# An Evaluation of Clients Role towards Efficiency in Projects Execution in Kenya

**Abednego Oswald Gwaya, Sylvester Munguti Masu, Githae Wanyona**

***Abstract - Clients play a crucial role in construction projects: they provide the sites, arrange for financing, invest their funds and define the scope. While projects are being executed; they coordinate with consultants and contractors, dictate the level of scope change management and ensure regular flow of construction funds either individually, as corporate and or through commitment to financiers.***

***The relationship of the client with other team members and or the level of coordination can affect the performance of construction projects. If clients are going to appreciate and promote the practice of project management then they are going to get value for their money; considering the fact that project management was introduced to ensure efficiency in performance of construction projects.***

***This paper examines the role of clients in ensuring the efficiency of construction projects performance in Kenya***

***Key Words: Project Management, Efficiency, Teamwork, Project Planning And Project Execution.***

## I. INTRODUCTION

The human factor has been proven to be an important issue affecting quality (Muchungu, 2012). Cultural issues such as attitudes, values, trust, behaviour, and environment are important factors affecting the alignment of teams toward the same objectives (CII 1997). People are the most valuable asset of an organization and it follows that the control of projects starts with the team development. The performance of the team determines the success or failure of a project.

Teams and leadership has become a concern on the formation of teams. In fact the construction of the pyramids could only be accomplished through teamwork. A team must be assembled that will work in harmony and efficiently.

## II. THE RELATIONSHIP BETWEEN CLIENT AND PROJECT TEAM

The relationship between the client and project team is a complex one. A successful relationship between the client and project team depends largely on the level of trust and commitment. There may be different views between client and others involved in the team, as a result each has a different viewpoint. This leads to the need for a method to facilitate communication to enable each member in the team to work towards the same set of objectives. One method to facilitate communication is developing a project plan.

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Gwaya Oswald Abednego \, Lecturer- Construction Management, Jomo Kenyatta University of Agriculture and Technology (JKUAT) NAIROBI, KENYA.

Sylvester Munguti Masu, Senior Lecturer- Real Estate and Construction Management, University of Nairobi (UON), NAIROBI, KENYA.

Wanyona Githae, Senior Lecturer- Construction Management, Jomo Kenyatta University of Agriculture and Technology (JKUAT) NAIROBI, KENYA.

This will help communicate project objectives more effectively between the project team.

### A. The Client And Project Team

Most construction project teams comprise three participants, the client with the need of the project; the designer, and the contractor. The business and project objectives of each are understandably different, which often creates complex relationships within project teams. If these relationships are not managed properly they could adversely affect a project's performance (Kerzner,2013). However, the success of the project lies on the ability of the project team to manage the objectives and any conflict that may arise. Several investigations have been conducted into explaining the way clients communicate their needs to their consultants (Newman et al 1990, Murray et al 1990)

With the increasing competition in the construction business environment, there is need for good client and project team relationships. For example, in order for the project team to obtain information upon on which it can act with confidence, the members of the project team need to have the ability to understand the structure of their client's organization and their relationship to others with an interest in the project. In particular, they should understand the decision-making mechanism of the client's organization and where the authority for decisions is vested.

### B. Relationship Between Client And Project Team

A successful project means that both the client and the project team have to work in a spirit of trust, openness and collaboration to identify the appropriate objectives for the project. Burke (2007) illustrated the benefits of project team adopting a more positive approach to defining client's needs. Decisions made by the project team will contribute to those taken by the client. The internal organization and external environment of the client's organization will determine the timing and sequence of the decision points. According to Burke, (2007) there is increasingly intricate nature of the client organizations stating that "there are complex systems of different interests".

The client and other project team members should share values. It is important that client/end user needs and priorities of objectives are understood by the project team. Several studies have been conducted concerning the way clients communicate their needs to others (Newman et al 1990, Murray et al 1990), and the studies of the Construction Industry Institute (CII) for example Rowings et al 1987. The CIT (1996) suggested that the relationships between client and members of the project team must be expressed in contractual arrangements that:

- Deal with key issues
- Are clear

- Are compatible with each other
- Balance risk, responsibility and reward

## III. METHODOLOGY

A survey research approach was used on 80 members out of which 32 members responded. This was a response rate of 40%. Descriptive statistics were used to do the analysis and the discussions of the results were carried out with a view of establishing how the Clients role can enhance performance of construction projects.

Both qualitative and quantitative approaches were used in the study; although qualitative approach was only used to obtain Clients' views on project management application.

## IV. DISCUSSIONS OF RESULTS

### *A. Client Views On Project Management*

Clients through their project managers were asked to give their opinions on the current status of project management in Kenya towards effective and efficient execution of projects.

Most of the clients indicated that they prefer traditional arrangement but still wanted to maintain a strong presence while project implementation is underway. They also observed that a lot of potential does exist especially with the new tools now available to assist in project management application. It was also noted that there is a big difference between projects where project management is employed with those that do not.

They finally indicated that they would prefer to be proactively engaged in scope definition, project management and evaluation of project performance results. They concurred for a structured project management application in Kenya.

From the foregoing it is noted that by adopting a structured project management model application shall ensure effective and efficient execution of construction projects. Adoption and proper implementation of project management is now inevitable.

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### *B. Factors Considered During Project Management Execution Plan*

**Table 1.1: Factors in Project Execution plan in (%)**

| Factors in Project Execution plan | Rarely | Sometimes | Often | Very often |
|---|---|---|---|---|
| Assessing project environment | 12.5% | 56.3% | 31.3% | |
| Commissioning and hand over procedures | 6.3% | 12.5% | 68.8% | 12.5 % |
| Developing project objectives | | 18.8% | 75% | 6.3 % |
| Financing the project | 12.5% | 25% | 56.3% | 6.3 % |
| Health and safety plan | | 18.8% | 81.3% | |
| Organizational resourcing and project definition | 6.3% | 56.3% | 37.5% | |
| Planning and cost control | | | 75% | 25% |
| Procurement approach | | | 87.5% | 12.5 % |
| Quality control and environment plans | | 25% | 75% | |
| Safety and construction strategy | 50% | 25% | 25% | |
| Use of value management and engineering procedures | 12.5% | 12.5% | 75% | |

Source: Field survey 2013

Clients' respondents were asked to identify the major considerations for clients while evaluating the project management execution strategies. The indicators are crucial to the measurement of success or failure of projects. This question was to authenticate the responses from project consultants on key project

management performance indicators. This question was also to validate the responses in the previous question on some of the responses. Proper execution is the dependent variable while the rest are independent variables. The overall ranking on the variables when using scores often and very often are as shown in table 1.2.

**Table 1.2 Factors in project execution plan considerations ranked**

| Factors in Project Execution Plan | Score (%) | Rank |
|---|---|---|
| Planning and cost control | 100% | 1 |
| Procurement approach | 100% | 1 |
| Commissioning and handing over procedures | 81.3% | 3 |
| Developing project objectives | 81.3% | 3 |
| Health and safety plan | 81.3% | 3 |
| Quality control and environmental plans | 75 | 6 |
| Use of value management and engineering procedures | 75 | 6 |
| Financing the project | 62.8 | 8 |
| Organization resourcing and project definition | 37.5 | 9 |
| Assessing project environment | 31.3 | 10 |
| Safety and construction strategy | 25 | 11 |

Source: Field survey 2013

From table 1.2; planning and cost control and procurement approach factors were the most considered by construction clients. The next set of factors considered were commissioning and handing over procedures, developing project objectives, health and safety plan at 81.3%. Quality control and environmental plans and use of value management and engineering procedures at 75% were ranked 6th most important. Financing the project at 62.8% and ranked at position 8 finished the factors that are most crucial. Organization resourcing and project definition, assessing the project environment and safety and construction strategy were the least important at 37.5%, 31.3% and 25% respectively. The observations from this question tally with the previous question especially on health and safety and the importance attached to costing and quality as shown in figure 1.1.

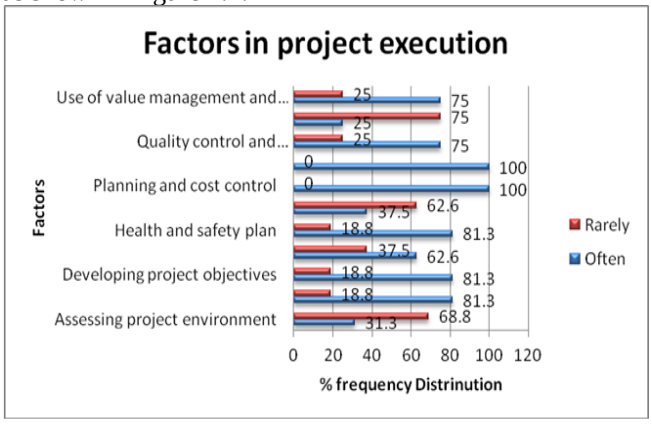


**Figure 1.1: Factors considered in project execution plan**

Source: Field survey 2013

### *C. Tools Used By Clients During Pre-Project Planning*

The clients apply/use project tools as pre-planning project management strategies. Table 1.3 illustrates the level of current tools under use in Kenya.

**Table 1.3: Tools used by companies during pre-project planning in (%)**

| Tools Used | Never | Rarely | Sometimes | Often | Very often | Ranking |
|---|---|---|---|---|---|---|
| Agreement matrix | 37.5 % | 43.8% | 12.5% | | | 8 |
| Alignment thermometer | 31.3 % | 25% | 37.5% | | | 9 |
| Benchmarking | 6.3% | 75% | | 6.3 % | | 7 |
| Brainstorming | | 18.8% | 43.8% | 31.3 % | 6.3 % | 2 |
| Lesson learnt from previous projects | | 6.3% | 37.5% | 43.8 % | 12.5 % | 1 |
| Management by objectives | | 18.8% | 43.8% | 18.8 % | 12.5 % | 6 |
| Project definition rating index (PDRI) | 18.8 % | 75% | | | | 10 |
| Scope definition checklist | | 25% | 31.3% | 37.5 % | | 3 |
| Value engineering programs | 6.3% | 12.5% | 37.5% | 37.5 % | | 3 |
| Work process flow diagram | | 12.5% | 50% | 37.5 % | | 3 |

Source: Field survey 2013

From table 1.3; the use of tools shown in the matrix during pre-project planning as part of project management strategies is dismal. Lessons learnt from previous projects at 66.3% is the only reasonably considered factor. The rest like project definition index is rarely or never used at 93.8%. Other factors not usually used are agreement matrix, alignment thermometer and benchmarking. Scope definition checklist, value engineering and brainstorming are inadequately used at 37.5%. Ideally, clients play a significant role in construction projects and clear scope definition is useful. The role of clients in construction projects can be rated at 18% overall for successful projects execution otherwise if they do not cooperate with consultants, it is very rare for project performance to achieve above 70% on overall performance success. The perfection of these tools usage will go a long way in ensuring efficiency in the construction

industry with closer coordination, monitoring and evaluation of the performance of construction projects.

## V. PRE-PROJECT MANAGEMENT PERFORMANCE INDICATORS

### *A. Early Project Management Requirement Indications*

An inquiry was carried out to establish the occurrence of early project management requirements problems attributed to clients. The results are presented under table 1.4. The results show that clients authorized project execution before completing pre-project planning, allocated insufficient time for conducting pre-project planning and experienced poorly established priorities between project objectives all at 81.3%. Other factors which occurred as part of early project management problems include; lack of leadership at 75.1% and poor communication between team members at 50%; which can be considered neither a serious problem nor not a problem as such. The rest of the indicators were not significant problems as per the table hereunder with lack of experience with new technology and unclear definition of team members' roles at 18.8% indicating that the two factors are insignificant problems. The indication is that in Kenya new technology is embraced readily and team members' roles are clearly identified.

**Table 1.4: Occurrences of pre-planning performance problems in (%)**

| Performance Indicators | Never | Rarely | Sometimes | Often | Very often | Often and very often combined | Ranking |
|---|---|---|---|---|---|---|---|
| Authorization of Project execution before designs | | 12.5 | 6.3 | 18.8 | 62.5 | 81.3 | 1 |
| Insufficient budget for pre-project planning | | 12.5 | 6.3 | 43.8 | 37.5 | 81.3 | 1 |
| Insufficient time for conducting pre-project planning | 6.3 | 6.3 | 50 | 12.5 | 25 | 37.5 | 8 |
| Lack of a clear process for pre-project planning | 6.3 | 25 | 25 | 18.8 | 25 | 43.8 | 7 |
| Lack of experience with new technology | 6.3 | 12.5 | 62.5 | 6.3 | 12.5 | 18.8 | 9 |
| Lack of leadership | 6.3 | 12.5 | 6.3 | 43.8 | 31.3 | 75.1 | 4 |
| Lack of team skills | 12.5 | 31.3 | 6.3 | 43.8 | 6.3 | 50.1 | 5 |
| Poor communication between team members | | 12.5 | 37.5 | 37.5 | 12.5 | 50 | 6 |
| Poorly established priorities between project objectives | | 18.8 | | 50 | 31.3 | 81.3 | 1 |
| Unclear definition of team members' roles | | 43.8 | 37.5 | 12.5 | 6.3 | 18.8 | 9 |

Source: Field survey 2013

## VI. USE OF PROJECT MANAGEMENT TOOLS IN SCOPE DEFINITION

Respondents were asked to rate how often they employed various project management tools while defining scope. Prepare conceptual estimates, define deliverables, document project scope and preliminary design are the mostly used tools. On the other hand use of partnership approach to spread risk, use of tools for evaluating completeness of scope before start of detailed design is rarely used. More details are shown on figure 1.2. Since some of the tools are strongly used and others rarely used it cannot be concluded that the construction industry in Kenya is superior or inferior to the other developing countries. However developed countries have perfected these tools and they use all of them but mutually exclusively.

Respondents were asked to rate how often they employ various factors while defining the scope. It was noted that 93.8% of the respondents rarely use partnership approach to spread risk as a tool to scope definition, while 100% confirmed conceptual estimates forms a crucial tool when producing a scope definition. Figure 1.2 shows the summary on how often various tools are used while defining a scope.

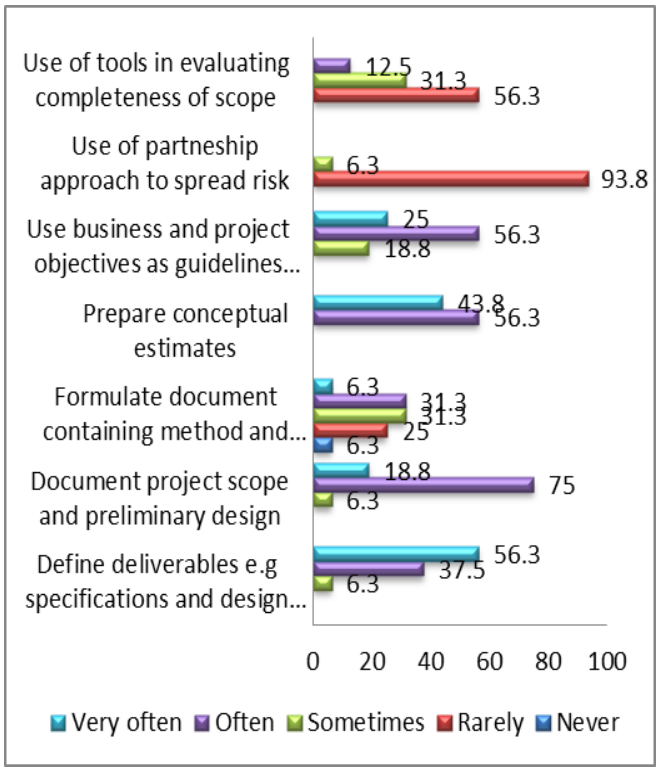


**Figure 1.2: Factors employed while defining scope production**

Source: Field survey 2013

## VII. FORMALIZATION OF PROJECT MANAGEMENT MODEL IN KENYA

Table 1.5 shows the frequency distribution on the factors that formalizes the model for project management. It's clearly shown that all factors are considered to be critical for model formation.



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**Table 1.5: Formalization of project management model in (%)**

| Factors for Model Formalization | Uncertain | Less important | Important | Very Important | Very important & important combined | Ranking |
|---|---|---|---|---|---|---|
| Acceptable quality | | | 12.5 | 87.5 | 100 | 1 |
| Completion within budget | | 6.3 | 12.5 | 81.3 | 93.8 | 3 |
| Completion within time | 6.3 | | 12.5 | 81.3 | 93.8 | 3 |
| Documented procedures | 6.3 | | 50 | 43.8 | 93.8 | 3 |
| Environmental sustainability | 6.3 | | 62.5 | 31.3 | 93.8 | 3 |
| Policy and procedure manuals | 6.3 | | 68.8 | 25 | 93.8 | 3 |
| Satisfaction of client's objectives | | | 62.5 | 37.5 | 93.8 | 3 |
| Satisfaction of project users | 12.5 | | 50 | 37.5 | 87.5 | 9 |
| Scope definition and management | | | 25 | 75 | 100 | 1 |

Source: Field survey 2013

After thorough literature review and formulation of research instruments; a number of factors considered important towards a formalized project management model were evaluated. From table 1.5 it is clearly shown that all factors are considered to be critical for model development. All the nine factors are considered to be 87.5% to 100% when using important or very important combined as a measure. This is an indication of the importance attached to them by clients towards a formalized project management model. For better analysis the researcher opted to subject the variables to factor analysis/technique/method.

## VI. FACTORS THAT CONTRIBUTE TO THE FORMALIZATION OF PROJECT MANAGEMENT MODEL

**Table 1.6: Factor that contribute to the formalization of project management model**

| | Mean | Std. Deviation | Rank |
|---|---|---|---|
| Scope definition and management | 4.7500 | .43994 | 2 |
| Completion within budget | 4.6875 | .78030 | 4 |
| Completion within time | 4.7500 | .56796 | 2 |
| Acceptable quality | 4.8750 | .33601 | 1 |
| Policy and procedure manuals | 4.1875 | .53506 | 9 |
| Satisfaction of client's objectives | 4.3750 | .49187 | 5 |
| Environmental sustainability | 4.2500 | .56796 | 7 |
| Satisfaction of project users | 4.2500 | .67202 | 7 |
| Documented procedures | 4.3750 | .60907 | 5 |

Source: Field survey 2013

Descriptive statistics demonstrated that all factors were critical as they were having a mean of 4 and above as shown in table 1.6. Figure 1.3 demonstrates the cumulative percentages distribution in respect to important and least important.

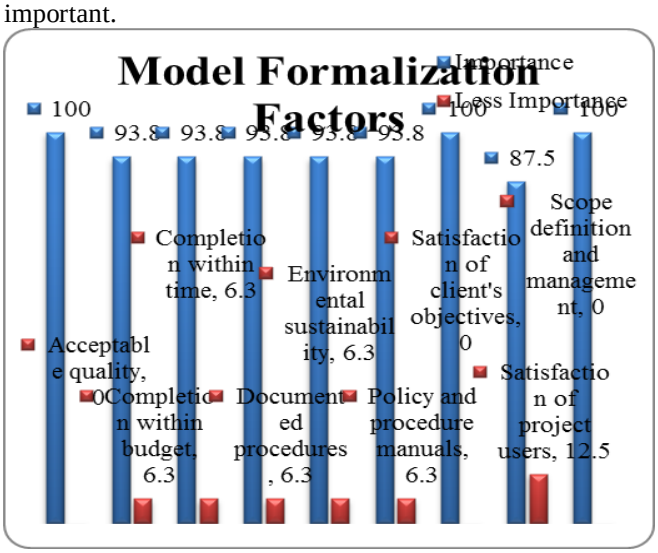


**Figure 1.3 Importance of formalization factors**

Source: Field survey 2013

## VIII. PROJECT OBJECTIVES ALIGNMENT ON CURRENT PROJECT MANAGEMENT MODELS

For any organization to align its objectives on the current existing models, they have to use the following measures as shown in table 1.7. All respondents confirmed that they often have regular meetings to keep communications open, 87.6% ensured appropriate stakeholders representation as well as use of teamwork which was having the same weight. In general all measures were considered positively for the alignment of project objectives when using current models of project management.

**Table 1.7: Measures used to align the project objectives on current project management models in (%)**

| Measures on Project alignment | Rarely | Sometimes | Often | Very often |
|---|---|---|---|---|
| Assess and identify potential areas of disagreement | | 12.5 % | 62.5 % | 25% |
| Ensure appropriate stakeholders representations | | 12.5 % | 56.3 % | 31.3% |


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| | | | | |
|---|---|---|---|---|
| Regular meetings to keep communications open | | | 43.8 % | 56.3% |
| Use of contractors | | 37.5 % | 56.3 % | 6.3% |
| Use of specialists | 6.3 % | 12.5 % | 43.8 % | 37.5% |
| Use of sub-contractors | | 50% | 43.8 % | 6.3% |
| Use of tools to ensure team agreement | 18.8 % | 25% | 56.3 % | |
| Use of tools to ensure team focus on objectives | 18.8 % | 18.8 % | 56.3 % | 6.3% |
| Use teamwork and team building programs | 6.3 % | 6.3 % | 68.8 % | 18.8% |

Source: Field survey 2013

Further, looking at the relationship between measures which are rarely used against the most often used measures on project management, the study shows that on average 50% of subcontractors are used as a measure on project alignment. Most of the respondents confirmed that at least 80% often use most of the measures except for those ones who use team agreement, and contractors and team focus measures which constituted 56.3% and 62.6% respectively.

## IX. FACTORS AFFECTING PROJECT PERFORMANCE FUNCTIONS

All factors are considered to be critical in the performance of project management functions with leadership style, legislation support requirements and training & competences being rated as the most important factors as shown under Table 1.8. All the three are given an importance rating of 100%. Generally out of the nine factors only personality traits receives a score of 12.5% as uncertain otherwise no variable receives a score of more than 6.3% as less or least important meaning all these variables are crucial towards effective project management.

**Table 1.8: Factors affecting project performance functions in (%)**

| Factors affecting project management functions | Least important | Less important | Uncertain | Important | Very Important |
|---|---|---|---|---|---|
| Culture | 6.3% | 6.3% | 6.3% | 37.5 % | 43.8 % |
| Leadership style | | | | 12.5 % | 87.5 % |
| Legislation support requirements | | | | 18.8 % | 81.3 % |
| Personality traits | 6.3% | | 12.5 % | 31.3 % | 50% |
| Procurement methods | | | 6.3% | 25% | 68.8 % |
| Project management approach | | | 6.3% | 12.5 % | 81.3 % |
| Project management policies | | 6.3% | | 25% | 68.8 % |
| Project risk management | | | 6.3% | 12.5 % | 81.3 % |
| Training and Competencies | | | | 12.5 % | 87.5 % |

Source: Own field survey, 2013

Figure 1.4 illustrates the strength of rating against individual factors, leadership style, Legislation, and training competencies constituted 100% with culture being rated the least at 81.3%. The data has a high correlation to the reporting that was reported by the practitioners in the construction industry hence showing the reliability of the data collected.

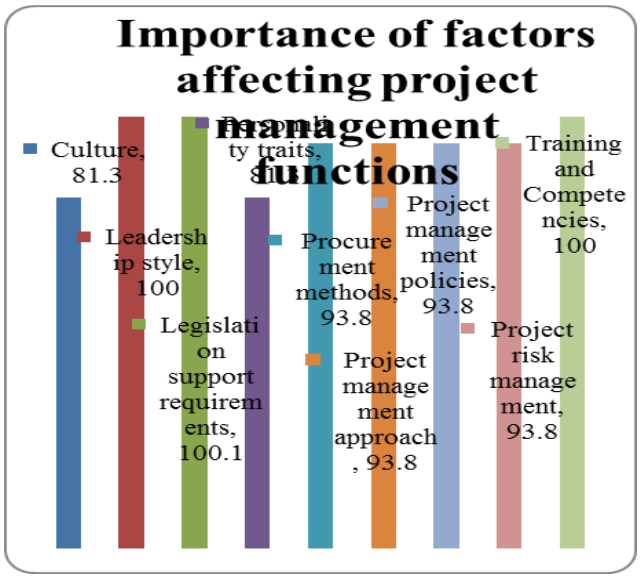


**Figure 1.4 Project management functions factors**

Source: Field survey 2013

## X. CONCLUSION

Clients play a crucial role in the performance of construction projects. However, their level of appreciation of project management is low. But the research has identified factors considered by clients in project execution as planning and cost control, procurement approach, development of project objectives, health and safety, commissioning and hand over procedures, quality control and use of value management respectively as very important. The level of participation for clients in pre-project planning especially on tools used is inadequate and need to be addressed for efficiency in the construction industry in Kenya to be realized. Clients in Kenya experience the problems of authorizing work to start before scope is finalized at 81.3%; other equally important challenges are poorly established project priorities, insufficient budget for pre-project planning both also at 81.3%. These challenges have to be addressed for construction industry efficiency.



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## AUTHORS' PROFILES

**1. ABEDNEGO GWAYA**

**A. Academic Professional Qualification**

B.A (Bldg. Econ.) Hons; University of Nairobi, MSc. (Civil Eng.); Makerere, Ph.D (Constr. Eng. & Mngt.); Jomo Kenyatta University of Agriculture and Technology (JKUAT) M.A.A.K. (Q.S); C.I.Q.S.K; Registered Q.S.

**B. Specialization**

Construction Project Management, Civil Engineering Construction, Contract Documentation, Project Management Modelling, Project Procurement Systems and General Quantity Surveying.

**2. DR. SYLVESTER MUNGUTI MASU**

**A. Academic Professional Qualification**

B.A (Bldg. Econ.) Hons. M.A (Bldg. Mngt). Ph.D (Constr. Mngt.); University of Nairobi M.A.A.K. (Q.S); A.C.I. Arb; F.I.Q.S.K; Registered Q.S, (Q182). F.I.C.P.M (K).

**B. Specialization**

Construction Project Management, Construction Contract Documentation, Arbitration and Dispute Resolution, and General Quantity Surveying.

**3. DR. WANYONA GITHAE**

**A. Academic Professional Qualification**

B.A BLDG ECONS (U.O.N), M. Engineering (Kyoto University, Japan), PhD (UCT), RSA

**B. Specialization**

Construction Project Management, Construction Contract Documentation, Project Risk Management, Project Procurement Systems and General Quantity Surveying.