

**SOCIO-ECONOMIC FACTORS INFLUENCING SUBJECTIVE
WELL BEING (SWB) IN RURAL KOGI STATE, NIGERIA**

¹Mohammed, I.A, ²Orifah, O. M. & ³Opaluwa, H. I.

**1&3 Agricultural Economics & Extension, Kogi State University,
Anyigba, Nigeria**

**2 Agricultural Economics & Extension, Federal University, Dutse,
Nigeria**

**Correspondence Email:mohammedexcellent@yahoo.com; Tel:
+2348064469585**

Abstract

The socio-economic wellbeing of Nigerians remains a perplexing paradox in spite of a robust endowment in natural and human resources. The concept of poverty and of wellbeing are highly intertwined, however, there is little research on how specific conceptions of poverty relate to people's wellbeing. It is the need to revise the prevailing traditions in conceptualizing and assessing people's wellbeing that prompted the study of socio-economic factors influencing subjective wellbeing (SWB) in rural Kogi state, Nigeria. A multistage random sampling technique was used to sample two hundred household respondents from four agricultural zones of Kogi state with the aid of a questionnaire. Descriptive statistics and logistic regression were used for data analysis. Results showed that 84.0% of the respondents were between the ages of 39-68 years, with 50.5% having family size of 3-10 members, while 65.5% were farmers with low annual income and expenditure. The logit model was correctly estimated with X^2 value of 61.55, significant at 1%, predicted a 72.64% likelihood improvement in SWB and explained 24.70% variation in SWB. The major factors influencing wellbeing positively were; marital status, housing, health facility, education, and safe drinking water while large family size, farming occupation and food shortage have negative effect. Income had a positive but not significant influence on SWB; thus, income is not a good proxy of SWB. This study thus recommends that greater wellbeing in rural Kogi state can be achieved through provision of free education, healthcare service, safe drinking water, affordable housing scheme and provision of toilet facility.

Keywords: *Subjective wellbeing; Logistic regression; Poverty; Happiness; Kogi state*

Introduction

The lessening of poverty is of central policy-making concern to people and governments all over the world. Much resource has been allocated to the study of poverty both at the theoretical and at the policy implementation level. It is commonly accepted that a poor person is one whose well-being is low; thus, poverty depends on the specific concept of human well-being. Subjective well-being refers to the well-being as declared by the person. It is understood and measured from a subjective well-being/happiness approach, which is common in the relevant literatures (Rojas, 2012). Subjective wellbeing can be treated as a self-reported measure of utility. In social sciences, it has been used as “an umbrella term” (Dolan *et al.*, 2008) which describes how people feel about their lives (Diener, Suh, Lucas, and Smith, 1999). Subjective well-being is a broad category which involves positive and negative feelings, expressions of happiness, as well as cognitive judgments of life satisfaction. The term happiness, life satisfaction and subjective wellbeing are used synonymously (Dolan *et al.*, 2008).

In a quest to achieve a poverty free society and sustainable wellbeing, several studies have been conducted in nearly every country of the world, for instance, subjective well-being has been extensively studied in disciplines such as psychology (Kahneman *et al.*, 1999; Argyle, 2002) and sociology (Veenhoveen, 1989, 1991, 1992, 1995, 1997). It is though, a relatively new area of study in economics (Easterlin, 1974, 1995, 2001; Clark and Oswald, 1994; Di Tella *et al.*, 2001, Frey and Stutzer, 2000; McBride, 2001; Oswald, 1997; Pradhan and Ravallion, 2000; and Van Praag and Frijters, 1999). Although, the study of subjective well-being is relatively a new field in economics, its study from an economic point of view aims to seek general patterns of several variables that are hypothesized to affect this valuation (Guardiola and Garcia-Munoz, 2012).

The concept of poverty and of wellbeing are highly intertwined, however, economists have so far been reluctant to carry out any direct study on how

specific conceptions of poverty relate to people's wellbeing and individual happiness (Stutzer and Frey, 2004).

There is therefore a need to revise the prevailing traditions in conceptualizing and assessing people's wellbeing and how they end up being implemented in poverty abatement programmes. There is consensus among economist in most countries of the world that subjective measures must now be juxtaposed to the objective quality of life indicators preferred in the past on at least equal terms. There is also a strong movement that no longer wishes to be confined to external descriptions of how people's life circumstances are developing, but also wants to know about the extent to which people are satisfied and happy with them as declared by themselves. Therefore, when poverty measures reflect the experiences of poor people, then this empowers those working to reduce poverty to do so more effectively and efficiently (Sabina, 2009).

According to Durayappah, (2010) in the last fifty years, there has been a concerted effort to empirically investigate SWB, from its correlations (e.g., Seidlitz and Diener 1993; Oishi *et al.*,2007), to forecasting affect (Gilbert,2006) to cross-cultural differences (Scollon *et al.*,2005). Yet, only a few have attempted to search for a unifying theory of subjective well-being (e.g., Feist *et al.*,1995; Kim-Prieto *et al.*,2005).

Happiness can guide policymaking by studying its determinants. For example, certain policies that affect employment and inflation can be evaluated with respects to how they change happiness levels. One can analyze the trade-off in terms of happiness between inflation and unemployment and thus opt for a policy that minimizes the loss of happiness. Institutional conditions can have an impact on happiness, so increasing transparency, accountability and social cohesion maybe desirable from the point of view of increasing subjective wellbeing (Frey and Stutzer 2002; Conceicao and Bandura, 2013). Happiness research can illuminate economic theory, adding new knowledge. It can advance on the theory of how people make choices and what drives the utility function.

Happiness research is also useful to challenge existing views, such as that non-economic variables have no impact on self-reported satisfaction or that work is considered a burden for people (Frey and Stutzer 2002, 2007; Layard 2007; Conceicao and Bandura, 2013).

Subjective well-being approaches have been used to measure the perceived poverty line, thus complementing or replacing income-based approaches (Kingdon and Knight, 2006; Pradhan and Ravallion, 2000; Rojas, 2008; Guardiola and Garcia-Munoz, 2012).

Happiness is highly valued in present day society. Not only do people aim at happiness in their own life but there is also growing support for the idea that we care for the happiness of other people and that governments should aim at creating greater happiness for a greater number of citizens (Bentham, 1789 in Veenhoven, 2006).

The pursuit of happiness is an important determinant of human behavior: “How to gain, how to keep, how to recover happiness is in fact for most men at all times the secret motive for all they do” (James, 1902 in Stutzer and Frey, 2004). It follows that economics is – or should be- about individual happiness. In particular, the question is how does economic growth, unemployment and inflation, as well as institutional factors, such as good governance, affect individual wellbeing? Economic activity is certainly not an end in itself, but only has value in so far as it contributes to human happiness (Stutzer and Frey, 2004).

It is in the light of the above justification that this study examined the socioeconomic factors influencing subjective wellbeing in rural Kogi state, Nigeria, with particular attention to its major determinants.

Methodology

Study Area

This study was conducted in Kogi State of Nigeria; the State was carved out of Kwara and Benue States on the 27th of August 1991. It is divided into three senatorial districts and twenty one local government areas. Located in the North-Central geo-political zone of Nigeria, Kogi State extends from latitudes 6.33° N to 8.44° N and from longitudes 5.40°E to 7.49°E. The State covers a land area of about 75,000 square kilometers, out of which, about 20% of the land is occupied by people (15,000 square kilometers). Rivers and streams occupy 3,750 square kilometers (5%), while hills and mountains occupy 7% or 3,250 square kilometers. The remaining 68% are available for cultivation (Ibitoye, 2012).

The State shares common boundaries with Anambra and Edo States to the south; Niger, Nassarawa and Federal Capital Territory to the North. Benue and Enugu States to the East, while in the West, Kogi State have common borders with Ondo, Ekiti, and Kwara States. The current population figure for Kogi State is 3,278,487 people based on the 2006 population census, which comprised 1,691,736 males and 1,586,750 females, with about 70% of the population living in rural areas (NPC, 2006; KOSEED, 2006; Ibitoye,2012).

The climatic cover of Kogi State is tropical; this is divided into two major seasons; dry season and wet season. The wet season begin towards the end of March and ends towards the end of October. Dry season begins in November and lasts until late February.

Farming is the predominant occupation of the people of Kogi State, with mixed cropping as the predominant type of farming. The land use pattern is fallow-cropping system operated with hoes and cutlasses. The farm holdings are usually fragmented. The cultivation of food crops such as cassava, maize, sorghum, rice, yam, cowpea, groundnut and melons predominate the agricultural practice. Economic tree crops such as oil palm, cocoa and cashew are commonly grown especially in the Southern and Eastern parts of the State (Ibitoye, 2012).

Sampling Procedure and Sample Size

A multi-stage random sampling technique was used for this study. One local government each was randomly selected from the four agricultural zones of Kogi state. Secondly, two rural communities were randomly selected from each local government. After which twenty five household respondents were randomly selected from the rural communities each, making a total of two hundred respondents.

Source and Method of Data Collection

Primary data was used for this study. The data were collected with the aid of a questionnaire and oral interview/observation. The questionnaires were administered with the assistance of well-trained enumerators and personally followed by interviews.

Method of Data Analysis

Logistic Regression: Logistic regression model was used to estimate the determinants of subjective wellbeing since it captures appropriately dichotomous and categorical variables than the ordinary least squares (OLS) model. Logistic regression describes the relationship between categorical response variable and a set of predictor variables. That is, it is used in estimating empirical values of the parameters in a qualitative response model. The categorical variable can be binary, ordinal or nominal. This study uses a binary logistic regression as the response variables were dichotomous and categorical. The logistic formulas were stated in terms of the probability that $Y = 1$, which is referred to as $\hat{p}$. The probability that Y is 0 is $1 - \hat{p}$.

$$\ln\left(\frac{\hat{p}}{1-\hat{p}}\right) = \beta_0 + \beta_i X_i \text{ ----- } 1$$

Where: $\ln$ is the natural logarithm and $\beta_0 + \beta_i X_i$ is our familiar equation for the regression line.

P was computed from the regression equation. So, from the regression equation, we could, theoretically, calculate the expected probability that $Y = 1$ for a given value of X .

$$\hat{p} = \frac{\exp(\beta_0 + \beta_i X_i)}{1 + \exp(\beta_0 + \beta_i X_i)} = \frac{e^{\beta_0 + \beta_i X_i}}{1 + e^{\beta_0 + \beta_i X_i}} \text{ ----- } 2$$

expis the exponent function, sometimes written as e .

Explicitly, the model was stated as thus:

$$SWB = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \dots + \beta_{20} X_{20} + U_i \quad (3)$$

Where: SWB = Subjective wellbeing which was available as a multiple choice variable of the sort are you extremely unhappy 1, very unhappy 2, unhappy 3, neither unhappy nor happy 4, happy 5, very happy 6, extremely happy 7.

X_1 = Gender (1 male, 0 female)

X_2 = Age (years)

X_3 = Marital Status (1 married, 0 otherwise)

X_4 = Education Level (years)

X_5 = Family Size (Number)

X_6 = Occupation (1 farming, 0 otherwise)

X_7 = Income (Naira)

X_8 = Residential location (1 conducive, 0 otherwise)

X_9 = Social Network (1 member, 0 otherwise)

X_{10} = Security (1 secured, 0 otherwise)

X_{11} = Food Shortage (1 food secured, 0 otherwise)

X_{12} = Safe drinking water (1 safe, 0 otherwise)

X_{13} = current state of health (1 healthy, 0 otherwise)

X_{14} = Expenditure (Naira)

X_{15} = Housing condition (1 conducive, 0 otherwise)

X_{16} = Cooking Energy (1 firewood, 0 otherwise)

X_{17} = Quality of education (1 very good, 0 otherwise)

X_{18} = Presence of toilet facility (1 toilet facility, 0 otherwise)

X_{19} = Presence of electricity (1 electricity, 0 otherwise)

X_{20} = Environmental sanitation (1 sanitized, 0 otherwise)

β_0 = Constant intercept

$\beta_1 - 20$ = Parameters estimated

U = Stochastic error term

Results and Discussion

Table 1: Socio-economic and Demographic Characteristics of the Respondents

Variable	Frequency	Percentage
Age (Years)		
24-38	14	7.0
39-53	90	45.0
54-68	78	39.0
69-83	10	5.0
84-98	5	2.5
99-113	3	1.5
Family Size (Number)		
3-10	101	50.5
11-18	62	31.0
19-26	23	11.5
27-34	5	2.5
35-42	3	1.5
43-50	6	3.0
Occupation		
Farming	131	65.5
Trading	34	17.0
Civil Servant	31	15.5
Driving	4	2.0
Annual Expenditure (Naira)		
10000-50000	15	7.5
60000-100000	53	26.5
101000-150000	31	15.5
160000-240000	31	15.5
241000-330000	39	19.5
340000-450000	20	10.0
500000-800000	11	5.5

Number of observation = 200

Field Survey, 2014

From Table 1 it was observed that only a few 7% of the respondents were between the ages of 24-38, majority 45% were between the ages of 39 -53. While 39% were between 54-68 years of age, only 9% were between 69-113 years. This is an indication that most of the household heads were within the active age. It also confirms the fact that people no longer live much longer in recent decades. As reported by Chu-Chia *et al.*, (2013), Blanchflower and Oswald, (2008) and Frijters and Beaton, (2011) discuss the puzzle about the relationship between age and happiness.

This puzzle was mostly due to the economic literature revealing a possible U shape relationship with the minimum level of satisfaction occurring in middle age (35–60), while the majority of psychologists have concluded there is not much of a relationship at all. Helliwell, (2006) discuss that results in many countries have U shaped patterns of well-being over the life cycle.

Table 1 also revealed that 50.5% of the households had between 3-10 members, 31.0% had 11-18 members, 11.5% had 19-26 members, while only 7% had a very large family size of between 27-50 members. This is an indication that families in rural Kogi state were polygamous, large and extended.

It is evident from table 1 as well that majority of the households in rural Kogi state were farmers, accounting for 65.5%, while 32.5% were traders and civil servants, only a few, 2% of the respondents were commercial drivers.

In addition, table 1 show that 7.5% of the respondents spent 10-50000 naira annually, 26.5% spent 60-100000, while majority, 50.5% spent 101-330000, only 15.5% spent 340-800000 naira annually.

The adequacy or paucity of life expenditure is a greater decisive factor in well-being than real income. There is a good deal of empirical support for the notion that SWB depends on relative expenditure not income per say (Oswald, 1997; Tsou and Liu,2001; Stutzer,2004; Asadullah and Chaudhury,2012). Kingdon and Knight, (2007) show that comparator income, when measured as the average income of others in the local residential cluster, enters the household's utility function positively (close neighbors are 'positives', not 'negatives'), but that the income of more distant others enters negatively. Ferrer-i-Carbonell,(2005) presents an empirical test of four hypotheses about the importance of income and "comparison income" for individual wellbeing. Supporting the many earlier findings that the SWB effects of income relate mainly to relative income, the community or national level of income has an insignificant negative effect when added to the life satisfaction and happiness equations (Helliwell and Putnam,2004). Kahneman *et al.*, (2006) pointed out that high income being associated with a good mood is widespread, but mostly illusory. People with above-average income are relatively satisfied with their lives, but they are barely happier than others in moment-to-moment experiences, they tend to be more tensed, and do not spend more time on particularly enjoyable activities.

Table 2: Logistic Regression Estimates of the Determinants of Subjective Wellbeing

Variable	Coefficient	Std. Error	Z	P>Z	(dy/dx)
Gender	0.8002405	0.8454716	0.95	0.344	0.159038
Age	0.0195686	0.0179815	1.09	0.276	0.003889
Marital Status	0.4168437***	0.1531243	2.72	0.006	0.1021084
Family Size	-0.0826923***	0.0308475	-2.68	0.007	-0.0164341
Education level	0.000202**	0.0000802	2.52	0.010	0.0000496
Occupation	-0.9791762***	0.2671384	-3.69	0.000	-0.0336079
Income	1.16e07	8.89e07	0.13	0.896	2.31e08
Expenditure	2.77e-06	2.00e-06	1.38	0.167	5.50e-07
Social Network	0.3555317	0.4597533	0.77	0.439	0.0735073
Residential Location	0.819674*	0.4747732	1.69	0.091	0.1632144
Security	0.2610943	0.4543402	0.57	0.566	0.0532471
Food Shortage	-0.8555317**	0.4311969	-1.98	0.047	-0.1609523
Safe Drinking Water	0.176516**	0.0795461	2.43	0.002	0.3895332
Health	0.0868783**	0.0021173	2.07	0.024	0.0213905

Housing	0.2431764***	0.0617597	3.94	0.000	0.019461
Electricity	0.084563	0.3535878	0.24	0.811	0.0168059
Cooking Energy	0.4793351	0.5310297	0.90	0.367	0.0952620
Education Quality	0.7762301**	0.3429080	2.46	0.0406	0.1621449
Environment	0.3943657	0.4386266	0.90	0.369	0.078208
Toilet Facility	0.0743692**	0.0302069	2.48	0.014	0.0183105
Constant	-3.585223	2.283632	-1.57	0.116	

$Y = \text{Pr}(\text{SWB})(\text{Predicted}) = 0.72641169$; Number of obs = 200; LR $\chi^2(20) = 61.55$; Prob> $\chi^2 = 0.0000$; Log likelihood = -93.831916; Pseudo $R^2 = 0.2470$; Z designate significant variable; dy/dx = Marginal effect = discrete change in dummy variable from 0 to 1.

Source: Field survey, 2014

From Table 2, it is noteworthy that the model was correctly estimated with χ^2 value of 61.55, overall the model was significant at 1% and the adjusted coefficient of determination, Pseudo R^2 was 0.2470, in other words, the group of socioeconomic variables, which were used as proxies of well-being, explained 24.70% of the variability in SWB as against the 20% least recommended. The model equally predicted 72.64% likelihood improvement in SWB, if these predictor variables are improved upon. This means that these components of wellbeing indicators were good explanatory variables. Thus, it is clear that SWB and the socioeconomic position were not different concepts, and are strongly correlated. In consequence, SWB indicators can make an important contribution to the study of well-being and poverty, beyond what traditional socioeconomic indicators do. However, this result is in contrast with Rojas (2005), who found that socioeconomic variables explained less than 7% variability in SWB and were therefore not only different concepts but were not strongly correlated. Income has a positive but not significant coefficient, in consequence, income does have a positive influence on SWB; however, income is not, by itself, a good proxy of SWB. This buttresses Harris, (2007); Ayala, Jurado and Perez-Mayo, (2009) who observed that households' wellbeing do not exclusively depend on money income, but also on leisure time, health, education, etc. There are persons who are happy with their lives at all income levels; and an increase in income does not necessarily bring greater happiness. Therefore, income is not a good proxy of well-being, it is just a means for well-being, and as such

its efficiency to raise well-being should not be presumed but it should be empirically validated, this affirms Easterlin, (2001) and Rojas, (2005).

Marital status, education status, residential location, safe drinking water, health status, housing condition, quality of education and toilet facility have a positive and significant coefficients. This implies that there is a strong likelihood that improvement in these variables will lead to increase SWB (happiness and life satisfaction). However, family size, farming occupation and food shortage have negative but significant coefficients. This means that large family size, farming occupation and food shortage are synonymous with low wellbeing, vis-a-viz poverty.

Conclusion and Recommendations

This study examined the socioeconomic factors influencing subjective wellbeing in rural Kogi state, Nigeria. It is quite clear from this study that human well-being does depends only on the ordinary standard of living indicators, such as income, consumption and wealth, but also on many factors such as socioeconomic position, access to basic assets and some public services. It is therefore not completely correct to assess a person's well-being only on the basis of income and expenditure indicators. In consequence, subjective wellbeing indicatorsdo provide new information, beyond what traditional socioeconomic indicators do, hence, can make an important contribution to the study of well-being and poverty. This study thus recommends that effort should be made to improve the provision of basic and social amenities in rural areas to bring about the desired wellbeing.

References

- Asadullah, M. N. and Chaudhury, N. (2012). Subjective well-being and relative poverty in rural Bangladesh. *Journal of Economic Psychology*, 33(5), 940–950.
- Argyle, M. (2002). *The Psychology of Happiness*, Routledge, 2nd edition.
- Ayala, L., Jurado, A., and Perez-Mayo, J. (2009). Income Poverty and Multidimensional Deprivation: Lessons from Cross-Regional Analysis. *ECINEQ Working Paper No. 106*. Palma de Mallorca: Society for the Study of Income Inequality.
- Blanchflower, D. G. and Oswald, A. J. (2008). Well-Being Over Time in Britain and the USA. *NBER Working Paper No. 6102*. Cambridge, Mass: National Bureau of Economic Research.
- Chu-Chia, L., Tsung-Chi, C., and Shu-Chen, W. (2013). Measuring Subjective Well-Being in Taiwan. *Social Indices Research Online Journal*.
- Clark, A. and Oswald, A.J. (1994). Unhappiness and Unemployment. *Economic Journal* 104(5): 648–59.
- Conceicao, P. and Bandura, R. (2013). Measuring Subjective Wellbeing: A Summary Review of the Literature. Office of Development Studies, United Nations Development Programme (UNDP), 366 East 45th St., Uganda House, 4th Floor, New York, NY 10017, USA.
- Di Tella, R., Robert J. M. and Oswald, A. J. (2001). Preferences over Inflation and Unemployment: Evidence from Surveys of Happiness. *American Economic Review* 91(1): 335–341.
- Diener E., Suh E. M., Lucas R. E., and Smith H. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin* 125: 276–302.

- Dolan P., Peasgood T. and White M. (2008). Do we really know what makes us happy? A review of the economic literature on the factors associated with subjective well-being. *Journal of Economic Psychology* 29: 94–122.
- Durayappah, A. (2010). The 3P Model: A General Theory of Subjective Well-Being. *Journal of Happiness Studies*.
- Easterlin, R. A. (1974). Does Economic Growth Improve the Human Lot? Some Empirical Evidence. In P. David and M. Reder, eds. *Nations and Households in Economic Growth: Essays in Honour of Moses Abramovitz*. New York and London: Academic Press.
- Easterlin, R. A. (1995). Will Raising the Incomes of All Increase the Happiness of All? *Journal of Economic Behavior and Organization*. 27:1 (June): 35-48.
- Easterlin, R. A. (2001). “Subjective Well-Being and Economic Analysis: A Brief Introduction,” *journal of economic behavior and organization*
- Feist, G. J., Bodner, T. E., Jacobs, J. F., Miles, M., and Tan, V. (1995). Integrating top-down and bottom-up structural models of subjective well-being: A longitudinal investigation. *The Journal of Personality*, 68(1), 138–150.
- Ferrer-i-Carbonell, A. (2005). Income and well-being: An empirical analysis of the comparison income effect. *Journal of Public Economics*, 89, 997–1019
- Frey, B. S. and Stutzer, A. (2000). Happiness, Economics and Institutions. *The Economic Journal* 110 (October): 918-938.
- Frey, B. S. and Stutzer, A. (2002). *Happiness and Economics: How the Economy and Institutions Affect Human Well-Being*. Princeton, N.J.: Princeton University Press.

- Frey, B. S. and Stutzer, A. (2007). What Happiness Research Can Tell Us about Self-Control Problems and Utility Misprediction. In Bruno S. Frey and Alois Stutzer, eds. *Economics and Psychology: A Promising New Cross-Disciplinary Field*. Cambridge, Mass: MIT Press.
- Frijters, P. and Beatton, T. (2011). The mystery of the U-shaped relationship between happiness and age. *NCER Working Paper Series #26R*
- Gilbert, D. (2006). *Stumbling on happiness*. New York, NY: Vintage Books.
- Guardiola, J. and Garcia-Munoz, T. (2012). Subjective well-being and basic needs: Evidence from rural Guatemala
- Harris, J. (2007). Bringing Politics Back in to Poverty Analysis: Why Understanding Social Relations Matters more for Policy on Chronic Poverty than Measurement. CPRC Working Paper No. 77. Manchester: Chronic Poverty Research Centre.
- Helliwell, J. F. (2006). Well-being, social capital and public policy: What's new? *Economic Journal*, 116, C34–C45
- Helliwell, J. F. and Putnam, R. D. (2004). The social context of well-being. *Philosophical Transactions of the Royal Society*, 359, 1435–1446.
- Ibitoye, S. J. (2012). Survey of the Performance of Agricultural Cooperative Societies in Kogi State, Nigeria. *European Scientific Journal* 8(28)
- Kahneman, D. and Krueger, A. B. (2006). Developments in the measurement of SWB. *Journal of Economic Perspectives*, 20, 3–24.
- Kim-Prieto, C., Diener, E., Tamir, M., Scollon, C., and Diener, M. (2005). Integrating the diverse definitions of happiness: A time-

International Journal Of Agricultural Economics, Management and Development (IJAEMD)
sequential framework of subjective well-being. *Journal of Happiness Studies*, 6, 261–300.

Kingdon, G. and Knight, J. (2006,). "Subjective well-being poverty vs Income poverty and capabilities poverty?," *Journal of Development Studies*, 42(7), 1199–1224.

Layard (2007). Happiness and Public Policy: A Challenge to the Profession. In Bruno S. Frey and Alois Stutzer, eds. *Economics and Psychology: A Promising New Cross-Disciplinary Field*. Cambridge, Mass: MIT Press.

McBride, M. (2001). "Relative-Income Effects on Subjective Well-Being in the Cross Section," *Journal of Economic Behaviour & Organization*.

Oishi, S., Diener, E., Choi, D. W., Kim-Prieto, C., and Choi, I. (2007). The dynamics of daily events and wellbeing across cultures: When less is more. *Journal of Personality and Social Psychology*, 93, 685–698.

Oswald, A. J. (1997). Happiness and Economic Performance. *The Economic Journal*, 107, 1815–1831.

Pradhan, M. and Ravallion, M. (2000). Measuring Poverty Using Qualitative Perceptions of Consumption Adequacy. *The Review of Economics and Statistics*, 82(3), 462–471.

Rojas, M. (2005). Wellbeing and the Complexity of Poverty: A Subjective Wellbeing Approach.

Rojas, M. (2008). Experienced Poverty and Income Poverty in Mexico: A Subjective Well-Being Approach. *World Development*, 36(6), 1078–1093.

Rojas M. (2012). Poverty and People's Well-being: A Subjective Multidimensional Approach.

- Sabina A. (2009). Multidimensional Poverty Measures: New Potential. The 3rd OECD World Forum on "Statistics, Knowledge and Policy" *Charting Progress, Building Visions, Improving Life* Busan, Korea - 27-30 October 2009
- Scollon, C. N., Diener, E., Oishi, S., and Biswas-Diener, R. (2005). An experience sampling and cross-cultural investigation of the relation between pleasant and unpleasant affect. *Cognition and Emotion*, 19(1), 27–52.
- Seidlitz, L., and Diener, E. (1993). Memory for positive versus negative life events: Theories for the differences between happy and unhappy persons. *Journal of Personality and Social Psychology*, 64, 654–664.
- Stutzer, A. (2004). The role of income aspirations in individual happiness. *Journal of Economic Behavior & Organization*, 54, 89–109.
- Stutzer, A. and Frey, B. (2004). Reported Subjective Wellbeing: A challenge for economic theory and economic policy. Duncker & Humblot, Berlin.
- Tsou, M. W. and Liu, J. T. (2001). Happiness and domain satisfaction in Taiwan. *Journal of Happiness Studies*, 2, 269–288.
- van Praag, B.M.S, and Frijters, P. (1999). The Anatomy of Subjective Well-being. *Journal of Economic Behavior & Organization* 51: 29-49.
- Veenhoven, R. (1989). 'The Utility of Happiness'. *Social Indicators Research*, 20: 333- 354
- Veenhoven, R. (1991). Is Happiness Relative? *Social Indicators Research*, 24: 1-34.
- Veenhoven, R. (1992). *Happiness in Nations*, Erasmus University.

Veenhoven, R. (1995). *World Database of Happiness. Correlates of Happiness. Social Indicators Research*

Veenhoven, R. (1997). *Quality-of-life in Individualistic Society: A Comparison of 43 Nations in the Early 1990s. Social Indicators Research*

Veenhoven, R. (2006). *How Do We Assess How Happy We Are? Tenets, Implications and Tenability of Three Theories. Paper presented at conference on 'New Directions in the Study of Happiness: United States and International Perspectives', University of Notre Dame, USA, October 22-24 2006.*