Effect of Risk Management Strategies on Performance of Agricultural Projects in Rwanda - A Case Study of Access to Finance Rwanda (AFR)

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Abstract: ***The general objective of this research was to evaluate the effect of risk management strategies on performance of agricultural projects in Rwanda. Its specific objectives were to determine the effect of risk avoidance on performance of Access to Finance Rwanda, to assess the effect of risk control on performance of Access to Finance Rwanda, and to evaluate the effect of risk retention on performance of Access to Finance Rwanda and to analyse the effect of risk transfer on performance of Access to Finance Rwanda. The researcher used a descriptive research design, where quantitative approach was used. In quantitative approach the research employed data in form of numbers collected from agricultural projects in Rwanda. The research concerned 291 as the target population whom constitute the entire project team. In this research study, the sample size is of 169 from a population of 291 using Slovin's formula. The primary data collected through questionnaires. Since the data collected in this study were majorly quantitative, the researcher developed a five-point Likert scale that used to collect data on the independent and dependent indicators. Before data collection, the researcher was seeking a letter of introduction from the University that used to seek permission for data collection. The questionnaires administered by the researcher. The researcher gave respondents one week to fill the questionnaires after which they collected for analysis. The responses were analysed through SPSS (Statistical Packages of Social Sciences) version 21. Data were coded for analysis. Frequency and percentage used to describe indicators of participatory approach and monitoring and evaluation process. Correlation analysis with two tailed significant tests used to test the correlation between variables while a multiple regression used to test the overall variables. ANOVA test were conducted to test the statistical significance of the overall effect of risk management strategies on performance of agriculture project in Rwanda a case study of Access to Finance Rwanda (AFR).***

Keywords: Risk Management, Risk Management Strategies, Performance of Agricultural Projects

1. Introduction

Strategic management is a set of managerial skills that should be used throughout an organization, in a wide variety of functions. Successful companies are those that focus their efforts strategically. Strategy is the way in which a company orients itself towards the market in which it operates and towards the other companies in the market place against which it competes. By adopting a strategy, a business entity seeks to address the issues of what are its key strategic priorities; what are the sources of the company's sustainable competitive advantage and how the company will position itself against competition in the market over the long run to secure a sustainable competitive advantage. Strategic choice is viewed as an ongoing process in which the planned management of uncertainty plays a crucial role. Strategic choice focuses on decisions to be made in a particular planning situation, whatever their timescale and whatever their substance (Quinn et al, 2012). Risk is defined as the possibility that unexpected and unpredictable events may negatively affect an organization's ability to meet its objectives. Agricultural risks is the potential that events, expected or unanticipated may have adverse effect on the agricultural production or processes of farmers, firms and countries (Meuwissen et al, 2009).

2. Statement of the Problem

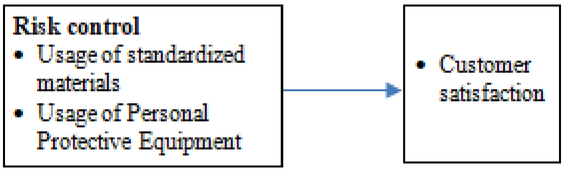
Problem formulation in developing world, majority of rural small farmers depend on related subsistence farming activities. They live in precarious conditions, threatened by lack of income, shelter and food, medical services, education of their children and other basic needs. To overcome poverty and be able to improve their Projects, they need to borrow money for investing in their lands exploitation, making savings to protect their families against risks. Therefore, increasing finance in the agriculture sector is the way of lifting smallholder farmers living in extreme poverty towards sustainable development. Financial practitioners worldwide have set a number of initiatives to increase the supply of finance to the agriculture sector; "Agriculture Value Chain Finance" approach is at the center of the heart, absolutely as a necessity to the economic growth in the development world. Rwanda hasn't been left behind in promoting agriculture financing. In light of the PSTAII, Sub- Programme 3.6: Strengthening rural financial systems, the GoR has made substantial efforts to build sustainable rural financial systems that provide access to financial services for rural people, through establishment of numerous credit enhancing vehicles such as, special funds and lines of credit, RIF1 (Rural Investment Facility) and RIF2, Agricultural Guarantee Fund (AGF), Crop and Livestock Insurance, etc. Other financial facilities are provided by MINAGRI's (Ministry of Agriculture) agencies.

Despite all these efforts mobilized by the GoR to promote agriculture financing in Rwanda, the agriculture sector in Rwanda remains generally perceived by the financial sector as very risky; challenges inherent in the value chains hinder flow of finance. Most of agricultural projects in Rwanda are poorly financed with scarce specialized products. Due to lack of collaterals, low productivity and production, unpredictable climate changes, inadequate storage and processing, and market uncertainties, access to finance becomes very limited. Especially, smallholder farmers engaged in primary production, but without adequate collaterals frequently complain about a lack of access to working capital loans needed to buy and apply inputs and fertilizers, pay labor for the land preparation and maintenance, prepare the harvest, and handle the produce to meet the markets, etc. Farmers also need long term finance to invest in post-harvest infrastructures and marketing They also need other basic related services such as crop insurance, savings, transfers, potentially needed to support investments along the chain. This study evaluated the effect of risk management strategies on performance of agricultural projects in Rwanda where access to finance Rwanda (AFR) Northern Province has been considered as case study.

3. Objectives of the Study

The general objective of this study was toevaluate the effect of risk management strategies on performance of agricultural projects in Rwanda. Its second specific objective was to assess the effect of risk control on performance of Access to Finance Rwanda.

4. Conceptual Framework



5. Research Methodology

- **Research Design**: The researcher used descriptive research design
- **Target Population:** The research was concerned 291 as the target population whom constitute the entire project team.
- **Data Collection tools:** The data was collected from both primary and secondary sources. Questionnaires, A questionnaire are a means of eliciting the feelings, beliefs, experiences, perceptions, or attitudes of some sample of individuals

6. Summary of Research Findings

6.1 Assessment of the effect of risk control on performance of Access to Finance Rwanda

Table 1: Risk Retention measures

Response		Frequency	Percentage	Cumulative Percentage
	Strongly Agree	36	11.2	21.3
	Agree	120	71	92.3
	Undecided	13	7.7	100
	Total	169	100	100

Source: Primary Data (2019)

The study findings in Table 1 revealed that 71% of respondents agreed that that Access to Finance Rwanda have adopted risk retention measures, 21.3% of respondents strongly agreed that that Access to Finance Rwanda have adopted risk retention measures while only 7.7% of respondents were undecided to the statement of risk retention measures adopted by Access to Finance Rwanda.

Table 2: Risk Retention budget

Response		Frequency	Percentage	Cumulative Percentage
	Strongly Agree	41	24.2	24.2
	Agree	95	56.2	80.4
	Disagree	23	13.6	94
	Undecided	10	6	100
	Total	**169**	**100**	**100**

Source: Primary Data (2019)

The findings in Table 2 revealed that 56.2% of respondents agreed that Access to Finance Rwanda Project has risk retention budget in place, 24.2% of respondents strongly agreed that Access to Finance Rwanda Project has risk retention budget in place, 13.6% of respondents disagreed that Access to Finance Rwanda Project has risk retention budget in place while only 6% of respondents were undecided.

Table 3: The relationship between project performance and risk control

.		Project performance	Risk control
Project performance	Pearson Correlation	1	.892
	Sig. (2-tailed)		.543
	N	169	169
Project performance	Pearson Correlation	.8 92	1
	Sig. (2-tailed)	.543	
	N	169	169

According to Table 3, there is positive relationshipbetween two variables where by r=.892 which implies that risk control have got positive effect on project perfomance in access to finance project ,the perfomance of project depend on risk control. Whereby risk control are independent varibles and project perfomance is dependent variables.

7. Conclusions and Recommendations

7.1 Conclusions

Based on the information drawn from findings the researcher concluded that risk avoidance has a positive and high effect on performance of Access to Finance Rwanda, furthermore risk control highly affect performance of Access to Finance Rwanda. The study found risk transfer to have a great effect on performance of Access to Finance Rwanda. Lastly; the researcher concluded a negative effect between risk retention and performance of Access to Finance Rwanda.

7.2 Recommendations

The researcher made the following recommendations:

1) Project managers should adopt serious measures to avoid any possible risk that may hinder the successful performance of projects;
2) Project teams should put in place the appropriate risk control strategies so that risks might be well controlled
3) The project planners should identify the possible project risks and initiate the risks mitigation strategies before the implementation of the project

References

[1] Addison, W. &Vallabh,P. (2012) Effect of project risk Identification performance of software projects in IT enterprises in China. *Journal of Project Risk Management, Vol. 8 No 1, pp. 17-24.*

[2] Akintoye,A.S. & Macleod, M.j. (20177), Risk analysis and management in Construction. *International Journal of Project Management, Vol. 15 No 1, pp. 1-38*.

[3] Amos, J. & Dents, P. (2010). *Risk analysis and management for major construction projects.* Proceedings: RICS COBRA 1997 Conference. Portsmouth, September, 1–35.

[4] Babbie, E. (2018). *The Survey of Social Research: Belmont. California*. €Bakker, K. De, Boonstra, A. &Wortmann, H. (2012), Risk managements' communicative effects influencing IT project success. *International Journal of Project Management Vol. 30*

[5] Bakker, K. DE, Boonstra, A., Wortmann, H. (2010), *Does risk management contribute to IT project success?* A meta analysis of empirical evidence.

[6] A.D.F. (2003). Modelling global risk factors affecting construction cost performance. International Journal of Project Management, 21(4): 261–269.

[7] Bannerman, P. L. (2008). Risk and risk management in software projects: A reassessment. *The Journal of Systems and Software, 81(12), 2118-2133. Bunni, N.G. (2003).*

[8] Capper, D.R. (2018). *Overview of risk in construction*. In J. Uff and A.M. Odams (2015). *Risk Management and Procurement*. London: The Cromwell Press, 11–25.

[9] Chacko, G. & Harris, G. (2016). *Information and Communication Technology and Small, Medium and Micro Enterprises in Asia-Pacific* – size does not matter. Information Technology for Development, 12(2): 175-177.

[10] Chandran, E. (2014). *Research Methods a quantitative approach*. Kenya: Starbright service Ltd

[11] Cicmil, S., Cooke-Davies, T., Crawford, L., & Richardson, K. (2009). Complexity and the paradox of project control, in: Proceedings of the 9 th IRNOP conference , Berlin Germany, October 11-13.

[12] Clark, R.C., Pledger, M., &Needler, H.m.j. (1990), Risk analysis in the evaluation of non-aerospace projects. Risk Management, Vol. 8 No 1, pp. 17-24. DOD 5000.2-

[13] Cleland, D.I. & Ireland, L.R. (2012), *Project Management: Strategic Design and Implementation*,McGrawHill, Boston, MA.

[14] De Bakker K., Boonstra A., &Wortmann H. (2010). *Does risk management contribute to IT Project success?* A meta-analysis of empirical evidence.

[15] Fellow, R. & Liu, A. (2013). *Research Methods for Construction*. 2nd Ed. Oxford: Blackwell.

[16] Flanagan, R. and Norman, G. (2013). *Risk Management and Construction*. Oxford: Blackwell. Godfrey, P. (2015). *The control of risk*. In J. Uff and A.M. Odams (2007).

[17] Han, R. & Huang, G. (2017), An empirical Analysis of Risk Assessment and Performance on software projects. *Project Management Journal, Vol. 37 No 3, pp. 37-48*. He, Z. (1995).

[18] Hillson, D. (2002), Extending the risk process to manage opportunities. International Journal of Project Management, Vol. 20 No 3, pp. 235-240

[19] Adam, E. and P.M. Swamidass. (2013). Assessing Operations Management from a Strategic Perspective. *Journal of Management 15(1989): p 181–203.*

[20] Agricultural Finance Corporation (2010). *AFC Strategic Plan 2010-2013. AFC Aull-Hyde, R.L. and Tadesse, S. (1994). A Strategic Agricultural Production Model with Risk and Return Considerations.* Agricultural and Resource Economics Review. Vol. 23, Issue 1

[21] Consultative Group to Assist the Poor (2015). *Managing Risks and Designing Products for Agricultural Microfinance:* Features of an Emerging Model. Occasional Paper No. 11