

# FACTORS AFFECTING HORTICULTURE PROJECT IMPLEMENTATION: A CASE OF NATIONAL HORTICULTURE TRACEABILITY SYSTEM, KENYA

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**Abstract:** The agriculture sector is the mainstay of Kenya's economy contributing 29.3% to the Gross Domestic Product. The contribution of horticulture is key to the economy of Kenya as it accounts to 80% of national employment either formally or informally. The European governments have enacted stringent food safety regulations on horticultural produce as a result of increased consumer concerns over food contamination. Developing country exporters, these upstream changes have meant that produce must be sourced through strictly supervised contracts. Under such contracts developing country exporters impose strict adherence to good agricultural practices including pest and disease management and in addition use of a reliable traceability system. In 2013 Kenyan horticultural exports were subjected to 10% inspection at all ports of entry into the EU because of inability of Kenya to demonstrate existence of an effective national traceability system for horticultural produce. There was also continued detection of pesticide residue in beans and peas beyond the recommended levels leading to a 60% reduction in exports. As a result of that, 50,000 smallholder farmers lost their jobs and incomes due to drop in production of beans and peas for exports. This study aimed at assessing the factors affecting horticulture project implementation of the National Horticulture Traceability System in Kenya, at the Horticulture Crops Directorate. Specifically, the study looked at project planning, project resource mobilization, stakeholders' involvement, and project monitoring and how they affect implementation of the National Horticulture Traceability System. The study used descriptive survey design, where stratified, purposive and random sampling was used. The targeted population of the study was 388 people who comprise of registered exporters in system; exporters used in pilot of the system; technical and regulation department; IT department, marketing, research and product development; and USAID Project manager. A sample of 197 respondents was drawn from the population and was administered with questionnaire. Data collected was analyzed using SPSS (22). Both descriptive and inferential analysis was conducted. The study found that project planning; resource mobilization; stakeholders' involvement; and project monitoring had a positive strong correlation with project implementation. The regression analysis also provided positive beta coefficients that were all significant. The study recommends a thorough planning, availability of resources and timely release, involvement of all stakeholders in processes and activities of decision making, and having an effective monitoring framework. The study further recommends a similar study to be done in a different environment to ascertain the results of this study.

**Keywords:** Traceability system, Project Resource Mobilization, Stakeholders' Involvement, Project Planning, Project Monitoring, Project Implementation.

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## I. INTRODUCTION

The agriculture sector is the mainstay of Kenya's economy contributing 29.3% to the Gross Domestic Product (GDP). The leading subsectors in the year 2016 were Dairy, Tea and Horticulture, in that order. The domestic value of horticulture production in 2016 amounted to Ksh.216.37 Billion as compared to 207.73 Billion in 2015; this is equivalent

to an increase of 4 per cent. Over the same period, cultivated area increased by 5 per cent from 588,411 Ha to 619,114 Ha with a total production of 8.127 Million Tons in 2016 compared to 7.983 million tons in 2015. This was a 2% drop in production that was attributed to prolonged drought. The contribution of horticulture is crucial to the economy of Kenya as it accounts to 80% of national employment either formally or informally [1]. The European governments have enacted stringent food safety regulations on horticultural produce as a result of increased consumer concerns over food contamination. Fresh produce retailers in the European Union (EU), especially supermarkets, have responded by developing their own protocols and passing them downstream to developing-country exporters. For some developing country exporters, these upstream changes have meant that produce must be sourced through strictly supervised contracts [2]. Under such contracts developing country exporters impose strict adherence to good agricultural practises including pest and disease management and in addition use of a reliable traceability system. Meeting these pre-requisites means remaining in business while incurring high variable costs of doing business for the horticultural famers. As a result of this growing concern and increased bans on Kenyan horticultural produce from the EU, in 2013, the Horticultural Crops Directorate entered into an agreement with the USAID funded project, Kenya Agriculture Value Chain Enterprises USAID-KAVES to support the development of an online National Horticulture Traceability System with the main objective of restoring confidence to the Kenyan horticultural buyers or importers in complying with food safety market requirements [3].

A project is a temporary endeavour undertaken by people who work together to create a unique product with established time frame and established budget [4]. Project implementation involves executing or carrying out of a plan, method or design for doing something. [5] noted, "Project implementation involves interaction among diverse actors from local stakeholders to improve their condition, to develop practitioners implementing strategies, to help make the improvements possible, with various other actors in between". Project planning involves setting goals, deciding what the project entails [6]. People who get what they want do so because they have clear goals and develop plans and schedules to achieve the goals. According to [7], eight hundred and forty five of Kick starter top projects in the USA missed their targeted delivery dates. High levels of experience and accurate time and cost estimating are necessary to plan a project effectively. Stakeholder involvement is vital in the implementation of any project. Among project participants, sustainability is coalesced around continued production gains and increased income streams resulting from project initiatives [8].

#### ***A. Horticultural Sector in Kenya and Traceability***

The horticulture sector performance of 2018 showed export receipts from fresh produce grew by 33% to Sh153.68 billion compared to Sh115.32 billion recorded in 2017 making it the third foreign exchange earner after diaspora remittances (272 B) and tourism at (175 billion) showing increased resilience in the sector. The volumes of fruit exported increased by 34.28%, cut flower export volumes stagnated while the volume of exported vegetables decreased by 4.42%. This, while revenue from the three export commodities increased 42.55% to Sh12.68 billion, 37.8 per cent to Sh113.16 billion for cut flowers while earnings from vegetables jumped 15.05 per cent to Sh27.68 billion [3]. Kenya has diversified to other non-traditional export markets such as the Middle East, China, Japan, Australia and New Zealand. It also sought to maintain competitive advantage by focusing on products that have higher standards, SPS and others, by increasing variety and product differentiation. [9] argued that, close to 2.5 million people are employed in both formal and informal horticultural setups. In addition, multiplier effects can arise in horticultural production especially in production and packaging of produce. For example, the demand for packaging materials can lead to the development of local plastic and paper manufacturing industries. The horticultural industry has helped in reduction of poverty in rural areas as a result of higher incomes as compared to other crops. This is as a result of forward and backward linkages. [10] argued that high export growth which is mostly facilitated by the increase in agricultural production is widely considered to be an important pathway to the reduction of poverty. Horticultural production provides the small scale farmers with an opportunity for earning regular income. [10] recognized that an increase in production and export of horticultural exports in Kenya had resulted in increased incomes. The European market is the largest export destination and the major importing countries are: The United Kingdom, France, Netherlands, Belgium and Germany.

The food safety scandals of the 1990s have led developed country governments and retailers to enact strict International Food Safety Standards (IFSS) covering four broad areas: pesticide residue limits, worker safety, packer hygiene, and traceability. In 2013 Kenyan horticultural exports were subjected to 10% inspection at all ports of entry into the EU because of inability of Kenya to demonstrate existence of an effective national traceability system for horticultural produce. There was also continued detection of pesticide residue in beans and peas beyond the recommended levels leading to a 60% reduction in exports. As a result of that, 50,000 smallholder farmers lost their jobs and incomes due to

drop in production of beans and peas for exports with the local industry losing 3.4 billion shillings annually in costs of testing pesticide residues in exports [3]. The National Horticulture Traceability System (NHTS) project was established in the year 2014. The proposed technology based system is meant to provide a reference framework for linking data relating to fresh produce from production to distribution and should answer the questions of what products, by who, when what was done and how it was done. The main objective is to ensure customer confidence on Kenyan produce traded in the market. The system will ensure product traceability and high level standards maintained as per KS 1758-2016; which is the Kenyan Standard on Horticulture [3].

### ***B. Statement of the Problem***

According to the NHTS handing over report of 2018, the NHTS project was established in 2013 as a proposed technology based System meant to provide a reference framework for linking data relating to fresh produce from production to distribution and should answer the questions of what products by who, when what was done and how it was done. The system was completed and piloted in a period of 18 months where 12 exporting companies and 1460 small-scale farmers distributed within 10 counties were sampled for piloting. It was eventually launched in September 2016 aiming at increasing the competitiveness of Kenyan horticulture exports through enhanced transparency in the supply chain, facilitate a rapid response to food safety risks by providing the capacity to identify, isolate, and rectify non-compliant producers and expedite responses to pest and disease early warning alerts by locating affected areas. However, since its launching in 2016, the system is yet to be fully utilised by Kenyan horticultural exporters with only 60% of the exporters registered in the online system [3]. Despite the heavy resources and efforts put in by the donors and the government, the NHT system has not been fully implemented. This means farmers will still be incurring losses as much \$ 47.5 million on roses, beans and Peas not forgetting \$3.5 million annually in testing and delays in market. Consequently, economically the country will be much affected and so is the livelihood of the farmers and those who depend on the horticulture industry for exportation of produce to the EU markets. Empirical study done by [11] linked poor management of projects to the increase in the cycle of poverty and failure of many donor funded projects in developing countries like Kenya. The NHTS audit report of 2017 does not provide evidence of stakeholders' engagement on the status of implementation of the system. The cost of operating the NHTS is between \$250,000-\$350,000 per annum. By using the system there will be greater volume reduction of produce which is exported and traced at a cost of between \$1.52/Mt - \$3.85/Mt [3]. The benefits associated with this system to the Kenyan economy as a whole cannot be under-rated with a main boost in increased market access of Kenyan produce due to ability to trace her produce from farm to fork.

### ***C. Objectives of the Study***

The main objective of the study was to assess the factors affecting horticulture project implementation at the National Horticulture Traceability System in Kenya. Specifically the study will also look at the following objectives.

1. To evaluate the effect of project resource mobilisation on implementation of the National Horticulture Traceability System.
2. To examine the effect of stakeholder involvement on implementation of the National Horticulture Traceability System.

## **II. LITERATURE REVIEW**

### ***A. Theoretical Review***

Stakeholders' theory by [12] identifies four major stakeholder groups to include main shareholders, employees, customers, and the general public. The 'stakeholders' are those groups without their support, the organization would cease to exist and it may equally mean any group or individual that can affect, or is affected by, the achievement of the organization's purpose. While building on this theory, [13] identified and put forward three forms of stakeholders' approaches namely descriptive, normative, and instrumental stakeholder approaches. [13] opine that, the descriptive approach emphasizes understanding the relationship between an organization and its stakeholders while the normative approach emphasizes that organizations should take all stakeholders into consideration, as a moral responsibility. [14] reiterate that it is crucial introduce the stakeholder theory to projects, for the basis of decision-making criteria especially in analysing demands of different stakeholders, ensures that profits are proportional to investments and risks. To some extent, theory acts as a stimulant on various stakeholders to actively cooperate with each other, in projects. However, one of the critic of the stakeholders' theory is that it does not make a clear distinction between enterprise and corporation but

just dramatically overstates the separation of ownership and control, generalizing from corporations to all enterprises [15] without clearly providing best practices in harnessing and harmonizing the different stakeholders interest with harm to stakeholders' interest and project time lines. It is therefore difficult to identify which stakeholders' interest should take precedent especially for an economic projects especially those with adverse implications on the environment.

Resource based view theory (RBV) was initiated by [16] and [17]. The theory lies in the applications of a bundle of valuable tangible and intangible resources at the firm's disposal that gives the firm competitive advantage over other firms. RBV explains the role of valuable resources (tangible and intangible) and how they enable the firm to complete its projects within time, cost, schedule and desired quality [18]. According to the RBV theory, a firm with adequate resources has a higher probability of having a competitive advantage and better performance over other firms. The project manager continuously works hard at improving the performance of projects they under taken. However, most organizations have limited resources and time available to help them invest making the changes that are needed to improve the performance in the projects [19]. Tangible resources include machinery and equipment while intangibles include things such as trade mark, intellectual property and processes. Adequate use of modern equipment and machinery enables a firm complete an infrastructure project within agreed time as well as reduce cost overruns issues [20]. According to [21], for any given organization to attain superiority in performance, it must first identify the resources it possesses; assesses the value of these resources and how best to utilize the resource to give a competitive advantage. Further, resources such as: capital, equipment, skills of employees and patents can enable a firm to implement its projects efficiently as well as deliver projects that are up to standards. Project performance and implementation is highly influenced by the resources owned by the organization. Thus, RBV theory is important in this study as it seeks to express the necessary financial, human, physical and technological resources required to ensure performance and effective implementation of projects. The project management context fits into this theory as envisaged by [17] and [16], the initiators of RBV theory.

#### D. Conceptual Framework

The conceptual framework in Figure 1 below demonstrates the relationships that exist between the dependent and independent variables under investigation.

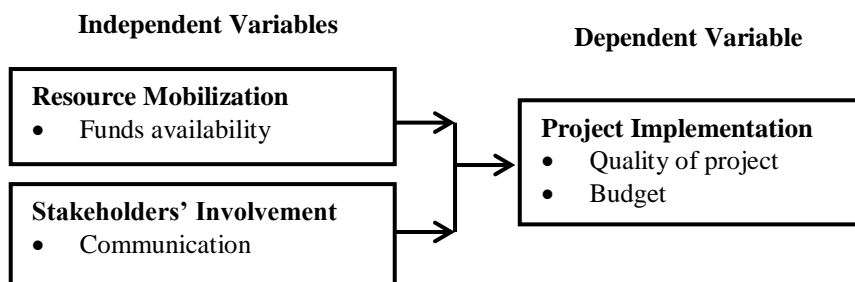


Figure I. Conceptual Framework

#### E. Review of Study Variables

##### i). Resource Mobilization

Project Financing includes the processes required to ensure that the project is completed within the approved budget [4] (PMI, 2014). Project resource mobilization involves identifying financial, human, physical and technical resources and organizing them in a way that leads to successful implementation of a project [22]. The major processes are: Resource Planning, Cost Estimating, Cost Budgeting and Cost Control. Project Cost Management is primarily concerned with the cost of the resources needed to complete project activities. Resources are the basic tools necessary in the effective performance of tasks and for the growth and development of human organizations. The constitution of a resource is determined by the uses to which it can be put. Generally, a resource is identified by its ability to solve problems and yield more wealth when applied to economic terms [23]. Resource Mobilisation (RM) is a component of great value for making an organization stronger. The unpredictable continuity of project funding by the donors makes an organization to leave a project to self-existence, thereby making it uneasy to carry out and maintain its activities in order to make its services better than they were before [24].The functions of finance should be handled in accordance with the goal and objectives of the organization. In a profit-oriented enterprise, this goal should be maximization of the wealth of the shareholders. Cost is often measured in monetary terms. The success of projects is judged by the efficiency with which we achieve the

project objectives and that efficiency is assessed by measuring against two constraints – Cost & Time [25]. In assessing the project duration, the duration of individual activities and resource usage have been optimized and further reduction of project duration must increase the direct cost of the project due to overtime and uneconomic use of the plants and machineries. Developing a plan or strategy for resource mobilization can lead to creative efforts in using your own local assets to gain support for your organization. According to [26], resource mobilization needs a lot of preparations and plans. Resources can either make or break a project; they have therefore to be used efficiently and effectively as they are hard to obtain, expensive or even at times both and have a major influence on project sustainability. There is ever increasing competition on the environment on which the resources are mobilized. The study concludes that resource mobilization has a significant influence on sustainability of women group projects. Financial resources, human resources, physical resources and community participation have a significant influence on sustainability of projects.

#### *ii). Stakeholders' Involvement*

Stakeholders refer to a person or groups who are directly or indirectly affected by a project [27] (African development Bank, 2001). Stakeholder management is an extremely important practice towards achieving project success. Effective stakeholder engagement is an essential, but commonly overlooked, component in project implementation. Stakeholders have a dual relationship with the performance of the project in that; their actions can influence the project outcomes whereas the project results may affect their interests [28]. Stakeholder analysis is an essential part of stakeholder management. Stakeholders should be engaged as early as possible and this engagement is essential for stakeholder analysis and decision-making. Stakeholder management can be conducted through stakeholders' identification, planning of stakeholders' management, management of stakeholders' engagement and control of stakeholders' engagement. Stakeholder participation empowers stakeholders and also enhances inclusions. It brings the aspect of significant participation by different stakeholder groups. Stakeholder participation means empowering development beneficiaries in all stages of the project cycle. [28] identified project selection, resource allocation and project monitoring as the three major processes in portfolio management. Understanding stakeholders, their influences and devising engagement strategies based on analyses has become one of the key capabilities within project-based firms [4].

#### *iii). Project Implementation*

Project implementation entails the execution and actualization of all the activities given in the planning of projects. It takes 80-85% of all the project activities and resources utilization. It requires a combination of techniques, procedures, people and systems focused on the successful completion of a project [29]. Project implementation simply means carrying out the activities set out to be done. Project success or failure can only be effectively measured at the completion of the project. [30] suggested the need to improve management of agricultural projects to enhance their impact. Likewise, objectives and activities of the projects should be oriented to deal better with development problems of rural people, in particular those of the poorest and marginalized communities. Projects generally fail as a result of poor planning, constant changes in the scope and consequently deadline and budget, as well as the lack of monitoring and control. It is generally accepted however, that the success or otherwise of a project can be defined through the ability of the project to meet the technical goals of the project whilst not deviating from the three constraints of scope, time and cost; the usefulness of the project as perceived by beneficiaries and sponsors as well as the project team; and the performance of the project [6]. A project is generally considered to be successfully implemented if it is timely, does not exceed the budget, meets the objectives of the project, is accepted and users are satisfied.

### **III. RESEARCH METHODOLOGY**

This study adopted a descriptive survey research design in an attempt to investigate the factors that determine effective project implementation. A descriptive survey research design allows for an in-depth analysis and understanding of a particular phenomenon as it exists in the present condition [31]. The study targeted a major traceability project in the horticulture sector initiated by HCD and funded by USAID. The target population was 388 people comprising of registered exporters in NHTS (350), exporters used in pilot of NHTS (12), technical and regulation department (15), IT department (5), marketing, research and product development (5), USAID Project manager (1). The above mentioned people had interacted with the system in one way or the other. The sample size (n) of the study was calculated using the Yamane (1967) formula where a sample size of 197 was considered for this study. Primary data was gathered directly from respondents by the use of a questionnaire with both closed and open ended questions. The questionnaire was constructed in a way that it would be easy and simple to understand. The questionnaire had both open and closed-ended questions which were self-administered; dropped and picked from the sampled respondents.

#### IV. RESEARCH FINDINGS AND DISCUSSION

##### A. Study variables descriptive statistics

##### i). Status of Project Implementation

The main objective of the study was to assess the factors affecting horticulture project implementation; a case of the National Horticulture Traceability System in Kenya, at the Horticulture Crops Directorate. The study sought to find out the status of implementation. Generally, the study did not provide significant statistical evidence to explain the status of NHTS implementation at HCD in Kenya. [29] explain that Project implementation entails the execution and actualization of all the activities given in the planning of projects. It takes 80-85% of all the project activities and resources utilization. It requires a combination of techniques, procedures, people and systems focused on the successful completion of a project. It simply means carrying out the activities set out to be done. The success and failure of a project can be only effectively measured at the completion of the project. The theory of change by [32] and the theory of effective implementation can be used to explain the rate of implementation of projects. The study did not provide significant evidence to show that the project was implemented and completed as per the given timeframe. However, the study showed that 57 (40.1%) respondents believed that the project was completed within the required timeframe while 50 (35.2%) were completely unsure and the remaining 35(24.7%) disagreed completely. According to [25], cost estimating can be complex if not well structured. Time, cost and resource estimates must be accurate if project planning, scheduling, and controlling are to be effective. Majority of the respondents (79, 55.6%) agreed that the project was implemented within the project cost budgeted. Only 28 (19.7%) of the respondents disagreed while 35 (24.6%) were not sure of their decision. According to [24] the unpredictable continuity of project funding by the donors makes an organization to leave a project to self-existence, thereby making it uneasy to carry out and maintain its activities in order to make its services better than they were before. Those projects have to operate within their budgeted cost. [25] opines that, the success of projects is judged by the efficiency with which we achieve the project objectives and that efficiency is assessed by measuring against two constraints of cost and time.

The study provides significant statistical evidence that there was engagement of project Stakeholders' during implementation of the project. Majority of the respondents 78 (54.9%) affirmed that there was stakeholder involvement, while 43(30.3%) were undecided and only 21 (14.8%) did not have a conclusive answer. Building on the stakeholders' theory, [13] identified and put forward three forms of stakeholders' approaches namely descriptive, normative, and instrumental stakeholder approaches. The normative approach emphasizes that organizations should take all stakeholders into consideration, as a moral responsibility. Stakeholders also actively participated in decision making process to ensure successful implementation of the project. This was evident as majority of the respondents 79 (55.6%) affirmed that while 35 (24.6%) had a contrary opinion and 28 (19.8%) were unsure about stakeholders engagement in decision making. [14] reiterate that it is crucial introduce the stakeholder theory to projects, for the basis of decision-making criteria especially in analysing demands of different stakeholders, ensures that profits are proportional to investments and risks. The stakeholder theory acts as a stimulant on how various stakeholders cooperate in projects. The project implementation plan was in place to ensure minimal variances. Majority of the respondents 78 (54.9%) affirmed that, 28 (19.7%) did not have a conclusive decision, with only 36 (24.4%) having contrary opinion. The [4] opine that, the primary uses of the project plan is to document planning assumptions and decisions, facilitate communication among stakeholders, and document approved scope, cost, and schedule baselines. [33] postulates that, planning is the management function that involves setting goals, prioritizing these goals and deciding how to achieve them. An organisation without planning is like a sailboat minus its ruder. Project planning is widely thought to be an important contributor to project success and points to a strong link between planning and project. According to [34] project planning significantly affects project implementation of projects.

##### ii). Influence of Stakeholders' involvement on Implementation of Projects

The first specific objective of the study was to examine the effect of stakeholders' involvement on the implementation of the National Horticulture Traceability System. How does stakeholders' involvement affect the implementation of the National Horticulture Traceability System? In general, the statistics did not provide significant evidence to explain the influence of stakeholder's involvement in implementation of NHTS at HCD in Kenya. The mean score was 3.46 and standard deviation of 0.99. The stakeholders' theory emphasizes understanding the relationship between various stakeholders of the project. This theory provides a theoretical framework to identify and analyse the influence of organizational behaviour [13]. Managers must develop relationships, inspire their stakeholders, and create communities

where everyone strives to give their best to deliver the value the firm promises. Certainly shareholders are an important constituent and profits are a critical feature of this activity, but concern for profits is the result rather than the driver in the process of value creation [35]. The stakeholders' approaches by [13] identify and put forward three forms of stakeholders' approaches namely descriptive, normative, and instrumental stakeholder approaches. The descriptive approach emphasizes understanding the relationship between an organization and its stakeholders while the normative approach emphasizes that organizations should take all stakeholders into consideration, as a moral responsibility.

Majority of the respondents 85(59.9%) agreed that all the stakeholders' are involved in making decisions activities during project implementation. However, 22(15.5%) disagreed with 35 (24.6%) their responses being inconclusive. Stakeholder participation empowers stakeholders and also enhances inclusions. It brings the aspect of significant participation by different stakeholder groups. This is also the essence of introducing the stakeholders' theory in project management as a basis for decision making in analysing demands of different stakeholders demand. Majority of the respondents 57(40.1%) agreed that, the organization had an elaborate communication plan to communicate to all stakeholders' on project progress, emerging issues, and decisions taken during implementation of the project. The study also provides significant evidence that the organization had a stakeholders' register showing all the stakeholders, their roles, and mode of communication. Majority of the respondents 84(59.2%) with 15(10.6%) disagreeing. However, 43 (30.3%) had an inconclusive decision. Further the study also proved that the stakeholders' register was accessible and available as supported by a majority of the respondents 64(45.1%). The statistics provided significant evidence of the availability of stakeholder's matrix. Majority of the respondents 64 (45.1%) agreed while only 28 (19.7%) disagreed. According to the [4], stakeholder analysis mostly included as part of communication management is an important tool that helps the project managers to identify the influence and power of each stakeholder. A stakeholder influence matrix is a graphic representation use to map the level of influence and the interest of a stakeholder in a given project.

### *iii). Influence of Resource Mobilization on Implementation of Projects*

The second specific objective of the study was to evaluate the effect of project resource mobilisation on the implementation of the National Horticulture Traceability System. What is the effect of project resource mobilisation on the implementation of the National Horticulture Traceability System? Generally, the study provided some slight statistical evidence that suggest project resource mobilization affects implementation of NHTS at HCD Kenya. The mean was 3.56 which is slightly above neutral in our Likert scale. According to [26], resource mobilization needs a lot of preparations and plans. Resources can either make or break a project; they have therefore to be used efficiently and effectively as they are hard to obtain, expensive or even at times both and have a major influence on project sustainability. [24] further argues that, the unpredictable continuity of project funding by the donors makes an organization to leave a project to self-existence, thereby making it uneasy to carry out and maintain its activities in order to make its services better than they were before. The Resource based view theory can be inferred to explain the importance of mobilizing resources in a project to enable the firm to complete its projects within time, cost, schedule and desired quality. The theory of constraints articulates that, for every system no matter how successful it is there is always at least one constraint that hinders or affects its performance [36]. The theory outlines four main constraints that hinder the performance of projects. The constraints are; scope of the project, cost of the project, quality and time within which the project is to be completed.

The respondents agreed 86(60.6%) that the organization and donors ensure the project funds are available for successful completion of project. Finance of project is among the factors that affect successful implementation of projects. In regards to funds being sufficient, the statistics did not give significant evidence to support that. Majority of the respondents 57 (40.1%) agreed while 35 (24.6%) disagreed. However, 50 (35.2%) had inconclusive opinion. The statistics proved that funds were released on time to ensure the project runs smoothly. Majority of the respondents 86(60.6%) were in agreement while 21(14.8%) though 35 (24.6%) had inconclusive response. The study also showed that the organization has put measures in place for effectively distribution of the project resources. However, 50 (35.2%) had inconclusive response while 35(24.6%) disagreed. Majority of the respondents 79(55.6%) agreed that there is a good allocation of resources to project activities even though 35(24.6%) disagreed and 28 (19.8%) were not sure of precise opinion. The organization communicates clearly on how funds are utilized in the project. Majority of the respondents 78 (54.9%) were in agreement while only 21 (14.8%) disagreed. The project utilized tools like Gantt charts to track resources usage and ensure effective utilization. Majority of the respondents 93 (65.5%) were in agreement compared to 21 (14.8%) who disagreed and 28 (19.8%) those without a clear decision. [37] explains that, Gantt charts are useful tools for planning and scheduling as they help in determining the resources needed as well as plan the duration of the project. Further they help to effectively manage resources of the project

**B. Inferential Statistics**

Correlation analysis was done to establish the existence of a relationship between the dependent variables and the independent variable. Pearson correlation product coefficient (r) was used to establish the relationship in term of its significance, magnitude, and the direction. Table I below shows the results.

**TABLE I: CORRELATION ANALYSIS**

		Resource Mobilization	Stakeholders' Involvement
Project Implementation	Pearson Correlation	.624**	.552*
	Sig. (2-tailed)	.003	.012
	N	142	142

\*\* Correlation is significant at the 0.01 level (2-tailed).

Resource Mobilization has a strong positive significant correlation with project implementation (r = 624, P-value = 0.003). Resource Mobilization has a significant relationship with project implementation as P-value (0.003 < 0.05) is less than the accepted threshold of 0.05. The variable also has a strong magnitude as r (0.624) nears the maximum threshold of +1. Since r (0.624) is positive, it means a direct relationship with project implementation. Stakeholders' Involvement has a relatively strong positive significant correlation with project implementation (r = 0.522, P-value = 0.012). The P-value (0.012) is less than the accepted threshold of 0.05 thus, it is significant. The variable also has a strong magnitude as the r (0.552) nears +1. The fact that the coefficient r is positive implies a direct relationship between the stakeholders' involvement and project implementation.

**C. Regression Analysis**

Regression analysis is helpful in understanding how a typical value of a dependent variable or criterion variable changes when any one of the independent variables is varied, while the other independent variables are held constant. Thus, regression analysis was done in order to determine the beta coefficients value of the study variables using the following model;

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon \dots\dots\dots (iii)$$

**TABLE II: REGRESSION COEFFICIENTS**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.775	.676		1.146	.003
Resource Mobilization	.206	.184	.282	1.124	.024
Stakeholders' involvement	.166	.153	.173	1.085	.014

a. Dependent Variable: Implementation of NHTS Project.

The beta coefficients obtained are as follows; Resource Mobilization (0.206) and Stakeholders' involvement (0.166) while the value of the constant was 0.775. Therefore, the model can be fitted as below;

$$\text{Implementation of NHTS} = 0.0775 + 0.206\text{RM} + 0.166\text{SI} \dots\dots\dots (iv)$$

**V. CONCLUSIONS AND RECOMMENDATIONS**

**A. Conclusions**

Resource mobilization is significant for effective implementation. Availability and timely release of funds play an important role in successful implementation of projects. Effective allocation of resources ensures funds are well utilized for the project. Tools like Gantt chart are some of the project tools to be utilized to track utilization of funds and other resources. Stakeholders play a significant role in ensuring the project succeeds or fails. Thus, their identification, analysis, involvement and engagement in the project activities brings a sense of ownership. A communication plan on how to communicate with stakeholders forms a basis of reference during project implementation. Stakeholders register shows all the stakeholders, their roles, and mode of communication. It is crucial to ensure the register is available and accessible. Project planning significantly influences the implementation of projects. Plans are necessary tools for effective implementation of any project. An inadequate implementation plan is the final factor that can interfere with an otherwise



successful project performance. Stakeholders have a big role in planning of a project so it is essential for them to access the project plans and also participate in the activity. The project schedule forms the basis of project implementation while Project milestones are the tangible indicators of the project. Clarity of the project scope reduces the chances of scope creep which leads to a lot of frustration to project teams and other stakeholders. It is part of planning to ensure the project team possess the right skills and qualification for successful implementation.

### ***B. Recommendations***

Proper planning should be done from the beginning of the project. The plans should also be available and accessible to the various stakeholders. The project schedule should be the basis of project implementation where the project milestones need to be clear and documented to ensure stakeholders have a vision of the project progress. The project scope should be clear and documented. In relation to resource mobilization, organizations and donors ought to avail the funds and ensure they are released on time. Further, the funds need to be sufficient and effectively allocated and distributed to all project activities, thus project tools like Gantt chart should be emphasized. Communication on how funds are allocated, distributed and utilized is essential to ensure monitoring of the same. Stakeholders' involvement in decision making activities during project implementation is a must do to ensure the project is successfully implemented. The organization should have an elaborate communication plan to communicate to all stakeholders on project progress, emerging issues, and decisions taken during implementation of the project. The stakeholders' register should be available to show all the stakeholders, their roles, and mode of communication. Project monitoring should be a continuous activity and be included during the planning stage of the project through implementation. Organization or projects should allocate funds for monitoring and also ensure the monitoring team have the necessary skills and knowledge to conduct the activity. A good monitoring framework is a necessity to ensure continuity of the exercise. Finally, feedback from monitoring should be documented and the action to be taken suggested. The study also recommends for further studies to be done as recommended in this document.

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