

The Role of Social Networks in Poverty Alleviation in Nyando District, Kenya

Ms. Nelly Juma¹, Prof. Francis Wegulo², Dr. Joseph Otieno³

¹Department of Geography and Natural Resource Management, School of Environment and Earth Sciences, Maseno University

²Department of Geography, Egerton University, P.O. Box, 536 Njoro, Kenya

³University of Kabianga, P. O. Box 2030 20200 Kericho, Kenya

***Corresponding Author:**

Ms. Nelly Juma

Email: kinyi2002@yahoo.com

Abstract: One of the most important paradigm shifts in poverty interventions has been a renewed interest in social networks as an important variable in sustainable rural economic development. There are very few studies that have focused on the role of social network or other forms of social capital on rural income diversification and rural poverty in rural areas of Kenya. The objective of this study was to establish role of social networks in poverty alleviation in Nyando District. A Cross-sectional research design involving use of both systematic random sampling and purposive sampling was adopted. Primary data was obtained using structured questionnaires to interview a minimum of 250 household heads from two divisions of Nyando district. The results indicated that 61.6% of the household heads belonged to social networks. In addition, the results indicate that membership to social networks varied markedly in Muhoroni and Nyando Divisions of Nyando District with, 55% and 66% respectively. Further, 43% of the respondents belonged to producer's organizations, 21% to agricultural cooperatives 9.8% savings and credit organizations 27% to community welfare organizations and 15% belonging to women groups and rotating saving and credit organizations respectively. Several reasons were given by respondents for belonging to social networks including satisfaction of individual needs 4.8 % individual wellbeing 13.3 %. To improve agricultural production 10% and to receive funds. A Pearson product moment correlation (r) was employed to determine the significance of the relationship between membership to social networks and rural poverty in Nyando District. The results ($r = 0.241$) indicated a significant relationship between membership to social networks and rural poverty in Nyando District. The study concluded that though social networks may play an important role in poverty alleviation, vast majority of these social groups are not used for income generation or investment in the agricultural sector, which is the predominant source of livelihood for most households.

Keywords: Social Networks, Social Capital, Rural Poverty, Nyando, Muhoroni.

INTRODUCTION

The economic problems affecting many countries in sub-Saharan Africa have reached crisis proportions [1]. This crisis has given rise to numerous strategies and initiatives at the local level in many sub-Saharan countries. In many areas, these local initiatives have prevented further decay and disintegration of the local communities. Although the widespread nature of these strategies has been noted in many countries, their multiple dimensions, and in particular their contribution towards meeting the survival needs of rural populations, is still inadequate [2]. One such strategy is the idea of social capital, which is one of the most popular discourses in the current social sciences manifesting in the form of social networks [1]. Indeed Coleman [3] and Putnam [4] are widely credited as being influential in this renewed interest in social capital in economic development [5]. During the last ten years, the concept of social capital has been invoked in almost every field of social science research, and has been used to explain

a wide range of phenomena, including political participation, institutional performance, health, corruption, efficiency in public services, and the economic success of countries. Such perspectives on social networks are markedly different in their origins and fields of application, but they all share a common focus on the use of the social structure to generate positive externalities for members of a group, who gain a competitive advantage in pursuing their ends [6]. While the role of social networks in rural development have been acknowledged [7], these perspectives fail to explain their role in alleviating rural poverty especially in sub-Saharan Africa.

LITERATURE REVIEW

One of the most important ideology shifts in the fight against poverty has been a renewed interest in social networks as an important variable in sustainable rural economic development [5]. Recently, social capital has become particularly popular in the design of

development policies [8]. The idea is that formal and informal social networks may be a resource to enable people to carry out collective actions, to encourage participation in effective local decision making, to better monitor government agencies, to lobby for improved services, and, where these fail, to secure informal insurance from friends, neighbours, and the community. Social networks have been invoked in the development agenda as an answer to the vulnerabilities of individuals, households, regions and countries [8].

Recent studies have shown that participation in social networks by households has a positive and significant effect on household incomes [6]. Indeed the means through which social capital is embedded in social networks, trust and norms is said to reduce poverty. according to Birungi [6], social networks may reduce other resource limitations such as farm equipment, credit, and other inputs important in the production process that would otherwise be attained from the market, thus reducing the susceptibility of the masses to poverty he however focusses on Uganda as a whole fails to distinguish the different dynamics facing both the rural and urban communities in acquiring these resources and their pathways out of poverty. Moreover, Putnam [4], states that in rural agrarian households, social capital allows each farmer to carry out his work with less capital in the form of tools and equipment due to the borrowing and lending of these tools in the community.

A study by Barr [9] established that social capital, in the form of social networks between small-scale manufacturing industries in Ghana improved economic performance by enabling the flow and diffusion of operation cost reducing technical information. This study however concentrated on urban entrepreneurs and paid little attention to rural communities. Studies have also established that social networks are important sources of information for urban small-scale entrepreneurs in mitigating transaction costs related to obtaining credit from formal financial markets in sub-Saharan Africa [5].

Similarly, Green and Changanti [10], Kristiansen [11] and Sequeira and Rasheed [12]

established that minority Asian ethnic groups in the United States of America depended on their social networks for pertinent information when starting enterprises. Indeed, most studies on social networks and economic development nexuses have associated the level of social networks with the ability of entrepreneurs to access information and resources from inside and outside their locale for the purpose of alleviating poverty [9]. This is usually at the expense of rural populations in developing countries which are heavily dependent on rain-fed agriculture and are characterized by poverty, instability and inequality [13]. Rural populations in these countries are plagued by many challenges such as fragmented landholdings, seasonality of weather, poor infrastructure, unavailability of credit and segmented labour markets, which make it difficult for them to secure stable income from one source throughout the year.

While different studies have focused on the role of social networks on various issues, there is little evidence to show the efficacy of these groups as far as land management, environmental conservation and poverty alleviation is concerned. This study was therefore carried out to determine the extent to which households in Nyando District use social capital in the form of participation in social networks; and the contribution of these groups in land management, environmental conservation and towards poverty alleviation in the district.

RESEARCH METHODOLOGY

Study area

Nyando district is one of the 12 districts in Nyanza province. It borders Kisumu District in the East, Nandi District to the north, Kericho District in the West and Rachuonyo District to the south. The district has a small shoreline to the south-west where it borders Lake Victoria. It lies between longitudes 34⁰4' east and 0⁰50' south. Nyando has a total land area of 1168.4 square kilometres and is divided into five administrative divisions namely; Upper Nyakach, Lower Nyakach, Nyando, Miwani and Muhoroni Divisions. The focus of the study is however limited to two divisions, Nyando and Muhoroni.



Fig-1: Nyando District Administrative Boundaries (Source: Oluoko – Odingo (2006))

Research Design

Cross-section research design was used in this study. It involves the collection of data at a single point in time and does not involve manipulating variables. It allows researchers to look at numerous things at once (age, income, gender) and is often used to look at the prevalence of something in a given population which in the case of this study is poverty. Furthermore, the design for it requires only a snapshot, is less time consuming and less costly than others. Kura [14] states that the use of cross-sectional data in poverty and vulnerability assessments may be worthwhile. Indeed a detailed analysis of these data can potentially be informative about the future. The extent to which this exercise will be useful may well vary from setting to setting. This survey was appropriate due to constraints of time and finance and hence it enabled the researcher to reduce operational costs and to collect data within the shortest time possible.

Study Population and Sampling Procedure

The study used the multi-stage or cluster sampling approach to select the population in Nyando and Muhoroni Divisions. Each division was broken down into location and sub-location levels. This approach ensured a more equitable sample distribution. Systematic random sampling was then used to select the households that were to be included in the study. The

first household was chosen randomly, thereafter, other households were chosen systematically. Printed papers numbered 1 to 5 were used to pick the k^{th} sampling unit. This method of sampling is appropriate when the population records within the district lands office are not accurate. The two divisions were selected for the study because of their varied characteristics. Firstly, the divisions fall in different agro-ecological zones. Muhoroni Division lies within the Marginal Sugarcane Zone, characterised by a long to medium cropping season, followed by a medium to short cropping season. Nyando Division, on the other hand, lies within the Lower Midland Cotton Zone. In addition, Muhoroni Division mainly comprises large-scale sugarcane farms, while Nyando Division is characterised by small-scale farms.

In order to determine the suitable and adequate number of samples to be used for the study. 250 respondents were interviewed. This represented 1.5 percent of the total population which consisted of 18,000 households. This sample size was considered adequate due to the fact that, depending on the method of analysis, a sample size ranging between 30 to 100 may be large enough to assume normalcy when other statistical conditions are observed [15, 16].

Both, male and female-headed households were included in the sample. Due to the major variations in population density, 150 households were sampled in Nyando Division while 100 households were sampled in Muhoroni Division; representing 60 percent and 40 percent of the sampled population respectively.

Data Collection Methods

Primary data was sourced mainly from the households through the administration of a questionnaire. The head of the household was interviewed in each case but in his/her absence the eldest son or adult in the household was targeted for the interview. This was intended to obtain correct and reliable information. Second, focus group discussions (FGDs) with village elders and women groups were used to compliment as well as supplement semi-structured questionnaire interviews in collection of primary data. Third, observation was used as a means of obtaining primary data. Observations provided rich qualitative data which supported data from interviews and discussions. In-depth investigations were conducted through observation of some of the land use activities as well as household characteristics, types of dwelling and the various assets that the households owned. Photographs were also used to augment the findings from other data collection procedures. Secondary data was sourced from among others: the District Development Plans, the Central Bureau of Statistics documentations, reviews of relevant official records, and selected publications policy documents. Purposive sampling was used to select key informants, who included the Agricultural Extension Officers for Nyando and Muhoroni divisions, the District Agricultural Officer, farmers' group leaders and non-governmental organisations. An unstructured questionnaire schedule was used to derive responses from them. In addition, purposive sampling was used to identify focus groups, from target groups, some of which were identified while in the field, these included village elders and women's groups with whom informal interviews were conducted.

Data Analyses and Results Presentation

After collection, data from the field survey was processed and analysed to facilitate the answering of the

research questions. This was done as follows. The questionnaires were first checked for completeness clarity and consistency. The answers were then coded before data entry. Descriptive statistics such as frequencies, cross-tabulations were used in summarizing the numerical data for purposes of describing the data and the patterns arising from the data. Besides descriptive statistics, inferential statistics were used to determine and quantify the relationships between the dependent variables such as poverty, and independent variables such as land use and agricultural production. These included the Pearson product moment correlation and the simple regression analysis

RESULTS AND DISCUSSION

One of the objectives of this study was to determine the extent to which households in Nyando district are involved with social networks. The social networks literature suggests that resources are found in personal relationships that households maintain. The argument being that socio-economic phenomena, are heavily embedded in their social environments [4, 17-19]. This study adopted, a framework postulated by Hassan and Birungi [20] defining social networks as participation in social organizations such as self-help groups, religious groups, savings and loan groups, and other associations.

Household Memberships to Social Networks

The study established that 61.6 percent of the respondents in Nyando and Muhoroni belonged to at least one association or group as compared to 38.4 percent who were not (Figure 2). Indeed the household heads acknowledged to being members of diverse organizations and associations. The findings concurs with Balaji, [21] who noted that members of communities especially in rural Africa tend rely on a network of social relationships that provide safety nets to their livelihoods. Social networks manifest as the patterns of social ties existing among a set of actors. Actors may be individuals, organizations, or other types of entities. Ties may consist of social relationships that revolve around friendship, kinship, monetary exchange and social welfare. These relationships enable the exchange of physical, emotional and material resources and can exist between individuals, organizations, communities or even countries.



Fig-2: Membership to Organizations Groups and Associations

The study also established that membership to social networks was varied in Muhoroni and Nyando Divisions of Nyando district. Of the 150 respondents interviewed in Nyando Division, 99 (66 percent) of them were found to be members of at least an association; compared to 55 respondents in Muhoroni

Division accounting for 55 percent of the respondents respectively.

Table 1 below shows the memberships to organizations and associations by division.

Table 1: Membership Social Networks by Division

Membership to Social Networks	Division		Total
	Nyando	Muhoroni	
Yes	99 (66)	55 (55)	154
No	51 (34)	45 (45)	96
Total	150	100	250

Source: Field Data, 2009

This study also established that gender differences were not major as far as memberships to social networks were concerned. Results indicated that 60 percent of the men were at members of an association or organization Compared to 64 percent of the women in both Nyando and Muhoroni Divisions. This contrasts studies which have argued that women and men have different resource endowments when pursuing livelihood strategies, which could have far-reaching consequences in their participation social networks and information exchange [22]. According to Dasgupta 2005, building and maintaining social networks is costly in terms of both time and other resources imposing a barrier to social capital accumulation.

Further interrogation of the data reveals that women groups are more relevant to household needs than are the male dominated associations, which tend to

focus on professional issues, as well as catering for social emergencies such as illness and bereavement. Indeed Katungi [22] in a study of gender social capital tin Uganda argued that 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 networks than women. Women are often more dependent on informal networks based on everyday needs, 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

Table 2: Membership to Social Networks by Gender of Household Head

Membership to Social Networks	Gender of household head		Total
	Male (%)	Female (%)	
Yes	106 (60.2)	48 (64.8)	154
No	70 (39.8)	26 (35.2)	96
Total	176 (100)	74 (100)	250

Types of Social Networks

The study sought to determine the types of social networks that the household heads belonged to. Results indicated that 38 percent of the respondents in Muhoroni Division belonged to producers' organisations, compared with Nyando Division's 5.5 percent. Agricultural cooperatives were also prevalent in Muhoroni Division, with 19 percent of the respondents being members, as compared with 2 percent in Nyando Division. The data also shows that whereas Community Welfare Organisations were plentiful in Nyando division (27%), they were

completely absent in Muhoroni Division. The same situation also applied to Rotating Savings and Credit Associations (ROSCAs) and women groups, which were prevalent in Nyando Division and non-existent in Muhoroni Division (Table 3). This phenomenon can be attributed to the relatively higher levels of poverty in Nyando Division that has led to the establishment of several non-governmental organisations and associations in the division. Muhoroni Division, on the other hand, is characterised by sugarcane farming, thus explaining the prevalence of producer organisations and agricultural cooperatives.

Table 3: Membership to the Various Associations in the Division

Organisation or Association	Divisions	
	Nyando (%)	Muhoroni (%)
Producers Organisation	5.3	38
Agricultural Cooperative	2	19
Savings and Credit Organisation	8.7	11
Community Welfare Organisation	27	0
Rotating Savings and Credit Associations (ROSCAs)	15	0
Women Groups	15.3	5

Reasons for Belonging to Social Networks

The study also sought information on the reasons why household heads had joined the organisation of which they were members. For instance, 4.8% and 3.2% of female household heads who were members of women groups stated that they sought membership to satisfy their own individual needs as well as those of their households, and to receive funds, respectively. Ten percent of respondents who belonged to producer organisations and agricultural cooperatives stated that they sought membership mainly to improve agricultural production.

The results from this study also indicate that 13.4% of respondents joined community welfare groups principally for individual wellbeing, home improvement, and to receive funds. Similar reasons were also given by the 8.8% of household heads who belonged to Rotating Savings and Credit Organisations. Less than 1% of respondents indicated that they were in these associations for business ventures or to diversify their source of livelihoods, implying that the associations were an important mode of satisfying the immediate needs of the households. Very little, if any, of the proceeds from these groups is reinvested in agriculture, on which the vast majority of the households in Nyando and Muhoroni divisions depend for a living.

Linkages between Social Networks and Household Poverty in Nyando District

Various alternatives (single measures or index) have been adapted to measure social capital at an individual or household level. Several studies measuring social capital are based on the existence of membership in local associations and networks [20, 23-25], indicators of trust and norms, and indicators of collective action [23].

This study conceptualized social networks as measured by participation in the activities of social organisations. The social variable is derived from a question that proxies indicators of social participation: it asks individual respondents, (household heads) to declare whether they are a member of any group or organization, such as an informal rotating savings and credit association, women or religious groups agricultural associations or cooperatives. If the household head participated in a social network, then that household is considered to have social capital regardless of the number of group operations. In addition, the empirical literature also notes that participation in community groups creates loyal and strong beliefs [24]. Hence the variable membership takes on the value 1, if individuals are members of organizations while it takes on the value 0 otherwise.

Table 5 shows the results of the Pearson Product Moment Correlation (r) which was used to determine the significance of the relationship between household poverty and memberships to social networks.

Table 5: The Correlation between Poverty and Memberships to Social Networks

		Membership to Social Networks	Household Poverty
Membership to Social Networks	Pearson Correlation	1	.241(**)
	Sig. (2-tailed)		.000
	N	250	250
Household Poverty	Pearson Correlation	.241(**)	1
	Sig. (2-tailed)	.000	
	N	250	250

** Correlation is significant at the 0.01 level (2-tailed).

The result ($r = 0.241$) indicates a significant relationship between household poverty and membership to social networks, thus leading to the rejection of the null hypothesis that there is no significant relationship between the two variables. The significant relationship suggests that being a member to a social network can be a useful or important way of alleviating poverty in Nyando and Muhoroni Divisions. The results are similar to studies carried out in Indonesia by Nasution *et al*, who noted that participation in social activities has a positive impact on household expenditure and therefore reduces poverty.

Although 61.6% of the households in Nyando and Muhoroni divisions indicated that they were members of different groups, organizations and associations, the incidence of poverty in the two divisions was 64%. This suggests first that the vast majority of these social groups are not used for income generation or investment in the agricultural sector, which is the predominant source of livelihood for most households. Second, the above figures suggest that the income or proceeds from the social groups is used to buy food stuff or immediate basic needs for the households.

Results from this study also indicated that while 15% of the households in Nyando Division were

members of Rotating Savings and Credit Societies (ROSCAs), only 4% reported that they borrowed money from these associations. On the contrary, none of the sampled households in Muhoroni division indicated that they belonged to ROSCAs. Indeed, 4.8% of household heads who belonged to women’s groups and ROSCAs suggested that they used the proceeds from the groups for individual wellbeing and home improvement. Another 3.2% of them intimated that they were in the groups to receive money in order to purchase household goods or to meet their children’s educational needs. Only 2.4% of household heads used the money for business ventures these results contravene those of a study by Besley *et al*. [26] who examined the economic role and performance of different types of ROSCAs. They found that through these small, often indigenous, savings and credit groups, social relationships were used as an alternative source of collateral.

To further determine the significance of memberships to social networks in poverty alleviation in Nyando district, statistical analyses were used and results indicated a significant positive relationship between the two variables, suggesting that indeed social groups can be a valuable tool in the alleviation of household poverty in Nyando District.



Fig-3: Members of a women group hold a brief meeting at the market. Members of groups generally admitted to being part of the group for home improvement

The positive relationship between household poverty and membership to social networks implies that these networks can be a vital tool in poverty alleviation, especially in Nyando District. Results from this study concur with Grootaert [23] who suggested that the emerging differences in incomes at the individual or household level cannot simply be explained by differences in traditional outputs such as land, labour, and physical and human capital alone. He notes that there is a growing recognition of the role of social capital in affecting the wellbeing of individual households, communities and nations. In a survey of 750 Tanzanian households, Narayan and Pritchett [24] measured the degree and characteristics of associational activity (as a proxy for social networks) and levels of trust. Through a multivariate regression analysis, they established that village-level social capital is an important contributor to household welfare.

Social networks can provide their members with a valuable means of accessing credit facilities from banks and other micro-finance institutions. The credit facilities can then be invested in land and in the agricultural sector by purchasing fertiliser and farm machinery. Moreover, social groups can be used to access vital information for its members, from extension services, and from other groups and organizations. Indeed, when probed further during the focus group discussions, some respondents indicated that information about appropriate farming methods was available on demand. They were however unaware that the groups could be used to access credit, and were in agreement that access to credit in any form was a problem. Members of the focus group discussions further stated that most households lack proper information on the right procedures to follow in order to access credit. According to Birungi [6], being embedded in social networks, social capital facilitates the transmission of knowledge about technology and markets. In addition, it reduces the problems of free-riding, and therefore facilitates cooperative action and ameliorates other conventional resource constraints such as credit limitations, thereby reducing the vulnerability of households. In addition to having many household requirements and commitments that hindered them from saving money; the Focus Group Discussants in both Nyando and Muhoroni Divisions indicated that there was a general fear of the consequences of defaulting on the credit a fear which could have been ameliorated by belonging to social networks.

CONCLUSION

The study has established that social networks are an important method of poverty alleviation ($r = 0.241$) given that 66 percent of the households sampled belong to a social network. This is especially true especially in rural areas such as those in Nyando District, where agricultural production is the main

means of economic growth. These networks may be useful in helping household members' access credit, information, and even the important labour and machinery needed to improve agricultural production. This is in addition to enabling them to effectively participate in non-farm activities as a method of diversifying their livelihoods, thereby reducing their dependence on agriculture. The dynamics of groups and associations make them valuable in several ways; they provide rural populations with easier access to savings within the local area, and with a certain cushion against economic fluctuations. In addition, they encourage a cooperative and community feeling. They provide joint collateral and serve as instruments for spreading valuable information that is useful for economic and social progress, provided that communities are empowered and have adequate information so that they can utilise these groups to their full potential.

Although social groups already play an important role in helping to alleviate poverty in Nyando District, this role could be strengthened through the capacity building of the various groups and associations in the district, which can be achieved in various ways. First, since most groups collect money in various forms, capacity building may be in the form of managing revolving funds, especially savings and repayment schemes. This could include training in record keeping and managing groups (group dynamics), including managing credit and loans, in addition to fundraising for business. Second, there is a tendency in rural areas for individuals and groups to replicate their business ventures. Groups can be encouraged to identify non-farm activities that are unique to the area and that have sustainable value chains, in addition to establishing financial systems for groups including instruments for financial management such as imprests, payment vouchers, invoices and delivery notes.

Collaboration and networking between groups could be encouraged for experience sharing. For instance, groups involved in a single activity could be having different approaches, giving different outputs and results from each other, but should collaborate, they may be able to harmonise their approaches to benefit from maximum output.

Finally, groups especially those run by women could be valuable if they are allowed to grow into community investment unit trusts whereby they may pool resources to purchase equipment and machinery such as rice milling, maize shelling, tractors, and irrigation pumps. They would also allow them to buy shares of companies that could be used as collateral to access credit for member activities. In addition, they could foster collaboration between formal financial institutions for group guarantee credit schemes. Group

members could also be encouraged to diversify agricultural activities such as integrating fish farming and poultry farming, thus enabling them to escape the vicious cycle of poverty.

The authors would gratefully thank all the respondents and resource persons in Nyando district for their valuable information which was useful for the study.

REFERENCES

1. Okunmadewa FY, Yusuf SA, Omonona BT. The Effects of Social Capital on Rural Poverty in Nigeria. *Pakistan Journal of Social Sciences*. 2007; 4: 331 – 339.
2. Manyasa E. Social Capital and Rural Economic Development: An Empirical Analysis. PhD Thesis. Kenyatta University. 2009; 10.
3. Coleman J. Social Capital in the creation of human capital. *Am. J. Sociol.* 1988;94 (Supplement 94): 95-120.
4. Putnam R. The Prosperous Community: Social Capital and Public Life. *The American Prospect*. 1993; 13: 35-42.
5. Zuwarimwe J, Kirsten. Social networks and rural non-farm enterprise development and implication for poverty reduction among rural households in Zimbabwe *Journal of Geography and Regional Planning*. 2011; 4(6): 344-354.
6. Birungi P. The Linkages between land degradation, poverty and social capital in Uganda. PhD thesis, University of Pretoria, South Africa, 2007; 50-70.
7. Woolcock M, Narayan D. Social Capital: Implications for Development Theory, Research, and Policy. *World Bank Research Observer*. 2000;15(2): 225-250.
8. Sabatini F. The Empirics of Social Capital and Economic Development: A Critical Perspective *Social Science Research Network Electronic Paper Collection*. 2006; 2-34.
9. Barr A. 'Social capital and technical information flows in the Ghanaian manufacturing sector. *Oxford Economic Papers*. 2000;52: 539-559.
10. Green PG, Changanti R. 'Levels of resources for ethnic entrepreneurs. in C Stiles and C Galbraith (eds.) *Ethnic Entrepreneurship: Structure and Process*, Amsterdam: Elsevier Science. 2004; 59-76.
11. Kristiansen S. Social networks and business success: The role of subcultures in an African context. *Am. J. Econ. Sociol.* 2004;63(5):1149-1171.
12. Sequeira MJ, Rasheed AA. 'The role of social and human capital in the growth of immigrant business. *Int. Res. Bus. Disciplines*. 2004; 4: 77- 94.
13. Johnny J, Wichmann B, Swallow B. The Role of Social Networks in Diversification of Income Sources in Rural India. *Agricultural and Applied Economics Association No 170357, 2014 Annual Meeting, Minnesota, 2014.*
14. Kura SYB. Qualitative and Quantitative Approaches to the Study of Poverty: Taming the Tensions and Appreciating the Complementarities. *The Qualitative Report*. 2012;17(34):1-19.
15. Clark WAV, Hosking PK. *Statistical Methods for Geographers U.S.A*, John Wiley and Sons. 1986; 220 -238.
16. Oluoko-Odingo A. Food Security and Poverty Among Small Scale Farmers In Nyando District, Kenya PhD Thesis University of Nairobi. 2006;60 - 75.
17. Granovetter M. 'Economic action and social structure. The problem of embeddedness. *Am. J. Sociol.* 1985;91 (3):481-510.
18. Granovetter M. 'The Impact of Social Structure on Economic Outcomes. *J. Econ. Perspectives*. 2005; 19(1): 3-50.
19. Johannisson B, Ramirez-Pasillas M, Karlsson G. 'The institutional embeddedness of local inter-firm networks: A leverage for business creation. *Entrepreneurship Reg. Dev. J.* 2002; 14: 297-315.
20. Hassan R, Birungi P. Social capital and poverty in Uganda. *Development Southern Africa*. 2011;38 (1): 19–37.
21. Balaji AB, Claussen AH, Smith DC, Visser SN, Morales MJ, Perou R. Social support networks and maternal mental health and well-being. *J Womens Health (Larchmt)*. 2007;1386-96.
22. Katungi E. Gender, social capital and information exchange in rural Uganda. *Journal of International Development*. 2008; 20 (1): 35-52.
23. Grootaert C, Van Bastelaer T. *The role of social capital in development: An empirical assessment*. Cambridge University Press. 2002. <http://dx.doi.org/10.1017/CBO9780511492600>
24. Narayan D, Pritchett L. *Cents and Sociability: Household Income and Social Capital in Rural Tanzania*. Policy Research Working Paper 1796, Washington, DC: The World Bank. 1999.
25. Tenzin G, Otsuka K, Natsuda K. Impact of Social Capital on Poverty: A Case of Rural Households in Eastern Bhutan. *Ritsumeikan Center for Asia Pacific Studies (RCAPS) Working Paper Series*. *Am. J. Econ. Sociol.* 2013; 63(5): 1149-1171.
26. Besley T, Coate S, Loury G. Economics of Rotating Savings and Credit Associations. *The American Economic Review*. 1993; 83(4):792-810.