INFLUENCE OF MONITORING AND EVALUATION HUMAN RESOURCES CAPACITY ON PERFORMANCE OF HORTICULTURE PROJECTS IN NAKURU COUNTY, KENYA

Ms. LILY CHEBET MUREI

PHD Candidate

University of Nairobi

Box 61379-00200 Nairobi, Kenya

Email: Lmurey@gmail.com

Telephone: +254 0722981655

Prof. HARRIET KIDOMBO

Deputy Director, School of Open Distance and e-learning Campus

P.O Box 92-00902 Kikuyu, Kenya

Email: harrietkidombo@yahoo.co.uk or hkidombo@uonbi.ac.ke

Telephone: +254 0722 734058

Prof. CHRISTOPHER GAKUU

Director, School of Open Distance and e-learning Campus University of Nairobi

P.O Box 92-00902 Kikuyu, Kenya

Email: cmgakuu@uonbi.ac.ke

Telephone: +254 0722 841432
Abstract

Human capital development contributes to increased productivity and project performance. Although this may be true, there is little empirical evidence as to what extent monitoring and evaluation human resource capacity influences performance of horticulture projects. This study sought to establish the extent to which monitoring and evaluation human resource capacity influences performance of horticulture projects in Nakuru County. Study design was cross sectional and a correlation descriptive survey. A mixed method approach was applied. Structured questionnaires of Likert scale, Key Informant Interviews and Focus Group Discussions were the main tools for data collection. Arithmetic mean and standard deviation were generated from the descriptive data. Pearson’s Product Moment Correlation Coefficient(r) was computed. Results showed that M & E human resource capacity had a significant influence on performance of horticulture projects. Recruiting competent M & E staff and building M & E capacity at all levels was recommended.

Key words: Monitoring, Evaluation, Human Resource, Capacity, Performance, Projects
1.0. Introduction

Performance of projects is influenced by various factors one of which is the level and capacity of human resources tasked with project implementation. However, assessment of project performance has been based on specific indicators such as time, budget, quality, specifications and stakeholders’ satisfaction (Ika, 2012). Competency of project managers, use of appropriate technology, project size has also been cited as critical drivers affecting how project performs (Ngugi, Muigai & Muhoro, 2014; Midida, Gakure & Orwa, 2013). Earlier studies showed that performance of projects remained an issue of concern in project management globally (Muller & Jugdev, 2012; Ika, 2012). Moreover, several authors acknowledge that performance of projects seem to be influenced by various factors (Ngugi, Muigai, & Muhoro, 2014; Ulrich, 2014; Nzekwe, Oladejo & Emoh, 2015). All these studies suggested that there is no ‘one-fits-all’ approach to assessment of project performance. A study by Tidac & Pivac, (2014) on human resources capacity and performance of projects established that M & E program staff should be given incentives and resources that include skills, time, and equipment so as enable them play their rightful role in accelerating performance of projects. Similarly, Rejaul, Huda & Khan (2012) notes that trained human resources contribute to various project related outcomes. Hence those managing projects need to prioritize the type of capacity needed when recruiting M &E staff.

The influence of human resource level and capacity has been cited as a key driver for continued existence and success of most projects. Equally, projects owe their economic performance to those charged with overseeing implementation .The level of human resource capacity is an important management tool which can be used for guiding the available human resources to enhance performance of projects (Tengan et al., 2014). To this end human resource capacity in monitoring and evaluation causes projects to perform better. In addition, trained and competent staff
contributes to quality project performance. The realization of this fact requires that knowledge and experience in monitoring and evaluation is given priority in recruitment of staff tasked with M & E function. Despite this valued importance of human resources capacity in M &E, there is little evidence as to what extent does human resources capacity for M & E influence performance of horticulture projects.

2.0 Literature Review

Project outcome depends on several parameters one of which is human resources capacity. As such organizations are not only focusing on excelling in project delivery but also provide value for their workers. For those implementing projects, a deliberate effort is put on human related factors such as improving the technical capacity for those tasked with delivery of project results (Oladipo, 2011). Similarly, to achieve sustained project performance, management needs to meet the needs of employees within the work place by equipping project staff through training (Aquinas & Kraiger, 2009).

In reviewing various literatures relating to project teams, it is argued that in most cases monitoring and evaluation staff will be responsible for actual collection, recording and reporting of project data. Hence staffs responsible for monitoring and evaluation need to have the required skills to deliver on their M & E function (Tuckermann, 2007; Chand & Katou; 2007; Ubels, Fowler & Acquaye-Baddoo, 2010; Imran et al., 2011; El Mouallem & Analoui, 2014). Additionally, link between human resource’s capacity and competitive advantage have been established borrowing largely from behavioral psychology. To this end, researchers Lado& Wilson (1984) established that competent human resource’s capacity have the potential of contributing to better performance and competitive advantage. Similarly, Ubels et al. (2010) in their study on resource volume capacity development argues that the ability to perform and attain the set goals at individual and
institutional levels qualifies to be defined as capacity. In another study on impact of human resource performance management on project outcome, Imran et al. (2010) established that there was a correlation between performance monitoring of human resource and project results. To a large extent, the competency of project staff was a factor in determining the extent to which projects were deemed successful. In another study Chand & Katou (2007) established that hotel performance was positively correlated to human resources management defined by recruitment, job design, training and development. In view of the forgoing literature competent human resources is seem to reinforce the role of behaviors in enhancing result oriented project delivery. More over contribution of human resources to performance is prevalent where organizational climate nurtures and rewards quality practices of employees known to meet customer expectations (Reid et al., 2003). Equally, motivation of staff tasked with M & E functions through skill training improve project effectiveness and performance. However, providing the much-needed support resource allocation including specific budget for recruitment and training of M & E staff is an important consideration Imran et al. (2011). Importantly, M & E roles and responsibilities need to be embedded in job descriptions and performance agreements. Specifically, individual performance needs to be linked to overall project performance outcomes. To the extent possible, considerations regarding the role and support of project staff should be encompassing capacity aspects of M & E (Tidac & Pivac, 2014). Beyond the needed cooperation from M & E staff and focal points, providing incentives and resources needed to ensure for instance collection and recording of quality data happen (Rejaul et al., 2012). Furthermore, monitoring and evaluation needs to be positioned as far more than a technical instrument for change. In particular, and as suggested by Ubels et al. (2010), it is not enough to simply create a highly-trained evaluation capacity and expect that organizations to become more effective. For this reason, there is need to
ensure that trained staff and stakeholders understand their M & E roles, participate in M & E planning and development of related systems and tools. To achieve the objective of sustained project performance, improving the capabilities for M & E human resource through training is of priority as noted by Chand & Katou (2007). Moreover, having the right M& E human resource capacity can be beneficial regarding other outcomes at both at individual, team and project level.

2.1 Theoretical Foundation

This study was guided by Systems Theory (ST) advanced by Ludwig Von Bertalanffy and later improved to become General System Theory by Kenneth Boulding, Daniel Katz, and Robert Kahn in 1964 (Dubrovsky, 2004). The system theory emphasizes the way in which organizational projects are seen as an organized system comprising of human and non-human. The subsystems respond in a way to cope with significant changes in their environment but still keep their structures intact. As such the ST concept views organizations as constantly interacting with both their internal and external environment.

In the context of this study, Kenya National Farmers’ Federation (KENAFF) as an organization was taken as a system with various components namely projects implementation teams, internal processes and its interaction with the outside actors such as farmers. How the organization manages these subsystems, the way it responds to and applies pre-existing response mechanisms affects project performance. KENAFF as an organization was treated as a system that has various subsystems; culture, human resources, top management, monitoring and evaluation, financial processes and information processing systems (KENAFF, 2013). These subsystems and their inter-relationships work toward equilibrium within the larger system of overall project performance. M & E human resource capacity as a sub system was assumed to influence performance of horticulture projects. In the case of KENAFF, human resource capacity for M &E needed to be
understood by assessing the extent to which it influences project performance. Indicators for assessing the human resource capacity were expertise, competency, and M &E training. System theory was preferred for this study because; an understanding of systems theory provided an enhanced appreciation of how each of the sub systems of influence and interacts to achieve a set goal as argued by Yoon & Kuchinke (2005). The nature of the interplay between various organizational components /sub systems, have a compound effect in the overall achievement of project goals including meeting beneficiaries needs.

3.0 Methodology

The study used cross sectional, descriptive survey design and correlation research design. The design allowed for both descriptive and inferential methods. Descriptive research design helped in describing the phenomena while correlation research design provided an opportunity to identify predictive relationships by use of correlations and regression models. Mixed method was applied using quantitative and qualitative data collection methods.

The target population for the study was 28 farmer groups implementing horticulture and projects supported by KENAFF in Nakuru County. The 28 groups were spread across 10 sub Counties out of a total of 12 sub Counties hence provided greater representation (KENAFF, 2012). Sampling involved clustering the 28 groups as per the wards and through proportionate sampling to get a sample of 15 groups. Sampling frame for groups was the project register while that for individual respondents was the membership register. Respondents were drawn from the 15 sampled farmer groups and at KENAFF secretariat. As such respondents included leaders of the groups who comprise of the chairperson, vice chairperson, secretary, vice secretary, treasurer and three other committee members representing special interest.
Group leaders were selected purposively because they had been trained on project management including monitoring and evaluation of projects. A second category of respondents was KENAFF staff supporting implementation of horticulture projects in Nakuru County. The third category included KENAFF board members that oversee the overall implementation of projects. For individual respondents, purposive sampling was used to draw respondents from each of the sampled 15 farmer groups. Each group has a leadership management team of nine who are also farmers in their own capacity. Hence from each group nine (9) respondents were drawn giving a total of 135 respondents from the 15 groups. For triangulation purpose, respondents from KENAFF secretariat were sampled through stratified sampling and purposively sampling respectively. Total respondents for the study were 154.

This being a mixed research the study used both quantitative and qualitative methods for data collection. However quantitative method was the main method using a questionnaire. The instruments used in this study included questionnaires for farmers and KENAFF staff. Interview schedule was used for key informants’ from KENAFF board. Focused group discussions (FGD) were used to gather information from farmers who did not participate in responding to the questionnaires. Use of mixed method approach offered a good opportunity to triangulate findings and respond to the objective of the study. More so verify findings as argued by Onwuegbuzie & Leech (2005). Questionnaire was administered to farmer respondents while questionnaire for KENAFF staff was self-administered. For board members, interviews were conducted.

Reliability of instrument was achieved by use of split half method where the two halves were correlated and a Correlation coefficient of the two sets of data was computed. Cronbach’s Alpha Reliability of at least 0.7 for all items of the variables was considered. Quantitative data was analyzed using Statistical Package for Social Sciences (SPSS) version 17.0 Software. Central
tendency and standard deviation were generated from descriptive data. To decide on the probable statistic, normality, linearity and skewness were explored. Regression and Pearson’s Product Moment Correlation Coefficient(r) was computed to carry out statistical tests for measuring the influence of M & E human resources capacity on performance of horticulture projects. Coding was used to organize and summarize the qualitative data into meaningful themes.

4.0 Findings

This section covers both descriptive and inferential findings deduced from data analysis.

4.1 Descriptive Analysis

Initial analysis involved describing the data sets. Out of the 154 questionnaires, a total of 150 were filled representing a return rate of (97.4%) which was adequate for the study. A response rate of 85% or more is desirable for social science research as argued by Fan & Yan (2010). The high responses rate was attributed to administration of the questionnaires at sites that were convenient to the respondents. Results from the questionnaires were triangulated using those from key informant interviews and focus group discussion. Descriptive statistics showed that 72.2% believed that M&E expertise (skills and knowledge) had a significant influence on performance of horticulture projects. This proportion was represented by responses of 17.9% represented strongly agreed and 54.3% representing responses of agree. A similar trend was observed where out 70.3%; 15.1% represented strongly agree and another 55.2%-represented agree were of the view that M&E competency influenced project performance. Regarding training out of 60.7%; 11.6% represented strongly agree and 49.1% representing agree were of the view that M&E training had some influence on project performance. From this analysis, it revealed that that M&E expertise had the greatest influence, followed by M&E competency and finally M&E training. Over all, the composite mean of 2.438 and a standard deviation of 0.757 showed that all the three factors of M
& E human resources capacity was rated high. More so, and as established from the analysis
majority of responses falling under agreed confirmed that M & E human resources capacity had
significant influence on performance of the horticulture projects in Nakuru County.
From the key informant interviews, a participant was of the view that M&E competency was the
major driver in human resource capacity for M &E. This was emphasized by one board member
who said:
“\textit{In recruiting M \&E staff, priority is to get a skilled person with the right competencies; we also
strive to build M \& E capacity of staff that has worked for a long time in the projects}”.
Farmers through focused group discussions were of the view that M &E training at all levels was
necessary as this is the best way to have competent people in all projects. Majority of the farmers
reported that they have been trained in some aspects of M & E though not in all projects. An FGD
participant whose response was supported by many was of the view that:
“\textit{M\&E Human resource capacity indicators considered in the study namely competency, expertise
and M \&E training needs to be factored during project design; this means M \& E staff recruited
need to be competent or receive on job training. Where this was done, we have witnessed good
performance in most of our projects}”.
Majority of the respondents through the focused group discussions were of the view that on job
training would be of use especially through mentorship and coaching. Through such efforts
majority at the group level would gain skills and in return ensure that the projects become
sustainable. The findings showed that M &E human resource capacity is necessary for the
achievement of good project performance. Ensuring that M &E human resources capacity is
sufficient improving the technical capacity of those tasked with delivery of project results was
reported as prerequisite. To the extent possible project staff and stakeholders tasked with M &E roles need to have the necessary skills.

“Being a beneficiary of M &E training, I feel empowered to participate in monitoring activities at group level. I now understand how to link our group work plan with the expected results” (FGD, Participant)

Hiring those already trained in M & E; or providing on job training was given emphasis by respondents. From those interviewed majority believed that hiring already trained personnel or providing on job training was the best way to fill the capacity gap in M &E. It was apparent that farmer respondents were keen to learn and put into practice the learned skills to monitor group activities. Equally, project staff should be given incentives and resources. From majority of the respondents M &E skills determines the outcome of project results. As such M &E project staff and stakeholder requires an understanding of the M &E frameworks, project indicators and targets, type of monitoring data as well as type of evaluations.

“Understanding how to carry out M &E and interpret the results is critical in making project related decisions, as such there is need to have people with the right competence and knowledge in M & E”(FGD Participant).

Some respondents however had contrary views where they argued that while skilled human resources for M &E was necessary, the final decision of who is recruited to carry the M &E function is made by the supporting organization. Farmer groups are only involved in the monitoring of activities or specific trainings. Farmers proposed that some of the young group members can be trained and in future can be recruited as M & E focal points. This approach would promote sustainability of projects.
Responses from farmers indicated that there is a general understanding of M &E for those who have attended trainings. However, they were of the view that they should be given opportunities to participate in wider M &E activities such as mid or end of project evaluations. While the respondents acknowledge that at times M &E is technical and best left to technical staff, they feel that being involved in the development of project M &E plans could provide them with the opportunities to improve their capacity in M &E. Comparatively though project staff tasked with the M &E have received on job training, in some cases external consultants would still be hired to do the work they can do.

“In one of our projects, we have seen in some of occasions external consultants be hired yet, there are qualified project staff who are conversant with the projects. This sometimes demoralizes the project staff and to some extend affects performance of projects” (FGD participant)

Overall the study findings revealed that M &E human resources capacity is an important driver in project success and performance. Besides if project performance has to be achieved, there is need in have the competent skilled people to carry out the M &E function.

4.2 Regression and Hypothesis Testing

The study hypothesized that there was relationship between M &E human resources’ capacity and performance of horticulture projects. Correlation analysis was conducted using Pearson Moment Correlation, to explore the direction of the relationship between independent variable and dependent variable. This was determined by checking the positive or negative value before the (r). The strength of the relationship was based on looking at the correlation value of (r) where a rank (r) of 1 implies perfect positive correlation, a rank of 0.10<r≤0.29 implied a weak positive correlation, a rank of 0.30<r≤0.50 implied a positive moderate correlation, a rank of 0.5<r≤1 implied a strong positive correlation; a rank (r) of -1 implied a perfect negative correlation, a rank
of \(-0.29 < r \leq -0.10\) implied a weak negative correlation, a rank of \(-0.50 < r \leq -0.30\) implied a moderate negative correlation, a rank of \(-1 < r \leq -0.5\) implies a strong negative correlation. Since the variables were measured on a Likert scale, Pearson Product Moment Correlation was used and these relationships were determined at a 95% confidence level. As such the sample proportion \(p\) was less is or equal to 0.05 is statistically significant.

Performance of horticulture projects was the dependent variable, and it’s composite index being of economic performance, technical performance and farmers’ satisfaction of products and services. Monitoring and evaluation human resource capacity was the independent variable, and with a composite index of M&E expertise (skills and knowledge), M&E competency and M&E training. To test this hypothesis a regression model of the form: \(y = \beta_0 + \beta_2 X_2 + \epsilon\) was estimated, where:

\[ y = \text{Performance of horticulture projects} \]
\[ \beta_0 = \text{Constant} \]
\[ \beta_2 = \text{Beta coefficient} \]
\[ X_2 = \text{M &E Human resource capacity} \]
\[ \epsilon = \text{Error term} \]

Results presented in Table 4.1 showed that the correlation coefficient \(r\) of 0.820 M &E human resource capacity had a significant influence on performance of horticulture projects. The coefficient of determination (Adjusted R-squared) of 0.599 suggested that M &E human resource capacity explains 59.9% of performance of horticulture projects while 40.1%% is explained by other factors other than monitoring and evaluation human resources capacity.
Table 4.1 Regression Results of M&E Human Resource Capacity on Performance of Horticulture Project

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R-Square</th>
<th>Adj. R-Square</th>
<th>Durbin Watson Statistic</th>
<th>Unstandardized Coefficients B</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summaries</td>
<td>.820</td>
<td>.673</td>
<td>.599</td>
<td>2.458</td>
<td>14.981</td>
<td>7.383</td>
</tr>
<tr>
<td>(Constant)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M &amp; E</td>
<td>.480</td>
<td>.193</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F (1,145) = 6.175, p=0.000&lt;0.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Performance of Horticulture projects
b. Predictors: (Constant), Monitoring and Evaluation human resource capacity for

The F (1,145) statistic of 6.175 was statistically significant at 5% [p=0.000<0.05] implying M &E human resources capacity had a significant influence on performance of horticulture projects. Reflecting on these findings and the correlation analysis, it revealed that M &E human resource capacity had a very positive correlation with performance of horticulture projects in Nakuru County. As such the null hypothesis was rejected.
5.0 Discussion of Findings

The studies aimed at establishing the extent to which monitoring and evaluation human resources capacity influence performance of projects. The outcome of the analysis yielded $F (1,145) = 6.175$, $p=0.000<0.05$. The study finding implies that there is a strong positive linear relationship between M & E human resources capacity and performance of horticulture projects. Likewise, $R^2=.673$ indicate that M &E human resources capacity accounts for approximately 67.3% of the variation in performance of horticulture projects. The pother 32.7% is accounted for by other factors not considered in the study. The finding in the current study is consistent with Oladipo (2011) who argues that to achieve the set project goals, deliberate effort need to be put on human related factors. More so investing in human capital through improving the technical capacity of those tasked with delivery of project results is a prerequisite for consistent project performance as established by (Chand&Katou; 2007; Ubels et al 2010; Imran et al, 2011&El Mouallem, 2014).

Similarly, the current study finding resonates with that of Tidac&Pivac, (2014) who found that to the extent possible project staff tasked with M &E roles need to have the necessary skills. Moreover, they need to understand what required and is how to address M &E related challenges. This way they can comfortably propose corrective action when using an M &E system to measure project outcomes

The finding also confirms assertions in a report by IFAD (2002) which indicated that investing in human resources personnel tasked with M&E roles impacted on project outcomes. IFAD report further suggests that this can be done by hiring those already trained in M & E and remunerate well to retain them. Alternatively, providing on job training and mentorship for already existing project staff or stakeholders would contribute to sustained performance. On the same line, the study finding agrees with an earlier study by Aquinis&Kraiger (2009) established that to sustain
project performance; management should be actively involved in meeting the needs of staff. Similarly, the study finding in consonance with Rejaul et al. (2012) who argues that providing incentives and resources needed such as skills, time, equipment and funding to support the M &E tasks has was reported to be a great motivation. Highly motivated individuals reported more benefits of trainings which were reflected in the way their projects performed.

Type and level of skills determines the outcome of project results. As such M &E project staff requires an understanding of the M &E frameworks, project indicators and targets, type of monitoring data as well as type of evaluations. Tuckermann (2007) and Tidac&Pivac, (2014) emphasize that, M & E staff need skills to carry all M &E related activities including writing and interpreting M &E project results suggests Issa & Issa (2013). As such knowledge and competency, higher level of competency is associated with higher level of project performance emphasizes Chand & Katou (2007). Comparatively, quantitative findings are consistent with the indicators from the qualitative part of the study. Findings on M &E expertise and competency revealed that respondents were of the opinion those tasked with M & E function need to have the required skills and knowledge. The respondents further emphasized that the competency and expertise need to be of priority in recruitment of human resources for M &E. Respondents also preferred that those who have been involved in project implementation can be trained to carry out the M &E function. Equally, the training should not be a one-time activity but adopt a mentorship approach to create sustained project performance. Study participants also stressed that human resources M & E expertise and competency, were important factors when assessing project performance. Overall, it was established that monitoring and evaluation human resources capacity was therefore is an important factor in predicating performance of projects.
6.0 Conclusion

Findings from the current study have revealed that to sustain the performance, those tasked with M &E need to have the right expertise and competency. More so, M & E roles and responsibilities need to be embedded in job descriptions, and link individual performance to overall project performance outcomes. The study results seem to corroborate with findings from earlier studies which have argued that human resources capacity influences performance of projects. Institutionally, there is need to consider policies that enhance both the human capital base and project performance. Implementation of an integrated strategy should include allocating budget for capacity building for M &E. Similarly, in devolved system; aspects of project monitoring and evaluation need to be part of the county integrated development plans. Methodologically the use of mixed method approach in data collection that included questionnaire, key informant interview and focused group discussions provided a rich data that informed conclusions and recommendation. This proved that mixed method provides value addition in triangulation findings.

7.0 Limitations of the Study

Geographical spread of the groups was one of the limitations encountered. To address these groups were clustered according wards and sub counties. The clusters were again split into two with each cluster having a supervisor. Trained research assistants helped in data collection in each of the clusters. Farmers respondents understating of monitoring and evaluation was a limitation especially for the elderly. To address the limitation of language, translation was done and administration of questionnaires was done in a language that respondents understood. From the study findings, it was established from monitoring and evaluation human resource capacity had a statistically significant influence on performance of horticulture projects in Nakuru County. Hence
the findings add to the body of knowledge in the area of monitoring and evaluation human resource capacity and performance of projects.

REFERENCES


