

# An empirical investigation of the nexus between Happiness and Productivity

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# An empirical investigation of the nexus between Happiness and Productivity<sup>†</sup>

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## **Abstract**

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*This study analyses the effects of specific factors on happiness and its reversal causation on productivity which in turn impact economic growth. It assumes that these factors act as transmission mechanisms which impact economic activities of the Ajaguro Community, a rural development area of Lagos State, Nigeria. Results show that marital status, higher levels of education, quality of life and job satisfaction influence happiness and consequently economic growth. It discovers that age, gender, ethnicity and job position have no significant impact on happiness and economic growth. These results suggest the need for Nigerian policy makers to adopt programs that can boost happiness of her citizenry for better economic performance.*

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**Keywords:** *Gross national happiness, Human development index, Quality of life, Subjective well-being.*

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## **1. INTRODUCTION AND BACKGROUND OF STUDY**

Happiness can be described as a sustainable desirable sense which every individual aspires to attain in life. Mental health involves feelings such as pleasure and comfort. The feelings of satisfaction and pleasure in various facets of life are called happiness (Yang, 2008). Happiness is become a valuable target in societies and it should be noted that happiness is not limited to one special area of life such as work, private life, or physical health; rather, it shows how much an individual is satisfied with his/her life overall (Yang, 2008). An important mental – emotional feature of a healthy individual is the feeling of well-being and satisfaction. Well-being feeling is defined as: "positive feeling and general satisfaction of life in various aspects of family, work, etc" (Myers & Diener, 1995). One of the goals of any government is sustainable economic development which entails a good quality of life. The term "quality of life" is commonly used to refer to one's personal experience of happiness, freedom from pain, stress, worry, etc.

The study of happiness, or subjective well-being (terms which are used interchangeably), has been studied by psychologists for years and has started gaining acceptance in the economics. Some of the earliest economists, such as Jeremy Bentham and Adams Smith, were concerned with the pursuit of individual happiness. It has been posited in literature of economic growth that greater income

leads to greater utility but greater utility does not guarantee happiness.

Given all this, World Value Survey (2003), an international research agency came out with its global "happiness" findings and concluded that Nigeria and its people were the happiest in the world. This generated a lot of controversy on how Nigeria with its litany of woes can be rated the highest in a "happiest people" research. How is it practically possible that Nigeria with its large army of unemployed, battered and ill-motivated citizens could ever be the happiest on the globe? Taking a closer look at hard statistics for instance, Nigeria ranks number 25 on Africa's Human Development Index and 142 on the global index compiled by the United Nations Report in 2010. This further gives credence to the Easterlin Paradox.

Previous researches on happiness have shown that life satisfaction seems to broaden perception, to encourage active involvement and thereby to foster political participation. It facilitates social contacts: in particular contacts with spouse and children. Further happiness reduces stress, thereby preserving health and lengthening life. It is concluded that societies are more likely to develop and flourish with happy citizens than with unhappy ones. The problem however is, given the peculiar nature of the Nigerian economy, which of the indicators known to influence happiness is more relevant to the Nigerian economy and should

be incorporated into macroeconomic policies for them to be more effective? Should the government focus more on increasing income levels since theory suggests that the poor are the unhappiest people? And finally, should the government be bothered about increasing happiness in the first place and if they should, in what ways does it influence economic activities? Knowing the answer to these questions is expected to help the government formulated good policies that would drive the nation forward and lead to an increase in economic growth in Nigeria.

## **2. METHODOLOGY**

Primary Data on the link between happiness and productivity were collected from Ajaguro community in Imota Rural Development Area, Ikorodu. Exploratory design and random sampling

technique were used. The study relies mainly on a data collection instrument which combines both questionnaire survey and personal interview of respondents. The community is made up of about 1750 inhabitants. The small population is due to the fact that the community is just developing with a large number of the population being people who moved from the more congested area of Lagos state to a peaceful environment, such as that community.

200 questionnaires were randomly distributed among the respondents for this study. The questionnaire contained about 33 structured questions aimed at eliciting the right kind of response relevant to the study.

## **3. MODEL SPECIFICATION**

The complete specification is given below:

$$\begin{aligned} \text{ECNACT} = & \alpha_0 + \alpha_1 \text{AGE} + \alpha_2 \text{GDA} + \alpha_3 \text{MS} + \alpha_4 \text{SEC} + \alpha_{51} \text{DE1} + \alpha_{52} \text{DE2} + \alpha_{53} \text{DE3} + \alpha_{54} \text{DE4} + \\ & \alpha_{61} \text{DUN1} + \alpha_{62} \text{DUN2} + \alpha_{71} \text{DCL1} + \alpha_{72} \text{DCL2} + \alpha_{81} \text{DETH1} + \alpha_{82} \text{DETH2} + \alpha_{91} \text{DREL1} + \alpha_{92} \\ & \text{DREL2} + \alpha_{10} \text{DINCP} + \alpha_{11,1} \text{DJPOS1} + \alpha_{11,2} \text{DJPOS2} + \alpha_{11,3} \text{DJPOS3} + \alpha_{12,1} \text{DJF1} + \alpha_{12,2} \text{DJF2} + \\ & \alpha_{12,3} \text{DJF3} + \alpha_{12,4} \text{DJF4} + \alpha_{13,1} \text{DJS1} + \alpha_{13,2} \text{DJS2} + \alpha_{14} \text{DEER} + \alpha_{15,1} \text{DQL1} + \alpha_{15,2} \text{DQL2} + \alpha_{16,1} \\ & \text{DSELF1} + \alpha_{16,2} \text{DSELF2} + \alpha_{17,1} \text{DPLP1} + \alpha_{17,2} \text{DPLP2} + \alpha_{18,1} \text{DSEX1} + \alpha_{18,2} \text{DSEX2} + u \end{aligned}$$

The specification above indicates the corresponding estimation of the model along with other more parsimonious specification, where some variables are eliminated for the purpose of their redundancy and/or violation of OLS assumptions. This is done to witness the behavior of regression coefficient in different model versions, observe the statistical significance of the

variables across model versions and most importantly to choose a model version that best allows us to capture the impact of components of happiness on economic activity.

**4. RESULTS**

In this section we take a surface look at the data on the two hundred respondents in the Ajaguro community with the aim of determining such

descriptions as the mean, variance and proportion. The table below shows the different variables involved in this study and their descriptive measures.

**Table1: Descriptive Analysis**

	AGE	DCL1	DCL2	DE1	DE2	DE3	DE4	DEER
<b>Mean</b>	41.7626	0.42929	0.08585	0.22727	0.13131	0.37373	0.13131	0.63131
	3	3	9	3	3	7	3	3
<b>Median</b>	35.5	0	0	0	0	0	0	1
<b>Maximum</b>	65.5	1	1	1	1	1	1	1
<b>Minimum</b>	25.5	0	0	0	0	0	0	0
<b>Std. Dev.</b>	13.4493	0.49623	0.28086	0.42013	0.33859	0.48502	0.33859	0.48367
<b>Sum</b>	8269	85	17	45	26	74	26	125

	DETH1	DETH2	DINCP	DJF1	DJF2	DJF3	DJF4	DJPOS
<b>Mean</b>		0.62626	0.65151	0.58080	0.28787	0.06060	0.06060	0.13636
	0.33333							
<b>Median</b>	0	1	1	1	0	0	0	0
<b>Maximum</b>	2	1	1	1	1	1	1	1
<b>Minimum</b>	0	0	0	0	0	0	0	0
<b>Std. Dev.</b>	0.4832	0.48502	0.47769	0.49467	0.45392	0.23921	0.23921	0.34404
<b>Sum</b>	66	124	129	115	57	12	12	27

	DJPOS2	DJPOS3	DJS1	DJS2	DPLP1	DPLP2	DQL1	DQL2
<b>Mean</b>	0.444	0.096	0.551	0.015	0.621	0.146	0.631	0.106
<b>Median</b>	0.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000
<b>Maximum</b>	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
<b>Minimum</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Std. Dev.</b>	0.498	0.295	0.499	0.122	0.486	0.354	0.484	0.309
<b>Sum</b>	88.000	19.000	109.000	3.000	123.000	29.000	125.000	21.000

	<b>DREL1</b>	<b>DREL2</b>	<b>DSELF1</b>	<b>DSELF2</b>	<b>DSEX1</b>	<b>DSEX2</b>	<b>DUN1</b>	<b>DUN2</b>
<b>Mean</b>	0.687	0.258	0.631	0.237	0.591	0.162	0.682	0.182
<b>Median</b>	1.000	0.000	1.000	0.000	1.000	0.000	1.000	0.000
<b>Maximum</b>	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
<b>Minimum</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Std. Dev.</b>	0.465	0.438	0.484	0.427	0.493	0.369	0.467	0.387
<b>Sum</b>	136.000	51.000	125.000	47.000	117.000	32.000	135.000	36.000

	<b>ECNACT</b>	<b>GDA</b>	<b>MS</b>	<b>SEC</b>
<b>Mean</b>	104369	0.596	0.662	0.247
<b>Median</b>	50000	1.000	1.000	0.000
<b>Maximum</b>	500000	1.000	1.000	1.000
<b>Minimum</b>	15000	0.000	0.000	0.000
<b>Std. Dev.</b>	121730	0.492	0.474	0.433
<b>Sum</b>	20665000	118.000	131.000	49.000

The descriptive analysis in table 1 shows the following:

There is an average of 104,369 naira per annum and we find that the median respondents are those that fall into the relatively poor income bracket that is less than 15000 and this is indicative that there is wide spread between the median and the mean due to the existence of extreme values presented by a few respondents that earn incomes greater than 150,000 and hence we assert that the mean is not particularly representative of all the respondents income in the community and this is further buttressed by the high level of standard deviation of 121,730 which is even larger than the mean itself.

The gender of the respondents (GDA) indicates that there are 118 males and 82 females. It suggests that there are more males than females in our study while the age of the respondents (AGE) indicates that on the average, most of the respondents are in their 40's (mean value of 41.76 years). The oldest and the youngest persons sampled were 65 and 25 years respectively, approximately 66.2% of the respondents are married while the rest are unmarried which encompass the divorced, single and widowed.

24.7% worked in the public sector while 75.3% worked in the private sector. This suggests that

more respondents were sampled from the private sector than the public sector. The level of unemployment in the Ajaguro community, as depicted by the DUN1 and DUN2 dummy variables, show that 68.2% of the residents are employed, 18.2% are unemployed while others are either retired or full time housewives. On the part of the level of educational attainment depicted by the DE1, DE2, DE3 and DE4, these variables indicate that 22.7% are WASC holders, 13.1% are OND/NCE degree holders, 37.4% are bachelors degree holders, 13.1% have Msc degree while the largest in the group are those with primary school education.

Considering the socio-economic level of the respondents, 42.9% of the respondents, depicted by the DCL1 variable, are in the lower class while a tiny proportion of 8.6% fall into the high class as the remaining 48.5% falls into the middle class.

With regards to the income preference of the respondents measured by DINCP, 65.2% of the respondents prefer relative incomes while 34.8% of the respondents prefer absolute income. 13.6% of the respondents are self employed, 44.4% fall into the low management position while a small 9.6% of them work at the top management level with the remaining respondents being unemployed.

In the job satisfaction measures (DJS1 and DJS2), we find that the 55.1% of the respondents are satisfied with their jobs while 1.5% are not and 44.3% are indifferent. When they were quizzed

on the job features that they prefer (DJF1, DJF2, DJF3 and DJF4), 58.1% of the respondents preferred jobs with good income, 28.8% preferred job security, 6% preferred jobs where they derive good interpersonal relations and 6% prefer jobs with relative importance to them and 1.1% prefer jobs that make some contributions to the community.

On the perception of the respondents about the poverty level in the country, 62.1% maintained that the poverty level had risen over time, while 14.6% asserted the contrary and 23.3% maintain that the level of poverty has remained unchanged. The social expectation perception measures (DSEX1 and DSEX2) indicates that 59.1% expect that the satisfaction of basic need of an individual is paramount and 16.2% expect income inequality should be removed while 24.7% expect more equal access to educational facilities.

These responses are confronted with the econometric model specification described in the previous section and note must be taken that despite the fact that there are so many variables being proxied by level variables or dummy variables, not all these variables make it to the final specification and this is due to the redundancy of some variables and the diagnostic test in ensuring model specification adequacy.

The regression model versions' estimations and their diagnostic tests are presented below:

**Table 2: Regression Estimations**

<b>Var</b>	<b>Model1</b>	<b>Model2</b>	<b>Model3</b>	<b>Model4</b>	<b>Model5</b>	<b>Model6</b>	<b>Model7</b>	<b>Model8</b>
<b>C</b>	39078.8	117898.7*	-172.2	70379.5	79420.8	679.7	-7978.8	-588.2
<b>Age</b>	71.5	-115.4	297.4	134.7	221.4	319.0	2045.7**	2497.9**
<b>Gda</b>	-1115.3	-4543.3	-1444.9	-4380.5	-	-	4312.2	-
<b>Ms</b>	32276.6*	32906.5*	37290.4**	35558.8**	18739.5	35067.2**	35712.9*	-
<b>Sec</b>	-11941.8	-20893.2	-11113.1	-15394.8	-23745.6	-	-	-
<b>De1</b>	1235.8	-2592.1	778.9	-2009.1	-10032.4	8800.5	-	-
<b>De2</b>	41634.1	42835.2*	31098.8	34779.8	30330.6	42680.7	-	-
<b>De3</b>	68896.1**	70336.6**	68741.7**	69348.0**	65331.4**	93429.4**	-	-
<b>De4</b>	131720.2**	140412.6**	125283.6**	134730.8**	146130.1**	186144.8**	-	-
<b>Dun1</b>	14824.7	1209.9	-	-	32555.1	-	-	-
<b>Dun2</b>	-38809.1	-41387.8	-	-	-25399.3	-	-	-
<b>Dcl1</b>	-36894.6**	-40398.1**	-34155.4**	-37200**	-56972.9**	-	-	-
<b>Dcl2</b>	84326.9**	85210.5**	96920.4**	89604**	109290.2**	-	-	-
<b>Deth1</b>	53593.5	31804.5	27283.4	24891.0	28514.94	-	-	-
<b>Deth2</b>	44971.9	29301.0	31117.1	28526.8	31589.2	-	-	-
<b>Drel1</b>	-55236.9*	-59988.9*	-50081.9*	-60436.9**	-77113.4**	-	-	-
<b>Drel2</b>	-40621.4	-44798.6	-41508.5	-47155.0	-59430.7**	-	-	-
<b>Dincp</b>	-43178.1**	-45601.1**	-37876.1**	-45673.1**	-	-	-	-
<b>Djpos1</b>	-16468.1	-1125.6	17582	21650.3	-	-	-	-
<b>Djpos2</b>	-9197.6	12525.1	28847.2*	32332.0*	-	-	-	-
<b>Djpos3</b>	82118.3*	98769.9**	125040.8**	119316.2**	-	-	-	-
<b>Djf1</b>	24524.4	-	42176.3	-	-	-	-	-
<b>Djf2</b>	38697.8	-	60366.1	-	-	-	-	-
<b>Djf3</b>	-5519.5	-	11623.2	-	-	-	-	-
<b>Djf4</b>	18116.5	-	35391.4	-	-	-	-	-
<b>Djs1</b>	-7293.9	-	-	-	-	-	-	-
<b>Djs2</b>	-58570.7	-	-	-	-	-	-	-



<b>Deer</b>	25937.8	-	-	-	-	-	-	-
<b>Dql1</b>	3541.8	-	-	-	-	-	-	-
<b>Dql2</b>	10918.1	-	-	-	-	-	-	-
<b>Dself1</b>	13786.0	-	-	-	-	-	-	-
<b>Dself2</b>	23061.8	-	-	-	-	-	-	-
<b>Dplp1</b>	-10888.5	-	-	-	-	-	-	-
<b>Dplp2</b>	-14389.5	-	-	-	-	-	-	-
<b>Dsex1</b>	-15368.9	-18722.7	-	-	-	-	-	-
<b>Dsex2</b>	-43033.6*	-39537.6*	-	-	-	-	-	-
<b>R<sup>2</sup></b>	0.5781	0.5559	0.5485	0.5375	0.4811	0.3061	0.0941	0.0765
<b>Adjusted R<sup>2</sup></b>	0.4870	0.5003	0.4920	0.4913	0.4386	0.2844	0.0802	0.0718
<b>Schwarz criterion</b>	26.3503	26.0481	26.0646	25.9821	26.0174	26.0687	26.2510	26.2173
<b>Hannan-Quinn criterion</b>	25.995	25.8215	25.8380	25.7949	25.8580	26.0000	26.2118	26.1843
<b>Durbin Watson</b>	2.0672^	2.0973^	2.1069^	2.1268^	2.2398	2.0647^	1.9578^	1.9099^
<b>F-statistic</b>	6.3431*	10.0126*	9.7179*	11.6241*	11.3127*	14.1142*	6.7864*	16.4017*
<b>White test statistic</b>	43.1851 °	32.9243	29.1612 °	28.8171	12.5307 °	6.4257 °	2.019 °	1.4631 °
<b>No of Observations</b>	200	200	200	200	200	200	200	200

Notes:

- i. The independent variable here is ECNACT defined as the level of economic activity proxied by the income level
- ii. The notation \* indicates that the regression coefficient is statistically significant at 10% level and \*\* indicates that the regression coefficient is statistically significant at the 5%. The full specification which involves the estimation of the impact of the components of happiness on economic activity proxied by the level of income of the respondents is depicted by the output 8 while the more parsimonious regressions are shown in the other outputs.
- iii. The coefficient of determination, adjusted coefficient of determination, Hannan-Quinn criterion, Schwarz criterion, Durbin Watson test and the F-statistic are all reported for all the different specifications adopted above.
- iv. The Hannan-Quinn and the Schwarz criterion are used to detect all the models which are more appropriate and hence avoids the model specification bias problem.
- v. The Durbin Watson statistic reported above is compared against the critical values of the statistic at 5% level and the statistic with the indicator  $\hat{\rho}$  indicates the absence of autocorrelation.

- vi. The white test statistic value is computed to check for the presence of heteroscedasticity in the regression estimations and the statistic values with the indicator  $\hat{\rho}$  are indicative that the regression rejects the hypothesis of heteroscedasticity in the regression estimation output.

Eight model versions are presented above. The model1 is the complete model specification and from the estimation it is glaring that there is the presence of multicollinearity as noted by the coexistence of the overall significance depicted by the statistically significant F-statistic and numerous variables with individual statistical insignificance – as observed by the variables AGE, GDA, SEC, DE1, DE2, DUN1, DUN2, DETH1 DETH2, DREL2, DJPOS1, DJPOS2, DJF1, DJF2, DJF3, DJF4, DJS1, DJS2, DEER, DQL1, DQL2, DSEX1, DSEX2, DSELF1, DSELF2, DPLP1 and DPLP2 – and though the other diagnostics indicate the absence of heteroscedasticity and autocorrelation the information criterion measure for model adequacy indicates that comparatively, model 1 is not appropriate for interpretation.

On making a comparative analysis of the model versions estimated we have settled with the model versions 3 and this is due to the fact that it is not just maintaining the non-violation of the OLS assumptions but they comparatively have the lowest values for the Hannan-Quinn information criterion and the Schwarz information criterion.

The model is therefore, adopted for the purpose of estimating the impact of happiness on economic activity is shown below:

$$\begin{aligned} \text{ECNACT} = & \alpha_0 + \alpha_1 \text{AGE} + \alpha_2 \text{GDA} + \alpha_3 \text{MS} + \alpha_4 \\ & \text{SEC} + \alpha_{51} \text{DE1} + \alpha_{52} \text{DE2} + \alpha_{53} \text{DE3} + \alpha_{54} \text{DE4} + \\ & \alpha_{71} \text{DCL1} + \alpha_{72} \text{DCL2} + \alpha_{81} \text{DETH1} + \alpha_{82} \text{DETH2} \\ & + \alpha_{91} \text{DREL1} + \alpha_{92} \text{DREL2} + \alpha_{10} \text{DINCP} + \alpha_{11,1} \\ & \text{DJPOS1} + \alpha_{11,2} \text{DJPOS2} + \alpha_{11,3} \text{DJPOS3} + \alpha_{12,1} \\ & \text{DJF1} + \alpha_{12,2} \text{DJF2} + \alpha_{12,3} \text{DJF3} + \alpha_{12,4} \text{DJF4} + u \end{aligned}$$

From the estimation output shown above it is clear that the theoretical expectation is mostly met by the two specifications chosen. From the model 3 age, gender, sector category of the job of respondents, dummy variables capturing wasc level of education and nce/ond level of education, dummy variables capturing ethnicity, dummy variable capturing Islam, dummy variable capturing self employment job position and the dummy variables capturing job features are all statistically insignificant .

According to model version 3 the marital status of the respondents had a statistically significant positive impact at the 5% level on the economic activity of the respondents and this is not just in line with the theoretical expectations but it also indicates that married persons, due to their happier state tend to be associated with rising incomes. This could be attributed to the synergistic benefits of having a spouse to encourage and nudge one along lines of competition to increase the role of the partner in

the family. Empirical analysis also provides us with evidence that married individuals also have better social behaviour (Güven, 2007). According to this model there is an increase of 37290.4 in the income level of married persons and hence this makes a net increase of 37118.2 for married persons in general in the Ajaguro community.

WASC holder and NCE/OND holders may not have a statistically significant impact on the level of economic activity but the holders of Bsc/HND and Phd/Msc. degrees holders have higher opportunities to have higher and statistically significant levels of income. The Bsc/HND and Phd/Msc. degrees holders earn an extra 68741.7 and 125283.6 respectively in addition to the net income for married persons but for non-married scholars this figure is put at 68569.5 and 125111.4 respectively.

In the case of the socio economic strata of the respondents the estimation shows that the lower class record a statistically significant impact on level of income, that is their income levels are depressed by 34155.4, this may be associated with the view that the poor generally face a high cost of living and are surrounded by factors that not only impede their happiness but also affect their level of income while on the contrary for the upper class respondents their incomes are increased statistically by 96920.4 and this is quite expected as the upper class respondents have

abundant opportunities to increase the wealth holdings, income and hence happiness.

Ethnicity, however, had no impact on income and this may suggest that ethnicity in the Ajaguro community may not be a statistically relevant indicator of happiness and in the event that ethnicity becomes relevant, there must be some other variables that vary with ethnicity and also income level. Christians in the Ajaguro community tend to earn fewer incomes than their Muslim counterparts and this is depicted by the negative coefficients of dummy variables capturing religion.

Preference for relative income had a significant negative impact on income and hence economic activity. This is reflected by the reduction of net income by 37876.1 for respondents with preference for relative income while those that prefer the absolute income do not suffer this fate.

Respondents that work at the low and top management levels earn the second and the first highest level of income among the category respectively and their positions have a statistically significant impact on their level of income. Though the job features preference of the respondents do not have a statistically significant impact on income level, it can be seen that most respondents preferred jobs with more security and this suggests that jobs with high security tend to pay higher.

## **5. SUMMARY AND CONCLUSION**

This research has made use of the dummy variable technique to analyse the impact of happiness on economic activities of Ajaguro community, Imota Rural Development Area of Lagos State, Nigeria. Data gotten from the survey were used and eight different models in all were estimated.

The results of this study suggest a positive effect of income on happiness. Higher level of education plays an important role in human life. It affects well-being directly and indirectly. Direct influences include the positive effect on income and pleasure from acquiring knowledge. Indirect influences refer to higher employment probability, better job quality, higher expected salary and better health. Marital status and socio-economic status also play a vital role on happiness. However, some demographic factors (such as age and ethnicity) do not have any effect on income and happiness. Based on the results we can say that happiness is the result of a feeling of energized focus, full involvement, and success in the process of the activity.

The results also shed some lights on policy issues. Given the positive impacts of happiness on economic growth, policy makers may reevaluate some policies such as welfare program, universal medical care, and some labor regulations that potentially can boost happiness of residents/citizens.

The contribution of this paper is to show that certain factors such as educational attainment, social expectation, job satisfaction, improved quality of life and income generating activities affect human happiness which has powerful causal effects on economic activity and economic growth.

The economic implication that emerges from this work is that the Nigerian government will have to reconsider incorporating happiness (life satisfaction) into macroeconomic policies that would have lasting impact on the economy. Our results show that marital status has a significant

positive effect on happiness. Economic policymakers should pay attention to family and community cohesion. All things been equal, good economic policies should encourage and support stable families and promote civic engagement. To help people feel in control of their own destinies, policies should respect the autonomy of individuals, families, and communities to make their own decisions whenever possible, as research has confirmed the intuitive notion that individual freedoms contribute to life satisfaction.

**REFERENCES**

- [1]. Aigbokhan, Ben. E. (2000), "Poverty, Growth and Inequality in Nigeria: A case Study", AERC Research Paper 102, African Economic Research Consortium, Nairobi, Kenya.
- [2]. Albert, C. and Davia, M. A. (2005), "Education, Wages and Job Satisfaction", Paper presented at the Epunet Conference 2005, Colchester.
- [3]. André, H. (2008), Income leisure and happiness, NICE working paper 08-116.
- [4]. Ayara, N. N (2002), The Paradox of Education and Economic Growth in Nigeria: An Empirical Evidence, Selected papers for the 2002 Annual Conference, Nigerian Economic Society, Ibadan.
- [5]. Becker, G. (1994), "Human Capital: a Theoretical and Empirical Analysis, with Special Reference to Education", University of Chicago Press, Third Edition.
- [6]. Berger, M. C. and Leigh, J. P. (1989), "Schooling, Self-Selection and Health", *Journal of Human Resources*, No. 24.
- [7]. Bhattacharjee Jay, "How to Track Well-Being", *The Times of India*, January 22nd 2008, pp 16.
- [8]. Blanchflower, D.G. & Oswald, A.J. (1997). *A Study of Labour Markets and Youth Unemployment in Eastern Europe*. The Warwick Economics Research Paper Series (TWERPS) 499 University of Warwick, Department of Economics.
- [9]. Boehm, J. k., & Lyubomirsky, s. (2008). Does Happiness Promote Career Success University of California, *Journal of Career Assessment*, 16, 101–116.
- [10]. Bowles, S., H. Gintis, and M. Osborne (2001), "The Determinants of Earnings: A Behavioral Approach", *Journal of Economic Literature*, 39 (4), 1137-1176.
- [11]. Brickman, P., and Campbell, D.T. (1981). Hedonic relativism and planning the good society, In M. Appley (Ed.), *Adaptation-level theory* pp. 287–305. New York: Academic Press.
- [12]. Centre for Bhutan Studies, "Nation Wide Survey on GNH", December 3rd 2007.
- [13]. Clark, A.E. and Oswald, A.J. (1994) "Unhappiness and Unemployment", *The Economic Journal*, Vol. 104, Issue 424, pp 648-659.
- [14]. Clark, A. E. and Oswald, A. J. (1996), "Satisfaction and Comparison Income", *Journal of Public Economics*, No. 61.
- [15]. Cropanzano R., & Wright T.A., A 5-year study of change in the relationship between well-being and job performance, *Consulting Psychology Journal: Practice and Research*, 5, 252-265.
- [16]. Daniel Guilbert and Satya Paul (2009), 'Income and Happiness: An Analysis of Adaptation and Comparison Income Effects'.

- Paper prepared for presentation at the HILDA, Survey Research Conference, 2009.
- [17]. Daniel J. Koys, "The Effects of Employee Satisfaction, Organizational Citizenship Behavior, and Turnover on Organizational Effectiveness: A Unit-Level, Longitudinal Study."
- [18]. Davis, K., Schoen, C., et. al. (2007). *Mirror, Mirror on the Wall: An International Update on the Comparative Performance of American Health Care*, The Commonwealth Fund Report.
- [19]. DeNavas-Walt et al (2006), *Income, Poverty and Health Insurance Coverage in the United States: 2005*. Current Population Reports. Washington: U.S. Census Bureau.
- [20]. Development Index: Australia is Not a Paradox. *The Australian Economic Review*, 39(2), 176–84.
- [21]. Murray, C. J. and Chen, L. C. (1992). Understanding Morbidity Change, *Population and Development Review*, 18(3), 481–504.
- [22]. Dickow, H., and V. Moller (2000), "South Africa's 'rainbow people,' national pride and optimism: A trend study." *Social Indicators Research*. 59: p 175-202.
- [23]. Diener, E., & Biswas-Diener, R. (2002). Will money increase subjective well-being, A literature review and guide to needed research. *Social Indicators Research*, 57, Pp 119-169.
- [24]. Diener, E. (1984) "Subjective well-being." *Psychological Bulletin*. 95: p 542-575.
- [25]. Diener, E., & Oishi, S. (2000). Money and happiness: Income and subjective well-being across nations. In E. Diener & E. Suh (Eds.), *Subjective well-being across cultures*, pp. 185–218, Cambridge, MIT Press.
- [26]. Di Tella, R., Haisken-De New, J., & MacCulloch, R. (2007). Happiness Adaptation to Income and to Status in an Individual Panel. National Bureau of Economic Research (Working Paper 13159).
- [27]. Di Tella, R., R.J. MacCulloch, and A.J. Oswald (2001), "Preferences over Inflation and Unemployment: Evidence from Surveys of Happiness." *American Economic Review*, 91: pp 335-341.
- [28]. Easterlin, Richard A. (1973), "Does Money Buy Happiness?" *The Public Interest* 30: 3–10.
- [29]. Easterlin, Richard (1974), "Does Economic Growth Improve the Human Lot? Some Empirical Evidence." In *Nations and Households in Economic Growth: Essays in Honor of Moses Abramowitz*, Edited by Paul A. David and Melvin W. Reder, Academic Press.
- [30]. Easterlin, R. (1995), "Will Raising the Incomes of all Increase the Happiness of All?", *Journal of Economic Behavior and Organization*, Vol. 27, Issue 1, pp 35-47.

- [31]. Eboh, E.C. (2008), *Template for tracking the Impact of SEEDS Expenditures on the MDGs*. Report Submitted to European Union-Support for Reforming Institution Programme (EU- SRIP), Abuja, Nigeria.
- [32]. GNH Commission, Royal Government of Bhutan, Draft Tenth Five Year Plan, (2008–2013), February, pp. 54.
- [33]. Graham, C. (2005). Insights on Development from the Economics of Happiness, *WorldBank Research Observer*, 20(2), 201–31.
- [34]. Headey, B., R. Veenhoven and A.Wearing (1991), “Top-down versus bottom-up theories of subjective Well-being”, *Social Indicators Research*, 24: pp. 81-100.
- [35]. Heckman J. J. and Jacobs B. (2006), “Reinventing human capital policy”, WP mimeo.
- [36]. Kasser, T. and R. Ryan (1993), “A dark side of the American dream: Correlates of financial success as a Central life aspiration”, *Journal of Personality and Social Psychology*. 65: pp. 410- 422.
- [37]. Klasen, S. (2000), “Measuring Poverty and Deprivation in South Africa.” *Review of Income and Wealth*, 46: pp 33-58.
- [38]. Knight, J., L. Song, and R. Gunatilaka (2007), “Subjective well-being and its determinants in rural China.” University of Oxford, Economics Department, Discussion Paper Series, no. 334.
- [39]. Lance, C., G. Lautenschlager, C. Sloan, and P. Varca (1989), “A comparison between bottom-up, top Down, and bidirectional models of relationships between global and life facet satisfaction”, *Journal of Personality*, 57: pp. 601-624.
- [40]. Luttmer, E. (2005), “Neighbors as Negatives: Relative Earnings and Well-Being”, *The Quarterly Journal of Economics*, pp. 963-1002.
- [41]. McBride, M. (2001), “Relative income effects on subjective well-being in the cross section”, *Journal of Economic Behavior and Organization*, 45: pp. 251-278.
- [42]. Miles, D. and Rossi, M. (2007), “Learning about One’s Relative Position and Subjective Wellbeing”, *Applied Economics*, Vol. 39, Issue 13, pp 1711-1718.
- [43]. National Bureau of Statistics (2006), *Core Welfare Indicator Questionnaire Survey*, Abuja.
- [44]. OECD (2008), *Labour, Productivity and Unit Labour Cost Indicators*.
- [45]. OECD (2001) *The Well-being of Nations: the role of human and social capital*, Paris, Centre for Educational Research and Innovation.
- [46]. Ogwumike, F.O., (1987), *Poverty and Basic Needs Approach to Development in Nigeria*, Unpublished Ph.D dissertation, Department of Economics, University of Ibadan, Nigeria.
- [47]. Stajkovic, A. D., & Luthans, F. (2003). Behavioral management and task



- performance in organizations: conceptual background, meta-analysis, and test of alternative models, *Personnel Psychology*, 56, 155-194.
- [48]. Thinley Jigmi Y.(2005), “What Does Gross National Happiness (GNH) Mean?”
- [49]. Veenhoven, R. (1993). Happiness in Nations: Subjective Appreciation of Life in 56 Nations, 1946-92. *RISBO*. Rotterdam: Erasmus University.
- [50]. Veenhoven, R. (1996). Development in Satisfaction-Research. *Social Indicators Research*, 37, pg 1-46.
- [51]. Winkelmann, Liliana & Rainer Winkelmann (1998). Why are the Unemployed so Happy? Evidence from Panel Data. *Economica*, 65(257), 1-15.
- [52]. World Values Survey (2008), Online Data Analysis, Retrieved June 10, 2011.
- [53]. Yang, Y.(2008), Long and happy living: Trends and patterns of happy life expectancy in the U.S., 1970- 2000. *Social Science Research*, 37, 123–12.