

Assessing the Performance of Agricultural Projects in Africa: Insights from a Rwanda Project

Judith Mutesi and Nnamdi Madichie

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Abstract

This study set out to evaluate the performance of agriculture projects in Africa from the under researched country on the continent. Drawing insights from the case of the Imbaraga Farmers Voice Project (IFVP) in Rwanda, the study sought four to examine the influence of agricultural training on performance of IFVP and to establish the influence of beneficiary involvement on performance of IFVP project. This study is underpinned on two theories which are Stakeholder Theory and Realistic Evaluation Theory. From a methodological perspective, the adopted both the survey research design and correlational research design. The study population was 140 stakeholders of the IFVP. The results revealed that agricultural training has significance positive effect on performance of the project. The results also revealed that access to financial services has significance positive effect on performance of the project. Based on these findings, the study recommended that more training to farmers by extension officers needs to be conducted as a way of capacity building leading to increased productivity and the adoption of innovative technologies to enable the realization of higher profits.

Keywords: Imbaraga Farmers Voice Project (IFVP); Stakeholder Theory; Realistic Evaluation Theory; Rwanda.

Introduction

According to Food and Agriculture Organization (FAO) (2019) an estimated 925 million people, about 14% of the world's population are food insecure with 239 million or 26% of these found in the Sub-Saharan Africa. The Strategy to Revitalize Agriculture has emphasized the importance of agricultural chores in relation to the battle against poverty among rural communities (SRA) in Nigeria. One of the reasons hindering agricultural farm productivity projects in unique countries have been identified as the deteriorating efficacy of agricultural project practices. A well-timed implementation, budget compliance, accountability, and delivery of the desired results are necessary for a project to be successful (Karanja, 2020).

Although project success is never guaranteed, a project is more likely to be successful when conventional project management processes are practiced. Their success depends on their ability to develop fully integrated information and control systems to plan, availability of resources, stakeholder participation, instruct, monitor and control large amount of data quickly and accurately facilitating problem solving and decision-making processes. Determination of a successful project outcome is measured by the extent to which the project accomplished complex endeavors that meet a specific set of objectives within the constraints of resources, time, and performance objectives. Project management aims to ensure the effective use of resources and delivery of the project objectives on time and within cost constraints. It entails the planning and controlling the various of project activities such as provision of agricultural inputs and credits; link farmers to remunerative markets; train smallholder farmers and support farmers in accessing livestock and improved livestock farming (Thilmany, 2019).

In Eastern African countries like Kenya, project performance challenges are not unique to a particular industry but cuts across all industries although the magnitude of the effects of these problems may vary from one industry to another (Oyugi, 2018). Oyugi (2018), six key drivers of project management success such as strong leadership, organization maturity, business driven approach, executive backing, user adoption and visibility. Much as these project management methods introduced and reached different sectors half a century ago; project success remains a challenge still today.

In Uganda, agricultural projects' performance has been challenged by how their leadership perceives government and its policies and how the East African Governments demand financial transparency and accountability from the NGOs. Besel, *et al.* (2021) found that NGOs rely on government policies to decide on their project financing due to the existence of substantial government restrictions on the use of public funds, and the relatively enormous timeframes and resources utilized in conforming to State and government prerequisites. Non-Governmental Organizations play imperative responsibilities in the society.

The aim of agriculture project was basically to increase agricultural production and to reduce poverty particularly in poorer countries where the majority of people depends on agriculture for their livelihood (Poostchi, 2016). Although farmers in Rwanda have got a well-developed agricultural research system, use of modern science and technology in agricultural production is still limited. Most farmers lack information on the right type of farm inputs to use and the appropriate time of application of the same. The cost of key inputs such as seed, pesticides and fertilizer, is high for the poor farmers. Most farmers therefore do not use them. This greatly reduces the yield that the farmers get (MINAGRI, 2018).

Despite the importance and emphasis on projects, the end results for most projects have been discouraging with majority of projects across different countries, industries and sectors registering mediocre performance (Jugdev & Muller, 2005). Report from World Bank (insert year instead) reveals that the Government of Rwanda receives massive donor aid from various sources to fund a number of food security challenges and other sustainable development goals (WB, 2018). However, According to World Bank (2019), performance of said projects are inferior in Sub Saharan Africa and Asia due to low implementation success rate. The major causes of failures cited include insufficient implementing capacity, inadequate monitoring and evaluation, lack of standardized methodologies to guide project management, weak project design, insufficient stakeholder participation and political interference (Ndayisaba and Mulyungi, 2018).

The success rate of the agricultural related projects to their original plans, is somewhere between 30 and 50 percent. Poverty in Rwanda, as measured by the international poverty line, fell from 77.2% in 2001 to 55.5% in 2017, while poverty measured by the national poverty line declined from 58.9% to 38.2% (NISR, 2018). The poverty reduction rate has slowed in Rwanda, with 14.5% moving out of poverty between 2010/11 and 2013/14 and 9.52% moving in, compared with 13.4% moving out of poverty between 2013/14 and 2016/17 and 11.7% moving in (NISR, 2018). The continuing high levels of poverty can be attributed to low levels of growth in agricultural productivity due to poor implementation of agricultural project and fail of some agriculture project in Rwanda. Out of the 110 projects initiated in the year 2012 and 2015,

among them livestock farming, horticultural farming, bee keeping and home economics, 32 of the projects were terminated due to issues related to project management such as project team, stakeholder's participation, financing, monitoring and evaluation (MINAGRI, 2018).

Previous studies on the factors influencing project performance have yielded mixed outcomes, therefore, making it impossible to generalize the findings and recommendations. For instance, Inda and Moronge (2015). However, Osedo (2015) indicated that stakeholder participation has weak and not statistically significant influence of successful project implementation. his leaves a significant knowledge gap which this study filled. This study hence aimed to fill the missing gap by evaluating different component that can affect the performance of agriculture projects in Rwanda, drawing from the case of IFVP. The general objective of the research is to evaluate different components that affect the performance of agriculture projects in the country.

Literature Review

This study was guided by two theories – i.e., Stakeholder Theory and Realistic Evaluation Theory. These theories are deemed appropriate because the project under consideration involves a range of stakeholders, and the assessment undertaken in this study is one of realistic evaluation.

Stakeholder Theory

The stakeholder theory asserts that the importance of a firm focuses on various partner groups that were concerned with the daily operations of the organization. Hence, Stakeholder theory was propounded by Freeman (1984) and suggested that managers in an organization had an obligation of ensuring that there was cordial relationship between customers, business partners, suppliers and contractors. More so a stakeholder, who controlled them, could come up with value chain for customers, vendors, communities and financiers. Stakeholder involvement is well explained by the stakeholder's theory. Stakeholder perspectives on organizations have rapidly increased in popularity and now represent a mainstream method of organizational performance management; stakeholder analysis and a managerial response to greater organizational complexity; stakeholder management. The relevance of stakeholder theory is demonstrated by its standing as the dominant discourse in organization theory, and by its application across a range of management disciplines. Its key proposition is that sustainable organizational success in large part depends on systematic consideration of the needs and goals of salient stakeholders (Alila& Atieno, 2016).

Realistic Evaluation Theory

The realistic evaluation theory, first published by Pawson in 1997, provides a model centred on finding out what outcomes are produced from project interventions, how they are produced, and what is significant about the varying conditions in the which the interventions take place (Pawson & Tilley, 2004). Realistic evaluation deals with 'what works for whom in what circumstances and in what respects, and how?' (Pawson & Tilley, 2004). Realistic evaluation seeks to find the contextual conditions that make interventions effective therefore developing lessons about how they produce outcomes (Fukuda Parr, Lopes, & Malik, 2002).

The context determines whether mechanisms work during a program. For example, outcomes may vary depending on economic, geographic, historical, social, and political circumstances and

the cultural values of participants. Variations within the programmer's target group (for whom) can also influence which mechanisms may operate.

The components of the Realist Evaluation hypothesis touch upon how the research context will affect actors in a programme (Cohen et al., 2008). By implication, research or evaluation designs that strip away or 'control for' context with a view to exposing the 'pure' effect of the intervention limit our ability to understand how, when and for whom the intervention will be effective. The aims of a Realist Evaluation are determined by the purposes for which the evaluation will be used, that is, the policy and practice issues that need addressing. For example, is the aim to increase the number of target groups for which the program is effective, adapting the program for roll out in other settings or increasing the range of effective program within a particular field? Evaluation questions can be refined and prioritized to reflect the purposes for which the evaluation will be used and also what is already known about the program. This theory can greatly aid in understanding how Mechanism used by Imbaraga farmers Voice project such as provision of agricultural training and access to financial services within the context of beneficiaries' participation in the project activities can help organization to achieve its intended outcome or goal of project which is to improve livelihoods of rural farmers in Rwanda. This theory can greatly aid in understanding how project deliverables are produced during monitoring and evaluation process influencing the performance of Imbaraga farmers project in Rwanda.

Take in Figure 1: Conceptual framework

Methodology

This study adopts a descriptive research design and analytical research design. Descriptive research design which was useful in describing the factors that are affecting the performance of Imbaraga farmers Voice project such as agricultural training; access to financial services; project monitoring and evaluation and beneficiary involvement and also descriptive research design was also useful in describing the level of performance of Imbaraga farmers Voice project in terms of realization of set objectives, completion in set time, completion with set budget, project quality performance and project scope performance.

The study used the correlational research design to establish the effect of establish the relationship between factors of performance agriculture projects such as education of farmers, stakeholder's participation, monitoring and evaluation practices and credit accessibility and the level of performance of IFVP. The population of interest of this study was 140 stakeholders of IFVP working in different departments. According to Amin (2005) when the population is less than 300 the sample size is universal sample. In this study, the population consists of 140stakeholders of IFVP. It also used open and closed-ended questionnaire which were constructed and self-administered where the researcher allows the study respondents to fill the questionnaire in the study field. The questionnaire tool collected information from employees of IFVP at head officer. The study used 5-point like scale to measure the variables which are determinant of performance of project as independent variables and the level of performance of IFVP as dependent variables to come up with findings. This ranges from strongly agree to strongly disagree (strongly agree, agree, not sure, disagree, and strongly disagree). In this study the researcher distributes 140 questionnaires to stakeholders of IFVP. The questionnaire, therefore, enabled respondents to feel comfortable as they complete them at their own

convenience. This tool also helped to gather data quickly within a dispersed population with different departments. If all questionnaires are distributed at once, then one can be sure to get responses quickly and within a reasonable period of time as opposed to interviews that might take days to carry out. The study used an interview which guide questionnaire and was also drafted with a set of questions that guided me during the exercise of interviewing the respondents, and they were also open ended in nature. The researcher personally recorded the provided responses as per study respondents during the process of carrying out an interview. This tool was specifically used to collect information from respondents selected from cooperative working with IFVP and local authorities.

Data analysis

Data analysis was based on the questions designed at the beginning of the research where the researchers sorted to identify the main determinants of the success of the agriculture projects. The study employed a descriptive statistical method for representing and summarizing of the bio data and also the study used inferential statistics specifically multiple linear regression analysis

Descriptive statistics

Descriptive statistics involves in using of frequency, percentage, mean, and standard deviation, tables and other graphical presentations as appropriate was used to present the data was collected for ease of understanding and analysis. Measurement of variables was carried out with the aid of Statistical Package for Social Science (SPSS) version 23.0.

Correlation analysis

Description of Spearman correlation coefficient measures the extent to which, as one variable increases, the other variable tends to increase, without requiring that increase to be represented by a linear relationship. If, as the one variable increases, the other decreases, the rank correlation coefficients were negative.

Multiple linear regressions

With multiple regressions analysis was used in order to assess the effects of multiple predictor variables (rather than a single predictor variable) on the dependent measure. A multiple regression model also used to test the significance of the effect of the independent variables on the dependent variable. Based on other models that have been used to test the factors of performance of IFVP, the present study adopts the following model:

$$Y = \beta 0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + e$$

Where: Y = Performance of IFVP

 $\{\beta i;\ i=1,2,3\}=$ The coefficients representing the various independent $Variables.\ B_0=$ the Y intercept $\{Xi;\ i=1,2,3\}=$ Values of the various independent (covariates) variables. e= the error term which is assumed to be normally distributed with mean zero and constant variance, Y= Performance of IFVP, XI= Agricultural training, X2= Access to financial services,

Test of significance of regression model

The regression models were on the amount of change the independent variable is associated with the changes on the dependent variable, when the two variables are tested. The research hypothesis was tested using F-test from ANOVA. Regression model is for finding out how best the goodness of fit in the gradient of the regression line and the amount of change and by how much, if any in a study. This is important because the null hypothesis is usually upheld valid first until it is disapproved or rejected. In linear regression estimation model, the null hypotheses (H0: $\mu = 0$) is based on a valid claim (which can never be proved but can be disproved by use of random probabilities) in research and if not so, the researcher 'rejects or fails to reject' the claim and 'accepts' the alternative hypothesis (H1: $\mu \neq 0$). This is in tandem with original hypothesis formulated and evaluated on whether the p-value coefficient tells the changes are significant or not. The null hypothesis was rejected when p-value calculated is less than 5% of level of significant.

Reliability and validity of the measurement instruments

Face validity was established where tools and questions were chosen rationally, an appropriate way to find out what is being measured, content validity was focused on the extent to which the contents of an instrument correspond to contents of the theoretical concept designed to measure according to Dessler & Lewis (2001). The instruments were discussed with the supervisors and later pre-tested using a sample of 14 stakeholders of Hingaweze project which was asked to fill them and later give comments on their accuracy and clarity, and after pre-testing ambiguous questions was reconstructed. According to Sekaran (2010) content validity index should not be less than 0.7.

$$CVI = \frac{\text{No. of items regarded relevant by judges}}{\text{Total No. of items}} = \frac{46}{51} = 0.901.$$

This implies that research instruments have internal validity because CVI computed is great than 0.7. To test reliability of instruments the researcher administered, pre-test for consistency and logic flow of questionnaires prior actual data collection all data collection tools. For the sake of clear reliability of the questionnaire, the researcher carried out a pre-test by using questionnaires to 9 employees of improving access to reliable on 14 stakeholders of HINGA WEZE project to test if they give consistent results, and this exercise was done before actual period of data collection to remove bias and subjectivity on the side of researcher. The answers were submitted to a reliability analysis (with SPSS) for computation of the Cronbach's Alpha. According to Ngechu (2004), Alpha values for each variable under study should not be less than 0.7 for the statements in the instruments to be deemed reliable. The reliability ensures by testing the instruments for the reliability of values (Alpha values) by calculating Cronbach alpha values. The computed Cronbach's Alpha for each questionnaire is greater than 0.7. This being greater than 0.7, it indicates that there is greater internal consistency of the items in the scale, and that the research instrument used was very reliable.

Findings

Correlational analysis

Pearson correction method which is known as a statistical technique to measure the relationship between variables was used. Simply it is said that if the correlation value is positive the relationship between variables is said to be positive and vice-versa. After that, the following task is to confirm whether the correlation is statistically significant or not. To this, two famous palphas (0.01 and 0.05) are used where the calculated or tabulated p-value is compared to the/m. If the tabulated p-value is below to one among of them the relationship is said to be statistically significant and if it is above the relationship is said to be not statistically significant. The results in Table 1 indicate that there is significant moderate positive correlation between agricultural training and performance of IFVP at (r=0.700**, p-value=0.001<0.01). This implies that an increase of agricultural training leads to the positive change to performance of IFVP.

Take in Table 1: Correlations analysis

The results indicate that there is significant high positive correlation between access to finance services and performance of IFVP at (r=0.757**, p-value=0.000<0.01). This implies that an increase of access to finance services leads to the positive change of performance of IFVP.

The results indicate that there is significant moderate positive correlation between Monitoring and evaluation and performance of IFVP at (r=0.646**, p-value=0.000<0.01). This implies that an increase of Monitoring and evaluation leads to the positive change to performance of IFVP. The results indicate that there is significant moderate positive correlation between beneficiary's participation and performance of IFVP at (r=0.500**, p-value=0.000<0.05). This implies that an increase of beneficiary's participation leads to the positive change to performance of IFVP.

Multiple linear regression analysis

Multiple linear regression analysis is used to determine whether agricultural training; access to financial services; project monitoring and evaluation and beneficiary involvement have an impact performance of IFVP. The regression models were run to test whether the model is significant or not. The statistical significance was verified by the Coefficient (β), t-statistic and Prob. In additional, statistically significant relationship between the dependent variable and independent variable from the model were accepted at 5% significance level. The analysis applied the statistical package for social sciences (SPSS) to compute the measurements of the multiple regressions for the study. Based on the model summary, the coefficient of determination (R squared) shows the overall measure of strength of association between independent and dependent variables. The results in Table 2 indicated that the value of r squared was 0.536(53.6%) an indication that there was variation of 53.6% in performance of IFVP was due to changes in monitoring and evaluation, finance services access, agricultural training, and beneficiary's participation at 95% confidence interval. Additionally, this therefore means that factors not studied in this research contribute 46.4% of performance of IFVP.

Take in Table 2: Model Summary

The findings in Table 3 indicate that the overall model was significant. The F-ratio in the ANOVA table evaluates whether the overall regression model is a good fit for the data. That is,

the ANOVA shows whether the model, overall, results in a significantly good degree of prediction of the outcome variable. The F-critical (4, 135) was 2.45 while the F-calculated was 41.125 as shown in Table 3. This shows that F-Calculated was greater than the F-critical and hence there is significant linear relationship between the project management practices and performance of IFVP in Rwanda. In addition, the p-value was 0.000, which was less than the significance level (0.05). Therefore, the model can be considered to be a good fit for the data and hence it is appropriate in predicting the influence of the four independent variables (monitoring and evaluation, finance services access, agricultural training and beneficiary's participation) on the dependent variable (performance of IFVP in Rwanda). The regression equation above has established that taking all factors into account (monitoring and evaluation, finance services access, agricultural training and beneficiary's participation) constant at zero. Performance of IFVP will be 0.569. The regression results revealed that agricultural training has significance positive effect on performance of IFVP in Rwanda as indicated by β1= 0.239, p=0.002<0.05, t=3.133. The implication is that an increase one unit in agricultural training would lead to an increase in performance of IFVP in Rwanda by 0.436 units. Therefore, the study rejected the null hypotheses that stated that there is no significant effect of agricultural training on performance of IFVP. The regression results revealed that access to financial services has significance positive effect on performance of IFVP in Rwanda as indicated by β₂= 0.190, p-value=0.005<0.05, t=2.883. The implication is that an increase one unit in access to financial services would lead to an increase in performance of IFVP in Rwanda by 0.190 units. Therefore, the study rejected the null hypotheses that stated that there is no significant effect of access to financial services on performance of IFVP.

Take in Table 3: ANOVA Take in Table 4: Regression coefficients

The regression results revealed that monitoring and evaluation has significance positive effect on performance of IFVP in Rwanda as indicated by β_3 = 0.168, p=0.004<0.05, t=2.470. The implication is that an increase one unit in monitoring and evaluation would lead to an increase in performance of IFVP in Rwanda by 0.168 units. Therefore, the study rejected the null hypotheses that stated that there is no significant effect of monitoring and evaluation on performance of IFVP in Rwanda. These findings are in the line with Kule and Umugwaneza (2016) found that M&E was significantly correlated with the performance of projects in Rwanda. The regression results revealed that beneficiary's participation has significance positive effect on performance of IFVP in Rwanda as indicated by β_4 =0.383, p=0.000<0.05, t=4.553. The implication is that an increase one unit in beneficiary's participation would lead to an increase in performance of IFVP in Rwanda by 0.383 units. Therefore, the study rejected the null hypotheses that stated that there is no significant effect of beneficiary's participation on performance of IFVP.

Conclusions

The study concludes that combination of project monitoring and evaluation, access to finance services, agricultural training and beneficiary's participation factors had significant positive effect on project performance of IFVP and jointly accounted for 53.6% of project performance of IFVP as represented by the adjusted R^2 at 95% of confidence interval. IFVP had used agricultural training interventions to a very high level and that agricultural training has positive

influence that is significant on the performance of IFVP. This is in spite of the fact that challenges in literacy skills hampers the management of the ventures. In this respect, it concludes that further agricultural trainings could enhance the awareness of advantages that come with modernizing food production by means of technology utilization hence improve food supply. The findings of this study also revealed that, access to finance services had the greatest impact on better performance of IFVP. It can therefore be concluded that, credit has a positive impact on achievement of intended objectives of IFVP and resulting to better performance of performance of IFVP due to accessibility to finance services of farmers. The findings also revealed that beneficiaries' involvement is also important in the performance of IFVP because it helps beneficiaries in explaining their expectations and managing them effectively within effective communication processes.

Limitations and Implications

Based on the above findings, the study recommends that more training to farmers by extension officers needs to be conducted as way of building their capacity thus increased productivity also it is through the trainings where farmers can be able to learn about new technologies this adopting to save time and money while increasing on production hence realizing higher profits. Government should provide sufficient resources to extension officers who are the contact experts to the farmers to ensure timely dissemination of training and skills. The adoption of agricultural technologies is an indispensable condition for the achievement of agricultural productivity, poverty eradication and the stimulation of growth in other sectors of the economy. The more farmers embrace new techniques, the more productive they are likely to benefit from those techniques and even enhance their welfare. On the area touching on access to financial services, banks and other financial institutions should encouraged farmers to be applying for loans and show the role of participating banks to enhance their agricultural activities and productivity. The banks should put more commitments in implementing favorable policies of granting loan so that agriculture production will be improved for their borrowers. Agricultures should recognize the practice and advantages of accumulated savings, which is often allowed to group when existing facilities are not fully adjusted. This can help the banks to hope that the loan will be paid and ensure sustainability of bank and customer friendly relationship. Such an approach allows farmers to have a more direct access to critical farm inputs, such as seeds and implements. The loans for these inputs are repaid when the farmer sends produce to the cooperative. The study also recommends that the project team should monitor and manage most of the activities of agricultural projects field staff yearly basis. In addition, it recommends that people who management projects should support project team adequately by offering them expert-led clear job designations and allocations, training them when necessary and supporting them in different ways. The project beneficiaries should be involved in management of the projects to enhance performance of the agricultural projects – the long duration for meetings to discuss progress of the projects must come in brought in at the onset of the project and should incorporate key stakeholders and other parties interested. Ultimately, the demonstration of the long-term impact of stakeholders' participation should be straightforward.

References

Alila, P. O., & Atieno, R. (2006). *Agricultural policy in Kenya: Issues and processes*. In A paper for the future agriculture's consortium workshop, institute of development studies (pp. 20-22).

- Amin, M. E. (2005). Social science research: Conception, methodology and analysis. Kampala: Makerere University Press.
- Ayari, D., & Boulila, G. (2022). The Role of Emotion and Calculative Self-Interest in Trust Perception: Case of the Dairy Value Chain. *Journal of African Business*, 1-21. https://doi.org/10.1080/15228916.2022.2039862
- Choudhury, A., Jones, J., & Opare-Addo, M. (2022). Perceived risk and willingness to provide loan to smallholder farmers in Ghana. *Journal of African Business*, 23(1), 23-40.
- Cohen, L., Manion, L., & Morison, K. (2008). *Research Methods in Education*. London: Routledge Falmer
- FAO (2015). FAO Statistical Yearbook 2015: Asia and the Pacific Food and Agriculture.
- Fukuda Parr, M., Lopes, E. & Malik, G. (2002). *Realist Evaluation: An Emerging Theory in Support of Practice'*, New Directions for Evaluation. San Francisco: Jossey-Bass.
- Hashim, N. (2014). How knowledge, policy planning, and implementation succeed or fail: the Jatropha projects in Tanzania. *Journal of African Business*, 15(3), 169-183.
- Inda, P., & Moronge, M. (2015). Determinants of successful implementation of domestic biogas projects in Kenya: a case of Githunguri Sub-County. *International Journal of Business and Law Research*, 3(1), 100-118.
- Karanja, G. (2013). Influence of management practices on sustainability of youth income generating projects in Kangema District, Murang'a County, Kenya. *International Journal of Education and Research*, 2(2), 1 12.
- MINAGRI (2018). Strategies for increasing on-farm productivity levels and reducing yield gaps. Presentation at the National Public Policy Dialogue organized by the Rwanda Civil Society Platform, Kigali, Rwanda.
- Morakile, G., Antwi, M. A., & Rubhara, T. T. (2022). Patterns of engagement for smallholder farmers in accessing government markets in South Africa. *Journal of African Business*, 23(3), 587-598.
- Ngechu. M. (2004), Understanding the research process and methods. An introduction. Starbright Services, Nairobi, Kenya.
- Oyugi, M.O.(2018). Determinants of performance of development projects, a case of Kenya agricultural productivity and agri-business project community interest groups in Nakuru County, Kenya. (Unpublished thesis of master's degree of Arts on Project Planning and Management). University of Nairobi, Nairobi, Kenya.
- Omanyo, L. B., & Moronge, M. (2018). Factors affecting performance of community development projects in Kenya, a case of Meru County. *The Strategic Journal of Business & Change Management*, 5(4), 109-125.
- Poostchi, B. (2016) *Accessing Other People's Technology: Do Nonprofit Agencies Need* it? How to Obtain it. EPTD Discussion Paper 79. Washington DC, USA: International Food Policy Research Institute (IFPRI).
- Teklehaimanot, M. L., Ingenbleek, P. T., & CM van Trijp, H. (2017). The transformation of African smallholders into customer value creating businesses: A conceptual framework. *Journal of African Business*, *18*(3), 299-319., https://doi.org/10.1080/15228916.2017.1297628
- Thilmany, J., (2014). Linking up: Successfully combining project and product management. International Review of Management and Business Research, 3(2), 78–85.
- USAID. (2013). The sustainability of donor- assisted rural water supply projects. United States: USAID.

Figure 1: Conceptual framework

Independent variables

Dependent variables

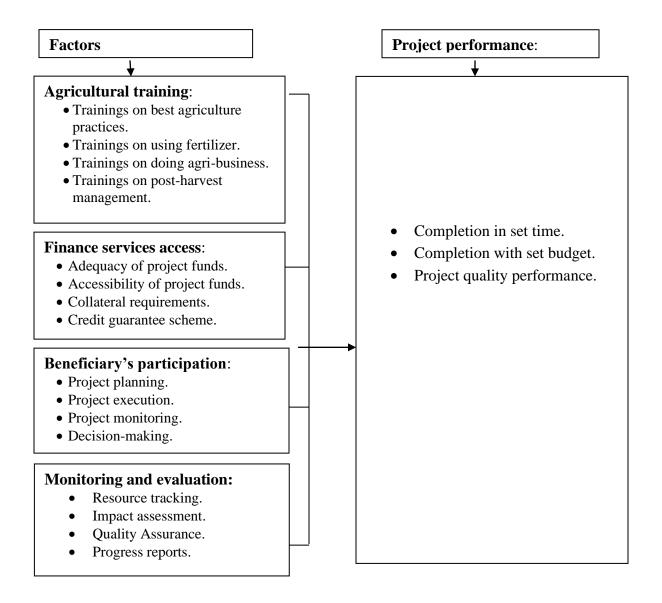


Table 1: Correlations analysis

	-	X1	X2	X3	X4	Y
Agricultural training	Pearson Correlation	1		_		
Finance services access	Pearson Correlation	.618**	1			
Monitoring and evaluation	Pearson Correlation	.504**	.435**	1		
Beneficiary's participation	Pearson Correlation	.410**	.335**	.662**	1	
Performance of IFVP	Pearson Correlation	.700**	.757**	.646**	.500**	1
	Sig. (2-tailed)	.000	.000	.000	.000	

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

Table 2: Model Summary

				Std. Error of the
Model	R	R Square	Adjusted R Square	Estimate
1	.741 ^a	.549	.536	.27083

a. Predictors: (Constant), Monitoring and evaluation, Finance services access, Agricultural training, Beneficiary's participation

Table 3: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.066	4	3.017	41.125	.000 ^b
	Residual	9.902	135	.073		
	Total	21.968	139			

a. Dependent Variable: Performance of IFVP

Table 4: Regression coefficients

_	Unstandardized Coefficients B Std. Error		Standardized Coefficients		
Model			Beta	t	Sig.
1 (Constant)	.569	.301		1.887	.061
Agricultural training	.239	.076	.245	3.133	.002
Finance services access	.190	.066	.216	2.883	.005
Monitoring and evaluation	.168	.068	.077	2.470	.004
Beneficiary's participation	.383	.084	.377	4.553	.000

a. Dependent Variable: Performance of IFVP

Performance of IFVP in Rwanda = $0.569+0.239X_1+0.190X_2+0.068X_3+0.383X_4$

b. Predictors: (Constant), Monitoring and evaluation, Finance services access, Agricultural training, Beneficiary's participation

The equation (Y = $\beta 0+\beta_1 X_1+\beta_2 X_2+\beta_3 X_3+\beta_4 X_4+\beta_5 X_5+\epsilon$) becomes: