

EFFECT OF PROJECT FORMULATION PROCESS ON SUSTAINABILITY OF GOVERNMENT PROJECTS IN RWANDA, A CASE STUDY OF PROJECT FOR RURAL INCOME THROUGH EXPORTS (PRICE)

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ABSTRACT

The general objective of this study was to assess the effect of project formulation process on sustainability of government projects in Rwanda. Specifically, the study intended to determine the relationship between project formulation process of government projects and their sustainability. The study adopted the correlation research design where quantitative methods of data collection and analysis were used. For this study the target population was 62 employees of all categories in the project. A sample size of 54 respondents was determined from a total population of 62 individuals. The primary data were collected using questionnaires. The data were collected, examined and checked for completeness and comprehensibility. The study findings, revealed that identification of tasks and their deliverables within Price was mainly done by putting in place a well detailed work breakdown structure or a list of all tasks that will be performed from the start to completion, identifying of all deliverables attached to each task in the Work Breakdown Structure to be performed from start to completion of the project as it was reported by 88.9% of the respondents, results of correlation between identification of tasks and their deliverables and Sustained increase of returns to farmers was at the rate of 0.787 meaning that the act of identifying tasks and their deliverables influence the sustained increase of return to farmers at the level of 78.7%. Research findings demonstrate that the correlation between identification of tasks and their deliverables and empowered capacity for rural farmers was at the rate of 0.685 revealing that empowered capacity for rural farmers is influenced by identification of tasks and their deliverable at the level of 68.5%. The result of correlation between identification of tasks and their deliverables and Sustained increase of economic opportunities for poor farmers as shown in the above table, was at the rate of 0.858. The collected and analyzed data during the course of this study showed the effect of the variables like identification of tasks and their deliverables, estimating resources needed to perform tasks, identification of the anticipated and known risks in executing the project, identifying stakeholders, their involvement and contribution are important for the project sustainability.

Key words: Project Formulation process, Government projects, Project sustainability

1. Introduction

Project formulation process comprises of those processes performed to establish the total scope of the project, define and refine the objectives and develop the course of action required to achieve these objectives. The project formulation defines the project activities and end results/products that will be performed and describes how the activities will be accomplished during the entire life of the project. The purpose of project formulation is to define each major task, estimate the time and resources required, provides a framework for management review and control of the project being implemented (Kezner, 2003). Careful and detailed formulation helps project formulators to reduce risks and in any given project. In meticulously formulated project, project planner attempts to make a provision for potential occurrences of uncertainties in advance. It is true that project formulation in advance, cannot take care of all unforeseen events, risks, and deviations nevertheless; it still, in a better position than having no format; since it helps to know what needs to be done, how to organize the project work and also, with well-formulated project, the project team can equip itself to respond aptly to potential risks, slippages, etc. Hence this practice may result into increased time, costs and resources saving (Kezner, 2003).

Project Formulation is a concise, exact statement of a project to set the boundaries or limits of work to be performed by the project. It is a formal document that gives a distinctive identity of the project and precise meaning of project work to prevent conflict, confusion, or overlap. Project formulation can be also defined as one of the stages in the lifecycle of a project (Dale et al., 2005). The formulation stage is also called Initiation, Conceptualization, Definition, and Pre-Project. This stage aims to carefully identify and weight various components of project work, identify the anticipated and known risks in executing the project, estimate resources needed to perform the tasks, defining the tasks to be performed and identify all deliverables associated with the project, identify stakeholders and their involvement and contribution, analyze project feasibility and cost-effectiveness, define benefits and expectations, perform a preliminary analysis of risks and make an outline of project schedule. Even if the above tasks are of great importance in the project formulation process; in order to ensure sustainability of the project, this study will focus on the major ones as highlighted below due to the fact that they are of big importance for a project to sustain and also the researcher could not have enough time to study all components as stated above. Identify the anticipated and known risks in executing the project, estimate resources needed to perform the tasks, identify stakeholders, their involvement and contribution and defining the tasks to be performed and identify all deliverables associated with the project. A project formulation process enables project managers to translate project requirements into Work breakdown structure (WBS), tasks list, Gantt charts, resource assignment and risk register, etc. Once project charter is approved, the project is formally initiated (Dale et al., 2005). Even if it has been argued that there is a general perception and belief that the project formulation process improves the performance and sustainability, Steiner (1979), points out that poor project formulation process may not translate into poor performance and sustainability of the project. He urges that for a project to be successful all the relevant stages of the project from initiation to evaluation should be given much emphasis so that a project is successful in terms of its performance and sustainability. He however noticed that the stage of project formulation process is a key in the sustainability and overall performance of the project since it tackles almost the entire issues that need to be addressed in the project after its initiation. These include; tasks and deliverables, quality, risk, scheduling, cost estimation, work breakdown structures etc.

2. Statement of the Problem

Cash and export crops such as coffee and tea have the potential to generate substantial income for poor farmers and generate employment in rural areas. However production also carries a risk for poor farmers because they may displace food crops; income is dependent on market prices and institutional structures around the value chain that enable the farmer to leverage profit; the start-up costs are substantial and the farmer is dependent on technical inputs and advisory services to enable sufficiently high production from poor soils. Whilst the majority of smallholders are poor there are significant variations in the levels of poverty and the resources and capacities of the poor. Project sustainability is still a big challenge in government projects in Rwanda, especial the agricultural projects. In order to ensure the project sustainability, it is of great importance to undergo a well detailed formulation process.

The project formulation process positively influence performance and sustainability of projects since it identifies tasks and their deliverables, estimates resources needed to perform tasks, identifies the anticipated and known risks in executing the project, identifies stakeholders, their involvement and contribution etc. However Government projects in developing countries like Rwanda continue to experience failure due to ineffective project formulation process, poor implementation process, poor project monitoring and evaluation, poor risk management practices and so forth (Rutaganira, 2008)

In Rwanda, especially in field of agriculture and livestock, there is a significant increase in projects aimed at improving the agricultural production. However most of them failed to achieve their objectives due to ineffective formulation process where some key aspects are overlooked. Therefore the researcher is eager to identify the gap as even when the project formulation process is well undertaken in these projects, we still have a lot of projects failing to achieve their expected results. Therefore, this research aims at investigating the effect of project formulation process on sustainability of government projects in Rwanda by survey the Project for Rural Income through Exports (PRICE). It also intends to highlight issues that affect sustainability of Government projects in Rwanda and introduces tools which can be used to enhance sustainability at project formulation stage.

3. Research Objectives

3.1 General Objective

The general objective was to investigate the effect of project formulation process on sustainability of government projects in Rwanda.

3.2 Specific Objectives

1. To establish the relationship between identification of tasks and their deliverables on sustainability of government projects in Rwanda
2. To assess the extent to which estimating resources needed to perform tasks affect sustainability of government projects in Rwanda
3. To determine the relationship between identification of the anticipated and known risks in executing the project affect sustainability of government projects in Rwanda
4. To examine how identifying stakeholders, their involvement and contribution affect sustainability of government projects in Rwanda

4. Research questions.

1. What is the relationship between identification of tasks and their deliverables and sustainability of government projects in Rwanda?
2. To what extent do estimating resources needed to perform tasks affect sustainability of government projects in Rwanda?
3. What is the relationship between identification of the anticipated and known risks and sustainability government projects in Rwanda?
4. How does identifying stakeholders, their involvement and contribution do affect sustainability government projects in Rwanda?

5. Research design

The researcher used correlation research design where quantitative methods of data collection and analysis were used; this will involve the collection of data from the respondents and analyzing their responses with the relation to the topic and area of the study.

6. Target population

The target population of this study was the employees working in Project for Rural Income. For this study the target population is equal to 62 employees of all categories in the project.

7. Sample size

For the purpose of this study, a sample size of 54 respondents will be determined from a total population of 62 individuals using the formula by Yamane (1967).

$$n = \frac{N}{1+N(e)^2} \quad \text{Therefore for this study; } n = \frac{62}{1+62(0.05)^2} = 54$$

8. Data collection

a. Data collection instruments

For this study, the primary data were collected by using questionnaires and they consisted of both open ended and close ended questions.

b. Data processing and analysis

The data collected were well examined and checked for completeness and comprehensibility. The data were then summarized, coded and tabulated. Descriptive statistics like means, standard deviation and frequency distribution were used to analyze data. Data presentation was done by the use of frequency tables for ease of understanding and interpretations. Inferential statistics such as regression and correlation analysis were used to describe the relationship between project formulation process and project sustainability of government projects in Rwanda.

9. Research findings and discussion

9.1 Introduction

This part presents the analysis of collected data and information within the questionnaires administered to the 54 employees. Responses are presented in tabular form and percentage weighting attached to various answers provided and relative importance of each critically analyzed.

9.2 General respondents' information

9.2.1 Gender of respondents

Respondents were asked to indicate their gender and the majority of respondents employed in PRICE project were Female as it is indicated by the table below.

Table 1 Gender of respondents

Gender	Frequency	Percent	Cumulative Percent
Female	28	51.8	51.8
Male	26	48.2	100.0
Total	54	100	

The above table shows that 51.8 % of respondents were female while 48.1% were male. Therefore, the majority of employees of PRICE project are females.

Table 2 Distribution of respondents according to their age

Age category	Frequency	Percent	Cumulative Percent
30 and below	5	9.3	9.3
31-40	34	62.9	72.1
41-50	15	27.8	100.0
Total	54	100.0	

The above table shows that large number of the respondents which is 62.9% of all respondents lied in category of 31 to 40 years; 27.8% of all the respondents are in the third age category, these are people aging from 41 to 50 years old. A very few number of respondents, 9.3% reported to be in the age category of 30 and below.

Table 3 Distribution of respondents by Education level

Education level	Frequency	Percent	Cumulative Percent
Diploma (A2)	6	11.1	11.1
Bachelor's degree	36	66.7	77.8
Master's degree	8	14.8	92.6
Doctorate degree	4	7.4	100
Total	54	100	

The above table shows that 66.7% of respondents acquired a Bachelor's degree while 14.8 % of respondents acquired Master's degree, only 7.4% of all respondents have a Doctorate degree; the study findings also revealed that 11.1% of all respondents have a Diploma.

Table 4 Distribution of respondents by years of services

Wk exp	Frequency	Percent
1 and less	2	3.7
2-3	25	46.3
Above 3	27	50
Total	54	100

The table above reveals that the majority of research respondents, 50% have spent more than three years working for PRICE project. 46.3% of the respondents have also spent 2 to 3 years working for this project, besides this the research findings also revealed that the project welcomes new blood inside the company this is proven by the 3.7% of respondents who have spent only one year or less working for PRICE.

9.1 Relationship between identification of tasks and their deliverables on sustainability of government projects in Rwanda

Table 5 Identification of tasks and their deliverables within Price

Identification of tasks and their deliverables	Frequency	Percent
Detailed WBS	54	100
Identification_of_deliverable_activity_WBS	48	88.9
Identification of milestones	32	59.2
Identification of technical requirements	54	100
Total	54	100

The study findings, revealed that Identification of tasks and their deliverables within Price was mainly done by putting in place a well detailed work breakdown structure (WBS) or a list of all tasks that will be performed from the start to completion according to all research participants, identifying of all deliverables attached to each task in the WBS to be performed from start to completion of the project as it was reported

by 88.9% of the respondents. 59.2% of the respondents revealed that Identification of tasks and their deliverables within PRICE is implemented through identification of all milestones signifying the important decision making points in the entire life cycle of the project. Lastly, 100% of respondent confirmed that Identification of tasks and their deliverables is done by identifying the technical requirements that were needed in each task to be performed within PRICE project.

Table 6 Correlation between identification of tasks and their deliverables and Sustained increase of returns to farmers

		Identification of task	Sustained increase of returns of farmers
Identif of task	Pearson Correlation	1	.787**
	Sig. (2-tailed)		.006
	N	54	54
Sustained increase of returns of farmers	Pearson Correlation	.733**	1
	Sig. (2-tailed)	.006	
	N	54	54

According to findings in the above table, results of correlation between identification of tasks and their deliverables and Sustained increase of returns to farmers was at the rate of 0.787 meaning that the act of identifying tasks and their deliverables influences the sustained increase of returns to farmers at the level of 78.7%. Therefore, the researcher concluded a strong relationship between identification of tasks and their deliverables and Sustained increase of returns to farmers. By considering the level of significance which is 0.05, there is a significant relationship between identification of tasks and their deliverables and Sustained increase of returns to farmers as their p-value (0.006) is statistically significant at 5% level of significance.

Table 7 Correlation between identification of tasks and their deliverables and Empowered capacity for rural farmers

		Identification of task	Empowered capacity for rural farmers
Identif of task	Pearson Correlation	1	.685**
	Sig. (2-tailed)		.005
	N	54	54
Empowered capacity for rural farmers	Pearson Correlation	.685**	1
	Sig. (2-tailed)	.005	
	N	54	54

Findings in the above table, demonstrate that the correlation between identification of tasks and their deliverables and empowered capacity for rural farmers was at the rate of 0.685 revealing that empowered capacity for rural farmers is influenced by identification of tasks and their deliverable at the level of 68.5%. This proves the high correlation between identification of tasks and their deliverables and empowered capacity for rural farmers. Furthermore, by considering the level of significance which is 0.05, there is a significant relationship between identification of tasks and their deliverables and empowered capacity for rural farmers due to their p-value (0.005) which is statistically significant at 5% level of significance.

Table 8 Correlation between identification of tasks and their deliverables and Sustained increase of economic opportunities for poor farmers

		Identif of task	Increase of eco opport for famers
Identif of task	Pearson Correlation	1	.858**
	Sig. (2-tailed)		.009
	N	54	54
Increase of eco opport for famers	Pearson Correlation	.858**	1
	Sig. (2-tailed)	.009	
	N	54	54

The result of correlation between identification of tasks and their deliverables and Sustained increase of economic opportunities for poor farmers as shown in the above table was at the rate of 0.858. This reveals a strong correlation between identification of tasks and their deliverables and Sustained increase of economic opportunities for poor farmers. Therefore a change in identification of tasks and their deliverables is highly correlated with change in the sustained increase of economic opportunities for poor farmers in this project.

Table 9 Identification of tasks and their deliverables on sustainability of government projects in Rwanda

		Identif of tasks	Project sustainability
Identif of tasks	Pearson Correlation	1	.941**
	Sig. (2-tailed)		.017
	N	54	54
Project sustainability	Pearson Correlation	.841**	1
	Sig. (2-tailed)	.017	
	N	54	54

The findings in the above table, revealed that the result of correlation between identification of tasks and their deliverables on sustainability of government projects in Rwanda was at the rate of 0.941 meaning that the identification of tasks and their deliverables influences on sustainability of government projects at the level of 94.1% hence a significant relationship between identification of tasks and their deliverables on

project sustainability. On the other hand, when the researcher considered the level of significance which is 0.05, there is a significant relationship between identification of tasks and their deliverables on sustainability of project because their p-value (0.017) is statistically significant at 5% level of significance.

Table 10 Estimate parameters between identification of tasks and their deliverables on project sustainability

Model	Unstandardized Coefficients	Sig.	95% Confidence Interval for B	
	B		Lower Bound	Upper Bound
Constant (β_0)	3.224	.000	1.859	2.587
Identif of task and deliv (X)	.112	0.017	-.376	.183

Dependent Variable (Y): project sustainability

Regarding to the information from the above table, if: Y= Project sustainability and X= Identification of tasks and deliverables, project sustainability will change in function of Identification of tasks and deliverables, Therefore, if identification of tasks and deliverables is equal to one unite and constant (β_0) is zero (0), project sustainability will increase 0.112 times Identification of task and delivery. Hence, $Y=3.224+0.112X$. There is a significant relationship between identification of tasks and their deliverables on project sustainability because their p-value (0.017) is statistically significant at 5% level of significance with lower bound of -3.76 and upper bound of .183.

9.2.2 Assessment of the extent to which estimating resources needed to perform tasks affect sustainability of government projects in Rwanda

Table 11 Respondents' perception on process documentation

Process documentation implementation	Frequency	Percent
Estimating all financial resources from start-end	51	94.4
Use of known methods for cost estimation	37	68.5
Estimating all needed human resources from start-end	49	90.7

The research findings revealed that, according to 94.4% of the research respondents reported that cost estimation was considering all resources that PRICE project will need since the beginning of the project up to its end, and 68.5% of respondents agree that while estimating cost managers were using known methods of cost estimation such as parametric estimating, analogous, expert judgment, bottom up etc. while 90.7% of respondents agree that cost estimation in PRICE was done also by taking into account the number of human resource the project need to work perfectly from the beginning up to its end.

Table 12 Correlation between estimating resources needed to perform task and Sustained increase of returns to farmers

		Resources estimation	Sustained increase of returns
Resources estimation	Pearson Correlation	1	.859**
	Sig. (2-tailed)		.007
	N	54	54
Sustained increase of returns	Pearson Correlation	.859**	1
	Sig. (2-tailed)	.007	
	N	54	54

Table above revealed that, the result of Correlation of estimating resources needed to perform task and Sustained increase of returns to farmers was at the rate of 0.859 meaning that the influence of estimating resources needed to perform task on sustained increase of returns to farmers is 85.9%. Therefore there is a significant relationship between estimating resources needed to perform task on sustained increase of returns to farmers. By considering the level of significance which is 0.05, hence there is a significant relationship between estimating resources needed to perform task on sustained increase of returns to farmers because their p-value (0.007) is statistically significant at 5% level of significance hence a high correlation between process estimating resources needed to perform task on sustained increase of returns to farmers.

Table 13 Correlation between estimating resources needed to perform tasks and empowered capacity for rural farmers

		Resources estimation	Empowered capacity for rural farmers
Resources estimation	Pearson Correlation	1	.963**
	Sig. (2-tailed)		.014
	N	54	54
Empowered capacity for rural farmers	Pearson Correlation	.963**	1
	Sig. (2-tailed)	.014	
	N	54	54

According to the above table, the result of Correlation of estimating resources needed to perform tasks and empowered capacity for rural farmers was at the rate of 0.963 meaning that estimating resources needed to perform tasks is significant to empower capacity for rural farmers at the level of 96.3% hence a significant relationship between estimating resources needed to perform tasks and empowered capacity for rural farmers. On the other hand, by considering the level of significance which is 0.05, there is therefore a significant relationship between estimating resources needed to perform tasks and empowered capacity for rural farmers because their p-value (0.014) is statistically significant at 5% level of significance.

Table 14 Correlation between estimating resources needed to perform tasks and Sustained increase of economic opportunities for poor farmers

		Resources estimation	Sustained increase of economic opportunities
Resources estimation	Pearson Correlation	1	.788**
	Sig. (2-tailed)		.026
	N	54	54
Sustained increase of economic opportunities	Pearson Correlation	.788**	1
	Sig. (2-tailed)	.026	
	N	54	54

The above table revealed that, the result of Correlation of estimating resources needed to perform tasks and Sustained increase of economic opportunities for poor farmers at the rate of 0.788 meaning that estimating resources needed to perform tasks contribute to sustained increase of economic opportunities for poor farmers at the level of 78.8%. Basing to this Pearson's correlation rate there is a significant relationship between estimating resources needed to perform tasks and Sustained increase of economic opportunities for poor farmers.

15 Correlation between estimating resources needed to perform tasks and project sustainability

		Resources estimation	Project sustainability
Rsrc estimate	Pearson Correlation	1	.861**
	Sig. (2-tailed)		.009
	N	54	54
Project sustainability	Pearson Correlation	.861**	1
	Sig. (2-tailed)	.009	
	N	54	54

The above table revealed that, the result of Correlation between estimating resources needed to perform tasks and project sustainability was 0.861 meaning that estimating resources needed to perform tasks influences project sustainability at the level of 86.1% which proves the strong relationship between estimating resources needed to perform tasks and project sustainability. If the researcher considers the level of significance which is 0.05, there is therefore a significant relationship between estimating resources needed to perform tasks and project sustainability because their p-value (0.009) is statistically significant at 5% level of significance.

Table 16 Estimate parameters between estimating resources needed to perform tasks and project sustainability

Model	Unstandardized Coefficients	Sig.	95% Confidence Interval for B	
	B		Lower Bound	Upper Bound
Constant (β_0)	2.209	.000	1.784	2.711
Resources estimation (X)	.095	.009	-.512	.274

a. Dependent Variable: Project sustainability

According to the information from table above, if: $Y =$ Project sustainability and $X =$ resources estimation, project sustainability will change in function of resources estimation, Thus, if resources estimation is equal to one unite and constant (β_0) is zero (0), project sustainability will increase 0.095 time resources estimation. Hence, $Y = 2.209 + 0.095X$. There is a significant relationship between estimating resources needed to perform tasks and project sustainability. Because their p-value (0.009) is statistically significant at 5% level of significance with lower bound of -.512 and upper bound of 0.274.

9.2.3 To determine the relationship between identification of anticipated and known risks in executing the project and its effect on sustainability of government projects in Rwanda

Table 17 Respondents' Perception on risk identification within the project

Risk identification	Frequency	Percent
Identification of known and unknown risks	50	92.6
Risks severity	34	63
occurrence and controllability	48	88.9
Risks prioritization	54	100

The study findings in table above revealed that, project managers performs Identification of known and unknown risks according to 92.6 % of all respondents, a 100.0% of all respondents, 70.8 % reported that the organization assess the risks in terms of severity of impact, likelihood of occurrence and controllability. Furthermore 88.9% of all respondents, confirm that when formulating PRICE activities, managers prioritize the risks. According to a 100.0% of all respondents, project managers have put in place a risk mitigation plan to reduce the risks which may affect the project sustainability.

Table 18 Correlation between identification of the anticipated and known risks in executing the project and Sustained increase of returns to farmers

		Identification of known and unknown risks	Sustained increase of returns to farmers
Identification of known and unknown risks	Pearson Correlation	1	.791**
	Sig. (2-tailed)		.016
	N	54	54
Sustained increase of returns to farmers	Pearson Correlation	.791**	1
	Sig. (2-tailed)	.016	
	N	54	54

The significance relationship between identification of the anticipated and known risks in executing the project and Sustained increase of returns to farmers was proved by results, in the above table, where the correlation between the two was at the rate of 0.791 meaning that the risk identification within a project influences a sustained increase of returns to farmers at the level of 79.1%. By also considering the level of significance which is 0.05, the researcher can conclude that there is a significant relationship between the above mentioned two variables because their p-value (0.016) is statistically significant at 5% level of significance.

Table 19 Correlation between identification of the anticipated and known risks in executing the project and Empowered capacity for rural farmers

		Identification of known and unknown risk	Empowered capacity for rural farmers
Identification of known and unknown risk	Pearson Correlation	1	.817**
	Sig. (2-tailed)		.008
	N	54	54
Empowered capacity for rural farmers	Pearson Correlation	.817**	1
	Sig. (2-tailed)	.008	
	N	54	54

Findings in the above table revealed that, the result of correlation of identification of the anticipated and known risks in executing the project and Empowered capacity for rural farmers was at the rate of 0.817 meaning that identification of the anticipated and known risks in executing the project empower the capacity for rural farmers. Basing on the level of significance which is 0.05, there is a significant relationship between identification of the anticipated and known risks in executing the project and Empowered capacity for rural farmers because their p-value equal to (0.08) which is statistically significant at 5% level of significance.

Table 20 Correlation between identification of the anticipated and known risks in executing the project and Sustained increase of economic opportunities for poor farmers

		Identification of known and unknown risks	Sustained increase of economic opportunities for poor farmers
Identf of known and unknown risk	Pearson Correlation	1	.619**
	Sig. (2-tailed)		.015
	N	54	54
Sustained increase of economic opportunities for poor farmers	Pearson Correlation	.619**	1
	Sig. (2-tailed)	.015	54
	N	54	54

The above table revealed, that results of Correlation between identification of the anticipated and known risks in executing the project and Sustained increase of economic opportunities for poor farmers was at the rate of 0.619 which means that the mentoring programs contribute to the rising of public awareness on the right of people with disabilities at the level of 61.9% hence a significant relationship between identification of the anticipated and known risks in executing the project and Sustained increase of economic opportunities for poor farmers. Given the level of significance which is 0.05, there is a significant relationship between identification of the anticipated and known risks in executing the project and Sustained increase of economic opportunities for poor farmers because their p-value (0.015) is statistically significant at 5% level of significance.

Table 21 Correlation between identification of the anticipated and known risks in executing the project and project sustainability

		Identification of known and unknown risk	Project sustainability
Identification of known and unknown risk	Pearson Correlation	1	.876**
	Sig. (2tailed)		.009
	N	54	54
Project sustainability	Pearson Correlation	.876**	1
	Sig. (2tailed)	.009	54
	N	54	54

The high correlation between identification of the anticipated and known risks in executing the project and project sustainability is proved by the above table, which revealed that, the result of correlation between identification of the anticipated and known risks in executing the project and project sustainability was 0.876 meaning that the mentoring is influencing success of project at the level of 87.6%. Furthermore, by considering the level of significance which is 0.05, there is a significant relationship between mentoring program and project success because their p-value was (0.009) and statistically significant.

Table 22 Estimate parameters between identification of the anticipated and known risks in executing the project and project sustainability

Model	Unstandardized Coefficients	Sig.	95% Confidence Interval for B	
	B		Lower Bound	Upper Bound
(Constant)	2.649	.000	1.591	2.395
Identific of known and unknown risk	.105	.009	-.394	.571

Dependent Variable: Project sustainability

According to the information from table above, if: $Y = \text{Project sustainability}$ and $X = \text{Identification of known and unknown risk}$, project sustainability will change in function of Identification of known and unknown risk, Thus, if Identification of known and unknown risk is equal to one unite and constant (β_0) is zero (0), project sustainability will increase 0.105 time mentoring program. Hence, $Y = 2.649 + 0.105X$. There is a significant relationship between mentoring program and project success because their p-value (0.009) is statistically significant at 5% level of significance with lower bound of -394 and upper bound of 0.571.

9.2.4 To examine how identifying stakeholders, their involvement and contribution affect sustainability of government projects in Rwanda

Table 23 Identifying stakeholders, their involvement and contribution within the organization

Stakeholders involvement and contribution	Frequency	Percentage
Identification of all stakeholders	54	100
Stakeholders interest	49	90.7
stakeholder's analysis	48	88.9
stakeholders' management plan	36	66.7

According to the study findings in the above table above, 100% of all respondents confirms the identification of all project stakeholders by managers, 90.7% of all respondents reported that the organization performs an identification of Stakeholders interest. According to 66,7% of all respondents the organization has in place a stakeholders' management plan.

Table 24 Correlation between identifying stakeholders, their involvement and contribution and Sustained increase of returns to farmers.

		Stakehold identification	Sustained increase of returns to farmers
Stakehold identification	Pearson	1	.629**
	Correlation		
	Sig. (2-tailed)		.012
	N	54	54
Sustained increase of returns to farmers	Pearson	.629**	1
	Correlation		
	Sig. (2-tailed)	.012	
	N	54	54

The information in table above revealed that, the result of correlation of identifying stakeholders, their involvement and contribution and Sustained increase of returns to farmers was at the rate of 0.629 therefore Sustained increase of returns to farmers is influenced by identifying stakeholders, their involvement and contribution at the level of 62.9%. Therefore there is a high correlation between identifying stakeholders, their involvement and contribution and Sustained increase of returns to farmers. Given the level of significance of 0.05, there is a significant relationship between identifying stakeholders, their involvement and contribution and Sustained increase of returns to farmers because their p-value (0.012) is statistically significant at 5% level of significance.

Table 25 Correlation between identifying stakeholders, their involvement and contribution and Empowered capacity for rural farmers

		Stakeholders identification	Empowered capacity for rural farmers
Stakeholders identification	Pearson	1	.941**
	Correlation		
	Sig. (2-tailed)		.009
	N	54	54
Empowered capacity for rural farmers	Pearson	.941**	1
	Correlation		
	Sig. (2-tailed)	.009	
	N	54	54

The information in the above table, shows that, the result of Correlation identifying stakeholders, their involvement and contribution and Empowered capacity for rural farmers was at the rate of 0.941 meaning that the identifying stakeholders, their involvement and contribution influences the empowerment capacity for rural farmers at the level of 94.1% hence a high correlation between identifying stakeholders, their

involvement and contribution and Empowered capacity for rural farmers. Besides this, by considering the level of significance which is 0.05, there is a significant relationship between identifying stakeholders, their involvement and contribution and Empowered capacity for rural farmers because their p-value (0.009) is statistically significant at 5% level of significance.

Table 26 Correlation between identifying stakeholders, their involvement and contribution and Sustained increase of economic opportunities for poor farmers.

		Stakeholders identification	Sustained increase of economic opportunities for poor farmers
Stakeholders identification	Pearson Correlation	1	.640**
	Sig. (2-tailed)		.017
	N	54	54
Sustained increase of economic opportunities for poor farmers	Pearson Correlation	.640**	1
	Sig. (2-tailed)	.017	
	N	54	54

The table above revealed that, the result of Correlation between identifying stakeholders, their involvement and contribution and Sustained increase of economic opportunities for poor farmers was at the rate of .640 meaning that identifying stakeholders, their involvement and contribution influences Sustained increase of economic opportunities for poor farmers at the level of 64%. This proved a high correlation and a significant relationship between identifying stakeholders, their involvement and contribution and Sustained increase of economic opportunities for poor farmers. By also considering the level of significance which is 0.05, there is a significant relationship between identifying stakeholders, their involvement and contribution and Sustained increase of economic opportunities for poor farmers because their p-value (0.017) is statistically significant at 5% level of significance.

Table 27 Correlation between identifying stakeholders, their involvement and contribution and project sustainability

		Stakeholders identification	Project sustainability
Stakeholders identification	Pearson Correlation	1	.752**
	Sig. (2-tailed)		.005*
	N	54	54
Project sustainability	Pearson Correlation	.752**	1
	Sig. (2-tailed)	.005	
	N	54	54

According to information from table above the result of correlation of identifying stakeholders, their involvement and contribution and project sustainability was 0.752 meaning identifying stakeholders; their involvement is influencing project sustainability at the level of 75.2%. This proves the significance relationship between identifying stakeholders, their involvement and contribution and project sustainability.

Furthermore, the existence of a strong relationship between information identifying stakeholders, their involvement and contribution and project sustainability is shown by their p-value (0.005) which is statistically significant by considering the level of significance which is 0.05.

Table 28 Estimate parameters between information exchange and project sustainability

Model	Unstandardized Coefficients	Sig.	95% Confidence Interval for B	
	B		Lower Bound	Upper Bound
(Constant)	2.348	.000	1.493	2.752
Stakehold identification	.071	.005	-.240	.368

Dependent Variable: project sustainability

According to the information from table above, if: $Y = \text{Project sustainability}$ and $X = \text{Stakeholders identification}$, project sustainability will change in function of process Stakeholders contribution and involvement identification, Thus, if Stakeholders contribution and involvement identification is equal to one unite and constant (β_0) is zero (0), project sustainability will increase 0.071 time Stakeholders contribution and involvement identification. Hence, $Y = 2.348 + 0.071X$. There is a significant relationship between Stakeholders contribution and involvement identification and Project sustainability because their p-value (.005) is statistically significant at 5% level of significance with lower bound of -.240 and upper bound of .368.

10. Conclusion And Recommendations

10.1 Conclusions

According to the interpretation of collected and analyzed data during the course of this study, the researcher came up with the following conclusions:

- Identification of tasks and their deliverables influences on sustainability of government projects at the level of 94.1%.
- Estimating resources needed to perform tasks is also an important activity to influence the sustainability of government projects in Rwanda,
- Identification of the anticipated and known risks in executing the project affects project sustainability in Rwanda.
- Finally, the study concluded a significant relationship between Stakeholders identification, involvement and contribution and government projects sustainability

10.2 Recommendations

- The researcher recommend the project team to put in place a well detailed work breakdown structure (WBS), identified all milestones signifying the important decision making points in the entire life cycle of the project.
- The researcher recommend that the project manager and stakeholders to identify all the known and unknown risks associated with the project, prioritize the risks as well as elaborating a strategic plan to prevent and eliminate risk that may affect the project.

10.3 Areas for further Studies

Based on the findings of this study, the researcher suggests that future researches should be carried out in the area of Assessment of factors affecting knowledge transfer strategies on project success.

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