EFFECT OF COMMUNITY ENGAGEMENT AT THE PLANNING PHASE ON PROJECT SUSTAINABILITY IN PUBLIC UNIVERSITIES IN KENYA: A CASE STUDY OF JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

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The Strategic JOURNAL of Business & Change MANAGEMENT
ISSN: 2312-9492 www.strategicjournals.com

Vol. 4, Iss. 4 (6), pp 91 - 103, Oct 5, 2017, www.strategicjournals.com, ©strategic Journals

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Accepted: October 4, 2017

ABSTRACT

The main objective of this study was to assess the effects of community engagement at different project phases on projects sustainability. To achieve this, the study specifically investigated the effect of engaging the community during the planning, implementation and monitoring and evaluation phases of project management towards achieving sustainability. Data was collected from 200 different people who had been involved with JKUAT sponsored community projects. This represented 10% of the entire population. Case study research design was applied. Primary data was collected using self-administered questionnaire while secondary data was collected from JKUAT's annual reports, journals, books, researches, thesis, dissertations, articles, working papers, and the internet. Data was collected by drop and pick method. The questionnaire were evaluated for content validity and reliability. Data presentation was done using Statistical Package for Social Sciences (SPSS) software. From the findings, it was deduced that the community was not fully involved in all the stages of projects development. In the project planning phase, the respondents indicated minimal involvement where a majority of the respondents disagreed in community engagement in the identification of community based projects. In the project implementation stage, majority of the respondents disagreed on involvement of the community in the coordination of the project activities. The findings also indicated lack of community engagement in the evaluation and monitoring stage which was evidenced by the fact that most of the respondents disagreed that the community formed the evaluation team and helped develop the performance indicators. The study concluded that sustainability had neither been mainstreamed nor prioritized in each phase. It was recommended that there was need for community members to identify their own needs, analyze the factors that lead to the needs, and draw up community action plans and schedules to address the needs. The study also recommended that before the implementing parties commence on the project, there should be exhaustive and detailed approach to mainstream and prioritize project sustainability in all the phases with specific steps deliberately taken to entrench long-term project benefits.

Key Words: *Community Engagement, Planning, Monitoring, Evaluation and Sustainability*

INTRODUCTION

According to Tiwari et al., (2014), community engagement involves the involvement of individuals and communities in decisions about things that affect their lives. It entails open discussions and working with and not for people. People shall participate and contribute significantly to something they feel part of, identify with, and correlate with their efforts, Häkkinen & Belloni, (2011). Mobey and Parker, (2002) argues that to increase the chances of a project success, it is necessary for the organization to understand the critical success factors, to systematically and quantitatively assess these vital factors, anticipating possible effects, and then select appropriate methods of handling them. Once identified, the success of the project can be achieved.

According to Jacob et al (2015), community engagement is the participation of the community in various aspects of the project to ensure project sustainability. The process is significant due to its ability to identify overlooked local knowledge, streamline efforts and gain acceptance, Muraguri, (2011). Community members who contribute to the revitalization planning process will understand well the process and will be more likely to support a project they had involvement in, thus creating a sustainable project. Community engagement provides an environment for residents to become informed about project affairs and to be actively involved in making decisions that ultimately affect their community, Witkin, (2004). Meaningful community engagement is beneficial in several ways, Hamdi & Goethert, (1997): Improves information flow; improves community understanding of local Government; allows for community advocacy; fosters collaboration; minimizes conflicts; may promote environmental justice. According to Kusek and Rist (2004), community engagement in the planning process, project implementation and continuous monitoring and evaluation are critical since adjustments and improvements to interventions can only be made by identifying strengths and weaknesses in their implementation. Engaging the community leads to capacity building which enables the community to be more effective and efficient in the process of identifying, implementing, monitoring and evaluating of projects, David (2007).

According to Botes and Rensburg (2000), community development project starts with the identification of a need or the realization that there is a need. Project planning involves setting goals, deciding what the project entails, Kerzner (2013). According to David (2007), people who get what they want do so because they have clear goals and develop plans and schedules to achieve the goals. They assume personal responsibility for implementing these plans. Simon (2009) stated in the Journal of Community Engagement and Scholarship that project implementation involves a number of activities. The community, as the beneficiaries, must be involved in the sequencing and ultimate implementation of the project Orodho (2003).

Some project sponsors tie down their participation by the level the community has been engaged. In his research in the United States, Kizlik, (2010), asserts that Federal Brownfield grant monies are tied to community involvement - without implementing and documenting the community involvement initiative - no monies will be allocated, Kizlik (2010).

Community engagement in the planning process and continuous monitoring and evaluation are critical since adjustments and improvements to interventions can only be made by identifying strengths and weaknesses in their implementation, Connor (2009). Hasna (2012) argues that one of the crucial design principles in programs and projects is that local communities must play a key role in the identification of development activities. This coincides with sentiments in McDowell (1996) that communities should be able to provide free and informed

consent before any development project is initiated.

When local communities participate in the design and implementation of a project, they are more likely to understand and support the changes brought about by the project. This in turn reduces risks and costs for the proponent, Mobey & Parker (2002). Engaging community members and organizations enhances understanding of the target population and help in identifying the best way to meet the community needs, Altschuld & Kumar (2010). Many development projects are the beginning of an entire community renewal. The long-term benefits of these projects include the creation of more jobs, improvement in community relations, community empowerment, heightened economic status, environmental restoration and enhancement of the quality of life in the neighborhood through environmental assessment, Kaufman et al., (1993).

Sustainability is the continuing of project benefits beyond the project period, and the continuation of local action stimulated by the project, and the generation of successor services and initiatives as a result of project-built local capacity (Silvius, Köhler, Schipper, & Planko, 2012).

According to Ochieng and Owuor (2013), project is considered sustainable in the short term when the project activities and benefits continued at least 3 years after the life of the project. Sustainability at the community level entails a feasible production system that satisfies both economic and social needs. Among project participants, sustainability is coalesced around continued production gains and increased income streams resulting from project initiatives (Ojwang & Bwisa, 2014).

For sustainable development to be realized, the community must play a role. Sustainable projects should be defined by the community, to represent an ongoing process of self-realization and empowerment. Without the community becoming both the architects and engineers of the concept, sustainability of the project may not be achieved since the community is unlikely to take responsibility for something they do not own themselves (Kuei & Lu, 2013).

Statement of the Problem

Williams, (2003) observes that failure by communities and other stakeholders to take up ownership of projects have plunged community projects into immense financial huddles threatening their sustainability. According to Gilchrist (2009), an important factor for the sustainability of projects is the genuine involvement of local people as active participants and equal partners whose concerns and experience are intrinsic to the project's success. Project sustainability has been elusive as there are indications on minimal community engagement at low levels of the project phases. Projects executed by JKUAT have achieved little in terms of sustainability and longevity as the proponent has done little to make sustainability a priority at all levels of the project life. Stalling of projects at either inception or midway is a clear indictment to the non-inclusion and little consultation with the community at each level.

The level of community support determines whether a project becomes established, how quickly and successfully it consolidates, and how it responds and adapts to meet changing needs (USAID, 2009). It is therefore important that involving local communities, starts at the planning stage, when decisions are being made about what type of project is required. However, this has not been the case in major community based projects undertaken by Jomo Kenyatta University of Agriculture and Technology where only the elite in the community are involved in planning and implementation and running of such projects.

The Juja Sewerage and Biogas project where the community owned shares and the security perimeter wall project for example, were a failure on all project phases and sustainability due to complete lack of community engagement. Sustainable community development requires

that local economic development support community life, using the local talents and resources of the local community. However, this is not always the case. Projects spiral downwards once the sponsor withdraws. The non-sustainability of most projects is due to application of non- engaging approaches that began by considering the community as 'beneficiaries' rather than 'participants' (Carter *et al*.1993).

This study therefore sought to establish what effect community engagement has on sustainability of projects in the different project phases in Public Universities with focus on Jomo Kenyatta University of Agriculture and Technology whose two major community based projects have stalled to date.

Objective

The general objective of the study was to establish the effect of community engagement at different project phases on project sustainability in public Universities with focus on JKUAT.

LITERATURE REVIEW

Theoretical and Conceptual Framework

The study considered theories related to community engagement and sustainability of projects. The theories that were used were Need Chain Theory, Freire's theory and Community Action Planning Theory.

In the study, the conceptual framework was based on community engagement during the Project planning which constituted the independent variable in the study. On the other hand, the dependent variable was project sustainability of community based projects in JKUAT.

Conceptual Framework

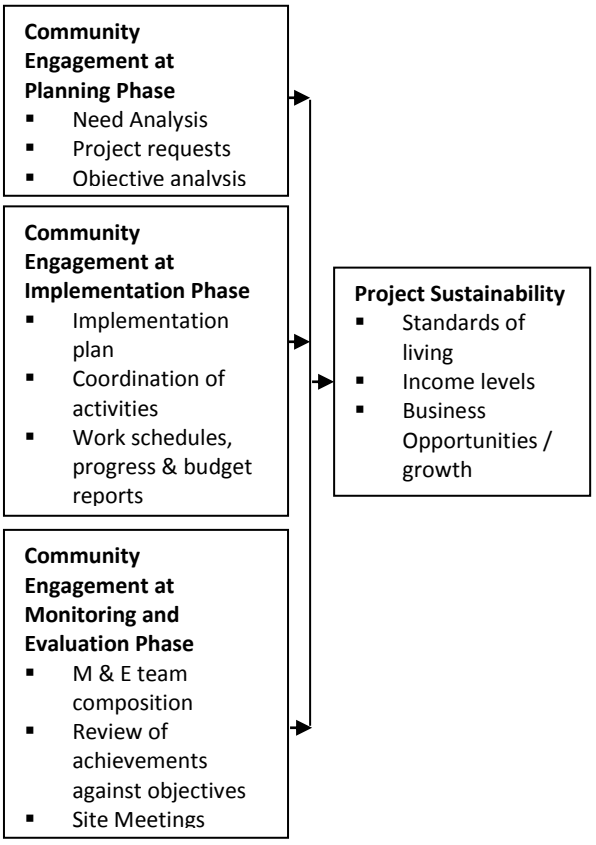

Figure 1: Conceptual Framework

Review of variables

Community Engagement in Project Planning Phase

According to Swanepoel and Beer (2006), community development project starts with need analysis which is the identification of a need or the realization that there is a need. Project planning involves setting goals, deciding what the project entails (Tang, Ahmad, Ahmed, & Lu, 2004). According to Desouza (2013), people who get what they want do so because they have clear goals and develop plans and schedules to achieve the goals. They assume personal responsibility for implementing these plans. Goals give directions to what one is involved in goals promote enthusiasm. Inherent in any goal setting is some level of efforts required to achieve it. Simon (2009) consented that setting individual and collective goals in class would imply that one is aware of the way;

hence, it is easier to go the way that leads to performance.

Needs assessment is an effective tool to clarify problems and identify appropriate interventions or solutions within a community (Lee & Reeves, 2009). They added that by clearly identifying the problem, finite resources could be directed towards developing and implementing a feasible and applicable solution. Gathering appropriate and sufficient data informs the process of developing an effective product that will address the groups' needs and wants. Needs assessments are only effective when they are ends- focused and provide concrete evidence that can be used to determine which of the possible means-to-the-ends are most effective and efficient for achieving the desired results which is needed in designing a project.

Sanoff (2000) in his conclusion on community engagement noted that only when we know what people really want could they develop an effective project. The needs assessment should be followed by a capacity assessment to see what strengths the community has which it can use to address its problems. The project should seek to strengthen any weaknesses in the community. The project can then aim to help the community achieve part of its vision. It is important to carry out a needs assessment before planning development work, whether we think we know what the needs are or not (Lee & Reeves, 2009). Gilbert (2008) added that for successful project completion and sustainability of projects, the projects goals and targets must be related to community needs and anticipations.

Project planning defines the project activities and products that will be performed and describes how the activities will be accomplished. The purpose of project planning is to define each major task, estimate the time and resources required, assess achievement of the main objective and provide a framework for management review and control. This is where the design, action planning, details for the technical design and implementation (action) plan are finalized. Action planning may uncover logistical constraints that affect the feasibility of the selected design (Institute, 2013).

Project planning entails scheduling of the various activities comprising the project activities and how they interrelate. The activities comprise the legal or regulatory requirements, procurement processes that include seeking for development projects and funding institution approvals, activities of the funding institutions leading to credit award and the actual site works. The planning aims at optimizing time, cost and procurement of human capacity for development projects within the legal, regulatory and policy framework existing for each specific project (Jabareen, 2006).

The project planners need inputs from the public at particular points in the plan-making process to meet statutory requirements (Bryson, 2011). Communities need a continuous process of engagement, as they are outside the system and require information, knowledge and time to ensure they can engage effectively. Community involvement in project planning can assist with developing good relationships at local level with communities, and helping to identify community needs in advance. This can provide larger certainty and time in the determination process and execution of projects (Muraguri, 2011). The community, combining their role as the primary partner in a project, should make an informed choice-of-technology and level of service decision.

At the project design, projects managers should emphasis efforts on receiving public input and giving information on those decisions and activities that have the highest potential influence on the community and on the big-picture matters that are most important to the public (Fulgham & Shaughnessy, 2013). Recent studies have revealed that sustainability of projects progresses when communities are allowed to take a central role during all stages of the project, including design and planning

(Dernbach, 2002); LaPelle, et al 2006; & (Barbier, 1987).

Fulgham and Shaughnessy (2013) recommended community engagement in project planning can lead to different types of project success: Attitudinal success most likely when the project creates or improves social capital, when communities participate in project planning, establishment, and daily management, and when benefits are equitably dispersed without choice capture; behavioral success most likely when the project invests in building capacity of local individuals and institutions; ecological success most likely when the project engages positively with cultural traditions and governance institutions, and economic success most likely when the project invests in capacity building.

Project Sustainability

Project sustainability is the continuing of project benefits beyond the project period, and the continuation of local action stimulated by the project, and the generation of successor services and initiatives as a result of Project-built local capacity (Ashwell & Barclay, 2010). Such benefits may include improved living standards of people in the community, improved income levels and increased business opportunities.

Evidence from a wide range of literature and project documentation suggest that in community-managed projects, many factors affect post-project sustainability. Among these factors are institutional ones which include policy, external follow-up support, institutional strength, integration with existing services and leadership of the project (Mona Shediac-Rizkallah, 1998).

According to Chai (2009), the main categories of factors supporting sustainability are policy, institutional, market and regulatory environment. He furthered that sustainability strategies must be based on environmental, social and political conditions. Bamberger & Cheema (1990) classified factors affecting sustainability of any project into three broad group of factors; design and implementation, project organization and external factors operating at local, national and international levels. They argued that sustainability is affected by a wide variety of macro-level factors over which project planners and managers have very little control, changes in the national and international economic environment can have drastic effects on the long term viability of the project. Other factors that may affect sustainability are the socio cultural characteristics of beneficiaries. The social and political organization of communities can either facilitate or make more difficult the project sustainability.

Success indicator for the realization of project sustainability is high degree of citizen participation that only can be guaranteed when the initiative of the people is sufficiently stimulated to arouse their enthusiasm and wholehearted involvement (Bovaird, 2007). The above-mentioned view is upheld by the position of (Seghezzo, 2009) that people's involvement is an act through which the beneficiaries of a development effort share in the identification of the development priorities, planning, implementation consumption and evolution of the development programs. The foregoing forms the importance of memorandum of understanding in achieving sustainable community development projects.

The foregoing studies have not specifically identified factors affecting sustainability of projects undertaken by higher education institutions in Kenya together with their host communities. A broad sustainability study should be incorporated into the project management life cycle right from the inception. This researcher therefore studied effects of engaging the community during the phases of planning, implementation and monitoring and evaluation on project sustainability. This line was pursued because there is a growing need to have

community engagement inform the sustainability strategy of project by JKUAT.

RESEARCH METHODOLOGY

The researcher applied case study design. The design emphasized detailed contextual analysis of a limited number of events or conditions and their relationships. According to (Yin, 2013), case study is an approach to research that facilitates exploration of a phenomenon within its context using a variety of data sources.

The estimated total population of staff and community members directly involved in community projects was 2,000 as per records at JKUAT Project Coordination Office Report, 2014 – 2015. The study therefore covered 200 different people who had been involved with JKUAT sponsored projects. This represented 10% of the entire population.

The study population was stratified into strata based on the different groups of people who had been involved with the projects. The simple random sampling procedure was then used to pick the sample.

The questionnaire had both closed and open ended questions. The returned questionnaires were adequately checked for credibility and verification after which the data collected was coded and tested for completeness and then analysis was done using Statistical Package for Social Sciences (SPSS) software.

RESEARCH FINDINGS AND DISCUSSION

The study targeted 200 employees categorized into their respective designations; Project Manager, Project Team / workers, Project Sponsors and Community Members of Juja. Out of the 200 questionnaires administered, 148 responded, which gave a response rate of 74%. According to Mugenda and Mugenda (2003), the statistically significant response rate for analysis should be at least 50%.

Scale reliability was assessed by computing the overall Cronbach's alpha reliability coefficient on Response Rate. The scale reliability was demonstrated since the overall Cronbach's alpha statistic was 0.778 which was greater than 0.7.

Community engagement in the Planning Phase

Identification of projects

The respondents were asked whether they were engaged in the Planning Phase in terms of analysis of the need of the projects and as illustrated in figure 2, majority of the respondents, 58%, disagreed in community engagement in the identification of community based projects. 51% of the respondents did not either agree or disagree indicating lack of information or disinterest in the projects. Needs assessment is an effective tool to clarify problems and identify appropriate interventions or solutions within a community. Through needs assessment the community and other project players were able to identify the projects that were of importance to them therefore prioritize. Scale reliability was assessed by computing the overall Cronbach's alpha reliability coefficient for the items of diverse recruitment and selection. The scale reliability was demonstrated since the overall Cronbach's alpha statistic was 0.788 which was greater than 0.7.

Figure 2. Involvement in identification of projects

Awareness and acceptance Campaigns by JKUAT on proposed projects

The researcher sought to find out if JKUAT performed awareness and acceptance campaigns within the community before embarking on the proposed project to establish the community's view and opinion of the proposed projects. Through the campaigns, the community got an opportunity to air views on issues touching on the projects that would be of benefit. The campaigns also gave the community the opportunity to analyze and understand the core objective of the proposed community based projects. From the findings, majority of the respondents, 35.1% disagreed while 12% strongly disagreed on the existence of the awareness campaigns. Only 12.8% of the respondents strongly agreed on the awareness campaigns by JKUAT.

Table 1: Awareness Campaigns

	Awareness Campaigns			
	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	18	12.2	12.2	12.2
Disagree	52	35.1	35.1	47.3
Neither Agree/Disagree	37	25.0	25.0	72.3
Agree	22	14.9	14.9	87.2
Strongly Agree	19	12.8	12.8	100.0
Total	**148**	**100.0**	**100.0**	

Community engagement in making decisions on Labor

The researcher sought to find out if the community was engaged in making decisions pertaining to project labour. The findings as illustrated in Table 2 indicated that 4.7% of the respondents strongly disagreed on engagement of community in decisions pertaining to labour and

only 5.4% strongly agreed that community was engaged in decision making. 26.4% of the respondents neither agreed nor disagreed on whether the community was engaged in decision making on matters pertaining to labor. The reliability was demonstrated since the overall Cronbach's alpha statistic was 0.785 which is greater than 0.7.

Table 2: Engagement of community in decision on labor engagement

Decision on Labor Engagement				
	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	7	4.7	4.7	4.7
Disagree	66	44.6	44.6	49.3
Neither Agree/Disagree	39	26.4	26.4	75.7
Agree	28	18.9	18.9	94.6
Strongly Agree	8	5.4	5.4	100.0
Total	148	100.0	100.0	

Overall Cronbach's Alpha = 0.785

Discussion on Community engagement in the Project Planning Phase

From the findings, it was evident that the community was not also actively engaged in decision making in matters pertaining to project identification, projects' awareness campaigns and decisions pertaining to labour. According to Bank & Fund, 2014, stakeholders' support ensures that stakeholders influence and share control over development initiatives, and the decisions and resources which affect them. This is key in ensuring that resources in community based projects are managed effectively, minimizing wastes and thereby ensuring their sustainability.

Inferential analysis of study variables

Correlation Analysis

As illustrated in Table 3, Community engagement in Project Planning was found to be significantly related to Project Sustainability since the correlation was .02; (r = 0.020).

Table 3: Coefficients

Co-efficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta B		
Independent variables	.144	.060		2.400	.018
Community engagement in Project Planning	.223	.077	.226	2.899	.005

a. Dependent Variable: Project Sustainability

Community engagement in Project Planning was found to have a positive linearly significant influence on Project Sustainability (B = 0.223, p = 0.005<0.05). Here one unit change in Community engagement in Project Planning resulted in 0.223 unit increase in Project Sustainability.

Discussions

From the overall findings, it was established that the community was not actively engaged in the planning phase and therefore their needs were not taken into consideration during the project planning. These findings were in line with Ashwell & Barclay, 2010 who urged that by engaging the community in the different project phases, community ensures the success of a project through collective responsibility in terms of resources control. The lack of this engagement will lead to project failure.

Seghezzo, 2009 stated that authentic community participation in the different project's phases enhances the sustainability of the community projects. He added that this could only be achieved through a people centered development. Project sustainability had positive impact on community's wellbeing in terms of improved living standards, increased business opportunities and increased income levels. According to Bamberger & Cheema 1990, a project is considered to be sustainable in the short term when the project activities and benefits continue at least 3 years after the life of the project. For project sustainability to be realized, the community must play a role Bovaird, 2007. Sustainable projects should be defined by people themselves and this is achievable through project requests. The community was supposed to be brought into focus through active participation and collective decision making.

CONCLUSIONS AND RECOMMENDATIONS

From the findings, it can be deduced that the community was minimally involved in all the phases of projects development. In the project planning phase, the respondents indicated minimal involvement where 58% of the respondents disagreed in community engagement in the identification of community based a project which was a stage in planning. This meant that the community was given inadequate chance to front their project requests for purposes of planning and implementation. Through need assessment and analysis the community would also have fully engaged in discussions touching on what resources will be needed to carry out the projects. Additionally, majority of the respondents, 35% disagreed on being properly engaged in awareness and acceptance campaigns while 12% strongly disagreed on the existence of the awareness and acceptance campaigns within the community before implementing proposed projects. The awareness and acceptance campaigns were an important aspect in project planning since the campaigns summarize the overall aim of the project as well as outline the main objective of the proposed projects. Only 13% of the respondents strongly agreed on the awareness and acceptance campaigns by JKUAT indicating that very few respondents understood the overall aim of the project as well as the main objective of the projects.

The recommendations arising out of this study pointed towards the value that community engagement can bring to project sustainability.

It was recommended that there was need for community members to identify their own needs, analyze the factors that lead to the needs, and draw up community action plans to address the needs. Respect for and the use of community's inherent knowledge and capacities allowed the community to cultivate innovative approaches to address their own problems.

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