THE EFFECT OF GENDER ACTION LEARNING SYSTEM (GALS) PROJECT ON WOMEN EMPOWERMENT IN RURAL AREAS IN KAMONYI AND MUHANGA DISTRICTS, RWANDA

Author: JANAT KAMWESIGA

janatkam22@gmail.com
Masters of Project Management
University of Kigali (UoK)

ABSTRACT: The study assessed the effect of GALS project on women empowerment in rural areas in Kamonyi and Muhanga Districts, Rwanda. Specific objectives were to evaluate the GALS project activities and services to the farmer's women in Kamonyi and Muhanga Districts; to analyze the relationship between GALS activities and farmer's women empowerment in Rural areas of Kamonyi and Muhanga Districts; and to examine the critical success indicators of farmer's women empowerment before and after joining Gender Action Learning System (GALS) program. Target population was 5,014 farmers (3219 women and 1795 men). This study used purposive and stratified sampling techniques. Data collection techniques and tools were questionnaires, and documentary review. Method of data analysis were descriptive statistical method and cumulative percentages of data. The findings displayed that GALS program activities represented by livelihood planning, adaptation of the GALS "mother" manual, capacity-building and gender training, Agriculture extension service provision which has contributed R=0.930a of the variation in success of empowering farmer's women as explained by r2 of 0.864 which indicates 86.4% in the model as positive and strong, as the independent variable highly explained the dependent variable i.e., success of empowering farmer's women in Kamonyi and Muhanga Districts and showed that the model is a good prediction. Adjusted R-Square is also 0.860 used as to compensate other factors which are not in the model of this study. The findings revealed that the level of significance was 0.000(b) this implies that the regression model is significant in predicting the relationship between GALS Program activities and success of empowering farmer's women. The findings showed level of f-test model is 228.710 which is positive with p-value of 0.000b less than both standard significance levels of 0.05 and 0.01. This means that, null hypothesis (Ho1) stated that there is no significant relationship between GALS activities and farmer's women empowerment in Rural Areas of Kamonyi and Muhanga Districts was rejected and the study retained alternative hypothesis (Ha1) stated that there is great significant relationship between GALS activities and farmer's women empowerment in Rural Areas of Kamonyi and Muhanga Districts.

INTRODUCTION

Rural women work long hours and many of their activities are not defined as economically active employment in national accounts but are essential to the well-being of their households. They also constitute a significant proportion of the labor on their family farms whether producing for household consumption or for enterprise or both (UNIFEM, 2015). In some sub-Saharan Africa countries, women's agricultural information access was less than ten percent. This highlights a serious issue given the complex role of women in the agricultural value chain and their importance in increasing agricultural productivity (FAO, 2015). Economic empowerment is important as a means for guaranteeing families' secure livelihoods and overall well-being. Rural women's economic empowerment can have a positive impact on, and is interconnected with, their social and political empowerment, through their increased respect, status, and self-confidence and increased decision-making power in households, communities, and institutions (Food and Agriculture Organization, 2019). According to UN women (2020), empowering women to participate fully in economic life is essential to build strong economies; establish more stable and just societies; achieve internationally-agreed goals for development, sustainability and human rights; improve quality of life for women, men, families and communities. Despite progress, women continue to confront discrimination, marginalization and exclusion, even though equality between men and women stands as a universal international precept a fundamental and inviolable human right (Ochilo, et al., 2021). In Rwandan society from long time was characterized by unequal social power relations between men and women, boys and girls. These relations were translated into male 's dominance and women's subordination making difficult for women to access opportunities for their sustainable development. According to the Global Gender Gap Index, in 2018, Rwanda was ranked in 6th place out of 149 countries, primarily due to the percentage of seats in government held by women (61.3%), the labor force participation by women (88.0%), and the enrolment of girls in primary education (94.3%) (Nathaniel et al., 2018).

Some organizations supported by IFAD have progressively developed and implemented the household methodologies

in different countries aiming at improving gender relations at the household and community level with the goal of giving women as well as men more control over their lives and support a movement for gender justice. The Gender Action Learning System (GALS) developed under Oxfam and the Household Mentoring approach developed as part of Sida´s Agricultural Support Program in Zambia and subsequently adapted in IFAD-supported projects in Malawi, Uganda and Rwanda are among the two most comprehensive household methodologies (Mayoux, 2013). The Gender Action Learning System is one of innovative household methodologies (HHMs) program developed by Linda Mayoux from IFAD funding, that effectively reach poor household and improve intra household gender relations. The program consists of a set of principals related to participation and leadership summarized into series of visual gender sensitive diagramming tools that are used for visioning, analysing, change planning and tracking by individuals, households, stakeholder groups or multi stakeholder settings; peer learning mechanisms and structures for ongoing action learning in communities and scale up; mechanisms to sustainably integrate GALS in organizations or interventions such as financial services, business development and agriculture extension (Mayoux, 2013).

STATEMENT OF THE PROBLEM

Despite the remarkable effort made by Government of Rwanda, private sectors, and other partners to promote and empower women in agriculture; the females are still facing some issues related to the society which still belief that woman is only household keeper and she should take care of children (YWCA, 2017). Gender Action Learning System (GALS) is a community-led empowerment methodology that uses principles of inclusion to improve income, food and nutrition security of vulnerable people in a gender-equitable way. GALS can be used in many different thematic areas of work: rural finance, VCD, smallholder agriculture, rural enterprise development, community development, etc. GALS links directly with specific project objectives (Farnworth et *al.,* 2013). Remarkable life changes in those districts related to division of both domestic and farm work, household decision making, control and access to assets and services for both men and women as well as decrease in alcohol abuse and GBV were indicated by GALS practitioners. Both vulnerable women and men improved their positions in the soya and maize value chain and women are moving up the value chain to larger scale trading. The tools provided by GALS program enabled the most smallholder farmers to increase their gender equality and their access to productive resources (YWCA, 2017). The study assessed the effect of Gender Action Learning System (GALS) project on women empowerment in rural areas in Kamonyi and Muhanga Districts, Rwanda.

RESEARCH OBJECTIVES

The main objective of this study was to assess the effect of Gender Action Learning System (GALS) project on women empowerment in rural areas in Kamonyi and Muhanga Districts, Rwanda. The specific objectives of this study were into three folds as follows.

1. To evaluate the GALS activities/services to farmer's women in Kamonyi and Muhanga Districts;

2. To examine the success indicators of farmer's women empowerment joint Gender Action Learning System (GALS) program;
3. To analyze the relationship between GALS activities and farmer's women empowerment in Rural Areas of Kamonyi and Muhanga Districts;

RESEARCH HYPOTHESIS

The hypotheses of this study verified alternative (Ha1) and null (Ho1) hypothesis;

[1] **Ha1:** There is great significant relationship between GALS activities and farmer's women empowerment in Rural Areas of Kamonyi and Muhanga Districts

[2] **Ho1:** There is no significant relationship between GALS activities and farmer's women empowerment in Rural Areas of Kamonyi and Muhanga Districts;

Conceptual Review

This section illustrates the clear definitions and explanations on the key concepts including the topic.

GALS program

GALS program is a kind of household methodologies integrated in development project/programs to promote gender equality and women's empowerment mainly focusing on strengthening women's economic opportunities and decision-making capacities at household and farm level. They essentially include all members of the household or group participating in the development of a shared vision, identifying peers to share and support the methodology with other households or groups, and receiving assistance from service providers and facilitators for the creation, implementation, and monitoring of visions and action plans in collaboration with peers (Agarwal, 2017).

Vision Road Journey (VRJ) Tool

The vision road journey aims to introduce the basic planning principles, steps and analytical skills; reinforce ideas of visioning, but also realistic targets with tracked actions and milestones; brainstorm and share opportunities and challenges as possible that may affect vision; and introduce and reinforce a culture of gender sensitive planning, tracking and reflexive learning (Mayoux, Linda, 2020).

Gender Balance Tree (GBT) Tool

Gender balance tree aims to identify who contributes most work to the household: women or men; young men and young women ; identify who spends most for the household: women, men and youth; identify who benefits most from household income: women or men; youth/children; identify inequalities in ownership and decision-making; decide whether the household tree is balanced; decide priority areas for improving the gender balance of the tree so it can stand up straight and bear richer fruit equally for women and men; and see which households 'break the gender norms' as a basis for change (Mayoux, Linda, 2020).

The Multilane Highway (MH) Tool

Multilane Highway tool links the outputs from the other GALS tools. It starts with concrete material visions at the top, then gender changes necessary for these in the middle and outreach needed for that at the bottom which may be the changes in the family and community and people with whom the methodology needs to be shared in order to achieve that vision (Mayoux, Linda, 2020).

GALS program and Gender Equality

Gender Action Learning System (GALS) aims to increase the level of control that both men and women have over their lives and to spark and sustain a movement for gender justice. Based on a study of their existing circumstances, past and present accomplishments, opportunities, strengths, and difficulties, women and men construct their own visions for change, along with attainable targets and road maps to work towards these ambitions (Schindler, K., 2018).

GALS tools and participatory processes can be adapted to promote gender transformation and gender mainstreaming in any issue including general life planning, livelihood and agriculture value chain development, financial services, environmental management, health and nutrition, reproductive rights, literacy, civil society development, counselling and conflict resolution (World Economic Forum, 2018).

Women's Empowerment

Women's empowerment can be characterized as the advancement of women's feeling of self-worth, their capacity for making their own decisions, and their right to have an impact on societal change for both themselves and other people. The empowerment of women is becoming a hot topic in economics and development. Women can control their resources, possessions, and income when they are economically empowered. a capacity for risk management and bettering women's wellbeing (Bayeh, E., 2016).

Recognize Rural Women as leaders and agents of change.

Women must be healthy and educated to engage effectively in civil society and local decision-making processes, which can be significant levers. Women's networks and groups foster greater social and economic gains for everyone while also enhancing the outcomes for women. Women should not be viewed as being weak or helpless; rather, they should be perceived as being in precarious situations. At the home level, gender power dynamics lead to vulnerability, for instance, when it comes to women's decision-making over their sexual and reproductive health, raising female children, and nutrition and food security.

Strengthen rural women's rights to the access, use and control of property, including land.

In order to increase women's equal rights to inherit, access, use, and control land, it is not enough to have strong land laws; the gap between laws and practice must be closed. The awareness of gender relations in the context of land-related investments and the harmful effects that diverse and intersecting types of discrimination can have on rural women's rights with regard to land must be improved among development partners. In war and post-conflict circumstances, such as gender-based violence, it is equally critical to understand and address the unique land-related difficulties.

Ensure better results and impacts for rural women by building the evidence-base of what works.

For the purpose of formulating policies and engaging in conversation, it is critical to collect data on what life was like for rural women. For instance, funders' programs might be improved if they had a greater grasp of the full extent of rural women's labor and time poverty as well as home relationships. It also takes a lot of resources to gather data and information. As a result, development partners must enhance knowledge management, make better use of what is already known, and determine whether new data are actually required before starting to gather more of it.

Improve their practices and behaviors to support rural women by using the aid effectiveness principles.

The Paris declaration on Aid Effectiveness (2005) and related accords have received the support of development partners, who have agreed to uphold accountability, improve coordination, and promote country ownership and capacity development, particularly that of national statistical offices. It is time to put these ideas into practice in order to help the empowerment of rural women.

Use traditional practices and indigenous knowledge to support rural women;

It is possible to increase support for rural women by utilizing regional expertise, customs, and community-based strategies. Building on women's traditional savings plans, for instance, is a successful method for enhancing the programs of development partners. Women need support even though they know what to do.

Ensure that the negative impacts of climate change on rural women are mitigated and that the benefits of green growth flow to women.

As proponents of environmentally friendly development and sustainable agriculture, women frequently hold the answers to problems relating to sustainable development. Gender equality, women's empowerment, and the effects of climate change are all clearly related. When developing and putting their programs into action, development partners must consider and examine these.

THEORETICAL REVIEW

Theory of Change

According to Weiss (1995), a theory of change is an intentional process for considering and describing how and why a program or intervention will work, who it will benefit (and how), and the circumstances necessary for success. Usually, but not always, a theory of change is generated during the program design phase and is based on facts, presumptions, and beliefs (Jones & Rosenberg, 2018). Because they can teach us a lot about how to effectively change people's behaviors, some theories of change draw from scientifically proven ideas of behavior change. In order to encourage social change, companies, charities, not-for-profit organizations, international development, research, and government sectors employ the Theory of Change (ToC) technique or criterion for planning, engagement, adaptive management, and assessment. The Theory of Change establishes long-term objectives before mapping backward to determine essential prerequisites (Brest, 2010). The initiative is connected to wider Oxfam programs on economic justice and gender equality. The Gender Action Learning System (GALS) is the main methodology used by Woman (Sudha Nayar, 2018).

Many development initiatives focus on the symptoms rather than the underlying causes of poverty. For instance, they ignore people in intricate livelihood systems and instead concentrate on technologies and crops. In all regions of developing countries, women play a significant role in agriculture and rural businesses as entrepreneurs, laborers, and farmers. However, they typically work for little pay, at home, or informally, thus their contributions go unnoticed and unappreciated. In making decisions, they are usually disregarded (Sarla & Fatima, 2015). The strategy is customized for three major subject areas: (1) Market and value chain development; (2) Financial Services; and (3) Economic Policy and Planning. The lack of analysis and discussion of gender and poverty issues in the majority of economic development initiatives affects not just the flow of high-quality goods and profits further up the supply chain, but also the vulnerability of vulnerable households themselves. Household security and the relative capacity of female and male farmers and entrepreneurs to make investments, operate at scale, and take advantage of new economic opportunities are impacted by gender disparities, such as access to land, resources, markets, and financing. Despite being dependable and devoted microfinance clients, women are still either not given access to financial services or are used as conduits for credit by men. Financial service businesses can lower risk and boost profitability by making investments in women's empowerment.
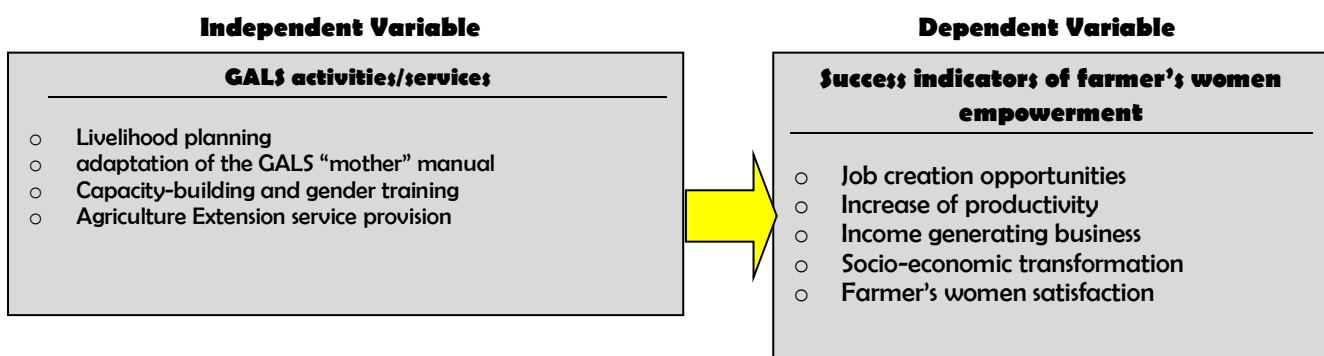
Theory of change and program logic model are words that are frequently used interchangeably. But the two ideas differ significantly from one another. A theory of change is a visual representation or written account of the tactics, conditions, and resources that encourage change and produce results. It has 'explanatory power' (Reinholz & Andrews, 2020), which means it should explain why you believe specific behaviours or actions will result in specific results. A simpler (typically linear) visual representation of how a program is intended to function is called a program logic model. It displays the actions taken and the specific results anticipated as a result. It may be based on the same data as a theory of change, but it doesn't provide an explanation of how or why the program produce the intended results or effect change. A program logic model's theory or logic may occasionally be explained using a narrative theory of change (Church & Rogers, 2016).

The theory of change can aid in more efficient program delivery and in evaluating a certain program's merits and potential for producing the desired results. Additionally, it might assist you in defending public expenditures and explaining charitable goals to the public. The value of a theory of change in evaluation is another justification for developing one. They identify and start to grasp the collection of factors, actions, and processes that contribute to change by outlining how they want to go from program delivery to achieving outcomes. They can then question and test this understanding through assessment (Aromatario et al., 2019). Last but not least, it might be a chance to interact with program personnel and intended beneficiaries to: formalize tacit knowledge and experiences; build a shared vision of the program; identify important facilitators and barriers to success. A theory of change cannot be created in a uniform manner; each one would differ in its specifics. But according to the literature, effective theories of change should cover a number of important topics (Reinholz & Andrews, 2020).

Preference Theory
According to Marenya et al. (2015), the preference theory, which American economist Paul Samuelson first proposed in 1938, contends that customers' preferences may be inferred from the things they buy in various situations, particularly those involving varying levels of income and price. According to the idea, if a customer buys a particular bundle of products, then, given constant income and price levels, that bundle is "revealed preferred" to any alternative bundle that the consumer could afford. An observer can deduce a representative model of the consumer's preferences by altering income, pricing, or both. The weak, strong, and generalized axioms of revealed preference were identified as the three main axioms of the preference theory (Ndiritu et al., 2014). According to the weak axiom, if one good is chosen over another at a given price and income, the customer will always make the same decision. In a more concrete manner, the weak axiom contends that once a buyer buys one sort of product, they will never switch to another brand or product unless it offers a greater benefit, such as a lower price, higher quality, or more convenience

CONCEPTUAL FRAMEWORK

Independent Variable	Dependent Variable
GALS activities/services	**Success indicators of farmer's women empowerment**
o Livelihood planning o adaptation of the GALS "mother" manual o Capacity-building and gender training o Agriculture Extension service provision	o Job creation opportunities o Increase of productivity o Income generating business o Socio-economic transformation o Farmer's women satisfaction

Source: *Researcher design (2023)*
Figure 1: Conceptual Framework

RESEARCH METHODOLOGY

A descriptive research design was used by study and it aims to accurately represent its subjects. The target population in two districts was 5014 farmers in Kamonyi and Muhanga Districts who have benefited from GALS program. Taro Yamane (1982) provides a simplified formula to calculate sample sizes. This formula is used to calculate the sample size to be questionable in the research. The sample size was selected in Kamonyi and Muhanga Districts as calculated in below formula: n = Sample Size (98)   N = Study Total Population (5,014)   e = Margin of error $(0.1)^2$.

$$n = \frac{5014}{1 + (5014 * (0.1)^2)} = 98.044 \approx 98$$

The 98 respondents were sample size determined using stratified sampling technique and purposive sampling technique. Purposive sampling was necessary in order to focus on specific demographic features that are of interest and best help for responding to research inquiries. Instead, it is a decision, the intent of which differs based on the kind of sampling procedure utilized for the goal. Because, they stratified the entire population before using random sampling techniques, stratified random sampling correctly reflects the group under study. When using a questionnaire, a group of employees were given a collection of written questions. Data was revealed from documentary review especially textbooks, magazines, internet source, and any other documents that were deemed necessary and reading books. The SPSS and Excel were utilized by the researcher to process and analyze data and descriptive statistic methods were adopted in the current study. The study assessed GALS Farmer's project and examined women empowerment in rural Rwanda by using multiple regression modelling and diagnostic tests linked to the Pearson correlation test.

KEY FINDINGS

The findings show the impact of Gender Action Learning System (GALS) project on women empowerment in rural areas in Kamonyi and Muhanga Districts, Rwanda. Data were collected from 98 respondents in Nyarubaka Sector, Kamonyi District and Cyeza Sector, Muhanga District in the southern Province of Rwanda, and they were 100.0% participating in responding to the research questions in the questionnaire.

1.Profile of Respondents

The data showed the gender situation in GALS project at Kamonyi and Muhanga districts. The information was presented in table 1 showed both sexes including female and male in the GALS project and participated in this important survey.

Table 1: Gender distribution of Respondents

Gender	Frequency	Percentages
Male	21	21.4
Female	77	78.6
Total	98	100.0

Source: *Data from field, primary data 2023*

Findings on gender distribution of respondents indicated in table 1 confirmed the existence of both males and females who have participated in GALS project. The results obtained showing 21.4% of respondent's males, while 78.6% of respondents were females. To having both gender in GALS project contributed significantly to the farmers' sustainable development in Kamonyi and Muhanga Districts. This helped the researcher to obtain data from both sexes give a hope to quality of data from respondents. Findings on the age of respondents at Kamonyi and Muhanga Districts, as presented in Table 2:

Table 2: Distribution of Respondents by Age

Age groups of respondents	Frequency	Percent
18-30	38	38.8
31-50	42	42.9
51 years and Above	18	18.4
Total	**98**	**100.0**

Source: *Data from field, primary data 2023*

Results from data collected on ages of respondents are indicated in Table 2 that displaying 38.8% respondents were between 18 and 30 years old; 42.9% of respondents have ages from 31to 50 years old, while only 18.4% of respondents have ages from 51years and above. According to findings indicated that age distribution of respondents showing GALS project was involving the mature people who know what they need to enhance their sustainable development of farming in Kamonyi and Muhanga Districts. Findings were shown in table 3 of distribution of respondents by marital status:

Table 3: Distribution of Respondents by Marital Status

Marital Status	Frequency	Percent
Married/Living together	77	78.6
Engaged to be married	14	14.3
Widowed	4	4.1
Divorced/separated	3	3.1
Total	**98**	**100.0**

Source: *Data from field, primary data 2023*

Findings in Table 3 illustrated the distribution of respondents by marital status. Majority of 78.6% respondents were married/living together; 14.3% of respondents are engaged to be married; 4.1% of respondents were widowed; 3.1% of respondents were divorced/separated. The findings indicated data on the education of respondents as the program has men and women in GALS project present education level contributing much to sustainable farming development. The findings on table 4.4 below illustrated education level of respondents.

Table 4: Education Level distribution of Respondents

Education Level	Frequency	Percent
Illiterate	9	9.2
Primary	29	29.6
Secondary	28	28.6
Professional	32	32.7
Total	98	100.0

Source: *Data from field, primary data, 2023*

Data indicated in Table 4 show the distribution by education level of respondents from Kamonyi and Muhanga districts. Among 100.0% of respondents participated in this study, there is 9.2% of respondents were illiterate people; 29.6% respondents have primary level; 28.6% have secondary level; while 32.7% of respondents have professional courses. Basic skills and knowledge of farmers in GALS project can support the farmer's sustainable development. Number of household members are important in the farmer's sustainable development of farming activities in Kamonyi and Muhanga Districts. As table 5 illustrates household members constituted families of respondents.

Table 5: Number of Household Members

Household Members	Frequency	Percent
1-2	16	16.3
3-4	62	63.3
5+	20	20.4
Total	98	100.0

Source: *Data from field, primary data 2023*

Opinions from 98 respondents in the current study show that 16.3% respondents have household members between 1 to 2 members; 63.3% of respondents have between 3 and 4 members in the family; and 20.4% of respondents have 5 and above family members. The employment status of those family members constituted by homemakers; self-employed/businessman-woman; wage/salaried; student; and some of them are retired/ unable to work. Findings show practices of farmers in GALS project in Kamonyi and Muhanga Districts.

Table 6: Whether respondents who have been practicing GALS project

	Frequency	Percent
Yes	98	100.0
No	0	0.0
Total	**98**	**100.0**

Source: *Data from field, primary data 2023*

The findings show that all 100.0% respondents participated participated in GALS project. This helps the farmers to be sustainable development in Kamonyi and Muhanga districts, Rwanda.

Inferential Statistics Analysis

The relationship between GALS program activities and services and success of Farmer's women empowerment determined by the correlation coefficient which is a simple table displays the correlation between the variables; and multiple linear regression analysis showing change in Y when change one unit in X represented by x1: Livelihood planning; x2: Adaptation of the GALS "mother" manual; x3: Capacity-building and gender training; and x4:

in this research were farmers who Agriculture Extension service provision with respectively ε which is standard error.

Correlation Coefficient analysis

Findings indicate correlation coefficient matrix as a table showing correlation coefficients between variables. Each cell in the table shows the correlation between two variables. A correlation matrix is used to summarize data obtained from respondents in GALS program, as input into a more advanced analysis and as a diagnostic for advanced analyses. Table 7 shows the findings on correlation coefficient matrix results as follows.

Table 7: Correlation Coefficient matrix analysis

		Livelihood planning	Adaptation of the GALS "mother" manual	Capacity-building and gender training	Agriculture Extension service provision	Success of Farmer's women empowerment
Livelihood planning	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	149				
Adaptation of the GALS "mother" manual	Pearson Correlation	.570**	1			
	Sig. (2-tailed)	.000				
	N	149	149			
Capacity-building and gender training	Pearson Correlation	.469**	.865**	1		
	Sig. (2-tailed)	.000	.000			
	N	149	149	149		
Agriculture Extension service provision	Pearson Correlation	.438**	.723**	.880**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	149	149	149	149	
Success of Farmer's women empowerment	Pearson Correlation	.567**	.812**	.898**	.875**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	149	149	149	149	149

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

Source: primary data (2023)

From the correlation matrix test in table 7 results show that there is a positive and strong correlation between Livelihood planning and Success of Farmer's women empowerment as Pearson correlation is 0.567** with the p-value of 0.000, which is less than standard significance level of 0.01. This indicates that, out of the considered other factors influence Success of Farmer's women empowerment, only Livelihood planning has a significant influence of 56.7% on the empowering farmer's women in Kamonyi and Muhanga Districts.

The results show that there is a positive and strong correlation between adaptation of the GALS "mother" manual and Success of Farmer's women empowerment as Pearson correlation is 0.812** with the p-value of 0.000 which is less than standard significance levels of 0.01. This indicates that out of the considered other factors of Success of Farmer's women empowerment; only the adaptation of the GALS "mother" manual has a significant relationship of 81.2% on the success of empowering farmer's women in Kamonyi and Muhanga Districts.

Findings show that there is a positive and strong correlation between Capacity-building and gender training and Success of Farmer's women empowerment as Pearson correlation is 0.898** with the p-value is 0.000, which is less than standard significance level of 0.01. This indicates that, out of the considered other determinants of Success of Farmer's women empowerment, only Capacity-building and gender training have significant and positive relationship of 89.8% on the success of empowering farmer's women in Kamonyi and Muhanga Districts.

Findings show that there is a positive and strong correlation between Agriculture Extension service provision and the Success of Farmer's women empowerment as Pearson correlation is .875** with the p-value is 0.000, which is less than standard significance level of 0.01. This indicates that, out of the considered other factors of Success of Farmer's women empowerment, only Agriculture Extension service provision have significant and positive relationship of 87.5% on the success of empowering farmer's women in Kamonyi and Muhanga Districts.

Regression Analysis

The model summary table reports the strength of the relationship between the model and the dependent variable. R., the multiple correlation coefficient, is the linear correlation between the observed and model-predicted values of the dependent variable. Its large value indicates a strong relationship. R-squared (R^2) is a statistical measure that represents the proportion of the variance for a dependent variable that's explained by an independent variable or variables in a regression model.

Table 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.930[a]	.864	.860	3.05463	1.005

a. Predictors: (Constant), *Livelihood planning, Adaptation of the GALS "mother" manual, Capacity-building and gender training, Agriculture Extension service provision*

b. Dependent Variable: success of empowering farmer's women;

In order to explain the percentage of variation in the dependent variable (success of empowering farmer's women) as explained by the independent variables. Findings in the model summary Table 8 used to explain whether the model is a good predictor. From the results of the analysis, the findings displayed that GALS program activities represented by livelihood planning, adaptation of the GALS "mother" manual, capacity-building and gender training, Agriculture extension service provision which has contributed R=0.930[a] of the variation in success of empowering farmer's women as explained by r^2 of 0.864 which indicates 86.4% in the model as positive and strong, as the independent variable highly explained the dependent variable (i.e., success of empowering farmer's women in Kamonyi and Muhanga Districts) and show that the model is a good prediction. Adjusted R-Square is also 0.860 used as to compensate other factors which are not in the model of this study.

Table 9: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8536.131	4	2134.033	228.710	.000[b]
	Residual	1343.627	144	9.331		
	Total	9879.758	148			

a. Dependent Variable: success of empowering farmer's women;
b. Predictors: (Constant), *Livelihood planning, Adaptation of the GALS "mother" manual, Capacity-building and gender training, Agriculture Extension service provision*

The findings in table 9 revealed that the level of significance was 0.000[b] this implies that the regression model is significant in predicting the relationship between GALS Program activities and success of empowering farmer's women. The findings showed level of f-test model is 228.710 which is positive with p-value of 0.000[b] less than both standard significance levels of 0.05 and 0.01. This means that, null hypothesis (**Ho1**) stated that there is no significant relationship between GALS activities and farmer's women empowerment in Rural Areas of Kamonyi and Muhanga Districts was rejected and the study retained alternative hypothesis (**Ha1**) stated that there is great significant relationship between GALS activities and farmer's women empowerment in Rural Areas of Kamonyi and Muhanga Districts.

Table 10: Coefficient regression

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.306	1.300		2.543	.002
	Livelihood planning	.260	.064	.154	4.084	.000
	Adaptation of the GALS "mother" manual	.170	.117	.098	1.450	.003
	Capacity-building and gender training	.676	.150	.411	4.503	.000
	Agriculture Extension service provision	.445	.078	.376	5.681	.000

a. Dependent Variable: success of empowering farmer's women;

The results from Table 10 indicated that livelihood planning in GALS Program activities has positive and significant effect on success of empowering farmer's women involved at 10% level of significance (β1= 0.260, t= 4.084; p-value= 0.000 less than significant standard level of 10%). This suggests that a 1-unit change Livelihood planning leads to 0.260-unit change on success of empowering farmer's women. The Adaptation of the GALS "mother" manual in GALS Program activities has positive and significant effect on success of empowering farmer's women as involved at 10% level of significance (β2= 0.170; t= 1.450 and p-value = .003 less than 10% as significant standard level). This suggests that a 1-unit change adaptation of the GALS "mother" manual lead to 0.170-unit change on success of empowering farmer's women. The Capacity-building and gender training in GALS Program activities has positive and significant effect on success of empowering farmer's women as involved at 10% as standard level of significance, as (β3= 0.676, t= 4.503 and p-value = .000 less than 10%). This suggests that a 1-unit change Capacity-building and gender training leads to 0.676-unit change on success of empowering farmer's women. The results show that Agriculture Extension service provision in GALS Program activities has positive and significant effect on success of empowering farmer's women, involved at 10% level of significance (β4= 0.445; t= 5.681 and p-value= .000 less than 10% as significant standard level). This suggests that a 1-unit change Agriculture Extension service provision lead to 0.170-unit change on success of empowering farmer's women in Rural Areas of Kamonyi and Muhanga Districts.

Conclusion

Gender Action Learning System methodology is a kind of household methodologies integrated in development project/programs to promote gender equality and women's empowerment mainly focusing on strengthening women's economic opportunities and decision-making capacities at household and farm level. The sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It adapted to promote gender transformation and gender mainstreaming in any issue including general life planning, livelihood and agriculture value chain development, financial services, environmental management, health and nutrition, reproductive rights, literacy, civil society development, counselling and conflict resolution. The findings indicated that Null (H$_0$1) hypothesis said that "there is no significant the relationship between GALS activities and farmer's women empowerment in Rural Areas" was rejected; while alternative (Ha1) hypothesis said that "there is great significant the relationship between GALS activities and farmer's women

empowerment in Rural Areas" was retained. This helps to confirm that there is significant contribution of GALS project to the farmer's women empowerment in Rural Areas of Kamonyi and Muhanga Districts. GALS project has contributed in socio-economic development of cooperative members as shown in the testimonies, and the local authorities appreciated the methodology because it is helpful in implementing household's performance contracts and started by individuals to the community. The capacity building for men and women, local authorities, policy makers, value chain actors and other movements which defend gender justice must be reinforced to create brighter future.

Recommendations

For improving the relationship between GALS (Gender Action Learning System) project activities and women's empowerment in rural areas requires a thoughtful and holistic approach. Here are some suggestions and recommendations to consider: Begin by conducting thorough needs assessments and engaging with the local community, including women and men, to understand their specific needs, challenges, and aspirations. Provide gender-sensitive training and capacity-building programs to equip women with the skills and knowledge necessary to actively participate in GALS activities and make informed decisions about their livelihoods. Foster local leadership and ownership of GALS initiatives by involving community members, including women, in the planning, implementation, and decision-making processes. Customize GALS interventions to suit the unique cultural, social, and economic contexts of the rural area, ensuring that they address the specific challenges faced by women in the community. Facilitate access to resources such as land, credit, technology, and markets for women in agriculture or income-generating activities. Advocate for policies and legal frameworks that promote women's rights and gender equality in rural areas, including land ownership and inheritance rights. Promote financial inclusion by supporting women in accessing savings and credit services, enabling them to invest in their businesses and improve their economic well-being. Ensure that health and well-being services, including reproductive health, are accessible to women in rural areas, as these factors can significantly impact their empowerment. Be open to adapting project activities based on feedback and changing community needs. Flexibility is key to success in dynamic rural contexts. Remember that women's empowerment is a complex, multifaceted process, and GALS activities should be integrated into a broader development strategy that takes into account the specific needs and aspirations of rural women and their communities. Regularly assessing and adapting your approach will help ensure the success of the project.

REFERENCES:

Aromatario, O., Van Hoye, A., Vuillemin, A., Foucaut, A., Prommier, J., & Cambon, L. (2019). Using theory of change to develop an intervention theory for designing and evaluating behavior change SDApps for healthy eating and physical exercise: The OCAPREV theory. BMC Public Health, 19(1435).

Bayeh, Endalcachew (2016). "The role of empowering women and achieving gender equality to the sustainable development of Ethiopia". Pacific

Science Review B: Humanities and Social Sciences. 2 (1): 38. doi:10.1016/j.psrb.2016.09.013.

Benegusenga, J., & Madichie, N. O. (2022) "Total Quality Management and Construction Projects in Rwanda: A Case Illustration of Project Management Practices and Performance". Research Paper presented at the University of Fort Hare

Bottomore, Tom. (1991) A Dictionary of Marxist Thought. Blackwell Publishers: Massachusetts

Bottomore, Tom. (1991) A Dictionary of Marxist Thought.Blackwell Publishers: Massachusette

Brady, Shane R.; O'Connor, Mary Katherine (2014)."Understanding How Community Organizing Leads to Social Change: The Beginning Development of Formal Practice Theory".Journal of Community Practice. 22 (1–2): 210–228.

Braverman, Harry. (1974) Labor and Monopoly Capital. Free Press: New York

Braverman, Harry. (1974) Labor and Monopoly Capital. Free Press: New York

Chen, H. T. (2015). Practical program evaluation: Theory-driven evaluation and the integrated evaluation perspective (2nd d.). Los Angeles: SAGE Publications.

Church, C., & Rogers, M. (2016). Designing for results: Integrating monitoring and evaluation in conflict transformation programs. Washington: Search for Common Ground.

EIGE (2019). Gender Equality Glossary & Thesaurus. Vilnius: European Institute for Gender Equality, [Online] Available: https://eige.europa.eu/taxonomy/term/1442

FAO (2011). The State of Food and Agriculture. Rome: Food and Agriculture Organization of the United Nations, [Online] Available: http://www.fao.org/3/i2050e/i2050e.pdf

FAO (2015). Fourth private sector partnerships dialogue: Inclusive finance and investment models in agriculture. Rome: Food and Agriculture Organization of the United Nations, [Online]. Available: http://www.fao.org/3/a-az567e.pdf

FAO. (2013a). Governing land for women and men: A technical guide to support the achievement of responsible gender equitable governance land tenure. Rome: FAO. Retrieved from http://www.fao.org/docrep/017/i3114e/i3114e.pdf

FAO. (2013b). The gender and equity implications of land-related investments on land access, labour and income generating opportunities in Northern Ghana – The case study of integrated Tamale Fruit Company. Rome: FAO. Retrieved from http://www.fao.org/uploads/media/gender.pdf

FAO. (2015a). Gender opportunities and constraints in inclusive business models – The case study of Unifrutti in Mindanao, Philippines. Rome: FAO. Retrieved from http://www.fao.org/3/a-i4444e.pdf

Farnworth, & Colverson (2015) Building a gender-transformative extension and advisory facilitation system in Sub-Saharan Africa. J. Gend. Agric. Food Security.

Funnell, S., & Rogers, P. (2011). Purposeful program theory: Effective use of theories of change and logic models. San Francisco, CA: Jossey-Bass.

Global Gender Gap Index, (2018), Rwanda was ranked in 6th place out of 149 countries Rwanda-KigaliGGGI

Jones, N., & Rosenberg, B. (2018). Program theory of change. In SAGE Encyclopedia of Educational Research, Measurement, and Evaluation (pp. 1315-1318). SAGE Publications.

Knights, David. and Willmott, Hugh. (1990) Labour Process Theory. Macmillan press limited: London

Lupton, Nathaniel et al., (2018) Manganese and methane in hydrothermal plumes along the East Pacific Rise, 88400 to 118500 N. Geochimica et Cosmochimica Acta, 59(20), 4147–4165. https://doi.org/10.1016/0016-7037(95)00245-U

Madichie, N. O. (2022) Rwanda Coffee Cooperatives: A Case Study of Beautiful Coffee Rwanda. Tekedia, July 15, https://www.tekedia.com/rwanda-coffee-cooperatives-a-case-study-of-beautiful-coffee-rwanda/

Madichie, N. O., & Musabeyezu, J-D (2023) A Case Illustration of capacity building projects for women microenterprises in Rwanda. Accepted paper to be presented at the Gender, Work and Organization 13th International Interdisciplinary Conference. Theme: Marginalized gender identities: How can intellectual activism transform work and organization? 28–30 June 2023,

Madichie, N. O., Bolat, E., & Taura, N. (2021). Digital transformation in West Africa: A two country, two-sector analysis. Journal of Enterprising Communities: People and Places in the Global Economy, 15(2), 246-257

Magee, J. C. (2008). Seeing power in action: The roles of deliberation, implementation, and action in inferences of power. Manuscript submitted for publication.

Marenya, P., & Erenstein, O. (2015). Understanding the adoption of a portfolio of sustainable intensification practices in eastern and southern Africa. Land use policy, 42, 400-411.

Marx, Karl. (1976) Capital: A Critique of Political Economy volume one. Penguin Books: London.

Mayoux (2013) Gender Action Learning System (GALS) developed under Oxfam and the Household Mentoring approach developed as part of Sida´s Agricultural Support Programme in Zambia Malawi, Uganda and RwandaIFAD

Mayoux, L. (2011), Facilitation for Leadership, Empowerment and Sustainability. Available at: www.wemanresources.info/documents/Page2_GALS/Guidelines facilitation%20

Mayoux, L. (2013). Equal and Together: Gender Action Learning System for Gender Justice in Development, S.L. Oxfam

Mutesi, J., &Madichie, N. O. (2023). Assessing the Performance of Agricultural Projects in Africa: Insights from a Rwanda Project (No. 9759). EasyChair.,https://easychair-www.easychair.org/publications/preprint/2qwQ

Ndiritu, S. W., & Stage, J. (2014). What determines gender inequality in household food security in Kenya? Application of exogenous switching treatment regression.World development, 56, 153- 171.Nairobi Kenya

NISR (2016). Rwanda Demographic and Health Survey.2014-15, Kigali: National Institute of Statistics of Rwanda

Njimanted, et al., (2016) The impact of key monetary variables on the economic growth of the CEMAC Zone. Expert Journal of Economics, 4(2), 54-67.

Ochilo, W.N., Ruffhead, H., Rumsey, A., Chege, F., Lusweti, C., Oronje, ML., and Otieno, W. (2019). "Can You Ensure that ICT for Development Apps Are Downloaded and Used? A Case Study of the Plantwise Data Collection App for Plant Health in Kenya." Journal of Agricultural & Food Information, 20:3, 237–253

Reinholz, D. L., & Andrews, T. C. (2020). Change theory and theory of change: What's the difference anyway? International Journal of STEM Education, 7(2).

Rutabagaya, E. (2021) empowering women in agriculture: a prerequisite to securing family livelihoods and achieving sustainable development. UN dtable Institute.

WOMEN. IPAR's 3rd annual research conference.

Taro Yamane (1982) determining Sample Size. https://www.gjimt.ac.in/wp-content/uploads/2017/10/2_Glenn-D.-Israel_Determining-Sample-Size.pdf

W. K. Kellogg Foundation. (2004). Logic model development guide. Michigan: W.K. Kellogg Foundation.

Weiss, C. H. (1995). Nothing as practical as good theory: Exploring theory-based evaluation for comprehensive community initiatives for children and families. In J. Connell, A. Kubisch, L. Schorr & C. Weiss (Eds.), New approaches to evaluating comprehensive community initiatives (pp. 65-92). New York: The Aspen Roun