

GROUP DYNAMICS AND UTILIZATION OF FORMAL FINANCIAL SERVICES AMONG SMALLHOLDER FARMERS IN KENYA

Wabwire, J.M.

*Department of Management Science, Chuka University, P. O. Box 109-60400, Chuka
Email: bethmasinde@gmail.com, jmasinde@chuka.ac.ke*

ABSTRACT

Formal financial services as they enable citizens of a country to derive substantial benefits through access to and utilization of formal financial services which basically translates to being financial included. However, significant proportions of smallholder farmers in Africa continue to be without access to formal financial services. Organization of smallholder farmers into groups is largely viewed as instrumental for overcoming high transaction costs and other market failures and could improve utilization of formal financial services in developing countries such as Kenya. However, establishment of smallholder groups for farmers has not always translated to success, making it imperative to establish the settings under which such collective action can be more beneficial to the farmers. Therefore, the present study examined the influence of group dynamics on utilization for formal financial services among smallholder farmers in Kenya. The study targeted a cross-section of smallholder farmers from three counties in Kenya: Nakuru, Busia and Kirinyaga Counties. A study sample size of 496 smallholder farmers was selected using convenience sampling technique. Data was collected using questionnaire copies and data collection sheet. Quantitative data analysis comprising both descriptive and inferential statistical methods was used with the aid of SPSS software. The findings revealed that membership to groups and group services encouraged the smallholder farmers to use financial services. Therefore, the study recommends restructuring of the groups to enable them facilitate group guarantee of loans to members so as to enable them obtain credit and bulk inputs for their farms.

Keywords: Bulk input, Credit input, Group services, Loan guarantee, Self-help groups

INTRODUCTION

Formal financial services are important to the economic well-being of the individual and nation alike. They bring structure to socio-economic development through the elements of predictability, dependability and security as they are offered at a much more reliable institutional level. Access to and utilization of formal financial services mean that the stakeholders such as financiers and government can have much more reliable data from which they can make policy decisions on economic growth, investments and financial inclusion. Additionally, citizens of the country stand to derive substantial benefits through access to and utilization of formal financial services which basically translates to being financial included. Financial inclusion presents gradual increase and complementary solutions to deal with poverty, to advance inclusive development and to achieve the millennium development goals (Aduda and Kalunda, 2012). It aims at drawing the unbanked population into the formal financial system so that they have the opportunity to access financial services stretching from deposits, payments, and transfers to insurance and credit (Demirguc-Kunt and Levine, 2009). Therefore, financial inclusion empowers people to provide their own solution (John and Mary, 2016).

Despite the importance of financial inclusion as a driver of growth and income equality, countries

globally continue to have significant proportions of individuals and households without access to basic financial services (Chaia et al., 2009). Globally, bankable adults reported to be financially excluded are close to three billion (Swamy, 2014). Furthermore, Demirguc-Kunt and Klapper (2012) opines that out of the 50% of banked adults, who have individual or joint accounts at formal financial institutions, it is only 22% that have savings accounts. At least 80% of adults in developing countries are unbanked compared to a world average of 50% and 8% for the developed countries (Allen et al., 2014).

The situation in Africa is even grimmer from the statistics that show that bankable adults without accounts with financial institutions are more than three quarters (Aderonke and Charles, 2010). A large proportion of people in Africa have been financially excluded from the economy hence not being able to access and use formal financial services (Demirguc-Kunt et al., 2015). Kenya has a population of 46 million people and adults with accounts in the formal financial institutions in the year 2014 stood at 55.2%, for formal savings 30% and for formal borrowing 15% according World Bank data (Ouma et al., 2017). Additionally, some poorer sections of the society, mostly from the rural, arid and semi-arid areas are still largely excluded from the formal financial systems.

For a continent which has a big population largely depending on subsistence farming commonly practiced at the small-holder level, access to and utilization of formal financial services is vital to the survival of the farming enterprises. Financial institutions interested in serving the agricultural production market in Africa face myriad risks and challenges associated with agricultural production and lending, including seasonality and the associated irregular cash flows, high transaction costs, and systemic risks, such as floods, droughts, and plant diseases. While these challenges apply to agricultural lending in general, they impinge on smallholder lending in particular, given the relatively higher transaction costs of provision and smallholders' limited ability to mitigate risks (International Finance Corporation, 2014). This situation is further compounded by the fact that majority of the smallholder farmers are unbanked and, hence, largely financially excluded.

Kempson (2006) profiles diverse fundamental reasons or categorization of financial exclusion. These include access barriers such as identity requirements, the terms and conditions of bank accounts, levels of bank charges, physical access problems brought about by bank branch closures and psychological and cultural barriers are all important. Low or non-access to formal financial services could also arise from involuntary exclusion. Involuntary exclusion may be caused by a variety of determinants which include financially challenged brackets or great risk, favouritism, information in the contract to amount charged or the type of products offered (Claessens, 2006). Amount charged or product attributes: financial services may not be affordable or the attributes of the product being provided may not be appropriate for particular segments of the populace. For instance, it may not be attractive for micro-entrepreneurs to pledge personal assets as security before credit is extended to them.

Establishing of groups or encouraging individuals to join established groups has emerged as an important risk pooling strategy in microfinance practice especially given that majority of the poor are unbanked and often lack collateral to secure credit. It essentially mitigates the unpredictable individual financial risks when securing credit as it spreads the risk among members. Organization of smallholder farmers into groups is largely viewed as an important institutional for overcoming high transaction costs and other market failures in developing countries (Markelova et al. 2009). Further, these groups can be instrumental in the providing important platforms for capacity building, information exchange, and innovation in rural settings (Bingen et al. 2003). Key and Runsten (1999), for instance, argue that group contract arrangements can

enhance the smallholder farmers' market power and ensure a more equitable distribution of benefits. Moreover, Fafchamps (2004) asserts that peer pressure through farmer groups may reduce the likelihood of opportunistic behavior in contracting, such as side-selling. This assertion by Fafchamps (2004) provides and important conceptual understanding on risk pooling in smallholder groups. However, establishment of smallholder groups for farmers has not always translated to success, making it imperative to establish the settings under which such collective action can be more beneficial to the farmers (Markelova et al. 2009; Poulton et al., 2010). The present study examined the group dynamics of the smallholder farmers.

Group dynamics is a set of behavioural and psychological processes that occur within a social group or between groups (Backstrom et al., 2006). A sound understanding of group dynamics, and the role it plays in business, is a critical component of successful management. When good group behaviour exists within a group working toward a common goal, each individual member will perform effectively and achieve goals set by the group. Smallholder farmers are essentially social groups formed by the social identity approach which involves both identifying with some individuals and explicitly not identifying with others. Through interaction, individuals begin to develop group norms, roles, and attitudes which define the group, and are internalized to influence behaviour (Lickel et al., 2000). In the present study, the focus will not be on the formation of the smallholder farmer and non-farmer groups as several have already been established and registered and they are functionally social groups rather than collectives. Hence, the imperative is to join rather than establish new groups. The study focused on their performance in providing relevant services to their members and whether these services and the types of groups they belonged to enabled them to utilize formal financial services.

Objective of the Study

The objective of the study is to determine the influence of group dynamics on utilization for formal financial services among smallholder farmers in Kenya.

Correspondingly, it sought to test the hypothesis that;
H₀: There is no significant relationship between group dynamics and utilization of formal financial services among smallholder farmers in Kenya

METHODOLOGY

The study adopted a cross-sectional survey research design since it allowed the collection of data from several cases in different contexts at the same time while ensuring that a variety of views over the same issue are captured in a short time increasing the

external validity of the study. The study covered smallholder farmers from Nakuru, Kirinyaga and Busia Counties in Kenya. These locations are within the same Livelihood Zones. Livelihood zones are areas within which people share broadly the same pattern of livelihood, that is, the same production system - agriculture or pastoralist as well as the same patterns of trade and exchange (Lawrence, King and Holt, 2011). Nakuru falls within the Highland Tropics with many different cropping and livestock activities. An estimated 80% of residents depend on agriculture for their livelihoods, with major farm enterprises among smallholder farmers being maize, beans, Irish potatoes, pyrethrum, vegetables, zero grazed dairy cows, sheep and goats. It serves as a representative cosmopolitan agricultural county. Kirinyaga is a county in the former Central Province. Agriculture is the backbone of its economy. Busia in the former Western Province is the gateway to Kenya from Uganda. Agriculture is the main economic activity in the county among the small scale farmers, with production of maize, beans, groundnuts, cassava, sorghum, vegetables and fruits.

The study adopted a descriptive cross-sectional survey research design and targeted 3,666,294 smallholder farmers from three counties of Nakuru, Busia and

Kirinyaga. Simple random sampling was used to select the three counties and sub-counties while convenience sampling was used to select the smallholder farmers for study in each ward. A total of 496 smallholder farmers were selected in Nakuru, Kirinyaga and Busia counties. Data was collected using copies of a researcher developed semi-structured questionnaire which were administered to randomly selected smallholder farmers. Descriptive and multiple linear regression analyses were then conducted using SPSS software in order to address each study objective.

RESULTS AND DISCUSSION

Group Dynamics and the Utilization Formal Financial Services

The group dynamics constructs evaluated were membership across the socioeconomic strata, membership across counties surveyed, non-farmer's groups subscribed to and services received.

Group membership by demographics and socio-economic factors

The study established whether group membership was related to other demographic and socioeconomic factors of the farmers (Table 1).

Table 1. Group membership to farmers' groups by demographics and socio-economic factors

Category	Membership		Total	Chi-Square (P-value)	
	Yes	No			
Gender	Male	110	168	278	1.005 (0.316)
	Female	96	122	218	
Age group of respondent	18-30 years	8	38	46	23.311a (0.000)
	31-40 years	34	72	106	
	41-50 years	54	74	128	
	51-60 years	55	48	103	
	> 60 years	55	58	113	
Marital status of the household head	Married	157	233	390	9.921a (0.019)
	Separated	5	7	12	
	Widow/Widower	40	33	73	
	Single	4	17	21	
Education level	Illiterate	23	39	62	1.275a (0.866)
	Primary	92	135	227	
	Secondary	70	88	158	
	Tertiary	18	25	43	
	University	3	3	6	
Land Size in acres (Acres)	One	84	137	221	14.037a (0.041)
	Two	62	59	121	
	Three	34	41	75	
	Four	14	23	37	
	Five	12	30	42	
Household land tenure	Communal	12	34	46	31.696a (0.000)
	Self-owned	173	176	349	
	Leased	21	80	101	

The results in Table 1 suggests that membership to farmers' groups was significantly ($p \leq 0.05$) related to age group, marital status, land size and household land tenure. However, gender and education level did not significantly influence subscription to farmer's groups ($p > 0.05$). Further, it was evident that farmers were significantly inclined to join farmers' groups as they grew older - 41 years and above. Also more married farmers than unmarried were more likely to join farmers' groups. Farmers also tended to significantly

decrease their affiliation to farmers' groups as their acreage increased. Finally, farmers with self-owned land tenures were significantly likely to join farmers' groups than those whose tenure was on communal or leasehold basis.

Descriptive Data for the Institutional Factors

The respondents were asked to indicate if they belonged to any farmers group. The results are presented in Table 2.

Table 2. Membership in farmers' group(s) by county

Statement	Response		County			Total
			Busia	Nakuru	Kirinyaga	
Do you belong to any farmer group	Yes	Count	75	117	14	206
		Perc (%)	15.1%	23.6%	2.8%	41.5%
	No	Count	38	175	77	290
		Perc (%)	7.7%	35.3%	15.5%	58.5%
	Total	Count	113	292	91	496
		Perc (%)	22.8%	58.9%	18.3%	100%
Do you belong to any other group if not farmers' group	Yes	Count	36	85	7	128
		Perc (%)	17.5%	41.3%	3.4%	62.1%
	No	Count	39	32	7	78
		Perc (%)	18.9%	15.5%	3.4%	37.9%
	Total	Count	75	117	14	206
		Perc (%)	36.4%	56.8%	6.8%	100%

Majority (58.5%) of the smallholder farmers did not belong to any particular farmers' group while 41.5% belonged to a farmers' group. Of those who belonged to a farmers' group, majority (23.6%) were from Nakuru while Kirinyaga respondents had the least membership to farmers' group (2.8%). However, unlike Nakuru and Kirinyaga, Busia had proportionally more respondents (15.1%) who were members of farmers' groups than those who did not belong to farmers' groups (7.7%). Majority (62.1%) were members of other groups not related to farming. Nakuru respondents (41.3%) belonged to other non-farming groups than the other two counties surveyed.

Non-farmer's groups subscribed to by farmers

Consequently, the study sought to find out the groups which they subscribed to apart from farmers' groups. The results are given in Table 3. The results in Table 3 indicate that majority (68%) of the smallholder farmers subscribed to self-help groups that were not necessarily affiliated to farming. The other non-farmer groups commonly subscribed to by the farmers were *Chamas* (11.7%) and women's groups (7.8%) respectively. The findings also indicate that more males (54.7%) than females (45.3%) respondents tended to be affiliated to non-farmer membership groups

Table 3. Non-farmer's groups subscribed to by farmers

Group	Gender of Respondents				Total	
	Male		Female		Freq	Perc(%)
	Freq	Perc(%)	Freq	Perc(%)		
<i>Chama</i>	12	17.1	3	5.2	15	11.7
Elders' group	4	5.7	0	0.0	4	3.1
Self-help group	48	68.6	39	67.2	87	68.0
Volunteer group	0	0.0	1	1.7	1	0.8
Welfare group	3	4.3	4	6.9	7	5.5
Women's group	0	0	10	17.2	10	7.8
Youth group	3	4.3	1	1.7	4	3.1
Total	70	54.7	58	45.3	128	100.0

Services received from farmers' groups

The study also sought to find out the services they received from the groups and presents the findings in Table 4. It is evident that most of the small scale farmers often (36.9%) benefited from knowledge in farming through the groups while 31.6% always benefited from the same services and this significantly affected their utilization of formal financial services ($p = 0.000$). Most also indicated that they often (43.7%) received table banking and merry-go-round services in their farmers' groups while 21.4% also indicated that they always received the same services. The table banking and merry-go-round services also significantly influenced their utilization of formal financial services ($p = 0.001$). However, majority (54.4%) of the respondents indicated that they had never received group guarantee of loans and, consequently, this did

not significantly influence their utilization of formal financial services ($p = 0.460 > p = 0.05$). The findings also indicate that most of the respondents had not only received financial literacy training sometimes (36.9%) from the farmers' groups and this did not have a significant influence on their utilization of formal financial services ($p = 0.833 > p = 0.05$). Additionally, the results suggest that most of the respondents had never (32%) accessed market information services from their farmers' groups and, consequently, this did not have a significant influence on their utilization of formal financial services ($p = 0.754 > p = 0.05$). Finally, the results suggest that majority (55.3%) of the respondents had never accessed bulk purchases of inputs services from their farmers' groups. This did not have a significant influence on their utilization of formal financial services ($p = 0.228 > p = 0.05$).

Table 4. Services received from farmers' groups on utilization of formal financial services

Service(s)	Response					Utilization	
	Never	Seldom	Sometimes	Often	Always	χ^2	P-value
Knowledge in farming	3.4%	2.4%	25.7%	36.9%	31.6%	29.706	0.000
Table banking/ Merry-go-round	20.4%	4.4%	10.2%	43.7%	21.4%	25.17	0.001
Group guarantee for loans	54.4%	1.5%	16.5%	20.4%	7.3%	7.735	0.460
Financial literacy training	24.3%	10.7%	36.9%	26.2%	1.9%	4.259	0.833
Market information and access	32%	17.5%	23.8%	24.8%	1.9%	5.033	0.754
Bulk purchase of inputs	55.3%	7.3%	10.7%	23.3%	3.4%	10.552	0.228

Multiple Linear Regression for Institutional Factors

This study determined the significance of institutional factors in the utilization of formal financial services. A

simple linear regression was used to examine the relationship between the group membership and utilization of formal financial services.

Table 5. Multiple regression of group dynamics on formal finance utilization

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.052	0.454		8.928	0.000
Membership to non-farmers' group	1.161	0.194	0.385	5.995	0.000
Knowledge in farming services	0.034	0.105	0.023	0.320	0.750
Table banking services	0.155	0.073	0.149	2.126	0.035
R2	0.176	F-value	14.431		
Adjusted R2	0.164	P-value	.000b		

a Dependent Variable: Utilization Index Category

b Predictors: (Constant), Table banking services, Farmers' group membership, Knowledge in farming services

The findings in Table 5 show that the overall coefficient of determination (R^2) is 0.176% with an adjusted R^2 of 0.164 which shows that the R^2 change is of the order of 1.2% and, hence, negligible thus

suggesting that the model is stable. This was further confirmed by the model's F-value (14.431) with the corresponding P-value ($p = 0.000$). The findings further show that the model with the constructs of

group membership to a non-farmers group and services received from the farmer's groups could explain up to 17.6% of the change in the utilization of formal finance. The other 82.4% could be accounted for by other factors not included in the model. Therefore, this led to the rejection of the null hypothesis;

H₀: There is no significant relationship between group dynamics and utilization of formal financial services among smallholder farmers in Kenya

The model also shows that membership to non-farmers' group had greater influence on formal finance utilization ($\beta = 0.385$, $p = 0.000$). This was followed by provision of table banking services ($\beta = 0.149$, $p = 0.035 \leq 0.05$). However, obtaining knowledge in farming through groups did not significantly influence formal finance utilization among the respondents ($\beta = 0.023$, $p = 0.750 > 0.05$).

DISCUSSION

The findings that membership to farmers' groups was significantly ($p \leq 0.05$) related to age group, marital status, land size and household land tenure agree with Asante et al. (2011) who found that several factors such as age and farm size contributed to the decision of farmers to join farmers' groups in Ghana. They also agree with Kimutai and Chepchumba. (2016) who found out that marital status and size of farm under cultivation were significant determinants of small scale farmer's decision to join farmer based organizations. However, they disagree with other findings by Kimutai and Chepchumba (2016) that education level and gender significantly contributed to farmers' decision to join farmers' groups.

Subscription to groups varied with less than half the farmers (41.5%) belonging to a farmers' group and majority (62.1%) of the farmers were members of other groups that were not related farming. Regression results also revealed that membership to non-farmers' group had greater influence on formal finance utilization than provision of table banking services by groups in the regression model. These findings suggest that group services encouraged the smallholder farmers to use alternative financial services. This observation agrees with Ostrom (1999) whose findings argue in favour of group services showing that groups have been able to avoid many of the high transaction costs associated with formal financial institutions. The findings further revealed that membership to the groups was beneficial mainly in enabling the farmers acquire knowledge in farming through the groups and obtain table banking and merry-go-round services and that both constructs significantly influenced the utilization of formal financial services ($p \leq 0.05$). This is

consistent with previous studies that revealed that financial knowledge directly correlates with self-beneficial financial behaviour (Hilgert, Hogarth and Beverly, 2003; Finke, Huston and Waller, 2009).

However, the findings revealed that majority of the groups did not adequately provide group guarantee of loans, financial literacy training, market information services and bulk purchases of inputs services. These findings, interestingly suggest that access to credit/loan facilities were not necessarily the prime motivators for farmers' membership to the farmers' groups. As such, the study failed to support Asante et al., (2011) who found out that, farmers join farmer based organizations to access to credit/loans through the same farmers based organization which increases production and income. The findings further disagree with Asante et al., (2011) whose findings indicated that farmers joined farmer based organizations if they can access to machinery services.

The findings imply that behavioural intentions to subscribe to a group were significant based on the perceived benefits. The findings support the theory of planned behaviour by Ajzen (1991) which postulated that intention is the best predictor of human behaviour. The main premise of the theory is that when a person plans to do something then there is a more likelihood to do it. Accordingly, intention is a product of three different processes; behavioural attitudes, subjective norms and perceived behavioural control. Intention is determined by a person's attitude toward behaviour, the subjective norm, and the relative importance between the attitude and the subjective norm. Therefore, the higher the perceived benefits the more likely the smallholder farmers would subscribe to an institution and the financial institutions could leverage on this to introduce their products to the farmers in a way they perceived they could benefit and, hence, increase their utilization of the financial services. Hence, from a theoretical perspective, it can be argued that inclusion was a deliberate choice of the actors and was significantly dependent on institutional factors.

CONCLUSIONS

The foregoing findings and discussions have revealed that demographic indicators, such as, age group, marital status, land size and household land tenure significantly influenced membership to farmers' groups. However, majority of the small scale farmers were members of non-farming groups although a substantial proportion belonged to a farmers' group. The non-farming groups subscribed to by most smallholder farmers in the area were self-help groups, *chamas* and women groups. Membership to non-farmers' group had greater influence on formal finance

utilization than provision of table banking services by groups in the regression model. As such, the study concludes that membership to groups and group services encouraged the smallholder farmers to use financial services. Farming groups offered limited services and members benefited mostly from obtaining knowledge in farming and table banking services which also significantly influenced their utilization of formal financial services. Compared to other previous studies, the present study provides a strong case for group membership as group dynamics factor in utilization of formal financial services. It suggests that group membership in both affiliated and non-affiliated groups created some behavioural heterogeneity among the members which influenced their financial behaviours. Respondents belonging to one group, that is, the farmers group and those not affiliated to any other group showed less diversity in the utilization of formal financial services than those who belonged to more than one group. However, it was also evident from the findings that farmers' groups tended to concentrate on disseminating farming information and table banking than other services. As such, they had limited influence in encouraging utilization of formal financial services.

RECOMMENDATIONS

Based on findings is recommended that the farmers groups get additional technical support so as to enable them offer more services to the farmers like financial literacy, market information services and bulk purchases of inputs services to the farmers. Additionally, it will be important for the groups to be restructured to make it easier for them to provide group guarantee of loans to members so as to enable them obtain credit and bulk inputs for their farms. In this vein, financial services providers and their technological intermediaries such as mobile service providers and Fintech firms should develop products for small-holder farmers that they can advance in such groups.

REFERENCES

- Aderonke, A.A., and Charles, K.A. 2010. An Empirical Investigation of the Level of Users, Acceptance of E-Banking in Nigeria. *Journal of Internet Banking and Commerce* 15(1):1-3
- Aduda, J., and Kalunda, E. 2012. Financial inclusion and financial sector stability with reference to Kenya: A review of literature. *Journal of Applied Finance and Banking*, 2 (6):95, 110-120.
- Ajzen, I. 1991. The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2):179–211.
- Asante, B.O., Afarindash, V., and Sarpong, D.B. 2011. Determinants of small scale farmers' decision to join farmer based organizations in Ghana. *African Journal of Agricultural Research*, 6(10):2273-2279.
- Backstrom, L., Huttenlocher, D., Kleinberg, J., and Lan, X. 2006. Group formation in large social networks. *Proceedings of the 12th ACM SIGKDD International Conference on Knowledge Discovery and Data mining - KDD '06*. p. 44.
- Bingen, J., Serrano, A., and Howard, J. 2003. Linking farmers to markets: different approaches to human capital development. *Food Policy* 28(4):405-419.
- Chaia, A., Dalal, A., Goland, T., Gonzalez, M. J., Morduch, J., and Schiff, R. 2009. *Halftheworldisunbanked.Com/Resource/Practitionerguidetohea/2%20livelihood%20zoning.Pdf*.
- Claessens, S. 2006. Access to financial services: A review of the issues and public policy objectives. *The World Bank Research Observer*, 21(2):207–240.
- Demirguc-Kunt, A., and Levine, R. 2009. Finance and inequality: theory and evidence: National Bureau of Economic Research: 15275
- Demirguc-Kunt, A., and Klapper. 2012. Measuring Financial Inclusion: The Global Findex Database, World Bank Policy Research Working Paper: 6025.
- Demirguc-Kunt, A, Klapper, L, Singer, D, and Peter V., (2015). The Global Findex Database 2014: Measuring Financial Inclusion Around the World. Policy Research Working Paper 7255, World Bank, Washington, DC.
- Fafchamps, M. 2004. Market institutions in sub-Saharan Africa: theory and evidence. MIT Press, Cambridge, Massachusetts.
- Finke, M., Huston, S., and Waller, W. 2009. Do contracts impact comprehensive financial advice? *Financial Services Review*, 18(2):177–193.
- Hilgert, M., Hogarth, J., and Beverly, S. (2003). Household Financial Management: The Connection between Knowledge and Behaviour. *Federal Reserve Bulletin* 89 (7):309–322.
- International Finance Corporation (2014). Access to Finance for Smallholder Farmers Learning from The Experiences of Microfinance Institutions in Latin America. Washington D.C: International Finance Corporation.
- John, B., and Mary, J. 2016. Financial Inclusion of the Small and Marginal Farmers by The Banking Sector in Kerala. Doctoral Dissertation. Cochin University of Science and Technology.
- Kempson, E. 2006. Policy Level Response to Financial Exclusion in Developed Economies: Lessons for Developing Countries, Paper Presented at The Conference, Access to Finance: Building Inclusive Financial Systems, World Bank, Washington, Dc. Government of India: Economic Survey (Various

- Years), Government of India New Delhi. Financial Inclusion an Abiding Virtue, The Hindu Monday.
- Key, N., and Runsten, D. 1999. Contract farming, smallholders and rural development in Latin America: the organization of agro-processing firms and the scale of out-grower production. *World Development* 27(2):381-401.
- Kimutai, B.D., and Chepchumba, R. 2016. Determinants of small-scale horticulture farmers' decision to join farmer-based organizations in Nandi County, Kenya. *International Journal of Economic, Commerce and Management*, 4(4).
- Lawrence, M., King, A. and Holt, J. 2011. *The Practitioners Guide to Household Economy Approach*. Retrieved On 01/11/2017 from: [Http://www.feg-consulting.com](http://www.feg-consulting.com).
- Lickel, B., Hamilton, D.L., Wierzchowska, G., Lewis, A., Sherman, S.J., and Uhles, A.N. 2000. Varieties of groups and the perception of group entitativity. *Journal of Personality and Social Psychology*. 78 (2):223–246.
- Markelova, H., Meinzen-Dick, R., Hellin, J., and Dohrn, S. 2009. Collective action for smallholder market access. *Food Policy* 34(1):1–7.
- Ostrom, E., Gardner, R., Walker, J., 1994. *Rules, Games, and Common-Pool Resources*. The University of Michigan Press, Ann Arbor.
- Ouma, S.A., Odongo, M.T., Were, M. 2017. Mobile financial Services and financial Inclusion: Is it a boon for savings mobilization? *Review of Development Finance*, 7:29-35.
- Poulton, C., Dorward, A., and Kydd, J., 2010. The future of small farms: New directions for services, institutions, and intermediation. *World Development*, 38(10):1413-1428.
- Swamy, V. 2014. Financial inclusion, gender dimension, and economic impact on poor households. *World Development*, 56:1–15.