

Resource Management and Success of Agricultural Projects in Developing Countries: A Case Study of Project of Rural Income through Exports in Rwanda

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Abstract: *In the Ministry of Agriculture and Animal Resources of Rwanda, project management has been and still an issue especially on the case of resource management, where resources are allocated but still projects end up not successful. The project for Rural Income through Exports was introduced with the main objective of raising the income of smallholder farmers. In particular to achieve sustainable increased returns to farmers from key export-driven agricultural value chains, through increased volumes and quality of production, improved marketing and effective farmer organizations and strengthen producer cooperatives as full-fledged economic partners of the private sector, but the project is not delivering its expected outcomes due to ineffective resource management of the project team as indicated by the Auditor's report of June, 2016. The general objective of the study was to analyze the effect of resource management on success of agricultural projects in Rwanda as one of the developing countries. The study adopted a descriptive research design. For this study the target population equaled to 62 employees of the project. The researcher adopted a census since the population was quite small. Primary data were collected using questionnaires. Before analyzing data; errors were first identified and eliminated as far as possible in order to enable the researcher to cross examine the relationship between the questions and the corresponding responses so as to ensure accuracy, consistency, and uniformity. This was done immediately after administering the questionnaires to guard against omission. Statistical Package for Social Sciences (SPSS 22) was used to analyze data after their collection. As revealed by the majority of the respondents which is equal to 77.5%; in Project for Rural Income through Export there are proper cash management strategies for effective budget control which lead to low level of funds embezzlement and this ensures the funds are used for the purpose meant for. The findings further revealed that the majority of the respondents were undecided to the statement stating that in Project for Rural Income through Exports project staff are well compensated according to the government approved payment structures. Lastly the average of respondents reported that the Project for Rural Income through Export the project staff receives fringe benefits that help them to work within favorable working environment. The majority of the respondents agreed that in Project for Rural Income through Export all tools used to execute the project tasks are well managed and kept and this reduce the cost of maintenance. As the findings show a positive and a very high strong correlation between financial resources management and success of Project for Rural Income through Exports in Rwanda, the researcher recommends to the project managers to put in place effective measures for financial resources management so as to ensure the success of their managing projects. According to the study findings there is a positive and high correlation human resources management and success of Project for Rural Income through Exports the researcher recommends that the project manager and stakeholders to undergo effective recruitment and placement by placing the right staff with the right knowledge in the right position and even motivate them by providing fringe benefits in order to effectively and safely execute and accomplish their assigned tasks. As the study findings revealed the Project for Rural Income through Exports empowered capacity for rural farmers and increased returns to farmers, the researcher recommends to the government of Rwanda to initiate and implement as many as possible rural development projects so as to increase the number of people graduating from extreme poverty.*

Keywords: Resource Management, Success of Agricultural Projects

1. Introduction

Resource Management is defined as the efficient and effective deployment and allocation of an organization's resources where and when they are needed. Such resources may include financial resources, human resources, Physical resources, time resources etc. (Mark, 2010). Resource Management is a key element to activity resource estimating and project human resource management (Gruneneboon, 2012). Since project are exposed to environmental changes, to deal with them; projects have to scheduled dynamically, and related resources arranged according to the changing environment in order to achieve the ultimate target t of the projects. For this reason; there is an increasing research and investment in resource management so that they may be well managed and hence ensured project success. The deliberation of seeking solutions of resource management and heavy investment in proper ways of managing resources have also been driven by a worrying trend of failing projects especially agricultural projects in Rwanda that fail to reduce the poverty rate as their main intention. Most of agricultural

projects in developing countries like Rwanda encounter considerable time and cost overruns, fail to realize their intended objectives or are even totally terminated and abandoned before or after their completion (Idoko, 2016).

2. Statement of the Problem

The project for rural income through exports (PRICE) was introduced by MINAGRI and IFAD with the main objective of raising the income of smallholder farmers. In particular to achieve sustainable increased returns to farmers from key export-driven agricultural value chains, through increased volumes and quality of production, improved marketing and effective farmer organizations and strengthen producer cooperatives as full-fledged economic partners of the private sector, but the project is not delivering its expected outcomes due to ineffective resource management of the project team as indicated by the Auditor's report of June, 2016. With an attempt to find solutions to this persisting problem in the Ministry of Agriculture and Animal Resource of Rwanda, this research aims at presenting results from the

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field surveys that will be conducted especially in the Project for Rural Income Through Exports regarding the effect of resource management on project success. Therefore, this study sought to assess the effect of resource management on success of agricultural projects in Rwanda and we hope that this study will contribute to the body of knowledge related to project resource management and project success in Rwanda.

3. Objectives of the Study

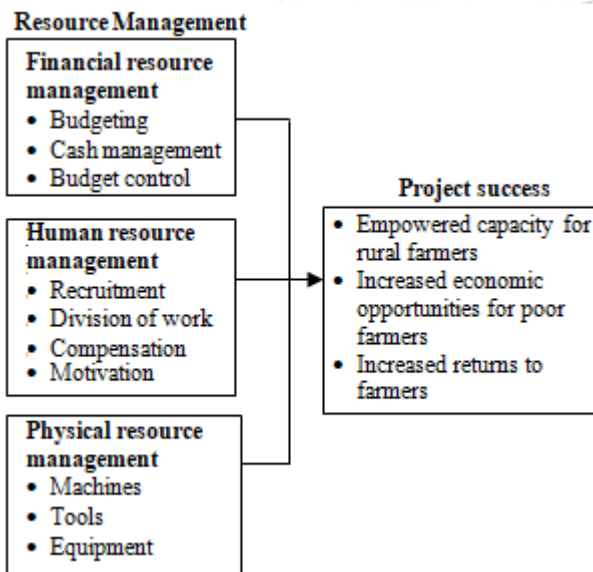
The general objective of the study is to analyze the effect of resource management on success of agricultural projects in Rwanda as one of the developing countries.

3.1 Specific objectives

The specific objectives of this study were:

- 1) To assess the effect of financial resource management on success of project of rural income through exports
- 2) To analyze the relationship between human resource management and success of project of rural income through exports
- 3) To determine the extent to which Physical resource management affect the success of project of rural income through exports

4. Conceptual Framework



5. Research Methodology

- **Research Design:** The study adopted a descriptive research design where quantitative and qualitative methods of data collection and analysis were used. This design was adopted for this study due to its ability to ensure minimization of bias and maximization of reliability of evidence collected. It also raises concerns for the economical completion of the research study.
- **Target Population:** The target populations of this study were the employees of Project for Rural Income through Exports (PRICE). For this study the target population equaled to 62 employees of the project.

- **Sample Size:** During this study, the researcher adopted a census since the population was quite small. Since the study used a census, there was no need for sampling technique since the entire population participated in the study.
- **Data Collection Instruments:** During the course of this study, the primary data were collected using questionnaires. The questionnaires consisted of close ended questions.

6. Research Findings

6.1 Demographic data findings

Table 1: Distribution of respondents by Sex

Sex	Frequency	Percentage	Cumulative Percentage
Female	26	41.9	41.9
Male	36	58.1	100
Total	62	100	

Source: Field Data (2018)

The table 1 shows that from 62 respondents who were involved in this study; 58.1% of them were male while 41.9% were female. Therefore the majority of respondents who were involved in this study are male.

Table 2: Distribution of respondents by years of service with PRICE

Years of Services	Frequency	Percentage	Cumulative Percentage
One to two years	17	27.4	27.4
Two to three years	27	43.5	71
Above three years	18	29	100
Total	62	100	

Source: Field Data (2018)

According to the study findings in Table 2; most of the respondents 43.55% have been serving Project for Rural Income through Exports for two to three years, 29.03% have been serving Project for Rural Income through Exports for one year to two years while only 27.42% of all respondents have served Project for Rural Income through Exports for a period of above three years.

Table 3: Distribution of respondents by education qualifications

Level of education	Frequency	Percentage	Cumulative Percentage
Diploma A2	34	54.8	54.8
Bachelor's degree	21	33.9	88.7
Others	7	11.3	100
Total	62	100	

Source: Field Data (2018)

The findings in Table 3 demonstrated that 54.84% of all study respondents acquired a diploma A₂, 33.87% of all study respondents acquired bachelor's degree while only 11.29% acquired other qualifications including Masters Degrees and professional certified qualifications. This demonstrates that the majority of respondents acquired diploma A₂.

6.2 Assessment of the effect of financial resource management on success of PRICE

Table 4: Correlation between Financial Resources Management and Success of PRICE

Variables		FRM	Success of project
FRM	Pearson Correlation	1	.745**
	Sig. (2-tailed)		0
	N	62	62
Success of project	Pearson Correlation	.745**	1
	Sig. (2-tailed)	0	
	N	62	62

Source: Field Data (2018)

The findings in Table 4 revealed that the results of correlation between Financial Resources Management and Success of Project for Rural Income through Exports was at 0.745 meaning that Financial Resources Management affect the success of Project for Rural Income through Exports at the level of 74.5% which prove a significant relationship between Financial Resources Management and Success of Project for Rural Income through Exports. If the researcher considers the level of significance which is 0.05, there is therefore a significant relationship between them because their p-value (0.000) is statistically significant at 5% level of significance.

6.3 Analysis of the relationship between Human Resources Management and Success of PRICE

Table 5: Correlation between Human Resources Management and Success of PRICE

Variables		HRM	Success of project
HRM	Pearson Correlation	1	.639**
	Sig. (2-tailed)		0
	N	62	62
Success of project	Pearson Correlation	.639**	1
	Sig. (2-tailed)	0	
	N	62	62

Source: Field Data (2018)

The findings in Table5 revealed that the results of correlation between Human Resources Management and Success of Project of Rural Income through Exports were at 0.639 mean that Human Resources Management is at the level of 63.9% which proves a significant relationship between Human Resources Management and Success of Project. If the researcher considers the level of significance which is 0.05, there is therefore a significant relationship between them because their p-value (0.000) is statistically significant at 5% level of significance.

6.4 Determination of the effect of physical resources management on success of PRICE

Table 6: Correlation between Physical Resources Management and Success of Project of Rural Income through Exports

Variables		PRM	Success of project
PRM	Pearson Correlation	1	.567**
	Sig. (2-tailed)		0
	N	62	62
Success of project	Pearson Correlation	.567**	1
	Sig. (2-tailed)	0	
	N	62	62

Source: Field Data (2018)

The findings in Table 6 revealed that, the results of correlation between Physical Resources Management and Success of Project of Rural Income through Exports was at 0.567 mean that physical resources management was at the level of 56.7% which prove a significant relationship between physical resources management and success of project. If the researcher considers the level of significance which is 0.05, there is therefore a significant relationship between them because their p-value (0.000) is statistically significant at 5% level of significance.

6.5 Success of Project for Rural Income through Export

Table 7: Empowering capacity for rural farmers

Response	Frequency	Percentage	Cumulative Percentage
Strongly agree	57	91.9	91.9
Strongly disagree	5	8.1	100
Total	62	100	

Source: Field Data (2018)

According to the information from Table 7, 91.9% of all respondents strongly agreed that in the Project for Rural Income through Export, empowered capacity for rural farmers while only 8.1% of all respondents strongly disagreed to the statement.

Table 8: Increasing Economic opportunities for poor farmers

Response	Frequency	Percentage	Cumulative Percentage
Strongly agree	57	91.9	91.9
Strongly disagree	5	8.1	100
Total	62	100	

Source: Field Data (2018)

According to the information from Table8, 91.9% of all respondents strongly agreed that in the Project of Rural Income through Export increased economic opportunities for poor farmers while only 8.1% strongly disagreed that the Project of Rural Income through Export increased economic opportunities for poor farmers.

Table 9: Increasing returns to farmers

Response	Frequency	Percentage	Cumulative Percentage
Strongly agree	18	29	29
Agree	35	56.5	85.5
Neutral	5	8.1	93.5
Strongly disagree	4	6.5	100
Total	62	100	

Source: Field Data (2018)

According to the information from Table 9, 29.0% of all respondents strongly agreed that in the Project for Rural Income through Export increased returns to farmers, 56.5% of all respondents agreed that Project for Rural Income through Export increased returns to farmers, 8.1% of respondents were undecided while only 6.5% of all respondents strongly disagreed to the statement.

Table 10: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.966 ^a	0.934	0.931	0.289

a. Predictors: (Constant), Financial Management, Human Resources Management and Physical resources Management

From the table 25 $AnR^2 = 0.934$, indicates that 93.4% of variation in Financial Management, Human Resources Management and Physical resources Management can be explained by the success of project of rural income through exports leaving only 6.6% of the variation in the dependent variable being explained by the error-term or other variables other than project success.

Table 11: ANOVA table

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	68.699	3	22.9	273.894	.000 ^a
Residual	4.849	58	0.084		
Total	73.548	61			

Source: Field Data (2018)

a. Predictors: (Constant), Physical Resources Management, Human Resources Management, Financial Resources Management

b. Dependent Variable: Success of Project

The table 11 shows that predictors: Physical Resources Management, Human Resources Management, Financial Resources Management have an effect on dependent variable, success of project of rural income through exports. This is statistically significant with a p-value (.000).

Table 12: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	0.534	0.045		0.367	0.015
Financial Resources Management	0.497	0.062	0.281	7.991	0
Human Resources Management	0.684	0.041	0.995	28.543	0
Physical Resources Management	0.861	0.038	0.017	0.508	0.003

a. Dependent Variable: Success of Project

Source: Field Data (2018)

6.6 Discussions of results

The results indicate that Financial Resources Management, Human Resources Management and Physical Resources Management have statistically significant effect on success of project with a positive coefficient of determination of 0.966 (table 25) indicates that there is a strong positive correlation between Financial Resources Management, Human Resources Management and Physical Resources Management with success of project. The coefficients of independent variables (FRM, HRM and PRM) β_1, β_2 and β_3 are respectively 0.497; 0.684 and 0.861 with a statistically significant ($p = 0.00$). Therefore, the model equation derived is: $y = 0.534 + 0.497x_1 + 0.684x_2 + 0.861x_3 + e$. The positive coefficient further demonstrates that a 1% increase in the Financial Resources Management is attributed to 0.497% improvement in success of project and the t-statistic value (7.991) indicates the effect is statistically significant at 95% confidence level. An increase of 1% on Human Resources Management will increase success of project given by 0.684 % at the high t-statistic value (28.543) indicates the effect is statistically significant at 95% confidence level while a positive coefficient demonstrates that a 1% increase in Physical Resources Management causes an increase of 0.861 on success of project with t-statistic value (0.508) indicates the confidence

level of 95% the effect is statistically significant. This demonstrates that success of project exhibited in terms of Financial Resources Management, Human Resources Management and Physical Resources Management and executed excellently.

7. Conclusions and Recommendations

7.1 Conclusions

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

Financial Resources Management affects the success of Project for Rural Income through Exports at the level of 74.5% which prove a significant relationship between Financial Resources Management and Success of Project for Rural Income through Exports. If the researcher considers the level of significance which is 0.05, there is therefore a significant positive relationship between them because their p-value (0.000) is statistically significant at 5% level of significance.

The results of correlation between Human Resources Management and Success of Project for Rural Income through Exports were at 0.639 meaning that Human Resources Management affects performance of the Project for Rural Income through Exports at the level of 63.9% which proves a significant relationship between Human Resources Management and Success of Project for Rural Income through Exports. If the researcher considers the level of significance which is 0.05, there is therefore a significant relationship between Human Resources Management and success of Project for Rural Income through Exports because their p-value (0.000) is statistically significant at 5% level of significance.

The results of correlation between Physical Resources Management and Success of Project of Rural Income through Exports was at 0.567 meaning that physical resources management was at the level of 56.7% which prove a significant relationship between physical resources management and success of project. If the researcher considers the level of significance which is 0.05, therefore the researcher concluded a significant positive relationship between Physical Resources Management and Success of Project of Rural Income through Exports because their p-value (0.000) is statistically significant at 5% level of significance. The researcher furthermore concluded that the Project for Rural Income through Export empowered capacity for rural farmers and increased returns to farmers

7.2 Recommendations

As the findings show a positive and a very high strong correlation between financial resources management and success of Project for Rural Income through Exports in Rwanda, the researcher recommends to the project managers to put in place effective measures for financial resources management so as to ensure the success of their managing projects. According to the study findings there is a positive and high correlation human resources management and

success of Project for Rural Income through Exports the researcher recommends that the project manager and stakeholders to undergo effective recruitment and placement by placing the right staff with the right knowledge in the right position and even motivate them by providing fringe benefits in order to effectively and safely execute and accomplish their assigned tasks. As the study findings revealed the Project for Rural Income through Exports empowered capacity for rural farmers and increased returns to farmers, the researcher recommends to the government of Rwanda to initiate and implement as many as possible rural development projects so as to increase the number of people graduating from extreme poverty.

7.3 Areas for further researcher

- 1) Assessment of factors affecting knowledge transfer strategies on project success in developing countries
- 2) Analysis of factors beyond the high failure rate of agricultural projects in in developing countries.

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