

INFLUENCE OF RESULT BASED MONITORING AND EVALUATION INPUT PROCESS ON HOUSEHOLDS' FOOD SECURITY IN MURANG'A COUNTY

¹Anne Nyawira Ngugi, ²Prof. Timothy Maitho, ³Prof. Dorothy Ndunge Kyalo, PhD

^{1,2,3}School of Open Distance and Learning, University of Nairobi, P. O. Box 30197-00100 Nairobi, Kenya

Abstract: The Results-Based Monitoring and Evaluation Systems helps in promoting good governance in research projects, strengthening accountability of household input resources utilization; facilitating transparency throughout research project measurement; promoting understanding of Monitoring and Evaluation process amongst all stakeholders and enable effective utilization of value added to food management through communication of activities and processes. This study aims at establishing how Result Based Monitoring and Evaluation Input process influence households' food security. Descriptive survey design was used. The sample size comprised 371 households, 7 local leaders, and 4 agricultural extensions officers. The result show a positive and significant effect of Monitoring and Evaluation Input process and households food security ($R = .523$, $R^2 = .273$ and $p < 0.05$). The study recommends that farmers' cooperative societies and implementers need to emphasize on capacity building that will equip their member farmers with knowledge and skills on new farming techniques and systems in order to bridge the food security divide.

Keywords: Result Based Monitoring and Evaluation Systems, Result Based Monitoring and Evaluation Input Process, Household Food Security.

1. INTRODUCTION

The Result based Monitoring and Evaluation has increasingly become recognized as an indispensable tool of project management (Suárez-Herrera, Springett and Kagan, 2009). Seasons, 2003, reported that Monitoring results are used as evidence in decisions that serve in bettering the implementation in value added interventions, in enhancing food security become future reference points. Monitoring and Evaluation makes valuable contribution to project decision-making and learning by providing information on progress and status of project undertaking, (Scheirer, 2012). Its goal will be to improve current and future management of inputs, activities, outputs, outcomes and impact that mainly are used to assess the performance of Murang'a small scale farmers' value added project ultimately establishes links between the past, present and future actions of food security in Murang'a County households through Monitoring and Evaluation.

Input process in Monitoring and Evaluation resources contribute to the production and delivery of outputs, what is utilized for working, this includes finances, personnel, equipment and farm produce required to achieve the desired and necessary outputs through the planned activities, (Ray, 2004). The research project utilizes Gantt chart, a tool that tracks project inputs, a simple project management tool that describes the resources required to implement an initiative and planned project activities in either spreadsheet or calendar format. The emphasis is that the list may not be comprehensive as some of the tools and approaches are complementary or substitutes; some broad in scope, others narrower, (Biafore, 2013). food processing dates back to the prehistoric a long time when crude processing included fermenting, solar drying, preserving with salt, and diverse sorts of cooking (inclusive of roasting, smoking, steaming, and oven baking, (Carie, 2017).

2. STATEMENT OF THE PROBLEM

The Kenya Government on Vision 2030 aims at achieving national food security as one of the key objective in agricultural sector, (Kenya vision 2030). Agricultural sector is the mainstay of the Kenya's economy and the sector directly contributes 24% of the Gross Domestic Product (GDP). (Kenya Food Security Steering Group, 2008), explains that the current food insecurity problems are attributed to several factors, including the frequent droughts in most parts of the country, high costs of domestic food production due to high costs of inputs in seeds and fertilizer especially, displacement of a large number of farmers in the high potential agricultural areas during the post-election violence in early 2008, high global food prices and low purchasing power for large proportion of the population due to high level of poverty.

To understand the current problems facing food production and strategy in improving food security, the food index score verification of Murang'a County (2009 censuses) verses other Counties in Kenya has been viewed by FAO and KFP. The report shows that Murang'a County has a total Population of 942,581 people and falls in the ASAIL region with prevalence of households with poor and borderline food consumption score of 35% or less).

The popularity of Result Based Monitoring and Evaluation activities is increasingly being utilized especially among the Development agencies who look at the area of M&E as Methodology Innovation. The situational analysis shows that in Kenya, most projects which undertake Monitoring and Evaluation activities are just to fulfill donor requirement and little is heard about utilization of these results beyond the confines of the project and for accountability purposes. This study thus sought to investigate the influence of Result based Monitoring and evaluation input process on households' food security in Murang'a County.

3. OBJECTIVE OF THE STUDY

The general purpose of this study was to establish how Result Based Monitoring and Evaluation Input process influence households' food security in Murang'a County.

Research Hypotheses

H_A: Result Based Monitoring and Evaluation Input process has significance influence on households' food security in Murang'a County.

4. LITERATURE REVIEW

The Result Based monitoring and evaluation and provision of food for Murang'a County households is important given the paucity of data documenting successes and failures in such projects whose, possible adverse effects in such projects need to be identified and addressed rapidly, (Gergens and Kusek, 2010). Farming as a System can be viewed as a system, with inputs, throughputs or processes, outputs and feedback. Human or cultural Inputs are things like money, labour, and skills. Processes or actions within the farm which allow the inputs to turn into outputs have need and purpose for the estimate of the economic impact on farm input value-added agricultural processing and economic impacts for these agriculturally-linked sectors such as livestock, (Seidman, 2005). The economic impacts estimated in this analysis are at the small scale farmers' village level but the linkages are hoped to be escalated to the whole County and other regions in Kenya. The research on Result based M&E for the provision of food security and nutrition at geographically representative sentinel sites requires baseline data followed by the collection of quantitative and qualitative data at intervals, (Ray, 2014). Data collected in these areas plus comparable control sites would include information indicating participation and the extent to which households' food security in Murang'a County may be a benefit in food provision.

Although efforts to improve provision of food security and nutrition through agricultural projects have been attempted for many years, the issue is now receiving high level international policy attention for the first time. The identified need for nutrition-sensitive development through agricultural investments, UN and bilateral agricultural programs including those supported by USAID's with insistence especially of M&E systems for the sustainability of these projects. Provision of food is a vital component of human development and wellbeing, and thus must be safeguarded and sustained by states, communities and individuals. Value added agriculture is among a range of interventions and programmes for addressing global food security, Robinson, (2002). There are three major approaches: the food availability approach, the livelihood and entitlement approach and the food sovereignty approach that have been employed by support-led food security measures through public institutions or by growth-led security measures through market institutions, depending on the ideology and resources available to various development actors.

5. RESEARCH METHODOLOGY

Researcher adopted a descriptive survey design for the investigation which is most appropriate for this type of study. Research approach falls into two major data collection methods of quantitative and qualitative methods. The study targeted 134,654 heads of households, 20 local leaders such as chiefs and sub-chiefs, and 14 Agricultural Extension Officers from the 3 constituencies with 18 wards. The sample size calculation for this study assumed 95% confidence level and 5% precision. The study population for livestock and Agricultural Extension Officers' censuses was carried out on stratum as the population was too low to warrant sampling. The researcher used two types of instruments namely questionnaire and interviews guide. Interview guide was used in order to collect data from Local Leaders and Agricultural Extension Officers, both were expected to be knowledgeable to provide answers from a point of knowledge. The questionnaire was used in order to collect data from heads of households; the questionnaire was able to clarify questions due to the diverse education levels of households ranging from semi illiterate to highly educated people.

Data analysis took place at two levels – descriptive statistics level and inferential statistics level. Descriptive analysis aims at summarizing distributions and describing a set of data on variables of the study. This analysis was used to profile respondents. It was carried out by producing percentages, means and standard deviation and results were displayed in tables. Simple and multiple linear regressions were used to test the hypothesis. The Pearson correlation coefficient was used to determine the strength or degree of a relationship between the independent variable and the dependent variable. All the statistical tests were conducted at 95 percent confidence level. P-value was used to ascertain the significance of each construct in the regression model. The variables were taken to be statistically significant if the p-value ≤ 0.05 .

6. RESEARCH FINDINGS AND DISCUSSIONS

The study targeted 382 respondents; however, the researcher received response from 326 respondents. Further scrutiny established that six questionnaires were poorly filled and hence excluded from analysis. The effective sample dropped to 320 respondents forming 83.77% response rate, which was considered adequate for analysis. This study adopted a cut off Cronbach value of 0.7 which is considered a strong measure of reliability consistency (Creswell & Clark, 2017). This was confirmation of reliability of the data used to draw conclusions from theoretical concepts.

Test of Hypotheses

Hypothesis was formed on the basis of the research objective; it was tested using simple regression analysis. The hypotheses was tested at 95 percent confidence level ($\alpha=0.05$), hence decision points to reject or fail to reject a hypothesis were based on the p-values. Where $p < 0.05$, the study failed to reject the hypotheses, and where $p > 0.05$, the study rejected the hypotheses.

Interpretations of results and subsequent discussions also considered correlations (R), coefficients of determinations (R^2), F-Statistic values (F) and beta values (β). R^2 indicated the change in dependent variable explained by change in the independent variables combined. Further, the higher the F-Statistic, the more significant the model. The negative or positive effect of the independent variable on the dependent (either negative or positive) was explained by checking the beta (β) sign. The R-value shows the strength of the relationship between the variables, t-values represent the significance of individual variables. The findings are presented along study objectives and corresponding hypotheses.

The hypothesis formulated was that; **H₁** Result Based Monitoring and Evaluation Input process has significance influence on households' food security in Murang'a County. This was tested through the simple linear regression analysis. The results are presented in Table 4.50.

Table 1: Result Based Monitoring and Evaluation Input process and households' food security in Murang'a County

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.523 ^a	.273	.271	.30763

a. Predictors: (Constant), Result Based Monitoring and Evaluation Input process

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.314	1	11.314	119.548	.000 ^b
	Residual	30.095	318	.095		
	Total	41.409	319			

a. Dependent Variable: Households food security

b. Predictors: (Constant), Result Based Monitoring and Evaluation Input process

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.687	.160		4.291	.000
Result Based Monitoring and Evaluation Input process	.530	.048	.523	10.934	.000

a. Dependent Variable: Households food security

The study found strong relationship between Result Based Monitoring and Evaluation Input process and households food security ($R = .523$). Coefficient of determination ($R^2 = .273$) indicates that Result Based Monitoring and Evaluation Input process explain 27.3 % of variation in households food security. This relationship was also found to be significant ($F = 119.548$, $p < 0.05$). The significant relationship is further manifested by the t-value in the coefficient table ($\beta = .530$, $t = 10.934$, $p < 0.05$). This therefore depicts that Result Based Monitoring and Evaluation Input process is key in determining households food security and thus the hypothesis that Result Based Monitoring and Evaluation Input process has significance influence on households' food security in Murang'a County was supported.

7. CONCLUSION AND RECOMMENDATION

Based on the influence of Result Based Monitoring and Evaluation Input process and households' food security in Murang'a County, the study found strong relationship between Result Based Monitoring and Evaluation Input process and households' food security thereby accepting the hypothesis that Result Based Monitoring and Evaluation Input process has significance influence on households' food security in Murang'a County was supported. Policy makers should ensure that public institutions and other implementing agencies adopt the right result based monitoring and evaluation processes that support food security at household level. Training of farmers at household level on the best result based monitoring and evaluation processes is also important as a communication channel to ensure support of the adoption and implementation of new farming techniques.

REFERENCES

- [1] Bamberger, M., Rao, V., and Woolcock, M. (2010). 'Using Mixed Methods in Monitoring and Evaluation. Experiences from International Development', *Policy Research Working Paper 5245*, World Bank, Washington, D.C.
- [2] Barba A, Francisco de Souza, Sant' Ana, Vibeke O, and Mohamed K. (2017) eBook SBN: 9780128110324. Paperback ISBN: 9780128110317. Academic Press. Published Date: 25th September 2017
- [3] Borsboom, D., Mellenbergh, G.J., and Van Heerden, J. (2004). The Concept of Validity. *Psychological Review*, 111, 1061-1071.
- [4] Bjørnholt, M. & Farstad, G.R. (2012). "Am I rambling?" On the advantages of interviewing couples together". *Qualitative Research*, 14 (1): 3–19. doi:10.1177/1468794112459671.
- [5] Brannen, J. (2007). Mixed Methods Research: A discussion paper. ESRC National Centre for Research Methods, NCRM Methods Review Papers, NCRM/005.

- [6] Bryceson, D.F. and Kay, C. (2000). *Disappearing Peasantries? Rural Labor in Africa, Asia and Latin America*. Intermediate Technology Publications, London.
- [7] Calum B, Dave M. R, Jasper van V, Shah J, Peter H. V, and Mark D. R, (2014). *Experiments in Globalisation, Food Security and Land Use Decision Making*
- [8] Chao, P. (2010). *Methodological Considerations in a Quantitative Study of: The Effect of Logistics Service Value and Relationship Quality on Financial Performance, Evidence from Multimodal Transport Service in Thailand. Proceedings in 19th EDAMBA Summer Academy, Soreze, France, July, 2010.*
- [9] Campbell, D.T. and Stanley, J.C. (1963). *Experimental and Quasi-Experimental Designs for Research*. Rand McNally, Chicago, Illinois.
- [10] Cohen, L., Manion, L. and Morisson, K. (2007). *Research Methods in Education (6th E.d)*. New York: Routledge.
- [11] Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches (3rd Ed.)*. Los Angeles: Sage Publications, Inc.
- [12] Dalal, R. S. (2007). Contextual performance / prosocial behaviour / organizational citizenship behavior. In S. G. Rogelberg (Ed.) *Encyclopedia of industrial/organizational psychology* (Vol. 1, pp.103-106). Thousand Oaks, CA: Sage.
- [13] De Vaus, D.A. (1993). *Surveys in social research (3rd Ed.)*. London: UCL Press.
- [14] Deverur, S, (2001). Sen's Entitlement Approach: Critiques and Counter-critiques. *Oxford Development Studies*, Vol. 29, No. 3, 2001. <https://www.sas.upenn.edu/~dludden/FamineMortality.pdf>
- [15] Fiszbein, A. and Schady, N. (2009). *Conditional Cash Transfers: Reducing present and future poverty: A World Bank Policy Research Report*. World Bank, Washington, D.C.
- [16] Gary Gand James M,)2012.(*A Tale of Two Cultures: Qualitative and Quantitative Research in Social Science*. Princeton University Press. Amazon Com
- [17] Hoffman, A.J. (2017). *What Is Your Theory Of Change? Holcim (US) Professor of Sustainable Enterprise and Education Director at the Graham Sustainability Institute at the University of Michigan*