Journal of Entrepreneurship & Project Management

Influence of Socio- Economic Factors on the Performance of Agricultural Projects: A Case of Rwanda Dairy Development Project, Musanze District, Rwanda

Levi Arnawii Zenawii & Dr. Sikubwabo Cyprien

ISSN: 2616-8464

Stratford Peer Reviewed Journals and Book Publishing
Journal of Entrepreneurship & Project Management
Volume 7||Issue 15||Page 21-38 ||November||2023|
Email: info@stratfordjournals.org ISSN: 2616-8464

Influence of Socio- Economic Factors on the Performance of Agricultural Projects: A Case of Rwanda Dairy Development Project, Musanze District, Rwanda

Levi Arnawii Zenawii[1] & Dr. Sikubwabo Cyprien[2]

[1]Master of Project Management, University of Kigali, Rwanda

[2] Senior Lecturer, University of Kigali, Rwanda

How to cite this article: **Zenawii, L. A. & Sikubwabo, C. (2023). Influence of Socio- Economic Factors on the Performance of Agricultural Projects: A Case of Rwanda Dairy Development Project, Musanze District, Rwanda.** ***Journal of Entrepreneurship & Project Management,*** **7(15), 21-38.** https://doi.org/10.53819/81018102t4228

Abstract

This study analyzed the influence of socioeconomic factors on the performance of agricultural projects within Musanze District. This analysis followed a noticeable underperformance of agricultural projects particularly in Musanze District. The study sought to assess the influence of education and training on the performance of agriculture projects in Musanze District, measure the influence of transportation cost on the performance of agricultural projects in Musanze District and to as well assess the influence of inflation and exchange rate on the performance of agriculture projects in Musanze District and finally, to assess the influence of capital availability on the performance of agricultural projects in Musanze District. The total population of the study was 140 respondents. These comprised of farmers, agronomists, veterinarians and project staff. Out of this population a sample size of 104 individuals was determined based on Yamane formula (1967). A mixed research approach was adopted for the collection of both quantitative and qualitative data, while descriptive statistics and regression analysis were used for the data analyses. The findings indicated that all of the four (4) socio-economic factors identified in the study significantly influenced the performance of agricultural projects within Musanze District. The test results indicated the various coefficients and significance levels of the variables as follows: education and training (β=0.536 and $P < 0.05$): Transport cost (β=0.748 and $P < 0.05$): Inflation and exchange rate (β=0.536 and $P< 0.05$): Capital availability (β=0.555 and $P < 0.05$):. The findings explicitly showed that all of the factors have statistically positive linear relationships with project performance within the Musanze District, and further emphasized the significant influence of those factors on the performance of agricultural projects within the district.

Keywords: *Under performance, mixed research, quantitative, qualitative, indispensable, adaptability, statistically*

Stratford Peer Reviewed Journals and Book Publishing
Journal of Entrepreneurship & Project Management
Volume 7||Issue 15||Page 21-38 ||November||2023|
Email: info@stratfordjournals.org ISSN: 2616-8464

1.0 Introduction

Agricultural projects provide fundamental sources of global food and nutritional needs for every nation. Despite the challenges faced by these projects, agriculture remains a priority sector that contributes significantly to both national and global economies. Over the past two decades, the Government of Rwanda has made tremendous investments in the nation's agricultural sector, which have engendered an unprecedented increased in farming population, with high level of gender competitiveness in agricultural projects across the country. According to UN Women, gender sensitivity and equality plays critical roles in the development of Rwanda's agricultural sector, and this has gained significant prominence within the sector over the past one decade. Gender equality is the condition in which access to rights and opportunities are unaffected by gender: this means that all genders are free to pursue whatever careers, choices, and abilities they want without discrimination. Currently more than 70 percent of Rwandan women are in engaged in farming activities, compared to pre- genocide Rwanda, when women were marginalized and relegated to subsistence farming. Many international organizations, including the World Food Program, the International Funds for Agricultural Development and UN Women have collaborated to build workable income generation initiatives and improve food and nutrition security in Rwanda (Randell, 2014).

According to the Ministry of Agriculture and Animal Research, (2019) annual reports, agriculture is currently the leading economic activity for the rural households and the principal source of income generation for millions of rural Rwandans. This sector involves active participation of key actors including women and youth and accounts for 70 percent of rural income and livelihood activities across the country. The sector contributes 72 percent of national employment and further accounts for 33 percent of the Gross Domestic Product and 63 percent of foreign exchange earnings, while contributing 90 percent to the Rwanda's food and nutritional needs. Despite these momentous roles of the agricultural sector in Rwanda's economy, there has been a noticeable underperformance of agricultural projects within many parts of the country, but most prominently in Musanze District. According to a report by food and agriculture organizations of the United Nations, global agricultural productivity and growth have slowed down in recent years, with average annual growth rate of only 1.7% between 2000 and 2014.

The World Health Organization, (2020) report on healthy diet, asserted that socio-economic and environmental factors are key influencers of diet. These three factors collectively serve as the key pillars upon which the future of every society is built. However, there is a lack of comprehensive research that identifies and analyzes these factors and their specific impacts on the performance of agricultural projects within Musanze District. This gap in knowledge hinders the development and implementation of effective strategies to improve the performance of these projects. Therefore, this study seeks to investigate those social economic factors influencing the performance of agricultural projects within the district. This exploration will help provide insights that would guide, farmers, policy makers and decision making in this critical sector.

1.1 Objective of the study

The general objective of the study was to assess the influence of socio-economic factors on the performance of agricultural project in Musanze District

https://doi.org/10.53819/81018102t4228

Specific objectives of the study:

i. To assess the influence of education and training on the performance of agriculture projects in Musanze District

ii. To measure the influence of transportation cost on the performance of agricultural projects in Musanze District

iii. To assess the influence of inflation and exchange rate on the performance of agriculture projects in Musanze District

iv. To assess the influence of capital availability on the performance of agricultural projects in Musanze District.

1.3 Research Hypothesis

The following research hypotheses were used to guide the study:

H_{01}: There is no significant influence of education and training on the performance of agricultural projects in Musanze District.

H_{02}: There is no significant influence of transportation cost on the performance of agricultural projects in Musanze District.

H_{03}: There no significant influence of inflation and exchange rate on the performance of agricultural projects in Musanze District.

H_{04}: There is no significant influence of capital availability on the performance agricultural projects in Musanze District.

2.1 Theoretical Review

The study relied on three acclaimed management theories to support its argument. These include: Maslow hierarchy of needs, Management and resource based view theories.

Maslow hierarchy of need theory

This theory states that every human being has five categories of needs, and these needs are categorized in a hierarchical order starting with the most basic or physiological needs. Maslow asserted that every individual must be able to satisfy their lower level needs in order to progress to higher-level needs (Kamara, 2023). Those needs can be applied to agricultural projects in various contexts: Physiological needs are the basic needs for human survival, such as food, water, adequate shelter and clothing. In the context of an agricultural project, this could translate to ensuring that all workers have access to these basic needs. This could involve providing meals during work hours, ensuring safe and comfortable living conditions for those who live on the farm, and providing adequate protective clothing and equipment (Healy, 2016). Maslow considered these needs as the most essentials of human needs, because they provide the fundamental needs for every human society. And these needs must be met in order to progress to the next level of need.

Fredrick Winslow Taylor Scientific management Theory

This theory is based on the assumption that organizations can be managed more efficiently and effectively through the use of scientific methods and principles. The theory is focused on improving productivity through the use of time and motion studies, and suggested that by breaking down tasks into smaller and more manageable parts can help optimize each step and can subsequently improve productivity and profitability. (Valizadeh, 2020).

https://doi.org/10.53819/81018102t4228

In an agricultural context, this could me studying the best methodology for planning, and harvesting crops and researching the optimal condition for each type of crops to thrive during challenging farming seasons. Furthermore, applying scientific approach could involve training, teaching and developing the workers and giving them clear instructions on how to perform specific tasks. It also means that management should corporate with workers by listening to their plight, feedbacks and making adjustment as necessary. This could involve holding regular meeting or considering pertinent suggestion and inputs from workers. Scientific approach could as well involve division of tasks and responsibilities amongst workers based on their skills and abilities.

Henri Fayol's administrative management theory

Achinivu, (2017) stressed the importance of the Fayol's principles to a startup and existing project organizations, and asserted that by focusing and driving project staff towards project goal and objectives offers them feelings of project ownership, thereby endeavoring to achieve the set objectives. The theory emphasized the importance of management functions such as planning, organizing, directing and controlling within organizations. The theory describes the key functions of management as, planning, organizing, directing, coordinating and controlling. In agricultural context, planning can involve setting goals for agricultural projects, such as yields targets, and crafting a plan to achieve them. Organizing could involve creating schedules, setting up systems for communication and coordination. On the other hand, directing could mean providing clear instruction and standard operating procedures for various tasks and providing guidance on how to perform specific tasks. Coordinating, in the context of agricultural project, could involve ensuring that the various tasks such as planting, harvesting schedules, and adequate use of machinery and shared resources are properly overseen. Meanwhile, control function in the context of agriculture could present an opportunity for monitoring progress towards projects; goals, correcting deviations and errors and making necessary adjustment, as well as providing regular progress reports and performance reviews.

The Resource-Based View (RBV) theory

The RBV theory is a popular approach in strategic management that focuses on the internal resources and capabilities of a firm as the primary sources of competitive advantage. According to Barney (2001), a firm's resources must be valuable, rare, inimitable, and non-substitutable (VRIN) in order to provide a workable and inexpensive benefit or competitive advantage. (Mikael, 2013), emphasized the importance of a firm's internal resources and capabilities in shaping its strategy and competitive position amongst firms. Barney, 2014 assumes that resources are not perfectly mobile across firms, and that firms face imperfectly competitive markets that call for use of resources and therefore, the theory can be applied to agriculture projects in various ways: In context of agriculture, the RBV theory can be used to identify key resources needed for a project to achieve sustained competitive advantage as well as the deployment and effective and efficient management of the resources. These can include tangible resources like land, water, seeds, machinery and team resources. The RBV theory can also be applied in assessing resource heterogeneity to determine whether they are easily imitated or not. This can help to determine how one project's resources differ from those of other projects. According to RBV theory resources that are unique and hard to imitate can provide competitive advantage more than those easily imitated. The use of these theories in this study essentially helped to provide a well-structured approach to understanding and explaining how the variables used in this research correlate (Khalid, 2014).

https://doi.org/10.53819/81018102t4228

Stratford Peer Reviewed Journals and Book Publishing
Journal of Entrepreneurship & Project Management
Volume 7||Issue 15||Page 21-38 ||November||2023|
Email: info@stratfordjournals.org ISSN: 2616-8464

2.2. Conceptual framework

This conceptual framework perused the dynamics of the influence of socio-economic factors on the performance of agricultural projects in Rwanda, specifically In Musanze. The analysis of the empirical relationship between the Influence of socio-economic factors (independent variables) and the performance of agricultural projects (dependent variable) shall be measured as per the below conceptual framework.

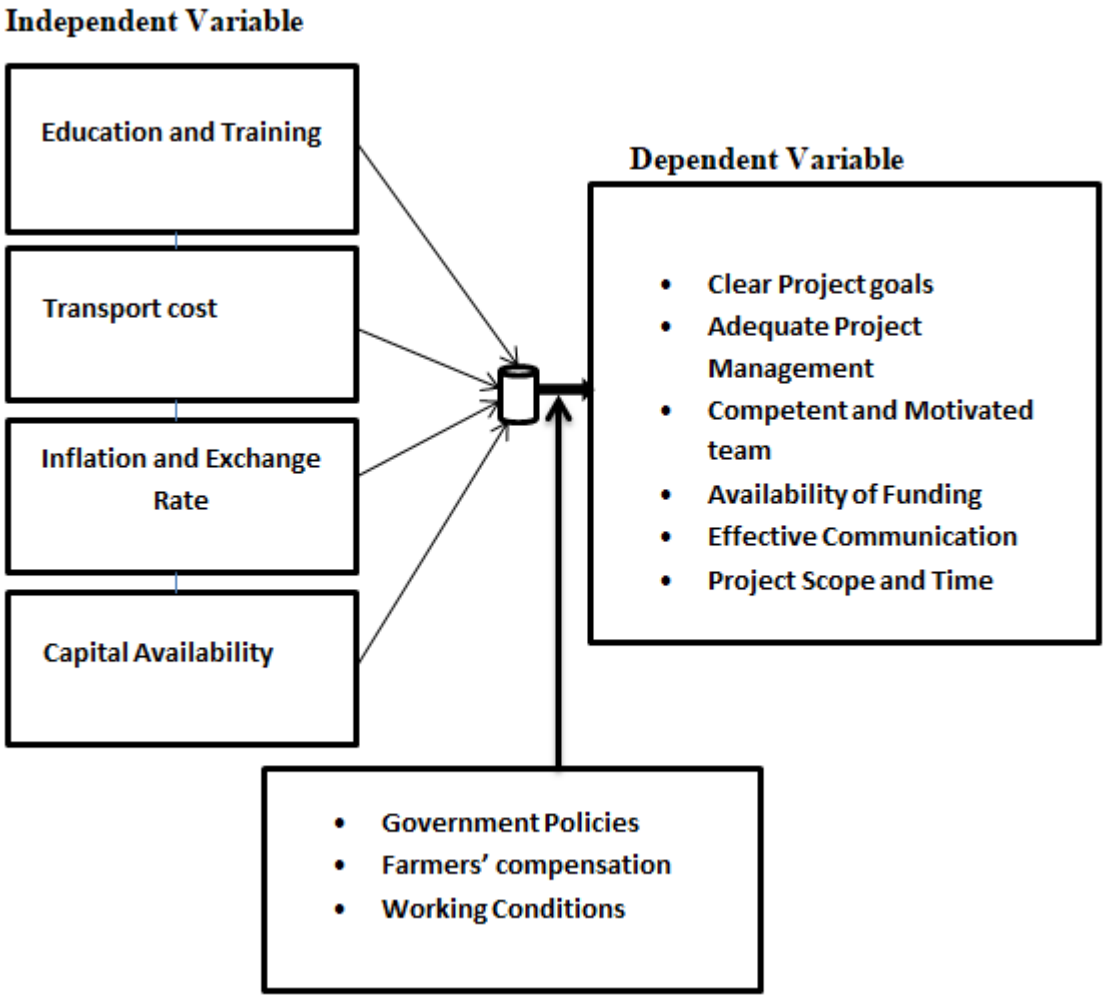

Figure 1: Conceptual Framework

3.0 Research Methodology

This study employed a mixed research methodology to generate and analyze both quantitative and qualitative data used in the study. A mixed research design is a type of research methodology that combines both quantitative and qualitative research methods for collecting and analyzing data in a single research in order to provide understanding of the research problems (Saraswati, 2021). This approach allows the researcher to gather both numerical data and subjective insight from participants by using data collection instrument, such as questionnaires and interview as well as

https://doi.org/10.53819/81018102t4228

Stratford Peer Reviewed Journals and Book Publishing
Journal of Entrepreneurship & Project Management
Volume 7||Issue 15||Page 21-38 ||November||2023|
Email: info@stratfordjournals.org ISSN: 2616-8464

observation and focus group. The both methods helped to present detailed analysis of the research variables.

3.1 Target Population

Target population refers to precise groups or objects that form the subject that a researcher intends to study (Ndjama, 2020)**.** This group is usually characterized by particular attributes that admirably distinguishes them from the general population**.** This study identified a total of 140 targeted populations, which was comprised of farmers, sector veterinarians, cell agronomists and project representatives from within the Kinigi, Nyange and Musanze sectors

3.2 Sampling

Sampling is a method of choosing subsets of observations from the main population of a study (Mujere, 2016). The researcher utilized both simple random sampling and purposive sampling methods to select the respondents for the study. The essence of this process was to help researcher gather data that is characteristically representative of the larger group that are effectively manageable.

3.3 Sample size

A sample size is a group of item or individuals that are included in a research to help generate meaningful conclusions about a larger population. The sample size used in this study was 104 respondents, selected from the total population of 140. It represents the number of individuals, items, or data points selected from a larger population that is representative of the population of the study. The sample used in this research was determined using (Yamane, 1967) formula as indicated below:

n = N/1+N (e) ^{2}

Where **n** represents the desired sample size, while N represents the total population size and e the margin of error of 5% at 95 confidence level and constant represents 1

$$\text{Therefore: } \mathbf{n}=\frac{140}{1+140*(0.05)^2}=\frac{140}{1.35}=104$$

The result from the above calculations shows that the targeted population (N) of the study was 140, out of which the desired sample sizes (n) of 104 participants were chosen. The research used both simple random and purposive sampling methods to select the sample size of hundred and four individuals, which was comprised of farmers, sector veterinarians, agronomists and projects representatives from within the three beneficiary sectors; Musanze, Kinigi, and Nyange sectors. Simple random sampling is a type of probability sampling in which all participants in the research has equal chance of inclusion in the sample and each sample having the probability of been selected, while purposive sampling on the other hand is the non-probability sampling method in which the researcher targets and selects specific units from study population, simply because they are characteristically important for generating pertinent information for use in the research (Shanti, 2011).

3.4 Data collection Method and Instrument

Data collection in research refers to a systematic process of gathering observation or measurement, which enables researcher to gain first- hand knowledge and original insights into research problems. In this study, the data collection methods used to gather data from respondents in the

https://doi.org/10.53819/81018102t4228

Stratford Peer Reviewed Journals and Book Publishing
Journal of Entrepreneurship & Project Management
Volume 7||Issue 15||Page 21-38 ||November||2023|
Email: info@stratfordjournals.org ISSN: 2616-8464

field were questionnaire and interview, conducted by the researcher. A five point Likert scale ratings ranging from (5= 80 and above, 4= 70-79, 3= 50-69, 2= 40-49, 1= 0) were utilized by the researcher to examine the variable's significance and to identify respondents opinions on the relationship between the variables. A Likert measure is a type of ordinal scale that is intended to assess respondents' levels of disagreement or agreement on the issues under consideration (Joshi, 2015).

The questions used in the study were fashioned in two categories: the first category specifically dealt with socio-demographic characteristics of the respondents, while the second was used to generate the respondents' opinions about the relationships between the independent and dependent. Codo (2009) maintained that questionnaires are lists of written questions or items designed for purpose of statistical study containing clear choices among which respondents are to select answers, while interviews are formal and detailed oriented conversation between interviewer and interviewee.

3.5 Validity and reliability test

Accuracy and consistency are important components of research questions (Tahendoost, 2016). Hence, in order to measure the strengths and dependability of the instruments used in this research, the researcher conducted a Cronbach's alpha test along with a pilot study. In research, a Cronbach's alpha is a consistency coefficient that signifies how well questionnaire items correlate. In validity and reliability analyses, a score of 1 indicates higher internal consistency and reliability while 0.7 to 0.9 indicate acceptable internal consistency and reliability (Zinbarg, 2005) .The essence of the pilot study was to determine whether the questionnaires could generate expected results.

Table 1: Pilot study results

Variables	Number of Item	Croanbach's Alpha	Comments
Education and training	10	0.732	Accepted
Transport costs	10	0.846	Accepted
Inflation and exchange rate	10	0.732	Accepted
Capital availability	10	0.708	Accepted
Overall reliability		0.900	Accepted

The results in the Table 1 above show that the Cronbach's alpha values for each of the variable in the table was above 0.7, and the total Cronbach's value amounted to 0.900. An alpha value of 0.7 and above is generally considered acceptable. This means that the items in the scale are sufficiently consistent and indicate that the measure is reliable and correlated to each other, thereby measuring the same underlying construct. Internal consistency increases the predictability of tests or scales, while Cronbach's' alpha is the measures of reliability, especially internal consistency of a scale or test.

3.6 Data Analysis

The researcher used Statistical Package for Social Sciences (SPSS) to perform all calculations and to generate the relevant tables in the research. The researcher also employed various statistical methods including descriptive statistics (percentages, frequencies, mean and standard deviations) and regression analysis to determine the correlation between the predictor variable (socioeconomic

Stratford Peer Reviewed Journals and Book Publishing
Journal of Entrepreneurship & Project Management
Volume 7||Issue 15||Page 21-38 ||November||2023|
Email: info@stratfordjournals.org ISSN: 2616-8464

factors) and the response variable (performance of agricultural projects). According to Sarstedt (2014), regression analysis in research, is a statistical method that is used to examine relationship between two or more variables of concern, and descriptive statistic on the other hand is used to summarize and describe the main features of a dataset in a study.

4. Research Findings

This chapter consists of data presentation, analysis and interpretation of findings. The essence of these various techniques were to assess the influence of education and training, transportation cost, as well as the influence of inflation and exchange rate and to finally determine the influence of capital availability on the performance of agricultural projects in Musanze District.

Table 2: Correlation Matrix on socio-economic factor

Factors		Factor1	Factor2	Factor3	Factor4	Factor DV
Education And training	Pearson Correlation	1	.631	1.000	.629	.534
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	100	100	100	100	.100
Transport Cost	Pearson Correlation	.631	1	.631	.552	.734
	Sig. (2-tailed)	.000		.000	.000	.000
	N	100	100	100	100	100
Inflation And Exchange Rate	Pearson Correlation	1.00	.631	1	.629	.534
	Sig. (2-tailed)	.000	.000		.000	.000
	N	100	100	100	100	100
Capital Availability	Pearson Correlation	.629	.552	.629	1	.548
	Sig. (2-tailed)	.000	.000	.000		.000
	N	100	100	100	100	100
Performance of Agriculture Project	Pearson Correlation	.534	.734	.534	.548	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	100	100	100	100	100

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

Table 2 presented a correlation matrix on the various social economic factors identified in the study, as displayed above. A thorough analysis of the coefficients of the various socio-economic factors and their significance levels (P-value) presented critical insights as follows:

Education and training factors revealed a Pearson coefficient of 0.534 and a significance of level $P<0.05$. This result suggested that there is a statistically significant positive correlation between education and training and the performance of agricultural project within the district. On the other hand, the P-value also indicated that education and training had significant influence on the performance of agriculture within the Musanze District. Therefore, the null hypothesis (H1) was rejected, while the alternative hypothesis accepted. The result implied that education and training

https://doi.org/10.53819/81018102t4228

are very crucial in the performance of agricultural projects within the district, and must be given maximum consideration in terms of resource allocation and adequate planning and implementation. Transport cost factor also revealed a coefficient of 0.734 and a significant level $P<0.05$. The relatively high coefficient of this factor implied that there was statistically strong correlation between transport cost and the performance of agriculture project within the district, while the P-value showed that transport cost had significant influence on performance of agriculture project. The statistical analysis drawn from the matrix confirms that there is significant relationship between transport cost and the performance of agricultural projects within Musanze District. Therefore, the null hypothesis (H2) was rejected, while the alternative hypothesis accepted. The result implied that transportation played a pivotal role in the development of agricultural projects within the district, and therefore, requires much attention and employment of adequate resources to sustain its continual supports to the sector.

The analyses of inflation and exchange rate factor presented a coefficient of 0.534 and significance level of ($P<0.05$). The coefficient showed that there was moderate linear correlation between the independent and dependent variables, while the P-value suggest that inflation and exchange rate had significant influence on the performance of agriculture projects within the district. This statistical revelation invalidated the null hypothesis (H3), while the alternative hypothesis was accepted. The result implied that inflation and exchange rate are critical factors in agricultural projects' performance and must be appropriately considered during project planning so as to adapt to the changing conditions of the market.

The evaluation of capital availability unveiled a coefficient of 0.548 and a significant level of $P<0.05$. The coefficient implies that there is a statistically moderate linear correlation between capital availability and the performance of agriculture project within the district. The P-value on the other hand, showed that capital availability had significant influence on the performance of agricultural projects within the Musanze District. This result suggested that the null hypothesis (H4) was rejected and the alternative hypothesis accepted. The results further emphasized the indispensible roles of capital availability in performance of a sustainable agricultural project within the district.

Table 3: Model Summary on influence of education and training on the Performance of agricultural project

Model	R	R square	Adjusted R Square	Std. error of Estimate
1	.534	.285	.278	.37643

Predictor variable: education and training

Source: Field data 2023

The model summary presented in Table 3 indicated the summary statistics of the regression model used to measure the influence of the education and training on the performance of agricultural project in Musanze District. The results of the analysis revealed that the value of R-Square was 0.285: which implied that 28.5% of the variance in the response variable (performance of agriculture project) can be explained by education and training activities within the district, while the remaining variation is caused by factors other than predictors included in this model. The

Stratford Peer Reviewed Journals and Book Publishing
Journal of Entrepreneurship & Project Management
Volume 7||Issue 15||Page 21-38 ||November||2023|
Email: info@stratfordjournals.org ISSN: 2616-8464

coefficient (R= 0.534) shows that there is a significant positive linear correlation between the independent and dependent variables.

Table 4: Analysis of the variance of influence of education and training on agricultural Projects

Model		Sum of square	DF	Mean square	F	Sig.
1	Regression	5.540	1	5.540	39.014	.000[b]
	Residual	13.886	98	0.142		
	Total	19.426	99			
A	Predictor Variable : (constant), Education and training					
B	Response Variable: Performance of agricultural Projects					

Source: Field data 2023

The examination of the variance (ANOVA) for the regression model used to measure the influence of education and training on agricultural projects in Musanze District, as displayed in Table 4 above, revealed that: ($F=39.014$ and $P < 0.05$). This implied that education and training activities have significant influence on the conduct of agricultural activities in Musanze District.

Table 5: Regression Coefficient analysis on influence of education and training Coefficient

Model		Unstandardized Coefficient		Standardized Coefficient	t	Sig.
		B	Std. error	Beta	4.739	.000
	Constant	1.281	.270			
1	Education and training				6.253	.000
		0.536	.086	0.534		
a.	Dependent variable: Performance of agricultural Projects					

Source: Field data (2023)

The outcomes in Table 5 signified a coefficients analysis for exploring the influence of education and training on agricultural related projects in Musanze District. The Y- value of 1.281, specified the predicted mean value of the dependent variable (Performance of agriculture project), when the predictor variable (education and training) was assumed to be zero (0). The coefficient estimate for the education and training factors was ($\beta=0.536$), suggesting that a unit increased in education and training activities within the district led to 0.536 increased in the performance of agricultural projects' activities within the district. At the significant level of ($P<0.05$) exhibited a significant influence of education and training on performance of agricultural project in Musanze District. The result can be illustrated in an equation follows:

$Y = \alpha + \beta x + \in$

$Y = 1.281 + 0.536X + \in$

When Ý= agricultural projects performance, α = constant term, X = education and training and $\in$= error term, while β =Beta coefficient

https://doi.org/10.53819/81018102t4228

Stratford Peer Reviewed Journals and Book Publishing
Journal of Entrepreneurship & Project Management
Volume 7||Issue 15||Page 21-38 ||November||2023|
Email: info@stratfordjournals.org ISSN: 2616-8464

Table 6: Model Summary Influence of transport cost on the Performance of agricultural project

Model	R	R square	Adjusted R Square	Std. error of Estimate
1	.734	.538	.533	.30259

Predictor variable: (constant),Transport cost

Source: Field data (2023)

Model summary presented in Table 6 quantified the summary statistics of the model designed to determine the extent to which transport costs influenced the performance of agricultural project within Musanze District. The result of the analysis revealed that the value of R-Square is 0.538: this implied that 53.8% of the change in the performance of agriculture project can be explained by transport cost factors within the district, while the remaining variation is caused by factors other than predictors included in this model. The coefficient (0.734) indicated a substantial positive linear correlation between both the independent and dependent variables.

Table 7: Analysis of variance of influence of transport cost on the Performance of agricultural project

Model		Sum of square	DF	Mean square	F	Sig.
1	Regression	10.453	1	10.453	114.167	.000[b]
	Residual	8.973	98	0..092		
	Total	19.426	99			

a Predictor Variable : (constant), Transportation cost

b Response Variable: Performance of agricultural Projects

Source: Field data (2023)

The analysis of the variance (ANOVA) for the regression model used to measure the influence of transport cost on agricultural projects in Musanze District, as established in table 7 above revealed that: ($F=114.167$ and $P< 0.05$). The results suggested that transport cost have significant influence on the performance of agricultural related projects within Musanze District.

Table 8: Regression Coefficient analysis on influence transport costs on the Performance of agricultural project

Model		Unstandardized Coefficient		Standardized Coefficient	t	Sig.
		B	Std. error	Beta		
1	Constant	.743	.209		3.582	.000
	Transport cost	.748	.070	.734	10.685	.000

a. Dependent variable: Performance of agricultural Projects

Source: Field data (2023)

Table 8 presented the coefficients analysis for examining the influence of transportation cost on agricultural related projects within Musanze District. The Y-value of 0.743, indicated the predicted mean value of the dependent variable (Performance of agriculture project) when the predictor variable (transportation cost) is assumed to be zero (0). The coefficient estimate for

https://doi.org/10.53819/81018102t4228

Stratford Peer Reviewed Journals and Book Publishing
Journal of Entrepreneurship & Project Management
Volume 7||Issue 15||Page 21-38 ||November||2023|
Email: info@stratfordjournals.org ISSN: 2616-8464

transportation cost is (β = 0.748), suggesting that a unit increased in transport cost led to a 0.748 increased in the cost of agricultural projects within the district, thus signifying positive linear correlation between the variables: At the significant level (P<0.05) reflected a significant influence of transportation cost on performance of agriculture project within Musanze District. The result can be illustrated in an equation follows:

$Y = \alpha + \beta x + \in$

$Y = 0.743 + 0.748X + \in$

When Ý= Performance of agricultural projects, α = constant term, X = education and training and ∈= error term, while β =Beta coefficient

Table 9: Model Summary on influence of inflation and exchange rate on the Performance of agricultural project

Model	R	R square	Adjusted R Square	Std. error of Estimate
1	.534	.285	.278	.37643
Predictor variable: (constant),Transport cost				

Source: Field data (2023)

The model summary presented in Table 9 was used to determine the extent to which the inflation and exchange rate factors influenced the performance of agricultural project within Musanze District. The result of the analysis suggested that the value of R-Square is 0.285. This therefore, suggested that 28.5% of the changes in the performance of agricultural related projects within the district was associated with inflation and exchange rate factors, while the remaining variation is caused by other factors other than the predictors contained in this model. The coefficient (R= 0.534) showed that there was a positive linear correlation between the variables.

Table 10: Analysis of variance of inflation and exchange rate on the Performance of agricultural project

Model		Sum of square	DF	Mean square	F	Sig.
1	Regression	5.540	1	5.540	39.014	.000[b]
	Residual	13.886	98	0.142		
	Total	19.426	99			
A	Predictor Variable : (constant), inflation and exchange rate					
B	Response Variable: Performance of agricultural Projects					

Source: Field data (2023)

The analysis of the variance (ANOVA) for the regression model used to measure the influence of inflation and exchange rate on agricultural related projects in Musanze District exhibited in table 10 above revealed that: (F=39.014 and P< 0.05); these values implied that inflation and exchange rate have significant influence on the agricultural initiatives within Musanze District.

https://doi.org/10.53819/81018102t4228

Stratford Peer Reviewed Journals and Book Publishing
Journal of Entrepreneurship & Project Management
Volume 7||Issue 15||Page 21-38 ||November||2023|
Email: info@stratfordjournals.org ISSN: 2616-8464

Table 11: Regression Coefficient analysis on influence of inflation and exchange rate on the Performance of agricultural project

Model		Unstandardized Coefficient		Standardized Coefficient	t	Sig.
		B	Std. error	Beta	4.739	.000
1	Constant	1.281	.270			
	Education and training	.536	.086	.536	6.283	.000
a. Dependent variable: Performance of agricultural Projects						

Source: Field data (2023)

Meticulous examinations of the regression coefficients on inflation and exchange rate, in Table 11 above, explored the influence of inflation and exchange factors and define the extent of their influences on agricultural related projects within Musanze District. The Y- value of 1.281, indicated the predicted value of the dependent variable (Performance of agriculture project) when the predictor variable (inflation and exchange rate) was assumed to be zero (0). The coefficient estimate for inflation and exchange rate ($\beta = 0.536$), suggested that a unit increased in inflation and exchange rate factors led to 0.536 increased in the cost of agricultural projects within the district. The significant level where ($P < 0.05$) indicated that there is significant influence of inflation and exchange rate on performance of agriculture project in Musanze District. The result equation can be illustrated as follows:

$Y = \alpha + \beta x + \in$

$Y = 1.281 + 0.536X + \in$

When Ý= Performance of agricultural related projects, α = constant term, X = education and training and $\in$= error term, while β =Beta coefficient.

Table 12: Model Summary on influence of capital availability on the Performance of agricultural project

Model	R	R square	Adjusted R Square	Std. error of Estimate
1	.548	.301	.294	.37231
Predictor variable: (constant), capital availability				

Source: Field data (2023)

This model summary presented in Table 12 described the summary analysis used to determine the influence of the capital availability on the performance of agricultural projects within Musanze District. The result of the analysis revealed that the value of R-Square was 0.301. This result showed that 30.1% of the changes in the performance of agriculture projects within the district can be attributed to the variations in capital availability, while the remaining variation is caused by other factors other than predictors contained in this model. The coefficient (0.548) revealed that both the independent and dependent variables had positive linear relationship.

https://doi.org/10.53819/81018102t4228

Stratford Peer Reviewed Journals and Book Publishing
Journal of Entrepreneurship & Project Management
Volume 7||Issue 15||Page 21-38 ||November||2023|
Email: info@stratfordjournals.org ISSN: 2616-8464

Table 13: Analysis of variance of capital availability on the performance of agricultural Projects

Model		Sum of square	DF	Mean square	F	Sig.
1	Regression	5.842	1	5.842	42.145	.000[b]
	Residual	13.584	98	0.139		
	Total	19.426	99			
a	Predictor Variable : (constant), Capital availability					
b	Response Variable: Performance of agricultural Projects					

Source: Field data (2023)

A thorough analysis of the variance (ANOVA) for the regression model used to establish the effects of capital availability on agricultural projects in Musanze District, as exhibited in table 13 above, revealed that: ($F=42.145$ and $P< 0.05$), indicating that capital availability had statistically significant influence on the performance of agricultural activities within Musanze District.

Table 14: Regression Coefficient analysis on influence capital availability on agricultural projects

Model		Unstandardized Coefficient		Standardized Coefficient	t	Sig.
		B	Std. error	Beta		
1	Constant	1.309	.256		5.106	.000
	Education and training	.555	.086	.548	6.492	.000
a.	Dependent variable: Performance of agricultural Projects					

Source: Field data (2023)

A rigorous analysis of the regression coefficients on capital availability factor, in Table 14 above, unveiled the influence of capital availability factor on the performance of agricultural project in Musanze District as follows: The constant value (1.309) revealed the predicted mean value of the dependent variable (Performance of agriculture project), when the predictor variable (capital availability) was assumed to be zero (0). The coefficient estimate for capital availability ($\beta = 0.555$), suggested that a unit increased in capital availability led to 0.555 units increased in the performance of agriculture projects within the district, signifying a positive linear correlation between the variables. The significance level ($P< 0.05$) established that there was a significant influence of capital availability on performance of agriculture project in Musanze District. The result equation can be illustrated as follows:

$$Y = \alpha + \beta x + \in$$

$$Y = 1.309 + 0.555X + \in$$

When Ý= The performance of agricultural related projects, α = constant term, X = education and training and $\in$= error term, while β =Beta coefficient.

https://doi.org/10.53819/81018102t4228

Table 15: Results of Hypothesis Test

No.	Hypothesis	P –value	Verdict
1	There is no significant influence of education and training on the performance of agricultural projects in Musanze District	**0.000**	**Rejected**
2	There is no significant influence of transportation cost on the performance of agricultural projects in Musanze District	**0.000**	**Rejected**
3	There is no significant influence of inflation and exchange rate on the performance of agricultural projects in Musanze District.	**0.000**	**Rejected**
4	There is no significant influence of capital availability on the performance of agricultural projects in Musanze District	**0.000**	**Rejected**

Source: Primary data 2023

5.0 Conclusions

In conclusion, the comprehensive exploration into the influence of socio-economic factors on the performance of agricultural projects in the Musanze District has provided valuable insights that contributed to our knowledge of the intricate interplay between various elements within this context. The study's objectives were meticulously perused, and the findings reveal a many-sided landscape that underscored the significance of these factors in shaping project outcomes.

Through the lens of education and training, it was established that continuous learning and skill development hold the potentials to substantially enhance project performance. The positive correlations between education-related factors and agricultural projects performance underscore the need for ongoing training initiatives to empower farmers and stakeholders with the tools to navigate modern agricultural challenges. The research into transportation clarifies the critical role of logistics in the success of agricultural projects. Efficient transportation systems positively impact project performance by enabling increased competition and facilitating support for national food security initiatives. The close relationship between transportation dynamics and project outcomes emphasized the need for strategic planning to optimize transportation networks.

The exploration of inflation and exchange rate dynamics emphasized the adaptability required to navigate economic fluctuations. The findings highlighted that maintaining produce quality and aligning organizational objectives with economic realities can mitigate the harmful influence of these factors and even lead to improved project performance. In terms of capital availability, the study established a clear link between financial resources and project success. The positive correlation between capital accessibility and project outcomes underscores the importance of securing adequate funding and exploring opportunities for collaboration and investment in the agricultural sectors. As manifested in the various outcomes of the analyses, the socio-economic factors examined in the research are not isolated components but intricately intertwined elements that collectively determine the success of agricultural projects within Musanze district, since they all have positive linear relationships with the performance of agriculture project within the district. The summary of the insights offer valuable guidance for stakeholders and policymakers to make informed decisions that enhance the performance and sustainability of agricultural undertakings in the Musanze District.

https://doi.org/10.53819/81018102t4228

6.0 Recommendations

Based on the comprehensive findings derived from this research, the following recommendations are presented to guide stakeholders, policymakers, and agri-practitioners in enhancing project outcomes and fostering sustainable development:

Stakeholders and policy within the agricultural sector allocate resources to continuous educational and training programs to enhance the skills of farmers and project participants on modern farming techniques through Workshops, seminars, and training sessions and activities within the project beneficiary communities.

Key agricultural Stakeholders should collaborate with relevant authorities to improve transportation infrastructure by upgrading road networks, investing in efficient vehicle fleets and foster partnerships with logistics providers to explore technological solutions that can optimize transportation routes in order to ensure the timely and cost-effective movement of farm produce

Project managers develop strategies that prioritize project success by aligning project objectives with economic realities, utilizing information dissemination and resource management as key strategies that enable their projects to thrive even in challenging economic conditions.

Agricultural practitioners and key stakeholders should explore avenues to enhance access to financial resources through collaboration with financial institutions, governmental agencies, and development organizations in order to provide avenues for farmers to secure capital, grants, and subsidies to facilitate their farming projects.

Acknowledgement

I am sincerely grateful to Almighty God, my Heavenly Father, for granting me the strength and resilience to successfully journey through this study. With gratitude of heart, I would like to extend millions of thanks and appreciations firstly to my supervisor, Dr. Sikubwabo Cyprien for his numerous supports throughout this work.

REFERENCES

Aditya, R. K. (2020). Rural Finance, Capital constrained Small Farms, and Financial Performance: Finding from a Primary Survey. *Journal of Agriculture and Applied Economic, Volume 52, Issue2, May 2020, pp.288-307*, pp,288-307.

Ainembazi, J. &. (2014). The roele of farming experience on the adoption of agricultural technologies: Evidence from smallholder farmers in Uganda. *Journal of Development studies*, (10),50.

Araoye, O. A. (2009). The impact of transportation on agricultural production in a developin country|: A case of Kolanut production in nigeria. *International Journal of Agricultural Economics and Rural Development*, (51) 51-56.

Codo, E. (2009). *Interviews and Questionnaires.* Oxford, UK: Blackwell.

Darmawan, A. K. (2023, April 12). Farmers' motivation and obstacles in small available agricultural region. *Global Journal of Environmental Science and Management*, 967-982.

https://doi.org/10.53819/81018102t4228

D'souza, J. G. (2016). The universal sigificance of Maslow concept of self-acualization. *The humanistic Psychologist*, 44(2),210-214.

Fischer, S. (2001). Inflation and the Poor,. *Journal of Money,*, 160-178.

Hale, A. R. (2019). Adopting Maslow Hierarchy of needs as a framwork for residence wellness. *Teaching and learning medicine*, 31(1), 109-118.

Healy, K. (2016). A Theory of human motivationby Abraham H.Maslow-Reflection. *The British Journal of Psychiatry*, 208(4),33.

Ikenna, N. O. (2023). Inflation, Exchange Rate and Agricultural Export in Nigeria. *Greener Journal of Biological Sciences 13(2): 91-98*, 91-98.

Joshi, A. (2015). Liker Skill: Explored and Explained. *British Journal of Applied Science and Technology*, 7(4) 396 - 403.

Kamara, V. S. (2023). A comparative analysis of the psychological concepts created by Abraham Maslow and Frederic Herzberg: In context of organizational study. *Journal of Survey in Fisheries Sciences*, 4068-4081.

Khalid Almarri, P. G. (2014). Application of Resource Based View Theory Project Management Research: Supporters and Opponents. *Procedia: Social and Behavior Sciences*, 437-445.

Mikael, A. M.-B. (2013, March 25). What influences farm size growth? an illustration in southwestern france. *Applied Economic Perspectives and Policy*, (1) 1-29.

Ministry of Agriculture and Animal Resources. (2019). *Annual Report 2019-2020.* Kigaili: MINAGRI.

Mujere, N. (2016). *Sampling in Research.* Hararre, Zimbabwe: IGI Gloal.

Ndjama, J. (2020, October Thursay). Research Foundation. *Target Population*, p. 4.

Randell, S. (2014). Sustainable Rural Development in Rwanda: The importance of focus on women in Agriculture. *International Journal of Agricultue Extension*, 35-50.

Saraswati, D. (2021, March 01). Mixed-methods research: A Discussion on its type, challenges, and criticisms. *Journal of Practical Studies in Education*, (25) 25-36.

Sarstedt, M. a. (2014). *Regression Analysis.* Berlin, Heidelberg: SPRINGER .

Shanti, B. M. (2011). *Handbook of Research Methodology: A compendium for scholar & Researcher (based on reivised syllabus of research methology of various universities).* New Delhi: Educreation Publishing.

Shanti, M. S. (2011). *Handbook of Research Methodology: A compendium for scholar & Researcher (based on reivised syllabus of research methology of various universities).* New Delhi: Educreation Publishing.

Tahendoost, H. (2016). Validity and reliability of Research Instruments, How to Test the Vailidity of Questionnaire/Survey in Research. *International journal of Academic Research i management*, 28-36.

Tara, G. (2013). Food sustainability: Problem, perspectives and solutions. *Proceeding of the Nutrition Society*, pp.29-39.

https://doi.org/10.53819/81018102t4228

Taylor & Francis Group. (2003, September 24). Scientific Management. 569 - 692. London, England, United Kingdom.

Valizadeh, N. B. (2020). *Agricultural: Research Application and Futture Orientations.* Zurich, Switzerland: Springer, Cham.

William Easterly, a. S. (2000). Inflation and the Poor. *Journal of Money, Credit and banking*, 160-178.

Zinbarg, R. R. (2005). Cronbach's, Revelle, and McDonald's: Their relations with each other and alternative conceptualization of reliability.Psychometrika, 70, 123-133. *Journal A-Z*, (70),123-133.

https://doi.org/10.53819/81018102t4228