

**GENDER DIMENSION OF SOCIAL CAPITAL AND
ITS EFFECTS ON RURAL HOUSEHOLD WELFARE IN
OSUN AND ONDO STATES, NIGERIA**

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ABSTRACT

Social capital is trust and willingness to live by the norms of one's associates. This household welfare asset has the potential to break the poverty cycle. However, there is little evidence on gender sensitivity of the effect of social capital on welfare status in Nigeria. Hence, gender dimension of social capital and its effects on rural household welfare in Osun and Ondo states, Nigeria were investigated.

A multistage random sampling technique was employed for the study. Osun and Ondo states were selected from the six states in Southwestern Nigeria. Eight Local Government Areas (LGAs) were selected from each state. Thereafter, five communities were selected from each LGA. Three hundred and seventy respondents were selected from all the communities based on probability proportionate to size. Data were collected using structured questionnaire on socio-economic characteristics and social capital dimensions; group and network; trust and solidarity; Social Cohesion and Inclusion (SCI); collective action and cooperation; Information and Communication (IC); and Empowerment and Political Action (EPA). Attendance at associations' meetings is the number of times present on monthly basis. The mean per capita household expenditure was used as a proxy for welfare. Data were analysed using descriptive statistics, multiple and Tobit regressions at $p= 0.05$.

Male Headed Households (MHH) constituted 51.3%. Mean age of MHH and Female Headed Households (FHH) was 44.1 ± 2.2 and 42.3 ± 1.2 years respectively. The mean household size was 6.2 ± 2.3 and 5.1 ± 1.4 for MHH and FHH respectively. Average meeting attendance by both sexes was two out of five. Density of membership index in association was 0.30 and 0.34 for MHH and FHH respectively. MHH had 0.73 index of participation while FHH had 0.58. FHH were more involved in IC (0.69) compared with MHH (0.46). The SCI index was 0.47 for MHH and 0.65 for FHH. Male household heads had higher EPA (0.67) compared with FHH (0.21). On the average MHH participated in three of five decision- making and two for FHH. Monthly cash contributions of male and female heads were $\text{₦}895.90 \pm \text{₦}55.37$ and $\text{₦}985.67 \pm \text{₦}72.11$ in 2007 respectively. Monthly average labour contributions for MHH and FHH were 2.4 ± 0.3 and 3.2 ± 0.1 mandays respectively. There was no significant difference between MHH monthly per capita expenditure ($\text{₦}2, 936.67 \pm \text{₦}143.43$) and FHH ($\text{₦}3, 221.82 \pm \text{₦}104.10$). Aggregate social capital enhanced

welfare of MHH and FHH by 0.503 and 0.681 respectively. Meeting attendance reduced welfare for both sexes by 0.258. Participation in decision- making increased welfare of MHH and FHH by 0.714 and 0.812 respectively. Increase in household size reduced welfare for both sexes by 0.782. Increase in age reduced welfare of MHH and FHH by 0.225 and 0.319 respectively. Increase in level of education increased welfare of MHH (0.123) and FHH (0. 913) indicating that female benefit more.

Social capital influenced welfare of female headed households more. Participation in decision- making, and level of education enhanced households' per capita expenditure. Household size, meeting attendance and age negatively affected households' welfare.

Keywords: Social capital, Gender disaggregation, Household welfare.

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Finally, to Him who belongs the heavens and the earth all that they contain, I am grateful to him that made me what I am and still will be, the Almighty God.

CERTIFICATION

I certify that this PhD thesis was carried out by Timothy Olusola AGBOOLA under my supervision in the Department of Agricultural Economics, University of Ibadan, Ibadan, Nigeria.

Professor M.A.Y Rahji

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CHAPTER ONE

1.1 Background to the Study.

Social capital is an important factor in building and maintaining collective action (Krishma and Uphoff, 1998; Pretty and Ward, 2001; Putnam, 1993; Scoones, 1998; Woolcock, 2001). However, analysis of causal relationships between improved welfare and collective action has hitherto centred on the existence and /or creation of appropriate institutional and mutual arrangements (Bromley,1992; Leach et al; 1999). There is an emerging recognition that relations of trust and common values are important to collective action (Pretty and Ward, 2001; Uphoff, 2000 Lyon, 2000). The concept of social capital resources “ from which people draw when pursuing different livelihood strategies requiring coordination and collective action” has received much attention (Scoones, 1998).

Coleman (1998) defines social capital as “a variety of different entities, with two elements in common: they all consist of some aspect of social structure, and they facilitate certain actions of actors – whether personal or corporate actors – within the structure”. According to Putnam (1995) “social capital refers to connections among individuals—social networks and the norms of reciprocity and trustworthiness that arise from them”. Fukuyama (1995) defines social capital in terms of cultural values such as degrees of compassion, altruism, and tolerance. Although an exact meaning remains elusive, these definitions have common elements that point to a solid base for a formal definition.

Towards this end, Woolcock (2001) defines social capital as norms and networks that facilitate collective action. Formation of groups and other forms of civic activity or collective action are at the heart of this definition. In addition, gender relations played a significant role in mediating the translation of economic benefits into the wellbeing of an individual, family and community. In this study, it is argued that the role of gender differences may be of particular importance in understanding the creation of social capital in order to sustain households' welfare.

The gender dimensions and the effects of social capital on rural households have been identified as key factors shaping people`s access to and use of resources that could improve their welfare (Agrawal, 2000; Cleaver, 1998a). However, most discussions of social capital appear to have been almost gender blind (Molyneux,

2002) or even critical towards women's role in the formation and maintenance of social capital (Riddel et al; 2001). As a result, the analysis of gender biases of social capital is a collective action that (re)produces gender discrimination and reinforces male dominated power structures.

This excludes women from participation in decision making. Thus, the hypothesis that gender influences welfare improvement through gender related social capital dimensions, stocks, and usages of social capital requires examination and empirical testing. The classification of social capital as "institutional" based on transactions governed by roles, rules, procedures, and organizations or as "relational" governed by norms, values, attitudes, and beliefs suggests that different strategies are needed for building social capital to support collective action and to improve household welfare. Krishna (2000) indicates that in situations where rules, procedures and organizations are in place to support collective action but mutual trust is low and little value is placed on collaboration, interventions will be needed to build trust and the willingness to work together, and create relational social capital.

This study intends to establish the linkages of social capital dimensions to welfare. This is because the distinction between relational and institutional social capital is highly pertinent to understanding the implications of gender differences. Therefore, the neglect of the gender dimensions of social capital in such linkages might engender to misleading conclusions. Even then, the recognition that social capital as an input in a household's or a nation's production function has major implications for development policy and project design.

This tends to suggest that the acquisition of human capital and the establishment of physical infrastructure need to be complemented with institutional development in order to reap the full benefits of such investments. The promotion of social interaction among poor farmers may need to complement the provision of seeds and fertilizer. While there are many definitions and interpretations of the concept of social capital, there is a growing consensus that it stands for the ability of actors to secure benefits by virtue of membership in social networks or other social structures (Portes, 1998). If one takes a broad view of what is comprised by these other social structures, then social capital is a relevant concept at the micro, meso, and macro levels (Grootaert,1999; Portes, 1998; Woolcock, 1998; Narayan, 1999). 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, 2000). 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, but not necessarily, given structure through the creation of local associations or local institutions. Putnam (1993) focuses primarily on horizontal associations in which members relate to each other on an equal basis, Coleman (1988, 1990) however, argued that social capital can include “vertical” associations as well, characterized by hierarchical relationships and unequal power distribution among members. The analysis in this study is limited to social capital at the micro (individuals, households) and at the meso (community) level. The broader definition which includes both horizontal and vertical associations is utilized in this analysis. The objective of the study is thus to investigate empirically the links between social capital and household welfare in the case of Osun and Ondo states, Nigeria.

Specifically, a multivariate analysis of the role of local institutions as affecting household welfare and poverty is undertaken. The term local institution, local association and local organization are used interchangeably as done in most social science literature (Uphoff, 2000).

1.2 Statement of Problem

The gender dimensions of social capital within the rural households have been identified as key factors shaping people’s access to and use of resources that could improve their welfare (Agrawal, 2000; Cleaver, 1998a). However, most discussions of social capital appear to have been almost gender blind (Molyneux, 2002) or even critical toward women’s role in the formation and maintenance of social capital (Riddell et al; 2001). As a result, the analysis of gender biases of social capital within a collective action regime that (re)produces gender discrimination and reinforces male dominated power structures is of research relevance in the Nigerian context.

One area in which social capital literature is lacking is gender (Kilby 2002). Ethnic and gender dimensions of social capital remain under-recognized (Fox Genshman, 2000). In the literature, social capital is generally conceptualized as

gender blind, paying little attention to gendered intra household issues of power and hierarchy (Norton, 2001; Silvey and Elmhirst, 2003). Silvey and Elmhirst (2003) argued that a more complete picture of social capital, is specifically one that includes attention to the gendered and intergenerational conflict and hierarchies within which social networks are forged. Discussions on the gender aspects of development and environment have their origin in the theories of Women, Environment, and Development (WED). These theories highlight women as having a special relationship with the environment due to their responsibilities to their families and concern for the wellbeing of future generations (Jackson, 1993; Manion, 2002; Martine and Villarreal, 1997).

In this respect, women are seen as a “a transcultural and transhistorical category of humanity with an inherent closeness to nature” (Jackson, 1998). They are thus likely to be the principal managers of the environment at the community level. Despite the case for viewing gender differences and gender relations as influential in local association decisions, gender has been largely absent from efforts made to define social capital (Molyneux, 2002; Riddell et al, 2001). However, several studies have found that men and women may have different kinds and qualities of social capital. This is based on differences in their social networks, values of collaboration, levels of conflict and capacity for conflict management, social cohesion and welfare improvement of their households.

Gender differences in several aspects of social capital have also been identified or hypothesized, but these two strands of analysis in the literature have not been well integrated. Several important and unanswered questions have practical implications for policy and program design. Hence, to what extent do women and men demonstrate differences in household welfare outcomes based on collective action? Do women tend to build and use social capital more readily than men? and if so, is this associated with greater differences in household welfare improvement? The family is the main source of economic and social welfare for its members. It is the first building block in the generation of social capital for the larger society.(Bubolz, 1998; Hogan, 1998).

As a result of differing social networks and correspondingly different levels of access to information, men and women face different economic consequences within the household and/or family. Women are generally poorer than men because they

lack the range of social capital endowments, which male members of their households tend to enjoy (Kabeer, 1990). Men's networks tend to be more formal, since they are more often involved in formal employment. Male networks include more co-workers and few kin than women's network (Moore, 1998). Traditionally, women are responsible for household's welfare and child rearing. As a result, reliance on informal exchange networks is necessary among women and their households so as to share resources, stabilize incomes and reduce risks. This study contributes to the literature by providing evidence of gender disparities in the access and exchange of information in south west Nigeria.

Social networks of impoverished women are found to be important to them to obtain income and other necessities (Narris, 1985). Gender discrimination squanders trust, hinders family relations, restricts social networking and depletes social capital and the capacity of societies to work towards common goals (Picciotto, 1998)

There is considerable debate and controversy over the possibility, desirability and practicability of measuring social capital, yet without a measure of the store of social capital, its characteristics and potential remain unknown (Durlauf 2002b; Falk and Harrison 1998). Measurement attempts are flawed by problems with separating forms, sources and consequences (Adam and Roncevic 2003; Onyx and Bullen 2001; Sobels et al. 2001). An example is trust, which is commonly seen as a component of social capital. Some authors equate trust with social capital (Fukuyama 1995; Fukuyama 1997). Some see trust as a source of social capital (Putnam et al. 1993). Some see it as a form of social capital (Coleman 1988), and some see it as a collective asset resulting from social capital construed as a relational asset (Lin 1999).

Collier (2002) asserts that social capital is difficult, if not impossible to measure directly and that for empirical purposes, the use of proxy indicators is necessary. Social capital has constructs that are inherently abstract. They require subjective interpretation in their translation into operational measures. These are invariably indirect surrogates of their associated constructs (Grootaert et al. 2002; Narayan and Cassidy 2001). Callahan (1996) opines that while it is hard to measure social capital directly, it can be inferred from its powerful effects. The choice of indicators to measure social capital is also guided by the scope of the concept and the breadth of the unit of observation used (Collier 2002). Social capital is such a complex concept that it is not likely to be represented by any single measure or figure.

Aldridge and Halpern *et al* (2002) cautions that some of the empirical evidence on the importance of social capital for economic and social outcomes needs to be treated with caution. This is because of the mis-specification or ambiguity of equations or models used to estimate its impact. Without a rigorous method for measurement it is unclear how the benefits are ascertained and tested. Despite the problems with its definition, operationalization, measurement as well as its metaphorical character, social capital has facilitated a series of very important empirical investigations and theoretical debates. These have stimulated reconsideration of the significance of human relations, networks or organizational forms for the quality of life and of developmental performance.

The following research questions guide the execution of the study. What are the main components of social capital? How do some relevant socio economic variables influence social capital index? To what extent do the components of social capital affect household welfare based on gender? What are the roles of social capital in facilitating access to credit, asset accumulation, collective action and institutional support? How and to what extent have men and women benefited from the social capital build up?

1.3 Objective of the Study

The general objective of this study is to analyze empirically, the gender dimensions of social capital on household welfare in the study area. The specific objectives are to:

- (1) identify the social capital components from which to construct the social capital index;
- (2) ascertain the effects of social capital components on male and female household heads welfare;
- (3) determine the effects of social capital components on asset accumulation;
- (4) examine the influence of social capital components on access to credit, and
- (5) analyse the effects of social capital components on collective action.

1.4 Justification for the Study

Women as primary care givers are seen as playing a critical role in the process of social capital formation. The social capital thus generated is an important means by which women gain access to resources and economic opportunities thereby helping them to find an exit path out of poverty. A gender analysis of the impact of the improved groundnut production technology introduced in Mahanrastra, India during the 1980s led to the conclusion that gender is a key variable in relation to labour activity pattern, time use and crop product utilization and perceptions of needs of new technology development (Kolli and Bantilan, 1997).

Information of this kind provides evidence that gender makes a difference in economic circumstances. The idea that society matters for economic growth is not a novelty in the economic debate. As pointed out by Coleman (1990), the interaction between the organization of a society and its economic performance was once considered the fundamental question of political economy.” Despite its acknowledged importance, this issue has been neglected by the contemporary economic literature. During the last decade and due to spurs coming from the other social disciplines, the recent emergence of indigenous growth theories in economics, we have witnessed a real explosion of the number of studies addressing the social roots of growth. These are often grouped together under the common label of social capital. This has been seen to have gone up.

Scholarly interest in the concept of social capital is motivated essentially by the relationship between the stock of social capital and its relation to effective political institutions, economic development, low crime rates, and reduced incidences of other social problems. Coleman (1998, 1990) and Putnam (1993) argues that social capital is significantly positive on household welfare, economic growth and development. It promotes trust and cooperation among agents which in turn increases socially efficient collective action (L a porta et al; 1997).

Few studies that investigated the causes of social capital did not examine the influence of socio-economic variables on social capital index (Brehm and Ralm, 1997: Alesina and Laferrara, 2000, Glaeser et al; 2000, Charles and Kline, 2002). They did not substantiate their claims empirically or investigate the factors associated with variation in social capital levels. These studies use an array of individual and community-level factors as determinants of social capital. Previous empirical

investigations of the determinants of social capital are based on surveys using qualitative method for data analysis, discussion and results (Putnam, 1995, Brehm and Rahn, 1997, Alesina and La Ferrara, 2000; Glaeser et al; 2002). Moreover, general social surveys which measured trust, civic engagement and association of individual were ambiguous and their results were not clear enough to vividly reveal the policy implications.

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CHAPTER TWO

2.0 THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 Theoretical Framework

Any conceptualization of social capital aims at simplifying the complexity of the social world to assist in the development of an understanding of the structures and processes that affect a variety of outcomes. In the past, many efforts to conceptualize social capital have resulted in over-simplification and therefore questionable operationalization. There are considerable unknowns surrounding the current understanding of social capital theory. Various relationships exist between determinants, structural elements and consequences or manifestations but interactions are largely unknown (Figure1). Anything that has an impact on social interactions can be seen as a determinant and any situation arising because of social interactions can be seen as a manifestation. We know some of the elements in between but have little understanding of the processes. This highlights the importance of establishing a rigorous conceptualization, as the appropriate operationalization of social capital must be based on a rigorous conceptualization.



Figure (1) Complexity between the determinants and consequences of social capital. Adapted: (Claridge, 2004)

The conceptualization designed for the purposes of this study details processes and relationships operating between the determinants of social capital, the structure, or elements of social capital, and the consequences or manifestations of social capital. It

attempts to take into account factors such as causal relationships, specific contexts, externalities, levels, feedback loops and chance (Figure 2).

The literature review has identified a wide range of determinants that have been linked to social capital including history and culture, social structures, family, education, environment, mobility, economics, social class, civil society, consumption, values, networks, associations, political society, institutions, policy, and social norms at various levels. Clearly the factors listed here play an important role in determining the characteristics of the social capital structure however the causal factors and functional relationships are largely unknown. Some studies have focused on some of the factors in-so-much as detailing the social capital of the circumstance, for example, family, trust, or networks, but have not studied factors as determinants of multi level, multi dimensional social capital.

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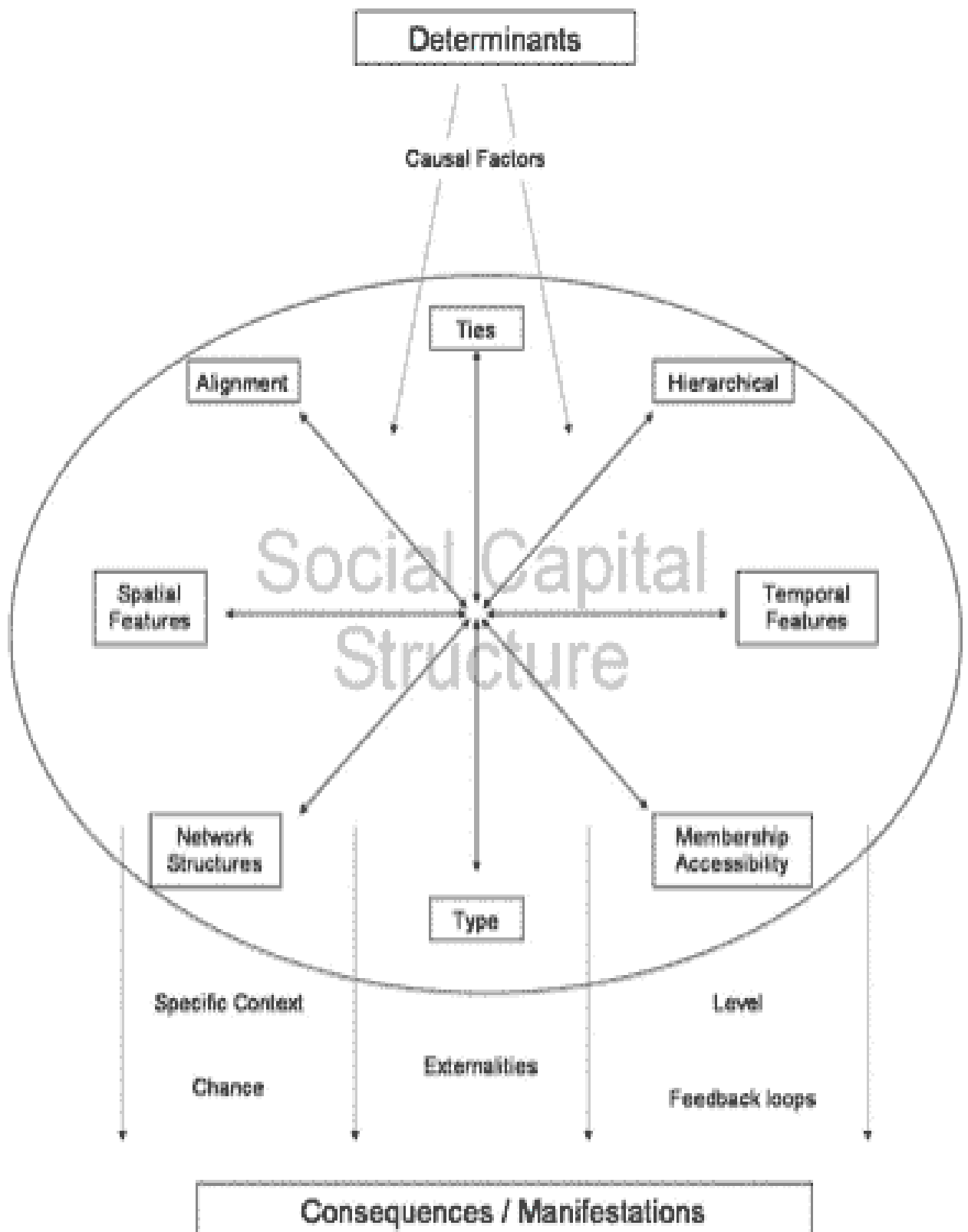
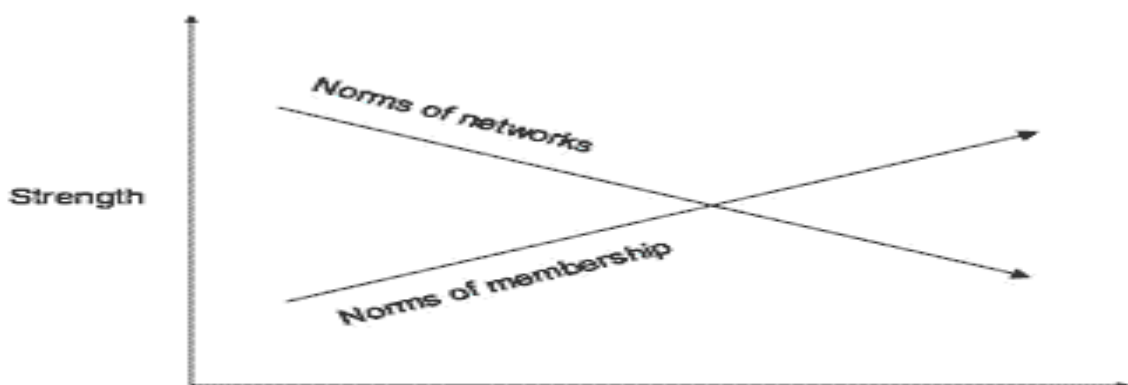


Figure (2). Relationships between determinants, structure and consequences of capital. Adapted: (Claridge, 2004),

Various aspects of social capital structure are identified in Figure (2). These could be referred to as elements, components, forms or factors. Although difficult to identify on paper, this conceptualization should be thought of as three dimensional with the various levels acting as the third dimension (for an example of the application to natural resource management (Figure 3). *Ties* are a fundamental component of social capital that describes the nature of social relationships. This simply put, can be strong or weak. *Hierarchical* refers to the distribution of vertical and horizontal ties. *Temporal features* are identified as a component as time has a considerable impact on other components of social capital.

There is significant change in the nature of social capital over time, particularly with depreciation, reinforcing of ties and other network features. Figure (3) hypothesizes the possible temporal change of different norms over time. Both the norms relate to trust and reciprocity. Norms of networks, associated with ties, are expected to decrease over time with decreased expected future returns. These norms should be separate from norms associated with membership or belonging which may or may not include a social tie. These norms are likely to increase over time as one develops reminiscence and therefore increased strength of norms of trust and reciprocity towards other members whether a network tie existed or not. This diagram is a generalization based on applied theory and does not attempt to illustrate the complexity of social processes as there are likely to be numerous factors affecting the strength of norms over time.



Figure(3); Depreciation of social capital over time without reinforcement while norms of membership and belongings are likely to increase over time. Adapted: (Claridge, 2004),

Membership accessibility (Figure 3) relates to whether there is group exclusion or inclusion. This strongly determines the nature of the externalities. The *type* refers to important distinctions made in the literature between structural and cognitive, and between bonding and bridging social capital. There are many aspects of *network structure* (the study of network theories) that are relevant to social capital structure. The concepts of network closure and structural holes play a significant role in the interaction of ties at the meso and macro levels. As such, *spatial features* interact to determine the nature and impact of social capital structure.

It has been found in previous studies that geographic proximity has a role in the formation of norms of reciprocity and the strength of ties, particularly in relation to the sense of belonging and membership through the opportunity for face to face contact and reinforcement of norms, particularly information flows. Technology has rapidly changed the effect of space and time on social capital networks. Email is increasingly being utilized for communication, which offers cheap and fast connectivity that compresses the space-time continuum. More recently SMS (short message service) is increasing networks of mobility. Both of these technologies have different impact on social capital because of the lack of personal contact of face-to-face interaction. The type of social capital that is produced from this interaction is significantly different from that found in traditional relations (Kavanaugh and Patterson 2001; Meredyth and Ewing 2003; Pruijt 2002; Sullivan et al. 2002; Wellman et al. 2001).

Although there are benefits, this contributes to social isolation, particularly in urban centres of developed countries. Whereas in the past, social networks were commonly based on proximity, they are now based more on work and interest groups. The strength of networks based on proximity has decreased because people know few of their neighbours, particularly in medium to high density areas and where there is high residential mobility. The result is limited opportunity for repeated interaction, which is fundamental to the equilibrium concept for social capital generation.

Alignment has received little attention in the literature but is significant for similar reasons to spatial features. Alignment refers to the interests, beliefs and views of individuals or groups. People may be aligned to groups or communities for various reasons, and this 'membership' results in a range of social capital manifestations.

There is a dynamic relationship between all of the components described above with the other factors identified in Figure 2 under the social capital structure bubble. These factors include, specific context, level, externalities, chance and feedback loops. Just as the determinants are *context specific*, the consequences that result from the social capital structure strongly relate to circumstances that change rapidly over time. For example, only under certain circumstances can social capital be realized; one cannot cash in a favour anytime. Also, the social capital structure operating behind vastly different manifestations, such as collective action and organized crime in most of the developed world, are not necessarily different only the circumstances. The *level* at which social capital is located has pervaded much of the discussions on social capital conceptualization.

This is because different components of social capital operate at different levels. Ties operate at the individual level by their very nature (Figure 2), but aggregates of ties, described by network theory, operate at the meso and macro levels. Meso level studies look at groups, but these groups are still made up of individuals, with ties to other individuals outside the group and to other groups through ties with individuals who are members of other groups and through multiple membership. The complexity of these meso level interactions cannot be effectively graphically represented. Another example is belonging (types) that exists within levels or scales as one feels belonging to family, community, profession, country simultaneously.

Due to the transitory, impermanent nature of social capital, *chance* plays an important role. Chance meetings and chance events both play an important role in the structure of social capital but also in realizing the manifestations of social capital. For example, an individual might meet, by chance, a work colleague away from the workplace. This is likely to transform the weak tie from being associated with the same employer to a strong tie associated with belonging, mutual interest, and so on, and strong norms of reciprocity, thereby transforming the organizational social capital representing changes at both the micro and meso levels. Another chance event may prevent this potential from being realized, for example, if the colleague is away in a time of need.

There is evidence to suggest that there is a series of *feedback loops* that operate within the dynamic relationships between the components of social capital. For example, a community network created to build social capital has initial benefits

in terms of information flows, norms of reciprocity and trust, however, network closure results in norms that restrict behaviour with a high likelihood of negative externalities thereby self-regulating total benefit and potentially returning community networks to pre-project states through loss of membership. The role of determinants should be highlighted as there may be an underlying reason for propensity for network closure and negative ends such as history, geographic scale, religion, family and other social norms. This highlights the fact that an event can be a determinant of social capital; a breach of trust for example.

In this way, the dynamic relationships of social capital structural elements become somewhat self regulatory, fundamentally based on the context specific determinants. This is what could have led Putnam (2001) to state that social capital's roots were buried in centuries of cultural evolution and therefore cannot be built in the short term. The existence of feedback loops is further supported by other authors (for example, Biox and Prosner 1998) who have posited social capital theories as an equilibrium concept, although as equilibrium in terms of expected returns. It would be more appropriate to think of social capital as equilibrium caused by limits and determinants, particularly in terms of beneficial manifestations.

Figure 4 identifies the location of social capital at the micro level. It is important to identify that different outcomes of social capital are evident at different levels. At the micro level the main outcomes relate to norms of reciprocity and information flows. In the diagram (figure 4) it can be seen that neither individual 'owns' the social capital that exists between them. At the meso level, it can be understood that an individual has a level of ownership or control of his or her social capital by choosing ties and membership and therefore sharing his or her social capital. Some authors refer to structure and quality of relationships as these factors are thought to be important in achieving various outcomes. Norms operate at various levels. Norms of reciprocity exist between the individuals, as do social norms that govern behaviour. These same norms operate at other levels simultaneously, both meso and macro.

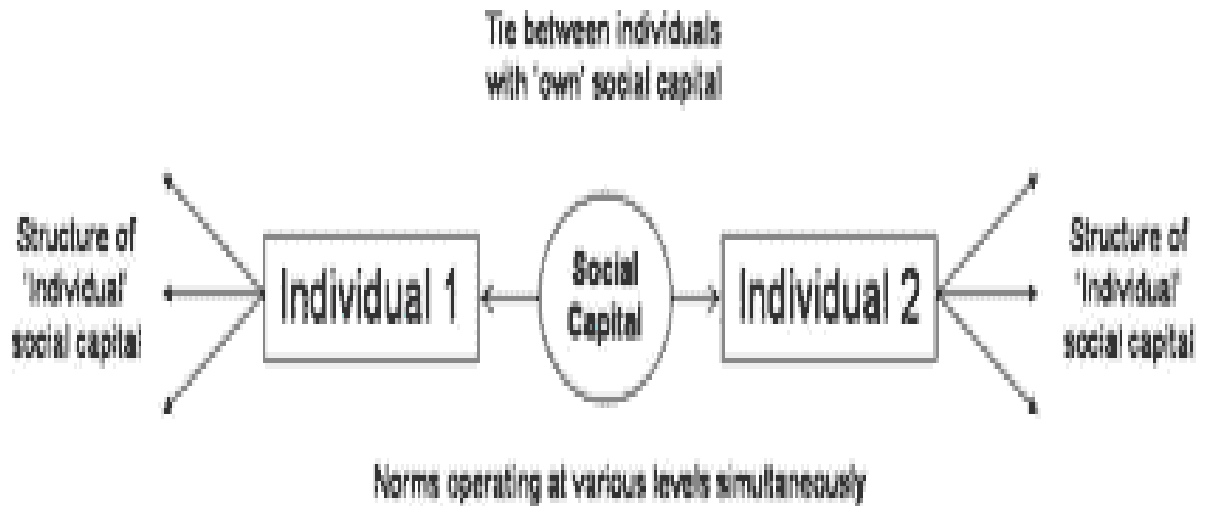


Figure 4 Location of social capital at the individual level within the framework of micro level social capital interactions. Adapted: (Claridge,. 2004),

From this discussion it can be seen that social capital involves complex interactions between its determinants, structure and manifestations. The structure of social capital is marked by dynamic relationships between its components with the roles of chance, feedback loops and externalities that determine the outcomes or manifestations largely unknown. These relationships are further complicated by the level of investigation. Components operate at different levels and there is considerable interaction between components operating at different levels simultaneously. This complexity highlights the inadequacy of the current conceptualization of social capital, particularly for application to measurement and building attempts.

2.2 Social Cohesion and Solidarity

Social Cohesion is one of the terms which are abundantly used without being questioned. Social Cohesion is defined as a society's ability to secure the long term well being of all its members, including equitable access to available resources, respect for human dignity with due regard for diversity, personal and collective autonomy and responsible participation (Council of Europe, 2005) Social Cohesion is largely seen as the responsibility and ability of the state to secure an environment in

which citizens can express themselves, can freely participate in society, enjoy assistance to keep them out of poverty and marginalisation and so on (Council of Europe, 2006).

To measure social cohesion and inclusion, we use statistics like life expectancy figures, and infant mortality rates as indicators, for human well-being and poverty rates and social expenditure figures as indicators for access to available resources and social solidarity. Crime rates and subjective fear of crime are used as indicators to assess the violation of personal dignity and official statistics on voluntary organizations as indicators for participation.

2.3 Social Capital and Trust

The concept of Trust is highly important in conceptualising social capital. Simmel (1950) states that trust is “one of the most important synthetic forces within the society”. Luhmann (1988) connects the notion of trust to the taking of risks because of the complexity of contemporary societies, Levi (1988) defines trust as holding word for a variety of phenomena that enable individuals to take risks in dealing with others, solve collective action problems tract in ways that seem contrary to standard definition of self interest. Hardin 2006 describes trust as the cognitive premise with which individual or collective or corporate actors enter into interaction with other actors, in this framework, trust is fostered by past experiences and the trust’s reputation. It helps to create a vibrant and virtuous community, where people know their neighbours, join together in voluntary associations, give of themselves, and commit themselves to moral codes:

“Virtuous citizens are helpful, respectful, and trustful toward one another, even when they differ on matters of substance” (Putnam, 1993). Trust matters because it is part, perhaps the most essential part, of *social capital* Putnam (1995a) Trust makes for a vibrant community in several ways. It promotes cooperation (Putnam, 1993). It leads people to take active roles in their community, to behave morally, and to compromise. People who trust others aren’t quite so ready to dismiss ideas they disagree with. When they can’t get what they want, they are willing to listen to the other side. Communities with civic activism and moral behaviour, where people give others their due, are more prosperous. Trust can dramatically reduce what economists call transaction costs—costs of negotiation, enforcement, and the like—and makes

possible certain efficient forms of economic organization that otherwise would be encumbered by extensive rules, contracts, litigation, and bureaucracy.

Trust is particularised when we trust those who are most like ourselves or generalised when we take greater risks for a more general form of trust. Only the latter is a form of social capital because you can invest and hope to reap additional income from that initial down-payment. Particularised trust entails little risk, but won't make you--and the wider community--either prosperous or vibrant. Generalized trust flourishes in democracies, while particularized trust is more typical of authoritarian and totalitarian societies. Generalized trust makes people more willing to take part in their communities and to endorse moral commitments. Particularized trust makes people withdraw from civic life.

In totalitarian societies it makes little sense to trust anyone but your family and your closest friends. In authoritarian societies, you might trust a somewhat larger circle. But only in democracies--and not even in all of them--will you give your trust to strangers. Trust works because, like Forster's democracy, it promotes variety and admits criticism. It makes adherents more comfortable with strangers and more willing to put their trust where they might otherwise not tread. Democracies are breeding grounds for generalized trust and social networks. Why? Levi (1996) and Muller and Seligson (1994) argue that living in a democracy makes you more trusting. And that seems right. But Inglehart (1988) maintains that a trusting political culture is more conducive to democracy. And that seems right too. We know that trusting people are more tolerant and acceptant of minority cultures (Uslaner, 1994). The relationship between democracy and social capital appears to be symbiotic. This seems like a chicken-and-egg problem that defies causal ordering. (Van Staveren 2002).

2.4 Dimensions of Social Capital

Social capital theory suffers from much criticism for being poorly defined and conceptualised. This problem largely stems from the fact that social capital is multi dimensional with each dimension contributing to its meaning. However, each dimension alone is not able to capture fully the concept in its entirety (Hean et al; 2003). The main dimensions as found in the literature are : Trust (Coleman, 1988; Collier, 1998; Cox, 1997; Kwachi et al; 1999, Kilpatrick, 2000; Leana and Van

Buren, 1999; Lemmal, 2001; Putnam, 1993: Putnam et al; 1993, Snijders, 1999; Welsh and Pringe, 2001), Rules and Norms governing social action (Coleman, 1998; Collier, 1998; Fukuryama, 2001; Pates and Sensenbrenner, 1993), Types of social interaction (Collier, 1998; Snider, 1999) and Network resources ABS 2002; (Kilpatrick 2000, Snider 1999). In addition to this are other network characteristics or groups dimensions as highlighted by Burt, 1997; Hawa and Shielle, 2000; Kilpatrick, 2000; Putman 1993, 2003. Liu and Besser (2003) identified four dimensions of social capital as informal social ties, formal social ties, trust and norms of collective action.

2.5 Social Capital and Welfare.

Welfare generally refers to socio-economic well-being. This is “correlated with the basic level of economic development, of course, but focuses more specifically on a variety of goods and services believed to be essential for individual and social happiness and security (such as health care, housing, social insurance, other employment-related benefits, and additional forms of social assistance)” (Warnecke 2008). Together, the institutions and policies supporting these types of goods and services form a welfare-state regime.

The welfare state defends and supports the development of social rights, aiming “to make civil rights actually work...removing the barriers that blocked the full and equal exercise of civil and political rights” (Bussemaker and van Kersbergen 1999). Supporting the idea of a welfare state can indicate a willingness to think about prosperity and economic security as community goals (or even community *responsibilities*), not merely individual ones. At the very least, it signifies an acceptance that individuals, even hard-working ones, cannot always make things work out well on their own—that they, too, might need help from the state in order to make ends meet, in order to cope with unforeseen circumstances.

It is widely assumed among development practitioners that social capital plays an important role in reducing material deprivation (traditionally measured by income and consumption levels), vulnerability, powerlessness, and voicelessness. This assumption is often investigated by analyzing the effects of social capital on poverty reduction at the macro (national), meso (regional and community), and micro (household/individual) levels.

2.6 Literature Review

The notion of social capital is said to have first appeared in Lyda Judson Hanifan's discussions of rural school community centres (Hanifan 1916, 1920). He used the term to describe 'those tangible substances that count for most in the daily lives of people'. Hanifan was particularly concerned with the cultivation of good will, fellowship, sympathy and social intercourse among those that 'make up a social unit'. It took some time for the term to come into widespread usage. Contributions from Jane Jacobs (1961) in relation to urban life and neighbourliness, Pierre Bourdieu (1983) with regard to social theory, and then James S. Coleman (1988) in his discussions of the social context of education moved the idea into academic debates. However, it was the work of Putnam (1993; 2000) that launched social capital as a popular focus for research and policy discussion. 'Social capital' has also been picked up by the World Bank as a useful organizing idea. They argue that 'increasing evidence shows that social cohesion is critical for societies to prosper economically and for development to be sustainable' (The World Bank 1999).

One of the most striking developments in social service over the last decades is the rise of interest in social capital as a mechanism for understanding socio-economic phenomena. Social capital has been treated as a key feature of phenomena ranging from the mortality crisis in Russia (Kennedy et al 1998), to political participation (Dispasquale et al 1999) to children's welfare (Putnam 2000) to the development trap (Woolcock 2000) to judicial efficiency (Laporta et al 1997) to the spread of secondary education. Social capital is an elusive concept, for the fact that its definition differs across studies. Potes (1998) developed a strong critique of the social capital literature because of this definitional ambiguity. Sociologists refer to friendship as "Social Capital."

To the academics, the term "capital" is one that speaks to resources that can advance or promote a profit. They talk about physical capital which refers to things like land or machinery. Economic capital might refer to goods, or services that drive an economy. "Human capital" is often thought to be the people needed to do the work to create the goods or services. Social capital, however, pushes the concept beyond its economic roots and suggests the connectedness among and between people. Research is now convincing that the more social capital people have in their lives, the better their lives become. Putnam (1993) reports that the more social capital

people have in their lives the healthier they are, the happier they are and the longer they live. That is right – social capital, or friendship is linked to the 3 highest quality of life indicators known to humankind! That being said, **Bourdieu** defines 'Social capital as the 'the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition' (Bourdieu 1983).

According to Coleman, Social capital is defined by its function. It is not a single entity, but a variety of different entities, having two characteristics in common: they all consist of some aspect of a Social structure, and they facilitate certain actions of individuals who are within the structure' (Coleman 1994). Whereas physical capital refers to physical objects and human capital refers to the properties of individuals, Social capital refers to connections among individuals – capital networks and the norms of reciprocity and trustworthiness that arise from them. In that sense Social capital is closely related to what some have called “civic virtue.” The difference is that “Social capital” calls attention to the fact that civic virtue is most powerful when embedded in a sense network of reciprocal capital relations. A society of many virtuous but isolated individuals is not necessarily rich in Social capital (Putnam 2000).

The World Bank: ' Social capital refers to the institutions, relationships, and norms that shape the quality and quantity of a society's Social interactions... Social capital is not just the sum of the institutions which underpin a society – it is the glue that holds them together' (The World Bank 1999). Fukuyama (1999) captures many of the intuitions that have driven this literature. According to him social capital is defined as an instantiated set of informal values or norms shared among members of a group that permits them to cooperate with one another. And if members of the group come to expect that others will behave reliably and honestly, then they will come to trust one another, and trust acts like a lubricant that makes any group or organization run more efficiently.

Bowles et al (2002) define social capital as trust, concern for one's associates, a willingness to live by the norms of one's community and to punish those who do not. Putnam (2000) refers social capital to connections among individual, social works and the norms of reciprocity and trust worthiness that arises from them.

Bourdieu (1979, 1983), Coleman (1988; 1990; 1994) and Putnam (1993; 1995; 2000), in an attempt to define social capital described it as *intrinsically relational*, with attendant *emotional and perceptual consequences*, and as being open to useful exploration through the *metaphor of capital*.

What is central to Bourdieu, Coleman and Putnam's attempts at definition is the clear location of social capital as belonging to and existing within the relational bonds of human society. This is its *socialness*, the 'durable network of, relationships the 'social structure' or 'social networks' . *Socialness* is the medium in which social capital operates, strengthens or diminishes.. The metaphors may vary, but social capital can only exist within a pattern of relationships. Such relational structures may vary in duration, density, distance and interconnectedness, but social capital is intrinsic to the relational network.

A second feature of social capital common to Bourdieu, Coleman and Putnam is that the relational behaviours have emotional and perceptual consequences. This is the oxygen of social capital, providing either a potentially rich environment for growth and change, or a limiting context. Through investment in certain forms of behaviour and their products, social capital is sustained and nourished. The 'unceasing effort of sociability' (Bourdieu, 1983), the 'general level of trustworthiness' (Coleman, 1994), the operation of 'norms, trust and reciprocity' (Putnam, 2000:), all speak to the domain of interpersonal conduct.

A third defining feature of social capital shared by Bourdieu, Coleman and Putnam is expressed in the symbolism of capital as an economic metaphor. Social capital is a form of power, a currency, a *resource*: it can be utilised, traded, exchanged, drawn upon, invested, cashed in. Social capital is a form of energy, a force; it is a capacity, a facility that can be deployed and activated towards some desired goal.

Social capital 'may serve as currency' (Bourdieu, 1977), it can 'facilitate certain actions' (Coleman, 1988), and it can be used to 'pursue shared objectives' (Putnam, 1996): social capital is a purposeful means toward other ends.

Baron, et al (2000) emphasise five elements which could have direct relevance as a method for creating institutions such as secondary schools that are socially and network rich. First, the notion of social capital shifts the focus of analysis from the individual to the patterns of relations which exist within an institution, and is capable of dealing with the complex ambiguities of cooperation and conflict that characterise such a community. Second, it offers a way of examining the links between micro-, meso- and macrolevels of analysis in an area that has struggled with the interrelationship between the individual, small groups and the large organisation in education. This becomes an issue where schools with declining roles are amalgamated to ensure a wide and balanced curriculum. Third, social capital could promote multi-disciplinarity and inter-disciplinarity in organisations noted for insularity, within secondary subject disciplines for example. A Curriculum for Excellence (Scottish Executive, 2004b) is posited on cross-curricular themes and cross-institutional movement of staff and such a marked shift in working practice demands a new way of thinking about the social processes of both teaching and learning. Fourth, developing social capital as a concept within schools could reinsert issues of value into the heart of the discourse, with terms such as trust, networks, norms and reciprocity gaining both theoretical and practical emphasis. Lastly, there is social capital's heuristic ability to open up avenues for exploration of complex, multidimensional issues. By applying notions of social capital to institutions such as mainstream secondary schools, the features which both facilitate and inhibit the collaborative working promoted by much educational literature and policy could be re-examined with a view to improving the secondary experience for many children, particularly those who are marginalised.

Social capital does not have a clear, undisputed meaning, for substantive and ideological reasons (Dolfsma and Dannreuther 2003; Foley and Edwards 1997). For this reason there is no set and commonly agreed upon definition of social capital and the particular definition adopted by a study will depend on the discipline and level of investigation (Robison et al. 2002). Not surprisingly considering the different frameworks for looking at social capital there is considerable disagreement and even contradiction in the definitions of social capital (Adler and Kwon 2002).

Because of the difficulties in defining social capital, authors tend to discuss the concept, its intellectual origin, its diversity of applications and some of its unresolved issues before adopting a school of thought and adding their own definition (Adam and Roncevic 2003). It has been suggested that a cross disciplinary definition would be less important if scholars were to redefine and appreciate other discipline's definitions (SCIG 2000). SCIG (2000) further identified that all studies must discuss social capital in relation to the particular discipline, study level and context and that a set definition for such is not required, only an identification of operationalization or conceptualization (SCIG 2000).

Other authors have identified that definitions vary depending on whether they focus on the substance, the sources, or the effects of social capital (Adler and Kwon 2002; Field et al. 2000; Robison et al. 2002). Grootaert and Van Bastelaer (2002b) supported this view identifying that the main cause of variance in definitions is caused by focusing on the form, source or consequence of social capital. Social capital is multidimensional and must be conceptualized as such to have any explanatory value (Eastis 1998). Some authors see social capital as an economic term and do not adequately take account of its multi - dimensional and multi - disciplinary nature, for example Day (2002).

Social capital is about the value of social networks, bonding similar people and bridging between diverse people, with norms of reciprocity (Dekker and Uslaner 2001; Uslaner 2001). Sander (2002) states that 'the folk wisdom that more people get their jobs from whom they know, rather than what they know, turns out to be true'. Adler and Kwon (2002) identifies that the core intuition guiding social capital research is that the goodwill that others have toward us is a valuable resource. As such they define social capital as 'the goodwill available to individuals or groups. Its source lies in the structure and content of the actor's social relations.

Its effects flow from the information, influence, and solidarity it makes available to the actor' (Adler and Kwon 2002). Dekker and Uslaner (2001) posit that social capital is fundamentally about how people interact with each other. There is now a range of evidence that communities with a good 'stock' of such ' Social capital' are more likely to benefit from lower crime figures, better health, higher educational achievement, and better economic growth (Halpern 2009b). However, there can also be a significant downside. Groups and organizations with high Social capital have the

means (and sometimes the motive) to work to exclude and subordinate others. Furthermore, the experience of living in close knit communities can be stultifying - especially to those who feel they are 'different' in some important way.

With respect to social networks, a number of researchers have found that women often depend more on informal relations and so form stronger kinship and friendship relations than men, who tend to rely more on formal relationship (Agrawal, 2000; Molyneux, 2002; More, 1990; Ridell *et al*, 2001). Molinas (1998) finds that successful collective action is dependent on the degree of women's participation. This is consistent with the argument that women exhibit more cooperative behaviour than men due to greater interdependence and altruism (Folbre, 1994; Sharma, 1980; White, 1992). However, Jackson (1993) emphasizes that the assumption of women's greater altruism is evidence of a common failure to scrutinize the private interest of women adequately. Women cannot be seen as a uniform category but a diverse group of people who vary according to class and culture. They also vary according to resource endowments and decision-making power both between and within households. Gender relations have been identified as important determinants of the capacity for collective action for household welfare (Grooteart, 2007).

In a system where women are confined to their homes, not much community level social capital is expected to be built. The better a society treats its women, the greater the social harmony and the higher their economic productivity (Picciotto, 1998).

Development programs are often criticized for failing to account for gender inequalities in decision-making, task allocation, resource ownership and management, which has implications for policy recommendations (Quisumbing 2003). Gender inequalities almost always favour men, with women often being disadvantaged both in the control over household assets (Fafchamps and Quisumbing 2003) and in the division of responsibilities in the household/ community. Even when a woman heads the household and is in charge of household resources, gender differences emerge across female-headed households and their male-headed counterparts. Significant heterogeneity among female-headed households has also been highlighted in the literature implying differential provision of resources and their use in rural settings (Peters 1983). Women and men also have different resource endowments when pursuing livelihood strategies, which could have far-reaching consequences on social capital formation and information exchange. To build and maintain a social network

is costly in terms of both time and other resources (Dasgupta 2005), imposing a barrier to social capital accumulation (Ioannides and Loury 2004).

Women typically have a high opportunity cost of time that reduces their incentives to participate in certain social networks (Meinzen-Dick and Zwarteveen 2003). Women have been found to join groups that mobilize fewer resources than men because they are resource-constrained (Maluccio et al 2003). Gender norms in the community may also exclude women from social capital enhancing activities, such as drinking clubs. Meinzen-Dick and Zwarteveen (2003) demonstrate how barriers faced by women in their participation in water management user groups in South Asia may stimulate use of alternative forms of social capital such as a network of friends and relatives.

Different social networks may provide different or unequal services to their members that could exacerbate women's disadvantages in development. If women and men have different types and qualities of social capital, they may participate differently in information exchange. Men may be inclined to acquire and provide more information to their social network (i.e. pooling of information) than women. Women are often more dependent on informal networks based on everyday forms of collaboration, such as collecting water, fetching fuel wood and rearing children. These services, together with the fact that women have a high opportunity cost of time, may motivate women to form networks with individuals who are geographically close to reduce the length of time required to travel for social interaction. In contrast, men may be engaged in more geographically dispersed social networks, such as community projects, and may participate more in civic engagement and such participation provides them with greater access to information and stimulates information exchange with others (Maluccio et al. 2003).

Research documenting the role of social capital on information flows in developing economies has been growing. Limited attention has been given to gender aspects that may influence both social learning processes and accumulation of social capital. Emerging empirical evidence provides support for the role of gender in information exchange through different, gender-related stocks of information and usage of social capital (Maluccio et al. 2003). In many rural areas, where small-scale agriculture takes place, gender differences have been found to have a significant impact on resource allocation and productivity in agriculture (Alderman et al. 2003).

2.7 Forms of Social Capital

Attempts to more thoroughly conceptualize social capital have resulted in many authors identifying different types and characteristics, the most common being the distinction of structural and cognitive, and bonding and bridging. Although not always called the same thing, the distinction between bridging and bonding (and often linking as well) is common in the literature. Aldridge, Halpern *et al* (2002) identify these main types of social capital. Bonding is horizontal, among equals within a community whereas bridging is vertical between communities (Dolfsma and Dannreuther 2003; Narayan 2002; Narayan and Pritchett 1999). Wallis (1998) and Wallis and Crocker *et al* (1998) refer to bonding capital as localized which they define as being found among people who live in the same or adjacent communities, and bridging capital, which extends to individuals and organizations that are more removed. Bridging social capital is closely related to thin trust, as opposed to the bonding (splitting) social capital of thick trust (Anheier and Kendal 2002).

The other important distinction of social capital, developed by Norman Uphoff and Wijayaratra (2000) spans the range from structural manifestations of social capital to cognitive ones (Grootaert and Van Bastelaer 2002a). Structural social capital facilitates mutually beneficial collective action through established roles and social networks supplemented by rules, procedures and precedents (Hitt et al. 2002). Cognitive social capital, which includes shared norms, values, attitudes, and beliefs, predisposes people towards mutually beneficial collective action (Krishna and Uphoff 2002; Uphoff 1999). Cognitive and structural forms of social capital are commonly connected and mutually reinforcing (Uphoff and Wijayaratra 2000).

Michael Woolcock, has helpfully argued that many of the key contributions prior to *Bowling Alone* have failed to make a proper distinction between different types of Social capital. He distinguished between: *Bonding* Social capital which denotes ties between people in similar situations, such as immediate family, close friends and neighbours. *Bridging* Social capital, which encompasses more distant ties of like persons, such as loose friendships and workmates. *Linking* Social capital, which reaches out to unlike people in dissimilar situations, such as those who are entirely outside of the community, thus enabling members to leverage a far wider range of resources than are available in the community. (Woolcock 2001)

There are numerous other examples in the literature; for example, whether its ties are strong (intensive and repeated) or weak (temporary and contingent); vertical (operating through formal hierarchical structures) or horizontal (in which authority is more decentralized); open (civically engaged and exercising open membership) or closed (protective and exercising closed membership); geographically dispersed or circumscribed; and instrumental (membership as social collateral for individual wants) or principled (membership as bounded solidarity) (Heffron 2000). These varieties of types of social capital require further exploration to establish a widely agreed upon framework, vital for empirical analysis (Van Deth 2003).

2.8 Importance of Social Capital

The importance of social capital theory is apparent from the literature with many empirical studies that purport to show the importance of social capital to a very wide-ranging set of socioeconomic phenomena (Durlauf 2002a; Krishna 2001). Adam and Roncevic (2003) state that:

'despite problems with its definition as well as its operationalization, and despite its (almost) metaphorical character, social capital has facilitated a series of very important empirical investigations and theoretical debates which have stimulated reconsideration of the significance of human relations, of networks, of organizational forms for the quality of life and of developmental performance'. Existing studies have provided ample evidence of its pervasiveness and offered useful impressions of its political, economic and social influence (Fine 2001; Jack and Jordan (1999).

Montgomery (2000) suggests that the importance of social capital lies in that it brings together several important sociological concepts such as social support, integration and social cohesion. This view is supported by Rothstein (2003) who states that the real strength of social capital theory is the combination of macro-sociological historical structures with micro-level causal mechanisms, a rare feature in the social sciences. The literature recognizes social capital as important to the efficient functioning of modern economies, and stable liberal democracy (Fukuyama 2001; Kenworthy 1997), as an important base for cooperation across sector and power differences, and an important product of such cooperation (Brown and Ashman 1996), and Lyon (2000) described the importance of social capital in shaping regional development patterns.

It is clear that social capital is of importance in societal well-being. Some aspects of the concept, such as inter-personal trust, are clearly desirable in themselves while other aspects are more instrumental (Bankston and Zhou 2002). Optimism, satisfaction with life, perceptions of government institutions and political involvement all stem from the fundamental dimensions of social capital (Narayan and Cassidy 2001). Social capital is charged with a range of potential beneficial effects including: facilitation of higher levels of, and growth in, gross domestic product (GDP); facilitation of more efficient functioning of labour markets; lower levels of crime; and improvements in the effectiveness of institutions of government (Aldridge et al. 2002; Halpern 2001; Kawachi et al. 1999b; Putnam et al. 1993).

Social capital is an important variable in educational attainment (Aldridge et al. 2002; Israel et al. 2001), public health (Coulthard et al. 2001; Subramanian et al. 2003), community governance, and economic problems (Bowles and Gintis 2002), and is also an important element in production (Day 2002). Economic and business performance at both the national and sub-national level is also affected by social capital (Aldridge et al. 2002). Others have emphasized the importance of social capital for problem solving and how only certain types of social capital contribute to this (Boyte, 1995; Sirianni & Friedland, 1997). In addition, social capital has the following significance:

It allows citizens to resolve collective problems more easily... People often might be better off if they cooperate, with each doing her share. ...

Social capital greases the wheels that allow communities to advance smoothly. Where people are trusting and trustworthy, and where they are subject to repeated interactions with fellow citizens, everyday business and social transactions are less costly

It improves people's lot by widening their awareness of the many ways in which their fate are linked. When people lack connection to others, they are unable to test the veracity of their own views, whether in the give or take of casual conversation or in more formal deliberation. Without such an opportunity, people are more likely to be swayed by their worse impulses.

- The networks that constitute Social capital also serve as conduits for the flow of helpful information that facilitates achieving people's goals.... Social capital also operates through psychological and biological processes to improve

individual's lives. ... Community connectedness is not just about warm fuzzy tales of civic triumph. In measurable and well-documented ways, Social capital makes an enormous difference to human lives, Putnam (2000). Child development is powerfully shaped by social capital. Trust, networks, and norms of reciprocity within a child's family, school, peer group, and larger community have far reaching effects on their opportunities and choices, educational achievement, and hence on their behaviour and development.

- In high social-capital areas public spaces are cleaner, people are friendlier, and the streets are safer. Traditional neighbourhood "risk factors" such as high poverty and residential mobility are not as significant as most people assume. Places have higher crime rates in large part because people don't participate in community organizations, don't supervise younger people, and aren't linked through networks of friends. Those communities with 'collective efficacy' - the confidence to intervene born of higher rates of social capital - are characterized by lower crime rates Sampson et.al(2005).
- A growing body of research suggests that where trust and social networks flourish, individuals, firms, neighbourhoods, and even nations prosper economically. Social capital can help to mitigate the insidious effects of socioeconomic disadvantage. The growing presence of non-profit organizations in some areas is one aspect of this (Sampson *et. al.* 2005). Another is the quality of the networks in the 'underground economy of the urban poor' (Venkatesh 2006), Smith (2000, 2001, 2007, 2009).
- There appears to be a strong relationship between the possession of social capital and better health. Regular club attendance, volunteering, entertaining, or church attendance is the happiness equivalent of getting a college degree or more than doubling your income. Civic connections rival marriage and affluence as predictors of life happiness, Wilkinson and Pickett (2009) Haidt (2006), Offer (2006).

The World Bank (1999) has also brought together a range of statistics to make the case for the social and economic benefits of social capital. For example they argue that there is evidence that schools are more effective when parents and local citizens are actively involved. 'Teachers are more committed, students achieve higher test

scores, and better use is made of school facilities in those communities where parents and citizens take an active interest in children's educational well-being'.

2.9 Channels of Social Capital

Any form of social capital, material or non-material represents an asset or a class of asset that produces a stream of benefits. The stream of benefits from social capital or the channels through which it affects development includes several related elements, such as information sharing, collective action and decision-making as well as reduction of opportunistic behaviour. Participation by individuals in social networks increases the availability of information and lower its cost. The information, especially if it relates to such things as crop prices, location of new markets, sources of credit, or how to deal with livestock disease, can play a critical role in increasing the returns from agriculture and trading.

Participation in local networks and attitudes of mutual trust makes it easier for any group to reach collective decision and implement collective action. Social capital is seen in the contest of its contributions it makes to sustain development. Sustainable development refers to a process whereby future generations receive as much or more capital per capita as the current generation has available (Serageldin, 1996). Traditionally, this include natural capital, physical or produced capital and human capital the wealth of nations on which economic development and growth are based.. It is now recognized that these three types of capital determine only partially the process of economic growth because they overlook the way in which the economic actors interact and organize themselves to generate growth and development. The missing link is social capital (Grootaert 1997).

2.10 Attributes of Social Capital

At this broad level conceptualisation, there is little disagreement about the relevance of social capital and some academicians have questioned the use of the word capital to capture the essence of social interactions and attitudes. Indeed, social capital exhibits a number of characteristics that distinguish it from other types of capital.

1. Unlike physical capital, but like human capital, social capital can accumulate as a result of its use, so, social capital is both an input into and output of collective actions.

2. Although, every form of capital has a potential productive impact in a typical Robinson Crusoe economy. Social capital does not, creating and activating social capital requires at least two people i.e it has public good characteristics that have direct implications for the optimality of its production level.
3. It is not costless to produce as it requires an investment, at least in terms of time and efforts if not always money that can be significant. Putnam (2003) shows in his analysis of civic associations in Italy that embodied social capital can take generations to build and to come fully effective. And as many of examples of civil conflict around the world can testify, trust is more easily destroyed than built. Thus, there is a distinct maintenance expense to social capital, usually in the form of time.

The key attribute of social capital is that it is an accumulated stock from which a stream of benefits flows. On the input side, the additional dimension lies in the investment required to create a lasting asset; on the output side, it lies in the resulting ability to generate a stream of benefits. Social capital can directly enhance output and lead to higher productivity of other resources, such as human and physical capital.

2.11 Production of social capital

Mainstream economists have criticized the concept of social capital because it lacks a conceptual or analytical framework (Sobel, 2002). Social capital is usually considered to be a community-level attribute. Given their presumption that behaviour is based upon individual choice, economists are reluctant to accept this characterization, especially when the focus is on the causes or sources of social capital. While some behaviour of individuals may be forced upon them by the community, to economists it is reasonable to characterize social capital as a collective manifestation of behaviours, attitudes, and values of individual members of a community. Becker's (1965, 1974) work on household allocation of time and theory of social interactions provides a theoretical basis for economic analysis of the formation of social capital.

The following formulation is a theory of individual decision-making in which the production of social capital reflects a conscious decision to invest in building social relations that have a direct implication for the level of individual utility. As such, we provide a means to embed social capital theory within the broad traditions of

economic analysis. Although some aspects of individual behaviour may be imposed by the community, it is possible to characterize a large portion of social capital as a collective manifestation of individual behaviours, attitudes, and values of individual members of a community. Individuals choose how much social capital to produce and their choice depends upon both the opportunity cost of allocating time and resources to the production of social capital and the marginal benefits associated with additional units of social capital.

This framework has been used in various studies of allocation of time among market and non-market economic activities, including the economics of religious participation (Azzi and Ehrenberg, 1975). Since individuals' participation in associational activities and other social and political activities requires the allocation of time and other resources, it is logical to use this framework in the present context. We employ this framework in this paper as a basis for analyzing variations in social capital activities such as associational densities, voting in elections, and participation in the decennial census. We assume without loss of generality that the population size of the observational unit considered here, the county, is normalized to one.

The representative household of county i is assumed to have the following quasi-concave utility function:

$$U_i \equiv U(C_i, SK_i) \text{ where } i = 1, \dots, n \text{-----} (1)$$

where C_i is composite consumption and SK_i denotes social capital. Becker (1965) argues that households utilize time and market goods to produce more basic goods that enter their utility function. Each argument in the utility function in Eq. (1) can be represented as a household production function that determines how much of these commodities can be produced using market and non-market goods (x), quantities of a household's own time (t), and characteristics of one's own (E) as well as other households (R) (Becker, 1965, 1974).

This formulation assumes that households are both producers and utility maximizing consumers. The production functions are assumed to be concave and continuously differentiable. To simplify, we assume that composite consumption is of the form:

$$C = C(x_C, t_C) = f_C \text{-----} (2)$$

where x_C denotes market goods and t_C denotes allocation of time by household i for production of C . The time allocated to produce composite consumption and social capital is different from the time that is allocated to work (to earn wages). The

implicit assumption here is that time allocated to household production (producing composite consumption and social capital) also has an opportunity cost: time not spent producing these goods could have been used in other productive activities. The production of social capital is a function of the household's personal social capital goods (xS), the household's allocation of time to producing this particular good (tS), the household's own characteristics (Ei), and the characteristics of other households (Rj) in the community. Personal social capital goods in our case may include non-market activities, such as, membership in associations, voting in elections, and participation in the decennial census. The time variable indicates that participation in these various personal social capital activities requires time. Production of social capital goods also depends on personal characteristics of households and characteristics of the communities in which they live. We abstract from the possibility that participation in personal social capital goods may also require market goods such as food and transportation.

$$SK = SK(xS, tS, Ei, Rj) = fS, \text{ and } i = j. \text{-----} (3)$$

The usual utility maximization problem may be written as

$$U = U(Ci, Si) = U(fC, fS) = U(C(xC, tC), SK(xS, tS, Ei, Rj)), \text{-----} (4)$$

subject to a budget constraint. Let px be the price of market good (xC), pS the price of non-market social capital goods and wi the household's wage rate. The prices of social capital goods may entail expenses such as membership association fees and charitable contributions. These prices also depend upon the type and nature of associations. For example, participation in community based voluntary associations likely is less costly than participation in rent-seeking associations such as business, professional, and political organizations. Wage income is assumed to be the only source of income available to the household, which faces a budget constraint

$$pxxC + pSxS = wi t, \text{-----} (5)$$

where t is household's hours of work. Ignoring leisure as a use of time, the time constraint for the household is

$$T = tC + tS + tI, \text{ and } tC, tS, tI \geq 0 \text{ for all } t, \text{-----} (6)$$

where T denotes total time available per period. The household's utility maximization problem can then be re-written as

$$L = U(C(xC, tC), SK(xS, tS, Ei, Rj)) + \lambda [wi(T - tC - tS) - (pxxC + pSxS)] \text{-----} (7)$$

It follows from the first-order conditions (FOC) that the two choice variables, x^C and x^S , are “separable” in the sense that one can be solved independently of the other. This separability of the x^C and x^S choices allows us to focus on the production of social capital goods. The FOC for production of social capital goods is:

$$(U_{SK}(\cdot))$$

$$\lambda = pS \text{-----} (8)$$

The household chooses an optimal level of social capital (x^s) to maximize total utility. Although the FOC in Eq. (8) assumes an interior solution, it is possible that $x^s = 0$. The condition that x^s is strictly positive may be characterized by the inequality that net marginal utility of the social capital good exceeds its marginal opportunity cost:

$$(U_{S}(\cdot))$$

$$\lambda - pS > 0 \text{-----} (9)$$

Eq. (9) provides the basis for our empirical analysis. The FOC for individual social capital goods provide the stipulation that the household participates in associational activities if the perceived marginal utility from these activities minus the opportunity cost is positive. This may be expressed as

$$Y^* =$$

$$(U_{S}(\cdot))$$

$$\lambda - pS > 0 \text{-----} (10)$$

The observable elements in this expression are the household’s wage rate and, as is usually the case in empirical work, additional exogenous variables such as socio-economic, demographic, and community attributes, which condition the household’s participation. These factors are incorporated into a model of county-level social capital activities in the US. They are captured in the vector of explanatory variables, X , and expressed in the regression relationship

$$Y^*i = \beta xi + \mu i, \text{-----} (11)$$

where μ is an error term.

2.12 Determinants of Social capital

The determinants are numerous and varied and there is both a lack of consensus and a lack of evidence to support the propositions. Several influential studies have suggested that Social capital's roots are buried in centuries of

cultural evolution (Fukuyama 1995; Putnam et al. 1993). Other investigators suggest that Social capital can be created in the short term to support political and economic development (Brown and Ashman 1996; Fox 1994; Tandler and Freedheim 1994). Aldridge, Halpern et al (2002) suggest that the main determinants of Social capital include: history and culture; whether Social structures are flat or hierarchical; the family; education; the built environment; residential mobility; economic inequalities and Social class; the strength and characteristics of civil society; and patterns of individual consumption and personal values.

Pantoja (1999) identifies a different set again, including: family and kinship connections; wider Social networks of associational life covers the full range of formal and informal horizontal arrangements; networks; political society; institutional and policy framework which includes the formal rules and norms that regulate public life; and Social norms and values. The majority of these claims originate in applied theory and stem from much work done on other concepts such as network analysis, civic society, cultural studies, education, psychology, and many others. Even where empirical research has been performed, the findings have questionable validity.

2.13 Measuring social capital

Another shortcoming of the social capital concept has been the lack of consensus on how it can be measured, largely due to the complexity of the concept. Researchers have used counts of associations or associational memberships, on the one hand, and survey data on levels of trust and civic engagement, on the other. Researchers have also drawn on a number of data sources, including the National Opinion Research Council's General Social Survey and the University of Michigan's World Values Survey. These surveys ask questions about individuals' associational membership, attitudes about trust, and political participation. Glaeser et al. (2000) raise questions about the reliability of survey data measuring social capital. In a laboratory setting they found that subjects who reported that they are trusting did not cooperate in a standard trust game.

A general criticism of survey methods is that survey responses vary according to the manner in which questions are phrased, and who is asking them. Among other measures, researchers have also used crime rates, voter turnout, volunteering, car-pooling and charitable-giving as measures of social capital. These measures have been

used with varying degrees of success, but we contend that a single measure that captures completely a concept with complex and multiple dimensions, such as social capital, may not exist. We are not aware of any other study that attempts to identify at the county-level the determinants of social capital production in as comprehensive a manner as we have done here. Our approach to dealing with measurement issue follows from the argument that one form of social capital manifests itself in individuals through their participation in associational activities. Researchers have argued that social capital is enhanced when people belong to voluntary groups and organizations.

In particular, Putnam (1993) maintains that participation in political and social activities and collective organizations is the primary means of civic engagement, and credits the economic success of northern Italy, relative to that of southern Italy, to it's the latter's rich organizational participation. He claims that individuals' participation in social and political organizations "instill(s) in their members habits of economic cooperation, solidarity, and public spiritedness" (Putnam, 1993). From an economist's point of view, cooperation and information sharing are facilitated when individuals have the opportunity to interact within organizations. Such activities facilitate information-sharing through repeated interactions and these interactions promote reciprocity. People who belong to such groups tend to trust others who belong to the same group, and they are therefore more likely to cooperate.

Activities and strengths of civic organizations can be measured by their membership numbers, the number of organizations per capita, or the frequency of meetings. We argue that differences in these numbers provide one of the best indicators of cross-sectional differences in social capital. We use primary data covering the entire study area in Osun and Ondo states to compile an extensive and comprehensive set of variables representing membership organizations at the household to community level. Associations such as civic groups, religious organizations, sports clubs, labour unions, political and business organizations directly enable community interaction.

Our measure of principal interest is the number of the following establishments in each county: (a) civic organizations; (b) bowling centers; (c) golf clubs; (d) fitness centers; (e) sports organizations; (f) religious organizations; (g) political organizations; (h) labor organizations; (i) business organizations; and (j)

professional organizations. Alesina and La Ferrara (2000). We also differentiate among associations following Knack and Keefer (1997), by dividing the above organizations into “Olson-type” (O-Groups) and “Putnam-type” groups (P-Groups): groups (a–f) are “P-Groups” that are not rent-seeking, but which involve social interaction that promotes trust and cooperation. Groups (g–j) are “O-Groups,” or rent-seeking organizations. Knack and Keefer (1997) argue that in the case of rent-seeking activity there is a financial incentive to form and join associations because they are a mechanism for transferring income or wealth from other parts of society to members. For example, farmers join various cooperative societies and farmers groups such as All Farmers Association of Nigeria AFAN because they are instrumental in persuading the government to provide farm program payments. For P-groups the potentially higher level of return from membership may lead to individuals to be willing to invest additional time and perhaps other resources such as dues, contributions, or labour. Clearly such outlays can be seen as a form of investment in the expectation that future levels of utility will be higher than might otherwise be the case.

2.14 Social Capital and Asset Accumulation

An asset is generally defined as ‘a stock of financial, human, natural or social resources that can be acquired, developed, improved and transferred across generations. It generates flows of consumption, as well as additional stock’ (Ford 2004). In the current poverty-related development debates, the concept of assets or capital endowments includes both tangible and intangible assets, with capital assets of the poor commonly identified as natural, physical, social, financial and human capital. Physical capital (also known as produced or man-made capital) comprises the stock of plant, equipment, infrastructure and other productive resources owned by individuals, the business sector or the country itself.

Financial capital: The financial resources available to people (savings, supplies of credit). Human capital includes investments in education, health, and the nutrition of individuals. Labour is a critical asset linked to investments in human capital; health status determines people’s capacity to work, and skill and education determine the returns from their labour.

Social capital, an intangible asset, is defined as the rules, norms, obligations, reciprocity, and trust embedded in social relations, social structures, and societies’

institutional arrangements, which enable its members to achieve their individual and community objectives. Social capital is embedded in social institutions at the micro-institutional level-communities and households-as well as referring to the rules and regulations governing formalised institutions in the market- place, the political system, and civil society.

Natural capital includes the stocks of environmentally provided assets such as soil, atmosphere, forests, minerals, water and wetlands. In rural communities land is a critical productive asset for the poor; while in urban areas land for shelter is also a critical productive asset (Bebbington 1999; Carney, 1998; Moser 1998; Narayan 1997; Portes 1998; Putnam 1993).

Social capital has assisted households to accumulate the physical capital associated with building their house, acquiring land titles and in-filling their plots with earth. Moser (2005) reports that Spaniards over time incrementally up-graded their house, replacing bamboo walls with cement blocks and earth or wooden floors with cement to consolidate the value of their asset. She shows that from 1978 to 1992 housing grew the fastest of all assets, saying this is the first critical asset households seek to accumulate. However, she shows that the rates were in reverse order from 1992 to 2004. According to her, once housing is established, parents made tradeoffs between their own consumption and their children's human capital, in terms of investing in their education as a longer term strategy for poverty reduction.

Livelihood: A livelihood comprises the capabilities, assets and activities required for a means of living. A livelihood is identified as sustainable when it can cope with and recover from stresses and shocks and maintain or enhance capabilities and assets both now and in the future, while not undermining the natural resource base' (Carney 1998, 1; DFID 2000).

Social Protection: This has been very broadly defined as 'longer-term policies that aim to protect and promote economic and social security or well-being of the poor. Social protection policies are designed to confer benefits at both the household and societal level that provide a buffer against short term shocks, and also enhance the capacity of households to accumulate assets and improve their well-being so that they are better protected in times of hardship' (Cook, Kabeer and Suwannarat, 2005). A narrower interpretation by the World Bank's Social Risk Management framework consists of public interventions 'to assist individuals, households and communities in

better managing income risks' (Holtzmann and Jorgensen 1999) by 'preventing, mitigating and coping with risks and shocks (World Bank 2000). Interventions include a range from 'public, private and voluntary organizations and informal networks to support communities, households and individuals in their efforts to prevent, manage and overcome risks and vulnerabilities' (Barrientos and DeJong 2004).

2.15 Social Capital and Community participation.

Social Capital has contributed immensely to the theories exploring the realities and experiences of family and work life Bookman (2004). While expressing the need to appreciate what constitutes community participation, especially the role of women, she draws attention to the informal connections formed to help with family care - and which do not register with many social capital commentators.

New forms of "social capital" - just as important as money in the bank - are developing among working families in both urban and suburban environments. These new relationships are binding people together and reshaping communities in a literal and social sense. (Bookman 2004).

Bookman charts the ways in which working families reach out to each other and to community-based programmes to address the issues they face - especially around caring for children and relatives. In addition she draws attention to the impact of what she describes as the 'stalled gender revolution' - and the extent to which women are still expected to shoulder disproportionate responsibilities for care, community engagement and domestic functioning.

2.16 Gender Dimensions and Social Capital.

The growing feminist literature on the social capital debate has shared the criticism of the naïve equation of social networks as promoting growth as well as reducing poverty and vulnerability Portes and Landolt (2000). Various authors have highlighted a gender dimension in the exclusion from social networks. Babar (2006) finds that women tend to outnumber men in organisations formed around community-based disaster management; the situation is reversed in more formalised emergency planning. There, women are not only excluded from decision-making bodies, but also from the text of any significant decisions regarding disaster response (Babar, 2006). Agrawal (2000) while investigating gender dimensions of social networks in natural

resources management, reports similar results. Even where rules for Community Forestry Groups (CFGs) are not restricting women's entry, especially gender norms and gender-differentiated access to resources becomes an effective barrier to women's participation. She highlights the implications on distributional equity, amongst others. Whereas, for example, cash benefits from CFGs are commonly accessed by the predominantly male group members who represent their households, they are seldom shared equitably within the family. On the other hand, since the main responsibility for firewood and fodder collection, animal care, cooking etc. falls on women, they also shoulder the burden of finding alternative resources when access to the forest is limited. Mayoux (2001) therefore warns that although households may be important sources of social capital, there is also a need to address the norms which regulate relations within them.

Babar (2006) also narrates the experience of the El Niño in a Peruvian fishing village. The warnings regarding the upcoming El Niño that is commonly associated with thunderstorms and flooding had only reached men, but not women who are in charge of household's budget management in the region. The exclusion from male networks of information severely constrained households' ability to recover from the natural disaster as women did not allocate savings as financial buffers (Babar, 2006). Agrawal (2000) points out that such exclusion from male-centered information flows can prove particularly acute in regions of high male out migration. Silvey and Elmhirst (2003) describe kin-based networks amongst female labour migrants in Indonesia that prevent them from accessing potentially more powerful associations, such as trade unions, that would enable them to support their interests. Weaker female networks can also be a result of the fewer economic resources that women can typically mobilise. In case of business or political favours, valuable contacts typically operate through male in-groups, implying that women are usually excluded from networks that bring economic advantage (Molyneux, 2002). Dannecker (2005) describes networks of male migrants' from Bangladesh that not only exclude female compatriots but also appear to strategically improve their own position in the global labour market through transformation of the gender order in Bangladesh. This is undertaken through demands to install the cultural ideal of '*purdah*', that is, the segregation of sexes, which hampers women's access to paid employment and their

(transnational) mobility. If existent, women's ties to more influential networks are often only indirect through their relationships with men (Silvey and Elmhirst, 2003).

2.17 Gender and Involvement in Politics

The family is the main institution of patriarchy (Kate Millet, 1970), which is an important concept in explaining gender inequality. Literarily, it means "the rule of the father"; more broadly, it refers to a society ruled and dominated by men over women. This is inherent in most African families. Giving men a higher social status over females has crept into public life, which reflects in state activities. The family plays an important role in maintaining this patriarchal order across generations. The socialization of children to expect and accept different roles in life has created a social mechanism for the development of values that engender the several forms of discrimination against the female sex.

The greatest psychological weapon available to man is the length of time they have enjoyed dominance over women, who have taken it for granted especially in the area of politics that often continue to stereotype women and justify their subordination.

Virility deficiency – women's conception of politics: Some consensus has been of the belief that Nigerian politics is based on high political virility – those who have all it takes to compete in the turbulent environment; those who possess the wherewithal to take it by force when force is required; those that can march violence with violence. This consensus belief that men possess the superior strength, competitiveness, are self reliant and are prepared to tussle in political endeavour, whereas women are considered too passive to engage in politics and governance. This consensus is also constructed by societal norms and values, which through socialization has defined different gender roles according to biological differences. Women's perception of politics as a dirty game and continued fright at the thought of violence has further alienated them from mainstream politics.

While severally, emphasis is laid on women's numerical strength, translating such into the attainment of power has been difficult as women are perceived as "supporters club, team of cheerers and clappers" in contrast to their male counterparts. Women politicians seek offices on the premise of being different; most believe they

must do what men are doing to succeed. And the meekness of women is not to their advantage in political tussle.

Lack of economic and financial incentives: Women's historical experience of discrimination puts them at a disadvantage economically. Political campaigns are expensive and require solid financial backing for success. Over the years, sexual division of labour and job opportunities offered on sex basis has given men productive gender roles, enabling them to possess more purchasing power over their female counterparts. As an implication, the Nigerian labour market has about 75% of labour being supplied by men. This economic disparity favours men to the disadvantage of women. Only few women that are affluent possess the economic power to bankroll political campaigns. Societal value assumes that political activities are masculine and this makes it worse as financiers and sponsors of politicians prefer male candidates over female ones, since they believe they stand a better chance. Most success achieved by women in politics has been through women movements that sponsor women political aspirations financially and otherwise. Women dependence on men financially made manifest through wife's dependence on their husbands in families reveals the extent of financial incapacitation of women in Nigerian politics. As a result, women political aspirations have been grossly hampered by lack of financial bedrock to subsist their endeavour.

Discriminatory customs and laws: The customary practices of many contemporary societies are biased by subjugating women to men and undermining their self-esteem. The overall impact of gender bias, cultural norms and practices has entrenched a feeling of inferiority in women and place them at a disadvantage vis-à-vis their male counterpart in the socio-political scene even in urban centres.

These socially constructed norms and stereotype roles make women overplay their 'femininity' by accepting that they are 'weaker sexes', overemphasizing the dainty nature of their sex and regarding exceptional achievement as masculine. For example, most customs often prefer sending the male child to school over the female, who is expected to nurture siblings and to be married off. This marginally increases the illiterate women and stiffens their competition with their male counterparts in politics.

Lack of affirmative action quota: Affirmative Action is usually a measure intended to supplement non-discrimination; it is a broad term encompassing a host of policies that seek to support weak groups in society. They include policies where deliberate action is used to stop discrimination. A policy process of this kind allows for rules that have the objective of enhancing equal opportunity for individuals and the improvement, in the situation of marginalized groups. In 1979, the United Nations General Assembly adopted the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). This convention has variously been described as the “Bible of women empowerment” and “Women’s International Bill of Rights.” Since its adoption it has become a reference point for the women’s movement in the demand for gender equality.

The Convention “reflects the depth of the exclusion and restriction practised against women solely on the basis of their sex by calling for equal rights for women, regardless of their marital status in all fields – political, economic, social, cultural and civil. It calls for national legislations to ban discrimination, recommends temporary special measures to speed equality in fact between men and women” (UNESCO, 1999:6). The Convention provides that: Adoption by States Parties of temporary special measures aimed at accelerating de facto equality between men and women shall not be considered discrimination as defined in the present Convention, but shall in no way entail as a consequence the maintenance of unequal or separate standards; these measures shall be discontinued when the objectives of equality of opportunity and treatment have been achieved..

The 1999 Constitution made provision somewhat similar affirmative action to supplement non-discrimination of contending parties. The Constitution provides that: “the composition of the government of the federation or any of its agencies and the conduct of its affairs shall be carried out in such a manner as to reflect the federal character of Nigeria and the need to promote national unity, and also command loyalty, thereby ensuring that there shall be no predominance of persons from a few states or from a few ethnic or other sectional groups in that Government or any of its agencies.” It is not the use of Affirmative Action that seems to be the problem but the practical effects and its linkage to fundamental ideas of fairness and justice. By the same token there can hardly be a stronger argument for gender based affirmative

action than equal representation in a country where women who constitute about half of the population have been continuously sidelined in public life to the extent that they have never held more than 15% of both appointive and elective offices (See Table 1 for statistics of elected positions). However, the Constitution was not explicit in ensuring equal representation on sexual bases. Unlike the constitutions of some African countries, notably South Africa and Uganda, the Constitution of the Federal Republic of Nigeria takes no cognizance of the disadvantaged position of women and has no provision for gender equality. Apart from the general reference to non discrimination on the basis of sex etc, there is nothing in the constitution that is aimed at redressing the disparities that exist along gender lines in Nigeria. On the other hand, the Federal Character Principle, which is meant to ensure equitable representation of states and ethnic groups in national appointments, actually places women at additional disadvantage by implying that they can only represent their states of origin (Afri. J. Pol. Sci. Int. Relat).

Table 1 Comparison of women representation in 2003 and 2007 general elections.

S/No	Position	No of available seats	No of Women elected	% in 2003	No of Women elected in 2007	% Total in 2007
1	Presidency	1	0	0	0	0
2	Senate	109	3	2.27	9	8.26
3	House of Representatives	360	21	5.83	25	6.98
4	Governorship	36	0	0	0	0
5	State House of Assembly	990	38	3.84	54	5.45

Source: Gender Audit and IPU PARLINE database (2003 and 2008).

Where culture does not permit a woman to represent her place of birth, she loses a golden opportunity. There have been many cases where a woman's state of origin disallows her appointment and the husband's state also refuses to endorse her. In many of these instances the government plays safe by appointing a man instead. And this has continued to consolidate women's under-representation in national politics.

Other factors

- i. Inadequate knowledge of written and unwritten rules protecting women's political rights.
- ii. Religious Doctrine: Some religious doctrines militate against the active participation of women in politics and position of authority. As Millet puts it: "patriarchy has God on its side" that is, Christianity portrays Eve as an after thought produced from Adam's spare rib. Islamic doctrines strictly bar women from some political endeavour – public speaking etc. – that can facilitate their political ambitions. In recent times, however, there have been a number of

movements to the commitment, both to the personal and social change of women in their status in public life.

Through series of women enlightenment, emancipation and conscious raising of groups on women movement, women subordination in politics have been reduced to an extent. Women through several of these platforms have played influential roles and this has further spurred more women in to politics.

2.18 Social capital and Social inclusion

Social exclusion is described in a shorthand term for what happens when people or areas suffer from a combination of linked problems such as unemployment, poor skills, low incomes, unfair discrimination, poor housing, high crime, bad health and family breakdown.

It is important to understand that social exclusion is not the same as poverty. It is often caused by poverty but there are people living above the poverty line who can be socially excluded, for example frail older people. The term social exclusion seeks to capture the less tangible aspects that is associated with being poor, such as low morale, isolation from social or spiritual networks or cultural resources.

For example it can be difficult for young people to secure housing because of;

- The pace of modern life,
- family members scattering,
- people relocating.

A cohesive community is one where:

- there is a common vision and a sense of belonging for all communities
- the diversity of people's different backgrounds and circumstances are appreciated and positively valued
- those from different backgrounds have similar life opportunities
- strong and positive relationships are being developed between people from different backgrounds in the workplace, in schools and within neighborhoods.

2.19 Social Capital and Social Cohesion

The Council of Europe has made an attempt to put forward a benchmark definition. It defines 'social cohesion' of a modern society as "society's ability to secure the long-term well-being of all its members, including equitable access to available resources, respect for human dignity with due regard for diversity, personal and collective autonomy and responsible participation" (Council of Europe, 2005,). First of all, the Council stresses that social cohesion is about abilities and capacities of certain societies. Second, the definition reveals that social cohesion is also multidimensional. The states' abilities, as described above, need to be used for the protection of a wide range of basic individual rights, namely (1) the well-being of all its members, (2) equal access to resources just like labour market but, implicitly, also to more extended civil, political and social rights, (3) respect for human dignity and (4) the importance of participation in society. Thus, 'social cohesion' in this respect seems to be a process which is influenced, to a large extent, by governmental policies and leads to some basic rights for citizens of the European Union.

The Council stresses that "social cohesion is not a 'nostalgic' concept hankering after a 'lost social harmony', but a highly topical one that encompasses key aspects of political strategy for a modern society based on the recognition of rights," the Council rather seems to opt for a more communitarian view on social cohesion by seeing it as the responsibility and ability of the state to secure an environment in which citizens can express themselves, can freely participate in society, enjoy assistance to keep them out of poverty and marginalization, and so on.

Jenson (1998) mentions five dimensions in the concept of social cohesion to include belonging/isolation which means that "a cohesive society is one in which citizens 'share values'". The second, dimension, inclusion/exclusion refers to the fact that high cohesive societies are characterized by equal access to economic institutions. Third, along the participation/non-involvement dimension, it is possible to distinguish high cohesive societies from low ones on the basis of the involvement of the population on the local level with respect to democratic practices. According to the fourth dimension, recognition/rejection, high cohesive societies are the ones in which diversity is recognized. Fifth, the legitimacy/ illegitimacy dimension refers to the fact

that a society cannot be cohesive if the institutions miss a sufficient level of legitimacy. A couple of years later, Kearns and Forrest (2000) described social cohesion in urban societies and arrive as well to five dimensions. (1) Common values and a civic culture; in accordance with Jenson, a society which somewhat holds on to the same common values and is committed to the political system is rather a cohesive one. (2) Social order and social control; in a cohesive society, there are mechanisms that retain social order and social order, other and more subtle means than coercion and repression; (3) Social solidarity and reductions in wealth disparities; in a high cohesive society, there are forms of social solidarities and formal and informal institutions that reduce large inequalities. (4) Social networks and social capital; in this respect, high cohesive societies are societies with lots of interactions. (5) Territorial belonging and identity; strong adherence to a certain territory facilitates living together because of the application of common rules and the strive for a prosperous society.

CHAPTER THREE

Research Methodology

3.1 Study Area.

The study was conducted in Osun and Ondo states, Nigeria. Osun state is one of the twelve pilot states for the Community Based Poverty Reduction Agency programme by the World Bank and Federal Government of Nigeria (NPC, 2000; FOS 2000). It also has a relatively well organized Agricultural Development Programme ADP coupled with a large number of co operative societies and other formal and informal associations (World Bank, 2000). The state has a tropical type of climate marked by a distinct dry (November – March) and wet (April - October) season. Its average temperature is 30⁰C while relative humidity could be as high as 95 percent.

Osun State has thirty Local Government Areas (LGAs) and Modakeke- Ife area office. It covers an area of approximately 14,875 square kilometres and lies between longitude 0400E and latitude 05558 N. It has a population of 3.4 million (NPC,2006) and falls in the humidity forest / derived savannah zone with elevation of between 200m to 1000m above sea level. It shares borders with Kwara state in the North, Ondo in the South, Ekiti in the East and Oyo/ Ogun in the West. The indigenes are Yorubas and are composed of the Oyos, Ifes, Ijeshas and Ibolos. Traditionally, the people engage in Agriculture and are into food crops such as cassava, yam, rice, plantain, banana, sweet potatoes, and vegetables while cash crops such as cocoa, kola nuts, oil palm and citrus are produced in large quantities. Other occupations of the people include hand- weaving, mat-weaving, tie and dying, wood- carving, drumming and drum- making among others.

Ondo State is one of the oil producing states in Nigeria and one of the richest states in the south west with relatively high number of cooperative societies (NEEDS,2006, Ondo State, 2003). It has a land area of 14,769km² with a population of 3.44102 million people (NPC, 2006) and consists of eighteen local government areas. Geographically, Ondo is located between longitude 4.30⁰E and 6.00⁰E of the Greenwich and Latitude 5⁰ 45¹ and 8⁰ 15¹ of the equator. Kwara, Kogi and Ekiti states bound the state to the North. Edo and Delta states to the East: Ogun and Osun states to the West and the Atlantic Ocean to the South. Osun and Ondo states have the same climatic conditions, although in recent times, minor alterations are noticeable in rainfall regimes due to global climate change. Ondo state is blessed with

a moderate year temperature of around 25⁰ C. Annual Rainfall varies from 2000mm in the southern part to 1,150mm in the northern extremes (Ondo – State, 2003). The major tribes are the Akures, Akokos, Owos, Ondos and the Ilajes. The people engage in Agriculture and are into food crops such as cassava, yam, rice, plantain, banana, and vegetables while cash crops such as cocoa, kola nuts, oil palm and citrus are also produced in large quantities. Other occupations of the people include fishing, hand weaving and mat weaving among others.

3.2 Method of data collection

Both primary and secondary data are utilized in this study. Primary data were collected by means of well – structured questionnaire and personal interviews. The study employed multistage sampling techniques. The first stage involved the purposive selection of Osun and Ondo states from the six States that make up the south west. The choice was based on the fact that they have the highest number of cooperative societies as well as organised professional and local associations (NEEDS, 2006). Osun and Ondo states have three senatorial districts each. Two of these districts were purposively selected in each state based on the number of registered cooperatives. (SEEDS, 2006) In Osun state, these are Osun central and Osun East while in Ondo state; they are Ondo central and Ondo north. This constitutes the first stage of data collection. Four Local Government Areas LGAs each were randomly selected from the ten local government areas of Osun Central and the ten LGAs of Osun East for a total of eight. Four LGAs each were also randomly selected from the six Ondo central and the six LGAs of Ondo North. In all, the selection of 16 LGAs from the 38 LGAs in the two states formed the second stage. The third stage was the random selection of five communities each from the selected LGAs.

Finally, from Osun Central, 90 respondents were randomly selected and 100s respondents were selected from Osun East, thereby making a total of 190 respondents from Osun State. Also, 90 respondents were randomly selected from Ondo central and another 90 from Ondo north. In all, 180 respondents were sampled from Ondo State. However, of the 190 respondents from Osun state, only 160 gave consistent responses. Also in Ondo state, only 160 out of the 180 respondents gave correct responses. In all, a total of 320 responses were analysed in this study. The remaining

50 respondents were excluded due to inconsistencies in their responses. This study measures social capital at the local government level, using households, to enable it compare the results with those obtained previously in the state level analyses. The work of Putnam (1993) which shows that associational activities enable communities to solve collective action problems by promoting cooperation will be adjusted to solve and modify productive resources problem in the study area. A more general household-level social capital index would be formulated using several measures including associational densities.

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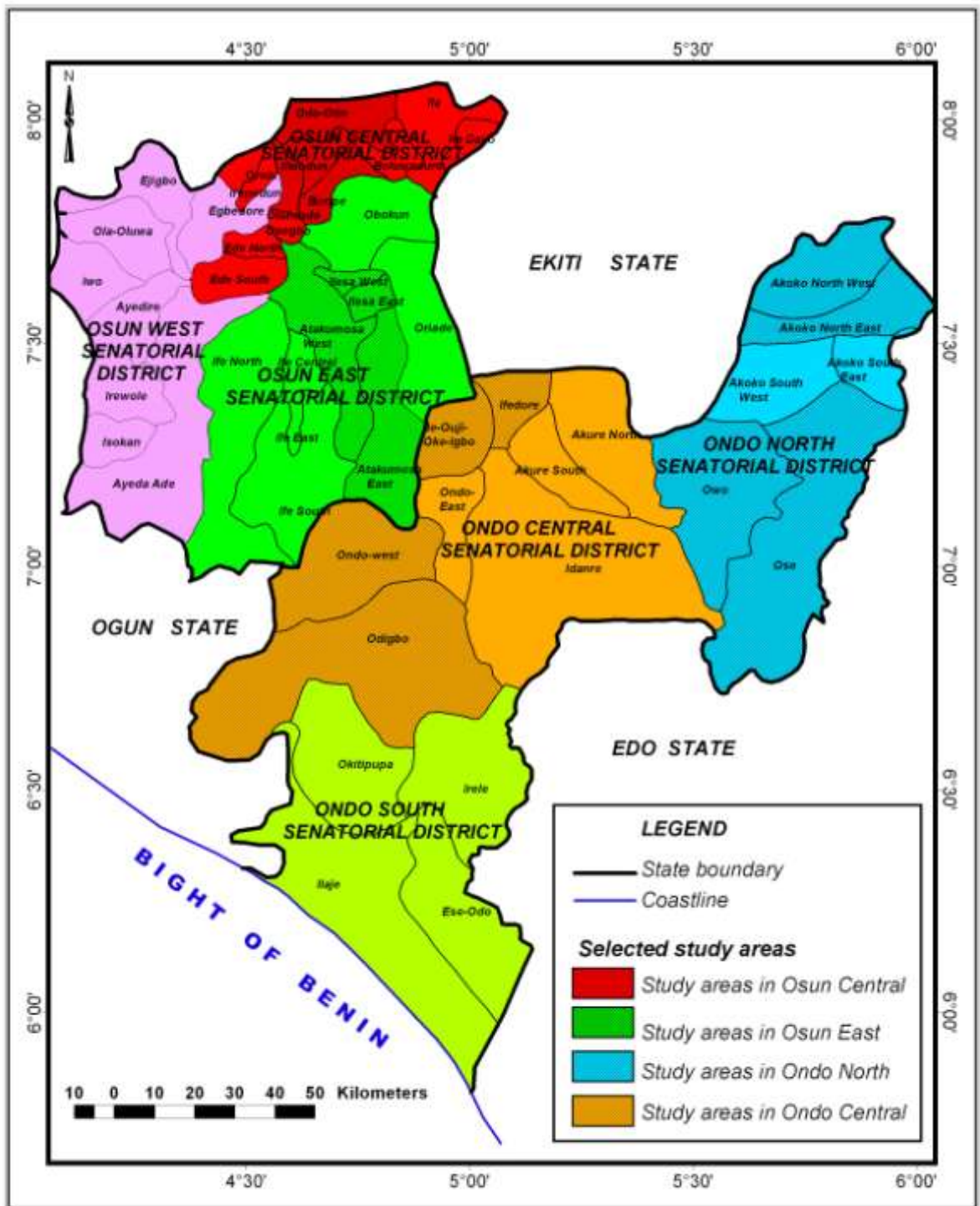


Fig. 5 Map of Osun and Ondo States showing the Senatorial Districts

Table 2 Sample Frame for the study

State	Senatorial Zone	LGAs	Number of communities	Number of households	Number of questionnaire distributed	Number of questionnaire retrieved	
Osun	Osun Central	Odo-Otin	5	24	24	23	
		Olorunda	5	24	24	24	
		Ifelodun	5	25	25	20	
		Boripe	5	25	25	20	
	Osun East	Atakumosa East	5	25	25	22	
		Atakumosa West	5	25	25	18	
		Ilesa West	5	24	24	20	
		Ilesa East	5	24	24	18	
	Ondo	Ondo Central	Ondo West	5	22	22	18
			Ile-Oluji Okegbo	5	22	22	20
			Odigbo	5	22	22	20
			Ifedore	5	22	22	20
Ondo North		Akoko North West	5	21	21	19	
		Akoko North East	5	22	22	20	
		Owo	5	22	22	19	
		Ose	5	21	21	19	
Total	4	16	80	370	370	320	

Source; Field Survey: 2007

3.3 Analytical Techniques

The study employs analytical techniques based on its objectives. The tools include:

1. Descriptive Statistics
2. Principal component
3. Multiple Regressions : Social Capital Index, Household Welfare Model, Household Income model
4. Tobit regression model

3.3.1 Descriptive Statistics

This is used to identify various dimensions of Social Capital. It includes frequency distribution, mean, mode, median, percentages, graphs and coefficient of variation. These are used to catalogue and categorize households by associations and welfare status.

3.3.2 Principal component analysis

This was used to pool all the asset items together as an index. The principal component analysis involves resolution of a set of variables into a new set of composite variables or principal components that are uncorrelated with one another. This is accomplished by the analysis of the correlation among the variables. The result of this is a yield of factors which convey all the essential information of the original set of variables. Principal component analysis (PCA) is a multivariate statistical technique that addresses itself to the study of interrelationships among a set of observed variables. All the variables in PCA are considered as dependent variables that is a function of some underlying latent are supposed to be orthogonal that is, uncorrelated one therefore look for the best linear combination of these variables that account for more of the variance in the data as a whole than any other linear combination of variables (Mazlum, et al, 1999).

The first principal component may be viewed as the single best summary of linear relationships exhibited in the data. The second component is the next best linear combination of variables under the condition that the second component is orthogonal to the first components. The second one must account for the proportion of variance not accounted for by the first one. Subsequent components are similarly defined until all the data are exhausted. PC requires as many components as there are variables.

Principal component model may be compactly specified as

$$Z_j = a_{j1}F_1 + a_{j2}F_2 + a_{j3}F_3 + \dots + a_{jn}F_n \quad (12)$$

Where each of the n observed variables is described linearly in terms of the n new uncorrelated components $F_1, F_2, F_3, \dots, F_n$ each of which in turn is defined as a linear combination of the n original variables.

In this study, household asset index will be determined following Principal Component Analysis (PCA) approach by (Filmer and Pritchett 1998 cited in Prakonhsai 2006). Principle component analysis (PCA) is a statistical technique closely related to factor analysis. PCA can determine the weight as a factor score for each asset variable. It seeks a linear combination of variables such that the maximum variance is extracted from the variables. It then removes this variance and seeks a second linear combination which explains the maximum proportion of the remaining variance. The first principal component is the linear index of variables with the largest amount of information common to all of the variables. The asset index derived from PCA for each household asset can be written as follows:

$$A_j = \sum_{i=1}^n f_i(a_{ji} - a_i)/s_i \quad (13)$$

Where

A_j is an asset index for each household ($j = 1, \dots, n$)

f_i is the scoring factor for each durable asset of household ($i = 1, \dots, n$)

a_{ji} is the i th asset of j th household ($i, j = 1, \dots, n$)

a_i is the mean of i th asset of household ($i = 1, \dots, n$)

s_i is the standard deviation of i th asset of household ($i = 1, \dots, n$)

Z is the standardized variables of each household

Derived from PCA, scoring factors of the first principal component (the efficient component) would be used for constructing the asset index of each household. Using the asset index computed by this formula, each household would be grouped into quintiles and deciles. The first quintile or decile is the poorest, while the fifth quintile or the tenth decile is the richest.

3.3.3 Construction of Social Capital Index

Social Capital Index is used to classify respondents in terms of their participation in the identified social capital dimensions. It is an input-based index that quantifies each level of participation of the respondent's priorities in terms of the degree of participation. This index will show the degree of participation of the respondents in the identified dimension.

A typical composite indicator (I) can take the following form:

$$I = \sum_{i=1}^n w_i X_i \dots\dots\dots(14)$$

where:

X_i are normalized variables,

w_i are weights assigned to X_i , where $\sum_{i=1}^n w_i = 1$ with $0 \leq w_i \leq 1$ and $i : 1, \dots, n$.

I is the typical composite indicator of social capital index of the respondents

w_i 's are weights assigned to degree of participation of respondents to social capital dimensions.

Where n (number of identified social capital dimensions) = 6

The social capital dimensions used are GNY = Group and Network, TSY = Trust and Solidarity, CAC = Collective action and Cooperation, IFC = Information and Communication, SCX = Social Cohesion and Inclusion, and EPA = Empowerment and Political Action.

Before the method of standardization, re-scaled values are created in order to assign an identical range for the standardized scores for every indicator. Re-scaling ensures that the transformed indicators are given a value relative to the global maximum and that the re-scaled index takes a value from 0 (worst) to 1 (best) as follows:

$$y_{in} = \frac{x_{in} - \min(x_i)}{\max(x_i) - \min(x_i)} \dots\dots\dots(15)$$

Where y_{in} = The Standardization score

In this example, standardization is based on the range rather than on the standard deviation and the extreme values (minimum and maximum) may in fact be unreliable outliers. While the method may be more robust where there are numerous outliers, the range for indicators with very little variation will increase and these will contribute more to the composite indicator than they would if the un-scaled method was used. This technique is therefore more dependent on the value of the weights for each indicator than the un-scaled method where the contribution of each indicator to the composite depends on both the weighting and the variance of the indicator. Thus the re-scaling method is linked to the issue of choice of weights. In other words, the overall index will be affected by the performance of the worst and best country.

Therefore the Social Capital Index SC is constructed as follows:

$$SC_{it} = \beta(GNY_{it}) + \alpha(TSY_{it}) + \delta(CAC_{it}) + \gamma(IFC_{it}) + \lambda(SCX_{it}) + D(EPA_{it}) \dots\dots\dots(16)$$

Where the variables are as defined earlier.

Social Capital Index Model is used to estimate the effects of social economic variables on households' Social Capital. Social Capital Index (SCI) = This is an aggregation of the responses of each household to the questions on the various social capital dimension mentioned above, On each of the six dimensions', each household answered questions on it. Therefore, for each of the factors a yes response is coded 1 while no response is coded 0. A maximum score of 10 for each association represents the highest level of heterogeneity. The scores by the six dimensions for each household are then divided by the maximum score of 60 to obtain an index.

3.3.4 The Aggregate Model

A conventional model of household economic behaviour can readily be adjusted to reflect the role of social capital (Grootaert 2002). Such a model consists of three sets of equations; the first set of equations explains the income generation behaviour of the household and describes how the household combines its various asset endowments to make decisions regarding labour supply for each of its members, taking the wage rates and demand situation in the labour market as given. In this formulation, social capital can be considered as one among several classes of assets available to the household to make its decisions. Social capital is combined with human capital, physical capital and the ownership of land to make productive decisions.

The second set of equations portrays the household's demand for inputs (agricultural inputs, credit) and services (education, health) which may need to be combined with labour supply in order to generate income. Here too, social capital is one category of capital which determines these decisions.

A third set of equations explains the households' consumption and savings behaviour as a function of the level and composition of income. The customary reduced-form model of these structural equations relates household expenditure directly to the exogenous asset endowment of the household.

The key feature of this model is the assumption that social capital is truly "capital" and hence has a measurable return to the household. Social capital has many "capital" features: it requires resources (especially time) to be produced and it is subject to accumulation and de-accumulation. Social capital can be acquired in formal or informal settings, just like human capital (e.g., schools versus learning-by-doing). 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. This is the proposition which we test empirically in the study by means of equations.

Various functions which determine access to credit, agricultural inputs or other factors which enhance the productivity of a household enterprise could be used but in these estimations, we focused on credit. The dependent variable of the equation is the natural logarithm of household income per capita. The explanatory variables consist of the asset endowment of the household, demographic control variables, and locational dummy variables. Household assets are assumed to consist of human capital, social capital, land, and physical assets. Human capital is measured conventionally by the years of education of the adult members of the household. The LLI study data set contains information on land, crops, cattle and farm equipment owned by the household. Direct inclusion of these variables as regressors in equation is problematic due to possible endogeneity.

Social capital and Household Expenditure (welfare) .Following Marayan and Pritchett (1999) and Grootaert (1999), we estimate cross sectional household level logarithmic per Capita expenditure function, augmented by the inclusion of proxy

measures for social capital. The functional form used is similar to those estimated by May (2000)

Model Specification

The model of household economic behaviour as adjusted by Grootaert (2002) is used to reflect the role of social capital on household's welfare where

$$E_i = f(S_1, S_2, S_3, \dots, S_{19})$$

The linear estimating function form of the functional form is given as :

$$E_i = a_0 + a_1 S_1 + a_2 S_2 + a_3 S_3 + \dots + a_{19} S_{19} + \xi_1 \text{-----(18)}$$

E_i = household per capita expenditure on all items (e.g food and non food)

S_1 = Household involvement in Groups and networks (%)

S_2 = Household involvement in Trust and Solidarity (%)

S_3 = Household head involvement in Collective Action and Cooperation (%)

S_4 = Household head involvement in Information and Communication (%)

S_5 = Household head involvement in Empowerment and Political Action (%)

S_6 = Household head involvement in Social cohesion and Inclusion (%)

S_7 = Household head Cash contribution index (%)

S_8 = Household head Labour contribution (%)

S_9 = Density of Membership of household heads (%)

S_{10} = Heterogeneous Index (%)

S_{11} = Meeting attendance (Mandays)

S_{12} = Participation in Decision Making(%)

S_{13} = Membership in Financial Institution $S_{13} = 1$ if yes and $= 0$ if otherwise

S_{14} = Household Size (Number)

S_{15} = Educational Status per Household Head (Yr)

S_{16} = Age of Household Head (Yr)

S_{17} = Age of Household Head Squared (Yr)

S_{18} = Household asset score (Naira)

S_{19} = Sex of household heads $S_{19} = 1$ if sex is male and $=0$ female if otherwise

Φ_i = Error term

The aggregate social capital index is obtained by the multiplication of groups and networks, collective action and cooperative, information and communication, social cohesion and inclusion and empowerment and political action index (Grootaert 2002) the resultant index is normalized to value of 100.

3.3.5 The Disaggregate Model; Household welfare model

The disaggregate model of social capital endowment by gender is used to capture the links among household welfare, poverty and social capital. The aggregate index made use of some dimensions which are assumed to interact with one another in multiplicative way. The disaggregate model however considers that each social capital dimension acts independently and that the effects are multiplicative and additive. Both multiplicative and additive social capital index are used to determine the impact of social capital on welfare proxied by per capita expenditure of household. The use of both multiplicative and additive social capital is hinged on the fact that to date literature on conceptual and theoretical underpinning of social capital has not proved the superiority of one over the other. Grootaert et al (2002) Narayan and Pritchett (1997) use both approaches and conclude that additive and multiplicative variables are valid approaches and can be introduced into a behavioural model

$$E_1 = F(W_1, W_2, W_3, W_4, \dots, W_{17})$$

$$\ln E_1 = c_0 + c_1 W_1 + c_2 W_2 + c_3 W_3 + \dots + c_{15} W_{15} + \eta_I \text{-----}(19)$$

When E_1 = Household per capita total expenditure on all items

W_1 = Male Household involvement in Groups and networks (%)

W_2 = Female Household involvement in Groups and networks (%)

W_3 = Male Household involvement in Trust and Solidarity (%)

W_4 = Female Household involvement in Trust and Solidarity (%)

W_5 = Male Household head involvement in Collective Action and Cooperation (%)

W_6 = Female Household head involvement in Collective Action and Cooperation (%)

W_7 = Male Household head involvement in Information and Communication (%)

W_8 = Female Household head involvement in Information and Communication (%)

W_9 = Male Household head involvement in Empowerment and Political Action (%)

W_{10} = Female Household head involvement in Empowerment and Political Action (%)

W_{11} = Male Household head involvement in Social cohesion and Inclusion (%)

W_{12} = Female Household head involvement in Social cohesion and Inclusion (%)

W_{13} = Household head Cash contribution index (%)

W_{14} = Household head Cash contribution index (%)

W_{15} = Male Household head Labour contribution (%)

W_{16} = Female Household head Labour contribution (%)

- W₁₇ = Male Household head Density of Membership of household heads (%)
- W₁₈ = Female household head Density of Membership of household heads (%)
- W₁₉ = Male household head Heterogeneous Index (%)
- W₂₀ = Female household head Heterogeneous Index (%)
- W₂₁ = male household head Meeting attendance (Mandays)
- W₂₂ = Female Meeting attendance (Mandays)
- W₂₃ = Participation in Decision- Making (%)
- W₂₄ = Participation in Decision- Making (%)
- W₂₅ = Membership in Financial Institution S₁₃ = 1 if yes and = 0 if otherwise
- W₂₆ = Household Size (Number)
- W₂₇ = Educational Status per Household Head Yr
- W₂₈ = Age of Household Head (Yr)
- W₂₉ = Age of Household Head Squared (Yr)
- W₃₀ = Household asset score (Naira)
- W₃₁ = Sex of household heads S₁₉ = 1 if sex is male and = 0 female if otherwise
- λ₁ = error term

3.3.6 Tobit Regression model: Asset Accumulation.

Following a Tobit decomposition framework suggested by McDonald and Moffitt (1980), the effects of changes in socio-economic and social capital variables on asset accumulation by household heads can be obtained. The model has the capability of estimating an equation system whereby the probability of an event happening or not can be captured in the dependent variable. This is the reason Tobit model is usually used in regression modelling to solve the problem of zero observation(s) in the dependent variable (Blundell and Meghir. 2002; Wen et al, 2002; Blaylock and Blissard. 2000). Therefore, Tobit model will be used in this asset modelling to analyse asset accumulation by househeads in the study area. The model follows the general form of OLS and is stated as below:

$$\text{Asset index (AI)} = \beta V_i + p_i \text{ if } \beta X_i + p_i > 0 \dots\dots\dots (20)$$

$$\text{AI} = \beta V_i + p_i \text{ if } \beta X_i + p_i \leq 0 \dots\dots\dots (21)$$

Where:-

β = Vector of unknown parameters:

AI = Asset Index by ith household head

X_i = vector of explanatory variables:

P_i = random error term

The independent explanatory variables, (X_i) which are the socio-economic/social capital dimensions included in the model, are:

X_1 = Gender of household head ($X_1 = 1$ if male and 0 if otherwise)

X_2 = Household size (number)

X_3 = Educational level household head (Years)

X_4 = Age of household head

X_5 = Age of Household Head Squared (Yr)

X_6 = Farm size (hectares)

X_7 = Primary occupation (1 if farming and 0 otherwise)

X_8 = Membership of association (1 if household head belongs and 0 otherwise)

X_9 = Amount requested Cooperative societies, banks, friends and relatives etc (Naira)

X_{10} = Source of credit ($X_9 = 1$ if from farmer association and 0 otherwise)

X_{11} = Source of credit ($X_{10} = 1$ if from community association and 0 otherwise)

X_{12} = Source of credit ($X_{11} = 1$ if from cooperatives and 0 otherwise)

X_{13} = Source of credit ($X_{12} = 1$ if from bank and 0 otherwise)

X_{14} = Source of credit ($X_{13} = 1$ if from friends and family and 0 otherwise)

X_{15} = Source of credit ($X_{14} = 1$ if from money lenders and 0 otherwise)

X_{16} = Time lag between application and disbursement (months)

X_{17} = Interest rate (%)

X_{18} = Request for collateral for loan ($X_{17} = 1$ if requested and 0 otherwise)

X_{19} = Savings ($X_{18} = 1$ if household head has social savings and 0 otherwise)

X_{20} = Presence of collateral ($X_{19} = 1$ if household head has collateral and 0 otherwise)

X_{21} = Type of saving ($X_{20} = 1$ household head saves in the bank and 0 otherwise)

X_{22} = Land Tenure ($X_{21} = 1$ if household head inherited land and 0 otherwise)

X_{23} = Groups and Network %

X_{24} = Trust and solidarity %

X_{25} = Collective action and cooperation %

X_{26} = Information and communication %

X_{27} = Social cohesion and inclusion %

X_{28} = Empowerment and political action %

X_{29} = Aggregate social capital index %

3.3.7 Tobit Regression model; Access to Credit

Following a Tobit decomposition framework suggested by McDonald and Moffitt (1980), the effects of changes in socio-economic and social capital variables on credit access by household heads can be obtained. The model has the capability of estimating an equation system whereby the probability of an event happening or not can be captured in the dependent variable. This is the reason Tobit model is usually used in regression modelling to solve the problem of zero observation(s) in the dependent variable (Blundell and Meghir. 2002; Wen et al, 2002; Blaylock and Blissard. 2000). Therefore, Tobit model will be used in this credit modelling to analyse credit access by household heads in the study area. The model follows the general form of OLS and is stated as below:

$$AC_i = \beta V_i + p_i \text{ if } \beta X_i + p_i > 0 \dots\dots\dots (22)$$

$$AC_i = \beta V_i + p_i \text{ if } \beta X_i + p_i \leq 0 \dots\dots\dots (23)$$

Where:-

β = Vector of unknown parameters:

AC = access to credit by i^{th} household head

X_i = vector of explanatory variables:

P_i = random error term

The explanatory variables, which are the socio-economic/social capital dimensions included in the model, are:

The independent variables (X_i) are itemized below:

X_1 = Gender of household head ($X_1 = 1$ if male and 0 if otherwise)

X_2 = Household size (number)

X_3 = Educational level household head (Years)

X_4 = Age of household head

X_5 = Age of Household Head Squared (Y_r)

X_6 = Farm size (hectares)

X_7 = Primary occupation (1 if farming and 0 otherwise)

X_8 = Membership of association (1 if household head belongs and 0 otherwise)

X_9 = Amount requested (Naira)

X_{10} = Source of credit (1 if from farmer association and 0 otherwise)

- X_{11} = Source of credit (1 if from community association and 0 otherwise)
- X_{12} = Source of credit (1 if from cooperatives and 0 otherwise)
- X_{13} = Source of credit (1 if from bank and 0 otherwise)
- X_{14} = Source of credit (1 if from friends and family and 0 otherwise)
- X_{15} = Source of 1 if from money lenders and 0 credit (otherwise)
- X_{16} = Time lag between application and disbursement (months)
- X_{17} = Interest rate (%)
- X_{18} = Request for collateral for loan (1 if requested and 0 otherwise)
- X_{19} = Savings (1 if household head has social savings and 0 otherwise)
- X_{20} = Presence of collateral (1 if household head has collateral and 0 otherwise)
- X_{21} = Type of saving (1 household head saves in the bank and 0 otherwise)
- X_{22} = Land Tenure (1 if household head inherited land and 0 otherwise)
- X_{23} = Groups and Network %
- X_{24} = Trust and solidarity %
- X_{25} = Collective action and cooperation %
- X_{26} = Information and communication %
- X_{27} = Social cohesion and inclusion %
- X_{28} = Empowerment and political action %
- X_{29} = Aggregate social capital index %

3.3.8 OLS Regression model: Participation in collective action

Model Specification.

Participation in Collective Action (PCA) = $f(X_1, X_2, X_3, \dots, X_{16})$

The estimated linear equation arising from the functional form is

$$PCA = B_0 + B_1 X_1 + B_2 X_2 + B_3 X_3 + \dots + B_{16} X_{16} + U_1 \dots \dots \dots (24)$$

Where PCA = participation in collective action, U_i = error term, B_i 's = parameters to be estimated. The explanatory variables, which are the socio-economic/social capital dimensions included in the model, are:

The independent variables (X_i) are itemized below:

- X_1 = Primary occupation of household head (1=farming, 0 otherwise)
- X_2 = Household size (number)
- X_3 = Educational level household head (Years)
- X_4 = Male household head (1=yes 0 otherwise)

- X_5 = Age of household head(Year)
- X_6 = Age squared of household head (Year)²
- X_7 = Number of Memberships %
- X_8 = Membership in Financial Institution (1=yes 0 otherwise)
- X_9 = Participation in Decision- Making %
- X_{10} = Meeting Attendance %
- X_{11} = Groups and networks %
- X_{12} = Trust and Solidarity %
- X_{13} = Collective Action and Cooperation %
- X_{14} = Information and Communication %
- X_{15} = Social Cohesion and Inclusion %
- X_{16} = Empowerment and political action%

3.4 Definition of Variables and Concepts.

The explanatory variables used in the models are as follows;

Age; It measures the age of household's head in years.

Age squared; Age Squared measures the life cycle of the household's head

Gender; Gender is exacerbated by the different power relations between male and female.

Educational level; This is the number of years spent in formal school.

Household size; This is the number of people eating from the same pot.

Marital status: this is whether the house hold head is married or not. It is represented by a dummy variable.

Primary occupation; It is a dummy variable which indicates household's head nature of job. It is represented if household head engages in farming as primary occupation and 0 if otherwise.

Household total expenditure; Household total expenditure on food and non food items (proxy for income).

Social capital dimensions description: Social capital dimension measurement was carried out to examine the influence of social capital on rural household welfare on gender basis. The effectiveness with which social capital , in the form of local associations, can fulfil its role in disseminating information, reducing opportunistic behaviour, and facilitating collective decision- making depends on many aspects of

the association, reflecting its structure, its membership and its function. For this study we focus on twelve of the dimensions adopted by the World Bank (2004), Grootaert and Narayan, (2000), Okunmadewa et al, (2005), Okumadewa et al (2007) and Yusuf,(2008). The social capital (SC) variables that were used include: Group and Network, Trust and Solidarity, Collective action and Cooperation, Social cohesion and Inclusion, Information and Communication and Empowerment and Political action. Others include Density of membership, Heterogeneity index, Meeting attendance, Cash contribution, Labour contribution and Decision making index.

(A) Groups and Networks: This comprises the summation of density of membership, heterogeneity index, meeting attendance, cash contribution, labour contribution and decision making index. The measurement of each of the indices is explained following Grootaert 2002, Okumadewa et al; 2005, and Yusuf, 2008.

(i) Density of membership: This is captured by the summation of the total number of associations to which each household belongs. A complete inventory of all associations was made at local level institutions; each household was then given that inventory and asked which associations they are members. In other words, the proportion of membership of associations by individuals is found and rescaled to 100

(ii) Heterogeneity Index : This is an aggregation of the responses of each household to the questions on the density 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 of the same kin group, same occupation, same gender, age group and religion. Hence for each of the factors, a yes response is coded one while no response is coded zero. 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. The index was then multiplied by hundred with a zero value representing complete homogeneity).

(iii) 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 associations they belong to. This value was then multiplied by 100.

(iv) Cash contribution: This was obtained by the various associations which the household belongs. The actual cash contribution for each household is rescaled by

dividing this amount by the maximum fee amount in the data and multiplying the resultant fraction by 100.

(v) Labour contribution: This is the number of days that household members belonging to institutions claimed to have worked for their institutions. This represents the total number of man hour's days worked by household members. This is also rescaled to 100 using the same method of cash contribution.

(vi) Decision- making index; it has been argued that associations, which follow a democratic pattern of decision-making, are more effective than others. The questionnaire asked association members to evaluate subjectively whether they were "very active" "active" "not very active" or "passive" or not participating in group decision making. The response was scaled from 4 to 0 respectively, and averaged across the three most important groups in each household. The summation was calculated from subjective responses from the households' members on their rating in participation in three important associations to them. The responses were averaged across the three associations and multiplied by 100 for each household.

CHAPTER FOUR

RESULTS AND DISCUSSION

This section presents the result of the descriptive analysis of the demographic and socio-economic characteristics of household heads in the study area. The discussion covers the age of household heads, educational status of household heads, household size, household heads economic activities, group and network, trust and solidarity, social cohesion and inclusion, information and communication, density of membership of household, household labour contribution, households' empowerment and political action, households' cash contribution and household per capita expenditure as well as other households' associational activities.

4.1 Socio-economic/demographic characteristics of respondents

The socio-economic characteristics normally have effects on involvement in social capital and welfare of households in the study area. The households in the study area have varying socio-economic characteristics. A descriptive analysis of selected socio-economic and demographic variables used in the study area is presented in Table 3. The table shows the age distribution of household heads in the study area. The age of the households' heads shows that majority of the respondents (42.8%) fell into age bracket 41-50 years. The mean age of household heads is estimated at 44.1 ± 2.2 years for male household heads and 42.3 ± 1.2 years for female household heads. The average age of the household heads for both male and female in the study area are below the national average age of 41.7 years. About 33 percent of the male household heads are headed by persons aged between 41 and 50 years while about 32 percent of the male household are between 31 and 40 years of age. Similarly, about 55 percent of the female household heads are between 41 and 50 years of age while only 25 percent of the female headed persons are between 31 and 40 years of age. More importantly, it is observed that only 23 percent of the male household heads are between 21 and 30 years while about 25 percent female household heads are between 21 and 30 years of age. About 13 percent of the male sampled household heads are aged 51 years and above while about 4 percent of the female headed households are aged 51 years and above. In essence, the age distributions showed that most of the

respondents sampled (84 percent) are still economically active with just 16 percent in the retirement category.

The age of the household head is expected to be negatively related to their involvement in social capital dimensions. Due to African culture and belief, most households are made up of a man, wife/wives, children and most often extended family members. All these form the household size. The result reveals that majority of respondents (29.8%) in the study area have household size of between 7 and 9 members. While about 32 percent of the male household heads have between 7 to 9 members, 28 percent of the female household heads have 7 – 9 members. It also indicates that about 26 percent of male household heads have between 4 and 6 members while about 35 percent of female household have between 4 and 6 members. The result also shows that about 16 percent of male household heads have above 9 members while about 15 percent of female household heads have above 9 members. The level of education may indicate productivity potential both in farming and non-farming activities (Abdulai and Delgado, 1990). The more educated an individual is the more his/her involvement in non-farming enterprises and likelihood higher welfare. The number of years of formal education is known to influence the behaviour, values, exposure and households opportunities

The distribution of sampled household heads based on the years of formal education is captured in Table 3. From the table, about 4 percent of the male household heads do not have formal education while just about 5 percent of the female household heads do not have formal education. The distribution also shows that 42 percent of the male headed households have primary school education while about 45 percent of the female household heads have primary school education. About 35 percent of the female household heads have secondary education attainment while 24 percent of the male household heads have secondary education. For post secondary education, the female household heads have the lowest post secondary education attainment (16 percent) while male household heads have 29 percent. For both sexes, the result shows a progressive decrease in the proportion of educated household heads as we move from primary through secondary and post-secondary.

Table 3 Distribution of household heads based on selected socio-economic characteristics

	Male	Female	Pooled
Age (Year)	%	%	%
< 30	23.2	25.0	24.1
31-40	32.3	16.0	24.4
41-50	31.7	54.5	42.8
51-above	12.8	4.5	8.8
Mean	44.1	42.3	41.7
Minimum	20.0	21.3	20.0
Maximum	71.5	67.2	71.5
Standard deviation	2.2	1.2	1.8
Household size			
1-3	26.2	25.6	25.9
4-6	26.2	31.4	28.8
7-9	31.7	28.3	29.8
Greater than 9	15.9	14.8	15.5
Mean	6.2	5.1	5.7
Standard deviation	2.3	1.4	
Minimum	1	1	1
Maximum	15	13	15
Educational status(yr)			
Primary	4.3	4.5	4.4
Secondary	42.1	44.9	43.4
Specialised	24.4	16.0	20.3
Tertiary	29.3	34.6	31.9
Marital status			
Single	24.4	23.1	23.8
Married	58.9	52.6	53.6
Separated	9.1	9.6	9.4
Divorced	7.3	11.5	9.4
Widowed	4.3	3.2	3.8

Source: Field Survey 2007

Table 4 shows that almost all the sampled households (76.6%) in the study area were into crop farming. In the same vein majority of the male household heads (79.3%) were into crop farming, the same applied to female household heads (73.7%). The study shows that only 6.1% of the male household heads were into livestock while 10.3% of female household heads were into livestock business. It also reveals that 11.0% of the male respondents were into non- farming activities while just 5.8% of female respondents were into non-farming activities. The reason may be due to agrarian nature of the study area. More importantly, most of the farmers (25.6%) cultivate between 2.0 and 2.49 ha. While 27.4% of male respondents cultivate between 2.0 and 2.49 ha, just 23.7% female household heads cultivate between 2.0 and 2.49 ha.

The study reveals that majority of the respondents (48.3%) in the study area sourced credit from local associations such as cooperatives. While 48.8% of male household heads obtained credit from local associations, half of the female household heads sourced credit from local associations. Due to lack of collateral security, only 10.3% of the respondents obtained credit from banks while it was 15.8% and 4.5% of male and female respectively that sourced credit from banks. The study indicates that majority of respondents (47.4%) in the study area belong to between 2 and 4 associations. It shows that most male household heads (46.2%) belong to between 2 and 4 associations ditto female household heads (48.3%). Table 4 revealed that 36.4 % of male household heads actively participated in decision- making process while (30.8%) of female household heads were involved in active decision making activities. It shows that 37.4% of both male and female respondents somewhat participated in decision making while 25.3% never participated in decision- making in their respective local associations.

The proportion of the married male household heads in the area is 58.9% while that of female is 52.6%. Others are single, widowed or single parents. Household asset value reveals that majority of both male and female household heads (49.3 and 49.8%) had asset value of between N 50,001 and 100,000. Only 2.6% of male household heads had asset value of less than N10, 000 while just 3.4% female respondents had asset value of less than 10,000. The average asset value of male household heads in the study area was N70, 147.38 while that of female was N58351.32 and for the pooled it was N58144.72. Asset value is one of welfare indicators of the respondents in the study area and could stand as collateral for obtaining credit from financial institutions or even local money lenders.

Table 4 Distribution of the Respondents by the Household heads' characteristics

	Male	Female	Pooled
Means of livelihood			
Cop farming	79.3	73.7	76.6
Livestock farming	6.1	10.3	8.1
Fish farming	1.2	2.6	1.9
Trading	2.4	7.7	5.0
Paid employment	11.0	5.8	8.4
Farm size (Hectares)			
<0.99	11.0	17.3	14.1
1.0-1.49	15.2	19.2	17.3
1.50-1.99	14.0	21.8	17.8
2.0-2.49	27.4	23.7	25.6
2.50-2.99	14.6	11.5	13.1
3.0-3.49	14.0	3.9	9.1
> 3.49	3.7	2.6	3.1
Mean	2.62	2.31	2.44
Standard deviation	1.76	1.58	1.73
Source of credit			
Family and friends	24.4	25.6	20.8
Local associations	48.8	50.0	48.3
Banks	15.8	4.5	10.3
ROSCAS	11.0	19.9	21.6
Asset value			
< 10,000	2.6	3.4	2.8
10,000-50,000	49.3	49.8	48.7
50,0001-100,000	23.5	24.2	19.7
> 100,000	24.6	22.6	28.8
Total	100.0	100.0	100.0
Mean	70,147.38	71,106.53	70,451.65
SD	57342.13	58351.32	58144.72

Source: Field Survey, 2007

4.2 Types of Local Level Institutions and household membership

Households in the study area belong to various associations from which they obtain social capital and subsequent enhancement of their welfare. These include Farmers associations, Traders associations, Town/Ethnic groups, Cooperative societies, Professional associations, Religious groups, Neighbourhood/ Village committees, Political parties, and Non-governmental associations among others. Table 5 shows the different types of local level institutions (LLIs) in the study area and household membership. The profile in Table 6 shows that household heads in the study area belonged to more than one association. The most prominent among them is cooperative societies representing about 29% and 33.9% for male household heads and female household heads respectively. This is followed by Religious groups 18% and 16.1% for male and female household heads while household heads' involvement in political parties, 2.8% and 1.2%, for male and female respondents respectively was not encouraging. Of all the household members in the study area, none claimed to be involved in environmental protection/ natural resources group. This confirms the findings of Ajani and Tijani (2009) that rural households prefer local level associations such as cooperative societies, religious groups, political associations and occupational associations because of economic and spiritual benefits/ empowerment derived from being members of those associations.

4.3 Sampled Households' Density of Membership Index

Table 6 shows the index of density of membership of both male and female household heads in the study area. The result reveals that about 31 percent of the male household heads belong to at least three associations while about 40 percent of the female household heads belong to at least three associations. Also it is discovered that about 29 percent of male household heads belong to at least six associations while 25 percent of female household heads belong to at least six associations. About 4 percent of the male respondents belong to about 8 different associations while about 2 percent of female household heads belong to about 8 different associations. Most of the associations the male household heads belong to are formal such as professional groups, farmers association, artisan, religion, cooperative societies, road transport workers, and ethnic groups while most of the associations of the female respondents are informal such as religion, ethnic or town associations, cooperative societies, local money lenders, rotating contributions and so on.

Table 5: Types of Local Level Institutions and household membership

Local level Institutions	Male Household number	Female Household number	% of total for male	% of total for female
Gender Association	55	49	12.7	11.8
Community based Association	24	19	5.5	4.6
Age Group	31	41	7.1	9.9
Cooperative Societies	126	141	29.0	33.9
Occupational Groups	56	14	12.9	3.4
Environmental Protection/ Natural Resources Group	0	0	0.0	0.0
Religious Groups	78	67	18.0	16.1
Cultural Group	11	21	2.5	5.1
Ethnic Group	32	52	7.4	12.5
Political Parties	12	05	2.8	1.2
NGO	9	7	2.1	1.7
Total	434	416	100	100

Source; Field Survey, 2007

Table 6 Sampled Households' Density of Membership Index

	Male	Female	Pooled
Density of membership (%)	%	%	%
1-2	31.10	28.20	29.69
3-4	30.49	39.74	35.00
5-6	28.66	25.00	26.88
7-8	6.10	5.13	5.63
>8	3.66	1.92	2.81
Total	100	100	100
Mean	30.0	30.4	
Min	5	10	5
Max	85	76	85

Source: Field Survey, 2007

4.4 Households' Group and Network Index

Table 7 shows the different types of association the household heads belong to in the study area. The result indicates that about 48 percent of male household heads belong to cooperative societies while about 40 percent of female household heads belong to cooperative societies. About 25 percent of both sexes belong to farmers groups. About 28 percent of female household heads belong to religious groups while about 4 percent male respondents belong to religious groups. More importantly, about 22 percent of male respondents belong to professional associations while just 5 percent of female belong to professional associations. The respondents' motives of joining associations are determined by the benefits (finance, empowerment, security etc) being derived from the associations, may be this is why majority of the respondents belong to cooperative and farmers groups.

Table 7 Sampled Households Group and Network index

	Male	Female	Pooled
Participation in Network	%	%	%
Ethnic/Religion	3.05	28.21	15.31
Professional Association	21.95	5.13	13.75
Farmers Group	24.40	25.00	24.67
Cooperative Society	46.95	39.74	43.44
Others	3.66	1.92	2.81
Total	100	100	100
Mean			

Source: Field Survey, 2007

4.5 Households' Information and Communication Index

The distribution of sampled household heads on the dimension of information and communication is captured in Table 8. From the table, it is discovered that about 28 percent of women household heads gather most of their information through friends and other informal sources while about 8 percent of male household heads do so. The information included new entrants into the market, prices of goods and services, and outbreak of poultry diseases among others. Also, about 35 percent of male household heads obtain information through electronic media such as radio and television while about 24 percent of female household heads obtain information through the same source. More importantly, the result indicates that about 36 percent of female household heads gather necessary information through Global System of Mobile telecommunication (GSM) while about 23 percent of male household heads still engage in postal services to exchange information among them. The distribution of sampled household heads on the dimension of information and communication is captured in Table 8.

From the table, it is discovered that about 28 percent of women household heads gather most of their information through friends other informal sources while about 8 percent of male household heads do so. The information included new entrants into the market, prices of goods and services, and outbreak of poultry diseases among others. Also, about 35 percent of male household heads obtain information through electronic media such as radio and television while about 24 percent of female household heads obtain information through the same source. More importantly, the result indicates that about 36 percent of female household heads gather necessary information through global system of mobile telecommunication GSM while about 23 percent of male household heads still engage in postal services to exchange information among themselves. Women are often more dependent on informal networks based on everyday forms of collaboration, such as collecting water, fetching fuel wood and rearing children. These services, together with the fact that women have a high opportunity cost of time, may motivate women to form networks with individuals who are geographically close to reduce the length of time required for travel for social interaction. In contrast, men may be engaged in more geographically dispersed social networks, such as community projects, and may participate more in civic engagement and such participation provides them with greater access to information and stimulates information exchange with others (Maluccio et al. 2003).

Table 8 Households' Information and Communication Index

	Male	Female	Pooled
Information and Communication	%	%	%
Friends	7.93	28.08	15.31
Radio/Television	34.76	24.36	29.69
Postal Service	21.95	7.05	14.68
G S M	23,17	35.90	29.38
>Others	12.20	9.62	10.94
Total	100	100	100
Mean	46.0	69.0	51,43

Source: Field Survey, 2007

4.6: Households' Empowerment and Political Action Index

Table 9 shows both male and female household heads' involvement in politics in the study area. The result indicates that about 67 percent of male household head are involved in politics while about 22 percent of female household heads are into politics. They are those who participated in the 2007 general election. Some of them contested for various positions while others only voted in elections. The reason for low female participation may be due to virility deficiency, lack of economic and financial incentives, discriminatory customs and laws, men domination of politics , religious doctrine and lack of affirmative action to mention a few.

4.7 Households' Meeting Attendance

Due to the term of meeting attendance and the importance attached to regular meetings, most respondents in the study area attended meeting regularly. As indicated in Table (10), female headed households attended meeting more (63%) than male headed households (49.6%). The reason for regular meeting attendance may be due to the need to source credit and other social benefits from the local level institutions. However, average meeting attendance of household in the study area is approximately two out of five meetings

4.8 Households' Decision Making Index

Table 11 shows the household participation in decision making activities. The result indicates that only about 5 percent of male household heads are leaders while about 4 percent of female household heads are into leadership position of the associations. Furthermore, the result shows that about 24 percent of the male respondents are very active in decision making activities while about 14 percent of female respondents are active participators in decision making activities. More importantly, over 51 percent of male household heads are somewhat active in decision making while about 56 percent of female household heads are somewhat active in decision making. The decision making index of male household heads is 73.2 while that of female household heads is 57.8. The result shows that male household heads are more involved in decision- making activities, hence the tendency to dominate their female counterparts.

Table 9; Households' Empowerment and Political Action Index

	Male	Female	Pooled
Empowerment and Political Action	%	%	%
Yes	67.30	21.40	45.00
No	32.70	78.60	55.00
Total	100	100	100

Source: Field Survey, 2007

Table 10 Households' Meeting Attendance

Meeting Attendance Index %	Male	Female	Pooled
0-20	0	0	0
21-40	42.8	28.7	33.7
41-60	49.6	63.0	60.3
61-80	2.1	4.5	5.4
>80	1.7	3.8	0.6
Total	100.0	100.0	100.0
Mean	47.2	38.2	45.0
SD	11.8	12.3	14.0
Minimum	31.0	34.0	30.0
Maximum	58.0	59.4	90.0

Source; Field Survey, 2007

Table 11 Households' Decision Making Index

	Male	Female	Pooled
Decision Making Index (%)	%	%	%
0-20	4.88	3.85	4.38
21-60	23.78	14.74	19.38
61-80	51.83	55.77	53.75
>80	19.51	25.64	22.50
Total	100	100	100
Mean	73.0	58.0	61.2
Min	4.88	3.85	3.85
Max	51.83s	55.77	55.75

Source: Field Survey, 2007

4.9 Household Heterogeneity Index

Heterogeneity index of household heads in associations in Table 12 shows that in 21- 40% sub group, male household heads had higher level of heterogeneity (70.7%) while that of female headed household is 65.4%. This indicates a diverse relationship among household heads in the study area, especially with the mean heterogeneity index of 68.4% the household heads relate with each other and readily come to the aid of each other in terms of sourcing for credit and other social engagements such as wedding, burial and naming ceremonies.

4.10: Households' Cash Contribution (Naira)

Table 13 shows the monthly cash contributions of household heads in the study area. The result indicates that about 53 percent of male household heads contribute between five hundred and one thousand naira every month while about 62 percent of female household heads make a monthly contribution of between five hundred and one thousand naira only. In addition, about 4 percent of male respondents contribute more than two thousand five hundred naira every month while about 3 percent of female household heads contribute more than two thousand five hundred naira monthly. More importantly, the mean monthly contribution of male household heads is N895.90 while that of female household head is N985.67.

Table 12 Household Heterogeneity Index

Heterogeneity Index %	Male	Female	Pooled
0-20	21.0	20.0	30.4
21-40	70.7	65.4	23.3
41-60	8.3	14.6	23.5
61-80	0	0	22.1
>80	0	0	0.7
Total	100	100	100.0
Mean	34.2	36.3	68.4
SD	5.4	6.8	4.2
Minimum	26.0	34.0	33.5
Maximum	56.0	59.0	100

Source; Field Survey, 2007

Table 13: Households' Cash Contribution (Naira)

	Male	Female	Pooled
Cash Contribution (Naira)	%	%	%
0- 500	6.09	10.25	8.13
501-1000	53.05	62.82	57.81
1001-1500	18.29	12.18	15.31
1501-2000	10.98	7.69	9.38
2001-2500	7.32	4.49	5.94
>2500	4.27	2.56	3.44
Total	100	100	100
Mean	₦895.90	₦985.67	₦921.35
SD	₦55.37	₦72.11	₦87.19
Min	N495.00	N450.50	N495.50
Max	N10,000	N15000.50	N15000.50

Source; Field Survey 2007

4.11: Household Labour Contribution (Man-day)

Table 14 shows the number of days the sampled household heads claimed to have worked for their institutions in the study area. The result indicates that about 43 percent of male household heads work for 3 to 4 mandays for their associations while about 55 percent of female respondents work for between 3 and 4 mandays. About 5 percent of male household heads actually work for more than 8 mandays for the associations while about 6 percent of female household heads work for more than 8 mandays. The male average labour contribution is 2.4 mandays while that of female household heads is 3.2 mandays.

4.12: Household Per capita Expenditure

As shown in Table 15, the result indicates that male household head spends about N6106.16 monthly on food which accounts for about 36 percent of the total expenditure while the female household head per capita expenditure on food is N6027.95 amounting to 43.96 percent. This is followed by the amount spent on education of children which is N2568.18 and N1726.84 (15.01 and 12.59 percent) for male and female household heads respectively. The result also indicates that male household head spends N1908.55 (11.19 percent) on transport while female household head spends N1130.73 (8.25 percent) on transport monthly. More importantly, the monthly average per capita expenditure for male household head is N2, 936.67 while that of female household head is N3, 221.82. The monthly per capita expenditure of female household head is a little bit higher than that of male because women generally tend to be more responsible for household's welfare and child rearing more than men (Maluccio et al 2003). Also women have been found to join groups that mobilize fewer resources than men because they are resources constrained.

Table 14: Household Labour Contribution (Man-day)

	Male	Female	Pooled
Labour contribution (man-day)	%	%	%
<1	23.17	22.44	22.81
2-4	43.29	50.64	46.88
5-6	17.68	10.26	14.06
7-8	10.98	10.90	10.94
>8	4.88	5.77	5.31
Total	100	100	100
Mean	2.4	3.2	2.8
SD	0.3	0.1	0.2
Min	1	1.5	1
Max	10	12	12

Source: Field Survey, 2007

Table 15: Household Per capita Expenditure (Naira)

Expenditure Items	Male	Female Expenditure	Pool	%	Pool
Food	6106.16	6027.95	12136.06	39.44	12136.06
Clothing	1123.36	1345.68	2469.06	8.02	2469.06
Medical	682.71	695.34	1378.05	4.48	1378.05
Education	2568.18	1726.84	4295.02	13.96	4295.02
Fuel and Light	1750.93	731.48	2482.41	8.07	2482.41
Transport	1908.55	1130.73	3039.28	9.88	3039.28
Remittance	210.11	220.52	430.63	1.40	430.63
Rent	1187.56	747.65	1935.21	6.29	1935.21
Toiletries	532.35	424.15	956.50	3.11	956.50
Others	987.76	659.74	1647.50	5.35	
Total	17057.67	13712.04	30769.71	100	30769.71
Mean Monthly per capita expenditure	2,936.67	3,221.82	11266.77		11266.77

Source; Field Survey, 2007

4.13 Summary Statistics of Social Capital Dimensions and Gender

Twelve dimensions of social capital and other variables were studied. These include Group and Networks, Trust and Solidarity, Collective Action and Cooperation, Information and Communication, Social Cohesion and Inclusion and Empowerment and Political Action. Others include density of membership, heterogeneity index, cash contribution, labour contribution, meeting attendance and decision making

Table 16 indicates that the female headed households have higher values of social capital in information and communication (58) and social cohesions and inclusion (61) than their male counterparts. The higher information and communication (53.70%) may be due to the fact that females naturally have the tendency to always gather information about location of new markets as well as introduction of new entrants and products into the market including current market prices of their products. Also, female headed households have higher social cohesion and inclusion (53.50%) to indicate their natural ability to join local associations purposely to enhance their households' welfare. Conversely, male headed households have higher social capital index in groups and networks, trust and solidarity, collective action and cooperation and empowerment and political action.

The male dominance of groups and network may not be unconnected with the need to join various social groups and associations to boost their mean per capita expenditure while their dominance of collective action and cooperation may be due to their involvement in community based poverty reduction projects or communal activities. Male headed households are also more involved in empowerment and political action because of the need to enhance their economic and social status through political activities.

Table 16: Social Capital Dimensions and Gender

Social Capital Dimension	Male (%)	Female (%)
Groups and Networks	53.2	47.8
Trust and Solidarity	52.9	47.0
Collective Action and Cooperation	53.1	46.8
Information and Communication	46.0	69.0
Social Cohesion and Inclusion	47.0	65.0
Empowerment and Political Action	67.0	21.0
Density of Membership (%)	30.0	34.0
Decision Making Index (%)	73.0	58.0
Meeting Attendance Index (%)	58.4	64.3
Labour Contribution Index (%)	56.2	59.1
Cash Contribution Index (%)	57.4	60.2
Heterogeneity Index (%)	59.5	61.0
Mean	56.2	58.9

Source: Field Survey, 2007

4.14: Social Capital Dimensions and Educational Status

Table 17 shows that both male and female households' heads with secondary school education seem to have highest level of social capital dimensions index. This may be due to their involvement in agriculture and the need to enhance their economic activities through local level associations like joining cooperative societies, ethnic groups and religious institutions. However, information and communication seems to increase with the level of education as households with tertiary education were seen to be sharing information and communicating effectively among each other with little or no hindrance. This is closely followed by those with those with tertiary education either male or female household heads. Household heads with no formal education or primary school education however have low dimensions of social capital due to their level of education.

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Table 17: Social Capital Dimensions and Educational Status

Social Capital Dimension	Male%				Female%			
	Primary School	Secondary School	Specialized School	Tertiary Institutions	Primary School	Secondary School	Specialized School	Tertiary Institutions
Groups and Networks	2.5	24.4	10.6	16.9	1.9	19.6	9.7	15.5
Trust and Solidarity	6.8	25.0	8.7	14.4	9.7	19.0	9.7	6.6
Collective Action and Cooperation	10.6	29.4	1.0	3.4	7.5	27.5	9.1	2.5
Information and Communication	2.5	12.8	7.2	16.6	3.1	15.9	15.0	26.9
Social Cohesions and Inclusion	2.8	16.9	7.8	12.2	5.0	30.4	9.3	15.0
Empowerment and Political Action	6.1	27.8	15.9	13.8	4.1	14.1	9.1	9.1
Density of Membership (%)	5.9	28.1	15.6	13.1	4.4	13.6	9.4	9.7
Decision Making Index (%)	10.4	29.4	10.6	3.8	7.2	27.5	8.4	2.2
Meeting Attendance Index (%)	5.9	26.6	15.0	12.5	4.4	15.3	10.0	10.3
Labour Contribution Index (%)	2.2	23.4	9.3	16.2	2.2	20.0	10.9	15.6
Cash Contribution Index (%)	3.1	17.8	7.8	10.9	4.6	30.0	10.6	15.0
Heterogeneity Index (%)	7.2	24.0	9.3	14.1	9.4	20.0	9.0	6.9

Source: Field Survey, 2007

4.15 Social Capital Dimensions and Age of Household Heads

Table 18 implies that both male and female household heads aged between 31 and 40 have the highest value of social capital in all its dimensions and this could be attributed to the fact that the group easily joins local level institutions as well as political associations. This may also be due to the fact that the age group knows the importance of joining local and political associations especially people with other status, cultures, beliefs, religions and ethnics. It was also observed that male headed household between 41 and 50 years of age are mostly involved in collective action and cooperation especially in community projects such as monthly environmental sanitation, rehabilitation of access roads and bridges. Conversely, female house heads aged between 31 and 40 are more involved in collective action and cooperation. More importantly, the percentage of household members belonging to local level institutions and ability to communicate effectively decreases with age of households.

4.16: Social Capital Dimensions and Household Size

Table 19 shows that household sizes between 4 and 6 members have the highest value of social capital dimensions including Groups and Networks, Trust and Solidarity, Collective action and Cooperation, Information and Communication Social Cohesion and inclusion as well as Empowerment and Political action. Their values are lowest with household size less than 3 members while household sizes with members between 7 and 9 have the highest value of information and Communication and density of membership. Also it was discovered that households' sizes between 4 and 6 are more involved in groups and network, trust and solidarity, collective action and cooperation, meeting attendance as well as empowerment and political action and participation in decision - making.

Table 18: Social Capital Dimensions and Age of Household Heads

Items	Age of Households (Years)							
	Male				Female			
	< 30	31-40	41-50	> 50	< 30	31-40	41-50	> 50
Groups and Networks (%)	1.9	24.1	11.9	16.6	3.8	15.3	14.1	12.5
Trust and Solidarity(%)	5.9	13.6	14.7	14.4	10.0	19.7	15.9	5.6
Collective Action / Cooperation (%)	9.7	17.5	20.3	5.0	7.5	23.4	9.1	7.5
Information and Communication (%)	3.1	11.6	12.8	14.7	10.0	15.9	15.0	16.9
Social Cohesion and Inclusion (%)	3.4	16.6	11.9	12.8	7.5	25.0	11.9	10.9
Empowerment / political action (%)	8.4	26.9	15.9	13.6	4.1	14.1	9.1	7.8
Density of Membership (%)	5.6	22.5	14.7	10.9	5.9	15.3	17.5	7.5
Decision Making Index (%)	10.9	11.1	26.1	5.6	9.1	9.4	22.8	4.7
Meeting Attendance Index (%)	5.0	20.3	12.8	11.9	4.1	18.7	14.1	13.1
Labour Contribution Index (%)	4.1	18.1	14.1	13.6	1.9	20.3	19.1	8.8
Cash Contribution Index (%)	4.4	16.9	13.1	10.9	4.7	20.3	17.2	12.5
Heterogeneity Index (%)	6.1	23.4	10.3	14.1	9.7	19.7	8.4	8.1

Source; Field Survey, 2007

Table 19: Social Capital Dimensions and Household Size

Social Capital Dimension	Male				Female			
	1-3	4-6	7-9	>9	1-3	4-6	7-9	>9
Items								
Groups and Networks	3.8	24.1	12.2	11.2	3.8	20.1	15.6	9.1
Trust and Solidarity	6.8	24.4	15.0	5.0	10.0	19.7	15.9	3.1
Collective Action and Cooperation	10.3	20.3	17.5	3.1	9.1	23.4	8.4	7.8
Information and Communication	4.0	12.5	18.8	15.9	10.0	12.5	15.0	11.3
Social Cohesions and Inclusion	5.9	12.8	16.9	15.6	6.3	23.8	12.2	6.6
Empowerment and Political Action	7.8	22.8	11.9	8.8	5.3	11.9	15.9	15.7
Density of Membership (%)	5.6	14.7	22.5	8.4	5.9	15.3	17.5	10.0
Decision Making Index (%)	9.4	20.0	12.8	9.1	9.7	23.1	8.8	7.2
Meeting Attendance Index (%)	5.3	18.1	14.7	13.1	4.3	18.4	13.8	12.2
Labour Contribution Index (%)	4.7	18.1	14.0	14.4	5.0	14.1	19.1	10.6
Cash Contribution Index (%)	5.0	17.8	15.0	13.4	5.6	18.4	15.0	9.7
Heterogeneity Index (%)	6.6	23.6	11.6	9.4	10.6	20.0	9.7	8.4

Source; Field survey, 2007

4.17 Gender Dimensions in Building-up Social Capital.

Several studies have found that men and women's personal networks differ in composition, although they are similar in size. Men's networks tend to be more formal since men are more often involved in formal employment. Moore (1990) highlights that men's networks include more fellow workers and fewer kin than women's networks do. This feature was observed in the study areas with the formation of the farmers' group, and the roles of women in agricultural productions. Women have their respective organizations; formal organizations created to strengthen the weak social ties between the farmers and the labour class. Women's networks tend to be informal (eg. "Esusu" group, mutual finance group/chit fund group, the Rotating Contributions Associations ROSCA "alajo") and include more kin relative to men's networks.

Contrary to evidence from the literature, it was found that women who were working on the farm as family labour or as paid labour were more aggressive in coming together as a group and discussing their socio-economic and probably marital problems and trying to find some solutions to the problems. This was so because they realized that as a group they could work out solutions and ways to solve their problems and not necessarily depend on the male members of the household. A good example of this was the introduction of vocational training for young girls of the village who had dropped out of school (Akoko land and Ileoluji/Okeigbo) as well as teenage pregnancy that are rampant in Atakumosa East and West and Ilesa East local governments. Through their participation in different groups, women were also involved in decisions on how the household spends the extra income gained either through participation in the different groups e.g. whether to invest in the farm, purchase consumption goods, and/or invest in health and education of children.

Households are grouped in quintiles based on their ranking on an additive social capital index. Following Grootaert (2002), we selected the number of memberships and the index of active participation in decision-making to construct (with equal weights) an additive social capital index. The regression is done because an alternative additive index based on all six, equally weighted, social capital dimensions yielded similar result. It turns out to that households with higher social capital have higher household expenditure per capita, more assets, better access to credit and more likely to have increased their savings in the past year. Furthermore,

there was no relation between the level of social capital and the need to sell assets to make ends meet or perceive hunger. While the strength of the correlation between social capital and welfare outcomes differs by indicator, the overall pattern is quite strong: social capital correlates positively with household welfare.

In calculating the threshold to delineate household that are welfare better off and vice-versa, two-third of income was used (Aigbokhan, 2000; Okurat *et al.*, 2002). The threshold was computed to be ₦69165.59 Naira. Using this income criterion, 121 (37.81%) households were discovered to have “welfare better off”

4.18: Household Welfare Indicators, by Levels of Social Capital

Table 20 indicates that 6% of households were on forced livelihood i.e welfare worst off while 25% of households were welfare better off . We created a dummy variable to indicate whether the head of households was a farmer or not. This must be seen as an occupational variable as well as a proxy for ownership of agricultural assets. The regressions include demographic variables, such as household size and gender of the head of household. Age of the head of household and its squared term were included to capture the life cycle of household welfare. Lastly, two dummy variables were included to indicate state. These variables captured the general economic and social conditions of the states along dimensions other than those which we were able to include in the model.

Table 20 consists of one aggregate social capital index, which is a multiplicative index between the density of associations, their internal heterogeneity and the index of active participation in decision- making. The questionnaire recorded only the level of educational achievement of each adult in the household and the number of years of education was imputed from that information.

In order to assess the impact of this decision, we re-estimated all equations reported in this study with three asset variables capturing ownership of land, crops and farm equipment. The model results suggest that human capital as well as social capital each have a significant positive effect on household welfare.

Table 20: Household Welfare Indicators, by Levels of Social Capital

Variables	<i>Social Capital Quintiles¹</i>					
	1 (Welfare Worse off)	2	3	4	5 (Welfare Better off)	<i>All</i>
Income generation per	156	350			5200	1599.6
Asset Index ²	0.32	0.41	0.48	0.52	0.42	0.43
% of Children Not attending School	26.7	18.1	12.5	15	11.2	16.7
% of Households Going Hungry	22.8	20.2	15.3	19.6	17.2	19.02
% of Households with Access to Credit	12.4	14.5	18.1	18.1	19.8	12.96
Amount of Credit Received ('00 Naira)	250	271	500	500	650	434
% of Households with Increased Saving in Past year	08.5	12.4	15.4	11.5	09.4	11.4
% of Households with Forced Livelihood	05.6	15.6	21.6	23.5	25.4	18.34

Source: Field Survey, 2007

Notes: 1. Households were grouped in quintiles based on their ranking on the social capital index calculated at the average of all the six dimensions considered for this study.

The asset index ranges from 0 to 3 and is based on a principal component analysis household ownership of durable goods.

4.19: Households heads Income Model

Table (21) shows the t-statistics as well as F statistics of the social capital index in the 2SLS equation. Also, several combinations of instruments were tested and all combinations lead to significant increase in R square in the first stage equation.

Eight variables were significant. These include human capital endowment (9.610), household primary occupation (15.890), household farm size (2.510), household membership of professional association (16.630), membership of cooperative society (3.440), household location (4.280), participation in community development activities (7.040) and participation in peace making activities (-1.782). The coefficient of household human capital endowment is .337 $p < 0.1$ meaning that a 10% increase in human capital would lead to a .337 unit increase in social capital index while the coefficient of household primary occupation is 15.2 $p < 0.1$ meaning that a 10% increase in household primary occupation would lead to .113 unit increase in social capital index. Similarly, the coefficient of household farm size is .802 $p < 0.1$ indicating that 10% increase in household farm size would lead to .802 unit increase in household social capital index while a 10% increase in household involvement in professional association would lead to 0.097 unit increase in social capital index.

Furthermore, the coefficient of household membership of cooperative society is 0.731 $p < 0.1$ meaning that a 10% increase in household membership of cooperative society would yield a .731 increase in social capital index while the coefficient of household location is .669 meaning that the location of household matters as those in urban centres were found to have higher social capital index than those in rural areas. More importantly, the coefficient of household involvement in community development activities is 0.482 $p < 0.1$ signifying that a 10% increase in household involvement in community development projects would lead to 0.482 unit increase in social capital index while the coefficient of participation in peace-making activities is .076 $p < .001$ meaning that a unit increase in household participation in peace-keeping would lead to .076 decrease in social capital index.

Table 21: Household Income Model

Variables	Coefficients
Intercept	.923 (5.768***)
Household's per capita expenditure	0.307 (-1.024*)
Human capital endowment	0.337 (9.610***)
Household's total asset	0.666 (-0.432)
Sex of household	0.850 (0.190)
Marital status household head	0.664 (-0.434)
Primary occupation of household	0.113 (15.890***)
Household size	0.282 (-1.079*)
Household Farm size	0.802 (2.510**)
Household Membership of cooperative	0.731 (3.440***)
Membership of professional association	0.097 (16.630**)
Groups and Networks	0.0178 (0.55)
Trust and Solidarity	0.0019 (0.76)
Collective Action and Cooperation	0.0001 (1.70*)
Information and Communication	0.0159 (1.87*)
Social Cohesions and Inclusion	1.0121 (1.103*)
Empowerment and Political Action	0.0421 (0.215)
Density of Membership (%)	0.0002 (-0.010)
Heterogeneity Index (%)	0.0159 (1.883*)
Decision Making Index (%)	0.267 (-1.112*)
Meeting Attendance Index (%)	0.410 (-0.826)
Cash Contribution Index (%)	-0.1629 (-0.102)
Labour Contribution (%)	0.007 (1.782*)
R ²	.510
Adjusted R	0.4832
F-statistics	12.300

Notes: 1. Dependent variable = In (income per capita)
2. t-statistics are in parenthesis and are based on robust standard errors
*Significant at 10%, ** significant at 5%, *** Significant at 1%

Source : Field Survey, 2007

4.20 Household Welfare and Social Capital: The Aggregate Model

Social capital has returns to the household that are similar in magnitude to those from human capital and it provides little guidance as to which aspect of social capital produces this result. It is also possible to consider that each social capital dimension acts independently, and that the effects are additive. The conceptual literature on social capital is not advanced to the stage that theoretical arguments can be put forth to select one approach over the other, hence the use of additive model. In this section we have attempted to get a step closer to the structural equation which underlies the reduced-form model of equation (1), by estimating the impact of social capital on variables portraying the ways in which social capital contributes to household welfare. We found that households with high social capital are better able to accumulate physical assets and savings and to obtain credit. This should help households cope better with the risk of income fluctuations. The number of memberships, trust and solidarity, social cohesion and inclusion, and active participation in decision-making were the key dimensions. We suggest that different mechanisms are at work. The benefits to household welfare are primarily the result of exchanges in knowledge, which are maximized among association members of different economic backgrounds.

This section presents the impact 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 Pritchett(1997), Grootaert (2001), Okunmadewa et al (2005) and Yusuf (2008) use both approaches and conclude that additive and multiplicative variables are valid approaches for introducing social capital in the household behavioural model.

Table 22 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 26.00 percent of the variations in per capita expenditure of households are explained by the specified human capital and demographic factors.

The larger household especially, those engaging in non-farming activities, and residing in rural areas significantly reduced the household welfare.

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 R². Along with the demographic variables, aggregate social capital index significantly influences the welfare status of households. At mean social capita index of 20.25, the coefficient of the variables shows that a one unit increase in social capital (4.18 percent) would increase household per capita expenditure by 0.3134 percent. Including social capital increases the R-squared from 0.2613% to 0.3134%

The third column of Table 22 shows the disaggregation of female household members in the study area with the inclusion of nine additive social capital variables. The coefficient of the variables shows that a one unit increase in social capital (4.18 percent) would increase female household per capita expenditure by 0.681 percent.

The variables include Groups and networks, Trust and solidarity, Collective action and cooperation, Information and communication, social cohesion and inclusion, empowerment and political action, household memberships in associations, index of participation in decision making, and membership of financial institutions. The disaggregation shows that the effects of social capital on welfare of female households are traceable to groups and networks (2.0), trust and solidarity(1.3%), collective action and cooperation(9.1%), information and communication(2.8%), social cohesion and inclusion(6.5%), household memberships in associations (4.8%), index of participation in decision making (2.5%), and membership of financial institutions (1.8%).

Conversely female household's attendance of meeting negatively affects their welfare as too much meeting attendance reduced welfare by 2.5%. Also, large household size dampens female household welfare as a unit increase in household size reduced female household welfare by 0.782%. In the same vein, a unit increase in age reduces female house hold welfare by 0.319%. However, a unit increase in years of formal education enhanced female household welfare by 0.913 5%. Introduction of heterogeneity index in the new model has a better explanatory power as reflected in the adjusted R² of 0.5821. 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

The fourth column indicates the effects of social capital dimensions on male households in the study area using ten additive social capital variables such as and networks, Trust and solidarity, Collective action and cooperation, Information and communication, social cohesion and inclusion, empowerment and political action, household memberships in associations, index of participation in decision- making, meeting attendance and membership of financial institutions. The coefficient of the variables shows that a one unit increase in social capital (4.18 percent) would increase male household per capita expenditure by 0.503%. The social capital variables that were significant include: Groups and networks (2.0%), Trust and solidarity (1.3%), Collective action and cooperation (9.1%), Information and communication (2.8%), social cohesion and inclusion (6.5%), empowerment and political action (9.1%), household memberships in associations (2.2%), meeting attendance (-2.5%) participation in decision making (2.5%), and membership of financial institutions (10.1%). Large household size also dampens male household welfare as a unit increase in household size reduced female household welfare by 0.782%. However, male participation in politics enhanced their welfare more than their female counterparts. Similarly, a unit increase in years of formal education enhanced welfare of male households by 0.123%.

The fifth column of Table 22 reveals the inclusion of nine additive social capital variables. These are: Groups and networks, Trust and solidarity, Collective action and cooperation, Information and communication, social cohesion and inclusion, empowerment and political action, household memberships in associations, index of participation in decision making, and membership of financial institutions. In this respect, heterogeneity of associations can be source of information for improved welfare stats 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 R2 of 0.433. This disaggregation shows that the effects of social capital on welfare are positively related to household involvement in group and network (8.1%), Trust and solidarity (2.2%), collective action and cooperation (2.6%), information and communication (5.2%), social cohesion and inclusion (4.2%) , empowerment and political action () membership of association (6.3%) decision making (0.026%) meeting attendance (-0.017%) and membership of financial institutions (7.6%).

In addition to the estimated effects from human and social capital endowments, the model results show that household welfare is also influenced strongly by the household's demographic characteristics and location. The column suggests that the benefits from participating in internally heterogeneous associations are higher than from associations whose members are more alike. The reasons for this may have to do with the exchanges of knowledge and information that occur among members. Members from different backgrounds may learn more from each other because they have different knowledge to start with. A further analysis of heterogeneity (by including each dimension as a separate regressor in the model) supported this conclusion: the economic dimensions of heterogeneity (occupation, economic status and education) matter the most. In other words, associations where members differ in economic attributes yield more benefits to their members than associations where members differ primarily in demographic attributes.

Location also matters: benefits are greater if the association brings together people from different neighbourhoods. Differences in location and economic characteristics indeed maximize the chance that association members have different knowledge and hence maximize the potential gain from exchange. We argued that there are several ways in which social capital is truly "social." First, there are spill over effects from social interaction undertaken in one sphere (e.g. social, religion, cultural) into other spheres, leading to improved access to financial and other resources.

Table 22: Gender and Social Capital.

Characteristics	Basic	Multiplicative	Additive		
			Women ^{1,2}	Men ^{1,2}	Pooled
Social Capital Dimensions					
Groups and networks			0.0200 (4.03***)	0.1204 (1.17*)	0.0814 (3.21***)
Trust and Solidarity			0.0136 (2.51***)	0.0610 (2.42**)	0.0218 (3.19***)
Collective Action and Cooperation			0.0915 (0.93***)	0.0319 (1.25*)	0.0256 (3.51***)
Information and Communication			0.0281 (2.74)	0.0812 (0.93)	0.0518 (4.13***)
Social cohesion and Inclusion			0.0649 (4.05***)	0.4183 (3.16**)	0.0417 (2.41**)
Empowerment and Political Action			0.00091 (1.34*)	0.0719 (3.21**)	0.0016 (4.93***)
Cash contribution index			0.0059 (1.26*)	0.0364 (3.17***)	0.0027 (0.12)
Labour contribution			0.0649 (4.05***)	0.4183 (3.16***)	0.0317 (2.41*)
Density of Membership			0.048 (4.61***)	0.0216 (2.82***)	0.0625 (1.26*)
Heterogeneous Index			0.0327(0.74)	0.0234(0.74)	0.0218(0.76)
Meeting Attendance			- 0.0254 (0.96)	-0.0245 (1.09*)	- 0.0017 (2.25**)
Participation in Decision Making			0.02581(3.21**)	0.2582 (2.16**)	00.0258 (0.93)
Membership in Financial Institution			0.0181 (2.94***)	0.1091 (2.63***)	0.0755 (5.14***)
Household Size	-0.0638(7.16)	-0.0732 (9.16)	- 0.0782 (-1.06*)	- 0.0781 (-1.41*)	-0.0782 (6.71***)
Educational Status per Household Head	0.0285(5.41)	0.0152 (4.12)	0.913 (1.18*)	0.123 (2.97***)	0.681 (4.17***)
Age of Household Head	-0.0013 (0.71)	0.00912 (0.95)	- 0.319 (1.30*)	0.225 (1.37*)	-0.0016 (1.18*)
Age of Household Head Squared	0.0391 (4.01)	0.0417 (4.19)	-0.0017 (1.47*)	-0.0317 (1.17*)	0.0081 (3.41**)
Household Asset Score	-0.00273 (3.48)	-0.00126 (3.23)	0.0118 (3.31***)	0.0115 (1.90*)	-0.0031 (4.15***)
Social Capital Index		.0052(4.18)	0.681	0.503	0.487
Intercept	13.19(14.12)	15.35(23.11)	-2.9418 (8.682***)	-2.1103 (8.081***)	14.29 (45.19***)
Adjusted R ²	0.2613	0.3134	0.5821	0.4684	0.4332
F-Statistic	28.11	32.7	26.45	24.78	25.16

Source : Field Survey, 2007

4.21 Social Capital and Household Welfare: Two-Way Causality?

Following Grootaert (1999), Okunmadewa et al (2005) and Yusuf (2008), social capital can be regarded as an input in the household's production function and can be modelled similar to human capital and other household asset endowments. According to them, like human capital, social capital can be, at least partly, consumption good. In consonance with this assumption, this study has tested for existence of two-way causality with the aid of instrumental variable. The instrument chosen is a multiplicative index of whether the members of the most important local level institutions that a household belongs to are of the same religion, culture or trust. The real challenge is to find a suitable instrument set for social capital and the instrument must determine social capital and not welfare (nor is to be determined by household welfare). Using the aggregate social capital model as indicated in Table 22, the original social capital index was replaced by the instrumental variable. The instrumental variables used for social capital are:

- (1) Ethnic and religious diversity in the study area which affects directly the potential heterogeneity of associations, a key component of aggregate social capital index.
- (2) The density and effectiveness of institutions in the study area.
- (3) The village's involvement in the procurement of social services and infrastructure, these include education, primary health, roads, boreholes, sanitation and other infrastructure.

The choice of the instrument used for social capital is guided by available information and submissions by Grootaert(2001) and Grootaert et al (2002). In this context eight possible instruments were used; an index of ethnic and religious diversity, the number of existing associations in the study area, the percent of institutions that were effective, and indexes of community involvement in the provision of primary health, education services, deep wells, road maintenance and communications

Table 23 shows the test-statistic's p-value as well as the coefficient and t-statistic of the social capital index in the 2SLS equation. Several combinations of instruments were tested and all combinations lead to significant increases in R-squared in the first stage equation.

The instrumental variables method leads to higher coefficients (ranging from 0.0059 to 0.0127) for the social capital index than in the OLS model (where it was 0.0052).

This indicates that equation (1) is correctly specified and that social capital is an exogenous determinant of household welfare. If there were significant reverse causality, the coefficient of the social capital index in the 2SLS regression would have been lower than the OLS coefficient Grootaert (2001), Yusuf (2008) and Okumadewa et al (2005). The higher coefficient of the instrumented social capital index implies that a 1% increase in the household's social capital endowment leads to 0.41 percent increase in household expenditure per capita. The corresponding increase in household expenditure using OLS estimate for the social capital index is 0.31 percent

Table 23: Social Capital and Household Welfare: Instrumental Variable Results

Instrument Set	Social Capital Index		Incremental	p-value (Test)
	Coefficient	t-statistics	R-squared	
1. Diversity, institutional effectiveness	0.0216	2.51**	0.041	0.41
2. Diversity, institutional effectiveness, institutional density	0.0059	3.17**	0.051	0.61
3. Diversity, institutional effectiveness, community involvement in health, education, water supply, roads	0.0127	2.58**	0.41	0.64
4. Diversity, institutional effectiveness, institutional density, community involvement in health, education, water supply, roads	0.0715	2.91**	0.058	0.67

Source: Field Survey 2007

4.22 Social Capital Effects on Asset Accumulation

There are different reasons why households in the study area acquired social capital either by investing time and/ money in local associations. 13% of households cite that they joined the groups by birth, 21% cite mandatory membership as the prime reason while others voluntarily become members because of the direct impact on the household's livelihood, the impact on the community, and assistance in case of emergency (Grootaert, 2006).

Being a mixture of rural and semi urban setting, a prime consideration for households is to build up coping strategies to deal with the risk of income fluctuations. This involves accumulating assets (which can be sold or borrowed against the time of need) or arranging access to credit. Out of a list of durable goods, the average household owned only 3.4 items. Most frequently owned were houses, radio, motorcycle, and sprayer. Improving access to credit and savings is a major reason why households in the study area join local associations. 65% of all memberships are primarily for this purpose, with a stronger concentration in Atakumosa East, Oriade and Ilesha East local government areas of Osun State as well as Akoko North and Idanre Ifedore Local government areas of Ondo State which have tradition of rotating credit (ROSCA) saving associations. Many other groups have the provision of credit as a secondary objective.

We re-estimated the equation with an asset score variable as dependent variable to see whether social capital is effective in contributing to asset accumulation. Since the data do not contain price information, this score was calculated using weights derived from a principal component analysis of the 15 durable goods. The results indicate that membership of financial institutions, belonging to internally heterogeneous associations and participating actively in them is linked with higher asset ownership. The variables that were significant include groups and networks, trust and solidarity, collective action and cooperation, social cohesion and inclusion, number of membership, decision- making, household size, educational status of household head, age of household head and age of other members of the household while social capital plays a positive role in asset accumulation by the household, its importance relative to education is less than was the case for current expenditure.

The coefficient of group and network was significant at $p < 0.005$. A unit increase in group and network by household heads would lead to 0.0017% increase in asset accumulation. while the coefficient of trust and solidarity is 0.0023 $p < 0.005$ indicating that a five percent increase in trust and solidarity by household heads would lead to 0.0023 unit increases in asset accumulation. In addition, Household size had 0.0025 ($p < 0.05$) which means that as the size of the household increases in number, assets accumulation increases at a very slow rate of 0.0025. This could be explained by the fact that available money would be spent on taking care of large family. The coefficient of age of household head is 0.0611 ($p < 0.5$) meaning that as the age of household head increases, asset ownership would be high especially as number of years in local association increases. Furthermore, the coefficient of participation in decision- making is 0.0319 ($p < 0.5$) which indicated that asset accumulation by household head increases as the household head gets more involved in decision making (Grootaert, 2006) . However, the coefficient of meeting attendance is -0.0081 ($p < 0.05$) which means that the opportunity cost of household's attendance of meetings is his inability to acquire more assets.

Membership of financial institution is insignificant in asset accumulation while male household heads tend to acquire more assets 0.0016 than their female counterparts 0.0072. This may be due to the fact that women naturally prefer to use their proceeds for the overall well-being and economic advancement of the family (Author 2008).

Another aspect of asset accumulation is the ability to have savings. The questionnaire did ask respondents about record of the amount of savings and whether households had been able to increase savings in the past year. It was revealed that households with more memberships in local associations were significantly more able to do so than others (Column 2, Table 24). The effect was especially strong from memberships in cooperative as well as credit and savings associations indicating that such organizations actually achieve their professed objective. The initial wealth position of the household also mattered, as richer households were significantly more likely to increase their savings. This underscores, of course, the importance of credit and savings associations for the poor.

Table 24: Social Capital and Asset Accumulation

Variables	Asset Ownership ¹	Increasing Savings ²
.Groups and networks	0.0017 (4.19***)	0.0041 (2.91**)
Trust and Solidarity	0.0023 (2.51**)	0.0071 (0.49)
Collective Action and Cooperation	0.0091 (5.13***)	0.0081 (3.18***)
Information and Communication	0.0119 (1.41*)	0.0061 (4.18***)
Social Cohesion and Inclusion	0.0028 (1.93*)	0.0061 (2.18**)
Empowerment and Political Action.	0.0009 (0.96)	0.0009 (1.18*)
Cash contribution index	0.0218(2.12**)	0.0058(1.44*)
Labour contribution index	0.0025(1.14*)	0.0037(0.57)
Heterogeneity index	0.0036(1.09*)	0.0562(0.34)
Density of Membership	0.0083 (3.67***)	0.0010 (2.91**)
Meeting Attendance	-0.0081 (0.72)	-0.0047(1.27*)
Participation in Decision Making	0.0319 (6.82***)	0.0091 (1.39*)
Membership in Financial Institution	-	0.0193 (3.18***)
Household Size	0.0025 (3.89***)	-0.0007 (0.94)
Educational Status per Household Head	0.0072 (5.41***)	0.0085 (1.20*)
Female Head of Household	0.0072 (1.11*)	0.0041 (0.62)
Male Head of Household	0.0016 (1.18*)	0.0074 (0.91)
Age of Household Head	0.0611 (2.15**)	-0.0071 (1.29*)
Age of Household Head Squared	-0.0914 (5.10***)	0.0031 (0.92)
Household Asset Score	-	0.0031 (4.82***)
Intercept	-01.29 (1.27)	-
R-squared	0.42	-
F-statistics	41.52	-
Log Likelihood	-	-351.09
Chi-squared	-	138.5
Probability > Chi-squared	-	0.00
Notes: 1. OLS model with asset score as dependent variable; reported are coefficient and t-values based on robust standard errors. 2. Probit model of households who increased savings in the past year; reported are probability derivatives at the mean of the explanatory variables (or for 0 to 1 change in the case of dummy variables) and z-scores based on robust standard errors.		

Source: Field Survey, 2007

4.23 Social Capital and Access to Credit

Table 25 confirms the importance of financial associations for access to credit and amount received. Nine variables were significant; Trust and Solidarity(3.72), Collective action and Cooperation(2.05) Number of Memberships(2.36), Social Cohesion and Inclusion(3.81), Meeting attendance(3.02) Index of Participation in Decision Making(3.63), Membership of Financial Institution(2.94), Age of Household head (2.81) and Age of Household squarer(3.18).

The coefficient of Trust and Solidarity is 0.0925 ($p < 0.001$) meaning that a 1% increase in trust and solidarity would lead to 0.93 unit increase in the amount received. This may be due to high premium placed on trust and solidarity by most local associations especially when the beneficiary is a member. In addition, the coefficient of Collective Action and Cooperation is 0.0315 ($p < 0.01$) meaning that a 10% increase in Collective Action and Cooperation would lead to 3.15 increase in amount received. The reason may be due to the fact that most financial institutions and government assistance are readily available to those belonging to cooperative societies.

The coefficient of Social Cohesion and Inclusion is 0.0913 ($p < 0.001$) which means that a 10% increase in Social Cohesion and Inclusion would lead to 9.13 increase in amount received. This is because Social Cohesion and Inclusion promotes trust and cooperation needed to access credit by members of local associations. This proposition supports the allusions of Grootaert, (2006), Molyneux(2002), Lawal and Shittu (2006) and Lawal(2004). More importantly, the coefficient of index of participation in decision- making is 0.0518 ($p < 0.001$) indicating that a 10% increase in decision making would lead to 5.18 1crease in amount received especially when one considers the social status of members in local associations while the coefficient of female household head is 0.0913($p < 0.0010$) which means that a 10% increase in membership in local association would lead to a 9.13 increase in loan accessibility by female members.

However, Table 25 also makes it clear that membership and active participation in other local associations, whose prime objective is not financial, also contributes to access to credit. This is perhaps the sense in which social capital is truly “social,” in that the building of networks and trust among members in the context of a social setting spills over into financial benefits, e.g. by easier access to credit. This

interpretation of social capital has been proposed by several authors such as Putnam (1993), Dasgupta (1988) and Fukuyama (1995). Sharma and Zeller (1997) report that the number of self-help groups in communities in Bangladesh has a positive spillover effect on the performance of credit groups. Similar spillovers have been documented in other sectors as well.

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Table 25: Social Capital and Access to Credit

Characteristics	Access to Credit (probit ¹)	Ln (Amount of Credit Received) (tobit) ²
Social Capital Dimensions		
Groups and networks	0.0107 (1.19*)	0.0415 (1.91*)
Trust and Solidarity	0.0627 (3.07***)	0.0925 (3.72***)
Collective Action and Cooperation	0.0913 (0.93)	0.0315 (2.05**)
Information and Communication	0.0319 (0.74)	0.0510 (0.34)
Social Cohesion and Inclusion	0.0915 (5.15***)	0.0913 (3.81***)
Empowerment and Political Action.	0.0218 (1.04*)	0.0179 (1.08*)
Membership in Financial Institution	0.1531 (3.18***)	2.1093 (2.94***)
Household Size	0.0192 (1.16*)	0.0241 (1.14*)
Educational Status per Household Head	-0.0316 (1.31*)	-0.0611 (0.91)
Female Head of Household	-0.0311 (0.71)	0.0913 (0.93)
Male Head of Household	-0.0162 (1.04*)	0.0413 (0.72)
Age of Household Head	0.0163 (1.05*)	0.0623 (2.81**)
Age of Household Head Squared	-0.0319 (2.74**)	0.0031 (3.18***)
Asset index	-0.0814 (0.39)	0.0914 (0.71)
Density of Membership (%)	0.0109 (1.17*)	0.2019 (2.36**)
Decision Making Index (%)	0.0180 (1.12*)	0.0518 (3.63***)
Meeting Attendance Index (%)	0.0009 (0.61)	0.0031 (3.02)
Labour Contribution Index (%)	0.02141(0.13)	0.01131(0.13)
Cash Contribution Index (%)	-0.0056(0.21)	-0.0047(0.42)
Heterogeneity Index (%)	-0.0076(0.24)	-0.0064(0.31)
Farmers association	0.2315(2.01*)	0.3315(1.40*)
Cooperative Societies	0.0241(0.11)	0.0351(0.21)
ROSCAS	0.0032(0.03)	0.0088(0.47)
Friends and families	-4.7501(-2.42)	-3.5420(-1.25*)
Local money lenders	0.0305(0.18**)	0.01273(0.28)
Personal savings	0.0218(0.18)	0.0249(0.22)
Banks	0.0158(0.27)	0.02312(0.34)
Intercept	-	-2.3016 (0.61)
Log Likelihood	-515.3	-1001.4
Chi-squared	121	149.2
Probability > Chi-squared	0.00	0.00
Notes: 1. Probability derivatives at the mean of each explanatory variable (or for 0 to 1 change in the case of dummy variables) and z-scores based on robust standard errors		
2. Tobit coefficients and t-statistics		

Source: Field Survey, 2007

4.24 Social Capital and Collective Action

Apart from contributing to asset accumulation and access to credit, social capital has also been documented to aid in collective action and collective decision making. This is especially relevant in rural settings where common property resources, such as construction and rehabilitation of access roads, environmental sanitation, sinking of deep wells, forestry or grazing land, need to be managed by a community (Narayan, 1995; Uphoff, 1992). This tradition manifests itself also in collective action often undertaken for the purpose of constructing or maintaining local infrastructure.

We regressed the number of times per year households participated in collective action against the social capital variables and the usual control variables (Table 28). Four variables are significant; Social cohesion and inclusion (3.38), Number of Membership (2.36), Member of Financial Institutions (2.11) and Age of Household head (2.93). The coefficient of Social Cohesion and inclusion is 0.3172 ($p < 0.001\%$) meaning that a one- percent increase in social cohesion would lead to 3.172 increase in collective action, while the coefficient of number of membership is 0.4100 ($p < 0.01$) indicating that a ten percent increase in number of membership would lead to 0.4100 increase in collective action. The coefficients of member of financial institution is 1.0177 ($p < 0.01$) signifying that a ten- percent increase in membership of financial institution would yield 2.18 increase in collective action while a one percent increase in age of household head would lead to 2.93 increase in collective action. Households who are members of more associations are more likely to participate in collective action. This attests again to the “social” nature of social capital—networks and interactions engaged in as part of social, religious, financial, or other objectives spillover into higher participation in activities which benefit the community at large.

The role of these socio- demographic factors is a noteworthy contrast with the role of the economic factors such as education, occupation and economic status which were the key contributing factors to increased household welfare. The benefits to household welfare come primarily from exchanges in knowledge, while the ability to organize collective action is more a function of trust and a shared perception of a common good.

It is observed that households which provide in-kind contributions (i.e. through working) to their associations are more likely to participate in collective action (Grootaert 2006). Another observation from the collective action regression is that wealthier households participate less in collective action. Collective action is organized at the level of a community, and it is discovered that collective action regression using the village as unit of observation revealed that villages with a high density of associations are not necessarily better able to organize collective action while villages where there is a tradition of paying membership dues in kind are more successful in organizing collective action (Benu 2001). This finding strengthens the case for viewing social capital as an input in the household's production function. This in turn opens up the case for investing in social capital, just as investments are made in human capital.

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Table 26: Social Capital and Collective Action

Characteristics	Collective Action ¹	
	Household	Level of Association
Groups and networks	0.1167 (1.08*)	0.0121 (1.01*)
Trust and Solidarity	0.0549 (1.21*)	0.0114 (1.03*)
Collective Action and Cooperation	0.0115 (1.13*)	0.0115 (1.21*)
Information and Communication	0.0116 (1.25*)	0.1520 (0.89)
Social Cohesion and Inclusion	0.1168 (3.08***)	0.3172 (3.38***)
Empowerment and Political Action.	0.0117 (1.41*)	0.0413 (1.18*)
Number of Memberships	0.0048 (3.07***)	0.4100 (2.36**)
Meeting Attendance	-0.1173 (0.61)	-1.0423 (1.10*)
Participation in Decision Making	0.9113 (1.21*)	0.0713 (0.63)
Membership in Financial Institution	1.1531 (2.18*)	1.0177 (2.11**)
Household Size	0.5180 (1.09*)	2.0473 (1.52*)
Educational Status Household Head	0.0632 (1.52*)	-0.0611 (0.42)
Female Head of Household	-0.0511 (0.17)	3.0811 (0.97)
Male Head of Household	0.0715 (1.18*)	-0.0514 (1.43*)
Age of Household Head	0.0923 (1.40*)	0.0991 (2.93**)
Age of Household Head Squared	-0.0491 (2.49**)	-0.0517 (0.26)
Household Asset Score	-0.2190 (2.97**)	-4.3016 (1.07)
Intercept	-13.4290 (1.82**)	-32.0917 (0.87)
R-squared	0.27	0.54
F-statistics	18.16	8.4

Notes: 1. Dependent variable is the number of times household participated in collective action .During the last year. Reported are OLS coefficients and t-statistics based on robust Standard errors.

Source: Field Survey, 2007

CHAPTER FIVE

5.0 SUMMARY, CONCLUSION AND POLICY RECOMMENDATIONS

The study has examined the gender dimension of social capital and its effects on rural household welfare in Osun and Ondo states, Nigeria. Primary data were collected by means of structured questionnaire. The major findings and policy recommendations are summarized in this chapter. Also contained in this chapter is suggestion for further research.

5.1 MAJOR FINDINGS

Socio-economic and Demographic Characteristics.

The result of the descriptive statistics revealed that majority of the households (51.3%) are headed by males while 48.7% are headed by females. Most of the household heads sampled were still in the economically active age bracket as average age of male household heads is 44.10 years while that of female household heads is 42.3 years. The average household size for male household heads is 6 while that of female is 5. For the educated ones, the educational attainment varies from primary (42.07%) through secondary (24.39%) and post-secondary (29.27%) for male household heads while that of female decreased for primary (44.87%) through secondary (34.62%) and post secondary (16.03%) levels. The main economic activity of the sampled household heads (79.23% for male) and (73.72% for female) is crop farming. Majority of household heads (24.39% male) and (22.44% female) cultivated between 2-5 hectares of land. The main source of credit for the sampled household heads (48.78% male) and (50% female) is through local level institutions.

5.2 Dimensions of Social Capital and Welfare

The study examined on gender basis, contributions of social capital dimensions to welfare of household heads in the study area. Twelve dimensions of social capital were identified in the study area; these are groups and networks, trust and solidarity, collective action and cooperation, social cohesion and inclusion, information and communication and empowerment and political action, density of membership, meeting attendance, heterogeneity index, labour contribution, cash contribution, and participation in decision-making. Average household head sampled in the study area belongs to at least three associations. Average meeting attendance by

both sexes is two while density of membership in association is 30% for male household heads and 34% for female household heads. Also, male respondents participated in three out of five decisions taken while females participated in just two. Index of group and network is 73.2% for male household heads while it is 57.8% for female, while that of information and communication is 46.30% and 68.70% respectively.

The result indicated that male household heads were more in formal network of associations while female household heads were into informal local level associations. Index of empowerment and political action was 67.30% for male household heads while it was 21.00% for their female counterpart. The decision making index was 73.2% for male household heads and 57.8% for female. The average monthly cash contributions for male household heads was N895.67 and N985.67 for female while the average annual labour contribution was 2.4 mandays for male household heads and 3.2 mandays for female. The results indicate that membership of financial institutions, belonging to internally heterogeneous associations and participating actively in them is linked with higher asset ownership.

Membership of financial institution is insignificant in asset accumulation while male household heads tend to acquire more assets than their female counterparts. This may be due to the fact that women naturally prefer to use their proceeds for the overall well-being and economic advancement of the family. Participation in decision-making activities leads to higher asset accumulation by both sexes. However, meeting attendance negatively affected household heads per capita expenditure which means that the opportunity cost of household's attendance of meetings is his inability to acquire more assets.

Household heads' involvement in trust and solidarity index leads to higher increase in the amount received from local level associations. This may be due to high premium placed on trust and solidarity by most local associations especially when the beneficiary is a member. In addition, the result indicated that Collective Action and Cooperation increased the amount of credit received by household heads in the study area. The reason may be due to the fact that services of most financial institutions and government assistance are readily available to those belonging to cooperative societies and other local level institutions especially the registered ones. The same applied to Social Cohesion and Inclusion which lead to significant increase in the

amount received by household heads in the study area. This is because Social Cohesion and Inclusion promotes trust and cooperation needed to access credit by members of local associations, this proposition supports the allusions of Grootaert, (2006), Molyneux,(2002), Lawal and Shittu, (2006) and Lawal (2004). More importantly, active participation in decision making activities lead to higher increase in the amount received especially when one considers the social status of members in local associations.

With the use of actual social capital index, the explanatory variable is 0.682 for female household heads and 0.511 for male household heads. There is also higher coefficient (0.0940) for female household heads and 0.0327 for male. This means that an increase in social capital by one unit would lead to 9.4 percent increase in female household per capita expenditure and 3.27 percent increase in male household per capita expenditure.

More importantly, using one third of total income of 69,165.59 Naira as basis for determining the level of poverty, it was discovered that 52.52 percent of women were better off while 42.07 percent of the men were better off.

The disaggregation of social capital into twelve dimensions indicates the level of diversity among members of local associations with meeting attendance having negative influence on the per capita expenditure of households. Meeting attendance led to 2.5% reduction in welfare for both sexes. In addition, a unit increase in the level of education of female household head would lead to 9.1% increase in her per capita expenditure while a unit increase in the level of education of male household head would lead to 1.2% increase in his per capital expenditure. In the same vein, a unit increase in women participation in decision making would lead to 8.1% rise in their households overall well-being while a unit increase in men's involvement in decision-making would lead to 7.1% increase in their households per capital expenditure. The coefficient of household size is 0.0782 indicating that a unit increase in household size would reduce the welfare of both sexes by 7.8%

The relative importance of social capital is further understood by comparing the model with or without the social capital variables and it was discovered that R2 increases from 0.26 to 0.31 meaning that social capital strongly influences household welfare. The basic data from the study area indicate that households with higher social capital are better off in terms of welfare using different dimensions of well-being.

Social capital affects household welfare but the test of reverse causality using instrumental variables indicates that the effect of social capital on welfare dominates the reverse effect in explaining the correlation between the two variables.

Using a reduced form model of households' welfare which controls for relevant household characteristics, the contributions of social capital to households' welfare was estimated and the result showed that a unit increase in social capital for a woman household head would lead to 0.94% increase in her welfare while a unit increase in a man household would lead to 0.33% increase in his welfare status. When household expenditure is related to the exogenous asset endowment of the household on gender basis, it was discovered that social capital enhances the welfare of women more easily than men especially when one considers the impact of social capital dimensions like groups and network, trust and solidarity, information and communication, social cohesion and inclusion, number of membership, participation in decision making and membership of financial institution. More importantly, the monthly average per capita expenditure of male household head in the study area was N2936.67 while it was N3221.82 for female household heads.

It was discovered that female household heads spent more money on clothing and medical (N1345.68 and N695.34 respectively) than their male counterparts while male household heads spent more on food and education of children.

5.3 Conclusion

In this study, we have estimated, empirically, gender dimensions and the impact of social capital on household welfare in Osun and Ondo states, Nigeria. The focus was on households' memberships in local level institutions/associations—an aspect of social capital which is particularly relevant for households' day-to-day decisions are affecting their welfare. The basic data indicated a positive correlation between social capital and household welfare: households with high social capital have higher expenditure per capita, more assets, higher savings and better access to credit.

The magnitude of the social capital effect was found to be similar to the underlying structural equations that treat social capital as an input, together with human and physical capital, in the household's production function. The effects of social capital operate through (at least) three mechanisms: sharing of information among association members, reduction of opportunistic behaviour, and knowledge to

be shared is larger and hence the potential benefit to members is higher. We found indeed that heterogeneity along dimensions such as education, occupation and economic status confers the greatest benefits. Social capital reduces the probability of being poor and the returns to household investment in social capital are higher for female household heads than their male counterparts. This is especially the case for the number of memberships and households' active participation in decision making. This underscores the potential pay-off to female household heads investing more time in creating social capital by participating actively in local associations. Social capital is hypothesized to have several long-term benefits, such as better access to credit and a resulting better ability to smoothen out income fluctuations by borrowing and/or accumulating assets.

Membership in associations whose primary role is financial (e.g. rotating credit and savings associations) has a strong positive effect. The findings support a policy by donors and governments to invest in social capital—either directly or by creating an environment friendly to the emergence of local associations. Our findings also indicate that investments in local social capital deserve to be part of poverty alleviation programs since the returns to investment in social capital are larger for female household heads than for male. Our findings provide indications of the type of associations which are likely to impart the largest benefits (professional associations, religious associations, ethnic groups, and cooperative and thrift societies).

5.3 Recommendations

The findings of this study reveal that social capital and its dimensions have positive influence on per capita expenditure of rural households and also reduce the probability of being poor. This is evident through household heads involvement in local level institutions like cooperative and thrift societies, professional associations, ethnic groups, religious groups and community development associations among others. Policies that enhance households' participation in social capital formations and their welfare are recommended.

- Social capital enhances access to credit, savings, accumulation of assets and compliments human capital endowment in enhancing welfare and reducing poverty. Therefore, all policy initiated towards reducing rural poverty should involve social capital formations.

- Based on the finding that mixed groups are an important type of organization where women's presence has greater effect when they participate in decision making, we would therefore recommend that attention should be exercised in forming and supporting mixed groups to ensure that women are given both a clear voice and decision-making power.
- Since women have higher index of information and communications, government may increase the monitoring and enforcement of implementing agreements and contracts among women and their customers, while traditional and communal activities may be regularly organised to get them more involved in collective action and cooperation, trust and solidarity as well as empowerment and political action.
- All tiers of government should accord priority to the formation of social networks since it has been a key instrument in undertaking social and productive projects, improving the living conditions and fighting social exclusion of households in the study area. The households that engaged in social capital are more successful especially in the area of assets accumulation, obtaining external resources and the development of more productive activities, because it enables those who possess it to obtain benefits that are unavailable to those who act individually or lack important connections.
- Synergy must be established between social capital and government policy, whose task is to create local level institutions whose objectives are financial and social to facilitate active participation of male and female households in the associations while government policy on security and social transformation should involve social networks since social capital is a key factor for recovering from social, ethnic, religion and political problems.

5.4 Contributions of the study to Knowledge

Social capital components in the study area impacted positively on household welfare and enhanced asset accumulation, access to credit and savings, hence the need for rural households to engage in social capital formations to boost their agricultural productivities.

Participation in local level associations and participation in collective action stimulates social capital formations thereby guarantee transfer of wealth, information and knowledge from the rich to the poor.

The problem of income inequality, food and social insecurity could best be addressed through interactions generated from local level associations.

5.5 Philosophy of the study

Nigeria's social and development problems could be minimized through social capital at no cost to the government since members of these associations generate these among themselves; the resources could therefore be channelled to other developmental purposes.

5.6 Suggestion for Further Research

As identified throughout this study, further work on estimating the influence of social capital on network base as well as the structural equations which portray the effects of social capital on access to credit or other inputs, and on group decision-making would further add to the case for treating social capital as genuine "capital" in the household's production function.

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APPENDIX

Table 1 Analyses of objectives

	Objective	Scope of the objective	Data requirement	Analytical Tools
1	Identify various Gender dimensions of social capital in the study area.	To know households involvement in social institutions and assess their social capital formations	Associations, attendance of meetings, records of meetings, access to productive resources and input records e.t.c	Descriptive statistics, percentage, composite indicator.
2	Estimate the influence of relevant socio-economic variables on the social capital index,	To know the impact of some socio economic variables on various components of social capital	Age of households, educational status, household's size, primary occupation, farm size e.t.c	Multiple regression
3	Ascertain the effects of social capital components and other factors on households welfare,.	To determine the influence of households' involvement in social capital on their welfare	Components of social capital, welfare indicators,	Aggregate Model and Disaggregate Model
4	determine the effects of social capital components on assets accumulation,	To verify the claim that social capital influences households' assets' accumulation	Households' socio economic variables, financial institutions, household assets score and social capital components	Tobit Regression analysis
5	Examine the influence of social capital components on access to credit,	To ascertain accessibility of households to credit by virtue of their involvement in network of associations	Households' socio economic variables, financial institutions, household assets score and social capital components	Tobit Regression model
6	Quantify the effects of social capital components on collective action.	To the level of households' involvement in collective action activities especially in communal activities	Households' socio-economic variables, social capital components, and collective action activities.	OLS regression model

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Questionnaire on effect of Gender dimensions of Social Capital on rural household welfare in Ondo and Osun States.

The questionnaire is purely meant for academic research. Kindly ensure that the questions are faithfully answered to enable the researcher achieve the aims and objectives of the topic.

1. Groups and Networks

Which groups or organizations, networks, or associations do any of the members of your household belong? These could be formal or just groups of people who get together regularly to do an activity.

Types of Organisation or Group	Name of Organisation or Group	Code of Most Active Household Member	How actively does this person participate in the group's decision making 1= Leader 2= Very Active 3= Somewhat Active 4= Does not participate in decision making
A. farmer			
Group or cooperative			
B. Traders or Business Association			
C. Professional Association (doctors, teachers Veterans)			
D Trade Union or Labour Union			

E. Neighborhood/village committee			
F. Religious or spiritual group (e.g. church, mosque, temple, informal religious group, religious study group)			
G. Political groups or movement			
H. finance, credit or savings group			
I Education group (e.g parent-teacher association, school committee)			
J NGO or civic group (e.g Rotary Club, Red Cross)			
K Ethnic-based community			
L Others groups			

Compared to five years ago*, do members of your household participate in more or fewer groups or organizations?

[*ENUMERATOR: TIME PERIOD CAN BE CLARIFIED BY SITUATING IT BEFORE/AFTER MAJOR EVENT]

- 1 More
- 2 Same number
- 3 Fewer

Of all the groups to which members of your household belong, which two are the most important to your household?

[ENUMERATOR: WRITE DOWN NAMES OF GROUPS]

Group 1 COOPERATIVE SOCIETY

Group 2 Community Social Association

How many times in the past 12 months did anyone in this household participate in this group's activities, e.g. by attending meetings or doing group work?

Group 1 Group 2

How does one become a member of this group?

- 1 Born into the group
- 2 Required to join
- 3 Invited
- 4 Voluntary choice
- 5 Other (specify)

Group 1 Group 2

How much money or goods did your household contribute to this group in the last 12 months?

Group 1 Group 2

How many days of work did your household give to this group in the past 12 months?

Group 1 Group 2

What is the main benefit from joining this group?

1. Improves my household's current livelihood or access to services.
2. Important in times of emergency/in future
3. Benefits the community
4. Enjoyment/recreation

5. Spiritual, Social status, self-esteem
6. Other (specify) _____

Group 1 Group 2

Does the group help your household get access to any of the following services?

1. Yes
2. No

	Group 1	Group 2
A Education or Training		
B Health Services		
C Water supply or sanitation		
D Credit or Savings		
E Agricultural input or technology		
F Irrigation		
G Other (specify)		

Thinking about the members of this group, are most of them of the same.....

1. Yes
2. No

	Group 1	Group 2
A Neighborhood/Village		
B Family or Kin group		
C Religion		
D Gender		
E Age		
F Ethnic or linguistic group/race/caste/tribe		

Do members mostly have the same....

1. Yes
2. No

	Group 1	Group 2
A Occupation		
B Educational background or level		

Are members mostly of the same political viewpoint or belong to the same political party?

1. Yes
2. No

Group 1 Group 2

Are some members richer or poorer than others, or do they all have mostly the same income level?

1. Mostly same income level
2. Mixed rich/poor

Group 1 Group 2

In the past five years*, has membership in the group declined, remained the same, or increased?

(*ENUMERATOR: TIME PERIOD CAN BE RIFIED BY SITUATING BEFORE/AFTER MAJOR EVENT)

1. Declined
2. Remained same
3. Increased

Group 1 Group 2

When there is a decision to be made in the group, how does this usually come about?

1. Decision is imposed from outside
2. The leader decides and informs the other group members
3. The leader asks group members what they think and then decides.
4. The group members hold a discussion and decide together
5. Other (specify _____)

Group 1 Group 2

How are leaders in this group selected?

1. By an outside person or entity
2. Each leader chooses his/her successor
3. By a small group of members
4. By decision/vote of all members
5. Other (specify _____)

Group 1 Group 2

Overall, how effective in this group's leadership?

1. Very effective
2. Somewhat effective
3. Not effective

Group 1 Group 2

Does this group work or interact with other groups with similar goals in the village/neighborhood?

1. No
2. Yes, occasionally
3. Yes, frequently

Group 1 Group 2

Does this group work or interact with other groups with similar goals outside the village/neighborhood?

1. No
2. Yes, occasionally
3. Yes, frequently

Group 1

Group 2

Does this group work or interact with other groups with different goals in the village/neighborhood?

1. No
2. Yes, frequently

Group 1

Group 2

Does this group work or interact with other groups with different goals in the village/neighborhood?

1. No
2. Yes, frequently

Group 1

Group 2

What is the most important source of funding of this group?

1. From members' dues
2. Other sources within the community
3. Sources outside the community

Group 1

Group 2

What is the most important source of expertise or advice which this group receives?

1. From within the membership
2. From other sources within the community
3. From sources outside the community

Group 1

Group 2

Who originally founded the group?

1. Central government
2. Local Government
3. Community members

Group 1

Group 2

Networks

About how many close friends do you have these days? These are people you feel at ease with, can talk to about private matters, or call on for help.

If you suddenly needed a small amount of money (RURAL: enough to pay for expenses for your household for one week; URBAN: equal to about one week's wages), how many people beyond your immediate household could you turn to who would be willing to provide this money?

1. No one
2. One or two people
3. Three or four people
4. five or more people

(IF NOT ZERO) Of those people, how many do you think are currently able to provide this money?

(IF NOT ZERO) Are most of these people of similar/higher/lower economic status?

1. Similar
2. Higher
3. Lower

If you suddenly had to go away for a day or two, could you count on your neighbors to take care of your children?

1. Definitely
2. Probably
3. Probably not
4. Definitely not

If you suddenly faced a long-term emergency such as the death of breadwinner or (RURAL: harvest failure, URBAN: job loss), how many people beyond your immediate household could you turn to who would be willing to assist you?

1. No one
2. One or two people
3. Three or four people
4. Five or more people

(IF NOT ZERO) Of those people, how many do you think are currently able to assist you?

In the past 12 months, how many people with a personal problem have turned to you for assistance?

(IF NOT ZERO) Are most of these people of similar/higher/lower economic status?

1. Higher
2. Lower

2. Trust and Solidarity

In every community, some people get along with others and trust each other, while other people do not. Now, I would like to talk to you about and solidarity in your community.

2.1 Generally speaking, would you say that most people can be trusted, or that you can't be too carefully in your dealing with other people?

1. Most people can be trusted
2. You can't be too careful

2.2 In general, do you agree or disagree with the following statements

	<ol style="list-style-type: none"> 1. Agree strongly 2. Agree somewhat 3. Neither agree nor disagree 4. Disagree somewhat 5. Disagree strongly
A. Most people who live in this village/neighborhood can be trusted	
B. In this village/neighborhood, one has to be alter or someone is likely to take advantage of you	
C. Most people in this village/neighborhood are willing to help if you need	
D. In this village/neighborhood, people generally Do not trust each other in mattes of lending and borrowing money.	

2.3 Now I want to ask you how much you trust different types of people. On a scale of 1 to 5, where 1 means a very small extent and 5 means a very great extent, how much do you trust the people in that category?

	<ol style="list-style-type: none"> 1. To a very small extent 2. To a small extent 3. Neither small nor great extent 4. To a great extent 5. To a very great extent
A. People from your ethnic or linguistic group/race/caste/tribe	
B. People from other ethnic or linguistic groups/race/caste/tribe	
C. Shopkeepers	
D. Local government officials.	
E. Central government officials	
F. Police	
G. Teachers	
H. Nurses and doctors	
I. Strangers	

2.4 Do you think that over the last five years*, the level of trust in this village/neighborhood has gotten better, worse, or stayed about the same? (*ENUMERATOR: TIME PERIOD CAN BE CLARIFIED BY SITUATION IT BEFORE/AFTER MAJOR EVENT)

- 1. Gotten better
- 2. Gotten worse
- 3. Stayed about the same

2.5 How well do people in your village/neighborhood help each other out these days? Use a five point scale, where 1 means always helping and 5 means never helping.

- 1. Always helping
- 2. Helping most of the time
- 3. Rarely helping
- 4. Never helping

2.6 If a community project does not directly benefit you, but has benefits for many others in the village/neighborhood, would you contribute time or money to the project?

- A. Time
- B. Money

- 1. Will not contribute time
- 2. Will contribute time
- 1. Will not contribute money
- 2. Will contribute money

3. Collective Action and Cooperation

3.1 In the past 12 months, have you worked with others in your village/neighborhood to do something for the benefit of the community?

- 1. Yes

3.2 What were the three main such activities in the past 12 months? Was participation in these voluntary or required?

	Voluntary	Required

3.3 All together, how many days in the past 12 months did you or anyone else in your household participates in community activities?

3.4 How likely is it that people who do not participate in community activities will be criticized or sanctioned?

- 1. Very likely
- 2. Somewhat likely
- 3. Neither likely nor unlikely
- 4. Very unlikely

3.5 What proportion of people in this village/neighborhood contribute time or money toward common development goals, such as (RURAL: building a levy or repairing a road; URBAN: repairing a road or maintaining a community center)?

- 1. Everyone
- 2. More than half
- 3. About half
- 4. Less than half
- 5. No one

3.6 If there was a water supply problem in this community, how likely is it that people will cooperate to try to solve the problem.

- 1. Somewhat likely
- 2. Neither likely or unlikely
- 3. Somewhat unlikely
- 4. Very unlikely

3.7 Suppose something unfortunate happened to someone in the village/neighborhood, such as a serious illness, or the death of a parent. How likely is it that some people in the community would get together to help them?

- 1. Very likely
- 2. Somewhat likely
- 3. Neither likely or unlikely
- 4. Somewhat unlikely
- 5. Every unlikely

4. Information and Communication

4.1 How long does it take you to reach the nearest working post office?

- 1. Less than 15 minutes
- 2. 31-60 minutes
- 3. More than one hour

4.2 How many times in the last month have you or anyone in your household read a newspaper or had one read to you?

4.3 How often do you listen to the radio?

1. Every day
2. A few times a week
3. Once a week
4. Less than once a week
5. Never

4.4 How often do you watch television?

1. Everyday
2. Once a week
3. Less than once a week
4. Never

4.5 How long does it take you to get to the nearest working telephone?

1. Telephone in the house
2. Less than 15 minutes
3. 31-60 minutes
4. More than 1 hour

In the past month, how many times have you made or received a phone call?

What are the three most important sources of information about what the government is doing (such as agricultural extension, workfare, family planning, etc.)?

1. Relatives, friends and neighbors
2. Community bulletin board
3. Local market
4. Community or local newspaper
5. National newspaper
6. Groups or association
7. Business or work associates
8. Political associates
9. An agent of the government
10. NGOs
11. Internet

What are the three most important sources of market information (such as jobs, prices of goods or crops)?

1. Community bulletin board
2. Local market
3. Community or local newspaper
4. National newspaper
5. Groups or association
6. Radio
7. Television
8. Group or Association
9. Business or work associates
10. An agent of the government
11. NGOs
12. Internet

In general, compared to five years ago*, has access to information improved, deteriorated, or stayed about the same?

(ENUMERATOR: TIME PERIOD CAN BE CLARIFIED BY SITUATION IT BEFORE/AFTER MAJOR EVENT)

1. Improved
2. Deteriorated
3. Stayed about the same

What part of the year is your easily accessible by road?

1. All year long
2. Never easily accessible

How many times have you traveled to (RURAL: a neighborhood village or town; URBAN: another part of the city) in the past 12 months.

5. Social cohesion and Inclusion

How strong is the feeling of togetherness or closeness in your village/neighborhood?

Use a five point scale where 1 means feeling very distant and 5 means feeling very close.

1. Very distant
2. Neither distant nor close
3. somewhat close
4. Very close

There are often differences in characteristics between people living in the same village/neighborhood. for example, differences in wealth, income, social status, ethnic background, race, caste, or tribe.

There can also be differences in religious or political beliefs, or there can be differences due to age or sex. To what extent do any such differences characterize your village/neighborhood? Use a five point scale where 1 mean to a very great extent and 5 means to a very small extent.

1. To a very great extent
2. To a great extent
3. Neither great nor small extent
4. To a small extent
5. To a very small extent.

Do any of these differences cause problems?

1. Yes
2. No go to question 5.6

Which two differences most often cause problems?

1. Differences in education
2. Differences in landholding
3. Differences between men and women
4. Differences between younger and older generations
5. Differences between long-term and recent residents
6. Differences in political party affiliations
7. Differences in religious beliefs
8. Other differences

Have these problems ever led to violence?

1. Yes
2. No

Are there groups of people in the village/neighborhood who are prevented from or do not have access to any of the following?

	1. Yes How many are excluded? 2. No 1 Only a few people 2 Many people, but less than half of the 3 More than half the village/neighborhood village/neighborhood
A. Education/schools	
B Health services/clinics	
C. Water	
D Justice	
E Transportation	

Are there any community activities in which you are not allowed to participate?

- 1. Yes
- 2. No, I can participate in all Activities skip to question 5.10

In which activities are you not allowed to participate?

(ENUMERATOR: LIST UP TO 3 ACTIVITIES)

Why are you not allowed to participate?

(ENUMERATOR: LIST UP TO 3 ACTIVITIES)

- 1. Poverty
- 2. Occupation
- 3. Lack of education
- 4. Gender
- 5. Age
- 6. Religion
- 7. Political affiliation
- 8. Ethnicity or language spoken/race/caste/tribe
- 9. Other (specify _____)

Sociability

I am now going to ask a few questions about your everyday social interactions.

In the last one month, how many times have you met with people in a public place either to talk or to have food or drinks?

In the last month, how many times have people visited you in your home?

In the last month, how many times have you visited people in their home?

Were the people you met and visited with mostly.....

A. Of different ethnic or linguistic group/race/caste/tribe
B. Of different economic status
C. Of different social status
D. Of different religious group

In the last three months, how many times have you gotten together with people to play games, sports, or other recreational activities?

How many times in the past 12 months did you participate in family/village/neighborhood festival or ceremony (wedding, funeral, religious festival, etc.)?

Conflict and violence

In your opinion, is this village/neighborhood generally peaceful or marked by violence?

1. Very peaceful
2. Neither peaceful nor violent
3. Moderately violent
4. Very violent

Compared to five years ago*, has the level of violence in this village/neighborhood increased, decreased, or stayed the same?

1. Increased a lot
2. Stayed about the same
3. Decreased a little
4. Decreased a lot

In general, how safe from crime and violence do you feel when you are alone at home?

1. Very safe
2. Neither safe nor unsafe
3. Moderately unsafe
4. Very unsafe

How safe do you feel when walking down your street alone after dark?

1. Very safe
2. Moderately safe
3. Neither safe nor unsafe
4. Very unsafe

In the past 12 months, have you or anyone in your household been the victim of a violent crime, such as assault or mugging?

1. Yes
2. No go to question 5.22

How many times?

In the past 12 months, has your house been burglarized or vandalized?

1. Yes
2. No go to question 6.1

6. Empowerment and Political Action

In general, how happy do you consider yourself to be?

1. Very happy
2. Neither happy nor unhappy
3. Moderately unhappy
4. Very unhappy

How much control do you feel you have in making decisions that affect your everyday activities? Do you have.....

1. No control
2. Control over some very few decisions
3. Control over most decisions
4. Control over all decisions

Do you feel that you have the power to make important decisions that change the course of your life? Rate yourself on a 1 to 5 scale, where 1 means being totally unable to change your life, and 5 means having full control over your life.

1. Totally unable to change life
2. Mostly unable to change life
3. Neither able nor unable
4. Totally able to change life

Overall, how much impact do you think you have in making this village/neighborhood a better place to live?

1. A small impact
2. No impact

In the past 12 months, how often have people in this village/neighborhood gotten together to jointly petition government officials or political leaders for something benefiting the community?

1. Never skip to question 6.7
2. Once
3. Many times (>5)

Were any of these petitions successfully?

1. Yes, all were successful
2. Most were unsuccessful
3. None were successful

In the past 12 months, have you done any of the following?

	1 Yes 2 No
A. Attend a village/neighborhood council meeting, public hearing, or public discussion group	
B. Met with a politician, called him/her, or sent a letter	
C. Participated in a protest or demonstration	
D. Participated in an information or election campaign	
E. Alerted newspaper, radio or TV to a local problem	
F. Notified police or court about a local problem	

Lots of people find it difficult to get out and vote. Did you vote in the last local election?

1. Yes/ No

Did you vote in the last state/national/presidential election?

1. Yes/ No

Would you ever vote for a candidate who was not from your ethnic or linguistic group/race/caste/tribe?

1. Yes/ No

To what extent do local government and local leaders take into account concerns voiced by you and people like you when they make decisions that affect you?

1. A lot

2. Not at all

In your opinion, how honest are the officials and staff of the following agencies? Please rate them on a 1 to 5 scale, where 1 is very dishonest and 5 is very honest?

	<ol style="list-style-type: none"> 1. Very dishonest 2. Mostly dishonest 3. Neither honest nor dishonest 4. Mostly honest 5. Very honest 6. Not applicable (agency not in village/neighborhood)
	<ol style="list-style-type: none"> 7. Very dishonest 8. Mostly dishonest 9. Neither honest nor dishonest 10. Mostly honest 11. Very honest

	12. Not applicable (agency not in village/neighborhood)
A. Local government officials	
B. Traditional village leaders	
C. Doctors and nurses in health clinic	
D. Teachers and school officials	
E. Staff of post office	
F. Police	
G. Judges and staff of courts	
H. Staff of NGOs	

In general, compared to five ago* has the honest of local government improved, deteriorated, or stayed about the same?

(*ENUMERATOR: TIME PERIOD CAN BE CLARIFIED BY SITUATION IT BEFORE/AFTER MAJOR EVENT)

1. Improved
2. Stayed about the same

In the past 12 months, did your household have to pay some additional money to government officials to get things done?

1. Yes, occasionally
2. No end interview

Are such payments effective in getting a service delivered or a problem solved?

1. Yes, usually
2. Yes, but only occasionally

7.0 INCOME GENERATION ACTIVITIES

7.1 Kindly indicate income generating activities you are into? (You can check more than one).

- (a) Crop farming
- (b) Livestock
- (c) Fish farming
- (d) Trading in manufactured goods
- (e) Artisans
- (f) Others please indicate;

7.2 Which of the above is being considered as the primary livelihood?

Please tick

- (a) Crop farming
- (b) Livestock
- (c) Fish farming
- (d) Trading in manufactured goods
- (e) Artisans
- (f) Others please indicate;

7.3 Why do you consider the choice as your primary livelihood?

- (a) Receive more income than the others
- (b) Readily available
- (c) Tradition
- (d) Have no choice
- (e) Others, please indicate

7.4 Kindly give the items used for production of the chosen income generating activities.

7.5 Kindly give the production cost amount spend in the last twelve months on the items.

Amount ₦

7.6 In the last twelve (12) months, how did you dispose off your harvested products?

- (a) Farm gate
- (b) Local markets
- (c) Major markets
- (d) State markets
- (e) Export
- (f) Others

(please indicate)

7.7 How did you sell your products?

- (a) In baskets
- (b) Kilogram
- (c) Others please indicate.

7.8 Give a rough estimate of basket or kilogram of your harvested products disposed off in the last twelve months.

7.9 How much did you dispose a unit basket or kilogram _____ ₦

7.10 Can you give an estimate of the one you took home for consumption?

7.11 Did you give any to family, relatives, or friends?

7.12 If yes, give the estimate of the one given to family, relatives or friends.

7.13 Did you reserve any of this for future productivity? _____

Yes/No

If yes! give an estimate _____ Yes/No

Did you experience any waste? If yes, give an estimate of the waste. ₦

7.14 What are the major sources of financing your enterprises or household's needs?(1) Banks / /

(ii) Cooperatives (iii) Professional Associations (iv) Local Lenders (v) Personal Savings (vi) Friends and Relatives (vii) Others (Specify).....

7.15 Rank the sources of credit in order of importance

1st.....2nd.....3rd.....4th.....

7.16 Give information on the credit received from any of the sources in the last one year as shown below.

Source of credit	Need for which credit was sought	Amount requested from credit source N	Amount Granted N	Interest charged % per year (if any)	Time lag between request & granting of loan (week)	Proportion of loan paid as at due %	Pay back period (year)	Distance between place and the credit source (KM)

- 7.17 What is the mode of repayment of loan? Weekly / / Monthly / / Annually / /
- 7.18 Amount paid to penalty for loan repayment default in Naira
- 7.19 What type of housing unit is this? Room and parlour / / Flat / / Duplex / / Single room / / Hut / / Other / /
- 7.20 What is the quality of construction of the house? Block+Zinc roof ? / Mud+Zinc roof / / Mud+thatch room / /others / /
- 7.21 *Is the wall of the house plastered* yes / /No / /
- 7.22 What type of toilet facilities do you have in your house? Flush / / Pt / / Bucket/pail/ / Bush/ bare ground / / others / /
- 7.23 What is the source of your drinking water? Tap / / Bore hole / /Well / / Stream/River / /Others / / Specify.....
- 7.24 What is the source of your lighting in your house at night? Electricity / / Kerosene Lantern / / Candle/ wick lamp / / Others (Specify).....
- 7.25 What do you use for cooking? Gas cooker / / kerosene stove / / Fire wood / / Coal / / Others (Specify).....
- 7.26 Which of the following assets does your household possess? Buildings / / Farm Land / / Vehicle(s) / / Motor cycle / / Radio / / Television / / Others specify.....
- 7.27 How Much in Naira does your household spend on the following item?

Items	Amount Spent in Naira (₦)			
	Daily	Weekly	Monthly	Total
Food				
Clothing				
Medical				
Education				
Fuel and Light				
Transport				
Remittance				
Rent				
Toiletries				
Others				
Total				