

**SOCIO-ECONOMIC FACTORS AFFECTING WOMEN'S INVOLVEMENT IN
COFFEE PRODUCTION IN KIRUMBA SUB-COUNTY, RAKAI DISTRICT, UGANDA**

BY



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DEDICATION

This dissertation is dedicated to the family of late Charles Kankaka, family of late Peter Ssekyewa and the family of Mr. Gerazio Njagala who dedicated their time, parental care and financial support to ensure that I complete my master degree. It is also dedicated to my wife and children who have given me time and encouragement up to the level I managed to enroll for a masters Degree at Uganda Martyrs University.

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To accomplish such a thesis is a huge activity. Thus the information presented in this material has rooted in many sources and disciplines therefore apologies are extended to those whose citation may have inadvertently been omitted.

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LIST OF ABBREVIATION

AFDB	:	African Development Bank
ARDRI	:	Agricultural and Rural Development Research Institute
DLA	:	Department of Land Affairs
ECA	:	Education Centre of Austria
ESCAP	:	Economic And Social Commission For Asia And The Pacific
FAO	:	Food and Agricultural Organization
FGD	:	Focus Group Discussion
GALS	:	Gender Action Learning System
HIV/AIDS	:	Human Immune Virus/Acquired Immune Deficiency Syndrome
ICO	:	Information Commissioner's Office
CBFS	:	Community Based Facilitators
LDC	:	Low Developed Countries
NAADS	:	National Agriculture Advisory Services
NGOs	:	Non-Government Organisation
OECD	:	Organisation For Economic Cooperation And Development
PRA	:	Participatory Rural Appraisal
SACCO	:	Savings And Credit Cooperatives
UCDA	:	Uganda Coffee Development Authority
UCTF	:	Uganda Coffee Trade Federation

UNDP : United Nation Development Program
UPE : Universal Primary Education
VSLA : Village Saving and Loan Association
WB : World Bank

ABSTRACT

The study examined the social economic factors affecting women involvement in coffee production in Kirumba Sub-county Rakai District. Data was collected using structured questionnaire, focus group discussion, documentary review and observations. A total of 120 respondents were interviewed. Data was analyzed using descriptive statistics and univariate correlation model. The findings reveal that 55% of the respondents were male and 45 % were females. Majority of respondents were married with a mean of 44.2%. 97% of respondents obtained formal education and 80.8% depend entirely on farming as the main occupation. Women who have access to land, household heads and those who have access to credit have fully participated in coffee production and performed better than men. It was also discovered that farm size and access to credit have a positive significance on involvement of women in coffee production, with significance levels of $.000 < .005$ and $.001 < .005$ respectively.

The major challenges faced by women in coffee production were prolonged drought which was ranked number one, limited ownership of land by women was ranked number two, lack of land was ranked number three, gender imbalance in decision making ranked number four and lack of extension staff in coffee production was ranked number five among others.

The study concluded that the number of women involved in coffee production is still very low compared to their male counterparts. The research therefore recommended that gender should be mainstreamed in order to increase the volumes of coffee produced in Kirumba Sub-county Rakai district.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Coffee production in Uganda involves at least 500,000 households and two and half million people 90% of whose average farm size ranges between less than 0.5 and 2.5 hectares (UCDA, 2012). In 2012, 84% of the Ugandan population lived in rural areas and depended heavily on agriculture for their livelihoods (UCDA, 2012). Agriculture is the most important sector of Uganda's economy, employing around 65% of the labor force (World Bank 2014). Coffee accounted for 30.6% of Uganda's export earnings in 2012 (AFDB & OECD, 2014). Next to Ethiopia, Uganda is Africa's largest coffee exporter, producing 21.9% of African coffee in 2013 (ICO, 2014).

Coffee production is therefore a crucial contribution not only to incomes of rural households, but also the national economy. As in many value chains, women are very important as producers and small traders. But they face a vicious cycle of gender discrimination and gender based constraints at all levels which limit their ability to both contribute to their full potential to the coffee industry, or to benefit from their contributions. In most coffee producing countries women typically contribute 60-80% of work in the fields and about 60% in the harvesting and processing (Angelica, Senders, and Marjoleine, 2014).

Coffee is still Uganda's major foreign exchange earner in spite of high fluctuation in the world market prices and the breakdown of the coffee commodity international agreement (UCDA, 2014). The coffee industry is based almost entirely on small holder production and two types of coffee namely robusta and arabica are grown. Robusta, which is suited for the low lands, accounts for 94% of the outputs while Arabica, grown in eastern and south western highlands accounts for 6%. Indeed, coffee has the potential considering the fact that the figure given above can be increased further if the value chain of coffee at various level is given adequate attention and when all categories of people get involved despite of their sex and roles towards its production up to marketing. Studies carried out by Fabiyi, Danladi and Mohmood, (2007), Onguono (2009:69), FAO (2008:58), Karki (2009) showed that women have historically used agriculture

as one of the strategies to address poverty and improve livelihoods, and also to maintain the stability and sustainability of their families. Women, especially in Africa, have played a significant role in the sustainable production and economic development of their communities and countries. In his document, Kehler, (2001) argues that rural women have historically played a crucial role in agriculture as food producers as they constitute more than half of the agricultural labor. Women account for 70% of agricultural workers, 80 % in food production and take up to 60 to 80 % of marketing (Fabiya *et al*, 2007).

Even though rural women contribute significantly to the socio-economic development of their countries through agriculture, they continue to face major socio-economic challenges, which differ from one community to another (Kasente D,1997). Studies show that women have contributed enormously to agriculture in the study area (FAO, 1985). However, much of their work continues to be unrecognized (FAO, 2014). The historical exclusion of women from access to land ownership, credit and the low level of education set the stage for women's limited access to farm land at present (Paineto, Baluku, Linda, and Thies, 2015). This study explored various factors that inhibit women involvement in coffee production in including access to land, credit, and ownership of land, drought, domestic work load, price fluctuations and others.

1.2 Problem Statement,

Coffee is one of the major foreign exchange earner in Uganda and is projected to be at volume of 3.8 million bags at a value of US \$ 452 Million in 2014/2015 coffee year (UCDA, 2014). Coffee is one of the national enterprises selected to alleviate poverty in Ugandan communities, similarly Rakai district authorities identified and selected coffee as the district enterprise to reduce on poverty problem in the district (Rakai District Development Plan, 2010-2015).

Coffee has been traditionally and currently known to be produced by men, because women have no access to land for coffee production due to traditional norms and their migration conception of marriage (Angelica, Senders and Marjoleine, 2014).The quantity of coffee produced by women is still very low. This is due to limited involvement of women in coffee production as a result of lack of land, culture, attitude, education level (FAO, 2014). The purpose of this research was to find out the social economic factors which affect women involvement in coffee production in Kirumba Sub-county.

1.3 Objectives of the study

1.3.1 General objective

To explore the socio-economic factors affecting women's involvement in coffee production in Rakai district.

1.3.2 Specific Objectives

- To identify the number of women involved in coffee production.
- To identify opportunities and challenges of women involvement in coffee production.
- To assess the perception of the community about women involvement in coffee production.
- To examine the influence of socio-economic factors on women's involvement in coffee production.

1.3.3 Research Questions

- What is the contribution of women involvement in coffee production?
- What are the opportunities and challenges of women involved in coffee production?
- How does the community perceive women involvement in coffee production?
- How do socio-economic factors influence women's involvement in coffee production?

1.4 Significance of the Study

Azahari (2008) reveals that, there is evidence indicating that the elimination of barriers to women's access to productive resources will lead to the productive involvement of women in coffee production and women will earn recognition as important players in the production process. This study will catch the attention of the district coffee sector and makes it more gender sensitive in the formulation of policies that will also favor women farmers. It will again encourage the government and NGO's to focus the programmes on rural development and promote women independence on coffee. The study will increase the understanding and awareness of gender issues in coffee and agricultural rural development. Regional policy makers,

district planners and community development officers will also benefit from this study. Furthermore, the study will enable policy makers, community developers etc. to gain a deeper knowledge and background of the reasons behind economic limitations in rural areas. It will also highlight the reasons for the lack of community self-sustenance in rural areas. Finally, the study will be used to increase on the volume and quality of coffee produced by women. It will also help the government and non-government to mainstream gender in all agriculture related activities (FAO, 2014).

1.5 Scope of the study

The study was only limited to Kirumba sub-county in Rakai district. The scope of the study was only limited to social-economic factors affecting women involvement in coffee production. Respondents in the study were both men and women farmers. The study was carried out in 12 months running from January 2015 to January 2016.

1.6 Justification of the study

Coffee industry in Uganda is characterized by smallholder farmers living in rural areas. Women form the major source of labor to Uganda's coffee sector. However, when it comes to benefiting from coffee women are marginalized. The study assessed the nature of women involvement in coffee production because coffee production holds a significant potential as a means by which rural household can improve their welfare

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature related to social economic factors affecting women involvement in coffee production. It begins with theoretical and conceptual frameworks, the core definitions of the relevant concepts of socio-economic factors affecting decision to participate in coffee production and gaps identified from selected empirical studies relevant to the present study.

2.2 Theoretical Framework

There are various development theories that focus directly on the issues of participation of women in rural communities. The theory of structural functionalism and its perspective on women and development guided the study. Structural functionalism refers to the analysis of the various parts of society, family, government, education etc, in terms of the way they function to promote social order and harmony (Ekong, 2003). This orientation originated in the work of Spencer and Durkheim, became the dominant perspective in sociology through much of the twentieth century. Both Spencer and Durkheim used the organic analogy in which they compared a society to a living organism (Durkheim and Spencer, 1982). A society as a structure has specialized parts that function and inter relate for the operation of the whole, just as specialized organs function to create equilibrium in the physical organism (Durkheim and Spencer, 1982) In coffee production today, there is a new drive for infusion of a better relationship among farmers, extension agents and researchers. In this regard, structural functionalism will mean the participation of women farmers in coffee production on one hand and the part played by the researchers, subject matter specialists and village extension agents on the other hand. All these players can be likened to specialized parts of a structure that function and inter-relate for operations of the whole. Thus, they all function to promote social order and harmony in terms of increased knowledge, increased yield and improved standard of living, not only for the women farmers in coffee production but also for the entire nation.

Nevertheless, Ekong, (2003) revealed that structural functionalism, a school of thought adopted for this study sees the role of women in the family as expressive providing warmth, security, emotional support and stabilization of male adult perspectives. The need to take care of children and generally care for members of the family they hold, locate the place of women in the home.

Otite (1994) revealed that in the structural functionalist perspective, casual analysis revolves around how changes in parts or a combination of parts affect the state of the whole system.

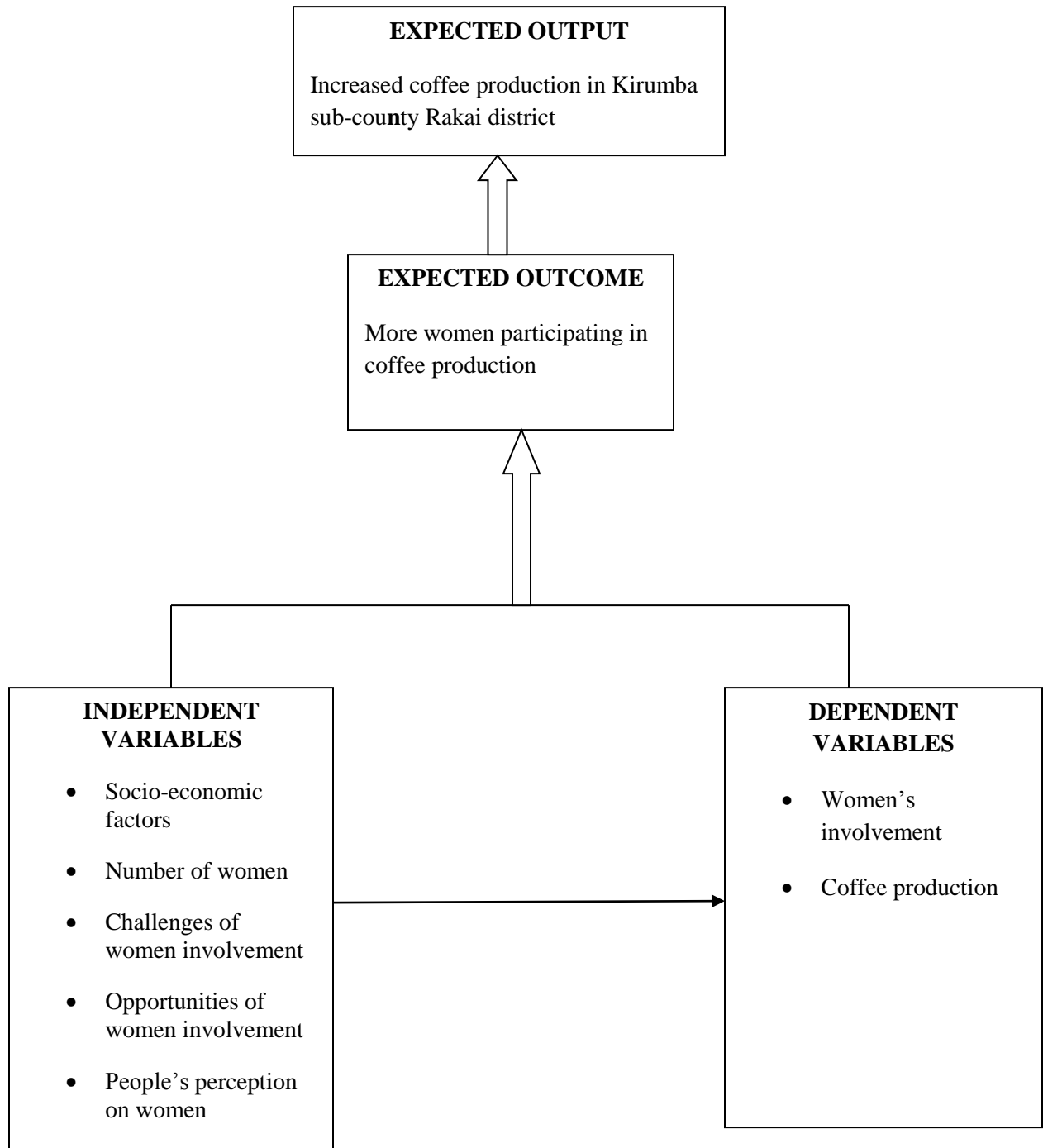
Nonetheless, to Talcott Parsons (2008), gender differences rather help to integrate the society. This is accomplished through complimentarity of roles in family units. Distinctive socialization is therefore required for the two sexes to stamp appropriate gender identity and impact skills needed for adult life.

Ekong (2003) point out those differences such as consideration of the male sex as normal and female as deviation from the normal is seen as a male dominated language. Ekong (2003), maintains that women must rise up to assert themselves in learning and discoveries so as to unlock in society a sexuality that is just as much feminine as masculine.

Ekong (2003) established that berates Talcott Parson's notion of the expressive role of women as an example of the intrusion of western male dominance ideology into scientific analysis. Ekong (2003) revealed among the Mbuti pygmies of the Congo, men hunt with women and shared responsibility for childcare. Ekong pointed out that even in modern societies females form a substantial part of the armed forces in China, Cuba, Israel and Russia.

2.3 Conceptual frame work

This presents a conceptual framework of factors that influence female involvement in coffee production. Thus, this study also found out at what extent the socio-economic variables affect the decision to participate in coffee production.



Source: Adopted and modified from Lazzarini et al. (2001).

Figure 2.1: Conceptual framework

2.4 Definition of important variables

Social economics: is the science that studies how economic activity affects and is shaped by social progress. In general it analyses how societies progress, stagnate or regress because of their local or regional economy or the global economy. . (Wikipedia)

Social economic factors: Are social experiences and realities that help mold one's personality, attitudes and lifestyles.

Woman: This refers to adult human being who is biologically female and capable of bearing off springs.(Dictionary.com)

Participation: This means taking part, contribution, partnership, involvement, assistance, sharing in or joining in partaking (Merriam Webster).

2.5 Number of women involved in coffee production

Women play a major role in production of coffee. In most of the coffee growing households women undertake most of the work involved in production however, they tend to have little control of the harvest (ITC, 2008). Most of the world's coffee is produced by small holder farmers of which women contribute up to 60-80% of the work involved in production. However women benefit less from coffee produced (The Guardian, 2011). Reports produced by the UN and the World Bank over the last few years have stated that gender equality makes good economic and social sense, and that when women control the household finances more money is spent within the household than out with compared to males (FAO, 2014). This has implications across health, education, land ownership and entire communities. Also, agricultural policies and training are often targeted at men, but it stands to reason that if women are trained properly not only should production increase but there could be improved food security for the world's population. Simple steps can have far-reaching consequences (The Guardian, 2011). According to the Food and Agriculture Organization (FAO, 2014), closing the global gender gap in agriculture would increase yields on farms by 20-30%, which could in turn reduce the number of hungry people in the world by 12-17%.

Women play a significant role in the agricultural labour force in agricultural activities, although to a varying degree (FAO, 2014). Consequently, their contribution to agricultural output is

undoubtedly extremely significant, although difficult to quantify with any accuracy. It has often been claimed that women produce 60-80% of food (SOFA and Cheryl 2011).

Women play a vital role in Uganda's rural agricultural sector and contribute a higher than average share of crop labor in the region. Women also make up more than half of Uganda's agricultural workforce, and a higher proportion of women than men work in farming—76% versus 62%. Yet compared to men, their productivity is low (Derick 2015).

Looking at the studies carried out by different researchers none of them has thought to find out the number of women involved in coffee production. This justified the essence of carrying out the study.

2. 6 Opportunities and challenges of women involvement in coffee production

African women, particularly rural women primary contributions to the households, food production systems and in universal economies cannot be overemphasized (United Nations Report, 1989). Women's contributions in development are progressively being more recognised within the country and the entire world. Women represent majority of the world's population (United Nations Report: 2004). The situation is not different in Uganda. Despite, their numerical strength Ugandan women like their counterparts in other African nations have received only a small share of the opportunities and benefits of development (Elson and Evers, 1996). Although there is a lack of evidence on the effects of reforms it seems to be fairly well established that coffee production in Uganda relies heavily on female labour inputs in the production process while marketing and control over coffee income lie in male hands (Bantebya and Keniston, 2006). The gender division of tasks is not limited to cash crop production. The production of food crops as well as the specific tasks in the production of other crops, for example weeding, typically falls into the female domain (Kasente *et al*, 2000; Dolan, 2001). In addition, men exert control over their spouses' labour to some extent, a tradition also reflected by the practice of paying a bride price (Evers and Walters, 2001). Finally, women bear the burden of housework, which, beyond domestic tasks, comprises a number of time-consuming duties.

Carlrix and Eagle (cited in Imogie, 2009) argue that it is generally alleged that women are not as competent as their male counterparts to hold leadership positions. However, in recent times women advocates have challenged the stereotypes depicting women as passive dependents and

even inferior to men (Hamra, 2008). Moreover, these traditional beliefs are generally fading away as women are beginning to measure up with greater responsibilities like their men folks.

It has been acknowledged that no country can aspire to achieve its full development and industrial potentials unless all of its human resources both male and female are mobilised to participate fully in development process (Karl, 1995, Obansa, 2003 and Obasanjo, 2006). They contribute much of the labour for men's cultivation of cash crops particularly as the male working population migrates to the urban centres in search of better job opportunity and satisfaction. This puts women as a vital resource in the rural areas. Daramola (1987) observed that women account for 60% in rural employment of the total share of non-farm economic activities, which implies a substantial proportion of both management and self employment in non-farm enterprises.

Several other studies also have indicated that women make significant contributions to socio-economic development especially towards agricultural, health projects and establishment of skill vocational centres (Oguono; 2006, Adekanye; 1998, Makinwa- Adebuseye, 1985, Enumali, 1995, Longe, 1985, Tewe, 1978, FAO, 1985, Lele, 1975, Oshuntogun; 1976, Patel, and Anthonio, 1973 and Smock and Smock, 1972).

It has been established that many rural women are members of "women only mutual-aid societies," such as church benevolent organisations, co-operatives and market women's organisations. Some of these women's only aid societies allow women to pool their resources together with the aim of assisting the needy among them (ESCAP, 2012, Munah, 2008, Eshiet, 2007, Emovon, 1997, ECA, 1990 and Dunmade, 1990). Munah (2008) also captured the experience of some African countries which shows that some cooperative societies have provided women access to resources, such as the Corn Mill Societies in Cameroun, the Six S' associations in Burkina Faso and General Union Cooperatives in Mozambique which supplies most Maputo's fruits and vegetables. Also an estimated 90% participate in traditional women's savings and credit associations. Informal rotational credit in Ghana, Tanzania, Gambia, and Zimbabwe have been used by estimated 25% of economically active women in the non-agricultural informal sector to invest in businesses and farms; home improvement and costs of schooling for their Children (Doss and Morris, 2001).

2.6.1 Benefits of women participation in coffee production

2.6.2 Enterprise selection

According to Berhane-Selassie (1991), Snyder (2000), Dicks and Bogale(1995) women involvement in enterprise selection in this case coffee production has raised household economy as well as the economies of countries like Uganda who have earned foreign exchange. Gary and Anderson (2003) supplement, new enterprises can help diversify the agricultural sector by encouraging new types of business, introducing new commodities, or increasing competition and can enhance an enterprise culture. In her interviews, Kenaherwe (2002) found out that women's enterprises were rewarding since they sold off their produce and acquired high incomes, this acted as a motivating factor to start other enterprises. Despite, the successful natures of women's enterprises, men do the marketing and also control cash. This was a contradiction to Buvinic, and Mehra (1995); observation that women's enterprise have not been successful due to the fact that they have less access to modern agricultural inputs. According to Snyder (2000), Kenaherwe (2002), all talked about women participation in coffee production but they did not go ahead to find out the ratio of women involved in the enterprise as compared to their male counterparts. This is an important aspect to be researched on if we are to promote women involvement in coffee production.

2.6.3 Acquisition of skills

Training in knowledge and skills vital for the day to day management of coffee fields and its project activities has been attained. More so, it has provided training in group dynamics, leadership skills, community projects management, group fund mobilization, savings and record keeping (Iukor, 2003) cited in Agriculture Sector Programme Support bulletin June (2003). This literature does not reveal to us whether those who receive the training can manage their own projects without advice from service providers. While women play an important and ever increasing role in rural economies throughout Latin America and Caribbean, most agricultural extension services are directed at programmes for men (Truitt, 1996).Agricultural extension strategies traditionally have focused on increasing production of cash crops by men with training, information, and access to inputs and advisory services. The male bias in farmer training centers has been established to provide residential training on technical subjects. Most of the training does not provide separate washing and sleeping accommodation for men and women. Women

are not even provided with facilities for the care of babies or young children, factors that may prevent women from attending trainings.

In addition, women's reproductive roles do not usually allow them to be absent from home for residential training, even attending short courses may cause inseparable problems in arranging substitute care for children or home (FAO, 2014). In a situation where attendance of women is quite high, as a proportion of the total, women are given instructions mainly in home economics and craft subjects, not technical agriculture (Staudt, 1973). This was in contradiction with what was earlier said by (Hukor, 2003) which the study set out to investigate. The introduction of training and visit system emphasized the selection of contact farmers as a mechanism for passing on information to the other farmers in their area. The recommended selection criteria, such as title to land, literacy as well as male extension staff's assumption about women's role in farming, have largely excluded women's involvement (Kebirungi, 2005). There is need to mainstream gender action learning system (GALS) as a community led empowerment methodology using specific participatory processes which aim to give women as well as men more control of their lives and resources (Linda *at el*, 2014). Gender action learning system (GALS) may include gaining skills in coffee production, small businesses which can support coffee production, organizational planning with women, savings and credit groups and cooperatives (Angelica and Marjoleine, 2014).

2.7 The perception of the community about women involvement in coffee production

Increased male bargaining power could be used to exert pressure on female labour to contribute more labour to cash crop production, thereby squeezing women's labour time (Elson and Evers, 1996). In extreme cases, more intense bargaining struggles may even cause a higher incidence of domestic violence.

Secondly, instead of favoring the male position within the household, increased coffee income might increase the importance of the female participation in the production process, which might raise women's relative bargaining strength and lead household negotiations towards more equitable compensation agreements. Alternatively, other socio-economic changes, especially the increased market participation of farmers as well as the growing importance of non-agricultural income sources in rural areas in Uganda (Kappel *et al.*, 2005), may generally lead to female

empowerment and cause a modification of the household allocation rules (Haddad and Reardon, 1993). Together, these different facets of possible change in household decision-making processes would tend to move households towards more cooperative behavior, thereby increasing the likelihood of efficient bargaining outcomes.

2.8 Socio-economic factors affecting women's involvement in coffee production

2.8.1 Model specification

It was hypothesized that farmers with large tracks of land are likely to be involved in coffee production. The variable of access to credit refers to farmer's ability to acquire loan for the last twelve months. It was postulated that farmers who have access to loans are likely to participate in coffee production (FAO, 2014). Gender of the household denotes socially and culturally defined meanings associated with being a man or woman (Evers and Walters, 2001). Gender is believed to affect member participation in coffee cultivation ((Evers and Walters, 2001). Household income means the average monthly household income of the farmer. It is expected that farmers with income above average are likely to participate in coffee production. univariate correlation model allows in estimating maximum likelihood of socioeconomic factors influencing women decision to participate in coffee production. According to Sanchez (2005) the univariate correlation model to analyze the women decision to participate in coffee production is estimated by means of the following univariate correlation regression.

Many authors have used univariate correlation model in their studies. Beyene (2008) used univariate correlation model to account for the simultaneity of participation decisions of both male and female members of farm households. The results showed that availability of credit and transfer income have a positive impact on the decision of male members to participate in off-farm activities. Matshe & Trevor (2003) had used univariate correlation model to determine the characteristics that influenced the probability that a farm household member participated on off farm work. The results of the study revealed that some of the included variables like age, level of education and five other variables significantly determine the participation in an off-farm work (Beyene 2008). According to Sanusi & Adedeji (2010) in a study on "a univariate correlation analysis of accessibility of small-scale farmers to source of credit in Ogbomoso zone, Nigeria,

the result of the study revealed that level of education, membership of cooperative, contact with extension agent and present of collateral security positively and significantly determine the likelihood of farmers access to credit.

2.8.2 Land ownership

Uganda's constitution states that all land is owned by the people of Uganda, not by the Ugandan State (Uganda, Ministry of Constitutional Affairs, 1995). The same constitution prohibits discrimination based on gender and accords men and women the same status and rights. In addition to the guarantee of property rights without bias to gender or marital status, the constitution also decrees equal land rights for men and women during a marriage and at its dissolution. Although women have the legal right to own and inherit land, in practice, their access to land continues to be limited by socio-economic factors, particularly in rural areas. Rather than being landowners in their own right, women typically access land through male relatives, usually their husbands or sons (FAO, 2014). Only a few women have been able to purchase land individually. Women's limited income generating activities are one reason that they are unable to purchase land (Rugadya, 2007). In some African countries, women are rarely allocated land in their own right, particularly in patrilineal areas (Kasante, Lockwood, Vivian and Whitehead, 2000). Land is allocated to men, who are the heads of household. Women in matrilineal societies on the other hand are allocated land in their own right, but the land is still commonly controlled by their husbands or male clan heads (FAO, 2009:3).

2.8.3 Access to credit

Women face problems of access to credit. This is because many credit associations and export crop market cooperatives ask for security from women in order to acquire credit. (Manuh, 1998). Women face greater difficulties than men, particularly with regard to participation in rural cooperatives and access to credit, training and agricultural extension. These difficulties rarely flow from explicitly discriminatory norms, as legislation on these issues is in most cases gender neutral. Rather, they mainly arise from socio-economic factors (e.g. as for access to credit, women's higher illiteracy rates, lack of information about available credit programs, lack of land titles to be offered as collateral, more limited access to formal employment, and exclusion from credit cooperatives) (FAO, 2005:3). More so, women's access to formal credit sources such as

bank loans remains extremely low compared to men's due to lack of regular income, inability to guarantee the loans and limited access to information.

2.8.4 Access to information

In most cases female rural producers are usually in great need of information, knowledge and skills to improve decision-making, increase productivity and to survive under new market condition which comes as a result of market-orientation (FAO 2003). Appropriate technology and information in agricultural program however is not accessible to female farmers because of inappropriate delivery of services. Less than 10% of women have access to advisory services, improved seedlings, fertilizers, and training (FAO, 1996). This was a study done in Latin America but the situation in Uganda may not be far from reality. There is need to find out how women in Uganda obtain information on training more so, most women in the rural areas do not own radios and in a situation where they own or had access to radios, it was controlled by men and men determine what women could or could not listen to on the radio and sometimes even moved with the radio away from home. The use of mass media in dissemination of agricultural coffee production may not be effective in increasing the general awareness and intervention in new ideas about agricultural coffee technology. According to Oryokot, (2003), the media is increasingly becoming a source of production information for farmers in many law developed countries.

Furthermore, Balit, (1996) added on that communication can be used to increase participation, provide information for change and innovation and help in sharing of knowledge and skills. However, there has been little research done on women's information needs and access to appropriate information in agriculture more so coffee production (Huyer, 1970). This is because information is still predominantly male-oriented, and often a forum for gender discrimination, intimidation and even harassment.

2.8.5 Market access

Farmers' cooperatives or associations are described as effective ways to solve the problem of market access, although women continue to be marginalized as far as markets are concerned (Froukje *et al.*, 2007). Szabó (2002) indicates that the main incentives for the establishment of cooperatives included the fact that traditional cooperatives provide access and secure markets for

the long term. Secondly, they can increase technological and market efficiency and carry out activities with a higher added value. Wollni & Zeller (2006) found that small-scale farmers are more likely to market their coffee through cooperative channels and participation in cooperatives serves to increase prices received by producers.

2.8.6 Labour

In most cases women are always occupied by a lot household work of which they may even end up having one meal a day (Bantebya and Keniston, 2006). Most of the agronomic practices done in coffee production are always left to be done by women who again have to ensure that there is enough food at home, yet these days most of the children are in boarding school(Bantebya and Keniston, 2006).

2.8.7 Men's control of the coffee crop and marketing

According to a report from Uganda Coffee Trade Federation (2009), it was realized that coffee was a crop dominantly owned by men. It has been dubbed as a men's crop. Although much of coffee related activities are done by both men and women, marketing is solely for men and women do not share market information or the proceeds from the coffee harvest. Women are marginalized in decision making and as a result much of the proceeds are spent on alcohol and non essentials (Uganda Coffee Trade Federation, 2009). This study sought to find out the women involvement and contribution in coffee value chain.

2.8.8 Unequal workload and responsibility for household expenditure

The majority of world's coffee is produced by smallholder farmers, and with that women play a great role in farming activities up to 60-80% of the production work. However, their work remains unnoticed (Kasante, Lockwood, Vivian and Whitehead, 2000). Financially they do not gain and they are not included in decision making regarding coffee production (The guardian, 2015). Reports produced by World Bank stated that gender equality in coffee production makes good economic and social sense and that when women control household finances more money is spent within other than without (World Bank, 2010).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This was conducted using mixed methods that is i.e. both qualitative and quantitative method, Research design and sampling procedures which are discussed in details bellow.

3.2 Description of the sstudy area

The study was conducted in Kirumba Sub-county Kyotera County, Rakai District, because it is the leading coffee producer in Rakai District. Western region of Uganda, west of Lake Victoria, lying between longitude 31° East, 32° West and latitude 0° South. The southern boundaries are part of the international boundary between Uganda and Tanzania. Kirumba sub-county is bordered by Lyantonde district in the North-West, Masaka district in the north, Kalangala district in the east and Kiruhura and Isingiro districts in the West. The selection of this area was based on suitability condition for growing coffee as demonstrated by the number of coffee trees grown in this area, simplicity, accessibility, unobtrusiveness and participation in a series of ongoing activities in the Sub County.

Kirumba sub-county is also characterized by fair distributions of rainfall throughout the year. There is a relatively dry season from January to February and from June to August. However, these dry periods are occasionally mitigated by a few light falls. A principal rain fall peak is due around March-April and May, whereas the minor rainfall peak is around October and November. The mean annual rainfall vary from 1,350mm to 2,125mm. This decreases to 850mm and 750mm in Kooki County. Parts of Kakuuto and most of Kooki counties lie in the cattle corridor, on account of the dominance of grass due to drier climatic conditions. Shortage of pastures and water for livestock is a common annual feature. The district generally records around 25°C mean annual maximum temperatures. The Eastern parts record a mean annual minimum of 17.5°C while it decreases to around 15°C to the west. Its soils are ferralitic representing an almost final stage of weathering with little or no mineral reserve left. Some “heavy” clay varieties have some fertility but sandy varieties are particularly poor. Other types include lithosols, alluvial and lacustrine sands and alluvial clays (Rakai district report 2004). Generally lithosols and humus loams are the dominant upland components while the grey sandy soils derived from hill wash or

river alluvium, grey clays of the valley bottoms and lacustrine sands dominate the lowland component. Lithosols are soils without horizons and thus young and stony or bare rocks.

3.3 Research design

The survey was a descriptive cross-sectional study that was designed with a focus to find out the social economic factors affecting women involvement in coffee production. Various methods of data collection and analysis were used in the study. The research was conducted using the descriptive research design as explained by (Babbie *et al.*, 2010:25). The research paradigm for social scientists was used to study human action from the perspective of social actors. The quantitative researcher's emphasis is on studying human actions in their natural environment, which means that, they study people in their communities. The primary goal of this approach therefore was to describe and understand the informants' experiences from their point of view. A quantitative research is mainly characterized by in-depth text and explanation of the study results, instead of just using figures and illustrations to present the data (De Vos *et al.*, 2005:36). A qualitative research approach therefore was more efficient and effective for the study, as it helps to gain a deeper understanding of the community. The approach was to describe the actions of the participants in greater detail. It was also felt that the approach would help the researcher understand and analyze the communities' actions through their own belief, history and context. Other methods used include univariate correlation, pair way matrix ranking method was also used.

3.4 Sampling design and size

3.4.1 Target population

The target population comprised of smallholder coffee farmers who own 0.5 acres of coffee and above in the various villages of Kirumba sub-county.

3.4.2 Sample size

The sample size constituted of 120 farmers selected randomly from 12 villages of 6 parishes in Kirumba sub-county.

3.4.3 Sampling frame and procedures

The research method used was a survey and the population was coffee farmers of kirumba sub-county Rakai district. The population was derived from the 6 parishes of kirumba sub-county, Lwamba, Buyiisa, Byerima, Kizibira, Kyengeza and Kabwoko. In each parish 2 villages which are leading coffee producers were selected giving a total of 12 villages of Kijumbula, Lwamba, Kamutuuza, Kakondo, Byetima, Bukobogo, Bugaaju, Bubwe, Butembe, Nkokko, Busowe and Segero. Out of 12 villages 10 households were randomly selected from each village a sample of 120 coffee farmers was generated. Simple random sampling was used for this research.

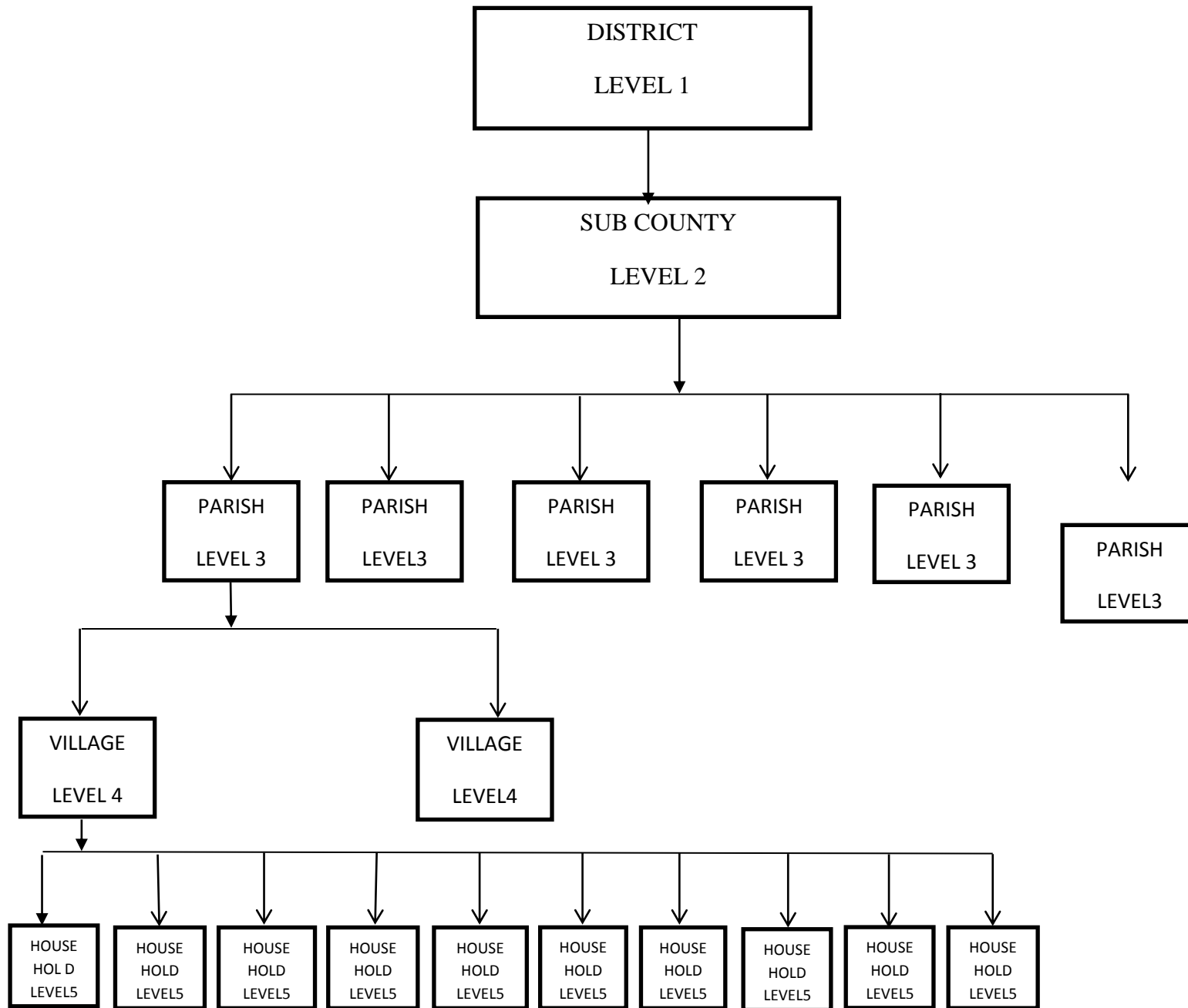


Figure 3.1: Selection criteria of house hold

3.5 Data collection

Both qualitative and quantitative data were collected using open and closed-ended questions. Data was collected by trained enumerators supervised by the researcher using structured questionnaires. Data collected from farmers included social and economic characteristics such as education level, access to credit, off farm income, coffee yield, farm net income, gender and agronomic challenges that women face in the coffee production.

3.6 Data collection tools

The researcher used interview guide for data collection. It gave respondents the opportunity to give out information on women participation in coffee production. The following techniques were used for triangulation of information collected in interviews with coffee farmers of Kirumba sub-county. Interviews, focus group discussions (FGDs), documentary analysis and observation were the main methods for data collection.

3.6.1 The questionnaire

The self-administered questionnaire was the main tool used in the study. This method was appropriate because it saves time and money. The questionnaire consisted of open and close-ended questions administered to individual respondents.

3.6.2 Focus group discussion (FGD)

To improve the reliability of the data collected in the household survey, more consultation with village coffee farmer groups and one high level coffee farmer organization were held using focus group discussion (FGD) approach. The FGD was attended by at least 6 village coffee farmer groups who were selected by local leaders. This FGD approach was used to get detailed information through brainstorming on the various socio-economic factors affecting farmers' decision to participate in coffee production in Rakai district of Uganda (Obansa, 2003).

3.6.2.1 Pair-wise matrix ranking

Pair-wise matrix ranking is Participatory Rural Appraisal (PRA) method that helps community to set priorities (problems, needs, action etc) (Hamra 2008). Pair wise matrix ranking is always conducted in a focus group discussion and ranking can be undertaken by key informants in a group that represents a good mixture of people with different interests. Pair wise ranking is often

used by social scientists, and increasingly by community development workers, as a means of prioritizing or ranking lists prepared by communities. Common examples are lists of problems, projects or commodities, such as trees for planting in forestry programmes. Ranking these lists helps communities decide which are the most important things to do, for instance is drinking water supply problem more important than loans for oxen? What should be done first, a road to the chief's palace or a stream crossing to a school? (Tim Russell, 2001).

In this study, Pair-wise matrix ranking was used to assess people's perceptions of the most important problems they face in coffee production in Kirumba Sub-county. A simple method was to ask people to list the seven main problems which affect women involved in coffee production in their community. Challenges were written down and participants ranked them in order of importance as shown in the table below. Once this was done, a guided discussion was held as to why participants made the choices they did.

3.6.3 Observation

Observation was used to determine the validity and accuracy of the information collected through interview.

3.6.4 Review of secondary data

To complement the primary data, the review of secondary material was also used in the course of data collection for this study. Materials from scholarly literature such as books, journal articles, dissertations, reports from The Agricultural and Rural Development Research Institute (ARDRI), policy documents on coffee, the food organization agency (FOA), provincial and national reports (from the Department of Education and the Department of Land Affairs, DLA) were used in the study.

3.7 Ethical considerations

3.7.1 Gaining entry

The objectives of the study were fully explained to the chairperson of the sub county, Mr. Joseph Mulindwa and to the key informants. This was done to set the community members and the potential informants at ease, and to avoid any negative suspicions from the sub county residents.

The chairperson of the sub county and the informants were assured that the information collected was meant for academic research purposes, not for any other illegal purposes. According to Strydom *et al.*, (2005:38), obtaining informed consent implies that all possible or adequate information on the goal of the investigation, the procedure which was followed during the investigation, the possible advantages, disadvantages, and dangers to which the informants may be exposed to, as well as the credibility of the researcher were communicated to the informants or their legal representatives. Interview schedules (see appendix I) was designed and compiled before the interviews took place.

Confidentiality, anonymity and informed consent were implemented during the study. It was needed to take steps to safeguard the rights, interests and sensitivities of informants. During the course of data collection, the researcher thoroughly explained the aims and the purposes of the study to the informants. An explanation prior to the commencement of the research that participation was voluntary and that the informants should not hesitate to tell the researcher when they are uncomfortable with the research techniques or when questions made them feel uncomfortable.

3.8 Data analysis

Analytical tools and Techniques

After collecting data from the field, data was analyzed using statistical package for social scientists (SPSS 16.0) and Microsoft excel. These helped me generate descriptive statistics, and also to do the univariate regression analysis which helped me find out the extent to which the chosen independent variables affected the dependent variable.

For objective (i): To identify the number of women involved in coffee production, descriptive statistics was used.

For objective (ii): To identify opportunities and challenges of women involvement in coffee production descriptive statistics was used. Pair-wise ranking was also used to discover people's perception of the most important problem they face.

For objective (iii): To assess the perception of community about women involvement in coffee production descriptive statistics was used.

For objective (iv): To examine the influence of socio-economic factors on women's involvement in coffee production. Correlation analysis was used on objective four. The correlation analysis was useful in estimating the contribution of each independent variable to the dependent variable and to determine the best variable predictive of the level of involvement of the farmer.

Different functional forms were tried and the forms which best explained the relationship being studied was adopted. The different functional forms of the correlation models are explicitly specified as follows:

Multivariate régression

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \dots\dots\dots+ \beta_{11}X_{11} + U$$

Univariate correlation

$$\text{Log } Y = \beta_0 + \beta_{11}\text{log}X_1 + \beta_2\text{log}X_2 + \beta_3\text{log}X_3 + \beta_4\text{log}X_4 + \dots\dots\dots+ \beta_{11}\text{log}X_{11} + U$$

Generalized linear correlation

$$Y = \beta_0 + \beta_1\text{log}X_1 + \beta_2\text{log}X_2 + \beta_3\text{log}X_3 + \beta_4\text{log}X_4 + \dots\dots\dots+ \beta_{11}\text{log}X_{11} + U$$

Where

Y= Level of Participation of women farmers in coffee production, measured by the number of programmes involved in.

X1 = Age of farmer in years

X2 = Marital Status (Married 3, Divorced/Widow-2, Single 1)

X3 = Household size (No. of members)

X4 = Education Level of the farmer (in years)

X5 = Farming experience (in years)

X6 = Farm size (in hectares)

X7 = Access to extension (number of visits)

X8 = Access to land

X9 = Access to credit

X10 = Membership of cooperative (number of farmers group belong to)

X11= Access to market

U = Error term

β_0 = Constant term

$\beta_1 - \beta_9$ = Correlation coefficients

Y = Revenue (ug shs)

Level of significance

For this study, a 0.05% value was established as designated level of significant

3.9 Operationalization and measurement of variables

3.9.1 Independent variables

(i) Age: Age of respondents is operationally defined as the chronological age of the women farmers. This was measured in terms of actual age of the respondent at the time of this study.

(ii) Marital status: This refers to the character of being single or married, Divorced or widowed, categorized.

(iii) Household size: This is the number of persons living under the care of the respondent at the time of the study.

(iv) Level of Education: This is the number of years a respondent has spent in formal schooling.

(v) Farming experience: This is the length of time the respondent has been in farming business measured in the number of years.

(vi) Farm size: This is the size of farm operated by the woman farmer measured in hectares.

(vii) Extension contact: This is the number of visits by extension agents to the women farmers.

(viii) Access to land: This refers to the cultivated land possessed by the farmers or their families. Rented, purchased Gifted or leased out area will also be included in this concept.

(ix) Access to credit facilities: This refers to accessibility to external sources of fund to the women farmers for the purpose of farming. This was measured as Yes = 1 and No = 0

(x) Cooperative/social participation: Membership of farmers in cooperative groups.

This was measured in number according to the number of groups the farmers is engaged in.

(xi) Access to market: This is the distance the farmer is expected to travel in order to get to the nearest market where she can sell her farm produce. It was measured in kilometers (km).

3.9.2 Dependent Variable

Farm Income- this is defined as the total amount of revenue realized by the farmer as a result of the sale of farm output. It was measured in shillings.

3.10 Limitations of the study

The study was carried out in a short time to generate conclusions based on the whole sub-county. The researcher was required to make several visits to the individual farmers and farmer groups to get permission because they often times prove to be tied up with a lot of work. Many respondents asked the researcher for logistics because to them anything associated with research has something to do with money and to them it's normal.

3.11 Delimitations of the study

The study explored the social economic factors affecting involvement of women in coffee production in Kirumba Sub-county Rakai District. These are the factors which seemed to have major effect on the growth and development of coffee industry in Rakai district and Uganda at large. The study was limited to coffee farmers in Kirumba Sub-county both women and men for purposes of comparison.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter covers results and discussions obtained from the field about the number of women involved in coffee production. It also covers results about opportunities and challenges of women involvement in coffee production as well as perception of the community about women involvement in coffee production. Lastly, this chapter also covers information on the influence of socio-economic factors on women's participation in coffee production.

4.2 Social demographic characteristics.

Socio demographic characteristics of the sample households have a vital role in agricultural production activities to a great extent. It is a reflection of individual's positive or negative qualities. Behavior of a person is determined by her/his characteristics. A number of social demographic aspects of the sample households were considered in the present study. These were family size, composition, level of education, years of experience; farm size, landownership are discussed in this section. Table 1 gives a summary of social demographic characteristics and after which a detailed explanation is given.

4.2.1 Marital status

Majority 44.2% of respondents reported being married. The sex disaggregated data reveal that relatively higher proportions 45.5% of respondents were female compared to 43.1% of their male counterparts. Overall 33.3% of the respondent were single, slightly lower proportions 36.4% of respondents were female compared to men 50.7%. The overall less than 13% reported being separated and widowed respectively.

4.2.2 Level of education

Overall, majority (97%) of the respondent in (Table 1) revealed that they had formal education. The sex disaggregated data shows that about (98%) of the respondent were men and (95%) women. It is well recognized that the problem of illiteracy in Uganda is more seen in females than males in the family. Literacy is defined as the ability of an individual to write and read (wikipedia). The government and others organizations placed much emphasis on education and

provide special facilities (free education, stipend etc.) for increasing the rate of literacy. Literacy has been categorized into five namely no formal education, primary, secondary, tertiary and university level. The lowest percentage (4.5%) of the respondents who were women belonged to no formal education level.

Table 4.1: Social demographic characteristics in Kirumba sub-county, Rakai district

Variables	Proportion of the respondents reporting by sex			
	Category	Male	Female	Total
Age	Youth	32.7	53.8	44.2
	Middle	36.4	26.2	30.8
	Old	30.9	20	25
	Mean		38	41.5
Marital status	Single	50.7	36.4	33.3
	Married	43.1	45.5	44.2
	Separated	15.4	9.1	12.5
	Widowed	10.8	9.1	10
Level of education	No formal education	1.8	4.6	3.3
	Formal education	98.1	95.4	97
Main occupation	Farming	87.3	75.4	80.8
	Commerce	7.7	12.9	4.2
	Salaried job	5.0	12.7	15
Household size	1-3	44.6	54.5	49.2
	4-6	44.6	32.7	39.2
	7+	10.8	12.7	11.7
	Mean	3.65	3.4	3.5
Farm size	<1	5.5	18.5	12.5
	1-3	90.9	73.8	81.7
	3>	3.6	7.7	5.8
	Mean	1.94	1.8	1.87
Years of experience	Less than 5 years	41.4	58.8	47.8
	6-10 years	20.7	11.8	17.4
	11-15 years	6.9	5.9	6.5
	16-20 years	13.8	0	8.7
	Over 20 years	17.2	23.5	19.6
	Mean	2.45	2.17	2.35

Source: Survey data 2015.

4.2.3 Occupation of the sample farmers

The respondent farmers were engaged in various type of occupation. Findings indicate that overall majority (80.8%) of the respondents acknowledged farming as their main occupation. A higher proportion (87.3%) of the respondents were men compared to their women counterparts whose corresponding figures stand at (75.4%). The rest of the respondents were reported to be engaged in salaried jobs and commerce corresponding (15%) and (4.2%) respectively for their livelihood. This means that there is to commercialize agriculture. This implies that women will never invest in cash crops like coffee due to lack of land (FAO, 2014).

4.2.4 Farm size

The average mean of farm size owned by men is 1.94 greater than the average mean of the farm size owned by women which is 1.8. This is due to lack of money to buy land, traditional cultural beliefs that women do not inherit land. Farm size is important in relation to production of adequate grain for food and other necessities for the family. According to Yang (1965), Farm size is measured by the entire land area operated by farmer. It excludes both the homestead, ponds, etc. the farm size has been measured in the study using the following formula.

Farm size = Own land + Rented in land + Mortgaged in land – Rented out + mortgaged out land.
The table 1 show that most (97%) of the male respondents reported having the farm size of more than one acre compared to (88%) of their female counterparts

4.2.5 Household size

Furthermore, finding from the study revealed that, overall most (49.2%) of the respondents showed that they had family members between 1 – 3 and relatively higher proportion (54.5%) of women to (44.6%) of men. This was because most of the male sex do not want to stay at home doing farming they stay in trading centers doing small business Data generated average household size was 2 persons per household, a figure which is lower than the national average of 7 persons cited in the Uganda national household survey 2013. The number of dependants in a household is an indication of the available labor in the household. According to Galor (2003) household with a larger house hold size have more labor for work on the farm.

4.2.6 Experience in coffee production

According to the survey results in (Table 1), overall, majority (47.8%) of the respondents reported that they had less than five years farming experience in coffee. sex disaggregated data reveal that relatively high proportion (58.8%) of women acknowledged compared to (41.4%) of their corresponding men. The overall mean years of experience reported was 2.35, men contributing a higher figure of 2.45 while not more than 2 years for women.

4.2.7 Number of women involved in coffee production,

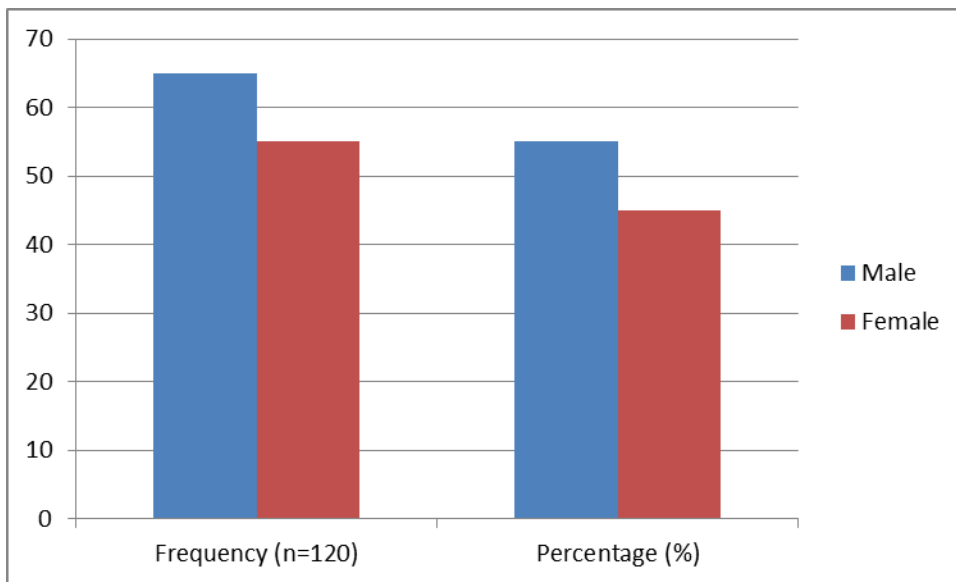


Figure 4.1: proportion of women involved in coffee production in Kirumba sub-county Rakai district

Source: Survey data 2015.

Objective one identified the number of women involved in coffee production, results in in figure two indicated that 55% of the respondents involved in coffee production were male and 45% were female. This is because most women cultivated other crops like maize, beans and bananas as they served as food crops to the households. And even those few who are involved in coffee production majority of them inherited the coffee from their husbands even though coffee is known to be a dominant crop of men but the females who inherited responsibilities ended up

dominating the enterprise of coffee (FAO 2010-2011). This low percentage of women involvement in coffee production explains the reduced increase in quantities of coffee exported.

4.2.8 The age distribution of the members of farm families engaged in coffee production.

Table 4.2 Distribution of respondents by age category in Kirumba sub-county Rakai district

Age category	Percentage reporting by sex		
	Male	Female	Mean overall
Youth	32.7	53.8	43.2
Adults	36.4	26.2	31
Elderly	30.9	20	25

Source: Survey data 2015

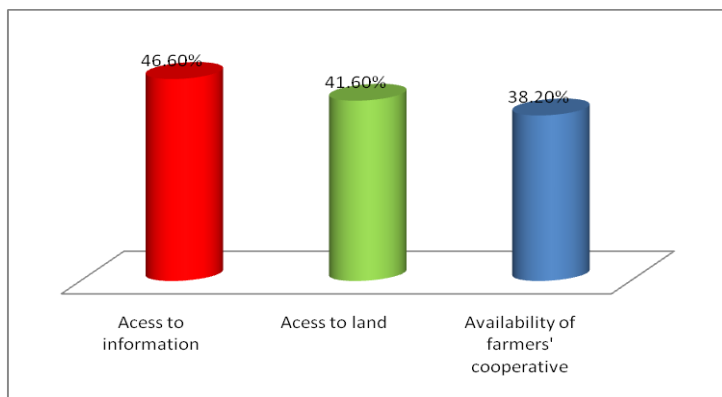
In this study Kirumba coffee farmers were classified into different groups i.e. youth, middle and elderly. It was observed from table 2, overall, mostly (43.2%) of respondents reported that they were youth who are considered the working group, the sex disaggregated data indicated that relatively high proportion was (53.8%) of the respondents were female compared to (32.7%) of their male counterparts. The age group above 55 (25%) old category was the lowest who considered as dependant class in coffee production. The overall mean age reported was 41.5 years and slightly a higher mean of 44.2 years was for men while that of women was 30.8 years.

Most of the respondents interviewed in the survey were between the ages of 20-35. But the overall percentage of the most interviewed respondent was 43.2%. The high percentage of youth was brought by the epidemic of HIV/ AIDs as the area where the researcher did his survey was seriously affected by killing most of the people who are in the age bracket of 35-45 old. However, most of respondents within this age do not engage in farming whereby they spend most of their time doing business as they say that it accumulates their income quickly they spend most of their time in trading centers, some who do farming they grow short maturity crops like tomatoes earns income quickly, majority of respondents were women because the study was intended to assess the socio-economic factors affecting women participation in coffee production. More so, women constitute a larger population of labor employed in nontraditional agricultural export than men (Truitt, 1996). There were more males in age group (36-50)

compared to females in that most of them are widows. Although there were more males compared to females above the age of 50 and the women who do farming are aged, those women who still practice agriculture use more of the old traditional agricultural methods than contemporary agricultural methods. They are reluctant to try other innovative methods. Bembridge (1986: 34 -36) remarks that factors such as age, educational level and sometimes gender and cultural constraints can have an influence on the success of farmers.

4.3 Opportunities and challenges of women involvement in coffee production.

Objective two identified the opportunities and challenges of women involvement in coffee production, survey results in figure three highlighted the opportunities of women involved in coffee production namely, access to information, access to land and availability of farmers cooperative.



Source: Survey data 2015.

Figure 4.2: Opportunities of women involved in coffee production

4.3.1.1 Access to information

Findings showed that 46.6% of the respondents have access to information on coffee production. They employed radios as one of the key channels for communicating and listening to coffee production message. Furthermore, communication and information strategy indicated that there was an information system developed and operationalized by some agricultural organizations e.g national agricultural advisory services (NAADS). NAADS had aimed to distribute translated information materials which could be well understood by farmers in their local languages on advisory service at various levels especially at district and sub-counties. In addition, the

government aimed at empowering rural poor farmers to seek agricultural information and communication. The study also revealed that Community Based and group leaders are another source of communication and information in Katumba sub-county (FAO at work 2010-2011).

4.3.1.2 Access to land

The research established that 41.6% of respondents have access to land and ability to control land that determined women participation in coffee production activities. This indicated that for women to be able to control land, which control is associated with security of tenure was in fact a very crucial issue in their participation in coffee production. Indeed this study has shown that access and control to land gave women farmers the authority to make decisions on what type of enterprise to select. In the past, culturally men owned land. Women lacked full „user“ rights, control and ownership even when they had acquired land jointly with their husbands or even when they had met full costs of purchasing it. This meant that women were not allowed to control and make decisions on agricultural activities. As on which type of crop to be grown and this affects most of the women who are married. In-depth interviews gave more information regarding women farmers limited control over land in many male-headed households. These remarks were commonly expressed;

This kind of view was typical where production was done for commercial purpose. However, sometimes women from poorer homes would also be denied access to land when the men were not in position to develop it. For example one woman complained,

“He prefers to look for casual labor and rent his land. Yet I feel I could utilize more of the land to grow some crops for sale”

Researcher established that, women from female-headed households and widows who had full land rights were more independent and participated more fully in coffee production activities than their counterparts who do not own land or those whose land was controlled by their husbands. The study also established that for most women farmers’ accessed land through their spouses, access and utilization of land was largely dependent on their spouses’ land. She would lose land upon separation or divorce.

4.3.1.3 Availability of farmers' cooperative

Agricultural cooperative is a group of farmers who pool their resources together in certain area of activity to facilitate optimal production through efficient use of these resources (FAO, 2010-2011). This pooling of resources include joint purchase of farm inputs like seed, farm machinery, aiding members morally and financially during cultivation and seeking marketing channels for farm products to ensure better and fair prices. The purpose of forming cooperatives is to create a secured environment in terms of food security and the improvement of the standard of living among other members of the community agricultural co-operatives play an important role in the development of agriculture in industrialized countries as suppliers of farming requisite, marketers of agricultural commodities and providing services such as storage and transport (Msimango and Olale, 2013). In recent past in South Africa agricultural cooperatives were promoted because they served as agents of agricultural marketing boards and the land bank, which provided subsidized loans to commercial White farmers (Michael, 1999; Ort-mann and King, 2007).

Presence of farmers' cooperative at Kirumba Sub-county has played a great role in the development of women involved in coffee production. This is so because the farmers' cooperative gives better prices to its members as opposed to other traders. That is to say processed coffee its Sh4300, kibooko is Sh 2300. The cooperative do the processing activities which help to improve on the quality of coffee marketed by farmers. Farmers' cooperative help to provide market information and trainings to its members in Kirumba Sub-county. Therefore farmers form or participate in agricultural cooperatives to overcome barriers such as poverty, market failure, missing services, de-creased income, and reduced transaction costs with traders and contribution to the development on the community. Agricultural cooperatives help in enhancing productivity through access to resources and management skills as members pool their resources together, and through access to resources cooperatives can improve their profit and standard of living. Agricultural cooperatives establish viable and strong linkage with extension agencies in the field of agriculture and technology so that they could access sufficient resources buying of seeds, selling of grain or even helps with the marketing efforts (Ortman *et al*, 2007; Vink, 2012).

4.3.2 Responses on opportunities of women from focus group discussion

4.3.2.1 Access to education

Uganda has implemented a number of programs to address gender disparities as well as overall inequalities to access to social services like education. In this case, Universal Primary Education (UPE) policy was initiated in 1997. Through education, farmers are able to acquire new improved and effective written material. Educated farmers are able to acquire more information in the form of written material such as magazines, newsletters and farming instruction pamphlets, booklets and on packaged hybrid seeds, pesticides, fertilizers and many more (Penin, 1999:12). Education plays a significant role in positively influencing the status of women in farm decision-making (Anselm *et al.*, 2010:128). Highly educated women are likely to make a higher contribution to farm decision making than uneducated ones. However, lack of education and training has been identified as a key barrier to women's advancement in the society (Manuh, 1998:9). She argues that in Africa, female illiteracy rates were over 60% in 1996 compared to 41% of men. In many African countries parents still prefer to send boys to school, seeing little need for sending girls. Hence, illiteracy is still evident in most African countries (Ravinder *et al.*, 2009:16).

4.3.2.2 Favorable government policies,

The study revealed that favorable government policies encourage women involvement in coffee production. Among the policies include the liberalization policy which encourages equal opportunity for all without considering the different origins, capacities, sex and race among others. This policy allows full participation of all individuals in coffee production and marketing chain. Secondly there is a practice of issuing of licenses to coffee traders by UCDA, this has helped to control quality of coffee hence fetching better prices on the world market. Licenses are issued to traders who meet the required specification and powerful interest groups (Njeri, 2013). Government policies also encourage lower local governments to set by laws which help to improve quality of coffee. In Kirumba Sub-county farmers are not allowed to harvest pre-mature coffee, drying on bare ground, having licenses by all traders, failure to abide with these by laws coffee is confiscated and burnt. (Kirumba Sub-county 5 year development plan).

4.3.3 Challenges faced by women involved in coffee production

During the study, respondents were asked to rank the constraints as very serious, serious, not serious and don't know. Data presentation was based on the number of respondents who marked the constraints very serious and each constraint was considered independently.

Table 4.3: Challenges faced by women in coffee production.

Constraints	Frequency (n=120)	Percentages (%)	Rank
Prolonged drought/unstable weather	52	43.3	1
Limited ownership of land by women	50	41.7	2
Lack of land for coffee production	50	41.7	2
Gender imbalance/decision making	48	40.0	4
Lack of extension staff in coffee production	46	38.3	5
Poor soils	41.7	37.5	6
Lack of market for coffee	41	34.2	7
Pests and diseases	37	30.8	8
Price fluctuations	32	26.7	9
Limited access to information	29	24.2	10
Domestic work over load	27	22.0	11

Source: Survey data 2015

4.3.3.1 Prolonged drought/unfavorable weather

The study revealed that prolonged drought is a leading constraint with 43.3% which is a result of climatic change and have got a negative impact on coffee production. It leads to changes in seasons, flower abortion, delayed planting and harvesting, coffee berry abortion, outbreak of pests and diseases, drying of coffee plantation among others. All these limit participation of women in coffee production. Another recent study has shown that climate change is already impacting coffee farms in the East African Highlands. For every degree Celsius rise in earth's temperature, crop yields decrease by between 14% and 27% per hectare (2.5 acres), according to a new study published in the journal Agricultural and Forest Meteorology. There is need to come up with policies to address the impact of climatic change.

The rise in global temperature is of great concern for us in the coffee industry because it will – and has already started – putting the supply of quality coffee at great risk," said Dr Tim Schilling, executive director of the World Coffee Research programme, based at Texas A&M University. "It is also obvious that increasing temperatures – as well as extreme weather events – have a very negative effect on production. Over the long term, you will definitely see coffee prices going up as a result of climate change."(The Guardian, 2011).

4.3.3.2 Limited ownership of land by women

Survey research revealed that limited land ownership is second constraint affecting women in coffee production 47.1%. Women have limited access to and control over resources and benefits as compared to their male counterparts. Although they predominate in world agricultural production (50-80 %,) women own less than 10% of the land (UNDP, 2010). It was discovered that if women had the same access to those resources as men, they would produce 20-30% more food on their land (FAO, 2010-2011). The few farmers who own land inherited it from their ancestral parents and after the death of their husbands. Land is owned by men and women just use it to plant quick maturing crops with no authority to plant perennial crops like coffee. This has led to reduced participation of women in coffee production. FAO's research shows that women farmers are 20-30 percent less productive than men, but not because they manage their farms less well, or work less hard. The main reason for the gap between men's and women's performance is that the former have access to resources seldom available to female farmers including land (Angelica and Marjoleine, 2014).

Women's access to land is influenced by the legal, social, economic and cultural framework in each country, including inheritance law and the prevailing systems of land tenure. In many cases, even where a supportive framework exists, women are not aware of their rights, and are therefore unable to advocate for them.

Land ownership affects opportunities for women; it determines their ability to become members of farmer organisations, obtain credit and technical assistance. It influences their access to the income generated from the sale of cash crops and to participation in decision making relating to agriculture. It also affects their status within the family and society and their security, in particular if they are widowed.

4.3.3.3 Lack of land for coffee production

Survey revealed that 47.1% of women farmers lack land for coffee production. Much of the land has been fragmented due to high increase in population of Kirumba sub-county. Secondly, when the head of a family dies land is distributed among the children and other relatives hence breaking it into small portions. This explains why there are many coffee farmers in the sub-county but with small acreages of coffee. Coffee also competes with other food crops bananas, maize, sweet potatoes, cassava among others for land for land. High cost of land also hinders women who have limited resources to acquire such land for their use. Women ownership of resources in coffee production is low at all levels. When a female farmer has no formal ownership of or responsibility for land and coffee trees, it is difficult to participate in training or access credit and tools to apply innovative production methods (Angelica and Marjoleine, 2014).

4.3.3.4 Gender imbalance in decision making

Researcher wanted to establish on who controls and makes decision over resources as regards to produce, marketing and utilization, who controls the coffee field, how much to invest in production and expenses to be made. The results in table 7 of the study revealed that most of the resources and decisions are controlled by the males and less by the female respondents who acknowledged the same. This was attributed by those who inherited their husband's property. It also revealed that if a woman is to make decision has to consult her husband which is not the case with male. If women and men decide together on coffee proceeds they have an incentive to produce better coffee (as for quality and quantity) together. It was found that there is a strong link between control of income, ownership of assets and decision-making in the home. Men, as primary land owners, were identified as having the final say regarding agricultural decisions. Decision-making regarding money was dominated by men with a rate of 71.4% compared to women who have a rate of 28.6% since men perceive themselves as owners of the crop and the proceeds.

Findings revealed that there is low participation of women in decision making. A proportion of 40% of women who are household heads and inherited coffee fields are the only ones who participate in decision making. Women use almost all their income from the sale of agricultural products and handicrafts to meet household needs. Men use at least 25% of their earning for

other purposes (FAO at work 2010-2011). The table below illustrates how decision and resources are controlled at household level.

Table 4.4: Sex disaggregated responses about resource control and decision making.

Responses	Regards to production, marketing and utilization		Coffee field control		How much to invest in production		Expenses	
	Male	Female	Male	Female	Male	Female	Male	Female
Husband alone	69.4	42.3	65.3	34.6	67.3	38.5	71.4	28.6
Husband after consulting wife	18.4	7.7	16.3	15.4	20.4	11.5	16.3	11.8
Wife alone	8.2	46.2	8.2	46.2	8.2	46.2	8.2	45.1
Wife after consulting husband	4.1	3.8	4.1	3.8	4.1	3.8	4.1	3.9

Source: Survey data 2015

4.3.3.5 Lack of extension staff in coffee production

The research showed that 38.3% of women have no access to extension staff in coffee production as indicated in table 3 above. Women face cultural challenges or opposition from their husbands, which prevents them from attending meetings. They may also be too burdened with work at home and on the farm, or be inhibited by a lack of confidence or low literacy levels (Angelica, Senders and Marjoleine 2014). Programs should be designed to address all of these challenges through creation of awareness and raising support, such as arranging meetings at times and locations suited to women's needs, and offering practical support with transport. Women who begin participating in women's groups or women only activities often find the confidence to take on leadership roles and contribute to the development of coffee industry and the household.

4.3.3.6 Poor soils

Findings revealed 35.7% of women are constrained by Poor soil fertility and limited access to organic and inorganic fertilizers. These hamper many women farmers to participate in coffee production. Coffee requires fertile soils with high levels of nitrogen, phosphorous, and potassium (UCDA trainers' guide 2014). Women farmers lack trainings in soil conservation and management practices due to limited access of agricultural extension workers. Inorganic fertilizers are too expensive for woman farmer without any other source of income. All these discourage women participation in coffee production. Coffee production is left to for men who can afford the inputs and some few fortunate ladies who have financial base to support coffee farming.

Other constraints include lack of competitive market for coffee, pests and diseases, price fluctuation/unstable prices, limited access to information and domestic work overload.

Table 4.5: Showing pair-wise ranking.

Problem	Diseases and pests	Land ownership	drought	No extension services	Lack of information	Work overload	Price fluctuation	Rank
Diseases and pests	xxxxxxxx	Diseases and pests	Diseases and pests	Diseases and pests	Diseases and pests	Diseases and pests	Diseases and pests	1
Land ownership	xxxxxxxx	xxxxxxxx	Land ownership	Land ownership	Land ownership	Land ownership	Land ownership	2
Drought	xxxxxxxx	xxxxxxxx	xxxxxxxx	Drought	Drought	Drought	Drought	3
No extension services	xxxxxxxx	xxxxxxxx	xxxxxxxx	xxxxxxxx	No extension services	No extension services	No extension services	4
Lack of information	xxxxxxxx	xxxxxxxx	xxxxxxxx	xxxxxxxx	xxxxxxxx	Lack of information	Lack of information	5
Work overload	xxxxxxxx	xxxxxxxx	xxxxxxxx	xxxxxxxx	xxxxxxxx	xxxxxxxx	Work overload	6
Price fluctuation	xxxxxxxx xxxxxx	xxxxxxxx x	xxxxxxxx	xxxxxxxx x	xxxxxxxx	xxxxxxxx xxxxxxxx xxxxx	xxxxxxxx xx	7

Source: survey data (2015)

Looking the above table it can be revealed that diseases and pests is the most threatening problem faced by women participating in coffee farming in Kirumba Sub County followed by lack of land ownership, prolonged drought, lack of extension services, lack of information, work over load, and lastly Price fluctuation.

4.3.4 Responses on challenges got from focus group discussion

A focus group is a small-group discussion guided by a trained leader. It was used to learn more about community opinions on challenges faced by women involved in coffee production, and then to guide future action. It was also intended to supplement on the knowledge gained from the study.

4.3.4.1 Pests and diseases

Pest and diseases was identified as the most threatening problem because they reduce quantity of harvest and destroy the quality of coffee berries.. This is in harmony with research carried out by International Coffee Council (2015) which stated that, Africa's share of world production has hence decreased from 27.2% in the 1970s to an average of 16% in the 1990s and 13.1% in the 2000s. Since 1990, production levels have generally stagnated, with fewer than 19.6 million bags every year being produced due to pests and diseases attack.

Especially women headed households (Doss and Morris 2001). Extension agents reach out to farmers who are better off with vast land, labor, financially stable and high level of technological adoptability. Women are under represented among these better off farmers.

4.3.4.2 Lack of information

Regarding lack of information; a woman in her late twenties said that, *we don't have information about coffee farming and marketing points. Hence we sell our products at a low price.* Since coffee production may require a higher level of information to adopt improved varieties, new technologies or inputs, and obtain price information, the reduced access to information by women has constrained their access to coffee markets. The importance of information constraints is probably greater in the case of female-headed households as suggested by Saito et al, (1994) who noted that extension agents often prefer to talk to women in male-headed households rather

than those in female-headed households. Thus, a bias might not simply be based on gender, but also on status and household structure.

4.3.4.3 Work over load

A woman in her early fifties pointed out that, *we are burdened with work at home and on the farm, coupled by a lack of confidence and low literacy levels*. Women are so much loaded with unremunerated domestic work. Women spend less than four hours a day on wage earnings activities because of their domestic work. Women opportunities for external waged labor are lower. As a result women usually have limited time to spend on coffee production activities (African Development Bank, 2015). Women are limited to participate in income generating activities due to domestic work load which men do not face. Women are involved in household activities, rearing of children, looking after the livestock, taking care of the elderly hence hindering them to work for a wage (Sofa team and Cheryl, 2011).

4.3.4.4 Price fluctuation

The last problem was pointed out as price fluctuation. They pointed out that price always change based on the overall harvest. The price paid to coffee farmers is the main determining factor of their income although the volume of production also plays an important role. When prices falls below marginal production costs, it creates a viscous cycle of poverty since farmers find it difficult to maintain their farms which lead to further decrease in production and income (International Coffee Council, 2015).

4.5 Perception of community about women involvement in coffee production

Objective three assessed the perception of the community on women involvement in coffee production. This study established that, the positive changes in the lives of women results from involvement in coffee production. It was also realized that women who participate fully in coffee production have got higher income and better standards of living. Women never had access to education or rights to land ownership, but today a woman owns land like her husband and signs on the land title, and a woman has a right to open a bank account.

It was revealed that coffee provides a cash boom twice a year, so involvement of women in coffee production would increase and diversify incomes of the household. A woman involved in coffee production has a lot to save in financial institutions like the village saving and loan associations, Farmers' cooperatives, savings and credit cooperative societies and banks. This can facilitate her to acquire financial support which helps to boost production unlike other women who totally depend on handouts from their husbands (Laurance, Piet, Wanyama and Philippe, 2013).

Many women in Kirumba sub-county are interested to fully engage in coffee production, wish to set up their own plantations but have been constrained by cultural norms, lack of access to land, lack of capital in form of money to buy their own land among others.

4.5.1 The perception on the impact of women involvement in coffee production

Respondents were asked to acknowledge their perception towards the impact of women participation in coffee production. The results show higher positive impacts on female than their male counterparts. This is in harmony with the research carried out by FAO at work which stated that, women use almost all their income from the sale of agricultural products and handicrafts to meet household needs. Men use at least 25% of their earning for other purposes (FAO, 2010-2011)

Followed by impact on contribution to children's education, household needs and family food security was greater for females than for the males. This is in accordance with the cultural gender relations in the household, which allocates to women function of family upkeep. To some females, it meant higher respect from their husbands as a result of their ability to provide money for family upkeep when the husbands' pocket has dried out. This has increased family peace and harmony. However, the findings contrast that of Opiyo (2014).

4.6 Social-economic factors affecting women involvement in coffee production

At this level emphasis was put on the impact of the intervening factors affecting women involvement in coffee production.

Table 4.6: Level of involvement in coffee production activities by both women and men in Kirumba sub-county, Rakai district.

Activity	Male		Female		Both		Total	
	F	%	F	%	F	%	F	%
Seed/planting material selection	68	57	41	34	11	9	120	100
Land preparation	28	23	69	58	23	19	120	100
Planting	25	21	71	59	24	20	120	100
Weeding/prunning	25	21	68	57	27	23	120	100
Manure/fertilizer application	33	28	69	58	18	15	120	100
Mulching	41	34	62	52	17	14	120	100
Spraying	33	28	70	58	17	14	120	100
Harvesting	26	22	78	65	16	14	120	100
Drying and storing	34	28	80	67	6	5	120	100
Marketing and transport	65	54	41	34	14	12	120	100

Source survey data (2015)

The study revealed that women are involved in most of on farm activities as shown in the Table 6 Fifty seven percent of men are involved in section of planting materials while women contribute up to 47%. This is due to the fact that men attend trainings in coffee production more than women and end up making decisions on seed selection. Women are involved in land preparation of coffee by 58% as compared to male with 23% of involvement. This is due to cultural perspective that all farm activities are done by women (The Guardian, 2013). Secondly, men plant coffee in the fields already opened up by women for food crops. 59% women do the plant compared to 21% of their male counterparts. This is because male tend to be involved in income generating activities like civil service, businesses and bodaboda cycling (Fabiya and Danladi, 2007).

57% were involved in weeding while men are involved by only 21%. This is so because men plant their coffee in already established women's fields where they take advantage of weeding their coffee when women are taking care of their plants (Fabiya and Danladi, 2007)..

Women are involved in fertilizer application depicted by 58% yet men participate with a small magnitude of 28%. This can be explained with

Table 4.7: Univariate regression

Tests of Between-Subjects Effects

Dependent Variable: what is the average coffee harvested in last season in kg

Correlation model

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	778287.293 ^a	8	97285.912	6.990	0.00
Intercept	6278.406	1	6278.406	.451	.503
Age	175.105	1	175.105	.013	.911
Maritalstus	19618.819	1	19618.819	1.410	.238
educlevel	85887.442	1	85887.442	6.171	0.015
ownit	640.476	1	640.476	.046	.831
farmsize	255159.864	1	255159.864	18.333	0.00
offfarmactivity	78226.976	1	78226.976	5.621	0.02
Creditaccess	176487.570	1	176487.570	12.681	0.01
mrtinformtn	43392.307	1	43392.307	3.118	.080
Error	1447445.433	104	13917.745		
Total	3665919.000	113			
Corrected Total	2225732.726	112			

a. R Squared = .350 (Adjusted R Squared = .300)

b. Level of significance is .005

Source: survey data (2015)

Farm size

The results of the univariate regression show that there was a significant relationship between farm sizes with quantity of coffee produced. It is significant at .000 which is less than .005 the significant level. This is based on the fact that women with vast land get more involved in coffee production compared with those who have less land holdings. This was in harmony with Ruth and Marcella (2010) findings who stated that households with smaller plots of land are less likely to engage in cash crop production.

Credit access

The findings revealed that farmer's access to credit positively influenced the involvement of women farmers in coffee production. This implies that farmers who have access to credit can easily open up large acreages of land under coffee. Access to credit is significant at $.001 < 0.05$ the level of significance.

Off farm incomes

With regards to off farm income, it was revealed that farmers with higher income were likely to participate in coffee production. The coefficient on the variable is positive and statistically significant at $0.02 < 0.05$ implying that if off farm income level increases, the probability of a women farmer participating in coffee production increases. This could be explained by fact that farmers with high income could be accessing finances from banks. These results agrees with those of de (Janvry et al, (2005) who noted that the income obtained from non-farm activities helps enhance the investment capacity on farming activities, mitigate income fluctuations and thus favor household agriculture production as well. Likewise, Salgado (1994) found out that nonfarm income presents important sources to finance land acquisition and the purchase of farm inputs and food.

Level of education

The study showed a positive significance on level of education as regards to coffee production. Level of education is significant $0.015 < 0.05$. Education plays a significant role in positively influencing the status of women in farm decision-making (Anselm *et al.*, 2010:128). Highly educated women are likely to make a higher contribution to farm decision making than

uneducated ones. However, lack of education and training has been identified as a key barrier to women's advancement in the society (Manuh, 1998:9).

Land ownership

Despite the variable on land ownership not being statistically significantly significant, they influence the involvement of women in coffee production.

Market information.

The findings revealed that market information was negatively influenced by the involvement of women in coffee production. This implies that information on coffee production is not a binding factor that can hinder them to get involved in coffee production.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

This section presents the conclusion and recommendations of the study.

5.1 Conclusions

Objective one established the number of women involved in coffee production. The study established that 45% of the respondents were women who reported to be growing coffee. The results revealed that households had an average farm size of 1.97 acres. The study therefore concluded that women involvement in coffee production is still low due to cultural beliefs that cash crops are mainly for men and women should only engage themselves in production of food crops.

Objective two established the opportunities and challenges of women involvement in coffee production. the study established that access to information, access to land, availability of farmers' cooperative, access to education and political stability were the opportunities of women involved in coffee production in Kirumba sub-county. However, prolonged drought/ un stable weather was the major constraint faced by women in coffee production with 43.3%.limited land ownership and lack of land were the second constraints with 41.7%, gender imbalance and lack of extension staff in crop production were ranked number 4 and 5, with 40.5% and 38.3% respectively.

Additionally, Pair-wise ranking also revealed that pests and diseases was the leading constraint followed by limited land ownership, drought, and lack of extension services among others. The study therefore concluded that prolonged drought and pests and diseases were the major constraints that affect women involved in coffee production.

Objective three established the perception of community about women involvement in coffee production. The study concluded that women who normally engage in coffee production were those who inherited them from their husbands, have big landholdings, educated, household heads and with other source of income.

Many women in Kirumba Sub-county are interested to fully engage in coffee production, wish to set up their own plantations but have been constrained with cultural norms, lack of access to land, lack of capital in form of money to buy their own land, pests and diseases, lack of information, too much work overload among others.

Objective four established the influence of socio-economic factors on women's involvement in coffee production. This Study concluded that farm size had a positive significant, access to credit was significant were the main determinants of women involvement in coffee production. The findings revealed that farm size was a major determinant of women involvement in coffee production implied that farmers' involvement in coffee production offers opportunities to access credit.

5.2 Recommendations

Objective one established the number of women involved in coffee production, this study recommends that the opportunities and challenges of women involvement in coffee production gender needs to be mainstreamed in coffee production in order to increase the number of women involved in coffee production and volumes of coffee output. Women need to be sensitized about the value of coffee production so that their number in production can increase. There is a need to have a joint planning between men and women at household level so that everybody in the family can feel ownership of the resources available at home as this can help to solve the problem under decision making. The government and its development partners in coffee sector and farmer' groups should encourage the female farmers to grow coffee in well managed way by providing trainings to make them understand the role of coffee production and creating other jobs in surrounding area where they will get off-farm income to supplement income from coffee.

Objective two established the opportunities and challenges of women involvement in coffee production. This study recommends active participation of all household members in decision making, resource management and sharing of benefits, sensitization of women on the values of coffee production and break the norms and cultural hindrance that coffee production is only a male's activity There is a need to have equal control of resources and equal decision making to resources used in coffee production and at household level. Agricultural extension agents should

create more awareness on availability of credit to the farmers and its impact in improving agricultural productivity, Technologies on enterprise mix that do not consume a lot of land should be introduced. The government should put emphasis on the dissemination of affordable technologies and encourage techniques that may improve farmers agricultural outputs encourage an enterprise mix for women that will enable them both to improve food production and earn some cash income from coffee and also provide market information to women farmers.

Objective three established the perception of community about women involvement in coffee production. The study recommends specific efforts to target the disadvantaged groups of women involved in coffee production. For example, there is need to establish some form of “positive discrimination” to improve and increase the volume of coffee for women and youth, women of low formal education and those from poor household. Promote changes in attitudes and organizational cultures to break down gender barriers and to provide mutual respect and dignity for all people irrespective of social group, gender or background. Farmer groups should put strategies in place that will attract educated farmers to join farmer groups by minimizing number of meetings during working days.

Objective four established the influence of socio-economic factors on women’s involvement in coffee production. This study recommended that women farmers in coffee production should be availed with quick access to credit facilities with reduced interest rates. There is also need to encourage women farmers to form organized farmer groups where they can voice the needs of the members in fora on policy making and service provision. The government should organize trainings on gender sensitivity in coffee sector therefore level of participation of female will increase in coffee production, Capacity building for farmers should be strengthened in adult functional literacy to enable women read and write basic records on their farm activities, expenditures and incomes. It will also enable women demand for accountability and participate in higher forum in monitoring and Evaluation.

5.3 Suggestions for further research

The effect of male dominance in coffee value chain.

Examine the extent to which the resource-poor (especially women) can be empowered to adopt the technologies disseminated under coffee production

Determining factors influencing the access of credit to coffee farmers.

Profitability analysis of coffee as farming as a business.

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APPENDICES

Appendix I: Questionnaire

UGANDA MARTYRS UNIVERSITY

FACULTY OF AGRICULTURE

I am Ntambaazi Paul, Master of Science Agro ecology student, conducting an academic study, which aims to investigate socio-economic factors affecting the participation of women in coffee production, a case study of Kirumba Sub County. I kindly request you to assist me by answering questions that I need to ask you. The research is totally for academic purposes not for any illegal purposes. Your participation and input will contribute greatly to the body of knowledge which may be used for any subsequent development initiatives aimed at empowering and understanding women’s need in the development of the sub county.

HOUSEHOLD QUESTIONNAIRE (2015)

GENERAL INFORMATION

Household ID.....
 Name of interviewer..... District..... County.....
 Sub county..... Parish.....
 Village/LC..... Name of the respondent

HOUSEHOLD CHARACTERISTICS AND COMPOSITION:

Table 1. Household characteristics

1.Name of respondent	2. Gender of respondent codes: 0=male 1=female	3. Age (years)	4. Marital status Codes: 1=singe, 2=married, 3=separated, 4=widowed	5. Current HH size by gender		6. Education level of respondent Codes:0=No formal education, 1=Primary, 2=Secondary, 3=Tertiary 4=University
				Females	Males	

1. How many children are aged less than 18 years?
2. How many adults (More than 18 years) are in the family?
3. What is your main occupation: 1= farming, 2= commerce, 3= salaried,

Farm characteristics of the household

4. Number of years lived in this area.....
5. What is the size of your farm? acres
6. What is the ownership of your land?
1=Leasehold, 2= Mailo, 3= kibanja, 4=freehold, 5= rented, 6= others specify
7. How did you acquire it?
1=Bought, 2=Inheritance, 3=other, specify
8. What are five most important crops that you grow?

Crop	Size of land in acres
1.	
2.	
3.	
4.	
5.	

9. What is the estimated size of your land under coffee cultivation?
1=<1 acre, 2=1-2acres, 3= 2-5acres, 4=above 5acres
10. How long have you been a smallholder coffee farmer?
1=Less than 5yrs, 2=6-10 yrs, 3=11-15 yrs, 4=16-20 yrs, 5=Over 20 yrs
11. What kind of cropping do you practice?
1=Mixed cropping, 2=Mono cropping (coffee)

12. What are the types of activities you normally do in coffee production?

Farm activity codes	Male	Female	Both
1=Selecting seeds/ planting materials			
2=Land preparation			
3=Planting			
4=Weeding /pruning			
5= Manure/ fertilizer application			
6= Mulching			
7=Spraying			
8= Harvesting			
9=Drying and storing			
9= Marketing and transport			

13. What is the average of coffee harvested in Kgs Last season?

14. In what form do you sell your coffee?

1=Cherry (fresh), 2=Kiboko (dry), 3= processed beans

15. What price do you sell coffee?

Category	Quantity harvested(Kg)	Sales		
		Units	Quantity	Price/kg (Ugx)
Cherry (Fresh)				
Kiboko (Dry)				
Processed beans				

16. Who are your buyers?

1=none, 2=Local buyers, 3=Farmers' cooperative, 4=private processor, 5=Middlemen

Extension services and credit access

17. Did you or any member of the household attend training on coffee production?

1=Yes, 0=No

18. If Yes, how many members?
19. How many trainings did you attend?
20. What is the distance to the nearest extension contact farmer in the area?
21. Do you do any off-farm activity for income?
1=Yes, 0=No
22. If Yes, how much do you earn per month?.....Ugx
23. Do you have access to credit facilities that you use in coffee production?
1=Yes, 0=No
24. If, Yes indicate source of the credit?
1= Loan from Commercial bank, 2=loan from microfinance institution,
3= Loan from cooperative, 4=Credit from farmers' cooperative, 5=loan from Neighbors,
6=loan from Relatives/friends, 7=others specify.....
25. What was the purpose of the credit?
1=Education fees' 2=Agriculture, 3=Business, 4=Family emergencies, 5=others
specify.....
26. If no, can you give reasons
1=No collateral, 2=Expensive to pay, 3=not available, 4=others, specify.....
27. What are other sources of finance for coffee production expansion?
1=Savings from salary income, 2=Profit from other farming activities, 3=Profit from
coffee farming, 4=Remittances by employed family members
28. What are the requirements for you to get credit from your financier?
1=Collateral, 2=Business plan, 3=Deposit of percentage of loan, 4=References from
friends, 5=Membership to a group
29. Are you given the loan equal to amount applied?
1=Yes, 0=No
30. If the answer is no, indicate the most appropriate reason?
1=Collateral not adequate, 2=Collateral adequate but denied amount, 3=Cash flow okay
but denied amount, 4=Membership to a group but denied amount, 5=Unable to pay cost
of processing loan
31. Do you receive market information on coffee production?
1=Yes, 0=No

32. If Yes, from where do you get the market information?

1=Farmers' cooperative, 2=Radio, 3=T.V, 4=Public meeting, 5=other farmers,
6=Informal coffee traders, 7=Bulletins, 8=none, 7=other,
specify.....

33. Would you be interested in coffee production?

1=Yes, 0=No

34. What are the five major constraints do you face in the coffee production?

1.....

2.....

3.....

4.....

5.....

Decisions making and control

Who makes decisions with regards to production, marketing and utilization of proceeds from coffee	Use codes below
Who controls the field where the coffee is planted	
Who controls the decision about how much to invest in production of coffee	
Who controls the decision about what quantity of coffee should be marketed	
Who controls the decisions about how the revenue should be spent	

1=husband alone. 2=Husband ultimately decides after consultation with wife; 3=Wife alone; 4=Wife ultimately decides after consultation with husband; 5=Jointly.

37. Do you have any large scale coffee farmer producer who is a lady in your area.

1=Yes, 0= No.

38 If yes what do you think is making her to be successful?

39 What do you think people can say about a large female coffee producer in the community?

40 Can the involvement of women in coffee production motivate other female sex to admire the enterprise of coffee?

41 What is the altitude of people towards women involvement in coffee production?



Lwamba village Coffee farmers Group



Bakola bukozi coffee farmers Group



Mr. Ssewanyana Drying his Coffee



Mr. Kanyankole Taking His Coffee to the Factory



Kirumba Coffee Famers Store



Namwandu Kayinga in her coffee shamba



Kirumba Coffee Famers transporting their coffee to the factory



Namwandu Kayinga in her coffee shamba



Bukobogo Farmer Group Meeting



Harvested coffee Beans



Mr & Mrs Ssentamu being taught coffee pruning