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Determinants of Life Insurance Demand in Ethiopia

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Abstract

The study aims to investigate the determinants of life insurance demand in Ethiopia. Time series secondary data starting from 1995/96 to 2022/23 was used. Autoregressive Distributed Lag (ARDL) model was used as a method of data analysis. The result indicated that, in the long run, corruption control and urbanization growth have a significant positive effect on life insurance demand whereas unemployment and health expenditure show a significant negative effect on life insurance demand. However, in the long run, financial system development, rule of law, and real deposit interest rate are not significant predictors of life insurance demand. Therefore, the study recommends that the government should prioritize anti-corruption efforts, create more job opportunities and educate the people about the importance of balancing health spending with life insurance. It is also suggested that insurance companies should improve their methods of distribution in order to increase demand.

Key words: Autoregressive Distributive Lag Model, Corruption Control, Health Expenditure, Rule of Law, Gross Premium.

1. Introduction

A life insurance policy is an agreement between an insurer and insured in which the insurer promises to pay specified benefit in the event of the death of the insured person. This policy helps to provide financial security by covering expenses or replacing lost income for the beneficiaries. Some life insurance policies also offer investment or savings components (Rejda & McNamara, 2017). Yaari (1965) was the first to create a theoretical model to describe the demand for life insurance, which is when the issue of life insurance demand first came to light. Yaari's (1965) paradigm states that life insurance demand is driven by the need to support dependents and provide for retirement income. To safeguard policyholders and their families or employees from the hazards of incapacity or early death, both individuals and businesses buy life insurance policies (Rejda & McNamara, 2017). The global insurance market premium earnings rose to

46 billion dollars and out of it 66.4% paid for covering of life insurance and 33.6% paid for property insurance. From this share of global insurance market, the share of Africa is 1.44% which is very insignificant. In the world and Africa in general, the paid premium rate of life insurance is higher than the paid premium rate of property insurance but in Ethiopia, the paid premium of life insurance is still not more than 6 percent (Yared, 2015) which is very less as compared to more than 10% annual growth rate in Morocco, Kenya, Zimbabwe and Ghana (Africa insurance barometer report on life insurance premium, 2018; Kassa, 2020; Mulenga, 2019; and Segodi & Athenia, 2022).

The National Bank of Ethiopia report (2017) states that the insurance market gross premium reached 7.5 billion Ethiopian birr, of which 0.4 billion, came from the life insurance and 7.1 billion, from the general insurance business. This is despite improvements in the growth of the insurance business in Ethiopia. According to a 2017 assessment by the Africa Insurance Organization, Ethiopia has less developed life insurance market. In comparison to other African nations (such as South Africa, Zambia, and Namibia, where the ratios are 77.8%, 75.5%, and 73.4%, respectively), Ethiopia has a relatively low life insurance to total premium ratio of just 6%. It is even lower than the sub-Saharan Africa ratio of 32.4%. This indicated that despite the fact that there are many insurers in the nation that provide life insurance products, the demand for life insurance is still quite low (Meko, Lemie & Worku, 2018; Jemal, 2020; Kassa, 2020; and Segodi & Athenia, 2022). So far, only a few empirical studies have been done in Ethiopia, and they have only looked at the effect of a small number of macroeconomic and demographic factors and even their findings have been inconsistent. Most previous research works did not take into account the impact of social security and institutional factors (Meko, Lemie & Worku, 2018; Kassa, 2020; Jemal, 2020; Kura & Legass, 2021; and Segodi & Athenia, 2022). The application of Autoregressive distributed lag (ARDL) model using time series data to assess the long- and short-term effects of the predictor variables on the demand of life insurance is also what makes this study different from those similar studies conducted in the past. Therefore, the aim this study is to close this gap by investigating how life insurance demand is affected by macroeconomic, demographics, institutional, and one fundamental social security component (health expenditure as a percentage of GDP) in Ethiopia.

2. Related Literatures

2.1.Theoretical Review

Economics Theory of Insurance Demand: It states that people buy insurance to minimize the financial impact of unfavorable situations. A number of variables, including income, wealth, risk aversion, and the projected utility of wealth, affect the demand for life insurance. Demand for life insurance is typically higher among those with higher incomes and wealth levels because they want to safeguard both their own and their dependents' financial security in the event of an early death (Huang & Lee, 2022). To protect themselves from unforeseen circumstances, risk-averse people are more inclined to get life insurance (Zweifel & Eisen, 2012).

Life Cycle Theory: This theory states that individuals save money during their young age to fund their retirement and maintain consumption levels throughout their life. People tend to purchase life insurance in their younger years when they have dependents and financial obligations such as mortgages and children's education. As they become older and accumulate savings, their need for life insurance tends to decrease (Bommier & Rochet, 2022). This dynamic is reflected in more current research exploring the relationship between savings, consumption, and insurance needs across different life stages (Hsu & Kim, 2013).

Behavioral Economics Perspective: The study of behavioral economics provides information about the psychological aspects that affect insurance choices. According to this theory, people may overestimate the advantages and the frequency of unfavorable outcomes of insurance coverage due to cognitive biases such loss aversion and ambiguity aversion, which in turn may boost their demand for life insurance (Barberis & Thaler, 2003 and Kunreuther & McMorrow, 2013).

2.2.Empirical Review

Major empirical reviews of the key variables influencing life insurance demand are discussed below.

Corruption control: It measures perceptions of the extent to which public power is used for private benefit as well as the takeover of the state by elite and private or individual interests (World Bank, 2022). With regard to the effect of corruption control on life insurance demand, the results of previous empirical studies indicates that a propensity for fraud may lead people to submit dishonest claims or claims resulting from the willful death of an insured person (Beck & Weber, 2023). If there is widespread fraud in claim reporting, the insurance system will either fail entirely or become unduly expensive for a large percentage of the population. On the other hand, the life insurance demand will increase as the country's level of corruption control rises because there will be a strong trust between the insured and the insurer (World Bank, 2022).

Health expenditure to GDP**:** The demand for life insurance is influenced by social security systems in different ways. First, social security services were replaced by national wealth and high social security spending is thought to discourage people from purchasing life insurance (Beck & Weber, 2023; and Skipper and Klein, 2022). Additionally, social Security benefits are paid for by taxes, which lowers the amount of money available for buying life insurance and hence its demand.

The rule of law: The Rule of Law Index is used to gauge political stability or political participation as well as the probability of violence and crime. Perceptions of how much agents trust and follow the laws of society are shown by world governance index. Jordan (2012) demonstrates that the demand for life insurance is positively associated with the rule of law (Kaufmann & Vicente, 2022).

Unemployment: The association between life insurance demand and the unemployment has not been thoroughly studied by previous studies. The results of few empirical studies show that the rate of unemployment has a negative significant effect on life insurance demand (Lenten & Rulli, 2006 and Buric et al., 2017; Shanz, 2018; and Segodi & Athenia, 2022).

Deposit interest rate (real): The increase in real deposit interest rate may lead to

reduction in the demand for life insurance purchases because consumers may move from life insurance savings to another form of money accumulation in anticipation of higher returns on other assets (Lenten and Rulli, 2006; Abbas & Ning, 2016; Buric et al., 2017; Meko, Lemie & Worku, 2018; and Segodi & Athenia, 2022).

Urbanization: It refers to the increase in the percentage of people living in urban centers. The growth of life insurance is positively associated with the degree of urbanization which implies that higher levels of urbanization is positively correlated with higher level of life insurance demand (Meko, Lemie & Worku, 2018; and Kura & Legass, 2021).

Financial development: It describes the expansion of financial services and products, their availability, and their general economic influence. It emphasizes how financial services provide risk management, investment, savings mobilization, and effective resource allocation, all of which support economic growth, efficiency, and equity. Countries with high levels of financial development have larger sales from the insurance industry (Mihail et al., 2016; Chitiyo, 2017; Mulenga, 2019; and Segodi & Athenia, 2022)).

2.3.Study Conceptual Framework and Hypotheses Formulation

2.3.1. Conceptual Framework

The relationship between life insurance demand and the study's explanatory variables are described using the following conceptual framework (figure 1).

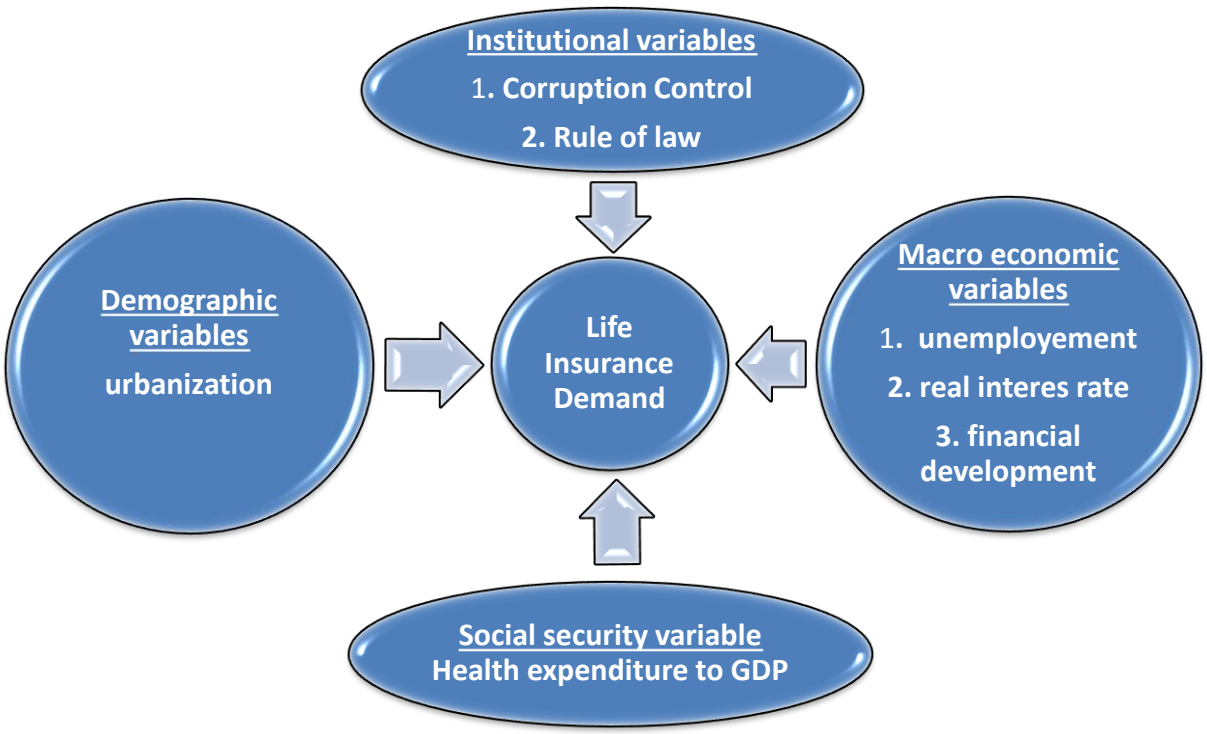

Figure 1. Conceptual Framework

Source: Adapted from (Jordan, 2012; Shanz, 2018; and Huang & Lee, 2022).

2.3.2. Hypotheses Formulation

Based on the above empirical review and conceptual framework, the following hypotheses are formulated:

H1: Corruption control has positive effect on life insurance demand.

H2: Health expenditure to GDP has negative effect on life insurance demand.

H3: The rule of law has positive effect on life insurance demand.

H4: Unemployment has negative effect on life insurance demand.

H5: Deposit interest rate has negative effect on life insurance demand.

H6: Urbanization has positive effect on life insurance demand.

H7: Financial system development has positive effect on life insurance demand.

3. Materials and Methods

3.1. Research Design

The study used a quantitative research design to analyses the determinants of life insurance demand in Ethiopia over the period of 1995/96 to 2022/23. A time series econometrics approach is utilized to examine the short and long run effect of independent variables on the dependent variable (Narayan, 2005, Pesaran, Shin & Smith, 001).

3.2. Data Source

The study relies on secondary data collected from different sources such as World Bank, Ethiopian Insurance Corporation, National Bank of Ethiopia, and World Governance Index annual reports and publications (1995/96 to 2022/23).

3.3. Method of Data Analysis

Based on time series data from 1995/96 to 2022/23, Autoregressive Distributed Lag (ARDL) model of analysis was performed to examine the effect of independent variables on the dependent variable (Narayan, 2005). E-views 10 was used to analyze the data.

3.4. Study Variables, Measurement and Hypothesized Sign

Table 1. Measurement of Variables.

Variables	***Representation***	***Measurement***	***Hypothesized Sign***
Life insurance Density **(dependent variable)**	DENSITY	Life insurance premiums/Population (Beck & Weber, 2023, Li et al., 2007; and Kura & Legass, 2021)	
Independent variables			
The rule of law	ROL	The Worldwide Governance Indicators' rule of law index	**“+”**
Corruption control	CORR	The Worldwide Governance Indicators' Control of Corruption Index	**“+”**
Health expenditure to GDP	HEX	Annual health expenditure/GDP	**“-“**
Urbanization	URB	Change in annual urban growth as a percentage	**“+“**
Financial Development	FID	Broad money (M2) as a percentage of GDP	**“+”**
Deposit interest rate (real)	RIR	Interest rate on deposits less inflation	**“-”**
Unemployment:	UNP	Percentage change in annual unemployment rate	**“-“**

3.5. Model Specification

To evaluate the explanatory factors' long-term and short-term effects on life insurance demand, the study used autoregressive distributed lag (ARDL) model (Pesaran et al., 2001). It is designed to capture the impact of different macroeconomic, demographic, social security, and institutional factors on life insurance demand (Field, 2009) (table 1).

$$\boldsymbol{logLID = \beta 0 + \beta 1 ROL + \beta 2 CORR + \beta 3 HEX + \beta 4 URB + \beta 5 FID + \beta 6 RIR + \beta 7 UNP + et} \text{.....equation (1)}$$

Where t = year 1, β1, 2, 3,... 7 are parameters estimated by the model, B0 is the constant value of the regression, and ε= is the error term at time t assumed to have zero mean E [Єt] = 0.

To assess co-integration or long-term relationships among the study's variables, the ARDL model listed below was estimated:

$$\begin{aligned}
&\Delta lnDENSITY \\
&= \alpha 0 + \alpha 1 lnDENSITY\ t-1 + \alpha 2 \mathrm{ROL} t \\
&- 1 + \alpha 3 \mathrm{CORR}\ t-1 + \alpha 4 \mathrm{HEX}\ t-1 \\
&+ \alpha 5 URB t-1 + \alpha 6 \mathrm{FID}\ t-1 + \alpha 7 RIR t \\
&- 1 + \alpha 8 UNP t-1 \\
&+ \sum_{i=1}^{p} \beta 1\ \Delta lDENSITY\ t-1 \\
&+ \sum_{i=1}^{q} \beta 2\ \Delta\ ROL\ t-1 \\
&+ \sum_{i=1}^{q} \beta 3 \Delta CORR\ t-1 \\
&+ \sum_{i=1}^{q} \beta 4 \Delta\ HEX\ t-1 \\
&+ \sum_{i=1}^{q} \beta 5 \Delta UNP\ t-1 \\
&+ \sum_{i=1}^{q} \beta 6\ URB\ t-1 + \sum_{i=1}^{q} \beta 7 \Delta RDIR\ t \\
&- 1 \\
&+ \sum_{i=1}^{q} \beta 8 \Delta UNP\ t-1 \\
&+ \varepsilon t \ldots\ldots\ldots\ldots\ldots \boldsymbol{equation(2)}
\end{aligned}$$

Where,

$\alpha 0, \alpha i, \beta i, and\ \varepsilon t\ are\ intercept, long\ run,$
$short\ run\ coefficients\ and\ white\ noiseerrors,$
$respectively$

Additionally, the ideal lag order of the independent and dependent variables are indicated by p & q.

The conditional ARDL (p, $q1$,…..$q8$) long run model was then estimated as follows after co-integration was established:

$$\Delta lnDENSIT = \sum_{i=1}^{p} \beta 1\, \Delta lLID\, t-1 + \sum_{i=1}^{q} \beta 2\, \Delta\, ROL\, t-1 + \sum_{i=1}^{q} \beta 3 \Delta CORR\, t-1 + \sum_{i=1}^{q} \beta 4 \Delta\, HEX\, t-1 + \sum_{i=1}^{q} \beta 5 \Delta\, FDE\, t-1 + \sum_{i=1}^{q} \beta 6\, URB\, t-1 + \sum_{i=1}^{q} \beta 7 \Delta UNP\, t-1 + \sum_{i=1}^{q} \beta 8 \Delta RIR\, t-1 + \gamma ECT\, t-1 + \varepsilon\, t-1 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \textbf{equation (3)}$$

where γ is the parameter and β1,……..β8 are the specified model's short-run dynamics coefficients that measures the speed of adjustment towards the long-run equilibrium and should have a negative $sign$ and ECT is the error correction term which captures the long run relationship in the model and finally $\varepsilon t\ is\ vector\ of\ white\ noise\ error\ terms.$

4. Results and Discussion

4.1. Diagnostic Tests

4.1.1. Test of the Unit Root

Prior to performing ARDL regression, the variables were first checked for stationarity. The unit root test helps in determining if a variable is stationary.

Table 2. Estimation of Unit Root by ADF Test at level and at 1st Difference.

Series	Order	T-statistics for ADF	At 5% critical value	At 10% critical value	Prob.	Result
DENSITY	I (1)	-3.491862	-3.012363	-2.646119	0.0188	Stationary
CCOR	I (1)	-3.333959	-3.012363	-2.646119	0.0261	Stationary
HEX	I (0)	-3.063170	-3.004861	-2.642242	0.0445	Stationary
ROL	I (1)	-4.813869	-3.012363	-2.646119	0.0011	Stationary
UNP	I (1)	-3.657838	-3.012363	-2.646119	0.0132	Stationary
FDE	I (1)	-4.931139	-3.052169	-2.666593	0.0013	Stationary
URB	I (1)	-4.056116	-3.012363	-2.646119	0.0056	Stationary
RDIR	I (0)	-3.358022	-3.004861	-2.642242	0.0243	Stationary

Source: *E-views 10, 2024*

The above table displays the first difference and level findings from the ADF test. For DENSITY, CCOR, UNP, ROL, FDE, and URB, the absolute values of the ADF statistic test are stationary and higher than the critical value at 5% and 10% at its first difference. With the exception of HEX and RDIR, which are stationary at order I (0), this shows that the null hypothesis is not accepted at first difference for these variables, indicating that they are stationary at order I (1). Furthermore, the variables' P-

values of less than 5% indicate that they are statistically significant enough to reject the null hypothesis (Pesaran et al., 2001) (table 2).

4.1.2. ARDL Co-integration Tests

The ARDL approach to co-integration is be used to examine the association among the variables in the long-run.

Table 3. ARDL Bounds Co-integration Test.

The F-Bounds Test		**Null Hypothesis: No relationship between levels**		
Test Statistics	**Value**	**Signif.**	**I(0)**	**I(1)**
			Asymptotic: n=1000	
F-statistic	13.55229	10%	1.92	2.89
K	7	5%	2.17	3.21
		2.5%	2.43	3.51
		1%	2.73	3.9

Source: ***E-views 10, 2024***

According to the findings of the boundaries test above, at the 1% level of significance, the F-statistic value of 13.55 is greater than the upper bound critical value. This suggests that there is a long-term association among the variables included in the study (Pesaran et al., 2001) (table 3) which implies that the null hypothesis is rejected.

4.1.3. Serial Correlation Test

To determine whether the error terms are independent of one another or not, the Breusch-Godfrey serial correlation LM test has been used.

Table 4. LM Test for Breusch-Godfrey Serial Correlation.

LM Test for Breusch-Godfrey Serial Correlation			
F-statistic	0.123940	**Prob. F(1,9)**	0.7329
Obs*R-squared	0.298849	**Prob. Chi-Square (1)**	0.5846

Source: ***E-views 10, 2024***

The Chi-Square and F-statistic p-values of 0.7329 and 0.5846, respectively, are above 0.05, as can be seen above. The null hypothesis which states that there is no serial connection can therefore be accepted (table 4).

4.1.4. Heteroscedasticity Test

Another major assumption of the classical linear regression model is that the error variance is constant or homoscedastic. Therefore, its test result by using the Breusch-Pagan-Godfrey test for heteroscedasticity indicates that there is no evidence for the occurrence of heteroscedasticity since the p-value is more than 0.05 (Brooks, 2008) (table 5).

Table 5. The Breusch-Pagan-Godfrey test for heteroscedasticity.

The Breusch-Pagan-Godfrey test for heteroscedasticity			
F-statistic	1.689038	**Prob. F (11,10)**	0.2088
Obs*R-squared	14.30215	**Prob. Chi-Square (11)**	0.2167
Scaled explained SS	3.038271	**Prob. Chi-Square (11)**	0.9902

Source: ***E-views 10, 2024***

4.1.5. Test of Multicollinearity.

Multicollinearity exists when there are strong correlations among the predictors or independent variables (Brooks, 2008).

Table 6. Checking for Multicollinearity.

Variance Inflation Factors (VIF)	
CCOR	2.110873
HEX	3.439705
ROL	5.933500
UNP	5.633549
FDE	6.813383
URB	4.871526
RDIR	1.801596

Source: ***E-views 10, 2024***

The VIF values presented above are less than 10 which indicates that there were no multicollinearity problems (Field, 2009) (table 6).

4.2. Estimation Result

The study's ARDL model's long- and short-term regression results are shown above. The R-squared and Adjusted R-squared values of the model are 0.842 and 0.816, respectively, as seen in the short-term result above, indicating that it fits the data well. It follows that the explanatory or independent variables included in the regression model accounted for almost 81% of the differences in life insurance demand. The error correction term's coefficient is -0.57, according to the study's short run error correction estimate, and it is significant at the 1 percent level of significance. As a result, adjustments are made annually for 57% of departures from the long-term equilibrium (table 7&8).

Table 7. Long-Run Regression Output for ARDL.

Long Run ARDL Form				
Levels Equation				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
CCOR	0.093705	0.029580	3.167849	0.0100
HEX	-0.117611	0.044069	-2.668808	0.0235
ROL	-0.070808	0.039767	-1.780591	0.1053
UNP	-0.081490	0.009386	-8.682162	0.0000
FDE	0.060772	0.039122	1.553399	0.1514
URB	0.073658	0.014327	5.141140	0.0004
RDIR	-0.000356	0.000320	-1.112323	0.2920
C	0.915720	0.054378	16.83979	0.0000
DENSITY = (0.0937*CCOR -0.1176*HEX -0.0708*ROL -0.0815*UNP + 0.0608*FDE +0.0737*URB -0.0004*RDIR + 0.91572)				

Source: ***E-views 10, 2024***

Table 8. Short Run (ECM) Regression Output for ARDL.

ARDL Regression with Error Correction				
ECM Regression				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
D(HEX)	-0.030752	0.005414	-5.680227	0.0002
D(ROL)	-0.024730	0.008380	-2.950961	0.0145
D(URB)	-1.18E-05	0.004361	-0.002714	0.9979
CointEq (-1) *	-0.568689	0.038381	-14.81712	0.0000
R-squared	0.842367	**Mean dependent var**		0.008227
Adjusted R-squared	0.816094	**S.D. dependent var**		0.007708
S.E. of regression	0.003305	**Akaike info criterion**		-8.423561
Sum squared resid	0.000197	**Schwarz criterion**		-8.225189
Log likelihood	96.65917	**Hannan-Quinn criter.**		-8.376830
Durbin-Watson stat	2.053157			

Source: ***E-views 10, 2024***

4.2.1. Discussion and Interpretations of ARDL Regression Result

4.2.1.1. The Effect of Corruption Control on the Demand for Life Insurance

The regression estimation result of the study indicates that the demand for life insurance is positively affected by corruption control (CCOR) at the 1% level of significance, with a P-value of 0.01 in the long run. The regression coefficient of 0.0937 indicates that, keeping other factors constant, a one-unit increase in the nation's corruption control index will eventually result in a 9.37% rise in the life insurance demand. A propensity for fraud may lead people to submit dishonest claims or claims resulting from the willful death of an insured person (Beck & Weber, 2023). If there is widespread fraud in claim reporting, the insurance system will either fail entirely or become unduly expensive for a large percentage of the population. On the other hand, the demand for life insurance will increase as the country's level of corruption control rises because there will be a strong trust between the insured and the insurer (World Bank, 2022). However, the aforementioned short-run regression output demonstrates that, while all other factors remain unchanged, the one-year lag of the corruption control index level has no short-term effect on life insurance demand (table 7& 8).

4.2.1.2. The effect of Health Expenditure to GDP on the Demand for Life Insurance

The result of the regression (long-run) indicates that, at 5% significance level, the life insurance demand is negatively affected by health expenditure to GDP (HEX), with a P-value of 0.0235. Previous research and theories (Skipper & Klein, 2022 and Li, 2021) are consistent with this finding. According to the estimated coefficient of health expenditure to GDP, which is around -0.1177, a one-unit increase in health expenditure to GDP will, over time, result in an 11.77 percent decline in the life insurance demand, other things being equal. Similarly, according to the short-term regression result, health expenditure as a percentage of GDP has negative effect on life insurance demand at a 1% level of significant with a corresponding p-value of 0.0002 and an estimated regression coefficient of -0.0308, meaning that, other things being equal, if the country's health expenditure to GDP increases by one unit this year, in the following year the demand for life insurance will decrease by 3.08 percent (table 7 & 8).

The aforementioned negative regression result of health expenditure is caused by the fact that social security programs, such as government health spending, are primarily funded by taxes, which lowers the amount of money available to buy life insurance. As a result, high social security expenditure may be the cause of a decline in life insurance consumption (Li et al., 2007).

4.2.1.3. The effect of Rule of Law on the Demand for Life Insurance

The short-term regression result showed that the rule of law index (ROL) has negative effect on the demand for life insurance at the 5% level of significance (p-value of 0.0145) and an estimated coefficient of -0.025, but no significant effect on life insurance demand in the long run (P-value of 0.1053). This finding suggests that, other things being equal, a one-unit increase in the nation's rule of law index result in a 2.5 percent drop in the life insurance demand. If the rule of law index declines, people may believe that there will be crime and violence in the country in

the upcoming year and as a result they may view these events as a threat to their lives and start buying life insurance products (Kaufmann & Vicente, 2022). Additionally, this is because people usually buy life insurance policies to shield their loved ones from the risks of early death or disability (table 7&8).

4.2.1.4.The Effect of Unemployment on the Demand for Life Insurance

The regression result (long-run) indicated that at the 1% level of significance, the demand for life insurance is negatively affected by the rate of unemployment, with a P-value of 0.0000 and it implies that the research hypothesis is accepted. The -0.0814 estimated regression coefficient of unemployment implies that, assuming all other factors constant, a one-unit increase in the unemployment rate will eventually result in 8.14 percent decline in life insurance demand. The ability of people to get wages or salaries to fulfil their expenses is reflected in unemployment rates. Since fewer people would be able to buy value-added financial services like insurance, there is probably a negative association between the life insurance demand and the rate of unemployment. This result has been supported by previous research works (Shanz, 2018; Lenten & Rulli, 2006; and Segodi & Athenia, 2022). However, the regression's short-term results indicate that the life insurance demand is not significantly affected by the unemployment rate's one-year lagged effect. This can be because customers don't react right away when their work status changes (table 7 & 8).

4.2.1.5.The Effect of Financial Development on the Demand for Life Insurance

Financial development (FDE) has insignificant effect on life insurance demand at 5% level of significance in the long run (Segodi & Athenia, 2022). Similarly, the regression result indicates that the one-year lagged value of financial development has no effect on life insurance demand in the short run. This may be due to the fact that customers do not immediately respond to changes in financial development (table 7&8).

4.2.1.6.The Effect of Urbanization on the Demand for Life Insurance

The regression result (long-run) indicates that the life insurance demand is positively affected by the urbanization rate (URB) at the 1% level of significance and a P-value of 0.0004, and it implies that the research hypothesis is accepted. The estimated regression coefficient of 0.0737 implies that, keeping other factors constant, a one-unit increase in the rate of urbanization will eventually result in a 7.37% rise in life insurance demand. Therefore, the implication is that countries with a greater percentage of urban residents will probably have a higher demand for life insurance products. Because of economics of scale advantage, insurers can spend less on marketing, policy distribution, underwriting, and claims administration if the population is more densely populated (Meko, Lemie & Worku, 2018; and Kura & Legass, 2021). However, the short-term results of the regression show that the one-year lagged value of urbanization has no effect on life insurance demand (table 7 & 8).

4.2.1.7.The Effect of Real Deposit Interest Rate on Demand for Life Insurance

Real deposit interest rate (RDIR) has no significant effect on the demand for life

insurance 5% level of significance. The short-run regression results also show that the demand for life insurance is not affected by the one-year lagged effect of the real deposit interest rate (Segodi & Athenia, 2022).. This might be because consumers of life insurance products won't react right away to changes in the interest rate on real deposits (tables 7 & 8).

5. Conclusion and Recommendation

Based on the above study findings, it is possible to conclude that while, corruption control and urbanization growth have positive effect on the demand for life insurance whereas unemployment and health expenditure have a major negative effect on life insurance demand over the long term. Accordingly, the study suggested that the government should prioritize preventing corruption by strengthening the judicial system. In order to lower the nation's unemployment rate, the government should also put a lot of effort into expanding the industrial, agricultural, and service sectors of the economy. Ethiopian insurance businesses should concentrate on growing their distribution networks in urban areas, where they may take advantage of reduced marketing, distribution, underwriting, and claims management expenses from economics of scale. Further, insurance companies in collaboration with the government should educate the public about the importance of balancing health spending with life insurance demand.

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