) excluding voice and accountability in their study. The other study employ each indicators into one single variable such as Voice and accountability (S. Asongu et al., 2020; S. A. Asongu & Odhiambo, 2021a; S. Asongu & Odhiambo, 2020a; Dragos et al., 2017a), Political stability and absence of violence (Asongu et al., 2020; Asongu & Odhiambo, 2020; Bah & Abila, 2021; Dragos et al., 2017; François Outreville, 2018), Government effectiveness (Asongu & Odhiambo, 2020; Dragos et al., 2017; François Outreville, 2018; Grabova & Sharku, 2021; Bah & Abila, 2021;), Regulatory quality (Dragos et al., 2017; François Outreville, 2018; Grabova & Sharku, 2021; Asongu & Odhiambo, 2020; Bah & Abila, 2021), Rule of law (S. Asongu & Odhiambo, 2020; Bah & Abila, 2021; Dragos et al., 2017; Grabova & Sharku, 2021; Srbinoski et al., 2021), Control of corruption (Asongu & Odhiambo, 2020; Bah & Abila, 2021; Dragos et al., 2017; Grabova & Sharku, 2021).

All the studies employing institutional quality index as variable of interest confirming absolute positive impacts on life insurance participation. The result support the statement that strengthening institutions in emerging countries can enhance the expansion of the life insurance

participation. Beside constructing the index out of 5 variables, Bah & Abila (2021) also estimating all the indicators individually and find that regulatory quality is the most significant variable, followed by rule of law, control of corruption, and political stability. Oppositely, voice and accountability doesn't give significant effect to the life insurance participation although the direction is also positive. For this variable, we cannot conclude a solid conclusion because Dragos et al. (2017) even conclude it as nonsignificant with negative direction. Eventhough, it tends to have positive impact since S. Asongu & Odhiambo (2020) and S. A. Asongu & Odhiambo (2021) deduct the effect of voice and accountability is positive and significant.

Political stability and absence of violence perform differently between its effect on life insurance density and life insurance penetration. Correlates to life insurance penetration, the effect tend to be positive (Asongu et al., 2020; Asongu & Odhiambo, 2020; Bah & Abila, 2021), while it changes direction when the relationship is toward life insurance density (Dragos et al., 2017; François Outreville, 2018). The variable assesses perceptions of the political instability likelihood and/or politically motivated violence, such as terrorism, we have to make sure the measure use is the same.

Government effectiveness depicts public perceptions of the quality of public services, quality of policy making and execution, the quality of civil service and the level of its freedom from political influences, and the credibility of the government's dedication to such policies. The result tends to confirm the positive relationship with either life insurance penetration or density (Asongu & Odhiambo, 2020; François Outreville, 2018; Grabova & Sharku, 2021; Bah & Abila, 2021). Only Dragos et al. (2017) elicit opposite result and insignificant. The result inspires a strong conclusion that government effectiveness correlates to the higher life insurance participation.

The variable 'regulatory quality' portrays perceptions of the government's capability to construct and applicate effective policies and regulations that allow and stimulate private sector expansion. Among 5 studies employing regulatory quality, two study conclude positive effect and the other 3 head the other direction and nonsignificant. Regulatory quality is less likely to influence life insurance density in the transitioning and developing countries compared to the developed ones. For example, taxation. Since varied financial instruments competes with life insurance products directly in developed countries, the taxation effects are more susceptible to change the relationship between these financial instruments. In contrary, life insurance in emerging countries is more rigid in association to the taxation's impacts and more sensitive to other factors such as purchasing power, income distribution and accessibility of insurance

products (Dragos et al., 2017).

The variable ‘rule of law’ draws perceptions of the extent to which agents have confidence in and obey the rules of society, the quality of contract implementation, property rights, the police and the courts, and the odds of crime and violence. Out of all six governance indicators, rule of law incorporates to the increase of life insurance pervasive development, although Grabova & Sharku (2021) and Srbinoski et al., (2021) do not show significant effect.

The variable ‘control of corruption’ captures perceptions of the extent to which public power is used for private gain, including corruption, state capture by elites and private interests. Mixed result also elicited at control of corruption indicator. Two of the studies proofed positive and significant relationship while the other three don’t show significancy at less than 5%. Eventhough, we can conclude that the result tends to be positive in this variable. Elango & Jones (2011) presenting the variable with freedom from corruption and confirms the positive impact of corruption control to the life insurance participation.

Regulatory changes used only in Sen & Madheswaran (2013) which expressed in dummy variable reflects the implementation of new regulation. Regulatory changes have mostly taken place after 1990 and shows positive yet insignificant influence on both life insurance density and penetration after correcting autocorrelation and heteroscedasticity standard error.

In 2006, EU implemented solvency II in order to ensure the adequate protection of policyholders and beneficiaries by setting out some requirements for insurance and reinsurance companies. The change in this regulation empirically shows a negative impact on life insurance participation in all European countries, but the significance is getting weaker as Hodula et al. (2021) differentiate the sample between post-communist and developed countries. The effect is only significant under 10% significance which we decided to omit the significance and threat this result as insignificant. Hodula et al. (2021) argue that solvency II regime coincides with the period of low yields and thus a drop in the appeal of some life insurance products. Accordingly, SOLVENCYII parameter could capture part of the longer-term trends in insurance. Even though, for the change in this regulation, the effect is more massive in the developed countries than in the developing countries.

The rest of the variables are used by Elango & Jones (2011) are property rights, business freedom, fiscal freedom, governmental spending, financial freedom, and openness of economy. Among those variables, the only significant factor is fiscal freedom which affecting negatively on life insurance growth.

A nation's institutional structure and political stability have a significant role in determining how thriving its life insurance market is. If claims reporting fraud is widespread, insurance

becomes unaffordable for a sizable portion of the population. Consumers may be discouraged from investing significant quantities of money in these products if they are unable to challenge an insurer's breach of a life insurance contract, which lowers the value of such contracts to them. The inability to enforce contracts and protect property limits life insurers' capacity to make smart investments and manage product prices. Finally, a lack of political stability reduces the economic horizon of potential customers and suppliers of life insurance products, which impedes the growth of a growing life insurance market. Although it is worth to underline that institution is indeed related more to the participation of the life insurance in the emerging countries (Dragos, 2017; Chang,2012) than those in the developed ones with divergent effect under thresholds because the state of institution in the more developed country is sounder (Chang, 2012). While for life insurance growth, economic factors have a higher effect than institution factors (Elango & Jones, 2011).

4.5. Culture and Religion Related Drivers

Culture proxied by many variables like subjective norm (Mai, 2020; Masud, 2021), races (Lim, 2019), cultural vitality (Mare, 2019), and uncertainty avoidance (Outreville, 2018). However only subjective norms that positively related to buying intention or decision (Mai, 2020) and purchase behavior (Masud, 2021) on life insurance. Meanwhile, study of Lim (2019) in Malaysia find that Chinese has higher life insurance ownership compared to Malay people.

On the other hands, religion in this review also includes religiosity and level of Islamic beliefs. Life insurance is proven to be lower in predominantly islamic countries (Zerriaa & Noubbigh, 2016; Gaganis et.al., 2020; François Outreville, 2018) since Islam believers may consider life insurance as a hedge against the will of Allah (Zerriaa & Noubbigh, 2016). Furthermore, individuals with higher islamic beliefs are more favor of islamic life insurance compared to the conventional one (Souiden and Jabaeur, 2015). Religiosity, defined as the state of an individual's belief in God, also related to the type of life insurance demand. Nowadays, Muslim consumers are getting more aware and sensitive on the type of products and services they consume in their lives including life insurance. Hence, when it comes to purchasing insurance, Muslims would more likely purchase Takaful instead of commercial conventional life insurance, as proven by Zakaria et al. (2016).

4.6. Financial Products and Knowledge Related Drivers

Financial knowledge helps individuals understand life insurance as financial product and recognize its purpose and benefits. An understanding and knowledge of various financial

concepts and skills defined as financial literacy enable individuals to make informed and effective decisions regarding their personal finances. (Zakaria et al., 2016). Individual with low financial literacy tend to face challenges in wealth accumulation and retirement planning (Lusardi et al., 2016). Many studies identified that financial literacy and insurance knowledge have a positive association with life insurance decision and participation (Dragos et al., 2020; Everlin et al., 2020; Lin et al., 2017; Mai et al., 2020; Wang et al., 2021; Zakaria et al., 2016; Zhao, 2020). On the other hand, insurance product, such as variety of product, policy price, and product accessibility allows individuals to choose the best aligns with their specific needs and preferences and leads to take up life insurance decision (Kozarevic & Hodzic, 2021; Mai et al., 2020). Other financial product such as ownership of social endowment insurance and investment have a positive impact of life insurance ownership (Kakar & Shukla, 2010; Zhao, 2020), pension and remittance have no effect on life insurance decision (Giesbert et al., 2011; Wang et al., 2021), easy access to claims and trust in insurance have a positive impact on life insurance decision (Abdul-Fatawu & Abonongo, 2019; Amron et al., 2018; Codruta Mare et al., 2019; Masud et al., 2021) and experience regarding insurance companies are associated with the decision to buy life insurance (Dragos, 2014)(Dragos et al., 2020)

4.7. Risk, Experience, and Nature Related Drivers

Risk, experience, and nature related drivers are only existed in the study with micro level outputs. Among all the classification, the direction tends to head positive relationship because out of 31 variables in the study included, 8 variables affect positively, and 4 variables affect negatively. As for the nonsignificant factor, the direction tends be positive too. The factors included in this category are shock experiences, health, risk, and nature related factors.

The experience factors are including the experience of death, illness, and other severe shock. All those three variables are not significantly affecting the decision to own life insurance, but the direction of death and illness shock is positive while other severe shock heads the other way (Arun et al., 2012; Giesbert et al., 2011). As for amount purchased, the effect is exactly the same for all experiential variables (Arun et al., 2012).

Health related variables are illness, health status, and vaccination status. The illness variable only appears in Giesbert et al. (2011) and is defined as illness of the household head in the previous year, which reflects riskiness, is not statistically significant. Like illness, vaccine status variable is also used only in Giesbert et al. (2011) and find negative relationship between vaccine status of the household's head and the life insurance take up decision.

As for health status variable appears in Ampaw et al. (2018), Shi et al. (2015), and Wang et al.

(2021). In Wang et al. (2021) and Ampaw et al. (2018) health status is dummy variable equal to 1 if the respondent is healthy, and 0 otherwise. Hence, they resulted the same positive effect on life insurance ownership and premium expenditure (Wang et al., 2021). This result means the higher probability for healthy respondent to take part in life insurance ownership than those who are sick. Somehow in our opinion this result may suffer selection bias at supply side, where the ownership of life insurance policies is based on the insurance company's eligibility selection.

On the other hand, Shi et al. (2015) measures health status of the household head by four categories of self-reported health condition (very good, good, so-so, and bad or very bad), with the ''very bad'' as the reference category. The only significant category is average health condition which perform negatively. This result means, those who has average health condition is less likely to append more for life insurance premium than those who has very bad health. The other category is also heading to the same direction but not significant in 5% significance or stronger.

Risk assessment factors are portraying the perception and attitude towards risk. We separate the perception and risk attitude, so we have three factors: risk perception, risk aversion, and risk loving. Risk perception exploits how intense someone perceives the risk he or she face. The risk perception variable is used in Arun et al. (2012), Giesbert et al. (2011), Mai et al. (2020), and Masud et al. (2021). Out of four studies, Mai et al. (2020), and Masud et al. (2021) infer positively significant influence of risk perception on life insurance ownership and intention to own life insurance (Mai et al., 2020). Thus, the higher the risk an individual perceived to have correlated with the higher life insurance ownership. Nevertheless, the other two studies don't result a meaningful result since the significance is low. As for premium expenditure, the risk perception gives no meaningful result although it tends to be negative.

Risk attitude towards risk classified into risk averse, risk lover, and loss averse. Wang et al. (2021) employs both of risk averse and risk lover while Giesbert et al. (2011) only employs risk lover and (Nagy et al., 2020a) uses risk averse and loss averse. Loss averse is different with love averse, it is a behaviour to avoid losing. All research is not giving meaningful effect on the ownership of life insurance or premium expenditure but the risk averse in Wang et al. (2021) and loss averse in Nagy et al. (2020). The effect of risk averse and loss averse are heading to the opposite direction which means that a person who is risk averse or loss averse has a less probability in taking up the life insurance products. The notion of this result which worth to note is that life insurance is perceived as risky investment product in the emerging countries. Consequently, instead of losing money for paying the premium without gaining

benefit, they tend to not take life insurance product to avoid losses.

The only nature related variable in this systematic review is air pollution. Although its effect varies across the type of insurance, Zhao (2020) confirm that the higher the pollution, the higher the probability to take life insurance and lead to higher premium expenditures.

4.8. Information Sources

We add one more classification to explore what information source is the most influencing in the decision on taking life insurance product. The research employing this variable that we cover in this study are Lin et al. (2017) and Amron et al. (2018). The variables are financial institution, family, and friends, advertisement, school curriculum, word of mouth, and financial advisor consulted. Out of those variables, financial institution and financial advisor consulted tend to give positive effect. The direction is the same with family and friends and the power of word of mouth. The highest influencing information source to take life insurance among all is financial institution then followed by family and friends (Lin et al., 2017). The other variables are not meaningful, including when the life insurance literacy is included in the curriculum. Yet, once again it is also confirming that word of mouth from family and friends is indeed an efficient lure in the participation of life insurance.

4.9. Payment Scheme

Bauchet and Morduch (2019) try to elicit the effect of payment scheme change on life insurance demand for lower economy. Bauchet and Morduch (2019) utilizes a large-scale natural experiment with 200,000 low-income female microcredit customers to demonstrate that demand rise by 59–74 percent when consumers is given the option to pay in weekly instalments rather than all at once, even it consequently makes them pay more. The natural experiment occurs when the microfinance institution branch becomes too large and are split into two. The nature of the institution's engagements stays similar, but clients are impacted by the assignment to a new branch since those served by the new branch are required to pay the insurance premium upfront for one loan cycle/insurance coverage period.

The finding indicates that upfront payment requirement decreases participation of life insurance by 23–27 percentage points. The estimations associate to a demand drop of 37 to 42 percent based on a base take-up rate of 62 percent (when the option to pay in instalments is offered). If the transition is regarded in the opposite direction (from a base of upfront lump-sum payments to a setting with the option to pay by instalment), the percent increase in demand ranges between 59 and 74%.

V. Conclusion and Recommendation

This systematic review of the literature on the determinant of life insurance participation in emerging countries documents 7 proxies of life insurance participation and 7 groups of variables corelated to them, namely socioeconomic related drivers; demographic related drivers; institutional related drivers; culture and religion related drivers; financial products and knowledge related drivers; risk, experience, and nature related drivers; and information sources. However, analysis should be interpreted by each variable since they give different direction in their association with life insurance demand.

Our findings point that some variables mostly have positive correlation, such as income, education, financial development, GDP and its growth, credit, asset ownership, saving, dependency, urbanization, marital status, group of institution variables, group of financial and insurance product and knowledge, and group of information sources variables. On the other hands, variables of inflation, social security, health expenditure, unemployment, life expectancy, and male household head mostly shown negative correlation to life insurance demand. The remaining variables have mixed result or have certain direction but only few research employing those variables. Regardless, demographic factors explained higher variations in life insurance demand compared to both economic and institutional factors. As for institutional factor, the effect is more visible in developing country than those of developed countries.

At macro level, life insurance density tends to be affected more by the independent variables than life insurance penetration, because life insurance density considers the population size and treat the life insurance demand at individual level as personal need. To promote life insurance industry, policy maker may stabilize the economic factor such as inflation rate, enhance education to improve financial literacy, and improve institutional quality. As complement, life insurance companies may design specific policy to meet the life insurance need of the individuals considering their socioeconomic and demographic characteristics.

One important takeaway is that life insurance is perceived as risky investment product in the emerging countries. Also, because the financial literacy is an important driver for taking life insurance products, the insurance industry and/or the government should consider ways to educate the public, providing people with the economic and financial knowledge necessary to understand insurance products to build the confidence on the products. It can create higher effect since confidence effect on life insurance demand always positive even under impaired economic condition. As for the strong effect of word of mouth, life insurance company should maximize the utilization of information source that has been trusted by the potential consumers.

Payment scheme on the other hand gives out significant impact on how low economy demand for the life insurance products. Giving the instalment scheme for life insurance payment instead of upfront payment to this segment is increasing the demand of life insurance by more than 50%. Regarding the product itself, some features need to be adjusted to meet the expectation of the consumers, includes price, accessibility, and variety of products.

Source

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Contribution

Conceived and designed the study: RA DR JT. Searched for papers: RA DR JT. Summed up and analysed the data: RA DR JT. Contributed reagents/materials/analysis tools: RA DR JT. Wrote the paper: RA DR JT.

Bibliography

Ahmed, D., Xie, Y., & Issam, K. (2021). Investor confidence and life insurance demand: can economic condition limit life insurance business? *International Journal of Emerging Markets*. https://doi.org/10.1108/IJOEM-06-2020-0650

Akhter, W., Pappas, V., & Khan, S. U. (2020). Insurance demand in emerging Asian and OECD countries: a comparative perspective. *International Journal of Social Economics*, *47*(3), 350–364. https://doi.org/10.1108/IJSE-08-2019-0523

Alhassan, A. L. (2016). Insurance market development and economic growth: Exploring causality in 8 selected African countries. *International Journal of Social Economics*, *43*(3), 321–339. https://doi.org/10.1108/IJSE-09-2014-0182

Alhassan, A. L., & Biekpe, N. (2016). Determinants of life insurance consumption in Africa. *Research in International Business and Finance*, *37*, 17–27. https://doi.org/10.1016/j.ribaf.2015.10.016

Ampaw, S., Nketiah-Amponsah, E., & Owoo, N. S. (2018). Gender perspective on life insurance demand in Ghana. *International Journal of Social Economics*, *45*(12), 1631–1646. https://doi.org/10.1108/IJSE-03-2017-0120

Amron, Usman, & Mursid, A. (2018). Buying decision in the marketing of Sharia life insurance (evidence from Indonesia). *Journal of Islamic Marketing*, *9*(2), 370–383. https://doi.org/10.1108/JIMA-02-2017-0013

Arun, T., Bendig, M., & Arun, S. (2012). Bequest Motives and Determinants of Micro Life Insurance in Sri Lanka. *World Development*, *40*(8), 1700–1711. https://doi.org/10.1016/j.worlddev.2012.04.010

Asongu, S. A., & Odhiambo, N. M. (2021). Information Asymmetry and Insurance in Africa. *Journal of African Business*, *22*(3), 394–410. https://doi.org/10.1080/15228916.2020.1812980

Asongu, S., Nnanna, J., & Acha-Anyi, P. (2020). Information technology, governance and insurance in Sub-Saharan Africa. *Social Responsibility Journal*, *16*(8), 1253–1273. https://doi.org/10.1108/SRJ-05-2019-0167

Asongu, S., & Odhiambo, N. M. (2020). Financial access, governance and insurance sector development in sub-Saharan Africa. *Journal of Economic Studies*, *47*(4), 849–875. https://doi.org/10.1108/JES-01-2019-0025

Bah, M., & Abila, N. (2021). Institutional determinants of insurance penetration in Africa. *Geneva Papers on Risk and Insurance: Issues and Practice*. https://doi.org/10.1057/s41288-022-00278-2

Balcilar, M., Gupta, R., Lee, C. C., & Olasehinde-Williams, G. (2018). The synergistic effect of insurance and banking sector activities on economic growth in Africa. *Economic Systems*, *42*(4), 637–648. https://doi.org/10.1016/j.ecosys.2018.08.002

Bauchet, J., & Morduch, J. (2019). Paying in pieces: A natural experiment on demand for life insurance under different payment schemes. *Journal of Development Economics*, *139*, 69–77. https://doi.org/10.1016/j.jdeveco.2019.02.002

Beck, T., & Webb, I. (2003). Economic, Demographic, and Institutional Determinants of Life Insurance Consumption across Countries. *Source: The World Bank Economic Review*, *17*(1), 51–88. https://doi.org/10.1093/wber/lhgOll

Bhatia, R., Bhat, A. K., & Tikoria, J. (2021). Life insurance purchase behaviour: A systematic review and directions for future research. *International Journal of Consumer Studies*, *45*(6), 1149–1175. https://doi.org/10.1111/ijcs.12681

Buric, M. N., Bacovic, M., Cerovic, J., & Bozovic, M. L. (2017). Factors influencing life insurance market development in montenegro. *Periodica Polytechnica Social and Management Sciences*, *25*(2), 141–149. https://doi.org/10.3311/PPso.10049

Chang, C. H., & Lee, C. C. (2012). Non-linearity between life insurance and economic development: A revisited approach. In *GENEVA Risk and Insurance Review* (Vol. 37, Issue 2, pp. 223–257). https://doi.org/10.1057/grir.2011.10

Chang, T., Cheng, S. C., Pan, G., & Wu, T. pao. (2013). Does globalization affect the insurance markets? Bootstrap panel Granger causality test. *Economic Modelling*, *33*, 254–260. https://doi.org/10.1016/j.econmod.2013.04.008

Chiew, H. L. (2021). *Insurance and the Sustainable Development Goals Why it matters and how data can help*. Retrieved from https://blogs.worldbank.org/opendata/updated-estimates-impact-covid-19-global-poverty-looking-back-2020-and-outlook-2021

Dickinson, G. (2018). *ENCOURAGING A DYNAMIC LIFE INSURANCE INDUSTRY: ECONOMIC BENEFITS AND POLICY ISSUES*. https://www.oecd.org/finance/insurance/1857811.pdf

Dragos, S. L. (2014). Life and non-life insurance demand: The different effects of influence factors in emerging countries from Europe and Asia. *Economic Research-Ekonomska Istrazivanja* , *27*(1), 169–180. https://doi.org/10.1080/1331677X.2014.952112

Dragos, S. L., Dragos, C. M., & Muresan, G. M. (2020). From intention to decision in purchasing life insurance and private pensions: different effects of knowledge and behavioural factors. *Journal of Behavioral and Experimental Economics* , *87*. https://doi.org/10.1016/j.socec.2020.101555

Dragos, S. L., Mare, C., Dragota, I. M., Dragos, C. M., & Muresana, G. M. (2017). The nexus between the demand for life insurance and institutional factors in Europe: New evidence from a panel data approach. *Economic Research-Ekonomska Istrazivanja* , *30*(1), 1477–1496. https://doi.org/10.1080/1331677X.2017.1325764

Elango, B., & Jones, J. (2011). Drivers of insurance demand in emerging markets. *Journal of Service Science Research*, *3*(2), 185–204. https://doi.org/10.1007/s12927-011-0008-4

Emamgholipour, S., Arab, M., & Mohajerzadeh, Z. (2017). Life insurance demand: Middle East and North Africa. *International Journal of Social Economics*, *44*(4), 521–529. https://doi.org/10.1108/IJSE-04-2015-0106

Ertl, M. (2017). Insurance convergence and post-crisis dynamics in central and eastern Europe. *Geneva Papers on Risk and Insurance: Issues and Practice*, *42*(2), 323–347. https://doi.org/10.1057/s41288-017-0043-6

Everlin, S., Sofia Senastri Dahlan, K., Bunda Mulia, U., Ancol Barat, J. I., Pademangan, K., & Jkt Utara, K. (2020). FAKTOR-FAKTOR YANG MEMENGARUHI SIKAP DANMINAT PEMBELIAN MILENIAL TERHADAP ASURANSI JIWA under a Creative Commons Attribution (CC-BY-NC-SA) 4.0 license FAKTOR-FAKTOR YANG MEMENGARUHI SIKAP DANMINAT. *Jurnal RisetManajemen Dan Bisnis (JRMB) FakultasEkonomi UNIAT*, *5*(2), 41–60. http://jrmb.ejournal-feuniat.net/index.php/JRMB/article/view/363

François Outreville, J. (2018). Culture and Life Insurance Ownership: Is It an Issue? *Source: Journal of Insurance Issues*, *41*(2), 168–192. https://doi.org/10.2307/26505753

Gaganis, C., Hasan, I., & Pasiouras, F. (2020). Cross-country evidence on the relationship between regulations and the development of the life insurance sector. *Economic Modelling*, *89*, 256–272. https://doi.org/10.1016/j.econmod.2019.10.024

Ghosh, A. (2013). Life insurance in India: The relationship between reforms and growth in business. *Geneva Papers on Risk and Insurance: Issues and Practice*, *38*(1), 88–112. https://doi.org/10.1057/gpp.2012.2

Giesbert, L., Steiner, S., & Bendig, M. (2011). Participation in Micro Life Insurance and the Use of Other Financial Services in Ghana. *Journal of Risk and Insurance*, *78*(1), 7–35. https://doi.org/10.1111/j.1539-6975.2010.01405.x

Grabova, P., & Sharku, G. (2021). DRIVERS OF LIFE INSURANCE CONSUMPTION - AN EMPIRICAL ANALYSIS OF WESTERN BALKAN COUNTRIES. *Economic Annals*, *66*(231), 33–58. https://doi.org/10.2298/EKA2131033G

Haiss, P., & Sümegi, K. (2008). The relationship between insurance and economic growth in Europe: A theoretical and empirical analysis. *Empirica*, *35*(4), 405–431. https://doi.org/10.1007/s10663-008-9075-2

Han, N. W., & Hung, M. W. (2017). Optimal consumption, portfolio, and life insurance policies under interest rate and inflation risks. *Insurance: Mathematics and Economics*, *73*, 54–67. https://doi.org/10.1016/j.insmatheco.2017.01.004

Harris, T., & Yelowitz, A. (2014). Is there adverse selection in the life insurance market? Evidence from a representative sample of purchasers. *Economics Letters*, *124*(3), 520–522. https://doi.org/10.1016/j.econlet.2014.07.029

Hodula, M., Janků, J., Časta, M., & Kučera, A. (2021). On the macrofinancial determinants of life and non-life insurance premiums. *Geneva Papers on Risk and Insurance: Issues and Practice*. https://doi.org/10.1057/s41288-021-00249-z

Kakar, P., & Shukla, R. (2010). The Determinants of Demand for Life Insurance in an Emerging Economy—India. *Margin*, *4*(1), 49–77. https://doi.org/10.1177/097380100900400103

Kaushal, S., & Ghosh, A. (2017). Economic growth and the development of banking and insurance sector in the post-liberalized India: An empirical analysis. *International Journal of Social Economics*, *44*(12), 2187–2207. https://doi.org/10.1108/IJSE-04-2016-0121

Lee, C. C., Chiu, Y. Bin, & Chang, C. H. (2013). Insurance demand and country risks: A nonlinear panel data analysis. *Journal of International Money and Finance*, *36*, 68–85. https://doi.org/10.1016/j.jimonfin.2013.03.009

Lim, C.-C. (2019). DEMOGRAPHIC PROFILING OF LIFE INSURANCE OWNERSHIP IN THE NORTHERN REGIONS OF MALAYSIA. In *International Journal of Business and Society* (Vol. 20, Issue 3).

Lin, C., Hsiao, Y. J., & Yeh, C. Y. (2017). Financial literacy, financial advisors, and information sources on demand for life insurance. *Pacific Basin Finance Journal*, *43*, 218–237. https://doi.org/10.1016/j.pacfin.2017.04.002

Luca, D. (2018). Does prevention as an investment strategy explain the intention to purchase guarantees for unit-linked life insurance? *Journal of Financial Services Marketing*, *23*(3–4), 153–167. https://doi.org/10.1057/s41264-018-0052-y

Lusardi, A., Mitchell, O. S., & Curto, V. (2016). Financial Literacy among the Young Author (s): ANNAMARIA LUSARDI , OLIVIA S . MITCHELL and VILSA CURTO Source : The Journal of Consumer Affairs , Vol . 44 , No . 2 , Second Special Issue on Financial Published by : Wiley Stable URL : http://www.jstor.or. *The Journal of Consumer Affairs*, *44*(2), 358–380.

Mai, T. H., Nguyen, T. C., Vu, L. L., Bui, V. H., Nguyen, T. T. C., & Do, D. T. (2020). A study on behaviors of purchasing life insurance in Vietnam. *Management Science Letters*, *10*(8), 1693–1700. https://doi.org/10.5267/j.msl.2020.1.011

Mare, Codruța, Dragoș, S. L., & Dragotă, I. M. (2019). The impact of human development on the Romanian life insurance market: A county spatial econometric analysis. *Cogent Business and Management*, *6*(1). https://doi.org/10.1080/23311975.2019.1707609

Mare, Codruta, Laura Dragoș, S., Dragotă, I. M., & Dragoș, C. M. (2019). Insurance Literacy and Spatial Diffusion in the Life Insurance Market: A Subnational Approach in Romania. *Eastern European Economics*, *57*(5), 375–396. https://doi.org/10.1080/00128775.2019.1618194

Masud, M. M., Ahsan, M. R., Ismail, N. A., & Rana, M. S. (2021). The underlying drivers of household purchase behaviour of life insurance. *Society and Business Review*, *16*(3), 442–458. https://doi.org/10.1108/SBR-08-2020-0103

Mathew, B., & Sivaraman, S. (2017). Cointegration and causality between macroeconomic variables and life insurance demand in India. *International Journal of Emerging Markets*, *12*(4), 727–741. https://doi.org/10.1108/IJoEM-01-2016-0019

Mathew, B., & Sivaraman, S. (2021). Financial sector development and life insurance inclusion in India: an ARDL bounds testing approach. *International Journal of Social Economics*, *48*(4), 531–542. https://doi.org/10.1108/IJSE-11-2018-0623

Meko, M., Lemie, K., & Worku, A. (2019). Determinant of life insurance demand in Ethiopia. *Journal of Economics, Business & Accountancy Ventura*, *21*(3), 293. https://doi.org/10.14414/jebav.v21i3.1474

Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., Altman, D., Antes, G., Atkins, D., Barbour, V., Barrowman, N., Berlin, J. A., Clark, J., Clarke, M., Cook, D., D'Amico, R., Deeks, J. J., Devereaux, P. J., Dickersin, K., Egger, M., Ernst, E., … Tugwell, P. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *PLoS Medicine*, *6*(7). https://doi.org/10.1371/journal.pmed.1000097

Nagy, B. Z., Alt, M. A., Benedek, B., & Săplăcan, Z. (2020a). How do loss aversion and technology acceptance affect life insurance demand? *Applied Economics Letters*, *27*(12), 977–981. https://doi.org/10.1080/13504851.2019.1650882

North, D. (1981). *Institutions, Institutional Change, and Economic Performance*. Norton.

Ose Iyawe, O., & Osamwonyi, I. O. (2021). Disposable Income and Life Insurance Demand in Sub-Sahara Africa. *ACTA UNIVERSITATIS DANUBIUS*, *17*(1), 2021.

Ouedraogo, I., Guérineau, S., & Sawadogo, R. (2016). *Life Insurance Development and Economic Growth: Evidence from Developing Countries*. www.cerdi.org

Pradhan, R. P., Arvin, M. B., Bahmani, S., Bennett, S. E., & Hall, J. H. (2017). Insurance–growth nexus and macroeconomic determinants: evidence from middle-income countries. *Empirical Economics*, *52*(4), 1337–1366. https://doi.org/10.1007/s00181-016-1111-7

Sanjeewa, W., Sampath Sanjeewa, W., Ouyang, H., & Hashmi, S. H. (2019). DETERMINANTS OF LIFE INSURANCE CONSUMPTION IN EMERGING INSURANCE MARKETS OF SOUTH-ASIA. In *Journal of Information, Business and Management* (Vol. 11, Issue 4). https://www.researchgate.net/publication/338116474

Sawadogo, R. (2021). The relationship between insurance and banking sectors in Sub-Saharan African: Does globalization matter? *Economic Change and Restructuring*, *54*(1), 101–119. https://doi.org/10.1007/s10644-020-09277-6

Sen, S., & Madheswaran, S. (2013). Regional determinants of life insurance consumption: Evidence from selected Asian economies. *Asian-Pacific Economic Literature*, *27*(2), 86–103. https://doi.org/10.1111/apel.12024

Shi, X., Wang, H. J., & Xing, C. (2015). The role of life insurance in an emerging economy: Human capital protection, assets allocation and social interaction. *Journal of Banking and Finance*, *50*, 19–33. https://doi.org/10.1016/j.jbankfin.2014.08.028

Sliwinski, A., Michalski, T., & Roszkiewicz, M. (2013). Demand for life insurance-an empirical analysis in the case of Poland. *Geneva Papers on Risk and Insurance: Issues and Practice*, *38*(1), 62–87. https://doi.org/10.1057/gpp.2012.21

Souiden, N. and Jabeur, Y. (2015), "The impact of Islamic beliefs on consumers' attitudes and purchase intentions of life insurance", *International Journal of Bank Marketing*, Vol. 33 No. 4, pp. 423-441. https://doi.org/10.1108/IJBM-01-2014-0016

Srbinoski, B., Poposki, K., Born, P. H., & Lazzari, V. (2021). Life insurance demand and borrowing constraints. *Risk Management and Insurance Review*, *24*(1), 37–69. https://doi.org/10.1111/rmir.12166

Srbinoski, B., Poposki, K., & Čibej, G. (2021). An empirical investigation of determinants of life insurers' performance: Evidence from selected countries in Central, Eastern, and Southeastern Europe (CESEE). *Risk Management and Insurance Review*, *24*(3), 293–310. https://doi.org/10.1111/rmir.12190

Strzelecka, A., KurdyS-Kujawska, A., & Zawadzka, D. (2020). Application of multidimensional correspondence analysis to identify socioeconomic factors conditioning voluntary life insurance. *Procedia Computer Science*, *176*, 3407–3417. https://doi.org/10.1016/j.procs.2020.09.056

Wang, H., Zhang, D., Guariglia, A., & Fan, G. Z. (2021). 'Growing out of the growing pain': Financial literacy and life insurance demand in China. *Pacific Basin Finance Journal*, *66*. https://doi.org/10.1016/j.pacfin.2020.101459

Zakaria, Z., Azmi, N. M., Hassan, N. F. H. N., Salleh, W. A., Tajuddin, M. T. H. M., Sallem, N. R. M., & Noor, J. M. M. (2016). The Intention to Purchase Life Insurance: A Case Study of Staff in Public Universities. *Procedia Economics and Finance*, *37*, 358–365. https://doi.org/10.1016/s2212-5671(16)30137-x

Zerriaa, M., Amiri, M. M., Noubbigh, H., & Naoui, K. (2017). *Determinants of Life Insurance Demand in Tunisia*.

Zerriaa, M., & Noubbigh, H. (2016). Determinants of life insurance demand in the MENA region. *Geneva Papers on Risk and Insurance: Issues and Practice*, *41*(3), 491–511. https://doi.org/10.1057/gpp.2016.1

Zhao, W. (2020). Effect of air pollution on household insurance purchases. Evidence from China household finance survey data. *PLoS ONE*, *15*(11 November). https://doi.org/10.1371/journal.pone.0242282

Appendix 1 Detailed relationship map on life insurance penetration

Factor	Variabel	Alhassan 2016	Zerriaa 2017	Sanjeewa 2019	Srbinoski 2020	Alhassan 2016	Akhter 2019	Ahmed 2021	Ahmed 2021	Sen 2013	Asongu 2020	Asongu 2020	Bah 2021	Pradhan 2016
Socioeconomic	1 Income	-	+	-	pns		pns	+	nns	+			+	pns
	2 Inflation	-	+		nns		pns	pns	nns	-				
	3 Interest rate				pns			pns	nns	-				
	4 Education	-	-	+	pns		pns	nns	pns	-		nns	nns	
	5 Financial development	+	+	+	pns		+	+	nns	+				+
	6 Social security		-					+	nns					
	7 Health expenditure	pns		-									+	
	8 Unemployment and female labor													
	9 GDP and GDP growth					pns								
	10 Credit				-						+			
	11 Saving n remittances						pns				+			
	12 Government consumption													+
	13 Crisis						nns							
	14 Others economic factors													
Demographic	1 Age dependency ratio	-	+		-		pns	pns	+	pns				
	2 Life expectancy	-		-	nns		pns	nns	pns	pns			-	
	3 Urbanization (urban pop)		+	-	nns		pns	+	pns	pns				
Institution	1 Institution	+											+	
	2 Voice and accountability										+		pns	
	3 Political stability and absence of violence										+	pns	+	
	4 Government effectiveness										+		+	
	5 Regulatory quality										+		+	
	6 Rule of law				pns						+		+	
	7 Control of corruption										+		+	
	8 Regulatory changes									pns				
Religion	1 Islam													
Other	1 Mobile Phone Penetration											pns		
	2 Foreign ownership of LI									+				

Factor	Variabel	Chang 2012	Zerriaa 2016	Grabova 2021	Iyawe 2021	Gaganis 2020	+	pns	-	nns	Total
Socioeconomic	1 Income	+	+	+		+	8	3	2	1	14
	2 Inflation	-	+	-	nns	nns	2	2	4	4	12
	3 Interest rate	nns	+		nns		1	2	1	3	7
	4 Education		+	pns			2	4	3	3	12
	5 Financial development		+				8	1	0	1	10
	6 Social security		-			pns	1	1	2	1	5
	7 Health expenditure	-		nns			1	1	2	1	5
	8 Unemployment and female labor						0	1	0	1	2
	9 GDP and GDP growth				+		1	1	0	0	2
	10 Credit			nns			1	0	1	1	3
	11 Saving n remittances						1	1	0	0	2
	12 Government consumption						1	0	0	0	1
	13 Crisis						0	0	0	1	1
	14 Others economic factors					mixed	1	3	2	3	9
Demographic	1 Age dependency ratio	-	-	+		pns	3	4	4	0	11
	2 Life expectancy	-	+			-	1	3	5	2	11
	3 Urbanization (urban pop)		pns	+			3	4	1	1	9
Institution	1 Institution	+					3	0	0	0	3
	2 Voice and accountability						1	1	0	0	2
	3 Political stability and absence of violence						2	1	0	0	3
	4 Government effectiveness			pns			2	1	0	0	3
	5 Regulatory quality			nns			2	0	0	1	3
	6 Rule of law			+			3	1	0	0	4
	7 Control of corruption			nns			2	0	0	1	3
	8 Regulatory changes						0	1	0	0	1
Religion	1 Islam		-			-	0	0	2	0	2
Other	1 Mobile Phone Penetration						0	1	0	0	1
	2 Foreign ownership of LI						1	0	0	0	1

Appendix 2 Detailed relationship map on life insurance density

Factor	Variable	Zerriaa 2017	Sanjeewa 2019	Chen 2013	Lee 2013	Lee 2013	Lee 2013	Dragos 2017	Mare 2019	Mare 2019	Ahmed 2021	Ahmed 2021	Sen 2013	Pradhan 2016	Sawadogo 2020	Chang 2012	Zerriaa 2016
Socioeconomic	1 Income	+	+		+	+	+		+	+	+	+	+	pns	pns	+	+
	2 Inflation	+			pns	nns	nns				-	-	-		-	-	+
	3 Interest rate				+	+	+				-	-	-			nns	+
	4 Education	-	+		nns	-	-		pns		+	pns					+
	5 Financial development	+	+								+	+	+	+			+
	6 Social security	-									nns	-					nns
	7 Health expenditure		-													nns	
	8 Employment								-	nns							
	9 GDP n GDP growth																
	10 Credit														+		
	11 Gini ratio																
	12 Openness			Pns											+		
	13 Government consumption													+	nns		
	14 Development																
	15 Confidence index																
	16 Criminality									nns							
	17 others																
Demographic	1 Age dependency ratio	+			+	+	+				pns	-	pns		nns	-	-
	2 Life expectancy		-		nns	nns	-				-	pns	pns		nns	-	+
	3 Urbanization	+	-		nns	nns	nns		+	+	+	nns	pns				pns
	4 Migration								pns								
	5 Population growth																
Institution	1 Institution															+	
	2 Voice and accountability							nns									
	3 Political stability and absence of violence							nns									
	4 Government effectiveness							nns									
	5 Regulatory quality							nns									
	6 Rule of law							+									
	7 Control of corruption							pns									
	8 Regulatory changes												pns				

Factor	Variable	Zerriaa 2017	Sanjeewa 2019	Chen 2013	Lee 2013	Lee 2013	Lee 2013	Dragos 2017	Mare 2019	Mare 2019	Ahmed 2021	Ahmed 2021	Sen 2013	Pradhan 2016	Sawadogo 2020	Chang 2012	Zerriaa 2016
	9 Property rights																
	10 Business freedom																
	11 Fiscal freedom																
	12 Governmental spending																
	13 Freedom from Corruption																
	14 Financial freedom																
	15 Openness of economy																
Culture and Religion	1 Cultural vitality									nns							
	2 Uncertainty avoidance																
	2 Islam religion																
Financial product and knowledge	1 Financial Literacy								+								
	2 Insurance price																
	3 Foreign ownership of LI												+				

Factor	Variabel	Elango 2011	Outreville 2018	Meko 2018	Grabova 2021	Iyawe 2021	Nebolsina 2020	Gaganis 2020	Luca 2018	Dragos 2014	Dragos 2014	+	pns	-	nns	Total
Socioeconomic	1 Income	+	+	pns	+			+	+			17	3	0	0	20
	2 Inflation	nns		+	-	nns		-	nns			3	1	7	5	16
	3 Interest rate	+		+		pns						6	1	3	1	11
	4 Education	pns			pns				+	pns	pns	4	6	3	1	14
	5 Financial development											7	0	0	0	7
	6 Social security							pns	-			0	1	3	2	6
	7 Health expenditure				nns							0	0	1	2	3
	8 Employment											0	0	1	1	2
	9 GDP and GDP growth	-				+	+			+	+	4	0	1	0	5
	10 Credit				+				pns			2	1	0	0	3
	11 Gini ratio									-	-	0	0	2	0	2
	12 Openness						pns					1	2	0	0	3
	13 Government consumption											1	0	0	1	2
	14 Development											2	0	0	0	2
	15 Confidence index											2	1	0	1	4
	16 Criminality											0	0	0	1	1
	17 Others											5	4	3	1	13
Demographic	1 Age dependency ratio	Pns		+	+		+	nns				7	3	3	2	15
	2 Life expectancy	Pns		+				-				2	3	5	3	13
	3 Urbanization			+	+					+	pns	7	3	1	4	15
	4 Migration											0	1	0	0	1
	5 Population growth	Nns										0	0	0	1	1
Institution	1 Institution											1	0	0	0	1
	2 Voice and accountability											0	0	0	1	1

Appendix 3 Detailed relationship map on life insurance growth

Factor	Variable	Hodula 2021	Elango 2011	+	pns	-	nns	Total
Socioeconomic	1 Income		+	1	0	0	0	1
	2 Inflation	nns	pns	0	1	0	1	2
	3 Interest rate		pns	0	1	0	0	1
	4 Education		nns	0	0	0	1	1
	5 Financial development	+		1	0	0	0	1
	6 Social security	-		0	0	1	0	1
	7 GDP	pns	+	1	1	0	0	2
	8 Crisis	0		0	0	0	0	0
	9 Others			0	3	0	0	3
Demographic	1 Age dependency ratio	nns	pns	0	1	0	1	2
	2 Life expectancy	-	nns	0	0	1	1	2
	3 Population growth		nns	0	0	0	1	1
Institution	1 Property rights		nns	0	0	0	1	1
	2 Business freedom		nns	0	0	0	1	1
	3 Fiscal freedom		-	0	0	1	0	1
	4 Governmental spending		pns	0	1	0	0	1
	5 Freedom from Corruption		nns	0	0	0	1	1
	6 Financial freedom		nns	0	0	0	1	1
	7 Openness of economy		pns	0	1	0	0	1
Others	1 Solvency	nns		0	0	0	1	1

Appendix 4 Detailed relationship map on life insurance gross premium

Factor	Variable	Mathew 2017	Asongu 2021	Emamgholipour 2017	Mathew 2021	Ertl 2017	Ertl 2017	Sliwinski 2013	Ghosh 2013	+	pns	-	nns	Total
Socioeconomic	1 Income	-				-	nns		+	1	0	2	1	4
	2 Inflation	pns		-		-	nns	+	+	2	1	2	1	6
	3 Interest rate	-		-	-	+		+		2	0	3	0	5
	4 Education							0		0	0	0	0	0
	5 Financial development	+			+			+		3	0	0	0	3
	6 Social security	pns						0		0	1	0	0	1
	7 Health expenditure							-		0	0	1	0	1
	8 Unemployment					nns	pns	-		0	1	1	1	3
	9 GDP and GDP growth			+		+	+	+		4	0	0	0	4
	10 Saving and remittance		+						pns	1	1	0	0	2
	11 Openess							-		0	0	1	0	1
	12 Development			+						1	0	0	0	1
	13 Others							-		0	0	1	0	1
Demographic	1 Age dependency ratio							+		1	0	0	0	1
	2 Life expectancy							pns		0	1	0	0	1
	3 Urbanization							-		0	0	1	0	1
	4 Population and birth rate			+				+		2	0	0	0	1
Institution	1 Voice and accountability		+							1	0	0	0	1
Financial product and knowledge	1 Insurance related		+						+	2	0	0	0	2

Appendix 5. Detailed relationship map on life insurance ownership

Factor	Variable		Zhao 2020	Arun 2012	Strzelecka 2020	Dragos 2020	Wang 2021	Fatawu 2019	Lin 2017	Kozarevic 2021	Usman 2018	Ampaw 2018	Giesbert 2011
Socioeconomic	1 income	Income	+			+	+	nns	pns	pns		pns	
		Income Square										nns	
		Low middle income											
		High middle income											
		High income											
	2 education	Education	+	pns		+				nns			
		Schooling											+
		Average education											
		No education										nns	
		Education (primary)			-			nns				-	
		Education (secondary)			+				pns				
		High education							nns				
	3 employment	Self employed		pns			+	-	pns			+	
		Unemployed (empolyee)		pns				-					pns
	4 credit	Debt					+						
	5 asset	Asset index		+			+						+
		Land ownership		+									nns
		House ownership (real estate)											
		Ownership of asset											
	6 saving	Saving			+			nns		pns			
		Deposit											
	7 gini	Variance of income											
	8 others	Gift expenditure											
		Return on education											
		Correlation of income change to opening prices in stock exchange											
		Stock or mutual fund											
		Bonds											
		Party membership											
Demographic	1 dependency	Dependent		nns				pns				nns	pns
		Dependent Square										pns	
		Children number (share of depedent)		+									

Factor	Variable		Zhao 2020	Arun 2012	Strzelecka 2020	Dragos 2020	Wang 2021	Fatawu 2019	Lin 2017	Kozarevic 2021	Usman 2018	Ampaw 2018	Giesbert 2011
		Family size	+				+						
	2 urbanization	Rural (rural=1)	-				-		-				
	3 gender	Gender (male=1)	-	pns		+	-	pns	-	nns		nns	
		Female head											pns
	4 marital	Marital (married=1)	+	pns		+	+	nns	+			pns	nns
		Married (reference=single)											
		Divorced/widowed (reference=single)											
		The household of a lonely			-								
		Marriage/partnership in middle or older age without dependent children.			-								
	5 age	Age	-	-			-	pns		nns		nns	+
		Age square		+								pns	-
Culture and Religion	1 culture	Chinese (reference=malay)											
		Indian											
		Other races											
		Subjective norm											
	2 religion	Religion (christian=reference)		+				pns					
Financial and product knowledge	1 financial literacy	Attention to finance	+										
		Insurance knowledge				+							
		Financial literacy					+		+				
	2 Insurance product	Variety of product								pns			
		Policy Price								+			
		Product accessibility											
	3 other financial product	Ownership of social endowment insurance	+										
		Ownership of social medical insurance	pns				nns						
		Pension					pns						
		Remmitance											nns
		Borrowing											
		Investment											
	4 Insurance related factors	Distance to road		pns									
		Difficulties in accessing Financial services and products			+								
		Exp on transportation and telecom											
		Experience in insurance company				+							

Factor	Variable		Zhao 2020	Arun 2012	Strzelecka 2020	Dragos 2020	Wang 2021	Fatawu 2019	Lin 2017	Kozarevic 2021	Usman 2018	Ampaw 2018	Giesbert 2011
		Trust in insurance				+					+		
		Perception of the role of LI				+							
		Services						-					
		Easy Acces to claims						+					
		Acces to insurance product						nns					
		Perception on insurance policy								nns			
		Image and brand recognition of company								nns			
		Awareness of Life Insurance											
		Purchase Intention											
		Satisfaction									+		
		Attitudes											
		Previous insurance policy				+							
		Institutional help in case of financial difficulties				+							
Risk, experience, and nature													
Risk, experience, and nature	1 Shock experience	Experience death		pns									pns
		Experience illness		pns									pns
		Experience other severe shock		nns									nns
	2 health	Illness											pns
		Health (status)					+					+	
		Vaccination (any vaccination)											nns
	3 risk assessment	Risk perception		nns									nns
		Risk averse					-						
		Risk lover					nns						pns
	4 nature	Air pollution	+										
Information sources		Financial Institution							+				
		Family and friends							+				
		Adverstiment							nns				
		School curriculum							nns				
		Word of Mouth									+		
		Financial Advisor Consulted							+				

Factor	Variable		KaKar 2010	KaKar 2010	Lim 2019	Mai 2020	Shi 2015	Masud 2021	+	pns	-	nns	Total
Socioeconomic	1 Income	Income	+				nns		4	3	0	2	9
		Income Square							0	0	0	1	1
		Low middle income			+				1	0	0	0	1
		High middle income			+				1	0	0	0	1
		High income			pns				0	1	0	0	1
	2 Education	Education		+			+		4	1	0	1	6
		Schooling							1	0	0	0	1
		average education			pns				0	1	0	0	1
		no education							0	0	0	1	1
		Education (primary)							0	0	2	1	3
		Education (secondary)							1	1	0	0	2
		high education			+				1	0	0	1	2
	3 Employment	Self employed	-	-					2	2	3	0	7
		Unemployed (empolyee)							0	2	1	0	3
	4 Credit	Debt					pns		1	1	0	0	2
	5 Asset	Asset index							3	0	0	0	3
		Land ownership							1	0	0	1	2
		House ownership (real estate)					pns		0	1	0	0	1
		Ownership of asset	+	+					2	0	0	0	2
	6 Saving	Saving	+	+					3	1	0	1	5
		Deposit					pns		0	1	0	0	1
	7 Gini	Variance of Income					+		1	0	0	0	1
	8 Others	Gift expenditure					+- (unclear)		0	0	0	0	unclear
		Return on education					+		1	0	0	0	1
		Correlation of income change to opening prices in stock exchange					-		0	0	1	0	1
		Stock or mutual fund					+		1	0	0	0	1
		Bonds					+		1	0	0	0	1
		Party membership					pns		0	1	0	0	1
Demographic	1 Dependency	Dependent			pns				0	3	0	2	5
		Dependent Square							0	1	0	0	1
		Children number (share of depedent)	+	+					3	0	0	0	3
		Family size					+		3	0	0	0	3

Factor	Variable		KaKar 2010	KaKar 2010	Lim 2019	Mai 2020	Shi 2015	Masud 2021	+	pns	-	nns	Total
	2 Urbanization	Rural (rural=1)							0	0	3	0	3
	3 Gender	Gender (male=1)			+		-		2	2	4	2	10
		Female head							0	1	0	0	1
	4 Marital	Marital (married=1)		+					5	2	0	2	9
		Married (reference=single)			pns				0	1	0	0	1
		Divorced/widowed (reference=single)			nns				0	0	0	1	1
		The household of a lonely							0	0	1	0	1
		Marriage/partnership in middle or older age without dependent children.							0	0	1	0	1
	5 Age	Age	-	+	pns				2	2	4	2	10
		Age square							1	1	1	0	3
Culture and Religion	1 culture	chinese (reference=malay)			+				1	0	0	0	1
		Indian			pns				0	1	0	0	1
		other races			pns				0	1	0	0	1
		Subjective norm				+		+	2	0	0	0	2
	2 religion	Religion (Christian=reference)							1	1	0	0	2
Financial and product knowledge	1 financial literacy	Attention to finance							1	0	0	0	1
		Insurance knowledge							1	0	0	0	1
		Financial literacy							1	0	0	0	1
	2 Insurance product	Variety of product							0	1	0	0	1
		Policy Price							1	0	0	0	1
		Product accessibility				+			1	0	0	0	1
	3 other financial product	Ownership of social endowment insurance							1	0	0	0	1
		Ownership of social medical insurance							0	1	0	1	2
		Pension							0	1	0	0	1
		Remmitance							0	0	0	1	1
		Borrowing	-	+					1	0	1	0	2
		Investment	+	+					2	0	0	0	2
	4 Insurance related factors	Distance to road							0	1	0	0	1
		Difficulties in accessing Financial services and products							1	0	0	0	1
		Exp on transportation and telecom					+		1	0	0	0	1
		Experience in insurance company							1	0	0	0	1

Factor	Variable		KaKar 2010	KaKar 2010	Lim 2019	Mai 2020	Shi 2015	Masud 2021	+	pns	-	nns	Total
		Trust in insurance						+	3	0	0	0	3
		Perception of the role of LI							1	0	0	0	1
		Services							0	0	1	0	1
		Easy Acces to claims							1	0	0	0	1
		Acces to insurance product							0	0	0	1	1
		Perception on insurance policy							0	0	0	1	1
		Image and brand recognition of company							0	0	0	1	1
		Awareness of Life Insurance						+	1	0	0	0	1
		Purchase Intention						+	1	0	0	0	1
		Satisfaction							1	0	0	0	1
		Attitudes				+		+	2	0	0	0	2
		Previous insurance policy							1	0	0	0	1
		institutional help in case of financial difficulties							1	0	0	0	1
Risk, experience, and nature													
Risk, experience, and nature	1 Shock experience	Experience death							0	2	0	0	2
		Experience illness							0	2	0	0	2
		Experience other severe shock							0	0	0	2	2
	2 health	Illness							0	1	0	0	1
		Health (status)					-		2	0	1	0	3
		Vaccination (any vaccination)							0	0	0	1	1
	3 risk assessment	Risk Perception				+		+	2	0	0	2	4
		Risk averse							0	0	1	0	1
		Risk lover							0	1	0	1	2
	4 Nature	Air pollution							1	0	0	0	1
Information sources		Financial Institution							1	0	0	0	1
		family and friends							1	0	0	0	1
		Adverstiment							0	0	0	1	1
		School curriculum							0	0	0	1	1
		Word of Mouth							1	0	0	0	1
		Financial Advisor Consulted							1	0	0	0	1

Appendix 6. Detailed relationship map on life insurance premium expenditure

Factor	Variables		Zhao_2020	Arun_2012	Wang_2021	Bauchet 2019	+	pns	-	nns	Total
Socioeconomic	1 Income	Income	+		+		2	0	0	0	2
	2 Education	Education	+	+			2	0	0	0	2
		Education (secondary)				-	0	0	1	0	1
		high education				-	0	0	1	0	1
	3 Employment	Self employed		+	+		2	0	0	0	2
		Unemployed (empolyee)		pns			0	1	0	0	1
	4 Credit	Debt			+		1	0	0	0	1
	5 Asset	Asset index		+	+		2	0	0	0	2
		Land ownership		+			1	0	0	0	1
		House ownership (real estate)				pns	0	1	0	0	1
	6 Others	Customer loan cyclle				+	1	0	0	0	1
		Group loan cycle				+	1	0	0	0	1
		Group Size				+	1	0	0	0	1
		Insurance payment must be upfront				-	0	0	1	0	1
Demographic	1 Dependency	Dependent		nns			0	0	0	1	1
		Children number (share of depedent)		+		nns	1	0	0	1	2
		Family size	+		+		2	0	0	0	2
	2 Urbanization	Rural (rural=1)	-		-		0	0	2	0	2
	3 Gender	Gender (male=1)	-	pns	-		0	1	2	0	3
	4 Marital status	Marital (married=1)	+	nns	+	+	3	0	0	1	4
	5 Age	Age	-	-	-	+	1	0	3	0	4
		Age square		+		-	1	0	1	0	2
Culture and Religion	1 Religion	Religion (Christian=reference)		pns			0	1	0	0	1
Financial products and knowledge	1 Financial literacy	Attention to finance	+				1	0	0	0	1
		Financial literacy			+		1	0	0	0	1
	2 Other financial product	Ownership of social endowment insurance	+				1	0	0	0	1
		Ownership of social medical insurance	pns		nns		0	1	0	1	2
		Pension			pns		0	1	0	0	1
	3 Insurance related	Distance to road		pns			0	1	0	0	1
Risk, experience, and nature	1 Shock experience	Experience death		pns			0	1	0	0	1

Factor	Variables		Zhao_2020	Arun_2012	Wang_2021	Bauchet 2019	+	pns	-	nns	Total
		Experience illness		pns			0	1	0	0	1
		Experience other severe shock		nns			0	0	0	1	1
	2 Health	Health (status)			+		1	0	0	0	1
	3 Risk assesment	Risk		nns			0	0	0	1	1
		Risk averse			-		0	0	1	0	1
		Risk lover			nns		0	0	0	1	1
	4 Nature	Air pollution	+				1	0	0	0	1

Appendix 7. Detailed relationship map on intention to buy life insurance

Factor	Variable		Dragos 2020	Zakaria 2016	Souiden 2015	Souiden 2015	Everlin 2020	Mai 2020	Buric 2017	Nagy 2020	Everlin 2020	+	pns	-	nns	Total
Socioeconomic	1 Income										+	1	0	0	0	1
	2 Education		+						+			2	0	0	0	2
	3 Self employed								+			1	0	0	0	1
	4 Saving Motives			+								1	0	0	0	1
Demographic	1 Dependent											0	0	1	0	1
	2 Gender (male=1)								pns			0	1	1	0	2
	3 Marital (married=1)		+							pns	+	2	1	0	0	3
	4 Age		+							nns	+	2	0	0	1	3
Culture and Religion	1 Culture	Subjective norm						+				1	0	0	0	1
	2 Religion	Religiousity		+								1	0	0	0	1
		Islamic beliefs (high score)				+						1	0	1	0	2
		Islamic beliefs (low score)			+							1	0	1	0	2
		Attitude (high islamic beliefs)				+						1	0	1	0	2
		Attitude (low islamic beliefs)			+							1	0	1	0	2
financial products and knowledge	1 Financial literacy	Insurance knowledge								pns		0	1	0	0	1
		Financial literacy		+				+			+	3	0	0	0	3
	2 Insurance product	Product accessibility						+				1	0	0	0	1
	3 Insurance related	Perception of the role of LI								pns		0	1	0	0	1
		Technology Acceptance								+		1	0	0	0	1
		Smart device acceptance								+		1	0	0	0	1
		Buying Attitudes					+					1	0	0	0	1
		Attitudes						+				1	0	0	0	1
		Price importance								nns		0	0	0	1	1
Risk, experience, and nature	6 Risk assesment	Risk averse								pns		0	1	0	0	1
		Loss Aversion										0	0	1	0	1
		Risk Perception						+				1	0	0	0	1

Appendix 8 PRISMA Check List

Section and topic	Item No	Checklist item	Reported on Page #	Equity Extension
Title:				
Identification	1a	Identify the report as a protocol of a systematic review	1	
Update	1b	If the protocol is for an update of a previous systematic review, identify as such	-	
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number	-	
Authors:				
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	1	
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	29	
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	-	
Support:				
Sources	5a	Indicate sources of financial or other support for the review	29	
Sponsor	5b	Provide name for the review funder and/or sponsor	29	
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	29	
ABSTRACT				
	6	Provide a structured summary including, as applicable, background, objectives, data sources, study eligibility criteria, participants, methods, results, limitations, conclusions and implications of key findings	1	
INTRODUCTION				
Rationale	7	Describe the rationale for the review in the context of what is already known	1-2	
Objectives	8	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	2-3	
METHODS				
Eligibility criteria	9	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review	3	
Information sources	10	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	4	
Search strategy	11	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	4	We use term study selection
Study records:				
Data management	12a	Describe the mechanism(s) that will be used to manage records and data throughout the review	5-8	
Selection process	12b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility, and inclusion in meta-analysis)	5-8	
Data collection process	12c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	5	
Data items	13	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications	10-12	

Outcomes and prioritization	14	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	10-11
Risk of bias in individual studies	15	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	-
Data synthesis	16a	Describe criteria under which study data will be quantitatively synthesised	-
	16b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any planned exploration of consistency (such as I^2, Kendall's τ)	-
	16c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	-
	16d	If quantitative synthesis is not appropriate, describe the type of summary planned	-
Meta-bias(es)	17	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	12-13
Confidence in cumulative evidence	18	Describe how the strength of the body of evidence will be assessed (such as GRADE)	12-13
RESULTS			
Study selection	19	Give number of studies screened, assessed for eligibility, give reason for exclusion studies,	6
Study characteristics	20	Present characteristics for which data were extracted.	-
Result of demography articles	21a	For each study, present the distribution of selected studies by year and journal.	8
	21b	Present the countries involved based on geography.	9
	21c	Present the distribution of article based on index.	9
	21d	Present the sources of data year.	8
	21e	Present the distribution of methods of study.	10
Result of Individual/ household studies	22	For all outcomes, present summary data about social demography characteristics effecting the decision taking of life insurance	13-27
Result of regional level	23	For all outcomes, present summary data of macro variable that penetrate life insurance at regional level	13-27
Additional analyses	24	Give results of additional synthesis approaches related to equity objectives.	13-27
DISCUSSION			
Summary of evidence	25	Summarize the main finding including the strength evidence for each main study, consider their relevance to key groups	13-27
Limitations	26	Discussion incomplete retrieval of identified research and reporting bias to show limitation of study.	12
Conclusions	27	Provide a general interpretation of the results and in the context of other evidence, implications for future research, and policy to equity where relevant (e.g. types of research needed to address unanswered questions)	28-29