RESEARCH ARTICLE

AN INVESTIGATION INTO THE INFLUENCE OF PARTICIPATORY MONITORING AND EVALUATION ON PERFORMANCE OF SMALLHOLDER TEA FARMING PROJECT IN NYAMIRA COUNTY, KENYA

S.M. Mesa¹, Prof. C.M. Rambo² and Dr. A.S. Mulwa³

1. PhD Candidate, Department of Management Sciences and Project Planning, University of Nairobi.
2. Professor, Department of Management Sciences and Project Planning, University of Nairobi.
3. Lecturer, Department of Management Sciences and Project Planning, University of Nairobi.

Abstract

The purpose of this study is to establish the influence of Participatory M&E on performance of smallholder tea farming projects. In this study participatory M&E refers to involving stakeholders in the entire project lifecycle. It also involves, stakeholder tea farming groups integration, group public participation, involvement in M&E activities, enhancing participatory community approaches and promoting social media cohesion which is a powerful tool on enhancing performance of smallholder tea farming projects. Participatory Rural Appraisal: visual methods, often to analyze “before and after” situations, through the use of community mapping, problem ranking, wealth ranking, seasonal and daily time charts, and other tools. Beneficiary Assessment: conversational interviewing and focused group discussions on changes and impacts. The ANOVA results indicated that (F-statistics (1,369) = 6.633 is significant at P value 0.010 < 0.05 implying that the predictor co-efficient is at least not equal to zero and hence the regression model results in significantly better prediction of Performance of Smallholders’ Tea farming projects.

Introduction:

Tea was first introduced to Portuguese priests and merchants in China during the sixteenth century. The knowledge of tea travelled slowly from East to West. By the mid-nineteenth century, British colonials living in India not only engaged in experimentation with tea plantations but also made the drinking of black tea a daily custom. However, the number of tea consumers across the vast Indian population remained limited, and tea-drinking was heavily localized in regions where the plant was common such as northeastern India. Jason Goodwin posits that tea was not consumed by native population outside of northeastern India until the seventeenth century. Thus, the tea plantation in India was mainly driven by demand in Britain and its existing and former colonies where tea consumption had been expressly promoted as a means of increasing British revenues and perpetuating British cultural imperialism and where many local populations still kept the British style of tea culture (Moxham, 2003).

In Sri Lanka, the tea has been making a notable contribution to the national economy. Tea smallholders who own less than 2.5 hectares contribute 70% of the country’s total tea production while smallholder rubber growers make...
up 62% of the land under smallholder cultivation. About 50% of the smallholder tea lands in the island are reported to be more than 20 years old with less-than-optimal production capacity. While Government has established an annual 2% replanting target, both large estates and smallholders have difficulty in accessing the right financial instruments and developing the financial capacity to replant the tea. As tea production levels fall, without the needed replanting, many of the smallholders are likely to be pushed below the poverty line. To assist replanting smallholder tea, GOSL has a subsidy scheme which finances about 40% of the total cultivation cost. However, the subsidy is only provided after smallholder bearing the initial expenditures for tea replanting has been made (IFAD, 2015).

Researchers such as Ayuka (2017) and Ondieki (2017) have it that tea-growing trials had already started to take place on the island. With the loss of the coffee crop, the pressure was on to expand tea production to replace it. The driving force behind the rapid development of the Sri Lankan tea industry was a Scotsman called James Taylor. His early successes have been built upon spectacularly by the Sri Lankans. “The country may be small geographically, yet it ranks third in terms of world’s tea production. Tea from Sri Lanka is still known by the country's former name of Ceylon” (Ondieki, 2016 and KTDA, 2017).

Tracing the history of tea farming in Kenya was introduced in 1903 when a European settler, Cain introduced the first tea plants in Limuru area of Central Kenya. The early settlers and the colonial government restricted tea and coffee growing to large-scale farming and multinationals, ostensibly to maintain quality. However, the main reason was to lock out locals (read Africans) from the then very lucrative cash crop farming. Kenya’s attainment of independence in 1963 saw the passing of various Land Reform Bills which have had far reaching impact on agriculture. Tea growing for instance was made open to the local farming. The crop has since spread across the country and is currently an important economic mainstay for many small holder farming (CPDA, 2008). The main industrial crops are tea, coffee, sugar cane, cotton, sunflower, pyrethrum, barley, tobacco, sisal, coconut and bixa, all of which contribute 55 per cent of agricultural exports. Tea is still one of the leading foreign exchange earners in the country. Tea production increased from 287,100 tonnes in 2002 to 370,200 tonnes in 2007, while the value of exports increased from KES 34.3 billion to KES 47.3 billion in 2006, decreasing slightly to KES 46.8 billion in 2007. The value of coffee exports increased from KES 6.5 billion to KES 8.7 billion over the same period (GOK, 2010).

In the recent past Nyamira county has been known for largescale tea production which also happens to be the main source of income for the county. [Ateka 2018] The trend is changing at a very fast rate because of the poor payments tea farmers received as their bonus in the 2013 and 2014 financial year. The studies conducted of late show that farmers have opted to take poultry keeping, banana and avocado farming as alternatives to tea farming because majority who have ventured already them are recording very good results and earning big in their new venture. According to Oirere [2017] another part, smallholder tea farmers have opted for private buyers adding that poor Mand E Practicees and project dynamism experienced have also contributed for the tea smallholders’ outcry.In view to these in Nyamira County, “there are no mechanisms that exist to ensure that recommendations of previous Monitoring and Evaluation findings and reports are referred to when solutions to current challenges are being sought” (Nyamira County Agricultural Official Report, 2015).

**General objective**

The study sought to investigate the influence of participatory monitoring and evaluation on performance of smallholder tea farming project in Nyamira County, Kenya.

**Literature Review:-**

Participatory monitoring and evaluation encompases teamwork spirit in all the involved parties in the project intervention. Project stakeholders are individuals and organizations that are actively involved in the project, or whose interests may be affected as a result of project execution or project completion. Stakeholders have varying levels of responsibility and authority when participating on a project and these can change over the course of the project’s life cycle(Ateka, 2018). Their responsibility and authority range from occasional contributions in surveys and focus projects to full project sponsorship, which includes providing financial and political support (Nyabuto, 2014). In order to manage stakeholder relationships it is important to: Identify the stakeholders, analyze their interests, attitude to, potential need for involvement in, the project, establish stakeholder management strategy to ensure a consistent, appropriate and cost-effective approach is adopted across the project, identify potential approaches to engage, manage relationships and communicate with each stakeholder, select the approaches that are likely to be
The project stakeholder is sine qua non for the measuring of project success. According to, stakeholders are individuals and organizations actively involved in the project, or whose interest may be affected as a result of the project execution or completion. Due to the interest of stakeholders on the project, they may exert influence on the project’s objective and outcomes. To ensure a successful project, the project team must identify and engage all stakeholders, determine their requirements and expectation and manage their influence in relation to their requirements. Amponsah (2008) postulates that Ghana as any developing country has been recording failure in most of their development projects attributable to poor stakeholder engagement.

Ward and Chapman(2008) postulates that “voluntary stakeholders bear some form of peril as a consequence of having invested some form of capital, human or financial, something of value, in a firm. Involuntary stakeholders are placed at risk as an outcome of a firm’s activities. But without the constituent of risk there is no stake”.Thus stakeholders have an interest in the actions of an organization and have the ability to influence it.

Botchway (2001) expatiates that “there is need to emphasize the authenticity of stakeholder relationships in the stakeholder definition as: having some legitimate, non-trivial relationship with an organization, such as exchange transactions, action impacts, and moral responsibilities. This description highlights the environment of relationships between stakeholders and the organization. The relationships between stakeholders and firms have also been distinct either more broadly or more intently. These views approve a strategic perspective and emphasize the fact that companies have only limited resources and imperfect time that they can spend on dealing with their stakeholders. Therefore, it is in the concentration of management to categorize and pay attention to those stakeholders who have significance on organizations economic interests. Stakeholders can also be defined through their casual relationships and moral claims towards the business. These views regarded as the growth and sustainment of moral relationships with stakeholders as the firm’s responsibility. Studies have suggested a diversity of stakeholder classification schemes”.

Stakeholder engagement is significant in any decision making for development. Stakeholder engagement is a principle in development with support coming from many different stakeholders: governments, donors, civil society and ordinary citizens (Tufte and Mefalopulus, 2009). In all development projects stakeholder engagement is necessary because there are change agents (the outsiders) and the local people (the beneficiaries) who come together in order to share knowledge and trust. Therefore, for people to participate they must become conscious of their own dignity and they must express themselves and have an opportunity to have their say. Njoroge (2015) says they actively take part in the process.

Poister (2003) adds that stakeholder engagement provides the means for supporting or refuting arguments, clarifying issues, promoting understanding of the aims and underlying logic of policies, documenting programme implementation; makes it easy to garner support for the programme when important policy decisions affecting the programme must be made; and provides methods for quick visualization of difficult concepts, help determine the practicality of programs, and aid in the identification of time and resources requirements. Naidoo (2010) alludes on the same notes that that although monitoring and evaluation is very vital and important in promoting development and democracy, it is bogged by inadequate stakeholder engagement and that also lack necessary skills.

Theoretical framework
This study was grounded on the Theory of Change. The theory popularized by Carol Weiss in 1995, conjectures that a key motivation behind why complex projects are so hard to assess is that the presumptions that rouse them are ineffectively enunciated. Hypothesis of Change clarifies the procedure of progress by sketching out causal linkages in an activity for example its shorter-term, middle of the road, and longer-term results. The distinguished changes are mapped as the "outcomes pathway" demonstrating every result in intelligent relationship to all the others, and additionally sequential stream. Monitoring is concerned with assessing how change occurs within the components of the project and the surrounding environment, which was considered as a result of the interventions from the project.

A theory of change “is a model that explains how an intervention is expected to lead to intended or observed impacts and utility. Often referred to as the program theory, results chain, program logic model or attribution logic
TOC. The theory of change illustrates the series of assumptions and links identifying the presumed relationships and has great relevance to planning and coordination as well as research and surveillance" (Ayuka, 2017).

Using the theory of change “participatory M&E practices can be regarded as inputs whose outcome will be visible in more effective M&E system. The theory of change can indicate which aspects of implementation need to be checked for quality, to help distinguish between implementation failure and theory failure. It also provides a basis for identifying where along the impact pathway (or causal chain) an intervention may stop working. This type of information is essential to draw a causal link between any documented outcomes or impacts and the intervention. It is also essential to explain and interpret the meaning and implications of impact evaluation findings. It is important that due diligence in a project set up is adhered to regarding carrying out of M&E practices, whether in planning and coordination, capacity building, data demand and use or even in research and surveillance and that this should be done ethically with a view of mitigating likely adversity that may accrue if is omitted. Further M&E reports should meet the requisite ethical standards to be accommodated”.

**Methodology:**

The study adopted a descriptive survey design and Correlation research design to analyze data that was collected. Descriptive survey research design and correlation research design utilized were informed by the type of data collected in this study, data collection was to draw both descriptive and inferential data that required the use of descriptive and inferential analysis.

The sample size of this study was 379 smallholder tea farmers drawn from a target population of 24,000 tea farmers using Krejcie and Morgan (1970) table of sampling theory. There is also a sample of 12 board of management of Tea farmers constituting nine members from each of the constituencies of which three board members are purposely sampled giving a total of 12 board members.

Data was collected using the questionnaires and interview schedules. It was then processed and analyzed using SPSS and NVIVO softwares.;

**Results:**

**Questionnaire Return Rate**

Out of the 379 administered questionnaires to the participants undertaking smallholder tea farming projects from the four Constituencies in Nyamira County (North Mugirango, Borabu, West Mugirango and KitutuMasaba), 371 were dully filled giving a return rate of 97.89%. The questionairereturn rate results is presented in Table 1.

| Constituency       | Sampled | Returned | Return Rate |
|--------------------|---------|----------|-------------|
| North Mugirango    | 142     | 139      | 97.89       |
| Borabu             | 119     | 117      | 98.32       |
| West Mugirango     | 73      | 72       | 98.63       |
| KitutuMasaba       | 45      | 43       | 95.56       |
| **Total**          | **379** | **371**  | **97.89**   |

The high rate was attained because the researcher visited the sampled respondents during data collection and administered the instruments to each respondent in person. The high return rate of 97.89% facilitated gathering of sufficient data that was generalized to determine the influence of participatory M&E on performance of smallholder tea farming projects in Nyamira County, Kenya. The Questionnaire return rate was considered adequate as per Mugenda and Mugenda (2003) and Kothari (2004) who recommended that a questionnaire return rate of more than 50% to be satisfactory and contributes towards gathering of sufficient data that could be generalized to represent the opinions of participants about the study problem in the target population. Table 4.1 indicates the Questionnaire Return Rate of the participants undertaking smallholder tea farming projects from the four Constituencies (North Mugirango, Borabu, West Mugirango and KitutuMasaba).
Distribution of respondents by Gender
It was imperative to investigate the respondents’ gender to establish gender parity in management of smallholder tea farming projects. The information sought on gender was significant to the government for policy decision making. The respondents were therefore asked to state their gender and the results are presented in Table 2.

Table 2: Distribution of Respondents by Gender.

| Gender | Frequency | Percent |
|--------|-----------|---------|
| Females| 193       | 52.0    |
| Males  | 178       | 48.0    |
| Total  | 371       | 100     |

Table 2, shows that over 50% of the respondents at 193(52%) were females while their male counterparts were 178(48%). The findings indicated that female tea farmers outnumbered their male counterparts by relatively smaller margin, implying that there was still gender parity in smallholder tea farming projects. The implication of this result to the study is that majority of women devote their time and get preoccupied in tea farming projects to generate income for self-sustainability and hence enhance performance of smallholder tea farming projects as opposed to men who normally prefer other forms of employment preferably of office nature.

Participatory Monitoring and evaluation results
Descriptive results
Participatory M&E refers to involving stakeholders in the entire project lifecycle. It also involves, stakeholder tea farming groups integration, group public participation, involvement in M&E activities, enhancing participatory community approaches and promoting social media cohesion: “This was the third objective that the study sought to achieve.; therefore, the participants were requested to give their opinions on their level of agreements or disagreements with the seven statements of Participatory M&E on a Likert scale of 1-5 where Strongly agree(SA)=5, Agree(A)=4 Neutral(N)=3, Disagree(D)=2and Strongly disagree. (SD)=1. The results were analyzed and presented using frequency and percentage for each response in each item. The item mean as well as the standard deviation were also computed and presented alongside as provided in Table 3”.

Table 3: Participatory M&E and Performance of Smallholder Tea Farming Projects

| Statements                                                                 | SA      | A      | N       | D       | SD       | Mean | Std. dev |
|--------------------------------------------------------------------------|---------|--------|---------|---------|----------|------|----------|
| 1. Participatory M&E is very important in performance of smallholder tea farming projects | 266(71.6%) | 100(27%) | 3(0.8%) | 1(0.3%) | 1(0.3%) | 4.70 | 0.527    |
| 2. There is sufficient involvement in M&E activities for smallholder tea farming projects | 159(42.8%) | 167(45%) | 35(9.5%) | 8(2.2%) | 2(0.5%) | 4.27 | 0.764    |
| 3. Group public participation promotes teamwork that enhances performance of smallholder tea farmers | 251(67.7%) | 115(31%) | 5(1.3%) | 0(0.0%) | 0(0.0%) | 4.66 | 0.503    |
| 4. Participatory communication approach is key in identifying strength and weakness of the smallholder thus promoting performance of smallholder tea farming projects | 179(48.2%) | 172(46.4%) | 19(5.1%) | 1(0.3%) | 0(0.0%) | 4.43 | 0.603    |
| 5. The number of participatory M&E                                        | 108(29.1%) | 165(44.5%) | 25(6.7%) | 31(8.4%) | 42(11.3%) | 3.72 | 1.279    |
The results from the table 3 indicated that, the composite mean and composite deviation for the Particatory M&E were 3.92 and 1.104 respectively; implying that using the Likert scale the participants agreed (mean=3.92) that Participatory M&E influence Performance of smallholders’ tea farming projects positively.

**Inferential Results**

**Model summary of Participatory and Performance of Smallholders’ Tea farming projects**

The model summary sought to determine how Participatory M&E is a predictor that significantly or insignificantly predicted Performance of Smallholders’ Tea farming projects. The regression model summary results are presented in Table 4.

| Table 4: Regression Model Summary table of Participatory M&E and Performance of Smallholders’ Tea farming projects. |
|---------------------------------------------------------------|
| **Model** | **R** | **R Square** | **Adjusted R Square** | **Std. Error of the Estimate** |
| 1 | 0.131* | 0.018 | 0.015 | 0.478 |
| a. Predictors: (Constant), Participatory M&E |

The results from model summary Table 4.22 indicated that “there is a positive correlation(R=0.131) between Participatory M&E and the Performance of Smallholders’ Tea farming projects and those predicted by the regression model”. In addition, 1.80% of the variation in the Performance of Smallholders’ Tea farming projects was explained by Participatory M&E. This finding is in agreement with findings by Kithinji (2015) study that found out that there is a significant relationship between Participatory M&E and Performance of Smallholders’ Tea farming projects.

**ANOVA of Participatory M&E and Performance of Smallholders’ Tea farming project**

The study sought to establish if the regression model is best fit for predicting Performance of Smallholders’ Tea farming projects after use of Participatory M&E. The ANOVA results are presented in Table 5.

| Table 5: An ANOVA of the Regression of Participatory M&E and Performance of Smallholders’ Tea farming projects. |
|---------------------------------------------------------------|
| **Model** | **Sum of Squares** | **Df** | **Mean Square** | **F** | **Sig.** |
| 1 | Regression | 1,515 | 1 | 1,515 | 6.633 | 0.010 |
| Residual | 84.288 | 369 | 0.288 |
| Total | 85,803 | 370 |
a. Dependent Variable: Performance of Smallholders’ Tea farming projects
b. Predictors: (Constant), Participatory M&E

The ANOVA results presented in Table 5 indicated that “(F-statistics (1,369) =6.633 is significant at P value 0.010< 0.05 implying that the predictor co-efficient is at least not equal to zero. and hence the regression model results in significantly better prediction of Performance of Smallholders’ Tea farming projects”.

**Conclusion:-**
The study concludes from the simple linear regression coefficients as well as the Pearson correlation results indicated that there was significant influence of Participatory M&E on Performance of Smallholders’ Tea farming projects. The small p-values implied that there is a significant influence of Participatory M&E on Performance of Smallholders’ Tea farming projects.

**Recommendations:-**
The study recommends that best participatory M & E practices were developed from routine monitoring especially when done in all areas in most of the tea farming projects. Proper utilization participatory M & E practices is found to be used in making decisions and processes which enhanced performance of tea farming.

**References:-**
1. Amponsah, W. (2008). *Beyond the Financial Crisis: Africa’s Financial and Trade Policy Challenges Under Market Integration.*
2. Ateka, J. M. (2018). Effects of firm size and green leaf marketing arrangements on small holder tea production.
3. Ayuka, E. O. (2017), Determinants of successful implementation of county funded Building evaluation capacity: definitional and practical implications from Bureti District, Kenya; Unpublished thesis of Egerton University.
4. Botchway, K. (2001), “Paradox of Empowerment: Reflections on a Case Study from Northern Ghana.” World Development 29.1: 135–53.
5. Christian Partners Development Agency (CPDA)(2008). Report on Small-Scale Tea Community IT Initiatives Empowering and Disempowering Impacts. Evaluation, 11(4). doi:10.1177/135638900505938 Complexity”. Applied Developmental Science
6. Government of Kenya (2010). Annual reports, Nairobi, Government printers
7. IFAD,(2015).Sustainable development and agricultural productivity. Accessed on May 2018 Issues and Options. *Evaluation*, 4(3), 310–328.doi:10.1177/13563899822208626
8. Kithinji, C. (2015). Evaluation Capacity Building, Monitoring and Evaluation Activities, Organizational Change and Result Utilization on Non-Profit Organizations in Meru Counties of Kenya, Unpublished PhD Thesis of The University of Nairobi
9. Kothari, C.R. (2004) Research Methodology: Methods and Techniques. 2nd Edition, New Age International Publishers, New Delhi.
10. Krejcie, R.V., & Morgan, D.W., (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement. Small-Sample Techniques* (1960). *The NEA Research Bulletin*, Vol. 38.
11. KTDA (2017), Tea Annual Review for Progressive Tea Leaves Production Sales,
12. Moxham, R. (2003) *Tea: Addiction, Exploitation, and Empire.* New York:
13. Mugenda, O. & Mugenda, A. (2003). Research methods: quantitative and qualitative approaches. (1st ed.). Nairobi: African Centre for Technology Studies (ACTS).
14. Naidoo, V. (2010). Firm Survival Through a Crisis: The Influence of Market Orientation, Marketing Innovation and Business Strategy. *Industrial Marketing Management, 39*, 1311–1320. https://doi.org/10.1016/j.indmarman.2010.02.005
15. Njoroge, L. N., (2015). Participatory Communication in Poverty Reduction in Kenya: A Study of Murang’a County, Unpublished MA Thesis of the University of Nairobi.
16. Nyabuto, P. N. (2014). Influence of participatory monitoring and evaluation on performance of public private partnership projects in Nairobi county, Kenya [Thesis, University of Nairobi]. http://erepository.uonbi.ac.ke/handle/11295/77463
17. Nyamira County Agricultural Reports (2015). *Annual Agricultural Reports: Nyamira County Kenya*
18. Oirere, S. (2017). *Kenya Small Growers Opt for Private Buyers*. STiR Is the International Coffee and Tea Industry Bi-Monthly Magazine Website, Local, Global, Equipment, Machinery, Supplies, Services, Market, Intelligence, Raw, Product, Retail, Service News. https://stir-tea-coffee.com/features/kenya-small-growers-opt-for-private-buyers/

19. Ondieki, S. (2016), *Influence of Working Environment on Project Team Performance; Case of Sanganyi Tea Factory*, Unpublished Thesis University of Nairobi.

20. Ondieki, S. (2017), *An Assessment of Workplace Safety and Compliance on Employees Performance; Case of Gianchore Tea Factory*, Unpublished Project University of Nairobi.

21. Poister, T. H. (2003). *Measuring Performance in Public and Nonprofit Organizations*. Jossey-Bass, 316.

22. Tufte, T., Mefalopulos, P. (2009). Participatory communication: A practical guide. World Bank Working Paper No. 170. Washington D.C.: The World Bank

23. Ward, S., & Chapman, C. (2008). Stakeholders and uncertainty management in projects. *Construction Management & Economics*, 26, 563–577. https://doi.org/10.1080/01446190801998708.