© Kamla-Raj 2008
PRINT: ISSN 0970-9274 ONLINE: 2456-6608
J. Hum. Ecol., 23(3): 219-229 (2008)
DOI: 10.31901/24566608.2008/23.03.05

# Social Capital and Household Welfare in Kwara State, Nigeria

**S.A. Yusuf**

*Department of Agricultural Economics, University of Ibadan, Ibadan, Nigera*
*E-mail: yusufsina@yahoo.com*

**KEYWORDS** Social Capital. Household Welfare. Heterogeneity Index. Endogeneity. Kwara State

**ABSTRACT** This study examined the effects of social capital on household welfare in Kwara State, Nigeria. The data for the study were collected from 315 households in six local government areas (LGAs) of the state using probability proportionate to size of the registered institutions in the LGAs. Data analysis was done using descriptive statistics, social capital indices and regression technique. Average age of household heads stood at 44.3 years with about 8 years of formal education. Household size was 7 members with monthly per capita income of ₦4, 184.40. About 49.9% of the per capita expenditure of ₦3, 059.52 was spent on food. Household own production constituted 31.4% of the total food expenditure. Membership of households in local level institutions averaged 6 with urban households belonging to one less institutions. Households attended two out of every three meetings and had moderate level of active participation in decision making of 57.5%. The index of heterogeneity at 29.1 indicated low level of diversity of the associations. Monthly cash contribution was highest for members in religious associations amounting to ₦1,574.53 followed by cooperative associations at ₦1, 015.03. A one unit increase in social capital would increase household per capita expenditure by 0.15%. Disaggregation of social capital into its components showed that its effect on welfare was traceable to membership and active participation in decision making of households in associations. Social capital was truly exogenous to household's welfare with no reverse causality. The study concluded that social capital positively affected household welfare.

## INTRODUCTION

In recent time government and the civil society in Nigeria, with the support of the donor agencies have devoted considerable resources at reducing poverty. This has given rise to the formulation of the draft national strategy for poverty alleviation code named "Community Action Programme for Poverty Alleviation" (CAPPA) in 1996. However, efforts at poverty reduction have largely remained unfelt by the poor. While the emphasis in most of the interventions is on provision of physical infrastructure to support the poor and the acquisition of human capital, there has been little or no consideration for the institutional development of local level institutions or mechanism to ensure delivery of support to the poor (Okunmadewa et al., 2005). The absence of appropriate local level institutions and the weakness of existing ones largely disenfranchised the poor from participating in the decision making process of interventions and issues that affect their welfare. Notwithstanding, recent studies do indicate that local institutional strengthening through the active participation of the poor in project design and implementation is a necessary factor in poverty reduction in Nigeria. Thus, group formation is now seen as an important requirement for the poor to benefit from some of the public instituted poverty reduction programmes.

Recent literature has demonstrated that the differences in economic outcome can no longer fully be explained by the differences in traditional inputs. There is growing indication that social capital, which as defined by Portes (1998), stands for the ability of actors to secure benefits by virtue of membership in social networks or other social structures, is becoming a critical factor (input) in understanding differences in economic outcome. Following from this, is the need to complement acquisition of human capital and establishment of physical infrastructure with social capital. Though, a number of studies has treated household welfare and social capital separately in Nigeria (Omonona, 2001; Okunmadewa, 2001), studies on empirically establishing the link between social capital and household welfare are scanty in Nigeria with the notable exception of Okunmadewa et al. (2005), which focuses on social capital and poverty in Nigeria. Thus, an empirically determined impact of social capital on household welfare will provide an indication of what policy recommendations are necessary to improve the standard of living of Nigerians.

Furthermore, studies elsewhere (Narayan and Prichett, 1997; Grootaert, 1999) have shown that social capital has greater influence on economic outcome compared with human capital and other forms of capital. It then becomes imperative to contribute to the growing literature on whether

the same result holds for Nigeria (Kwara State in particular). In addition, the qualitative assessment of poverty tagged voices of the poor in Nigeria which fed into the World Development Report of 2000/01 identifies local level institutions as key to sustaining welfare of the poor (World Bank/ DFID, 2000). Following from this, there is a need for quantitative analysis of the effect of social capital on household welfare. This is with the aim of validating the qualitative assertion in the voices of the poor. Thus, the main objective of this study is to understand and isolate the influence of social capital on household welfare in Kwara state.

The rest of this paper is in four sections. Section two provides conceptual framework for the study and a review of related literature. Section three is on the methodology covering sources of data, method of data collection and method of data analysis while section four is devoted to the discussion of empirical findings for the study. The last section concludes the paper.

**Conceptual Framework and Literature Review**

The central idea of social capital is that networks and the associated norms of reciprocity have value. They have value for the people who are in them, and at least, in some instances, demonstrable externalities, so that there are both public and private aspects of social capital. The focus is on the external, or public, returns to social capital, but that is not, at all, inconsistent with the idea that there are also private returns. The same is, no doubt, true of human capital, i.e. there are simultaneously public and private returns.

Social capital represents the degree of social cohesion in communities. It refers to the processes between people that establish networks, norms and social trust, and facilitate coordination and cooperation for mutual benefit [(WHO, 1998) as quoted by HDA, 2004]. Key elements of social capital include:

- Social resources – e.g. informal arrangements between neighbours or within a faith community
- Collective resources – e.g. self-help groups, credit unions, community safety schemes
- Economic resources – e.g. levels of employment; access to green, open spaces
- Cultural resources – e.g. libraries, art centres, local schools.

All these resources are ordinarily valuable but the values are rarely demanded when there is effective social capital in place. People offer the services free of charge in the spirit of altruism because of the prevailing circumstance that they have all subscribed to. Communities where social capital is abundant are often characterised by:

- High levels of trust between friends and neighbours
- Shared norms and values
- Local people engaging in civic and community life.

Social networks can be categorised into three types (Stone and Hughes 2002) as cited by Stone et al. (2003).

★ The first type of social network is "informal ties", which include relationships with members of household, family and family in-law, friends, neighbours, and workmates.
★ The second type is "generalised relationships", which are community based, and "societal" relationships people have with people they do not know personally, including local people, people in general, and people in civic groups.
★ The third type of social network is "institutional relationships", which are the ties individuals have with institutions including the legal system, the police, the media, unions, governments, political parties, universities, and the corporate world.

However, Coleman (1990) opines that social capital can take three forms; firstly obligations and expectations which depend on the trustworthiness of the social environment, secondly the capacity of information to flow through the social structure in order to provide a basis for action and thirdly the presence of norms accompanied by effective sanction. Grootaert (1997) and Collier (1998) also cite sharing of information among association members, the reduction of opportunistic behaviour (which is related to Coleman's sanction), and the facilitation of collective decision making.

Trust has been found to be the most important of the three because information flow and sanctions cannot work alone to ensure that benefits of social capital is reaped by members of an association or a community. Halpern (1999) in his work "making democracy work" opines that areas with low social capital were ruled by the most unsuccessful governments and demonstrated greater inefficiency and corruption. However, areas with high levels of social trust were ruled by successful regional governments. In addition,

Pretty and Word (2001) suggest that trust is reinforced by sanctions which may be applied to those who flout social norms or fail in their social responsibility.

Social capital operates at the macro, meso and micro levels. At the macro level, social capital includes institutions such as government, the rule of law, civil and political liberties etc. There is overwhelming evidence that such macro level social capital has a measurable impact on national economic performance (Knack, 1999). At the micro and meso levels, social capital refers to the networks and norms that govern interactions among individuals, households and communities. Such networks are often given structure through the creation of local associations or local institutions. This study will focus on the micro and meso levels of social capital.

Despite the fact that there are many definitions of social capital, most of them still recognise the importance of positive social networks freedoms.

**Social Capital and Welfare**

Social capital has been found to have major impact on the income and welfare of the poor by improving the outcome of activities that affect them. It improves the efficiency of rural development programmes by increasing agricultural productivity, facilitation, the management of common resources making rural trading more profitable, and improving access of people or households to water, sanitation, credit and education in rural and urban areas. It is a key factor from recovering from ethnic conflict and coping with political transition. Finally, it can reduce poverty through micro and macro channels by affecting the movement of information useful to the poor and by improving growth and income redistribution at the national level (Grootaert and Bastelaer, 2002). Social capital resides in specific natures of social institutions which are networks of social relationships, relationship among social institutions, and culturally legitimate normative values which regulate intra and inter-institutional relationships.

The Nepal Human Development Report by NESAC (1998) states that not all forms of social capital are human development – friendly. It is argued that educational institutions may intensify political, economic and social inequalities by facilitating entry and promotion of already privileged groups. An elected legislature may co-opt regulatory institutions and enhance the level of corruption and that the family institution may institutionalize gender – based and age-based discriminations which impinge on capability formation. In order to forestall the above, the report stresses that social institutions and cultural values should be analyzed and that identification of social capital components should be done in a discriminating manner.

It is also stressed that social institutions are domains of multiple contestations which may arise from contradictions built into networks of relationships which comprise and define such institutions or may arise out of inter-group/inter-institutional contradictions e.g. contradictions between caste/ethnic or gender groups. Such loci of contestation are entry points for identi-fying bottlenecks in the generation of social capital as well as for consciously organized collective actions geared towards generating enhanced social capital. Another way is to conduct mapping of the transformatory process to assist in designing and implementing collective action for providing additional impetus for accumulating social capital and for retarding the process of depreciation of social capital.

The households, kins, neighbours and community and sub-community groups are identified platforms where cooperation exists in a society. Putman (1993) discusses micro-level social capital in which individuals or households relate horizontally guided by associated norms and values to create externalities for the community. The externalities created are not always positive. Coleman (1990) considers relations among groups, rather than individuals, which is characterized by both vertical and horizontal dealings within and among other entities. Vertical associations are said to be characterized by hierarchical relationships and an unequal power distribution among members. An encompassing view of social capital is that of North (1990) who identifies the social and political macro environment that shapes social structure and enables norms to develop. In addition to the largely informal and often local, horizontal and hierarchical relationships of the first two views, North focuses on institutions and argues that such institutions (e.g. the rule of law, political regime e.t.c) have a critical effect on the rate and pattern of economic development.

Forms of social capital through which it exerts

its influence on development are structural social capital and cognitive social capital. The former facilitates information sharing and is characterized by social networks and other social structures supplemented by rules, procedures and precedents. Cognitive social capital refers to shared norms, values, trust, attitudes, and beliefs. Cognitive type is more subjective and intangible while structural is relatively objective and externally observable construct (Uphoff, 2000). The two forms of social capital can be, but are not necessarily complementary.

Social capital links together natural capital, physical capital and human capital. Unlike physical capital, social capital can accumulate as a result of its use and also, social capital has public good characteristics that have direct implications for the optimality of its production level. The common attributes which social capital shares with other forms of capital is that, it is costly to produce (e.g. requires investment in terms of time and effort and at times money) and an accumulated stock from which a stream of benefits flows.

The review shows the importance of social capital in the different facets of human endeavour. However, empirical investigation of the various dimensions of social capital and effects on household welfare has not been given due consideration in Nigeria. This study intends to fill this inherent vacuum by carrying out an empirical analysis of the effects of social capital on household welfare using Kwara state of Nigeria.

## METHODOLOGY

### Area of Study

This study was conducted in Kwara State of Nigeria. The state came into existence on 27th May, 1967 when the country was split into twelve states. Initially the state was called Central West State, but was later changed to "KWARA" a name derived from the local name of the River Niger in some parts of the state. The state which was carved out of the defunct Ilorin and Kabba provinces has its capital, Ilorin, since its creation. Between 1976 and 1991 the state reduced considerably in size. In 1976, part of the state was carved out and merged with part of Benue/Plateau State to form Benue State. In 1991, five local Government Areas were excised to form part of Kogi State while Borgu Local Government Area was merged with Niger State. The capital of the state is Ilorin which is 306km from Lagos and 500km from Abuja. Currently Kwara State has a land area of about 32,500square km. The state has a population of over 1.5 million made up of four main ethnic groups namely, Yoruba, Nupe, Fulani and Baruba. The state shares boundaries with Ekiti, Oyo, Osun, Kogi and Niger states. It also has a long international border with the Republic of Benin along the North Western part of the state in Baruten Local Government Area. There are two main climate seasons, the dry and wet seasons with an intervening cold and dry harmattan period usually experienced from December to January. The natural vegetation consists broadly of rain forest and wooded savannah. The land forms consist of undulating hills, valleys and plains which are traversed by the Niger River and its tributaries. The annual rainfall ranges from 1000 – 1500mm, while maximum average temperature ranges between $30^{o}$C and $35^{0}$C. With this climatic patterns and sizeable expanse of arable and rich fertile soil, the vegetation which is mainly the wooden savannah is well suited for the cultivation of a wide variety of food crops like yam, cassava, maize, beans, rice, sugar cane, fruits, vegetables etc. In Kaima and Baruten Local Government Areas of the state in particular, the climate and vegetation are well suited for the rearing of livestock. The mainstay of the economy is agriculture.

### Sources and Limitations of Data

The data for this study were obtained mainly from primary sources. Data on household level and village level characteristics were collected for the study. The data were collected with the aid of instruments administered to households. The state was stratified into three: rural, semi rural and urban Local Government Areas (LGAs). Out of the sixteen LGAs in the state, six were selected two each from the three sectors respectively. In this wise, Ilorin west and Ilorin east LGAs represent urban sector while Offa and Edu LGAs are selected for the semi rural sector. Moro and Asa LGAs serve as rural sector. These 6 LGAs are spread over the three senatorial districts of the state. Further, they represent the broad spectrum of the language diversity in the state. The final respondents from each of the LGAs were arrived at using the list of all registered associations/ local level institutions sourced from

the State's Ministry of Commerce and Cooperative. Since the envisaged number of households is 325, sampling of households was done using probability proportionate to size of the registered institutions in each LGA. However, one is quite aware that many more institutions may not be registered, but at least the list provides some basis for the sampling. Three communities in each LGA were randomly selected from which households were interviewed using systematic random sampling procedure. In the final analysis, nine out of the 325 households for which data were collected have incomplete information. Hence, data analysis is based on 315 households with complete information. Table 1 indicates the number of sampled households from each sector.

**Table 1: Samples selected across each sector**

| *Sector* | *Local Government area* | *Number of respondents* |
|---|---|---|
| Rural | Moro | 40 |
| | Asa | 43 |
| Semi-Rural | Offa | 60 |
| | Edu | 61 |
| Urban | Ilorin East | 39 |
| | Ilorin West | 62 |
| Total | 6 | 315 |

*Source:* Field Survey, March 2005

***Instruments for Data Collection****:* One instrument was administered to the households. The instrument for household data collection includes the following items:

(i) Consumption expenditure - that is the amount spent on food, clothing and foot wear, housing, energy, education, health care, transport and communication by the household;
(ii) Income - wages and salaries, tips and bonuses, net profit from farm and non-farm enterprises, property income such as land rent, interest and dividend, transfer payments received and other money receipts such as insurance proceeds, lottery etc
(iii) Demographic characteristics of household members;
(iv) Participation in local level institutions; and
(v) Characteristics of the most important local level institutions

## Analytical Techniques

The analytical framework for this study includes descriptive and regression analyses. The descriptive analysis encompasses frequency distribution, mean, median and mode as well as coefficient of variation. In addition, different social capital dimension indices are constructed. The regression analysis attempts to model the determinants of household welfare by relating household expenditure directly to the exogenous asset endowment of the households. The regression analysis is further elaborated upon in the subsequent paragraphs.

## Determinants of Welfare

***Social Capital and Household Welfare:*** This study benefits from the analytical framework earlier applied by Narayan and Prichett (1997), Grootaert (1999), and Okunmadewa et al. (2005). The analytical frame work for the study derives mainly from household utility maximization. In relating social capital to household welfare the customary or conventional model of household economic behaviour under constrained utility maximization relates the level of household expenditure (as money – metric indicator of welfare) directly to the exogenous asset endowments of the household and variables describing the social and economic environment in which the household makes decision. The household welfare is hypothesized to be influenced by the independent variables included in the equation below:

$$\ln E_i = a + bSC_i + gHC_i + dOC_i + \hat{I}X_i + hZ_i + u_i$$

where

$E_i$ = Household expenditure per capita of household i
$SC_i$ = Household endowment of social capital
$HC_i$ = Household endowment of other assets
$X_i$ = a vector of household characteristics
$Z_i$ = a vector of community characteristics
$U_i$ = error term

The key feature of the model is the assumption that social capital is truly "capital" i.e. a stock, which generates a measurable return (flow of income) to the household. Social capital has many "capital features: it requires resources (especially time) to be produced and it is subject to accumulation and destruction.

Much social capital is built during interactions which occur for social, religious, or cultural reasons. The key assumption is that the networks built through these interactions have measurable benefits to the participating individuals, and lead, directly or indirectly, to a higher level of well

being. There is an impact assumption that social capital is embodied in the members of the household. This conforms to the position advocated by Portes (1998), which highlights that, although the source of social capital is the relationship among a group of individuals, the capital itself is an individual asset. This is in contrast to the position of Putnam (1993), who sees social capital as a collective asset. For the purpose of this study, the position by Portes (1998) is adopted. Hence, social capital is viewed as individual household asset.

The $SC_i$ is arrived at through the construction of a multiplicative index of the three social capital dimensions which the literature has always shown to be: density of association, internal heterogeneity and active participation in decision making. The relationship between social capital and welfare is nonetheless positive.

**Variable Definitions**

***(A) Social Capital Variables:*** The social capital variables that were used in the regression analysis include: density of membership, heterogeneity index, meeting attendance index, cash contribution, labour contribution and decision making index. The measurement of each is as described below.

***Density of Membership:*** This is captured by the summation of the total number of associations to which each household belongs. In other words, the membership of associations by individuals in the household is summed up.

***Heterogeneity Index:*** This is an aggregation of the responses of each household to the questions on the diversity of members of the three most important institutions to the households. On each of the three associations, each household answered questions on whether members live in same neighbourhood, are same kin group, same occupation, are of same economic status, are of same religion, same gender, same age group and same occupation. Hence, for each of the factors a yes response is coded 0 while no response is coded 1 A maximum score of 10 for each association represents the highest level of heterogeneity. The scores by the three associations for each household are then divided by the maximum score of 30 to obtain an index. This index is then multiplied by hundred (a zero value represents complete homogeneity while 100 represents complete heterogeneity).

***Meeting Attendance Index:*** This is obtained by summing up the attendance of household members at meetings and relating it to the number of scheduled meetings by the associations they belong to. This value was then multiplied by 100.

***Cash Contribution:*** This was obtained by the summation of the total cash contributed to the various associations which the household belong.

***Labour Contribution:*** This is the number of days that household members belonging to institutions claimed to have worked for their institutions. This represents total number of days worked by household members in a year.

***Decision Making Index:*** This is calculated by summation of the subjective responses of households on their rating in the participation in the decision making of the three most important institutions to them. The responses were averaged across the three groups and multiplied by 100 for each household.

***Aggregate Social Capital Index:*** This was obtained by the multiplication of density of membership, heterogeneity index and decision making index (Following Grootaert 1999). The resultant index is renormalized to maximum value of 100.

(B) The human capital variable was measured by the average years of formal education of all the members of the household.

(C) The household characteristics that were considered are:

- Marital status of household head (D = 1 if married, 0 if otherwise)
- Age of household head in years
- Age of household head square to capture the life cycle of household welfare.
- Primary occupation of household head (D=l if non-farming, 0 if otherwise)

(D) The regional characteristics that are included are;

- Place of residence: Two dummies representing semi-rural and urban residence of the households were specified. The rural household served as the basis. (D=l if non-rural; 0 if otherwise)
- Tribal dummy (D=1 if Yoruba, 0 otherwise)

## RESULTS AND DISCUSSION

Selected Household Characteristics and Dimensions of Social Capital

***Selected Household Characteristics of Respondents:*** Table 2 presents the selected

socio-economic characteristics of the sampled households. Age-wise, most of the respondents are in their economic active age. However, an average urban respondent is about seven years older than his rural counterpart. Most of the respondents are in their 40s in both the semi-rural and urban areas. In all, an average household head in Kwara State is about 44.3 years. The age range is between 20 and 85 years.

The level of educational attainment shows that the respondents have on the average about 8 years of formal education amounting to 6 years of primary education and two years of secondary education. The situation is much better in the urban area which respondents have one more year of education compared with the state average. Conversely, the respondents in the rural area have less year of education. Nonetheless, all the three areas did not meet the minimum prescription of nine years of basic education under the Universal Basic Education Programme of the present administration.

In term of family composition, male and female are almost equally represented in the families across the three zones. Average family size stands at 7 but there seems to be fewer members of households in the rural areas compared with other areas of the state. However, the difference between the households across the zones is not pronounced. Nonetheless, there are households with as many as 18 members in rural households compared with 17 in semi-rural households and 16 in urban households.

Income wise, an average household sampled earns about ₦29, 500.02 with about 30.5 percent attributable to women and children/relatives. Children /relatives living in the household contribute only about 1.9 percent of household income. Across zones, children/relatives in rural areas contribute more (about 3.7 percent) compared with their colleagues in semi-rural area (2.4 percent) and urban area (0.97 percent). Though household income is as high as ₦29, 500.02, on per capita basis, this amounts to ₦4, 184.40 which is just 76.1percent of the state minimum wage of N5, 500 or barely 55.8 percent of the national minimum wage. Rural households earn only about 64.7 percent of average earning of the respondents. On the other hand, households in semi-rural area earn about 1.6 percent while the urban household earns 26.9 percent respectively above the state average.

***Dimensions of Social Capital in Kwara State:*** Table 3 shows the activities of households in local level institutions. Each household belongs to an average of six associations. However, rural households belong to one more association than their semi-rural and urban households. Urban households on the average belong to less number of associations than households in other areas. Each of the household belongs to at least one association.

In term of meeting attendance, it will seem that meetings are most frequent in rural areas occurring on the average, every ten days while it takes longer time for meetings in both urban and

**Table 2: Selected socio-economic characteristics of sampled households**

| *Characteristics* | *Rural* | *Semi Rural* | *Urban* | *All* |
|---|---|---|---|---|
| Age of Household Head (years) | 41.45 | 43.13 | 48.29 | 44.34 |
| Highest educational achievement (years) | 6.88 | 8.3 | 8.744 | 8.07 |
| *Family Composition-* | | | | |
| Male less than or up to 12 years old | 1.25 | 0.89 | 1.10 | 1.05 |
| - Male of 13-19 years old | 0.85 | 0.92 | 0.94 | 0.90 |
| - Male above 19 years | 1.35 | 1.69 | 1.68 | 1.60 |
| Female less than or up to 12 years | 1.31 | 1.09 | 1.04 | 1.14 |
| Female of 13 –19 years old | 0.63 | 0.78 | 0.83 | 0.76 |
| Female above 19 years | 1.41 | 1.70 | 1.64 | 1.61 |
| Total household size | 6.78 | 7.08 | 7.25 | 7.05 |
| *Household Income (N)* | | | | |
| Income of Head of Household | 12865.87 | 19545.15 | 28049.5 | 20512.00 |
| | (29.3) | (34.5) | (32.5) | (29.6) |
| Income of wives | 5598.80 | 10.388.93 | 9129.46 | 8722.94 |
| | (3.7) | (2.4) | (0.9) | (1.9) |
| Income of children/relatives | 710.84 | 725.19 | 257.43 | 571.43 |
| Total income | 19097.17 | 29,972.24 | 37,436.39 | 29500.02 |
| Per Capita Income | 2816.69 | 4233.37 | 5163.64 | 4184.40 |

*Source:* Field Survey, March 2005

**Table 3: Activities of households in local level institution**

| | *Rural* | *Semi Rural* | *Urban* | *All* |
|---|---|---|---|---|
| *Membership of Organization* | | | | |
| Average | 5.87 | 5.50 | 5.23 | 5.51 |
| Minimum | 1 | 1 | 2 | 1 |
| Maximum | 11 | 11 | 10 | 11 |
| Standard deviation | 2.81 | 2.56 | 2.31 | 2.55 |
| *Meeting Attendance* | | | | |
| Maximum meetings/year | 35.04 | 32.58 | 29.62 | 32.27 |
| Meeting attendance/year | 24.95 | 22.80 | 19.94 | 22.44 |
| % Attendance | 68.25 | 66.64 | 64.00 | 66.22 |
| Participation in Decision Making | 59.78 | 56.57 | 56.87 | 57.51 |
| Heterogeneity index | 28.08 | 29.16 | 29.70 | 29.09 |

*Source:* Field Survey, March 2005.

semi-rural areas. Attendance at meetings shows that households attend two out of every three meetings but attendance rate is a bit higher in rural area averaging 68.25 percent. Participation in decision making shows moderate level of activity. The respondents are relatively active in their associations with index of participation averaging 57.5. Respondents in rural areas are more active than their urban and semi-rural counterparts in their involvement in the associations.

The level of heterogeneity as shown in the table indicates low level of diversity of membership of associations across the zones. In general, urban associations are more heterogeneous than their rural and semi-urban counterparts.

***Social Capital and Household Welfare:*** This section presents the impacts of social capital on welfare within the context of the methodology proposed in the analytical framework. Both multiplicative and additive social capital indices are used to determine the impact of social capital on welfare proxied by per capita expenditure of households. The use of both multiplicative and additive social capital is hinged on the fact that to date, literature on conceptual and theoretical underpinnings of social capital has not proved the superiority of one over the other. Grootaert et al (2002), Narayan and Prichett(1997), Grootaert (2001)and Okunmadewa et al (2005) used both approaches and conclude that additive and multiplicative variables are valid approaches for introducing social capital in the household behavioral model.

Table 4 presents the effect of social capital on household welfare. In the first column of the table is the basic model of household welfare behaviour. This model shows that about 41.23 percent of the variations in per capita expenditure of households are explained by the specified human capital and demographic factors. In specific term, large household, being engaged in non-farming activities, residing in semi-urban areas significantly reduce the household welfare. On the other hand, an urban household and a Yoruba household in Kwara state have higher level of welfare compared with a rural household and a non-Yoruba household respectively.

In the second column of the table, the multiplicative social capital variable is introduced. The inclusion of this variable led to slight improvement in the adjusted $R^2$. Along with the demographic variables, aggregate social capital index significantly influences the welfare status of households. At mean social capita index of 20.09, the coefficient of the variables shows that a one unit increase in social capital (i.e. 4.98 percent) would increase household per capita expenditure by 0.15 percent.

The third column of table 4 reveals the inclusion of six additive social capital variables. These are: household memberships in associations, index of participation, heterogeneity index, meeting attendance, cash contribution score and labour contribution score. The square of heterogeneity index is also included to capture the dual purpose of heterogeneous associations. In this respect, heterogeneity of associations can be source of information for improved welfare status as well as being a source of conflict between members of the associations. This new model has a better explanatory power as reflected in the adjusted $R^2$ of 0.4381. This disaggregation shows that the effects of social capital on welfare are traceable to membership of households in associations and active participation in decision making. In line with Grootaert et al (2002), additional membership of households in associations leads to improved welfare. However, active

**Table 4: Social capital and household welfare**

| | *Basic Model* | *With Multiplicative social capital index* | *With additive social capital variables* | *With additive social capital variables*[a] |
|---|---|---|---|---|
| Intercept | 8.5977 (29.69) | 8.4763 (28.91) | 8.0656(15.17) | 8.0762 (15.22) |
| Sex of Household Head | -0.1421 (-1.54) | -0.1370 (1.49) | -0.1743 (-1.92) | -0.1774 (-1.96) |
| Age of Household Head | 0.0120 (0.99) | 0.0150 (1.23) | 0.0173 (1.43) | 0.0170 (1.41) |
| Squared age of Household head | -0.0001 (-0.81) | -0.0013 (-1.04) | -0.0001 (-1.19) | -0.0001 (-1.16) |
| Household size | -0.1129 (-12.88)** | -0.1085 (-12.12)** | -0.0976 (-9.94)** | -0.0981(-10.09)** |
| Occupation | -0.1672 (-1.82) | -0.1772 (1.94) | -0.1624 (-1.74) | -0.1634 (1.75) |
| Years of Education of Household Head | -0.0045 (-1.03) | -0.0050 (1.14) | -0.0049 (-1.16) | -0.0051 (1.18) |
| Semi-rural Dummy | -0.1359 (-1.94) | -0.1501 (-2.15)* | -0.1743 (-2.52) | -0.1738 (-2.51)* |
| Urban Dummy | 0.2997 (4.70) | 0.3070 (4.84)** | *0.3002 (4.75)** | 0.3026 (4.81)** |
| Tribal dummy | **0.2877 (3.93)** | 0.3041 (4.16)** | 0.3174 (4.32)** | 0.3196 (4.37) ** |
| Social capital index | - | 0.0015 (2.18) * | - | - |
| Household memberships in association | - | - | 0.0852 (3.87)** | 0.0843 (3.85)** |
| Index of participation | - | - | -0.0012 (-1.79) | -0.0012 (-1.73) |
| Heterogeneity index | - | - | 0.0227 (0.68) | 0.0226 (0.68) |
| Squared Heterogeneity index | - | - | -0.0004 (-0.66) | -0.0004 (-0.64) |
| Meeting attendance index | - | - | 0.0004 (0.48) | -0.0004 (-0.51) |
| Cash contribution score | - | - | 0.000 (0.46) | -0.0070 (-0.46) |
| Labour contribution score | - | - | -0.0060 (-0.39) | 315 |
| Number of observation | 315 | 315 | 315 | 0.4396 |
| Adjusted $R^2$ | 0.4123 | 0.4194 | 0.4381 | 17.42 |
| F-statistics | 25.47 | 23.68 | 16.30 | |

a. Cash contribution score was removed because of its dependence on income and by extension the per capita expenditure.

participation in decision making actually dampens welfare.

Thus, high level of commitment to associations can reduce household welfare. Membership of household in an additional association will lead to 8.25 percent in household welfare. Conversely, a one unit increase in active participation index, would lead to 0.12 percent decline in welfare. Overall, participating in local level associations will improve the welfare status of households.

In column four of table 4, cash contribution score is removed to guide against endogeneity. This does not appreciably alter the results of the additive social capital. However, the explanatory power of the model improves slightly to 0.4396. The coefficients of the social capital variables slightly decreased while those of the demographic and community variables increased.

## Social capital and Household Welfare: Any Reverse Relationship ?

The main thesis of this study is that social capital is really an input in household's production function. However, it has been argued that social capital like human capital can be in part, consumption good (Grootaert, 1999), Thus, it becomes imperative to validate the assumption of social capital being truly capital. In order to do this, the study tested for the existence of bi-directional causality with the aid of instrumental variable. Using the aggregate social capital model as indicated in table 4, the original social capital index was replaced by an instrumental variable-index of trust. This index was arrived at based on submissions by Narayan and Prichett (1997), Grootaert (2001) and Grootaert et al. (2002). However, as opined by Grootaert et al. (2002), generalized trust not tied to specific known individuals, such as friends, is built over time and is a function of village /community cohesion and norms. Such trust is assumed to be independent of the income level of a specific household. Nonetheless, Putman (2000) recognizes the limitations of the use of trust as an instrument. He notes that rich individuals in the US may have higher propensity to trust. This limitations not withstanding, the analysis provides the basis for determining the direction of causality between social capital and welfare.

The result of the instrumental variable is presented in table 5. Evident from the table is the improvement in the adjusted $R^2$ from 0.4194 to 0.4213 compared with the use of the actual social capital index. Further, the instrumental variable

**Table 5: Social capital: Instrumental variable estimation**

| | *Without instrumental variable (OLS)* | *With instrumental variables (2SLS)* |
|---|---|---|
| Intercept | 8.4763 (28.91) | 8.4569 (22.47) |
| Sex of Household Head | -0.1370 (1.49) | -0.1385 (1.52) |
| Age of Household Head | 0.0150 (1.23) | 0.0151 (1.26) |
| Squared age of Household head | -0.0013 (-1.04) | -0.0013 (-1.04) |
| Household size | -0.1085 (-12.12) ** | -0.1091 (-12.63) ** |
| Occupation | -0.1772 (1.94) | -0.1775 (1.93) |
| Years of Education of Household Head | -0.0050 (1.14) | -0.0051 (1.13) |
| Semi-rural Dummy | -0.1501 (-2.15) * | -0.1512 (-2.18) * |
| Urban Dummy | 0.3070 (4.84) ** | 0.3074 (4.86) ** |
| Tribal dummy | 0.3041 (4.16) ** | 0.3037 (4.12) ** |
| Social capital index | 0.0015 (2.18) * | 0.0016 (2.36) * |
| Number of observation | 315 | 315 |
| Adjusted $R^2$ | 0.4194 | 0.4213 |
| F-statistics | 23.68 | 22.71 |

Figures in parenthesis are t- values ** Significant at 1% and * Significant at 5% respectively
The dependent variable is logarithm of household expenditure.
Source: Computed from field survey data

method leads to higher coefficient (0.0016) for the social capital index than in the OLS method where it was 0.0015. A reverse causality could have been accepted if there is no improvement or reduction in $R^2$ as well as reduction /lack of improvement in the instrumented variable. Since, there is improvement on both counts, one can infer the absence of significant reverse causality and thus confirms the exogeneity of social capital. A one unit increase in the level of instrumented social capital leads to 0.16 percent increase in per capita expenditure of households. This is 0.01 percentage point higher than the value recorded for the OLS estimation.

## CONCLUSION

Against the backdrop of emphasis on community demand driven development using local level institutions (LLIs) and the growing literature on impact of social capital on welfare this study provides empirical evidence for Kwara State. The study is focused on households' memberships in LLIs using primary data from households in Kwara state.

Six measures of social capital were identified. These are density of membership, internal heterogeneity of associations, meeting attendance, payment of membership due, labour contribution and decision making. The study reveals that an average household size of 7 participates in about 6 LLIs. Further, internal heterogeneity indicates low level of diversity in each group while meeting attendance index averaged about 66 percent for all participating members of households. Cash contribution is common to people participating in economic-related, spiritual and environmental related associations.

Using a reduced form model of household welfare which controls for relevant household characteristics, the contribution of social capital to household shows that increasing social capital by one unit will lead to 0.15 percent increase in household expenditure per capita. Educational attainment of households does not impact on household welfare. The disaggregation of social capital into six dimensions reveals that membership of association and level of participation influence the per capita expenditure of households.

The test of reverse causality between social capital and household expenditure with the aid of instrumental variable estimation technique indicates that the direct effect of social capital on welfare outweighs the reverse effect in the explanation of the correlation between the two variables.

The study concludes that social capital has positive influence on welfare and is an important factor in improving the standard of living of members of local institutions.

## ACKNOWLEDGEMENT

[1] The author gratefully acknowledges the funding support of Francis Idachaba Foundation for Research and Scholarship (IFRES), 43 Francis Okediji Street, Bodija, Ibadan, Nigeria.

## REFERENCES


Coleman, J.: *Foundations of Social Theory*. Harvard University Press, Cambridge (1990).

Collier, P.: The political economy of ethnicity. *Paper Presented at Annual Bank Conference on Development Economics April 12-21, 1998.* World Bank, Washington D.C (1998).

Grootaert, C.: Social capital: The missing link? Chapter 6 in *Expanding the Measure of Wealth - Indicators of Environmentally Sustainable Developmen*t. World Bank, Washington D.C (1997).

Grootaert, C.: Social capital, household welfare and poverty in Indonesia. *Local Level Institutions Study, Working Paper No. 6, Social Development Department*, World Bank, Washington D.C (1999).

Grootaert, C.: *Does Social Capital Help the Poor? A Synthesis of Findings from the Local Level Institutions Studies in Bolivia, BurkinaFaso and Indonesia.* Social Development Family, World Bank, Washington D.C. (2001).

Grootaert, C. and Bastelaer, T.: *Understanding and Measuring Social Capital: A Synthesis of Findings and Recommendations from the Social Capital Initiative*. The World Bank Washington, DC and The IRIS Center Department of Economics, University of Maryland University at College Park Maryland USA (2002).

Grootaert C., Oh, G. T. and Swamy, A.: Social Capital, Household Welfare and Poverty in Burkina Faso. *Journal of African Economies*, **11(1):** 4-38 (2002).

Halpern, D.: Social capital: The new golden goose. Faculty of Social and Political Sciences, Cambridge University. *Unpublished Review* (1999).

HDA Briefings of HAD supported task groups. HDA Briefing No. 21, June 2004. http://www.social-action.org.uk/hdaresearch/research.asp (2004).

Knack, S.: Social Capital, growth and poverty: A survey and extensions" social capital initiative *Working Paper, Social Development Department*. World Bank, Washington D.C. (1999).

Narayan, D. and Pritchett, L.: Cents and sociability ~ household income and social capital in rural Tanzania. *Policy Research Working Paper No. 1796*, World Bank, Washington D.C. (1997).

NESAC: Nepal Human Development Report (1998) Kathmandu: Nepal South Asia Centre (1998).

North, D.: *Institutions, Institutional Change, and Economic Performance*. Cambridge University Press, New York (1990)

Okunmadewa, F.Y.: Poverty reduction in Nigeria: A four point agenda. *The House Annual Guest Lecture University of Ibadan*, Ibadan. (2001)

Okunmadewa F.Y., Yusuf S.A. and Omonona B.T.: *Social Capital and Poverty in Nigeria.* Draft Final Report submitted to African Economic Research Consortium (AERC) Kenya (2005).

Omonona B.T.: *Poverty and its correlates among Rural Farming Households in Kogi State, Nigeria*. Unpublished Ph.D Thesis, University of Ibadan, Ibadan (2001).

Portes, A.: Social Capital: Its origins and applications in modern sociology. *Annual Review of Sociology*, **24:** 1-24 (1998).

Pretty, J. N. and Word, H.: What is social capital? *World Development*, **29(2):** 209-229 (2001).

Putnam R.: Bowling alone: The America's declining social capital. *Journal of Democracy*, **6(1):** 65-78 (1993).

Stone, W., Gray, M. and Hughes, J.: Social capital at work: how family, friends and civic ties relate to labour market outcomes. *Australian Institute of Family Studies. Research Paper No. 31*, April 2003 (2003).

Uphoff, N.: Understanding social capital: learning from the analysis and experience of participation. Pp. 215-252. In: *Social Capital: A Multifaceted Perspective.* P. Dasgupta and I. Serageldin (Eds.). The World Bank, Washington D.C. (2000).

World Bank/DFID: *Voice of the Poor.* The World Bank and Department for International Development, Abuja, Nigeria (2000).