ECONOMIC & DEMOGRAPHIC CHARACTERICTICS, SOCIAL CAPITAL, AND DEMAND FOR LIFE INSURANCE: EVIDENCE FROM CENTRAL REGION OF SRI LANKA

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Abstract
This paper presents findings of the determinants of demand for life insurance in the central region of Sri Lanka. It is a novel study in the sense that it incorporated social capital as a determinant of demand for life insurance. Primary data has been collected through random sampling and logistic model was used to examine the determinants of the demand for life insurance. Results confirmed that gender, income, trust and social capital has significant effect on demand for life insurance in the study area. Income and trust came out positive contributors of life insurance demand. However, it is worthy to note that although income has positive effect on life insurance demand but its odds ratio makes it less important factor to influence demand for life insurance. Gender has deteriorated effect on demand for life insurance indicating that male household head less likely to purchase life insurance. Similarly, social capital also has negative impact on demand for life insurance. Other determinants like age, religious status, working status, and education, has not significant effect on life insurance demand. Policies are recommended on research findings.

Keywords: *Demographic characteristics, Demand for life insurance, Logistic model, Social capital, Sri Lanka*

JEL Classification: *A13, D14, D22, D71*

I. INTRODUCTION

In the new global economy insurance has become a key part of the financial sector in developed countries. Life insurance is a major source of investment in the capital market as well as an important source of long term finance (Catalan, Impavido et al., 2000). Characteristically, people decide to purchase a life insurance policy for managing the life risk. They are intended to protect the dependents against the loss of income that would result after the insured person's death. There are some functions attached to insurance like to replace the income, to protect key employees and the business itself and also to public as it help public to get potential estate taxes that would cease at the death of the insured person. Economically, purchasing a life insurance can be recognized as a form of household savings methods and postponement of the current consumption for the future household welfares. Accordingly, most of the people of the modern society make the purchasing decision of the life insurance policy when they are married, buying a new home or have children, or when critical life moving events take place.

The first life insurance was occupied in the early 18th century and the sale of life insurance in United States instigated in the late 1760s. At present, demand for life insurance is growing up rapidly in developed economies. However, the insurance culture in most of developing societies is significantly under developed due to many socioeconomic concerns. Several studies have been documented negative experience of people, economic instability and lower standard living along with other socioeconomic as main reasons. The concept of insurance was first offered to Sri Lanka in the 1930's. Like other developing countries, Sri Lanka financial market is also not developed yet. Sri Lanka is a small and lower-middle income developing country and well known for its significant improvement in the human development side. In 1978, Sri Lanka moved the economy away from a close economy to open economy and opened up its economy to world and encouraged overseas investments. It was the first south Asian country to liberalize the economy. In the past three decades, the country was affected by natural disasters and the civil war. However, at present Sri Lanka has strong growth rates in recent years with an economy worth USD 76 billion. At present insurance density of the country is LKR (the

currency of Sri Lanka) 4831 and total premium income of all types of insurance policies is LKR 99872 million which is 1.02 percent of GDP (Central Bank of Sri Lanka, 2014).

Yaari (1965) introduced the first theoretical framework for demand of life insurance. He discussed the factors of demand for life insurance and proposed that life insurance to be insured against ambiguity occasioning from the humanity risk of individuals. Hammond et al. (1967) found that income, education, occupation, net worth holding and state in the life cycle affect life insurance demand and consumption. Some empirical evidence considered income as the most important factor for life insurance demand. Such as, Fortune (1973), Lewis (1989), and Kjosevski (2012) identified that income is positively associated with demand for life insurance. However, Berekson (1972) argued that income does not have significant effect on demand for life insurance and considered that age and number of children have a significant effect on demand for life insurance. Similarly, Word and Zurbruegg (2002) and Li and Moshirian et al. (2007) emphasized that although income of individual is the most influential determinant of life insurance demand along with age and number of Children as they also have a significant effect on life insurance demand. Besides these factors, inflation, price of insurance, and the level of financial development of society are also identified as the other economic determinants (Word and Zurbruegg, 2002; Browne and Kim, 1993). Beck and Webb (2003) explained that institutional factors also play vital role in demand for life insurance and they observed that income, banking sector development, and religious believes affect demand for life insurance. Esho and Kirievsky et al., (2004) and Ofoghi and Farsangi (2013) documented that there exists positive relation between level of education and demand for life insurance.

Some studies evident that the decision of purchasing an insurance policy mainly depend on the socioeconomic, demographic, and institutional factors. In the past three decades, a number of researchers have sought out a number of determinants of the demand for life insurance at country level. However, to the best of our knowledge, no one has studied community level factors that may affect demand for life insurance. Similarly, we also did not trace any empirical study that how social capital of household with socio-demographic determinants leads to the purchase of a life insurance policy. Besides this, the demand for life insurance have not been closely studied and there has been no reliable evidence in the Sri Lankan context. So, we find that a gap exists, thus; this paper will fulfil this research gap in the literature. The main objective of the study is to examine the socio-economic determinants of the demand for life insurance in central region of Sri Lanka.

The rest of the paper is organized as follows. The next section provides theoretical and empirical literature on relevant determinants of the demand for life insurance. The methodology is discussed in the section 3, which encompassed the overview of the study area, sampling method, data analysis tools and variables. The results and discussions are given in section 4. In the last section of this paper, we added the conclusion and suggestions for the policy makers.

II. LITERATURE REVIEW

There is a growing body of literature that identifies the determinants of life insurance demand and it became a major area of interest within the field of financial sector of the economy among the socio-economic researchers. The life cycle hypothesis explains that how individuals design the saving behavior for the life. The first theoretical framework, the Life Cycle Utility Model of a consumer together with deducting the optimal consumption and saving plan (Yaari: 1965, Hakasson: 1969). According to this model, demand for life insurance is a function of wealth, expected income, interest rate, administrative cost of life insurance and personal discount rate for the consumer. Later Lewis (1989) added the preferences of other members of household to this framework. According to the new model, the probability of the primary wage earner's death, the value of household consumption, and degree of risk effects positively on demand for insurance policy while administrative cost of insurance policy and the household wealth have negative effect on demand for life insurance. Factors found to be manipulating the life insurance demand have been explored in several studies. Some empirical studies talked about many demand and supply side factors of life insurance. These factors can be divided into three sections basically, as demographic, socio-economic, and institutional factors. Among these factors income is considered as a vital factor of demand for life insurance. Theoretically, it is expected that increase in income will increase the demand for all kinds of consumption and human capital. High income class as well as middle class of the society consider the life insurance policies as a luxury good. Thus, most researchers like Campbell (1980), Truett and Truett (1990), Li and Moshirian et al (2007), Feyen and Lester et al (2011), Park and Lemaire(2011), and Kjosevski (2012) had find out that income has positive impact on life insurance demand.

Brown and Kim (1993) had studied the determinants of life insurance demand. Their results confirmed that income, social security and dependency ratio has positive and significant effect on life insurances. Furthermore, they showed that life insurance has a negative relationship with insurance price and inflation in the economy. However, Hwang and Greenford (2005) who conducted study on factors of insurance demand in China, Hong Kong and Taiwan concluded that there is no correlation between price of insurance and life insurance consumption.

Formal banking sector development of the economy is another main economic variable which develops the people's confidence on financial market including insurance institutions. Outreville (1996) showed that there exists a positive association between banking sector development and life insurance demand. Kjosevski(2012) identified that GDP per capita, health expenditure, inflation, level of education are the most robust factors of life insurance consumption and stated that interest rate, quasi money ratio, dependency ratio, and government effectiveness does not look to be a robustly correlated with life insurance consumption. Alhassan and Biekpe(2016) observed that demographic factors better describe life insurance consumption compared to financial factors and found income, inflation, life expectancy, and dependency ratio lead to decay in life insurance consumption, institutional quality, financial development, and health expenditure have a positive impact on life insurance markets in Africa.

Theoretically, the level of education has a significant relationship with life insurance as high educated peoples have a more ability to understand the life risk and to manage the savings for long term. Browne and Kim (1993) and Gandolfi and Miners (1996) among other researchers documented that long term savings and life insurance inspire people for higher education and in return education propelled demand for life insurance. Researchers like Truett and Truett (1990), Hawang and Gao (2003) found that level of education has a positive influence on life insurance demand. Therefore, we hope a positive relation between level of education and life insurance demand. However, Beck and Webb (2002) illustrated that education is not a significant factor of life insurance demand. Dependency ratio is also discussed as an important factor of the life insurance demand. Truett and Truett (1990) pointed out that the young dependency ratio is positively correlated with life insurance demand as well as there is positive relationship between age and the demand for life insurance. Showers and Shotick (1994) also found the same result from their empirical study.

Generally, social capital consists of notions of interpersonal trust, belonging to a social association and mutual benefits. Coleman (1988) pointed out that social capital is the creative structure of relationship at individual and group level. It is widely understood to be the social association, network, norms and values that assist collaboration between individuals and groups and it helps to expand their socioeconomic welfare (Grootaert, 1999). Norms and values are embedded in community networks (Putnam, 2000) and social connection can substitute for missing legal structure in facilitating many financial transactions (Arrow, 1972). Naradda Gamage, Huq et al. (2015) added social asset/capital as an exogenous variable to household assets based subjective wellbeing framework. They explained that social capital can effect income diversification through community attachment which in return can influence subjective wellbeing.

The empirical studies acknowledged two approaches to quantify social capital. The first approach is that social capital stresses evidence on the organization membership. The second approach is based on survey question about trust. However, as mentioned in section one that authors could not trace any empirical paper about social capital and life insurance but we expect that social capital can play a role in life insurance demand. So this study, included Social capital into the empirical model of this study. It is a dummy which replicates the structure of relationship of community networks of the individuals. People in rural area do not care about insurance as they have confidence to tackle any risk through social capital. On the other hand, people who live in urban areas with high income have a significant opportunity for collecting information about high beneficial life insurance policies through social networks. Therefore, we can expect a relation between social capital and life insurance demand which may be positive or negative.

Trust is very closely related to concept of social capital. Putnam (1993) concerns trust as a source of social capital that sustains economic vitality and government enactment economically. Trust can be identified as assurance in the capability and objective of a buyer to pay at a future time for goods delivered without present-day payment. As well as, trust is based on an individuals' confidence concerning how another person will implement and behave on some future event. Sapienza and Zingales (2008) identified the concept of trust as a powerful motivator of economic behaviour which can levy real influence upon economic actions and it is one of the engines of finance growth. One can deduce from past literature that people do not have trust on insurance industry in developing countries and reason may be lack of awareness about insurance.

III. MATERIALS AND METHODS

Study Area

The central province of Sri Lanka has area of 5674 Km^2 and is divided into three administrative districts namely Kandy, Nuwaraeliya and Matale. The universe of our study is Matale district as this district is considered as the central region of Sri Lanka. The main city of the region is Matale and the city is located some 25 kilometers from Kandy the provincial capital and about 144 kilometers from Colombo, the capital city of the country. The total land area of the region is 1993 Km^2. It delegates Northern part of the Central Province Spreads from 80. 28˚ to 80.59˚ Eastern altitudes from 7.24˚ to 8.01˚Nothern latitudes. Matale District has been divided into 11 Divisional Secretary's Divisions (see figure 1) and 1373 villages and population is 482229. Sinhala Buddhists are in majority whereas Muslims, Sri Lankan Tamil and Indian Tamil are in minority. More than 80%

of the people of the central region live in the rural area and 70% of the people are engaged in agricultural related activities

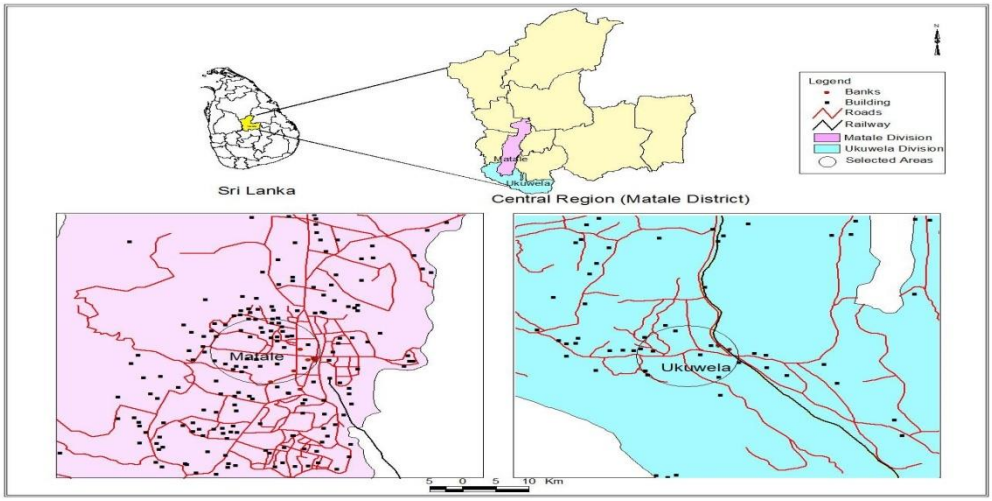

Figure 1: Location of central region of Sri Lanka and survey area

Sampling Method

This study is based on primary data and three stage sampling procedures were adopted. In the first stage, representative two Divisional Secretary's Divisions (DSD) were selected and second stage, representative two villages were selected. Finally, 147 households were selected randomly within the selected villages. The data were collected using a structured questionnaire during December 2015 to January 2016. The questionnaire obtained information on factors influencing the decision on life insurance, economic, standard demographic characteristics, and community level information on social capital.

Data Analysis Methods

One way ANOVA, chi- square test and logistic regression model were used to examine the data and to identify the characteristics of the sampling data. In order to examine whether there is a difference existed between those who have or planning to purchase a life insurance and those who do not have a life insurance. In addition, to study continuance variables (age and household income) data we used one way ANOVA. The technique of ANOVA was used to determine whether life insurance holders and non-holders group's mean value (income/age) are equal or not. The equation for the one way ANOVA F- statistic is given by

$$F = \frac{\sum_i n_i \left(\overline{Y}_i - \overline{Y}\right)^2 / (k-1)}{\sum_i \left(Y_{ij} - \overline{Y}_i\right)^2 / (N-k)} \quad (1)$$

Where, n_i is the sample size in the ith group, $\overline{Y}_i$ is the sample mean in the ith group, $\overline{Y}$ is the mean of the data and k is the number of group of the study, Y_{ij} is the jth observation in the ith out of k group, and N is the sample size of study.

We used chi-square test, In order to identify the sample characteristic and to determine whether there is significant change between expected incidences and the observed incidences. It is the most appropriate and propeller method which use simple random sampling method. The test statistics is

$$\chi^2 = \Sigma\left[\left(OI_{r,c} - EI_{r,c}\right)^2 / EI_{r,c}\right] \quad (2)$$

where, χ^2 is the chi square value, $OI_{r,c}$ is the observed incidence count at level, r of variable, X_1 and level c of variable X_2 and $EI_{r,c}$ is the expected incidence count at level r of variable X_1 and level c of variable X_2 and r is the number of levels for X_1 variable, and c is the number of levels for X_2 variable.

The Logistic regression model is a nonlinear model that is used whenever the dependent variable of the research study is binary and it is considered the most appropriate. The Standard binary logistic regression was used to study the determinants of demand for life insurance in central Sri Lankan society because of its simplicity. The concept of logistic model is based on Bernoulli distribution which estimate the probability of the dependent variable to be one. This is the probability that some event happens. Ronald and Yates (1938) have suggested the logit link for regression model with a binary variable and the early action of this model was Berkson (1944). One approach is to consider the multiple linear regression model (assuming Y has normal distribution) of the form)

$$Y = \gamma_0 + \gamma_1 X_1 + \gamma_2 X_2 + \gamma_3 X_3 + ... + \gamma_n X_n \quad (3)$$

$$E[Y] = p = \gamma_0 + \gamma_1 X_1 + \gamma_2 X_2 + \gamma_3 X_3 + ... + \gamma_n X_n \quad (4)$$

In Eq. 4 the expression is known as linear probability model. As logistic model is associated with linear probability structural problem, hence, it is good to study models incorporating a curvilinear relationship between X and p. Mostly the transformation of this situation is the logistic define as:

$$Logit(p) = log\left(\frac{p}{1-p}\right)$$

$$p_i = E\left(Y = 1/X_i\right) = \frac{1}{1+e^{-\left(\gamma_0+\sum_i^n \gamma_i X_i\right)}}$$

$$prob(event) = p(X) = \frac{e^{\left(\gamma_0+\sum_i^n \gamma_i X_i\right)}}{1+e^{\left(\gamma_0+\sum_i^n \gamma_i X_i\right)}} \quad (5)$$

Thus, the log of odds (logit) is presented in Eq. 5.

$$log\left(\frac{p}{1-p}\right) = \gamma_0 + \gamma_1 X_1 + \gamma_2 X_2 + \gamma_3 X_3 + ... + \gamma_n X_n \quad (6)$$

where, γ_0 is the intercept and $\gamma_1 \ldots \gamma_n$ are the slope coefficients, $X_1 \ldots X_n$ are the exogenous variables. Effects in the Logistic model refer to odds, and the estimated odds at one value of X divided by the estimated odds at another value of X is an odds ratio.

The study focuses the determinants which effect on demand of life insurance. The possible outcome are either having a life insurance policy or are planning to purchase (Y=1) or otherwise (Y=0). Based on past empirical and theoretical studies we included eight independent variables in the empirical logistic regression model which may explain the determinants of demand for life insurance and these variables are presented in Table 1.

Gender and age were included in the model as two demographic factors and these two independent variables hypothetically may have positive or negative effect on life insurance demand depending on the socioeconomic situation of the society. Especially religious believes can affect demand of life insurance. Education level and income of households are other variables in our model which were hypothetically expected to have a positive relationship with life insurance demand.

We added the trust of insurance as a categorical variable because of a large proportion of people have not a clear idea about the benefits of insurance policies due to lack of awareness. It is believed that less educated and people in rural area may not have a trust on life insurance industry. Hypothetically we expected that trust has a positive effect on the demand. Similarly, community level factors also can affect to demand for life insurance.

Table 1: Research variable descriptions and expected sign

Variable	Definition	Expected sign
Gender – (GE)	dummy variable: 1 = male; 0 = female	+/-
Age – (AG)	scale variable; years	+/-
Religion – (RE)	dummy variable: 1 = Buddhist ; 0 = otherwise	+/-
Working Status – (WO)	dummy variable; 1 = working; 0 = otherwise	+
Education level -(ED)	categorical variable 0 = primary or no schooling (grade 1 to 5) 1 = secondary (grade 6 to 11) 2 = collegiate (grade 12 to 13) 3 = Tertiary (diploma and university level) 4 = vocation education	+
Income– (IN)	scale variable; LKR	+
Trust on insurance industry (TR)	dummy variable; 1 = have a trust on insurance industry 0 = otherwise	+

Social capital (SO)	dummy variable; 1 = participate for community activities 0 = otherwise	+/-

Social capital was added to our empirical model to capture effect of community level factor on demand for life insurance. Social capital variable was proxy through participation in community meetings and activities. The respondents were asked whether they participate in community meetings and activities or not. Hypothetically we can expect positive or negative relationship with the demand for life insurance.

IV. RESULTS AND DISCUSSION

Descriptive Statistics & Results of One Way ANOVA

First, quantitative variables which are monthly household income and age are analyzed through one-way ANOVA. These results are provided in Table 2. The mean monthly household income and standard deviation (SD) of the life insurance holders are LKR 36205.88, and LKR 10134.79 respectively. While the mean income of household and SD are LKR 25172.57 and LKR 12281.80 respectively for non-holders of life insurance (see table 2). It can observed that there is a significant difference *between* the mean income of holders and non-holders of the life insurance. Furthermore, the results of ANOVA test, showed that there is no significant difference *between* life insurance holders and non-holders regarding the age of the household head.

Table 2: The results of one way ANOVA

Variables	Mean and Std. Deviation						P value
	LI holder		Non- holder		Overall		
	Mean	SD	Mean	SD	Mean	SD	
Income	36205.88	10134.79	25172.57	12281.80	27724.49	12677.7	0.000*
Age	44.88	14.42	44.23	13.34	44.38	13.55	0.807

*N.B *significant at α = 0.05*

Descriptive Statistics & the Results of Chi-Square Test

We used chi- square (χ^2) test, in order to identify whether there is significant difference between expected frequencies and the observed frequencies of the categorical variables. The chi-square (χ^2) test is the most appropriate method if data satisfies certain requirements such as simple random sampling method in selecting the respondents of the study. Table 3 shows socio-economic characteristics of the study sample. As illustrated in the table majority of the household (87.76%) were male heads and only just 12.24% of respondents were female heads. The variable of gender was not possible to perform the chi-square test as there was not minimum required expected frequencies. However, according to the exact significance statistics (Fisher's exact), we detected a significance difference between life insurance holders and non-holders regarding the gender. Most of households (84.35%) were Buddhists and above 88% of life insurance holders (either have a life insurance policy or planning to purchase an insurance policy) were Buddhists. However, we did not observe a significant difference between life insurance holders and non-holders regarding the religion.

Table 3: Descriptive statistics and the results of chi-square test

Variable	%			Asymptotic/ Exact sig	Remarks
	holders	Non holders	Overall		
Gender(GE)					
male	67.65	93.75	87.76	0.000[f]	*
female	32.35	6.25	12.24		
Religions(RE)					Not sig.
Buddhist	88.24	83.19	84.35	0.477	
Non Buddhist	11.76	16.81	15.65		
Working status(WO)					
working	79.41	89.38	87.07	0.148[f]	Not sig.
Not working	20.59	10.62	12.93		
Education Level (ED)					
Primary or no schooling	0	3.54	2.72	-	***
Secondary	35.29	71.68	63.27		
Collegiate	38.24	18.58	23.13		
Tertiary	23.53	1.77	6.80		

Vocation education	2.94	4.42	4.08		
Trust(TR)					
have a trust on insurance	79.41	33.63	44.22	0.000	*
have not	20.59	66.37	55.78		
Social Capital(SO)					
participate to community activities	52.94	83.19	76.19	0.000	*
No participation	47.06	16.81	23.81		

Note; ** **Not possible to perform the chi-square test. f = fisher's exact test*
**significant at α = 0.05*

According to the Table 3, 29.93% of total respondents have collegiate or tertiary education. However 61.77% of life insurance holders are either have collegiate or tertiary education. It is not possible to check the significance difference between life insurance holders and non-holders on basis of education because of insufficient expected frequencies as chi-square is less precise if there are not at least five individuals expected in each cell. Regarding working status, 87.07% of respondents belong to working class however, the variable of working status was not possible to perform the chi-square test as there was not minimum required expected frequencies. According to Fisher's exact test, the difference to have work or not have work is not significant. Majority of household head have not a trust on life insurance industry and 79.41 % of life insurance holders have trust on life insurance. But 66.37% of non- holders do not have trust on life insurance industry. It is significant at 10% level. Among community level factors, social capital variable represent by participating to community activities. More than 76% of respondents participate to community activities. However 47.06% of life insurance holders were not participating to community activities. The results of Chi squared test show it is significant at 10% level. More than 76% of respondents who participate in community activities, and 52.94% of them are life insurance holders. It was significant at 5% level.

Estimation Results

We employed the logistic regression model, in order to find the determinants of demand for life insurance in central region of Sri Lanka. Prior to the Logistic regression analysis, multicollinearity between the independent variables was tested to circumvent ambiguity about the results. Leech et al. (2005) suggested that a linear regression between categorical independent and dependent variables should be tested for multicollinearity problem before proceeding to logistic regression as this technique have not a provision to overcome multicollinearity problem. The Collinearity statistics of our independent variables are presented in Table 4.

Table 4: Collinearity statistics of independent variables in the model

Variables	AG	RE	WO	ED	IN	TR	SO	Mean
Tolerance value	0.850	0.959	0.858	0.771	0.843	0.859	0.945	0.869
VIF	1.177	1.043	1.165	1.298	1.187	1.164	1.058	1.156

Source: Authors calculation from the survey data, 2016

The results showed the value of variance inflated factor (VIF) is less than 1.298 in case of all independent variables. The values of tolerance of the independent variables are less than 0.959 and the mean value of VIF is 1.156. These results obviously clarified that there is no multicollinearity problem among the independent variables of the model.

According to the results of the logistic regression, the overall percentage the baseline model is accurate as its prediction is accurate about 76.9% and is statistically significant ($p<0.00$). The empirical model with explanatory variables is accurate 88.4% and the results of Omnibus test confirmed that the model with explanatory variables is significantly better ($P <0.000$). Furthermore, the -2LL value for the model is 90.838 that showed the model is significant and model explains 56.1% of the variation in the outcome. The P value for Hosmer and Lemeshow goodness of fit test statistics is 0.522 (>0.05) thus, we cannot reject null hypothesis. It confirmed that the model is a good fit to our survey data. The table 5 provides the logistic regression coefficients, the Wald statistics, odds ratio, P value, and 95% confidence interval. Among independent variables of the model gender, income, trust on insurance industry and social capital were statistically significant at the 5% level while the rest of variables were not statistically significant.

Table 5: The results of logistic regression model

Variable	B	SE	Wald Statistics	EXP(β) (OR)	P	95% C.I. for EXP(B)	
						Lower	*Upper*
Constant	0.258	2.068	0.016	1.295	0.901	-	-
Gender	-2.466*	0.762	10.472	0.085	0.001	0.019	0.378
Age	-0.026	0.023	1.304	0.974	0.253	0.931	1.019
Religious status	0.058	0.813	0.005	1.059	0.943	0.215	5.208
Working status	-1.178	0.914	1.662	0.308	0.197	0.051	1.846
Education	-	-	3.885	-	0.422	-	-
ED(1)	-19.625	16069.3	0.000	0.000	0.999	0.000	.
ED(2)	0.549	1.397	0.155	1.732	0.694	0.112	26.764
ED(3)	1.203	1.404	0.735	3.330	0.391	0.213	52.140
ED(4)	2.385	1.654	2.079	10.864	0.149	0.424	278.090
Income	0.000*	0.000	6.086	1.000	0.014	1.000	1.000
Trust in insurance	1.822*	0.642	8.048	6.186	0.005	1.756	21.784
Social capital	-1.728*	0.622	7.732	0.178	0.005	0.053	0.600
-2LL	90.838						
χ^2 =	68.167	Df = 11	P<0.00				
Nagelkerke pseudo R^2	0.561						
Hosmer & Lemeshow	0.522						
Classification accuracy	88.40						

N.B: **significant at α = 0.05*
Source: Authors calculation from the survey data 2016

According the results above, the effect of gender is significant and negative, indicating that male household head is less likely than female household head to purchase a life insurance policy (OR=0.085). Looking at the results for monthly household income is highly significant and its coefficient and odds ratio is 0.00 and 1.00 respectively. It explained that event occurring between two situations have the same probability. For an additional unit (LKR) in income the odds of purchasing life insurance is zero percent in the central region of Sri Lanka. This result explained that other factors are more important than income for life insurance. Another significant variable is the trust on insurance that the effect is positive, indicating that household head who has a trust on insurance is more likely than household head who has not a trust on insurance to purchase a life insurance policy. The odds ratio for trust indicates that household head who has a trust on insurance is 6.186 times (518.6%) more likely than household head who has not a trust on insurance to purchase a life insurance even after controlling for the other independent variables effects.

The effect of social capital on demand for life insurance is also significant and negative which indicating that household head who participates in the community level activities is less likely to purchase the life insurance policies than household head who does not participate in the community level activities. Social capital odds ratio documented that household head who participates in the community level activities is 0.178 time less likely to purchase a life insurance policy after controlling for other factors of life insurance demand. However, age, religious status, education and working status of the respondents do not have statistically significant.

V. CONCLUSION

In this paper we examined the determinants of demand for life insurance in central region of Sri Lanka. This empirical research is based on the survey data and the sample consists of 147 respondents and employed the multi-stage sampling method in selecting them. One-way ANOVA, chi-square test and logistic regression model was used to analyze the data. This study presented some significant understanding into life insurance demand.

According to the results of the study gender of household head, household income, trust on insurance industry and social capital are statistically significant determinants of demand for life insurance in the study area. In addition, the effect of trust on insurance on life insurance demand is positive and significant where gender and social capital were negatively associated with it. We also found that household income has significant impact on life insurance demand but the odds ratio of purchasing a life insurance was one. Thus, this result highlighted that income is not as much important factor of life insurance as gender, trust, and social capital in the study area. Furthermore, age of the respondent, religious and working status, level of education has not statistical significant impact on demand for life insurance. However, readers should bear in mind that this research study is not

without limitation and is based on just two villages and 147 respondents' data and information from the central region of the Sri Lanka.

The overall results of this study implies good information for policy and decision makers to implement new programs regarding life insurance policy. It is also recommended that awareness has to be increased about the life insurance and the insurance industry to get fruitful results from insurance industry.

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