Determinants of Dropouts from Voluntary Pension Scheme: Evidence from Sri Lanka

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Abstract: This paper seeks to investigate the determinants of dropouts from the voluntary pension scheme (VPS) introduced by the social security board of Sri Lanka. A face-to-face questionnaire distribution was administered to clients of the social security board who subscribed to the VPS. Systematic random sampling techniques were used to survey the dropped out individuals and active members. A multivariate logistic regression model was used to examine associations between the independent variables and factors associated with the dropout decision. The empirical results show that most individuals lack awareness and knowledge of the pension scheme, even if they were active members of the VPS. Some significant factors are highlighted in the results explaining dropout. A higher number of household dependents has a positive contribution to the dropout. The study also highlighted that the income, assets, financial inclusion, financial literacy, and social capital factors have a significant influence for the discontinuation of their pension scheme. Strengthening service quality and extending the comfortable premium collection mechanism is a valuable strategy to increase the popularity of the pension scheme.

Keywords: Financial Inclusion, Dropout, Social Security, Voluntary Pension Scheme

1.   Introduction

Financial inclusion is to ensure that a range of appropriate financial services is available to every individual and enables them to understand and access the services. Financial inclusion can be substantially enhanced by voluntary social security schemes. Access to pensions has become and plays an important role for financial inclusion (Park, & Mercado, 2015). In Sri Lanka, there are differences in the outreach of financial services among the rural, urban and estate sectors. The estate sector has relatively low levels of financial access compared to the rural and urban sectors in the rest of the country (GTZ, 2009[2]). Challenging geographical area, poor infrastructure, persistent poverty and subsistence livelihoods have all contributed to a lack of financial inclusion in the estate sector. The challenges could also be attributed to the economic activities and the non-fixed-income earnings by the people and hence, leading to the

[2] GTZ study on outreach of microfinance in Sri Lanka -2009

instability in subscribing to the VPS. Strengthening formal financial institutions can contribute to a better environment for financial inclusion in a country (ADB, 2015).

Aging is advancing fast globally. Sri Lanka is experiencing fast aging societies and significant social protection challenges. Actions initiated to enhance existing social security schemes by rationalizing the regulatory procedures, enhancing benefits under the schemes, expanding the scheme to cover all eligible citizens. However, the sustainability of social security schemes has become the major issue. Social security difficulties are often associated with VPS. Enrolling and retaining their membership becomes problematic due to dropouts. Older people have special difficulty accessing to credits and other financial services from formal financial institutions due to age gaps. A dropout from VPS is an important policy issue and its determinants are a longstanding interest in economics. This study investigates the determinants of the dropout of estate workers from the VPS introduced by the Social Security board of Sri Lanka.

The VPS is important in social security arrangements for the people who are not covered by formal pension arrangements. Pension plans may be categorized as either defined contribution (DC) plans or defined benefit (DB) plans. In DC plan, a certain amount or percentage of money is set aside each year by a company for the benefit of the employee. Defined-benefit pension plans are qualified employer-sponsored retirement plans and provide a fixed monthly pension, pre-established benefit for employees at retirement (Bodie, Marcus, & Merton, 1988). Since pension scheme is not mandatory, it faces the challenge of ensuring all policyholders to renew their policies. A dropout from the pension schemes is a challenging task for pension funds and their regulators around the world. Yoon (as cited in Takayama, 2004) highlighted that the dropout problem is serious especially for non-employed or self-employed people. Therefore, the objective of the study is to identify the factors influencing dropout from the VPS of social security board among tea estate sector workers in Sri Lanka.

2. Pension Schemes for informal sector in Sri Lanka

Sri Lanka provides a broad range of social security arrangements that include pensions. Social security provisions exist for both public sector and private sector employees. The formal sector enjoyed a well-established system to provide a mechanism for retirement savings for those who are employed. The government has introduced the contributory pension schemes for the informal sector workers. The informal sector as defined by ILO comprises of the workers who are generally those with low incomes or self- employed, working in very small (unregistered)

companies or the household sector, often on a part-time basis (and migrant workers) in industries such as agriculture, construction, and services. The scheme was all voluntary and contributory with some contributions from the government. The farmers' pension scheme was established in 1986[3] and fishermen's pension scheme was established in 1990[4], both schemes are managed by the Agricultural Insurance Board of Sri Lanka. Another VPS called the self-employed persons' pension scheme (SEPS) set up 1996[5] and the Sri Lanka Social Security Board (SLSSB) is the governing body of this scheme. Later, special pension and social security benefits schemes introduced by the SLSSB coordinating with relevant authorities and ministries to provide benefits for migrant workers, indigenous medicines, artists, small tea sector, craftsmen, small industries sector, employees in the beauty culture sector, handloom industry of informal sector. Contributors have the option to pay monthly, quarterly or annual installments. The benefits under the schemes are in the form of a monthly pension for life after the age of 60.

All those who are between the ages of 18 to 59 years are not entitled to a government pension could be members of the schemes and be entitled to the possibility of drawing a monthly pension as desired to meet their requirements depending on the ability to pay the contributions to the Board. At the demise of the contributing member, the wife/husband is entitled to the pension up to the age of 80. Furthermore, if a contributory member becomes partially or permanently disabled, he is entitled to a gratuity payment of Rs.25000/= (as of 29th June 2016, Rs.1000 = US$6.77) calculated with respect to the member's age and, after the payment of contributions completely he/she is entitled to the monthly pension after reaching 60 years. Moreover, if a contributory member becomes permanently incapacitated, he is entitled to a gratuity up to Rs.50,000/= calculated with respect to the member's age and his total contribution as at date, or a monthly pension from the date on which the member is incapacitated. In this pension scheme, if a contributory member is deceased before the retirement the dependents are entitled to a once and for all gratuities.

Despite the potential of existing pension schemes in the informal sector, the self-employed scheme of SLSSB has been operationalized and implemented with having the benefit of meeting the retirement needs of monthly income workers. Policies to deal with an aging population, initiatives aimed to ensure a continuous flow of income and disadvantages of payment of lump-sum for the formal sector workers under the EPF and the ETF Schemes. The

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[3] Farmers' Pension and Social Security Benefit Scheme Act, No.12 of 1987

[4] Fishermen's Pension and Social Security Benefit Scheme Act, No. 23 of 1990

[5] Sri Lanka Social Security Board Act, No.17 of 1996

Employees Provident Fund[6] (EPF) and the Employees Trust Fund[7] (ETF) contributions for estate sector workers are the only sources of income and savings left for the survival in their old age. Estate sector workers who are entitled can join the self-employed scheme of SLSSB, but they will not lose the benefit of getting their EPF and ETF as this is a separate scheme which will start functioning after the age of 60 enhance economic security in their retirement.

3. Theoretical background and literature review

Classical utility theories of decision making such as the expected utility theory and prospect theory provide the theoretical background to explain how individuals make decisions by maximizing their expected utility. These theories based on common individuals rational behavior, when faced with choices under risk and uncertainty, can be applied to areas of financial decision making (Schneider, 2004; Gottret & Schieber, 2006). Attitudes and behavior play an important role in people's financial decisions (Funfgeld & Wang, 2009).

Above all, a well- supported rationale and insights broaden our understanding of personal finance decision by the Theory of Planned Behaviour (TPB) and the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980: Ajzen, 2005). This conceptual framework has been widely applied in personal finance research to facilitate in exploring the factors that influence the personal finance behavior.

The personal finance literature has consistently reported that the factors associated with an individual's decision to dropout from a financial service (Jehu-Appiah et al., 2012). The phenomenon of dropout and retaining clients continues to pose a big challenge to financial institutions which successful implement of their financial services. Determinants of dropout depend on financial product characteristics and factors emerging from the organization and management. However, there are no studies to the authors' knowledge that have solely focused on the determinants of dropout from the VPS.

The conceptual framework and empirical evidence indicate that influencing factors should be considered when analyzing the dropout from a financial product such as a VPS. Even though there seems to be a lack of empirical literature on dropout from the VPS, studies have been conducted on different aspects of financial behavior such as a study on willingness to renew insurance policies (Bhat & Jain, 2007: Jain, Swetha, Johar & Raghavan, 2014). This personal finance behavior studies proposed that the basic sets of influence factors affecting

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[6] Employees' Provident Fund Act, No. 15 of 1958
[7] Employees' Trust Fund Act, No. 46 of 1980

clients must be taken into account. Demographic and socioeconomic characteristics of households are the most influencing factors that the decisions related to the financial product (Akpandjar, Quartey, & Abor, 2013; Park & Mercado, 2015). An empirical research study conducted in Ghana on the informal sector workers' contribution behavior to the pension scheme, Adzawla, Baanni, and Wontumi (2015) highlighted that age, marital status, education, the number of dependents, and income factors were significant in determining the probability of a worker joining the pension scheme. Although conventional factors are included in the study, it was found that financial knowledge could influence the financial preparation for retirement. Empirical evidence supports that the financial literacy is associated with higher levels of retirement planning and wealth accumulation in retirement (Ameriks et al. 2003; Lusardi & Mitchell, 2007a, b, 2009; van Rooij et al. 2012). Financial inclusion describes as the capacity to access and the availability of the appropriate financial product. Therefore, financial inclusion inspires to personal finance behavior i.e., retirement planning and insurance. There is robust evidence that social capital or strong social networks have a strong impact on financial behavior. Current literature states that the benefit of social learning is important to financial performance (Guiso, Sapienza, & Zingales, 2000).

4. Methods

4.1 Study Area and the Sample

This study mainly uses primary data collected through a field survey carried out from October 2015 to January of 2016. The survey employed the quantitative survey method via the use of face-to-face questionnaire administration. The questions were presented to clients of the social security board who have involved the VPS in Nuwara Eliya district. Two hundred respondents participated in the study. Systematic random sampling techniques to obtain the response of the selected 100 dropped out individuals who had previously been enrolled but were not at the time of the survey and the rest of individuals were active members of the SESP during the study time. Disillusioned members and active members were selected randomly from the Social Security Board database.

4.2 Survey and the Questionnaire

This survey focused mainly on determining how influential the socioeconomic and household characteristics in determining their non-renewal of pension scheme membership. In addition to the above typical socio-economic characteristics and household characteristics, we hypothesize that following factors would influence get involved VPS. The survey consisted of questions for

following factors derived from the past research as well as those developed by the present researcher.

Public assistance and employee welfare programs are the benefits to individual well-being and thus providing social support for all the citizens. This study constructed a welfare program index (WP_INDEX) by using the availability of welfare program provided by the government and the plantation management company in the estate sector i.e. Emergency financial requirements (such as funerals), Better housing, maternal care services, and availability of qualified medical personnel (Arunatilake, 2001).

Income diversification index (ID_INDEX) was constructed by using the available different incomes sources. Income sources other than estate employment were used together to construct the income diversification index. It was hypothesized that a higher number of income sources will lead to less/lower influence for those who get involved in the SEPS.

Assets index (AS_INDEX): We constructed an asset index which captures the ownership of physical assets within the last six years as a reflection of wealth and savings. The assets comprised of land holding, including the consumer and durables such as color televisions, CD players/radios, refrigerators, gas cookers, motorbikes etc. We hypothesized that a higher asset index will lead to lower influence for those who get involved in the SEPS.

Respondents' financial literacy levels (FL_INDEX) is measured based on three basic concepts i.e. the understanding and calculation of interest rates, the understanding of inflation, and the risk diversification knowledge (Lusardi & Mitchell, 2014).

In measuring, the Financial inclusion index (FI_INDEX), It includes the usage and access of financial services to develop this index i.e. the distance to finance institutions, the range of financial services used by the respondents. Financial inclusion index scores for each respondent level was calculated by the sum of scores of each question multiplied by the corresponding weight divided by the total sum of the maximum scores.

Social capital index (SC_INDEX): we include a social capital index for our analysis. The social capital is measured by trust, reciprocity and associations, each of which is composed of seven questions with the answers scaled to understand social networks and bond people with the society. Five-point Likert scales were used to measure respondents' attitudes by asking them the degree of importance (Grootaert, Narayan, Jones & Woolcock, 2004). The index was calculated by the sum of scores from each question divided by the total maximum sum of scores.

4.3 Method of Analysis

The study used descriptive statistics and regression analysis as tools of the analysis. Statistical tests were conducted using the statistical software packages such as SPSS, Excel, and STATA. Descriptive statistics and multivariate logistic regression models were used to examine associations between the independent variables and factors associated with the decision to dropout from the pension scheme.

Table 1: *Socio-demographic characteristics of dropout and non-dropout households*

Explanatory Variable		Membership		Total
		Active	Dropouts	
Gender				
	Male	36	76	112
	Female	64	24	88
Age				
	29-35	29	38	67
	36-45	50	41	91
	46-50	25	21	46
Marital status				
	Married	82	96	178
	Single	12	4	16
	Divorced or Widowed	6	0	6
Education				
	Non-schooling	0	5	5
	Primary	22	38	60
	Secondary	31	57	88
	Tertiary	47	0	47
Family size				
	1-3	21	4	25
	4-5	45	50	95
	6-8	34	68	102
No. of Dependents				
	0-2	72	27	99
	3-4	28	49	77
	5 <	0	24	24
Income Quartiles				
	Lowest Income Quartile (Q1)	20	4	24
	Second Income Quartile (Q2	62	85	147
	Third Income Quartile (Q3)	12	11	23
	Highest Income Quartile (Q4)	6	0	6

5.   Results

5.1   Socio-demographic characteristics of dropout and non-dropout households

The results displayed in table 1 represent the socio-demographic characteristics of the membership status. We selected active and dropout members for our study. The active group was used as the control group in this study.

Gender differences in the financial decision-making are widely identified and established in the dialogue of personal finance and can be viewed as general behaviors. According to the data, it is highlighted that the majority (64%) is female among the active members in the estate sector. In dropouts' category, the majority (76 %) was male.

5.2   Dropout clients behavior and Perceptions on the VPS

A VPS depends on the widespread participation of a large number of members. To ensure the successful participation of members in any pension scheme, it is very important to identify the participation behavior and perceptions, feedback, and suggestions from the members with regard to existing schemes.

This study shows that the respondents in the tea estate sector had relied on several sources to make them aware of the VPS of social security board of Sri Lanka. The majority of the respondents (65 %) were made aware of this by Grama Niladhari. The significant amount (20%) of the respondents reported that their participation in the pension scheme was aware and motivated by their neighbors, friends, and colleagues. About 15 percent came to know of the scheme through an awareness program conducted by SLSSB officials. However, the involvement of SLSSB officials was almost insignificant in the enrolment of the pension scheme among the estate sector workers. The participation of most (66%) of the respondents in the estate sector in the pension scheme had been since 2010. In 2011 and 2012 enrollments were 24 and 10 percent respectively. However, the results demonstrate that 50 percent dropouts have taken within two years period since the enrollment. The majority (62%) of respondent were used the post office to pay their monthly premiums. Twenty percent of the respondents highlighted that the Grama Niladhari who is the authorized officer collected their premiums on the due date. Others mentioned about their usage of branches of People's bank and the district office of social security board for the premium deposit.

5.3   Reasons for dropout from the VPS

The study explores the causes of dropout from the VPS of Social Security Board (table 2). These reasons can be discussed on the priority basis. The respondents aired their views on the following problems.

Table 2: *Reasons for dropout from the VPS*

Statements	Percent
• A lack of awareness regarding the benefit of the pension scheme	32
• Forgot and I failed to pay my premium on time	24
• I thought that the premium payment would automatically deduct my salary as said at when the enrollment	16
• Premium accepting (Collecting) institute or authorized persons are too far from the place I live	13
• Only paid the first month's premium when Enrolled and couldn't continue	8
• Premium payment discontinued due to transfer of authorized officers (Grama Niladari)	4
• Monthly premium is not affordable for me	3
	100

5.4   Expectation survival strategies after the retirement

The study of the survival strategies is becoming critically imperative and the fact that it also gives fairly new emphasis on the estate workers' finance inclusion problems. Understanding expectation survival strategies in old age is important to influence retirement decisions. Therefore, in this study, respondents of dropouts were asked to indicate what strategies they employ to ensure the survival in old age. The distributions of the respondents according to their perspective are given in Table 3.

Table 3: *Expectation survival strategies in the old age of dropout members.*

Statements	Percent
• Living with children or depend on their children	37
• Not decided yet about retirement	18
• Starting a business (petty trading) in retirement age	16
• Livestock-keeping and animal husbandry	13
• Surviving on ETF and EPF	7
• Cash saving	5
• Find a new pension scheme	4
Total	100

5.5 Socioeconomic determinants of dropout from the SEPS

It is important to examine the household characteristics of the respondents who were dropped out from the SEPS. In the multivariate analysis, the dependent variable was dichotomized based on respondents who the dropped out from the scheme and are still enrolled in the scheme, thus considered to be dropped out, was coded '1' and active members were coded '0' (reference category) in the logistic regression. Odds ratio provides a measure of association between factors and the probability of clients' dropout from the SEPS.

Table 4 shows the empirical results from the logistic regression analysis. It should be highlighted that a negative sign of a parameter indicates that high values of the variables tend to decrease the probability of clients' dropout from the SEPS. A positive sign implies that high values of the variables will increase the probability of clients' dropout from the SEPS. Coefficients show the change in the predicted logged odds probability of clients' dropout from the SEPS for a one-unit change in the independent variables.

Table 4: *Factors influencing dropout (logistic regression results)*

Explanatory variables	Reference category	B	S.E	Odds ratio
Gender of respondent	Female	−0.4315	0.5721	0.6254
Age of respondent		0.0021	0.0201	1.0241
Marital status	Single			
Married		-7.335	1.364	0.0457
Level of education	Non-schooling			
Primary		-67.692	1.014	0.2357
Secondary		-12.921	2.258	0.5647
Tertiary		-28.247	1.246	0.1257
Number of Dependents		-0.289*	0.245	0.6651
Income		-1.862**	0.389	1.2542
Assets index		1.349**	0..459	3.8534
Welfare programmes index		-7.033	2.292	0.0011
Financial inclusion index		-0.061**	0.021	0.9415
Financial literacy index		-0.238**	0.069	0.7887
Social capital index		-0.032**	0.014	0.9682
Constant		3.211	0.472	24.7851
Observations		212		
R^2		0.4587		

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

It was believed that household factors and socio-economic factors were mainly responsible for the dropout from their pension plan. However, five variables found to be statistically significant in the current study, were investigated further with the possible term of interaction with the dropout from the SEPS. The number of dependents in the household seems to be a responsible factor for dropout. An odds ratio less than one, for instance, means that the odds of clients' dropout from the SEPS decrease for every one-unit increase in the independent variable. For example, the odds of clients' dropout from the SEPS in place decreases by 44% for every additional dependent in the household. The income of the respondent has a significant effect. It's showed that participants with high incomes tended to be fewer dropouts. Asset index used to consider the respondent's standards of living and proxy wealth index. The index is positively and significantly associated with of clients' dropout from the SEPS. The retirement planning of these members is directly influenced by wealth accumulation choices they make. The wealth accumulation created more confidence in their retirement. In this study, the financial inclusion index was designed to capture different facets of financial inclusion. The financial inclusion is a key enabler to the sustainability of retirement plan or to ensure the continued plan. There is a tendency to dropout due to the non-availability of financial institutions and financial access. Results have shown that the financial literacy is associated with retirement planning. The financial literacy index is negatively associated with the probability of dropout from the SEPS. Financial literacy or financial knowledge is related to the active retirement. It has been shown that the social capital index is one of the major reasons given for early dropouts and significant relationships were found. Negative association implies that the low social capital or the poor networks of relationships among people have a causal impact on the dropout.

6.   Conclusion

Sri Lanka has been working to extend pension coverage in the informal sector. Dropout from pension schemes is a challenging task for pension funds and their regulators. This paper explores the reasons that explain the low participation and dropouts from the voluntary pension system and the policies that could help the voluntary pension system in Sri Lanka. Results can be contributed to creating a better environment for financial inclusion in the country. We examined the factors influencing dropout problems the respondents considered to be confronting in the operation of the VPS of Social Security Board in Sri Lanka. Awareness and recruitment through government officials can only have an impact to a lesser extent in reducing the dropouts. The respondents agreed that the lack of awareness regarding the benefit of the

pension scheme and marketing failure and inadequacy to perform the continuous integration are responsible for poor understanding and dropouts. The respondents' expectation on the traditional/cultural practice of depending on children negatively affects the retirement plans. Determinants of dropouts, it is important to examine the household characteristics. A higher number of dependents in a household requires more resources; therefore, more dependents are a positive contribution to dropout from the pension plan. The study was highlighted that the income, assets index, financial inclusion index, financial literacy index and social capital index factors were mainly responsible for clients' of SLSSB to discontinue their pension plan.

Poor customer service has a negative impact on any type of business. Marinating a close and continues association with the clients' by SLSSB with their clients' would help to reduce the dropout rate. Poor service quality could be minimized by employing a variety of administrative strategies i.e. insurance premium structure, customer loyalty system. The private arrangements are complementary to the public schemes for the increasing levels of financial awareness, expanding capability and diversifying access points. Financial knowledge, inclusive financing, and strong social networks may contribute to the high contribution rates of the VPS of the social security board of Sri Lanka.

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