THE USV ANNALS OF ECONOMICS AND PUBLIC ADMINISTRATION | VOLUME 16, ISSUE 2(24), 2016

SOCIO-ECONOMIC DETERMINANTS OF WELL-BEING OF URBAN HOUSEHOLDS: A CASE OF SRI LANKA

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Abstract:
The social-economic and environment factors have shown direct effect to the well-being of individuals and communities. The aim of this paper is to examine the determinants of well-being of urban households in Sri Lanka. The sample of the study consisted with randomly selected 132 household heads from Matale municipal area, Central Province in Sri Lanka. A structured questionnaire and interviews were used to collect data from respondents. Descriptive statistical methods and logistic regression model were used to identify factors affecting household's well-being. Three separate regressions are estimated for general happiness, feeling of prosperous household, and satisfaction with the living environment. The results of logistic regression for general happiness reveals that savings with the formal financial sector, participation in the community activities, and network with outside community have a positive and significant effect on well-being of households. Besides this individual's feeling of their prosperousness discloses that savings with the formal financial sector and networks with outside community have a positive effect on well-being of individuals. At the same time, participating in community activities, membership in community associations and networks with outside community were identified as significant factors of general satisfaction of people living in urban areas. In addition, socio demographic factors used in this study have shown insignificant effect on all aspects of the well-being. Promotion programmes on household savings and social capital in community and regional levels are suggested to improve the well-being of the people who are living in city areas of the country.

Key words: Household savings, Social capital, Well-being, General happiness, Feeling of prosperous, Living environment.

JEL classification: A13, D14, D71

1. INTRODUCTION

The individuals' well-being is identified as a measure of the quality of human life. The living standard which includes human well-being is methodically related to quality of life and generally indicates how an individual behaves in the society (Narayan, et al., 2000). However, there is no exact method to measure the well-being of humans in the literature. Kesebir & Diener (2008) defined the well-being as a measure of human life style which makes a positive assessment of their lives and their confident, emotions, satisfaction and engagement in day today activities. It is often tied to identify financial status of individuals as well. However, well-being is a wider concept than economic or material well-being (Courtland and Clay, 2010). Thus, it is currently recognized as a multidimensional concept by the policy makers and researchers. The social well-being is another aspect of quality of life which reflect strong family and community relationships having individuals 'freedom, personal and physical security, confidence of the future life and trust and cooperation among people in the community. Meantime, World Bank (1991) announced that stable economic policies and progress, developing the productivity; upsurge the income and the buying power are the main determinants of well-being. While job satisfaction, health & safety, and financial security are identified as significant factors to individual well-being. In addition, adequate food is accepted as a universal need for the well-being with clothes, health treatment, and schooling.

Determinants of the well-being of individuals and households in developing societies are mostly linked with financial background, job satisfactions and health which are further found to be as significant determinants of the general satisfaction of people (Van Praag et al., 2003). Diener et al., (1999) also explained that household income, employment status, marital status, household structure, external life, religion, daily and environmental factors can influence to well-being. The very close social relationships such as working together as a team are expected to have a significant influence on well-being due to provision of imperative assets for people to satisfy their requirements (Lucas & Dyrenforth, 2006). Oswald (1997) mentioned that it is a difficult task to measure the well-being of people. However, some researchers have attempted to measure the subjective well-being by asking respondents to rate their level of happiness, satisfaction with community and life, mental distress, food security, confidence and feeling prosperous household (Layard, 2005, Di Tella & MacCulloch, 2007; Oswald, 1997, Galloway et al, 2005). Those scholars believe that economic well-being is fundamental to general well-being and is characterized by subjective measures. However, Stutzer and Frey (2010) proposes that the subjective measure of well-being should be supplemented by objective measures to make a judgment about well-being of individuals. The literature is evident to prove that household saving and social capital have become key factors of socio- economic development. The thoughts of classical economists had emphasized on individuals' savings effects economic development and human well-being. In the theory, household's saving has been given prominence as savings can assist to bear economic shocks in various ways (Dew and Xiao 2011). Beside this, social capital is also becoming one of the significant factor in development studies. Social capital concept commonly discusses about community networks, norms, and trust among the people. Putnam (2002) divided social capital into two as bonding and bridging. Bonding social capital implies social linkages of friends & relatives. Bridging capital reflects the linkages of different other people other than friends and relatives. Carroll (2000) has stated that diversity of social relationships have more influence in creating well-being of people. Similarly, many social scientists have revealed that the perceived social capital of individuals or community has a positive impact on human well-being and community development (Woolcock, 1998).

This paper focuses on the well-being of households at Matale municipal area in the Central Province of Sri Lanka. As a country, Sri Lanka introduced liberal economic policies in 1978. However, the financial sector of the country is not well established yet while it records rapid increment in human development indexes. Sri Lanka is considered as lower-middle income earning country with an economy worth USD 81 billion (Central Bank of Sri Lanka, 2015). As a developing country, a disparity among social, economic and development is shown between rural and city areas. Social &, living condition and social expectation are also reported significantly different between rural and urban areas. Yet, very limited studies are found in the literature about the saving behavior and social relation between the people and its impact on well-being in the context of Sri Lanka. More precisely, saving behavior, social capital literature is lacking the knowledge about the urban households. According to the past research studies, it is difficult trace a scientific and completed study on household saving and perceived social capital which leads to well-being of household in the social and economic setting in Sri Lanka. Accordingly, this study adopts the above knowledge gap in socio-economic literature.

The objective of this research is to examine the determinants of the well-being of urban households in Matale municipal area of Sri Lanka. This paper starts with theoretical and empirical evidences which supported to main argument as introduction. Second section carries a literature review and hypothetical development of the study. Section Three discusses the research methodology and methods of the study. Then, summarization of results and discussion focusing on logistic regression model is presented. Finally, the conclusion and recommendation, and future research direction are given.

2. RETERATUR REVIEW

Social capital is known to play a significant role in development studies. The concept of social capital is a way of abstracting the intangible resources of community, shared values and trust upon which people experience in day-to-day life (Field, 2003). It is generally defined in terms of trust, adherence to norms or participation in community group and networks. Some economists don't accept the social capital as a capital and a significant factor to consider in development related studies (Arrow, 2000, Robison et al., 2002). However, the neoclassical economists agree with the role of social connection and cultural factors in answering free rider problems, reducing opportunism. They tried to explain the economic mechanism of social capital through the concept of positive externalities, concentrating assistance to reduce the transaction cost and social barriers, and solidification and people bargaining power. Knack and keefer (1997) pointed out that some dimensions of social capital like trust and norms have a power for reducing transactions cost. After the noteworthy studies of Bourdieu (1986), Puthnam(1993), Fukuyama(1995), the term of social capital became very attractive in development studies.

There are several studies on the impact of social capital on well-being of individuals and communities development (Lin, 1999, Putnam, 2002). Grootaert (1999) pointed out that social associations, norms, value and networks among individuals and groups improve their socioeconomic welfare. Sabatini (2008) emphasized that the higher level of voluntary association has a positive impact on quality of life. Further, social capital has resulted positive social standards and good living environment while enhancing well-being of individuals and community (Hamdan et al., 2014). Beside this, Liu et al., (2016) observed that social capital has a positive effect on human health. Helliwell and Wang (2010) stated that well-being and social capital are positively associated to human development. However, Petrosilloa et al., (2013) pointed out that social capital and natural capital offer only a restricted vision of quality of life and it is strikingly dependent on the combination of both. Guiso et al., (2004) observe that high level of regional social capital associated with people's financial management activities. Naradda Gamage et al., (2015) confirmed that perceived social capital can be recognized as a significant factor of well-being of household. In addition, they have explained social capital influences income diversification through community attachment which in return can influence on well-being.

Various reasons encourage typical individuals' savings decisions. Economic, biological, environment and political risks that individual face over the life-cycle motivate people for savings. In addition to individuals, households may also make saving decisions thinking of the family prospects in future. Buying resources, educating children, willingness to make future consumptions and expectation to make future benefits may motivate households to make savings decisions. Economically, savings can be identified as postponement of current households' and individuals' needs and wants for future consumptions with additional benefits. Perhaps, various saving motives do exist in economies at large and different motives might be associated with different forms of savings. Recognizing what motives drive individuals and household's savings decisions and their contributions to total savings enriches the understanding of differences in saving behaviour as whole. At the same time, that would direct future trends in savings behaviour. Further, savings behaviour of people in a country becomes naturally important for policy analysis as there are perfect relation between savings and growth of a country. In literature there are three basic theories concerning Savings. Duisenberg (1949) introduced the relative income hypothesis that explain the individual's attitude to consumption and savings are dependent on its relative to the average consumption level, rather than its absolute level. Later, Formulating the permanent income hypothesis, Freidman (1957) stated that a person's consumption at a point in time is resolute not just his current income but also by his predictable income in the future years. The active people were encouraged to increase the attention on savings as they need to maintain smooth consumption in the whole life. Ando and Modigliani, (1963) discussed in the life cycle hypothesis the consumption patterns of individuals and proposed that people plan their consumption and saving behaviors over their lifetime.

Literature provides evident that peoples motivate for savings in case of funding unexpected losses of income, smoothing the availability of financial resources over time, providing resources for retirement, supporting expected large lifetime expenditures. Accordingly, in the era of private and household savings is an important determinant of household economic security as well as social and economic well-being. Social unity, pension and taxation systems are directly are impacted by the savings behavior of the people of a country (Ameriks et al. 2003, Bartzsch 2008). In such an environment, the saving behaviors of individuals and households affect their personal and family life and social economic factors of the economy as well (Davis and Helmick, 1985). Naradd Gamage et al., (2016) observed that social capital has a negative effect on demand for life insurance. In the meantime, previous research studies evident that household behavior of savings is dependent on the social context of people. They argue that as interactions create on the basis of individuals, households and social needs and wants making the living context important in the case of savings behavior.

3. RESEARCH METHODOLOGY

This case study efforts to examine empirically the determinants of well-being in Matale Municipal area of Central Province in Sri Lanka. The sample for the analysis is consisted with 132 household heads which were selected using a random sampling technique. A structured questionnaire and interviews were used to collect data from respondents. The lists of households in each case study area were given by Matale Municipal Council. Two trained enumerators attended the survey in January 2016.

The field data were analyzed deploying quantitative techniques. Logistic regression in SPSS software was used to analyses the relationship among household savings and social capital on household well-being. The logistic model for the binary variables of which proposed by Ronald and Yates (1938) and which assume that dependent variable is binary. The early action of logistic model was Berkson (1944) and later it has been identified as an appropriate model to examine the effect of both continuous and/or categorical independent variables on a dichotomous dependent variable (Collett, 1991: Reed and Wu, 2013). The model consists with a dichotomous outcome variable and six independent variable which were dummy variables; whereas the two variables were scale variable. The outcome in logistic regression model is regularly coded as Y=0 or Y=1, where 1 indicates that the same incident happens, and 0 indicates that the incident does not happen. If it is stated 'Pr' as the probability of the Y is 1, the basic equations of the logistic regression used in this analysis is given below.

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

$$\Pr_i = E\left(Y = 1/X_i\right) = \frac{1}{1+e^{-\left(\alpha_0+\sum_i^n \alpha_i X_i\right)}} \quad (2)$$

$$Pr\left(event\right) = \frac{e^{\left(\alpha_0+\sum_i^n \alpha_i X_i\right)}}{1+e^{\left(\alpha_0+\sum_i^n \alpha_i X_i\right)}} \quad (3)$$

Where *Pr* is the expected probability that outcome happens, α_i the coefficients and X_i represent independent variables. The outcome is estimated ln of the odds that the outcome is untaken in Eq. 4.

$$\ln\left(\frac{\Pr}{1-\Pr}\right) = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_i + ... + \alpha_n X_n \quad (4)$$

Where, α_0 is the intercept and $\alpha_1 \dots \alpha_n$ are the slope of coefficients, $X_1 \dots X_n$ are the independent variables. Table no.1 shows all variables and its definitions. Well-being is measured in two ways, fist approach is based on subjective manner and the second method is based on building the well-being index. In this case study, three separate logistic regression were established on general happiness, feeling of prosperous household and satisfaction with living environment which are indicators of well-being of citizens. Outcome variables were coded as dichotomous variables.

Table no 1: list of variables used the case study

Variable	Detailed information
Well-being (WELLB)	Dependent variable
-general happiness	dichotomous variable; have a happy life= 1, 0 = otherwise
-feeling prosperous household	dichotomous variable; have a prosperous household 1, 0 = otherwise
-satisfaction with the living environment	dichotomous variable; have a satisfied life with the living environment = 1, 0= otherwise
Household savings(HOSAV)	Independent variable
-saving with formal financial sector	dummy variable; Yes = 1, 0 = otherwise
-saving with informal financial sector	dummy variable; Yes = 1, 0 = otherwise
Social Capital(SOCAP)	Independent variable
-participating community activities	dummy variable; Yes = 1, 0 = otherwise
-membership of com. association	Scale variable(number)
-networks with outside community	dummy variable; Yes = 1, 0 = otherwise
Control Variables (CONTR)	Independent variable
-gender	dummy variable: 1 = male; 0 = female
-age	scale variable (years)
-household size	scale variable

There are two indicators of household savings; savings with formal financial sector and savings with informal financial sector. Besides, three indicators for social capital were used; as participating community activities, membership of the community association, and networks with outside community of living community.

4. RESULTS AND DISCUSSION

First, an analysis was performed using descriptive statistics to understand the sample. According descriptive statistics of sample data, the percentage of household head who have a happy life was 43.94 percent in terms of subjective assessment of life. The majority of household heads reported that they have a feeling of prosperous household, satisfaction with living environment were 51.05 and 34.84 percent respectively. In addition, more than 48 percent of surveyed people are saving their money with the formal financial sector. Meanwhile, there were 25.76 percent of household head who do savings in informal financial sector, 64.4 percent is recorded the participation, community activities, more than 77 percent are engaged with the community associations and about 38 percent are connected with outside communities.

The multiple logistic regression model was employed in order to recognize the likelihood factors of household well-being in Matale city in Sri Lanka. Multicollinearity between the independent variables of the models was verified to avoid uncertainty about the results. Leech et al, (2005) recommended that such model should be employed a linear regression between categorical independent and dependent variables should be verified with the multicollinearity. No collinearity is found in all models which used in the analysis. And. the value of variance inflated factor (VIF) was less than 1.285 in case of all independent variables.

The tables no. 2, 3, and 4 indicate results of logistic regression in which model I measured the main effect of household saving and social capital on wellbeing (in focusing indicators of well-being), and model II indicates the effect of control variables. The model's goodness of fit in logistic regression for general happiness, feeling of prosperous household, and satisfaction with living environment indicate statistical significant.

According to the results of logistic regression for general happiness, in which model I without control variables is accurate around 73 percent. The results of omnibus test confirmed that the model with explanatory variables is statistically significant, the model describes 37 percent of the variation. The P value for Hosmer and Lemeshow goodness of fit tests confirmed that the model is significant to the data while the results of model II indicates the accuracy of data is 75 percent. (See Table no. 2). The results of the model I show that heads of household who are attended for savings with a formal financial sector and participate in community activities and networks with outside communities have significant effect on their general happiness.

Table no. 2: logistic regression results for the general happiness

Variables	Model I			Model II		
	β	EXP(β)	Remarks	β	EXP(β)	Remarks
Intercept	-2.315	0.099	***	-4.587	0.010	***
Household savings						
savings with formal sector	1.411	4.101	***	1.442	4.230	***
savings with informal sector	-0.336	0.715	*ns*	-0.232	0.793	*ns*
Social Capital						
participate for com. activities	1.667	5.297	***	1.773	5.890	***
membership of com. association	-0.278	0.757	*ns*	-0.442	0.643	*ns*
network with outside of community	1.338	3.811	***	1.317	3.733	***
Control Variables						
Gender				2.093	8.111	***
Age				0.004	1.004	*ns*
Household size				0.067	1.067	*ns*
Chi- square value			42.63***			49.10***
Nagelkerke pseudo R^2			0.370			0.416
Hosmer & Lemeshow			0.472			0.493
Classification accuracy			2.70			75.00

N.B: ****significant at α = 0.05*

Source: Authors calculation from the survey data 2016

According to the results of the table no. 2, household saving with the formal financial sector has positive effect indicating households 'savings with formal financial sector is more likely to make happy households. The odds ratio for savings with the formal financial sector spectacles that a household that has saved with the formal financial sector is 4.101 times more likely than the household that do not save with the formal financial sector. Social capital which is the other indicator of well-being shows that household head that participates in community activities has more likely to be happy household than a household head that does not participate in community activities. The odds ratio for participating to community activities indicates that household that participates in community activities is 5.297 times more likely than others households even after controlling for the other descriptive variable effect. Another significant indicator is network of outside communities. That shows positive effect and indicates that household head who has a network outside of the living community is more likely to be happy life than head who have not a network outside of the living community. The odds ratio for network of outside communities' shows that household that has a network is 3.811time more likely than others household to be happy life even after regulatory for the other explanatory variable effect. The variable of gender, age, household size, education, and income were added in model II as control variables. Gender of household head was found be positive and significant on general happiness while other control variables are insignificant. The odds ratio for gender shows that male household head is 2.126 time more likely than female household head to be happy in life.

The table no. 3 is presented the results of logistic regression for the feeling of prosperous household. Model I evaluate the main effect of household savings and social capital on feeling of prosperous while model II reveals the effect of control variables. Model I and II explain around 40 % and 43% of the variation of the on the explained variables respectively.

The model with explanatory variables without control variables is accurate around 78% and the results of Omnibus test confirms that the model with explanatory variables is statistically significant. The P value for Hosmer and Lemeshow goodness of fit test statistics confirms that the model fit was good with survey data while the results of model II fits with accuracy of 80%.

Table no 3: logistic regression results for the feeling prosperous household

Variables	Model I β	Model I EXP(β)	Model I Remarks	Model II β	Model II EXP(β)	Model II Remarks
Intercept	-2.087	0.124	***	-2.090	0.124	
Household savings						
Savings with formal sector	1.359	3.893	***	1.445	4.242	***
Savings with informal sector	-0.291	0.748	ns	-0.205	0.815	ns
Social Capital						
Participate for com. Activities	0.687	1.989	ns	0.732	2.079	
Membership of com. association	-0.761	0.467	ns	-0.926	0.396	***
Network with outside of community	2.064	7.876	***	2.107	8.222	***
Control Variables						
Gender				1.295	3.652	ns
Age				-0.017	0.984	ns
Household size				-0.149	0.861	ns
Chi- square value			44.83***			49.497***
Nagelkerke pseudo R^2			39.7			0.431
Hosmer & Lemeshow			0.796			0.889
Classification accuracy			79.6%			80.3%

N.B: ****significant at α = 0.05*

Source: Authors calculation from the survey data, 2016

According to the results of model I, the household head who makes savings with a formal financial sector and participate in community activities, and networks with outside community are significant determinant of feeling of prosperous household. In addition, According to the results of the table, the odds ratio for saving with a formal financial sector indicates that household head who makes savings with a formal financial sector is 3.893 times more likely than others households to have feeling of prosperous household. Meanwhile, the odds ratio for social network with outside community 7.876 times more likely than other household to have a feeling of prosperous household. According to results of model II, the significant effect of household savings with formal sector, membership at community association, and network with outside community with intercepts of the model is statistically significant. The control variable were insignificant.

Table no. 4: logistic regression results for satisfaction with the living environment

Variables	Model I β	Model I EXP(β)	Model I Remarks	Model II β	Model II EXP(β)	Model II Remarks
Intercept	-2.269	0.103	***	-2.121	0.120	**
Household savings						
Savings with formal sector	-0.214	0.807	ns	-0.214	0.807	*ns*
Savings with informal sector	0.031	0.969	ns	-0.013	0.987	*ns*
Social Capital						
Participate for com. Activities	1.990	7.312	***	2.070	7.926	***
Membership of com. association	0.928	2.529	***	0.895	2.447	**
Network with outside of community	1.148	3.153	***	1.158	3.183	***
Control Variables						
Gender				0.706	2.027	ns
Age				-0.017	0.983	ns
Household size				-0.022	0.978	ns
Chi- square value			34.339***			37.248***
Nagelkerke pseudo R^2			0.31			0.33
Hosmer & Lemeshow			0.992			0.174
Classification accuracy			72.7%			72.0%

N.B: ****significant at α = 0.05 ** significant at α = 0.1 ns = not significant*

Source: Authors calculation from the survey data 2016

The results of logistic regression for satisfaction with the living environment are shown by Table no 4. That Table indicates household savings are not significant. However, all proxy variable of social capital can be identified as significant determinants on satisfaction with living environment. The odds ratio for the proxy variable indicated that head who has social capital more likely to be satisfied with the living environment. Odds ratio for participation at community activities 7.312 time more likely to be satisfied with living environment. This result show that social relation are more important in satisfaction with the community than others. However, all control variables are reported insignificant.

5. CONCLUSION AND RECOMMENDATION

This case study was conducted with the objective to examine the determinants of well-being of urban households in Sri Lanka. Accordingly, analysis indicated that heads of household attend for savings with a formal financial sector and participate in community activities and networks with outside communities have significant effect on their general happiness. When individuals and household have savings with formal financial sector and maintain sufficient interactions with other communities have shown positive relation to well-being or general happiness of the individuals or households. This has occurred mainly as individuals and household feel confident about their future. Gender of the head of household head is also playing role in case of happy life of the household. It has been reported positive effect with the household general happiness when the household head becomes male. This would take place because Sri Lankan households are still dominated by male than female. At the same time, household heads' approach in case of savings and social activities have shown positive effect to general happiness of the individuals and household of the family. When the feeling of prosperous household is concerned, household heads' decisions in terms of savings and social capital have shown to be important. When the household heads have savings and good connections with other individuals and communities have shown positive impact to feeling of prosperous household. This would be because of household head is playing the major role in the household and it may greatly impact to whole family. Once the main person in the household is taken step to go forward, whole family may feel the prosperous of their family unit. Accordingly, it is understandable that general happiness and feeling of prosperous household are directly & positively related to well-being of households in city area in Sri Lanka. When well-being of people of city area is concerned, the role of the head of household should be properly placed. Household savings and social capital are required to be encouraged in order to keep the well-being of households in city area in Sri Lanka.

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