



**EFFECT OF RISK RESPONSE AND STRATEGIES ON PUBLIC INTEREST PROGRAM PERFORMANCE IN RWANDA.  
A CASE OF UBUDEHE NAMED PROGRAM IN THE DISTRICT OF MUSANZE 2010-2020**

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**ABSTRACT**

*The study entitled “Effect of risk response and strategies on public interest program performance in Rwanda. A case of Ubudehe named program in the District of Musanze 2010-2020” was conducted for achieving or assessing the extent to which performance of Ubudehe program was affected by risk response and strategies ensured by program coordinators. The researcher used both primary and secondary data. Data from secondary sources were got using documentary search and primary data were collected from 104 Musanze District staffs working with Ubudehe program. To select all these respondents, the researcher used census sampling and purposive sampling and data were collected using questionnaire, interview, observation & documentation as main tools for data collection. Data were presented as descriptive associated with inferential statistics (Bivariate correlation analysis) as the outcomes of SPSS version 20. It was found that, Ubudehe program management were not achieved 100% clean audit, not 100% ensuring risk response and strategies however they had achieved both at good rate (above 80%), there was need of maximization, so that the program performance also could reach 100%. It was recommended that; management should organize training (regularly) for ensuring proper use of risks management strategies to ensure the program well performing. These training should cover the contents of public interest’s program risks assessment, management, and mitigation. It should include planning skills, project implementation skills and project evaluation & reporting and stakeholder management.*

**Key words:** *Effect; Risk response and strategies Performance; Public Interests; Program.*

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## INTRODUCTION

Despite of its positive expected outcomes, Ubudehe program has been facing two major challenges (1) Categorization and (2) Project Implementation since it was implemented in Rwanda and in Musanze particularly. Some people and households present themselves to the local authorities as very poor with a purpose of receiving support like health insurance, etc from social security funds. Ubudehe program has made its contribution in the District of Musanze however this contribution is not the maximum needed (meet 100% targets) due to several risks which later resulted into challenges (Makhtar, 2016). By 2012 Musanze was habited by 368,267 population, which is equivalent to 694 person per square kilometer. From total Population in the District of Musanze 47.4% are males to 52.6% females, and 27.7% of the population live in urban area to 72.3% in rural (NISR, 2014).

Compared to total National (Rwanda) population, Musanze occupy 3.5% share and 21.35 of northern province population (1,726,370 Population). From Musanze District, Muhoza sector is the most populated (around 52 thousand population) and the least populated is Nkotsi (around 14 thousand population). There is a likely increase of habitants from 368,267 in 2012 to 406,479 in 2018 (LODA, 2019). In Rwanda 44.9% population are below poverty line, for Musanze 53.6% are under poverty line. For Rwanda 24.1% of population are extreme poor while 26.2% also in the District of Musanze are in extreme poor category. The poverty level in the District of Musanze is not well reducing while Ubudehe program is increasing funds and beneficiaries (NISR, EICV5 2016/17, 2018).

This study assessed whether performance of Ubudehe named program was supported by risk response and strategies or not. Thus, this study assessed the Effect of risk response and strategies on public interest program performance in Rwanda. A case of Ubudehe named program in the District of Musanze 2010-2020. Studies were conducted for examining the impact brought by Ubudehe program vis-a-vis population socio-economic development or

wellbeing changes. In the other case more donors of this program have financed and conducted evaluation on the process how beneficiaries are selected and support they get.

There is no study conducted to examine how program managers at all levels ensure risk strategies management for efficient performance of the program. May be, poor learning from previous risks and poor planning about risks mitigation, and overall poor risk management is the source of non-sufficient outcomes of Ubudehe named program (reducing poverty while people in the country remain poor 38% (NISR, 2018)). This study intends to establish whether risk response and strategies are being applied or not and its effect on performance of Ubudehe named program.

The specific objectives of this study were in five folds:

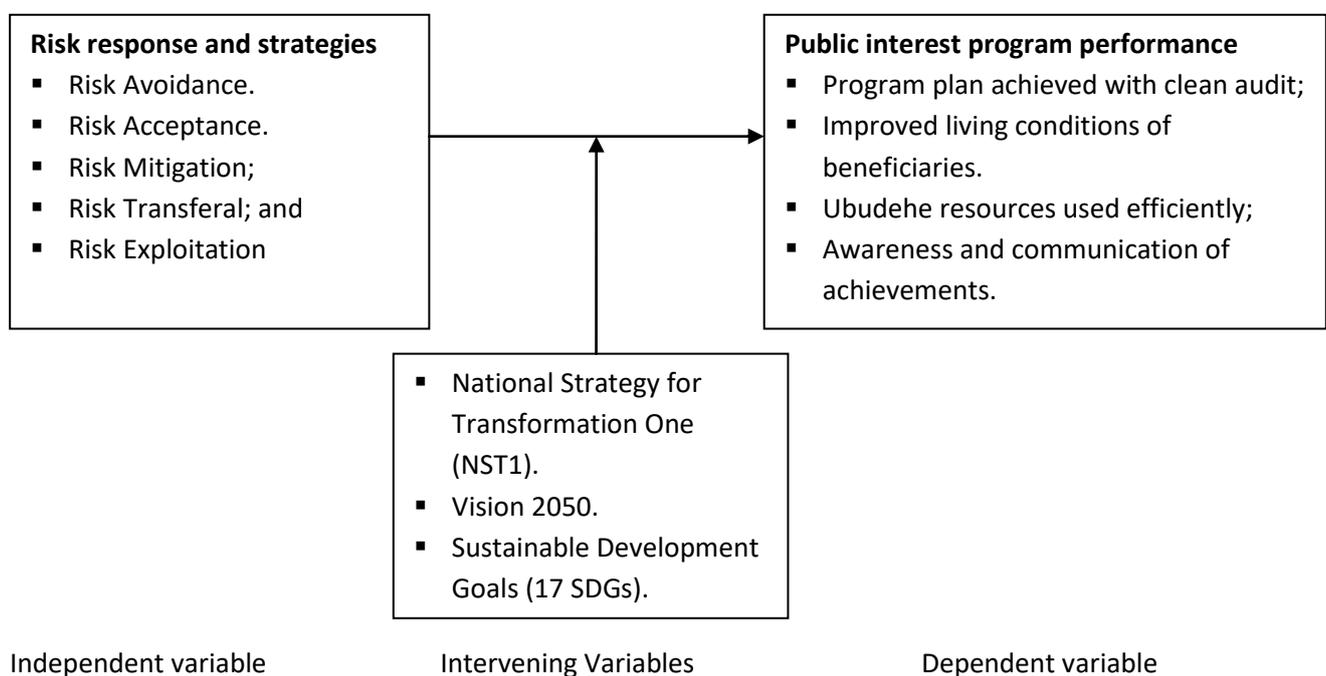
- To assess the effect of risk avoidance strategy on Ubudehe program performance in the District of Musanze.
- To find out the effect of risk acceptance strategy on Ubudehe program performance in the District of Musanze.
- To find out the effect of risk mitigation strategy on Ubudehe program performance in the District of Musanze.
- To examine the effect of transferal strategy on Ubudehe program performance in the District of Musanze.
- To find out the effect of risk exploitation strategy on Ubudehe program performance in the District of Musanze.

## LITERATURE REVIEW

Study of Zwikael (2011) where examined the usefulness of risk control strategies toward project risk minimization, he has used multi-national and industry scenarios. The study was conducted to 701 managers of different projects based on different countries mainly Israel, Japan, and New Zealand. Outputs of the assessment or study prevailed that project industry nature and location are the engine to generate the entire risk (Zwikael, 2011).

Saadi (2020) has evaluated the role of effective risk control measures application on the organizational performance a case study of Jordanian companies dealing with insurance. The study was conducted by collecting primary data from 120 managers of Jordanian insurance companies. Data collection was used the questionnaire and analysis of obtained data was made to descriptive associated with inferential statistics generated from SPSS version 19. Findings shown the risk mitigation as best practice to influence the achievement of organization (Saadi, 2020).

Oehmen (2014), have made examination of contribution or role played by risk control mechanism ensured properly to the development of a program's new production. In the entire study, both qualitative and quantitative designs methods and techniques for collecting data was used, and for processing, and analysis. The results revealed that risk control mechanisms are positively correlated and lead to effective increasing production of the program new created product (Oehmen, 2014).



**Figure 1: Conceptual Framework**

Source: Compiled by the researcher, 2020

The importance of ensuring Ubudehe program as one among home grown solutions, the program is being implemented without risk is the situation that everyone can wish. However, this program is lasted around 20 years of reintroduction and around 38.2% of Rwandans are still poor (NISR, 2018). So once program risk is identified, analyzed, evaluated, treated, monitored, avoided, reduced, shared, and retained the program contribute to the increased living conditions of the households' beneficiaries (Rwandans), program core activities known by the

beneficiaries, audit count clean report in all cases, and generally the country count improved and achieve sustainable development.

**METHODOLOGY**

This study used descriptive and correlative design. It was also qualitative and quantitative design. It is describing the reasons explaining risk response and strategies are applied while managing Ubudehe program and the level at which this program was performed. This study also is correlating the

similarity among risk response and strategies and public interest program performance. All the information as primary were collected from SACCOs managers and SEDOs (Socio-Economic Development Officers at cell level). Esther et al (2015), a descriptive study is concerned with finding out what, where and how of a phenomenon. This study applies assessment of quantitative data through closed ended questions and qualitative data via open-ended questions.

The population is the totality of persons or objects with which a study is concerned (Chika et al, 2017). The population of this study was 68 Socio-Economic Development Officers at cells level (from 68 cells of Musanze District); 15 SACCOs managers (from 15 Saccos distributed in 15 sectors), 15 VUP managers

at sector level and 15 sector offices (socio-affaires) in charge of socio-economic development at sector level. Here also it was added VUP Manager at District level or Social Protection Officer (1). The total population was 114 staff or population. As population seems to be small, there was no need to determine or applying sampling calculations. The researcher managed to get views from the whole population.

A sample is a group of subjects that is selected from the general population and is considered a representative of the true population for that specific study (Marilyn, 2014). As population seems to be small (114 population), the researcher managed to meet all of them without sampling them. Thus, a census inquiry method was used.

**Table 1: Distribution of the study population**

Population Categories	Population	Sample Size	Sampling Technique
District Officers (VUP Manager at District level or Social Protection Officer)	1	1	Census enquiry
Sector Officers	45	45	Census enquiry
Social Affaires	15	15	Census enquiry
VUP Managers	15	15	Census enquiry
SACCOs Managers	15	15	Census enquiry
Cells Offices (SEDO)	68	68	Census enquiry
<b>Total</b>	<b>114</b>	<b>114</b>	<b>Census enquiry</b>

Source: (Musanze District, 2020)

This study adopted documentation, questionnaire, and interview tools.

On documentary analysis, the research used articles, journals, books, internet with information related to risk response and strategies and its effect on public interest program performance (Joseph, 2019).

The study also used a questionnaire that contained both open and closed-ended questions and 114 questionnaires was filled by the researcher as she met one by one of sampled SEDOs, VUP Managers and SACCOs managers in the District of Musanze.

Open-ended questions were used to get open opinions of respondents.

Interview guide: Interview was conducted to all respondents and defined in the above methodology for sampling and sample size. Both open and closed questions were attended through interview between the researcher and respondent.

On validity of the instruments, the research tools mainly questions used were tested by the supervisor during the entire research period, data collection was not started until the supervisor offered the go ahead. This was also approved by the

panel during proposal presentation. In other case based on the results from the pre-test study, the study questionnaire was adjusted based on its experience.

On reliability of the instruments, a calculation using Pearson’s r was made for testing the reliability of questionnaires. Test of reliability was made using a pre-test study. And once the Pearson’s r is not greater than 70% the study tools were reviewed.

**FINDINGS**

Test of correlation was made using Bivariate correlation analysis and linear regression model. Results of bivariate correlation analysis were measured by two parameters such as Pearson correlation (r) and P-value (Sig. (2-tailed)). The researcher used mean all items assessed as indicators for independent variable with a comparison to the mean of data obtained from indicators assessed for dependent variable. The following table gives SPSS outputs:

**Table 2: Test of significance between independent variable and dependent variable**  
**Correlations**

		Risk response and strategies	Performance of public interest program
<b>Risk response and strategies</b>	Pearson Correlation	1	.284**
	Sig. (2-tailed)		.003
	N	104	104
<b>Performance of public interest program</b>	Pearson Correlation	.284**	1
	Sig. (2-tailed)	.003	
	N	104	104

\*\* . Correlation is significant at the 0.05 level (2-tailed).

Source: Primary data, 2021

As seen from the table 2, the analysis showed a Pearson correlation value or r which is equal to 0.284 and p-value or Sig. (2-tailed) which is equal to 0.003. With reference to the table, the value of obtained for correlation ranged between  $0 < 0.284 < 0.5$  which signified a weak correlation between tested variables (risk response and strategies and performance of public interests’ program) and this correlation is statistically significant as the p-value is less than 0.05 (level of significant 5%).

This confirmed that, there is positive weak correlation between risk response and strategies and performance of public interest program, and this correlation is statistically significant where for improving performance of public interests’ programs there is a need to develop and make much emphasize on risk response and strategies. In other words, risk response and strategies contribute 28.4% to the performance of public interest program.

**Table 3: Detailed correlation between all independent variable indicators to all dependent variable indicators**

		Correlations				
		Program plan achieved with clean audit;	Improved living conditions of beneficiaries.	Ubudehe resources used efficiently;	Awareness and communication of achievements.	Goals achieved as planned.
<b>Risk Avoidance.</b>	r	.103	.029	.097	.101	.262
	P-value	.007	.001	.027	.006	.007
	N	104	104	104	104	104
<b>Risk Acceptance.</b>	r	.207	.015	.194	.008	.056
	P-value	.035	.003	.048	.037	.005
	N	104	104	104	104	104
<b>Risk Mitigation;</b>	r	.203	.064	.163	.150	.079
	P-value	.038	.019	.008	.029	.024
	N	104	104	104	104	104
<b>Risk Transferal; and</b>	r	.033	.047	.191	.102	.176
	P-value	.039	.036	.002	.003	.003
	N	104	104	104	104	104
<b>Risk Exploitation;</b>	r	.191	.201	.641	.259	.180
	P-value	.002	.041	.000	.008	.007
	N	104	104	104	104	104

Correlation is significant at the 0.05 level (2-tailed).

Source: Primary data, 2021

**Keys:** r = Pearson correlation; p-value = Sig. (2-tailed).

As seen from table 3 the correlation between risk avoidance was positive and statistically significant to Program plan achieved with clean audit ( $r = 0.103$  or it affect at 10.3% and  $p\text{-value} = 0.007 < 0.05$ ), improved living conditions of beneficiaries ( $r = 0.029$  or it affect at 2.9% and  $p\text{-value} = 0.001 < 0.05$ ), Ubudehe resources used efficiently ( $r = 0.097$  or it affect at 9.7% and  $p\text{-value} = 0.027 < 0.05$ ), Awareness and communication of achievements ( $r = 0.101$  or it affect at 10.1% and  $p\text{-value} = 0.006 < 0.05$ ), and to Goals achieved as planned ( $r = 0.262$  or it affect at 26.2% and  $p\text{-value} = 0.007 < 0.05$ ).

The correlation between Risk Acceptance is positive and statistically significant to Program plan achieved with clean audit ( $r = 0.207$  or it affect at 20.7% and  $p\text{-value} = 0.035 < 0.05$ ), Improved living conditions of beneficiaries ( $r = 0.015$  or it affect at 1.5% and  $p\text{-value} = 0.003 < 0.05$ ), Ubudehe resources used efficiently ( $r = 0.194$  or it affect at 19.4% and

$p\text{-value} = 0.048 < 0.05$ ), Awareness and communication of achievements ( $r = 0.008$  or it affect at 0.8% and  $p\text{-value} = 0.037 < 0.05$ ), and to Goals achieved as planned ( $r = 0.056$  or it affect at 5.6% and  $p\text{-value} = 0.005 < 0.05$ ).

The correlation between Risk Mitigation is positive and statistically significant to Program plan achieved with clean audit ( $r = 0.203$  or it affect at 20.3% and  $p\text{-value} = 0.0385 < 0.05$ ), Improved living conditions of beneficiaries ( $r = 0.064$  or it affect at 6.4% and  $p\text{-value} = 0.019 < 0.05$ ), Ubudehe resources used efficiently ( $r = 0.163$  or it affect at 16.3% and  $p\text{-value} = 0.008 < 0.05$ ), Awareness and communication of achievements ( $r = 0.150$  or it affect at 15% and  $p\text{-value} = 0.029 < 0.05$ ), and to Goals achieved as planned ( $r = 0.079$  or it affect at 7.9% and  $p\text{-value} = 0.024 < 0.05$ ).

The correlation between Risk Transferal is positive and statistically significant to Program plan

achieved with clean audit ( $r = 0.033$  or it affect at 3.3% and  $p\text{-value} = 0.039 < 0.05$ ), Improved living conditions of beneficiaries ( $r = 0.047$  or it affect at 4.7% and  $p\text{-value} = 0.036 < 0.05$ ), Ubudehe resources used efficiently ( $r = 0.191$  or it affect at 19.1% and  $p\text{-value} = 0.002 < 0.05$ ), Awareness and communication of achievements ( $r = 0.102$  or it affect at 10.2% and  $p\text{-value} = 0.003 < 0.05$ ), and to Goals achieved as planned ( $r = 0.176$  or it affect at 17.6% and  $p\text{-value} = 0.003 < 0.05$ ).

The correlation between Risk Exploitation is positive and statistically significant to Program plan

achieved with clean audit ( $r = 0.191$  or it affect at 19.1% and  $p\text{-value} = 0.002 < 0.05$ ), Improved living conditions of beneficiaries ( $r = 0.201$  or it affect at 20.1% and  $p\text{-value} = 0.041 < 0.05$ ), Ubudehe resources used efficiently ( $r = 0.641$  or it affect at 64.1% and  $p\text{-value} = 0.000 < 0.05$ ), Awareness and communication of achievements ( $r = 0.259$  or it affect at 25.9% and  $p\text{-value} = 0.008 < 0.05$ ), and to Goals achieved as planned ( $r = 0.180$  or it affect at 18% and  $p\text{-value} = 0.007 < 0.05$ ).

The analysis using linear regression model has resulted the following results:

**Table 4: Model Summary for the regression analysis**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.475 <sup>a</sup>	.225	.186	.2842395

a. Predictors: (Constant), Risk Exploitation; Risk Acceptance., Risk Avoidance., Risk Mitigation; Risk Transferal.

Source: Primary data, 2021

Table 4 tells that, there is positive contribution of Risk Exploitation; Risk Acceptance., Risk Avoidance., Risk Mitigation; Risk Transferal practices on

performance of public interests' program. And this contribution is rated at 47.5%.

**Table 5: ANOVA for regression analysis**

**ANOVA<sup>a</sup>**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	2.305	5	.461	5.706	.000 <sup>b</sup>
1 Residual	7.918	98	.081		
Total	10.223	103			

a. Dependent Variable: Performance of public interest program

b. Predictors: (Constant), Risk Exploitation; Risk Acceptance, Risk Avoidance, Risk Mitigation; Risk Transferal.

Source: Primary data, 2021

As seen from table 5 the  $p\text{-value}$  or Sig. (2-tailed) was 0.000 which was less than 0.05 meaning that there a statistical significance between performance of public interests' program as an

outcome of Risk Exploitation; Risk Acceptance., Risk Avoidance., Risk Mitigation; Risk Transferal practices.

**Table 6: Regression model for testing the effect of independent variable to dependent variable**

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.890	.270		10.712	.000
1					
1. Risk Avoidance.	.040	.019	.158	2.141	.035
2. Risk Acceptance.	.038	.022	.139	1.688	.012
3. Risk Mitigation;	.017	.030	.046	.564	.004
4. Risk Transferal; and	.021	.024	.061	.867	.018
5. Risk Exploitation;	.024	.017	.097	1.423	.048

a. Dependent Variable: Performance of public interest program

Source: Primary data, 2021

$$y = 2.890 + 0.040x_1 + 0.038x_2 + 0.017x_3 + 0.021x_4 + 0.024x_5 + \varepsilon$$

Linear regression model was made using average of data obtained per each tested variable under dependent variable and independent variable (table 6). Study findings showed that, if one unit change from risk response and strategies such as risk avoidance (x1), risk acceptance (x2), risk mitigation (x3), risk transferal (x4) and risk exploitation (x5) lead to 0.040, 0.038, 0.017, 0.021, and 0.024 change times additional the existing performance of public interests' program. Once, all values remain null the performance of public interests' program will be equal to the constant (2.890 units). This confirmed the positive and significant effect of risks management strategies on performance of public interests' programs.

### CONCLUSIONS AND RECOMMENDATIONS

The study assessment was based on the effect of risk response and strategies (avoidance, acceptance, mitigation, transferal, and exploitation) on public interest program performance (clean audit, improving living conditions of beneficiaries, efficiency use of resources, awareness and communication of program achievements and goals

attended). The findings showed that more than 80% (average) of respondents had confirmed that Ubudehe program management are effectively ensuring risk response and strategies and the program is well ensuring changes to beneficiary's wellbeing. All in all, learning from Ubudehe program management staffs in the District of Musanze, risk response and strategies have 28.4% share toward public interest program performance.

It was found that, Ubudehe program management were not achieved 100% clean audit, not 100% ensuring risk response and strategies however they have achieved both at good rate (above 80%), there is a need of maximization, so that the program performance also could reach 100%. It was recommended that; management should organize training (regularly) for ensuring proper use of risks management strategies to ensure the program well performing. These training should cover the contents of public interest's program risks assessment, management, and mitigation. It should include planning skills, project implementation skills and project evaluation & reporting and stakeholder management.

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