REFORM INTERVENTIONS, PARTICIPATORY MONITORING AND PERFOMANCE OF AGRICULTURAL PROJECTS FUNDED BY THE WORLD BANK IN TRANS-NZOIA COUNTY, KENYA

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DECLARATION

This thesis is my original work and has not been presented for award in any other University.

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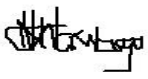
Signature……  Date……**8/06/2021**……

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Thesis dedicated to Beth Kathuo, Oliver Larry, Owen Emmanuel and Allen Obed; to whom “becoming a doctor who won’t treat them is a mystery.” May this be an impetus.

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TABLE OF CONTENT

LIST OF TABLES

Page

LIST OF FIGURES

Page

ABBREVIATIONS AND ACRONYMS

AIMM: Anticipated Impact Measurement and Monitoring

ASDSP: Agriculture Sector Development Support Program

CCS: Compliance Cost Savings

CDD: Community Driven Development

CDF: Constituency Development Fund

CIPP: Context, Inputs, Process and Products

CMAW: Creating Markets Advisory Window

COP: Community of Practice

DBI: Doing Business Index

DDI: Domestic Direct Investment

DFID: Department for International Development

DOTS: Development Outcomes Tracking System

FCV: Fragile, Conflict & Violence

FDI: Foreign Direct Investment

FGD: Focus Group Discussion

FSD: Financial Sector Deepening

GEMS: Growth Enterprise Market Segment

GDP: Gross Domestic Product

GOK: Government of Kenya

ICT: Information, Communication and Technology

IEG: Independent Evaluation Group

IFC: International Finance Corporation

KAPAP: Kenya Agricultural Productivity and Agribusiness Project

KASLMP: Kenya Agricultural Sustainable Land Management Project

KII: Key Informant Interview

KIPPRA: Kenya Institute of Public Policy Research and Analysis

KCEP: Kenya Competitiveness Enhancement Program

KICP: Kenya Investment Climate Program

M&E: Monitoring and Evaluation

MFI: Micro Finance Institutions

MOAL&FD: Ministry of Agriculture, Livestock and Fisheries Development

MWW: Mann-Whitney-Wilcoxon Measure

NACOSTI: National Council for Science, Technology and Innovation

OECD:	Organization for Economic Cooperation and Development
OLS:	Ordinary Least Squares
PM:	Participatory Monitoring
PMU:	Project Management Unit
SACCO:	Savings and Credit Cooperative Society
SAPS:	Structural Adjustment Programs
SD:	Standard Deviation
SDG:	Sustainable Development Goals
SMS:	Short Messaging Service
SPSS:	Statistical Package for Social Scientists
TAM:	Technology Acceptance Model
TOC:	Theory of Change
UCLA:	University of California in Los Angeles
UNCTAD:	United Nations Conference of Trade and Development
UNDP:	United Nations Development Program
UoN:	University of Nairobi
VIF:	Variance Inflation Factor
WBG:	World Bank Group
WRS:	Warehouse Receipts System

ABSTRACT

Participatory monitoring is at the center of a global conversation as useful tool in tracking the progress of interventions and has been cited as a critical contributor to improved performance. The practice has largely been inculcated in project execution though with no much scientific backing. For this reason, this study sought to ascertain its role in projects by interrogating its moderating effect on the relationship between reform interventions in the World Bank context against the performance of agricultural projects using in Trans-Nzoia County as *a de-facto* test environment. The study arose out of the need to empirically quantify and institutionalize aspects of participatory monitoring in contemporary projects through five objectives which are: examine the influence of financing reform on the performance of agricultural projects funded by the World Bank, assess the influence of marketing reform on the performance of agricultural projects funded by the World Bank, establish the influence of capacity building reform on the performance of agricultural projects funded by the World Bank, determine the joint influence of reform interventions on the performance of agricultural projects funded by World Bank and establish the moderating influence of participatory monitoring on the relationship between reform interventions and performance of agricultural projects funded by the World Bank. Reforms under study were first tested independently and then jointly so as to determine the extent of their relationships with project performance before determining the moderating effect. Five research hypotheses were generated from the objectives of the study and were tested to shed light on the direction of the study and unravel the magnitude of these relationships. Empirical and theoretical literature was reviewed based on the literary works of other scholars and academicians in the fields of project management, quality assurance and development Economics. Reviewed literature was interrogated in relation to the theory of change, outcomes theory, the empowerment theory and responsive-constructivist evaluation theory. The nexus amongst the study parameters was configured on a conceptual framework that exemplified extent of perceived relationships. Mixed-methods research under descriptive survey design was utilised to quantify the relationships. The study is grounded on pragmatism; a philosophy complementing epistemological, methodological and axiological underpinnings desired in mixed methods research. Target population was 800 farmers and 15 project staff determined using proportionate sampling. Study sample of 268 respondents was determined scientifically using simplified Yamane formula of proportions. Quantitative data was obtained using a structured questionnaire with likert-type questions while qualitative data was collected using key informant interviews and focus groups. Qualitative data analysis was by iterative inquiry, critical reflection and thematic review while inferential data was analyzed using the measures of central tendency, regression and correlation. Stepwise regression inferred the moderating effect alongside the significance of the coefficient and the change in R^2. Multiple regression established the joint influence of reforms on performance of agricultural projects while the t-statistic was used to test the hypotheses. The findings reveal there is a positive significant relationship between financing reform and the performance of agricultural projects by r=0.0244 (p-value< 0.05); there is positive significant relationship between marketing reform and performance of agricultural projects by r=0.0472 (p-value< 0.05); there is a positive significant relationship between capacity building reform and the performance of agricultural projects by r=0.0199 (p-value< 0.05) and there is positive significant relationship between joint reforms and performance of agricultural projects by r =0.024 (p-value< 0.05). Using stepwise regression, it was established that participatory monitoring was responsible for 28.59% variation in the performance of agricultural projects. These findings are therefore useful in cementing the role played by participatory monitoring in projects and therefore enrich project management as a discipline. The results also provide an empirical justification for the adoption of participatory monitoring in projects. In terms of policy, since the Kenyan government and the development community are keen on reforming the development space, these findings provide an empirical basis upon which research-based policy formulation and public participation can be anchored. This study will contribute to growth of project policy, practice and methodology upon which further research in evaluation and project management can be anchored.

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Project performance is an elusive concept. Dissatisfaction with project performance is a feature reminiscent with contemporary initiatives that has plagued the development space for some time. While practitioners opine that participatory monitoring should be at the core of programming, there is perhaps insufficient evidence to back this. Whereas managers identified participation as a core project driver, elements critical for project performance are neither well-articulated nor thoroughly documented. Empirical evidence is however unequivocal that project performance largely remains poor. For instance, in United Kingdom, 23% of projects overshot budgets, 20% were behind schedule and 7% were abandoned. In USA, the average time overrun is 17%, cost overrun 15% and a schedule overrun placed at 16% (World Bank, 2019).

In Australia, 24% of projects suffered at least one failure rate compared to Malaysia where 28% were budget-constrained. The best performing projects in Asian Peninsula were 5% more successful than the worst performing ones (Lavagnon and Donnelly, 2017). In South Africa, 25% of projects experienced cost overruns, 22% overshot in budget, while 28% failed to take off. In Nigeria, 30% of projects experienced budget overruns, 28% under-delivered in scope while 11% were abandoned. Closer home, 22% of projects in Tanzania experienced budget overruns, 18% overshot in schedule while 16% suffered completion failures (World Bank, 2019). Poor performance was a common phenomenon in projects implemented throughout the East African countries whose economies are among the heaviest recipients of foreign aid.

In Kenya, 25% of development projects experienced performance overruns compared to 28% that suffered cost overruns. The average project overrun is estimated at 31%. Projects in the agricultural sector suffered most failures and continue to attract much scrutiny due to huge funding received by the sector. Agriculture is the mainstay of the Kenyan economy accounting for 80% of total employment and 26% of GDP (World Bank, 2019). Revitalization of the sector ranks highest on the government's agenda, however, reformative efforts to boost value chains in the sector appear cosmetic and have not yielded desired results. Though Kenya has the most vibrant economy in the East Africa region, results posted by agricultural sector projects is not commensurate with development finance received.

Owing to the prevailing challenges, the need for introspection on projects in the sector was therefore necessary. For this reason, World Bank and other players, after decades of disenfranchisement by poor results, designed reformative tools aimed at improving value chains in the sector. Reforms were developed in the context of the Structural Adjustment Programs (SAPS) piloted after the economic recession of the 90's. Noting that tremendous progress has been made to date, research in this domain has not kept pace with the wider results measurement agenda. Some interventions in use continue to yield the evidence of "productivity paradox" with respect to results (Nagpal, 2019). Whereas the traditional monitoring criteria of meeting cost, time and scope is no longer sufficient to guarantee results, participatory monitoring has increasingly been seen as a viable alternative to guaranteed performance.

Despite wide adoption of participatory monitoring, there is perhaps little consensus among practitioners on the role it plays in pacifying poor performance. Commentators subscribe to the view that performance needs to span simplistic dimensions, this has forced project executors to focus on the idealized rather than operationalized project drivers. For this reason, participatory monitoring focusing on sensibilities to power and influence of stakeholders is advocated (Spanou, 2020). Elements of participation embodied in practices such as output tracking, milestone assessment and periodic review do not necessarily capture aspirations of evaluators holistically. Participation of stakeholders in the design of projects, execution of activities and in measuring the progress are therefore important. Elements ingrained in the concept of participatory monitoring therefore need interrogation.

1.1.1 Financing Reform

Bottlenecks in access to finance occasioned reforming the financing landscape in the field of agriculture through avenues such as credit re-engineering, diversification of collateral, credit restructuring, redrafting regulations governing capital, digitizing the credit processing, simplifying repayment options, dismantling perennial bottlenecks, reducing the cost of credit, broadening sources of credit and enlisting more credit institutions (Keya, Kosura, Okeyo and Kirina, 2019). Financing reform arose out of the need to revitalize the ailing agriculture sector in Kenya so as to boost productivity at farm level. Since Kenyan financial systems had become so unstable to a point of triggering a crisis in the 90's, the need for reform in access to finance was considered to be of paramount importance.

Reforming the architecture and structure of credit was therefore considered a critical step in stabilizing the productivity potential by lessening unnecessary burdens on the farming community. This, would also enhance the purchasing power of smallholders hence incentivize productivity. In order to diversify access to finance, the World Bank pioneered the development of innovative models such as warehouse receipt system, invoice discounting and cereal banking as viable options to cushion the smallholders from exorbitant interest rates charged by commercial banks and financial markets.

Reforms in agricultural financing space curtailed retrogressive practices that plagued credit, dismembered the insensitivities and bureaucracy in acquisition of farm finance and increased the circulation of cash. Increased access to cash by farmers would then trigger productivity at grassroots level (World Bank, 2019). Given the country's weak credit infrastructure, revamping credit was useful in unlocking productivity potential. It is for this reason, that innovations such as commodity exchange were pioneered to diversify credit and cure deficiency of cash at farm level; a situation described as "low equilibrium poverty trap". Newer models currently in use are therefore the products of reform.

1.1.2 Marketing Reform

Reforming the commodity marketing space in Kenya was premised on increasing farm returns by improving access to markets. Recognizing the relationship between marketing models and economic growth, World Bank initiated countless reforms to open up the commodity marketing space particularly to smallholders. These efforts required the navigation of myriad impossibilities to be effective. Bold innovations that included pioneering of "Creating Markets Advisory Window" (CMAW); instrument for enhanced market access, were seen as avenues for commercializing the marketable surplus at farm gate.

Reforms in commodity marketing entailed structured trading that began re-orienting thin organically disjointed markets into single marketing units (Jessa and Uys, 2019). Transforming the marketing space led to innovative models preceding on-line trading and e-marketing channels. Re-engineering marketing structures in the context of the World Bank focused on expanding infrastructure and opportunities for increased access, designing of innovative marketing channels and investing in new approaches such as e-marketing (Keya, Kosura, Okeyo and Kirina, 2019). Commodity markets

portend a huge impact on the micro-economy of smallholders and positively impact values that are congenial to emancipation. New marketing opportunities helps curtail the perennial constraints associated with low farm surplus thereby broadening sources of income to smallholders.

1.1.3 Capacity Building Reform

Despite the increased attention to capacity building in recent times, there is still little consensus on the role it plays in improving performance of development initiatives. Capacity building as a process improves the ability of a person, group, organization, or system to meet objectives or to perform better. The practice is a multi-dimensional, dynamic process focusing on imparting skills, knowledge and competences in order to sharpen the appetite for productivity (Greven, 2020). Capacity building approaches in use such as field days, exhibitions, peer-to-peer learning, experiential problem-based learning and alumni groups have been lauded for skills dissemination. However, their contribution to emancipation has not been sufficiently articulated.

There appears to be limited understanding on role capacity building plays in ensuring adequate performance in projects. There are unanswered questions regarding elements of capacity that are critical to performance and capacity levels necessary for adequate performance. Capacity building is a powerful tool in development thinking that has evolved rather rapidly. The practice has been cited as a precursor to networking and collaboration and is useful in changing attitudes congenial to individual challenges, incapacities and inadequacies (Williams, 2018). The structure and content of capacity building and pedagogical structuring are critical in knowledge transmission.

Recognizing the need to improve the understanding in relationships between capacity building and development outcomes, Price, (2019) examined role played by capacity building in development and raised pertinent questions. While methods for assessing capacity elements such as service coverage, access to and the quality of skills and knowledge are well advanced and widely accepted, practitioners find it considerably difficult to capture the interim state or process that reflects the local ability to achieve and sustain quality of results over time. Experience elsewhere suggests that achieving better outcomes in projects requires increased investment in financial resources and building adequate local capacity to use those resources effectively.

1.1.4 Participatory Monitoring

Recognizing that participatory monitoring is a practice where project stakeholders are involved in each and every step of the design and execution of projects, despite being widely in use, the concept is not well documented. The concept has been adopted in projects as a vehicle for improving performance. There is however considerable level of confusion regarding its role in project delivery. Under participatory monitoring, the stakeholder involvement goes beyond layout and appraisal to include design and in monitoring instruments, activity tracking and estimation of social impact (De Vries, 2018). It ensures end-users are associated and own the subsequent outcomes. Despite its increased use, it still evokes criticism and praise in equal measure. Authors such as Thapa, Ngwenya and Kaufmann, (2017); Otieno and Kennedy, (2016) and De Vries, (2018) have questioned its role in results measurement.

Commentators and practitioners question the ability of some participatory elements in improving project outcomes. There is no common approach of including stakeholders in projects hence making it difficult to sufficiently interrogate this concept. Whereas it is argued that participation in monitoring projects often leads to quicker execution, easier achievement of results, enhanced ownership, project sustainability and higher impact (Otieno and Kennedy, 2016), there is perhaps insufficient empirical evidence to back this. It has been documented that whenever stakeholder ideas are incorporated in projects, a sense of ownership is catalyzed (World Bank, 2019). Pluralistic ideals in participation are therefore necessary in keeping the projects in check and provokes an internalized sense of adequacy hence stirring transparency, efficiency in resource use.

1.1.5 World Bank Funded Agriculture Projects in Trans-Nzoia County

World Bank is pioneering the adoption of reform interventions in agriculture through two projects in Kenya. These projects are; the Kenya Agricultural Productivity and Agribusiness Project (KAPAP) and Kenya Agriculture Sustainable Land Management Project (KASLMP). These projects are implemented country-wide in the context of reforms designed by the World Bank. These reforms are borrowed from the structural adjustment programs piloted during the 90’s economic recession. These reforms were meant to modernize the agricultural landscape in Kenya. The Ministry of Agriculture and Livestock Development is the lead implementing agency for the two projects. Since agriculture is a devolved function, County governments are therefore charged with the coordination responsibilities.

Reforms in agriculture sought to increase farm productivity in order to remedy low farm income by promoting agribusiness, technology adoption and investment in sustainable approaches. Reforms envisioned under the two projects are implemented through Community-Driven Development (CDD) approach, a model that empowers farmers to manage and own farm interventions. Beneficiaries under these projects were selected through a scientific criteria based on the affirmative action. Trans-Nzoia County was selected as a *de-facto* environment for this study due to its role in stabilizing food security in Kenya. Participatory monitoring had been embedded in project design, this therefore enabled an in-depth assessment of participation as a concept in the two projects.

1.2 Statement of the Problem

There is considerable enthusiasm about the role played by participatory monitoring in pacifying results measurement. Whereas the practice of participatory monitoring has gained significant momentum, there are unanswered questions regarding the elements in participation and the level necessary for adequate project performance. In as much as global entities such as the World Bank advocate for participation in projects, there exists critical gaps in its application. Projects including those funded by World Bank in some instances, post poor results. There is still some level of disenfranchisement on the part of beneficiaries on results realized in some project interventions. While the panacea for poor performance is on course, projects in agriculture continue to perform dismally. Evidence shows 37.8% of funded projects in Kenya were rated unsuccessful by the independent evaluation group.

A number of scholars have studied linear relationships between reform interventions and project performance and demonstrated substantial empirical evidence. A handful of other authors examined the role of participatory monitoring in projects. However, most of the studies in this area tended to adopt pure research designs, for instance, a study by Otieno and Kennedy, (2016) examined the effect of participatory monitoring on social sustainability, Makori, Ngacho and Aduda, (2015) examined participation in performance framework for communal projects in Kenya, while Thapa, Ngwenya and Kaufmann, 2017) examined linear relationships between monitoring and performance of projects in information technology systems. Kusters, Buck, De Graaf and Minang, 2018), examined the ambidexterity of participation in community development.

Similarly, other academicians examined extant relationship between financing reform and performance. Keya, Kosura, Okeyo and Kirina, (2019) examined the dynamics of marketing reform in development, Jessa and Uys, (2019) examined the centrality of capacity building interventions in development, Adhiambo, Onyango and Hayombe, (2013) also examined the role of capacity building in rural development and Mulwa, (2006) examined the dynamics of participatory monitoring in rural development. All these studies empirically demonstrated influence of various reforms in performance of projects in development.

Methodological challenges in measuring participation relate to the inherent nature and fluidity of the concept. Whereas authors such as De Vries, (2018); Rushford, Webster, Loiselle and Ferh 2016); Otieno and Kennedy (2016), Kusters, Buck, De Graaf and Minang, (2018) examined the linear relationships between elements of participation, these studies demonstrated perceived relationships using stand-alone models. On the contrary, this study is unique since it sought to unravel the complexity of participation by assessing its moderating effect using mixed methods. The principles encapsulated in mixed methods research were therefore adopted to holistically unpack participation in the context of reform. This study therefore differs considerably from previous other studies in terms of methodology, research design and scope.

In order to bridge the gap between the massive funding in agriculture sector in Kenya that translates to Kshs 100 Billion in the last 5 years (World Bank, 2019) and results posted by projects, there was need to quantify the role of participatory monitoring on sectoral performance. Since participatory monitoring is a relatively new field, data from this study will be useful in generating new knowledge in results measurement. Trans-Nzoia County was chosen as ideal for this study since the projects under study were implemented concurrently. The county was chosen as a de-facto environment for the study since the two projects had covered significant ground; by the time of the study, these projects had already undergone mid-term evaluation.

1.3 Purpose of the Study

The purpose of this study was to examine the moderating influence of participatory monitoring on the relationship between reform interventions and the performance of agricultural projects funded by World Bank in Trans-Nzoia County.

1.4 Objectives of the Study

The study was guided by the following objectives:

1) Examine the influence of financing reform on the performance of agricultural projects funded by the World Bank,
2) Assess the influence of marketing reform on the performance of agricultural projects funded by the World Bank,
3) Establish the influence of capacity building reform on the performance of agricultural projects funded by the World Bank,
4) Determine the joint influence of reform interventions on the performance of agricultural projects funded by the World Bank,
5) Establish the moderating influence of participatory monitoring on relationship between reform interventions and performance of agricultural projects funded by the World Bank.

1.5 Research Questions

The study sought to answer the following research questions:

1) In what way does financing reform influence the performance of agricultural projects funded by the World Bank?
2) To what extent does marketing reform influence performance of agricultural projects funded by the World Bank?
3) How does capacity building reform influence the performance of agricultural projects funded by the World Bank?
4) To what extent does reform interventions jointly influence the performance of agricultural projects funded by the World Bank?
5) In what way does participatory monitoring moderate relationship between reform interventions and the performance of agricultural projects funded by World Bank?

1.6 Hypotheses of the Study

The study sought to test the following hypotheses:

H_1: Financing reform significantly influences performance of agricultural projects funded by the World Bank,

H_2: Marketing reform significantly influences performance of agricultural projects funded by the World Bank,

H_3: Capacity building reform significantly influences performance of agricultural projects funded by the World Bank,

H_4: Joint reform interventions significantly influences performance of agricultural projects funded by the World Bank,

H_5: The strength of the relationship between reform interventions and performance of agricultural projects funded by the World Bank is moderated by participatory monitoring.

1.7 Significance of the Study

It is hoped that findings from this study will inform policy formulation and provide unique contribution to the theory and practice of project management. Since project management is an evolving field, findings from this study would be useful reference material that will contribute to body of knowledge and to the community of practice. Knowledge generated shall provide a perspective on the role played by participatory monitoring in pacifying performance. Participatory monitoring will hence be adopted as a practice with empirical backing. Structuring of the moderating variable provided new insights in social science and was useful in cementing the theory of performance. Academicians will find this study as a pertinent literature source.

Findings from this study, shall unravel the contextual gaps in participatory monitoring hence enrich its application in contemporary projects. This would provide answers to questions asked on the credibility and utilization of this practice. In terms of policy, given that the Government of Kenya is developing systems that work, this study shall be a pedestal upon which policy formulation on quality assurance could be anchored. The study provides evidence on indicators and elements of participation influential to system performance, whose findings can easily support a policy rethink. The findings of this study emphasizes the role of public participation; a concept enshrined in the constitution of Kenya; promulgated in 2010.

1.8 Delimitations of the Study

This study was delimited to two ongoing agricultural projects; the Kenya Agricultural Sustainable Land Management and Kenya Agricultural Productivity and Agribusiness Project. These projects were chosen because they had undergone mid-term assessment whose reports cited participation. Trans-Nzoia County was chosen since it provided necessary conditions, having varied experiences in adopting the use of participation in tracking results. Besides, these projects had been in existence for more than five years by the time the study was undertaken. This therefore satisfied minimum conditions for participatory assessment. The County is a rich agriculture base where the two projects were being implemented concurrently.

Furthermore, the nature of constructs under study not only have multiple definitions but also have the objective and subjective dimensions as well. This necessitated the adoption of mixed method research (Creswell, 2011). The application of subjective and objective questions was used to strengthen rigorous analysis and triangulation. Pragmatism philosophy shaped the subsets of variables under study. The sample size, geographical positioning and research approach used were considered adequate for a research study of this magnitude and therefore sufficient in supporting the formulation of meaningful inferences.

1.9 Limitations of the Study

This study was pitched in a vast County covering 2,469.9 Km^2 (GoK, 2017) where the targeted respondents held large tracts of land in the hinterland areas, the practicability of reaching respondents in reasonable time was remote, to circumvent this challenge, the researcher recruited competent research assistants who were very conversant with the terrain and physiographic challenges of the County. This helped to enhance access to target respondents with relative ease.

Since this study envisaged farmers as respondents to structured questionnaire; getting them to participate in a research of such a magnitude was not only herculean but also challenging. During data collection, most farmers were busy preparing their farms in readiness for the planting season. To circumvent this, the researcher scheduled field data collection visits during the farmers' free time. This was achieved by booking appointments in advance through established community networks such as the village elders, churches and the local administration.

1.10 Basic Assumptions of the Study

The researcher assumed that respondents would be accessed in reasonable time and respond to the questionnaire. The researcher also assumed that respondents would be willing and had the competence to effectively articulate participatory monitoring as conceptualized in this study. Again, the researcher assumed majority of respondents had sufficient exposure to participatory monitoring approaches and would articulate it with relative ease. It was assumed that targeted respondents had similar interactions with participatory monitoring as a practice.

Since data was collected during the planting season, it was assumed that respondents would be available at short notice and that they would appreciate the magnitude of the study and accord it the seriousness it deserves by providing reliable information. The researcher assumed that respondents would effectively communicate by expressing themselves objectively hence effectively articulate the questionnaire items.

1.11 Definition of Significant Terms Used in the Study

Capacity Building Reform: The process of improving farmer competences by enhancing their capacity through training and skill transfer using methods that support competence, training tools and approach. Capacity is an elusive concept stretching beyond investing in manpower, to peer-to-peer and experiential learning.

Financing Reform: Strategies designed to make credit more accessible through simplifying procedures, collateral options, regulations, digitization and enhancing availability and flexibility of credit. It includes simplifying repayment regulations, interest rates and costs and enhancing knowledge on credit access.

Marketing Reform: Approaches for expanding the commodity access to markets by reforming regulations, composition and structure of markets and investing in the infrastructure to enable easy movement of goods. Also includes marketing groups and bulk sales.

Participatory Monitoring: Routine project tracking by involving stakeholders in the layout, pre-project design, in developing the monitoring framework and in the project appraisal process, in developing outputs and outcomes, in developing monitoring approaches, in designing monitoring instruments, in tracking project results and in reporting results.

Performance of Agricultural Projects: Strategies developed to ensure projects in agriculture achieves sustainable increases in farm production, quality produce and in surplus, profits, yields adequate income and post-harvest security, commodities fetch stable prices on markets and realizes post-harvest safety.

Reform Interventions: Strategies developed to realize improved access to finance, the expanded infrastructure in commodity markets, broadened capacity at the individual and communal levels and sustained production. Three reforms examined in this study are; financing, marketing and capacity building.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter entails empirical and theoretical literature organized according to study themes drawn from research objectives. The study themes are: financing reform and the performance of agricultural projects, marketing reform and the performance of agricultural projects, capacity building reform and performance of agricultural projects and participatory monitoring. The chapter also contains theoretical underpinnings, the conceptual framework and research gap.

2.2 The Context of Reform Interventions

Kenyan agriculture reform as contextualized by the World Bank span the financing, marketing, capacity building and communications landscape. Reforms were designed to make agriculture a profitable business especially if paralleled with the concomitant revitalization agenda. Reforms in agriculture sector in Kenya focused on achieving sustainable results at farm-level by improving the produce quality, achieving surplus, safety, post-harvest security and satisfactory income. Good results achieved in most agriculture projects today are linked to the reform efforts of yesteryears (World Bank, 2019). Reform interventions were traditionally benchmarked by "iron triangle" criteria comprising cost, time and quality parameters, however this criterion has been criticized for inadequate coverage and a short-term focus.

Reform in agriculture sought to broaden productivity options beyond the simplistic dimensions to encompass aspects requisite in bringing meaningful change and cause a paradigm shift in income amongst smallholders. The traditional performance criterion of quantifying reform is considered inadequate since it advocated for non-objectivity (Williams, 2018). Whereas it is not abundantly clear kind of reform recommendations the government advocates to revitalize agriculture, there is need to quantify knowledge claims that the success of strategies adopted are products of reform. Whereas time, cost and scope are important dimensions for performance, they may not be sufficient to pacify the negative effects associated with poor performance in some projects and the complex nature of interventions being executed. Redesigning the reform package is therefore necessary but not sufficient in curtailing myriad challenges plaguing the productivity sector in Kenya.

Agriculture system reform is a complex notion usually influenced by a tyranny of elements. To date, reforms are anchored on economic pillar of Vision 2030 that seeks to attain a sustainable growth of 10% annually. The vision is critical for the country's development and identifies agricultural production as the engine of economic growth and transformation. Agriculture is projected realize 10% growth and support gradual transition of the economy to middle income status. The Kenyan government launched the Strategy for Revitalizing Agriculture (SRA) to guide investments in agriculture and tackle traditional challenges. The strategy was remarkably successful in yesteryears as it enabled agricultural sector growth of 6.1% in 2017 (GoK, 2017). Agricultural Sector Development Strategy (ASDS) was designed within the same period through carefully thought deep-dives with recommendations on how to reverse the dwindling fortunes of the sector.

In approximating long-run relationships between production in agriculture to variables such as financing, labor force, marketing and capital injection using Johansen-Granger co-integration procedure, authors established substantial relationships between capital, financing and productivity. Over a long time, costs of inputs were considered to negatively impact productivity, however in relatively newer studies, this trajectory has changed. Similarly, other studies found positive correlation between the marketing structures and production using the Error Correction Model (ECM) which was used to check dynamics of capital and how it relates to productivity determinants (Kathuria, Singh and Raina (2019). Studies on agricultural growth and the productivity potential using growth accounting procedures and other econometric techniques also showcased similar relationships among the various determinants of reform.

Common to all characteristics of reform is the assumption that it always links to better performance. Commentators and authors alike demonstrated that 90% of agricultural sector growth is credited to inputs; capital, marketing structure and the availability of labor. Whereas labor contributes 48% of growth (Baloch, Saeed, Ahmed, Oláh, Popp and Máté (2018), factors such as business climate, farm policy, farmer competences and expenditure capacity are important. These findings corroborate the ones by Onyilo, and Adong, (2019) who used inferential statistics to analyze inflation, productivity of agriculture and economic growth and found one-way causality between the inflationary trends and productivity. Though it did not demonstrate causality, the study generated may valid recommendations.

2.3 Financing Reform and Performance of Agricultural Projects

Financing reform is difficult to measure due to the perceived and unmanaged sectoral risks that thrive in financial markets (Bara and Mugano, 2016). Strategies designed to reform the structure and landscape of finance included enhancing access to credit by simplifying capital acquisition, dropping the insensitive collateral requirements and structuring repayment as modelled by Bretton Woods. Past strategies that supported access to finance were considered exploitative and needed upgrade to expand reach in enhancing financial inclusivity. Accumulated evidence elsewhere indicates expansion of access to finance has demonstrable impact on growth and poverty reduction. Efforts to expand access to finance would accelerate the systemic investment in productive areas thereby maximize their potential.

Based on reviewed literature, discussions with practitioners and experiences, extent to which Kenyan commercial banks provided credit to agribusiness firms, Ombok, Oima and Oginda, (2014) through a descriptive survey in Nyanza province targeting the 83 agribusiness firms, 48 agro-processing firms and 82 smallholders demonstrated the importance of financing smallholders. Stratifying individual samples for primary data with a response rate of 95.5% and inferential statistics demonstrated significant relationships between financing parameters using rank correlation. Findings from this study revealed that commercial banks granted an average 4.98% credit to agriculture, 9.40% to owner equity and 4.38% to credit share. These is in consonance with findings by Keya, Kosura, Okeyo,Mwai and Kirina (2019) who undertook a similar study in Counties in Kenya.

There exist myriad typologies for financing agriculture. Excerpts from a study on food security prospects in Kenya using data from Counties, Keya, Kosura, Okeyo Mwai and Kirina, (2019), using the comparative analysis found that typologies of farming capital took the large fraction of credit needs. A situation that accentuated the importance of credit in farming. The study also revealed that state-run funding models possessed the lowest sustainability financially; but remarkably ranked investments in agribusiness highest. The study also revealed that a funding gap of 93.7% was met by agribusiness entrepreneurs from personal debt. Similarly, Bara and Mugano, (2016) in a research on the association amongst financial reform and growth enterprise underscored the role of farming finance in sustaining food security.

Standards for measuring financing reform are varied. In demonstrating implications of political economy on China's financial reforms, Bowles and White, (2019) through a study with a sample of 254 respondents, postulated that financial reform trends, using lending as a proxy for domestic private investment established that lending agencies other than applying collateral management and warehouse receipting, ventured into machinery and equipment leasing, insurance and information management to boost the portfolio. Despite being agricultural oriented, lending agencies were more keen on making profit at the expense of production. The need for direct interventions to the struggling farmers including bailouts and debt relief, subsidies and lending via state-owned enterprises such as the Agricultural Finance Corporation were therefore found to be necessary but not sufficient.

Against the broader policy context on access to finance, there is need to improve the value chain by enhanced inclusivity. The role played by intermediaries and innovative enterprise in expanding financial literacy are important. However, some of the private finance players are exploitative in the long run (Demetriades and Rousseau, 2016). Innovations such as mobile money can help farmers access credit with ease, however in most cases, cash extended has too many strings attached and is usually in amounts not sufficient for investment. Whereas financial literacy in fiduciary management has greatly improved, a considerable segment of the population is not financially fluent (Keya, Kosura, Okeyo Mwai and Kirina, 2019). Financial literacy would therefore support the expansion of farmer capacities to thrive in an increasingly resource-scarce environment such as ours.

Diversifying access to finance and capital sources, developing partnerships within the financial markets and financial innovation through avenues such as equity financing, invoice discounting and warehouse receipting are therefore critical. In order to achieve broader financial inclusion, financing models needs to span the simplistic approaches to support reduction in transactional costs, reengineer the banking architecture to accommodate smallholders, simplify lending operations by dismantling obstacles in capital acquisition and automate the repayment agenda to reflect the current realities (Bowles and White, 2019). Emphasis should therefore be placed on re-engineering credit infrastructure to suit smallholder needs and open up the credit space. Alternative capital and affirmative action in financial inclusion are key to realizing the tenets of financial sector deepening.

2.4 Marketing Reform and Performance of Agricultural Projects

The concept of commodity marketing is central in World Bank assisted interventions. Improvement in productivity presumes accomplishments in four areas, that includes; policy, institutional capacity and market incorporation, market research and technology transfer (Bisena and Kumar, 2018). Actions undertaken in these areas are expected to provide the most lasting impulses to growth, particularly if socio-political approaches like participation, delegation and decentralization are embedded. Evidence shows that achieving better outcomes requires injection of resources and adequate local capacity to use those resources effectively. Strategies to increase market access for smallholder farm produce therefore needs a tactical rethink.

Efforts in expanding access to markets for farm commodities are crucial in broadening capital-intensive, technologies (Pavithra,Gracy and Saxena,2018). Available empirical evidence on commodity marketing at the local level in Kenya is limited, however there are significant strides in opening up new market infrastructure and bettering channels for movement of farm produce. Knowing that commodity marketing alone doesn't provide adequate support to the transition agriculture, factors such as the post-harvest handling, storage and market information are essential. The main challenge facing commodity marketing in Kenya today is to establish an input-output structure that supports sustainable growth of the productive potential for local producers. Marketing initiatives places emphasis on liberalization process, however this does not necessarily guarantee access of smallholder produce to reliable markets.

In Kenya's rural enterprise, a profound change in commodity marketing is taking shape with a view of simplifying it. Subsistence farming that mainly focused on domestic purposes is increasingly becoming diverse and more commercialized (Pavithra, Gracy and Saxena, 2018). Under greatest market circumstances, market-oriented transitions result in the development of mixed business enterprise, with only a small part of the farm dedicated to production of household food. This partly explains why farmers are emboldened with a new resolve to produce in surplus. Transformation in marketing dynamics has occurred in many economies and continue to increase incomes realized by smallholders. Global conversations in agriculture are slowly shifting from the older, conventional marketing approaches to newer, innovative and more nuanced models.

In a bid to articulate the role played by commodity marketing groups in stabilizing the prospects for food security, Keya, Kosura,Okeyo, Mwai and Kirina,(2019), engaged marketing groups in a study and established that many marketing arrangements, the modification and processing for post-harvest technology added value to commodities and improved their marketability. This has led to the expansion in surplus production hence more produce is available for sale. The study further demonstrated sustainable investment depended on technological advancement and implementation of essential services such as commodity augmentation, training, market efficiency, post-harvest handling and value addition. Middlemen were found to be the greatest impediment to market development and that the farm-gate prices offered by them were extremely low leading to displeasure with the liberalization process.

Recognizing the importance of agricultural cooperative marketing, Onyilo and Adong, (2019) undertook a study on the role of cooperative marketing and policy reform in the Ugandan context, looking at opportunities for growth. The study showed smallholders experienced weak dealings with giant traders since they were unable to access the price information and alternate opportunities. The study affirmed the role of selling in bulk as a viable option for smallholder enterprise, too often smallholders failed to comply with the contractual obligations, something that caused them to be excluded from the market value chains. This led to marginalization of smallholders with implications on unfilled opportunities, post-harvest losses, seasonal glut and price decreases, unreliable standards of quality and unsatisfied demand. For this reason, smallholders, in many instances failed to access the lucrative marketing opportunities due to their inability to sustain the supply chain.

Empirical evidence documents ways in which smallholders can overcome constraints for pro-poor growth in commodity marketing. Few existing markets tend to serve poor households and those living in remote areas (Keya, Kosura, Okeyo, Mwai and Kirina, 2019). Poorer households lack the necessary purchasing power in order to establish the profit-driven initiatives particularly in light of their complex technical requirements and high costs associated with penetrating markets. Smallholders stand to gain most from post-harvest aid, community storage and the marketing of collaborative surpluses. Globally, commodity marketing trends are changing fast with emergence of platforms such as supermarkets and cereal banks in several cities has provided the smallholder initiatives with hope.

2.5 Capacity Building Reform and Performance of Agricultural Projects

Capacity building is an elusive concept described both as a process and an outcome and as dynamic and multidimensional. In agriculture, capacity is required at different levels and within different entities and develops in "stages of readiness" which indicate improvements or decline (Greven, 2020). Capacity exists to perform certain functions or enable performance. Williams, (2018) describes capacity as "the ability to carry out stated objectives. Available evidence suggests that accomplishing better results require greater engagement of various capacity approaches to inculcate knowledge, skills and sufficient ability to effectively use the available resources. Despite increased attention, there is limited understanding on role played by capacity building in ensuring adequate performance in project systems. There are unanswered questions regarding elements of capacity building influential to performance and the level of capacity necessary for adequate performance.

Capacity building is a precursor to the impartation of knowledge in all spheres of life including development. Farmers and farming communities depend on various capacity building approaches to improve productivity. OECD, (2017) in a study on alternative financing and capacity development for entrepreneurs in mezzanine finance found that farmers needed their capacities enhanced in husbandry, breed selection, agronomy and pest control in order to catapult farm productivity to higher echelons. The study further demonstrated that farming communities needed support to improve production. Some commonly used capacity building approaches identified were clustered according to their inert abilities to transition productivity.

Although many authors acknowledge the import of indicators in quantifying elements ingrained in capacity building, literature suggests that efforts to measure outcomes in capacity building are at the very early stages of development. In a study to itemize the elements of capacity, Adhiambo, Onyango and Hayombe, (2013) examined the role of training in promoting agribusiness practices in Ugunja sub-county. By interrogating various elements thought to be influential on delivery of training outcomes, the study, using randomly selected farmers in participatory research found that elements such as training content, training approach, mode of delivery, access to and quality of capacity building materials were significant in promoting learning and knowledge transmission. The study demonstrated that both qualitative and quantitative approaches were useful in transmitting knowledge.

Capacity building through training supports change in attitude and equips farmers with necessary tools to improve production. The strategic dissemination of farm concepts through training and outreach supports the internalization of knowledge. The process and structure of capacity building are important considerations in the development and deployment of knowledge management. Some authors such as Massoli and Polverari, (2019) and Lavagnon and Donnelly, (2017) documented the importance of capacity building in development. Another study on the counterinsurgency of capacity building in China by Greven, (2020) using quantitative tools found capacity building took place at economic levels that characterized aspects of development. The study demonstrated that capacity building was critical in orienting the organizational capacities at local the level towards productivity.

Recognizing the need to improve the understanding on relationships between capacity building and development outcomes, commentators in development economics showed three levels of capacity to include; systems, organizational structure, human capacity and resource availability. Research by Greven, (2020), that is considered an eye opener by other commentators on the role of technical assistance in capacity enhancement for institutional reform, placed capacity building as a central pillar in rural development. Practices such as peer-to-peer learning, experiential learning, classroom training and field visits enable effective knowledge dissemination, however, these practices are not well developed in the smallholder perspective. Productivity at farm level will therefore improve if producers became innovative and expanded their capacities Massoli and Polverari, (2019) and Lavagnon and Donnelly, (2017).

Recognizing that the contextual factors in measuring capacity are well pronounced in current literature on trends in development, there is need to build new evidence on the level of capacity building necessary for expanding programming by developing newer capacity measurement tools through refined expertise (Williams, 2018). Evidence is unequivocal that in order to attain better outcomes in production and project delivery, there is need to amplify sporadic investment in capacity so as to enhance utilization of the available resources and reorient the same towards production. Enhanced capacity plays a role in sustaining interventions thereby reducing dependency. Smallholders therefore need to progressively adapt to innovative capacity building tools in order to remain relevant.

2.6 Participatory Monitoring and Performance of Agricultural Projects

Participatory monitoring is a process that ensures stakeholders in a project intervention are involved in its execution. The practice is relatively new and has gained significant momentum in development. The term participatory monitoring is used interchangeably with terms such as collaborative monitoring, participatory evaluation, development monitoring and empowerment monitoring (Thapa Ngwenya, Kaufmann, 2017). Forms of participation in projects are distinguished by the depth and breadth of stakeholder involvement. The concept is both complex and multi-dynamic, taking different forms of practice in different contexts. Its complexity emanates from how 'participation' is interpreted, since as a construct it possesses divergent interpretations where each step is considered independently.

Whereas participatory monitoring is not viewed from a single stand-point, it continues to evoke criticism and praise in equal measure. For instance, Evans and Guariguata, (2018); Rushford, Webster, Loiselle, Ferh 2016); Otieno and Kennedy, (2016) viewed this concept as the most ideal delivery approach. Others such as Otieno and Kennedy (2016) critiqued it for lacking scientific vigor. The concept advocates for collaboration between ultimate beneficiaries in an intervention such as the poor, the underprivileged and the disadvantaged to be part of identifying outcomes necessary for project success. In essence, its development focus is to ensure that stakeholders are active participants in all processes, this is expected to bring a sense of ownership, sustainability and good performance. Under this process, stakeholders are expected to draw actionable plans in their own terms.

To fulfill salient requirements for participation, local stakeholders are actively engaged in project execution that implies involvement in establishing monitoring objectives, developing measurement indicators, designing project's results framework, developing results measurement tools, supporting collection of project data and participating in reporting the project results. In essence, stakeholders are part and parcel of executing the project and are responsible for its eventual outcomes. Participatory monitoring is premised on the notion that every voice counts (Kusters, Buck, De Graaf and Minang, 2018). The process is not a single interpretation of reality, but a continuous one where stakeholders, particularly primary ones are actively engaged in all stages of the project cycle. This practice is influential on the type and magnitude of outcomes generated in project interventions.

While there are limitations in its application, its ability to influence empowerment and sustainability of outcomes cannot be viewed from a solidary viewpoint. Participation in monitoring of projects or otherwise has been justified on two grounds; procedural and substantive. On procedural strand, participatory processes are demonstrated to impact sustainability of interventions following laid down rules and procedures while on the substantive strand, they are demonstrated through an evidential threshold that's usually agreed amongst stakeholders. To give credence to this strands, a study by Evans and Guariguata, (2018) showed that procedural strand is essential in building sustainability mechanisms by facilitating participation, making stakeholders feel valued hence more associated with results posted.

Despite positive outcomes associated with this participatory processes, the practice has not been without shortcomings. While Rushford, Webster, Loiselle and Fehr, (2016) demonstrated deficiencies in the approach were localized, rationale for its application are limited and context-specific. Constraints such as widespread applicability of shared purpose and inability of use across workstreams spanning wide areas are highlighted. The approach has been criticized for limiting comparisons in monitoring and assessing outcomes across cases. Much as the practice has gained significant momentum, where beneficiaries are viewed more from 'inclusion perspective' and little on the 'decision making' standpoint, the practice is still deficient. There are instances where it appears to advocate for 'ticking the boxes' and claiming that participation indeed occurred.

The practice has also been criticized for its inability to address key monitoring issues that are inherent in non-participatory methodologies. This is a clear contradiction to the cardinal objective of participation in monitoring which is; 'to give power to ordinary people'. These limitation has been highlighted by Otieno and Kennedy, (2016) who itemized the contextual issues bedeviling participation to include; the limitations of methodology, absence of systematic rigor in its adoption, complexity and complication of communication, group dynamics, minimization of participation to diagnostic stages, instant analysis myth of local knowledge, techniques tyranny and the instrumental participatory character. Underestimating participation and the costs of managing group dynamics have been identified as key impediments bedeviling adoption and utilization of this worthwhile practice.

Monitoring practices utilized in benchmarking performance of agricultural projects are varied. World Bank has executed many projects using the impact monitoring standard that encompasses; outcomes tracking, context monitoring and impact tracking. These measurement practices have been adopted in large-scale projects (World Bank, 2019). Newer and more participatory models such as the Anticipated Impact Monitoring and Measurement (AIMM) were developed to refine and augment deficiencies in existing approaches. The current monitoring framework focuses on anticipating project results well in advance before project design and layout. The framework incorporates results tools such as theory of change and logical framework. However, some elements that are traditionally considered critical have not been assessed. Due to this, some scholars advocate for a wider measurement strategy that incorporates performance indicators, cost analysis and rapid appraisals.

Regular monitoring of projects using newer models such as the AIMM is undertaken during the execution. This model has been cited for improving performance of project interventions due to its flexibility in use. Whereas practices such as outcome tracking have been ingrained in World Bank interventions due to their ability to quantify results they have not been without shortcomings. In many instances, they have been criticized for being inadequate in coverage and being insensitive to the stakeholder aspirations. In view of this mounting criticism, development agencies in a paradigm shift, designed broad-based measurement criteria that moved results measurement beyond outcomes (Otieno and Kennedy, 2016). This approach is widely adopted, has not only showed sufficient rigor in appraising outcomes but also helped broaden results measurement in the development context.

Participatory monitoring is therefore a cornerstone in project results measurement. The practice, whose foundations are extrapolated to include audits, result chains and cost drivers, is a necessary but not sufficient model in results measurement. While the knowledge on effectiveness of results in projects is important, the need to comprehend elements requisite for project efficiency and the conditions under which outcomes can be replicated is of paramount importance. Evans and Guariguata, (2018) amplified the process of outcome tracking in projects and demonstrated their alignment with impact and the importance they bring. Interplay between participatory approaches and the parameters efficiency, effectiveness, relevance and value for money in programmes can therefore not be over-emphasized.

2. 7 The Context of World Bank Reform Interventions in Agriculture

A reform, in the World Bank context is defined as 10% reduction in time taken for a procedure or a process to complete a transaction. In understanding reform, premium is placed on efficiency and effectiveness in the processes. There are a number of studies with empirical and theoretical positioning that link popular reform interventions to the project performance. The World Bank, in scientific publications has demonstrated the interface between reform in business environment, investment climate and agribusiness against project performance. Other studies by authors such as, Kusters, Buck, De Graaf and Minang, 2018); Rushford, Webster, Loiselle Fehr, (2016); Otieno and Kennedy, (2016) alluded to this interface in peer reviewed publications by demonstrating a strong trajectory between reform process and project performance.

Anticipated impact monitoring was piloted alongside reform interventions in the World Bank financed projects to occasion a paradigm shift in results measurement. Reform process is not a completely new concept but has around since the middle ages. It has been given invariable consideration in many publications, smart lessons and learning products in development. The concept is documented widely by many practitioners in the field of project management. Empirical evidence shows the role of stakeholders in pacifying results measurement as it enhances ownership. Participation in monitoring of projects is a cardinal principle in achieving sustainable increases in the changes desired (Makori, Aduda, Ngacho, (2015). Anticipated impact monitoring concerns itself with whether the project targets achieved are structured to respond to the project objectives as conceptualized.

Within the World Bank's ex-ante monitoring framework, the centrality of outcomes and the anticipated impacts are prominent. Anticipated impact monitoring framework principally focuses on periodic tracking of progress. The model emphasizes the role of stakeholder participation in results measurement and underscores the need for public participation in progress reporting. The ideals of participation are therefore at the core of anticipated impact monitoring. This practice ensures that stakeholders in a project process are part and parcel of result measurement (Makori, Aduda, Ngacho, (2015). Level of participation and the extent of engagement in executing development projects doesn't need to be overemphasized since participation has consequences on elements comprising project performance.

2.8 Theoretical Underpinnings

This study is anchored on four theories, namely; the theory of change that grounds the performance of agricultural projects, empowerment theory that brings out aspects of empowerment from participation, outcome theory that grounds participatory monitoring and the responsive-constructivist evaluation theory that grounds the reform process as conceptualized in the study. These theories are important and are interrogated within the wider project measurement framework and discussed as follows:

2.8.1 Theory of Change

This is the main theory underpinning this study. The theory emerged in the 90's at the Aspen Institute roundtable on community change, it was developed as a way to assess inclusive community creativities. Prominent methodologists such as Huey Chen, Peter Rossi, Michael Quinn, Heléne Clark, and Carol Weiss are proponents of this theory. The theory is a type of methodology used in measuring project performance through the prior estimation of impact, linking results against the results chain. The theory is important in expanding philanthropy and development initiatives in rural development by mapping backwards to identify necessary preconditions of change by highlighting causal linkages. This theory is linked to the change process desired in most project interventions.

The theory is useful in defining the building blocks required to bring about change and shows how long-term goals can be reached and the preconditions useful in measuring progress. The theory posits that participants in an intervention need to be clear about identifying measurable indicators and in formulating action plans. The theory helps determine change process associated with interventions for results measurement, the theory brings out pertinent distinctions between the anticipated and definite results that require the stakeholder input before agreeing on forms of interventions themselves (Kaul, 2017). This theory is pertinent in grounding this study in the context of results envisaged through direct monitoring.

The theory of change focuses not just on the need to generate needed knowledge but also on the effectiveness of the knowledge generated and claims behind the constructs leading to the origination of that knowledge. The theory is critical in accentuating and reorienting interventions in projects and programmes towards the desired result levels and frameworks as advocated for in this research and other studies.

2.8.2 Responsive-Constructivist Evaluation Theory

Responsive-constructivist evaluation theory also known as 4th generation theory was advanced by Guba and Lincoln in 1989 as an explanatory methodology in undertaking evaluations. The theory is an adaptation of responsive evaluation approach founded by Prof. Robert Stake in 1975. The theory underpins the performance aspects envisaged in this study. It postulates that performance of project interventions must be approachable to apprehensions and issues pronounced by shareholders in their own terms. The theory supports universality and the internationalism of evaluation and brings about value in project evaluators to own evaluation perceptions (Christie, Carey, Robertson and Grainger, 2015).

This theory agitates for a monumental shift in the program monitoring and points to the problems in monitoring by examining the difficulties earlier generations of assessors faced that include; politics, ethical dilemmas, inadequacies and gaps, inconsequential deductions and failed project interventions and lays blame on the non-use of evaluation findings and the unquestioned dependence on constructive frameworks. The theory places emphasis on core evaluation concerns and agitates for project monitoring to go beyond the simplistic parameters to include; political, social and contextual elements. Responsive constructivism constitutes a fundamental change and acknowledges role of feedback and reporting in suitable forms and languages a crucial to stakeholder groups demands and ambitions.

The theory focuses on reconfiguring the socially defined realities and illustrates evaluation as affected by value systems and models based on the analytical frameworks. The theory supports the distinction between the expected and actual results in practical terms and requires stakeholders to model desired results before deciding on forms of intervention. This theory underscores the need for linkages between interventions and the evaluation practice and postulates that evaluation must respond to the needs of the majority. The theory advocates for wider measurement agenda in measuring project interventions. Responsive-constructivist evaluation theory shows that expenditure tracking, properly designed performance matrices, cost effectiveness and value for money are important considerations in project performance. Ordinarily, this theory would fashion and help expand the practice of project results measurement (Christie, Carey, Robertson and Grainger, 2015).

2.8.3 The Outcomes Theory

Outcomes theory is a results-based approach advanced by Paul Duignan in 2008 as a theoretical foundation for working with results systems and outcomes. This theory is important as it is linked to performance aspects, including delivery parameters, impacts and results. The theory postulates that outcome systems identify, highlight, measures and hold parties to account for results achieved. The theory further posits that outcome systems are key elements in concepts such as strategic planning, results management and results-based systems (Huiwen and Zhen, 2018). The outcomes theory is important for this study as it supports the reshaping of interventions to focus on desired results in known accountability systems.

The theory provides interactions between interventions against the desired outcomes to include a sub-set of actions by which teams can use to produce significant results. The theory links interconnected interventions within a given level of desired performance and helps identify performance drivers in projects to include parameters such as; the organizational development, project economics and social science (Duignan, 2009). Interlinkage of these parameters is expected to increase effectiveness in the delivery of projects and thus simplify project performance. Continuous application of this theory in projects portends a complex architecture in building critical systems that guarantees access to systems without undermining purposes established for credibility (Huiwen and Zhen, 2018).

Outcomes theory aims to enhance performance in a system, i.e. related systems, which deal with anticipated results in one way or another, by providing a clear technological language that helps stakeholders in preventing replications and identify gaps that need to be addressed or escalated in an intervention (Duignan,2009). The theory sets out the physical characteristics with well-known systems that would support stakeholders to build sound and sustainable outcome frameworks without the significant background and knowledge in project management. Whereas there are many models that are useful in predicting results in project work, within this theory there exists a set of conditions that helps stakeholders to prepare for intervention-related eventualities. Outcomes theory has inbuilt indicators useful in proving meaningful impact whenever a project is implemented. By focusing on outcomes, the aspirations of results-based management in projects are realized.

2.8.4 Empowerment Theory

The origin of empowerment theory is traced to the Brazilian humanitarian educator; Paulo Freire. The theory is prominent in Paulo Freire's "pedagogy of the oppressed" a publication providing a conceptual basis for debates on empowerment (Hur, 2006). The empowerment context envisaged under this theory grounds this study, with a focus to participation. Empowerment theory hypothesizes that involving stakeholders in decision making improves a sense of ownership and recognizes that the individuals who are empowered are more probable to be active in activities of the community than those excluded. The concept of empowerment in projects is a multifaceted one, with complexities generated due to role it plays in facilitating ownership.

Empowerment theory is linked to participatory monitoring. Hur, (2006), through a study noted empowerment is not apprehensive with process of individual emancipation *per se*, but with the results achieved though greater access to resources and power for the underprivileged. The model is an inspirational interference that helps build ability of people to manipulate the well-being of others positively. Huiwen and Zhen, (2018) noted the purpose of empowerment is strengthened when individuals find, develop and give voice to the collective story that supports emancipation of personal life in positive ways. Empowerment processes are therefore linked participation. Likewise, similar to social capital, empowerment operates at different levels including at the individual, personal and collective levels.

The focus of empowerment theory and its related practice is to reinforce evaluation processes and contexts where individuals gain the mastery over the decisions affecting development matters including projects (Huiwen and Zhen, 2018). The empowerment interventions therefore provide people with genuine opportunities to be involved in developing a sense of ownership hence enhancing sustainability. Evaluating prospects needed to advance empowerment strategies in projects and programmes is therefore important. Stakeholders in a project process need to be empowered by involving them in the design, execution, monitoring, assessment of project interventions and reporting results. Empowerment theory has been criticized as being "overly unusual and conflict-oriented, and that it emphasizes personal emancipation at the expense of participatory practices, such as cooperation and collaboration which in our context, are needed for enhanced performance.

2.9 Conceptual Framework

The interrelationships amongst the variables of this study are conceptualized as shown in Figure 1.

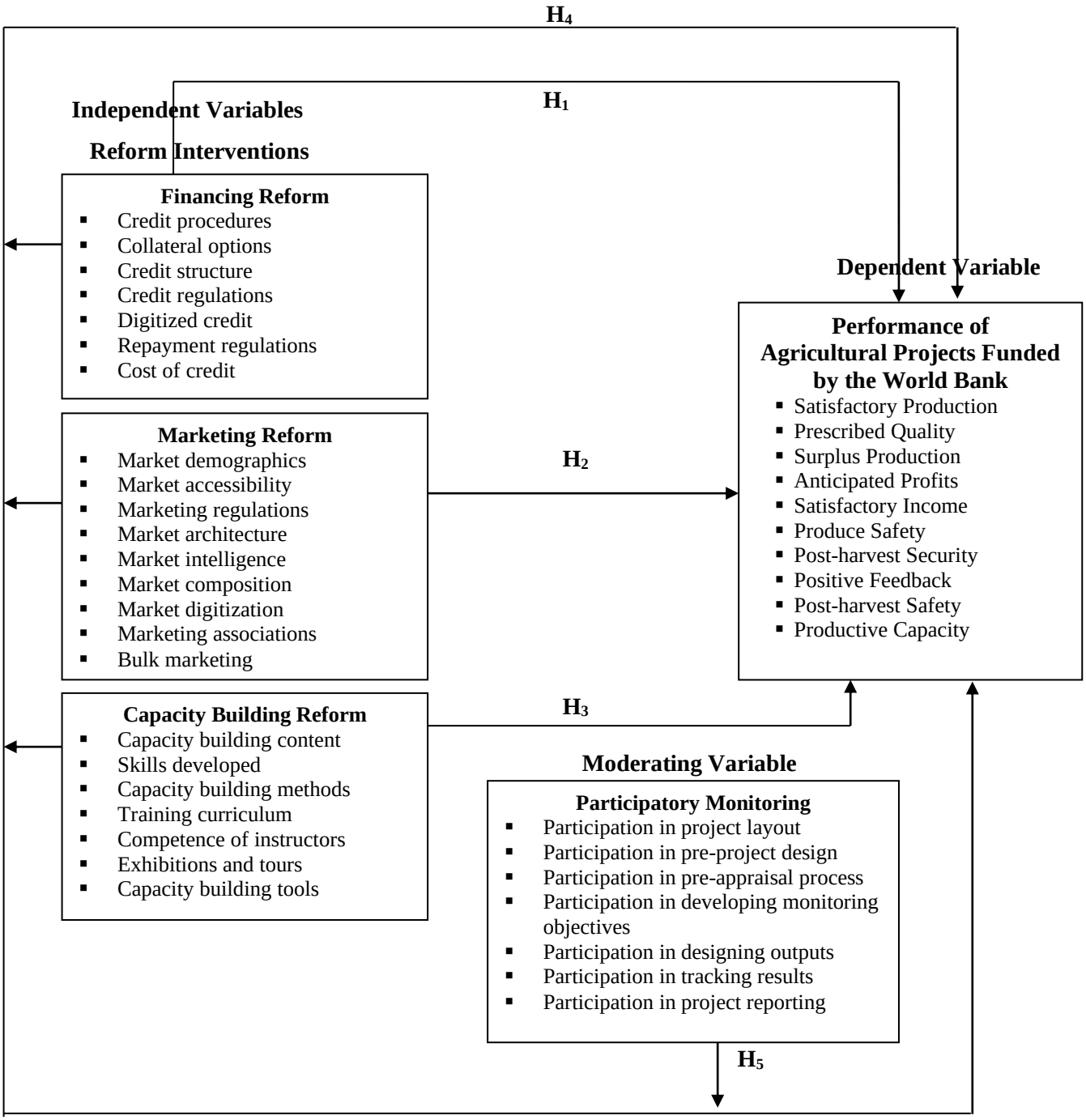

Figure 1: Conceptual Framework for Reform Interventions, Participatory Monitoring and Performance of Agricultural Projects

The interface between financing reform and performance of agricultural projects was tested. Indicators used to measure financing reform are: credit procedures, collateral options, budgeted cost, credit access, credit digitization and repayment regulations. Authors such as Keya, Kosura, Okeyo Mwai and Kirina, (2019) and Ombok, Oima and Oginda, (2014) also examined relationships as alluded in this study. To this extent this relationship was tested in hypothesis $H_{1.}$ Conceptual model also conceptualizes extant relationships between marketing reform and the performance of agricultural projects. Marketing reform was measured through the following indicators; market demographics, market access, market regulations, architecture, market intelligence, market composition and market digitization. The extent of this relationship in this study was tested in hypothesis H_2.

This conceptual framework envisages relationships between capacity building reform and performance of agricultural projects. Indicators used to measure capacity building reform were: capacity building content, level of skills developed, capacity building methods, curriculum, competence of instructors, exhibitions and tours made and other capacity building tools. Adhiambo, Onyango and Hayombe, (2013) examined a similar relationship through a study in Nyanza region and quantified the extent of the perceived interactions. As captured in the conceptual model, the influence of capacity building reform on performance of project was tested in hypothesis H_3. The fourth hypothesis sought to test the influence of the joint reforms on the performance of agricultural projects. Extent of this relationship was tested in hypothesis H_4.

As alluded in the framework, the study also sought to demonstrate moderating effect by participatory monitoring on the relationship between the three reform interventions and performance of agricultural projects. In this study, participatory monitoring was examined through the following indicators; participation in design and project layout, participation in developing monitoring framework, participation in project appraisal, participation in design of monitoring objectives, participation in developing results tools, participation in developing monitoring instruments and participation in tracking project results. Extent of this relationship was also alluded to by Rushford, Webster, Loiselle and Fehr, (2016) and Otieno and Kennedy, (2016). This relationship is tested in hypothesis H_5. Moderating influence was inferentially tested using the significance of the coefficient and the t-statistic.

2.10 Summary of the Literature Reviewed

Literature reviewed comprised theoretical framework, the empirical review and the conceptual framework that was used to ground this study on four performance-based theories. This positioning therefore qualifies this research as a theory-driven. The study is anchored on four theories namely; theory of change demonstrated by Kaul, (2017), the outcomes theory by Huiwen and Zhen, (2018), the empowerment theory conceptualized by Paulo Freire (1970) and demonstrated by Hur, (2006) and Huiwen and Zhen, (2018) and responsive-constructivist evaluation theory advanced by Guba and Lincoln, (2005) and ascribed by Christie, Carey, Robertson and Grainger, 2015). The four theories ground the five variable under study. Literature review was based on expert opinions, theories and empirical studies by prominent scholars and project practitioners.

Detailed empirical propositioning on project performance, reforms and participatory monitoring illustrate factors desired in projects work. In most of the studies alluded to, gaps in methodologies were identified and empirical justifications considered. This study examined the extent of perceived relationships with a view of obtaining empirical data that could support new recommendations. The moderating influence of participatory monitoring on the relationship between reform and performance is conceptualized on premise of reforming the agricultural sector. This interplay is also alluded to by Rushford, Webster, Loiselle Fehr, (2016) and Otieno and Kennedy, (2016). Interrelationships between the variables under study as depicted in conceptual framework show a complex nexus. Extent of this nexus was established through research-based evidence. In my view, the study sufficiently demonstrates the moderating effect of participatory monitoring on the relationship between the reforms mentioned and the performance of agricultural projects.

2.11 Knowledge Gap

The gap in knowledge identified after the review of empirical and theoretical literature from the works of scholars and practitioners in project management is as shown in Table 2.1.

Table 2.1 Summary of Knowledge Gap

Author (Year)	Title of the Study	Methodology	Findings	Knowledge Gap	Focus of the Current Study
Financing Reform					
Owour, Oima and Oginda, (2014)	Extent of credit financing by commercial banks to agribusiness in Kenya	Descriptive survey with stratified sampling. Data was analyzed parametrically	Established a substantial association amongst financial reform and performance of project	The study focused on financing agribusiness in general, without considering reform.	The study focused on agricultural financing reform and its influence on performance of agriculture projects in the lens of pragmatism
Bara and Mugano, (2016)	Financial reforms and finance-growth relationship in SADC	Comparative analysis using the self-administered questionnaires with randomized survey	The study found significant relationships between finance reform and growth.	Focused on financial reforms and its influence on general economic growth,	This study focused on specific elements of finance reform split into 12 indicators
Keya, Kosura, Okeyo Mwai and Kirina, (2019)	Food security prospects in Kenya: Evidence from 5 nations,	Analysis and collection of raw data was parametrically done using the descriptive survey design principles	The study showed that financing has a huge implication on food security in Kenya, now that agriculture had been devolved	The study focused on the impact of finance on food security in general, not on any specific projects	This study had a component focusing on influence of financing reform on performance of agriculture projects. Aspects of food security are indirectly implied
Demetriades and Rousseau, (2016)	The changing face of international financial development - Economics letters,	The researcher utilized empirical and literature review to examine the changing face of international finance	The study found that access to international finance was crucial in enterprise growth. The field of international finance was rapidly evolving	The study focused on international financial development but not specific finance reform as conceptualized in World Bank's context	This study focuses on finance reform as developed and applied by the World Bank with a specific focus on the Kenyan agricultural sector and not international finance

Author (Year)	Title of the Study	Methodology	Findings	Knowledge Gap	Focus of the Current Study
Marketing Reform					
Bisena and Kumar, (2018)	Agricultural marketing reforms and e-National Agricultural market (e-NAM) in India	The study utilized the descriptive survey design where farmer marketing groups and cooperative societies were respondents	Digitization and e-marketing had taken in the Indian agriculture economy dominated by commodity exchange	The study focused on commodity marketing in the context of e-marketing.	This study focused on all the aspects of commodity marketing with no special focus to any value chain
Pavithra,Gracy andSaxena, (2018)	Agricultural marketing Innovations: A case Study of e-tendering system in Karnataka, India	The study adopted the use of parametric and non-parametric data analysis on a sample of respondents from marketing societies.	Many innovations had taken root in the commodity marketing making agriculture a profitable business	The study brought out key innovations in agricultural marketing, no particular value chains were considered though.	This study examined commodity marketing innovation that were perceived to be impactful on the productivity and project performance.
Kathuria,Singh and Raina, (2019)	Agriculture marketing reforms in India; the relationship between awareness and attitude of commission agents	The study utilized a cross-sectional survey design of commission agents in commodity marketing space.	Commission agents and other actors in agriculture marketing had experienced attitude change and were conversant with reforms in the sector	The context of reform examined in the study was limited to commission agents as key players in the marketing value chain.	This study focused on marketing reform in the entire agricultural value chain using farmers as key players in the process.
Onyilo,and Adong, (2019)	Agricultural cooperative marketing and credit policy reform in Uganda: opportunity for poverty reduction	The study focused on cooperative marketing societies; managers of those societies were used as only respondents	Cooperative societies and credit unions account for 60% of marketing activities and play a significant role in the sector	The study focused on cooperative societies as the key focal points for agriculture commodity marketing	This study examined commodity marketing using holistically lens by gathering data from farmers across the productivity spectrum.

Author (Year)	Title of the Study	Methodology	Findings	Knowledge Gap	Focus of the Current Study
Capacity Building Reform					
Lavagnon and Donnelly, (2017)	Success conditions for international development in capacity building projects	The study adopted a cross sectional survey design using selected international development projects	The study demonstrated gaps in capacity building as utilized in international projects	The study delimited itself to capacity building in international projects, using multi-country context	This study examined capacity building reform at grassroots level using ordinary farmers as respondents
Adhiambo, Onyango and Hayombe, (2013)	Role of capacity building in promoting agribusiness: using groups in Ugunja district of Siaya County, Kenya.	The researchers adopted simple random techniques on 550 farmers. Data analysis was through non-parametric means	Farming groups were conversant with many capacity building approaches used. However, experiential learning and farm field days were the most pronounced	The study examined capacity building reform through the general agribusiness lens.	This study examined capacity building reform using a holistic approach with specific reference to the field of agriculture. Projects examined spanned agribusiness,
William, (2018)	Beyond state capacity: bureaucratic performance, policy implementation, and reform	The study focused on the elements of bureaucracy using literature review and thematic analysis to explore the impact of capacity on policy	The study empirically demonstrated extent of impact of capacity building on policy reform	The study considered aspects of capacity building with a focus on agriculture policy implementation but not on reform	This study examined the influence of various elements of capacity building on project performance. Not much on policy formulation and reform was considered.
Massoli and Polverari, (2019)	Institutional and administrative capacity building, reform and public sector digitalization: unique experience from Italy.	The study utilized both normative and deductive approaches in literature review and content analysis	The study, sufficiently demonstrated the role of capacity building in public projects	The study focused on itself the institutional and administrative capacity of public sector projects.	This study examined various capacity building approaches and how they supported productivity agenda.

Author (Year)	Title of the Study	Methodology	Findings	Knowledge Gap	Focus of the Current Study
Reform Interventions					
Odongo, (2015)	The mediating role of citizen empowerment in the relationship between PM&E and social sustainability in Kenya	The researcher used multiple regression model on data collected from 160 project beneficiaries in Siaya county, Kenya.	The researcher found extant relationships between empowerment and social sustainability of donor-funded programs and demonstrated strong correlations.	The study focused more on citizen empowerment. Participatory monitoring and evaluation were adopted as a moderating variable.	This study sought to determine the moderating influence of participatory monitoring only. Aspects of participatory evaluation were not considered.
Makori, Aduda, Ngacho, (2015)	The performance evaluation framework for constituency development fund construction projects in Kenya	A survey using 480 questionnaires were used to collect primary data from project beneficiaries	The demonstrated the extant relationships between key performance indicators and overall project performance	The was sort of a terminal evaluation in nature focusing on the already completed CDF projects.	This study was sort of a routine monitoring exercise that was meant to review participatory monitoring in ongoing projects in the context of reform.
Kusters, Buck, De Graaf and Minang, 2018);	Participatory planning, monitoring and evaluation of multi-stakeholder platforms in integrated landscape initiatives.	The study adopted the descriptive survey design using a self-administered questionnaire. A composite variable was determined using multiple regression	Participatory planning was found to impact multi-stakeholder platforms. Monitoring and evaluation was found to possess the moderator traits.	The methodology of determining the moderator variable was straightforward.	This study adopted a 2-step regression model to demonstrate the effect of moderation. The concept of participatory evaluation was considered.
Jessa and Uys, (2019)	Systemic and public value approach to integrated public sector reforms in the South African municipalities	Exploratory research and thematic literature review.	The study empirically demonstrated the role of reforms in the public sector projects	The study focused on the role of combined variables as separate entities before examining the moderating influence	This study adopted the use of R^2 and the coefficient of determination to assess the strength of the moderating variable.

Author (Year)	Title of the Study	Methodology	Findings	Knowledge Gap	Focus of the Current Study
Participatory Monitoring					
Thapa Ngwenya and Kaufmann, (2017)	Concept of participatory monitoring and evaluation; A tool for making farmer groups function better.	The study adopted the use of multiple regression techniques to verify influence of participatory monitoring	Participatory monitoring was a critical tool in bettering performance of farmer groups	The study did not measure participatory monitoring as a moderating variable. It focused on linear relationships	The study examined the moderating effect of participatory monitoring using a 2-step stepwise regression model.
Evans and Guariguata, (2018)	Participatory monitoring to connect local and global priorities for forest restoration	The study adopted usage of descriptive survey design. Questionnaires were used to collect data	Participatory monitoring was found to be a connecting tool amongst the forest communities	The study showed and demonstrated linear relationship between and sustainability of reforestation efforts	This study demonstrated the moderating effect of role of participatory monitoring in agricultural projects.
Otieno and Kennedy, (2016)	Perceived effect of participatory monitoring and evaluation on local authority service delivery action planning process in Bondo, Kenya.	The study utilized both qualitative and quantitative data collection to examine and interrogate this relationship.	The study found that participatory monitoring and evaluation were both critical in the service delivery and action planning.	The study considered participatory monitoring and evaluation as a single practice	This study focused on key participatory monitoring processes with no singular focus on participatory evaluation. No aspects of evaluation were considered.
Rushford, Webster, Loiselle and Ferh (2016)	Learning through participatory monitoring and evaluation	Study explored the importance of learning models in project monitoring and evaluation	Learning empirically demonstrated as an important component of PME	This study did not examine any extant relationships but viewed on PME as a practice.	This study focused on participatory monitoring alone. No aspects of participatory evaluation were considered.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter entails research paradigm, research design, target population, sample size and sampling procedures, research instruments, pilot-testing the research instruments, validity and reliability of the research instruments, data collection procedures, data analysis techniques, operationalization of study variables and ethical considerations.

3.2 Research Paradigm

Pragmatism paradigm supported this study, this is because the researcher deployed pluralistic approaches to solve the study problem. This research philosophy was ideal since the knowledge claims under investigation originated from actions and attitudes rather than the antecedent conditions (Shannon-Baker, 2016). Decision to adopt this paradigm was determined by the ontological, the epistemological, methodological and axiological desires of mixed methods research. Methodologically, pragmatism looked at "what" and "how" of participation in order to build a new narrative. Pragmatism also enabled the researcher to utilize both the quantitative and qualitative approaches concurrently. Ontologically, pragmatism paradigm offered the desired middle ground by balancing the fixed nature of reality construction supported by positivism in the quantitative designs and the subjective nature in reality construction supported under emancipatoryism.

This research philosophy ensured that the truth examined in this study was founded on a strict dualism between the mind and the reality, hence the need to use multiple methods to unpack the research problem. Pragmatism also created a methodological equilibrium between deductive logic applied in quantitative research and the inductive logic applied in qualitative research (Creswell, 2011). Again, under this approach, the researcher is epistemologically free to interact with the study variables and maintain distance from research in contrast with aspirations of positivism, constructivism and emancipatoryism where researchers and research are indistinguishable. In this case, the researcher was distant in quantitative aspects of the study while very indulged in qualitative ones. Since both deductive and inductive features of logic were desired in this research, pragmatism was therefore found to be the best suited philosophy to guide this study.

3.2.1 Research Design

The researcher utilized descriptive survey design with a focus on the principles of mixed mode research. This design was suitable as the researcher applied descriptive and inferential analysis of data where quantitative and qualitative data was collected in a single field visit. The application of mixed methods research meant the researcher would undertake correlations between multiple variables to explore many issues. This design entailed collection, analysis and mixing quantitative and qualitative data in a single study so as to corroborate results from divergent sources and triangulate data, this, would help the researcher make multiple inferences at the same time. Decision to adopt mixed methods approach in a research of this magnitude was influenced by the quality of data needed.

Even when the choice to adopt mixed methods approach was made, there was need to select the computation method that would suit the combination. According to Almalki (2016), if the purpose of adopting mixed-mode approach was to triangulate, then the needed data could be collected concurrently. Since the purpose for deploying mixed methods approach in this study was for triangulation, concurrent-parallel data model was seen as the most appropriate. This means, data was collected in a single field visit with quantitative phase being the most dominant. Considering that both the linear and moderating relationships were being examined through logic of enquiry, concurrent-parallel approach would remedy the data needs in this case. This approach would be useful in grounding hypothesis testing through inductive and deductive logic.

3.3 Target Population

The targeted population was 815 respondents, this population comprised 800 farmers supported by the two projects and 15 officials supporting execution. A total of 369 farmers were supported under KASLMP while 431 were supported under KAPAP. Project staff comprised 10 agricultural extension staff from the county's department of agriculture and 5 supervisory staff based at the World Bank. The distribution of respondents was determined using geographical areas and the number value chains supported. This target population was a heterogonous mix of respondents whose distribution is shown in Table 3.1. The sub-county was a unit of analysis from where respondents were clustered and drawn. The target population chosen was considered sufficient for making sound inferences in a study of such magnitude.

Table 3:1 Target Population

Sub County	Target Population	Sample Size	Total
Cherangany	52	62	114
Endebess	57	54	111
Central	45	58	103
Kaplamai	42	59	101
Kiminini	57	74	131
Kwanza	54	64	118
Saboti	62	60	122
Extension Staff	4	6	10
PMU Officials	2	3	5
Total	**375**	**440**	**815**

3.4 Sample Size and Sampling Procedures

Individual samples were determined using proportionate sampling followed by simple random sampling. A sub-county was a sampling unit from where respondents were accorded an equal chance to be selected. Precision rate and the confidence level were important determinants in sampling.

3.4.1 Sample Size

To determine the study sample, considering a target population of 815, the researcher deployed normal approximation to hyper-geometric distribution to obtain the sample. In scientific studies, samples are determined using normal approximation to binomial distribution whenever huge populations are handled. When the population is big and the sample is small, estimation need to be precise. Though, if a researcher wants to sample a small population, a lesser sample with normal binomial approximation will be required to ascertain accuracy. To establish a sample for small population of 815 respondents, (which is far less than 5,000 units), we adopted normal approximation to hyper-geometric distribution using the principles enshrined in the simplified Yamane, (1967) formula for proportions; expressed as:

$$n = \frac{N}{1 + N(e)^2}$$

Where,

n=Sample size required,

N=Number of people in the population (targeted population)

e=Allowable error (error term)

Substituting in the equation, with target population of 815 individuals, assuming 95% confidence level (0,05 allowable error), we obtain sample size (n) of 268 individuals.

3.4.2 Sampling Procedures

The researcher deployed both stratified sampling and purposive sampling followed by simple random sampling. Stratified sampling entailed dividing respondents into small heterogeneous sub-groups based on number of sub-counties. Simple random sampling was done in each cluster to accord equal probability to all members in each stratum. Proportionate sampling worked well since farmers with a variety of attributes were part of the population. Simple random sampling enhanced the representativeness of the population (Schoonenboom and Johnson, (2017). When sampling sub-populations in statistical surveys, it is beneficial to sample stratum autonomously so as to capture population characteristics in their entirety.

The researcher deployed proportionate sampling to select farmers within a study area divided into seven clusters from where farmers were drawn. Proportionate sampling was subsequently deployed. This reduced the sampling error and allowed for a greater control over selection and design of the sample in strata and guaranteed population characteristics were accurately represented. The sampling frame was then divided into smaller sub-populations in order to obtain a stratified sample. A random sample was chosen in a way that provided equal opportunity for each respondent. The distribution of sample for each stratum is shown in Table 3.2.

Table 3:2 Sampling Frame

Sub-County	Target Population	Sample Size
Cherangany	114	38
Endebess	111	37
Central	103	34
Kaplamai	101	33
Kiminini	131	43
Kwanza	118	38
Saboti	122	40
Extension Staff	10	3
PMU Officials	5	2
Total	**815**	**268**

3.5 Research Instruments

The researcher collected primary data using three instruments namely; questionnaire, key informant interviews and focused group discussions. The structured questionnaire was used to collect quantitative data while informant interviews and focus group discussions were used to collect qualitative data. The questionnaire was administered to farmers while the informant interviews were held with County extension staff and World Bank officials.

a) **Structured Questionnaire**

The questionnaire contained 5-level, likert questions distributed in six sections according to the themes of study. The preliminary section covered the introduction to the study with a brief highlight on purpose of the study. Section A contained respondents' demographic characteristics that include gender, age, highest level of education, level of literacy and farming occupation. Section B had questions on financing reform, section C contained the questions on marketing reform and section D had questions on capacity building reform. Section E had questions on participatory monitoring while section F had questions on the dependent variable. The likert scale adopted the following: 1-strongly disagree (SD), 2-disagree (D), 3-neutral (N), 4-agree (A) and 5-strongly agree (SA).

b) **Qualitative Instruments**

Qualitative instruments were key informant interviews and focus group schedules. These instruments were designed to be extremely flexible where the questions asked were open-ended and engaging. Qualitative instruments were structured in the following order; first part contained introduction. The questions asked under this section focused on building rapport and confidence with respondents. The second part entailed qualitative questions that were meant to probe for in-depth dimensions on the key aspects of participation. The qualitative instruments were used to quantify key experiences, probe for the opinions and knowledge claims in a structured manner.

Questions that were asked under the qualitative instruments were mainly hypothetical, intuitive and provocative in nature to open up the minds of respondents. The questions asked were also interpretive and sometimes multiple in order to elicit the appropriate responses from respondents and ensure the discussions are lively. Interviews and group discussions were handled by the researcher himself; done as a quality control measure. Qualitative interviews entailed asking in-depth questions while maintaining an interactive touch with respondents.

3.5.1 Pilot Testing Research Instruments

In order to enhance the reliability and validity of data collection tools, a pilot survey was carried out by interviewing twenty-seven farmers drawn from the municipality location. Three officers from the crops department helped to pilot-test research the instruments. Farmers involved in pilot testing were excluded from the main research. The purpose of the pilot testing was to elicit initial responses to the questions posed, ascertain clarity, relevance and appropriateness of questions asked to ensure that the phrasing was suitable. Data gathered during pilot study was cross-checked for deficiencies, where appropriate modifications on questions asked and anomalies rectified before the large scale roll-out of data collection proper.

The total number of respondents chosen for pilot-testing translated to (10%) of sample. Respondents in pilot-testing were critical in refining research instruments. The adoption and eventual usage of 10% of the sample for pilot testing is supported by Creswell and Plano, (2011), McKim, (2017) and Wambugu, Kyalo and Nyonje, (2015) who opines that 10% of sampled population is sufficient for refining the research instrument. Pilot testing was done two weeks prior to the main study as this allowed sufficient time to assess the instruments. Deficiencies in research instruments identified during pilot-testing were remedied by refining the instrument's mechanics, rewording the unclear and ambiguous questions and reconstructing the instrument's content before actual data collection.

3.5.2 Validity Research Instruments

Content validity was used to determine the validity of research instruments which refers to the appropriateness, usefulness and meaningfulness of the instrument. Content validity process entailed checking the content of the questionnaire and the interview guide by matching the questions asked to determine similarities. This was done to ensure that items in quantitative and qualitative instruments measured the desired constructs and achieves level of appropriateness needed. The use of content validity in social science is supported by Wambugu, Kyalo and Nyonje, (2015) who demonstrate elements of content validity to include face validity and sampling validity which are important in showing the level of appropriateness. Face validity shows the degree to which the instrument assesses what it purports to measure in subjective terms. Sampling validity is structured in categorical samples. Content validity was adopted with a view of yielding a logical judgment as to whether the instrument actually covered what it purported to measure.

3.5.3 Reliability of Research Instruments

The researcher utilized the Cronbach's Alpha technique to determine the reliability of the questionnaire. Reliability is concerned with whether the research tool results in a similar way on repeated trials. It measures degree to which an instrument demonstrates similar results on repeated trials (Wambugu, Kyalo and Nyonje, 2015). Many approaches for estimating the instrument's reliability exist, however, in this study, reliability coefficient was determined using a scientific approach embedded in the Statistical Package for Social Scientists (SPSS) through Cronbach Alpha. Under this method, the reliability of each of the questionnaire sections was tested and treated separately before deriving a composite. This method is also supported by Schoonenboom and Johnson, (2017).

Reliability coefficient is like probability hence ranges between 0 and 1. Authors such as McKim, (2017) argues a reliable research instrument should have reliability coefficient of more than 0.7. Coefficients falling below 0.7 constitutes questionable reliability and must therefore be rejected. Reliability coefficient should generally be more than 0.7 for it to be reliable. This was supported by Wambugu, Kyalo and Nyonje, (2015); Guest, (2013); Creswell and Plano, (2011) and Almaki, (2016). In this research, reliability for each of the five sections of the questionnaire were found to be above 0.7 as shown in the results in Table 3.3. This was acceptable level of reliability. In view of this, it is proper to conclude that the questionnaire had a strong measure of internal consistency.

Cronbach's Alpha values obtained for each of the questionnaire sections on running SPSS are shown in Table 3.3.

Table 3.3: Cronbach's Alpha Values

Section	Questionnaire Focus	Cronbach's Alpha Value
Section B	Financing Reform	0.759
Section C	Marketing Reform	0.857
Section D	Capacity Building Reform	0.769
Section E	Participatory Monitoring	0.882
Section F	Performance of Agricultural Projects	

3.6 Data Collection Procedures

The researcher utilised primary data which is data collected for very first time (Almaki, (2016). The use of primary data has revolutionized the development of social science and is credited for the discipline's growth. Three research assistants were recruited to support the collection of quantitative data from farmers using a structured questionnaire while the researcher collected qualitative data. Prior to deployment, research assistants were trained on research ethics, data management and data handling in operations research. Letters of transmittal of data collection instruments were first forwarded to the relevant agencies before the data collection exercise started. A research permit authorizing this study was also obtained from national commission of science, technology and innovation and given to the research assistants.

A total of 268 questionnaires were prepared and distributed evenly among three research assistants, along with instructions on how to administer questionnaires. Each enumerator was expected to collect data from 89 respondents. The researcher mobilized farmers well in advance before dispatching the research team to the field. As a matter of courtesy, research assistants were expected to inform relevant authorities including the sub-county administrator and local agricultural extension office on the purpose of the study before embarking on data collection. Extension officials from the department of agriculture were requested to provide logistical support on a case by case basis. The research assistants were expected to record the contact details of respondents such as mobile numbers and emails. This would help to facilitate any follow-up visits in case any clarifications on data collected were required.

The process of data collection took about two months as it started in February and ended in March, 2016. Structured questionnaires were first administered and picked physically by the research assistants and handed over to the researcher for verification on daily basis. The researcher collected the qualitative data by undertaking well planned interviews and focus groups by himself. After responses were received, grouping the data, checking for inconsistencies and clean-up followed. Coding was based on quantitative and qualitative nature of data obtained. Research assistants were involved in cleaning and data coding. Cleaning the collected data entailed editing, coding and tabulating it so as to screen errors. Before analysis, appropriate codes were generated to be used cross-checking possible erroneous entries.

3.7 Data Analysis Techniques

Data analysis was through qualitative and quantitative fronts. The analysis for qualitative data followed deductive approach where responses from key informants and focus groups were subjected to qualitative analysis and thematic review. Since qualitative obtained was large and complex, its analysis entailed summarizing information and interrogating it. Qualitative data was organized according to the themes of study where a common activity entailing comparison of texts, events and phenomena was done. Qualitative data was examined for differences and similarities across cases, times and themes to construct an explanatory framework and for triangulation.

The analysis of quantitative data was through frequency, percentages, mean and standard deviation. Statistical tools utilised for the inferential analysis included correlation and regression. The study adopted linear regression in testing the influence of three reforms on performance of agricultural projects. Multiple regression was utilized to test the joint influence of reforms on performance of agricultural projects while the stepwise regression was used to test the moderating effect. Stepwise regression was a two-step process meant to determine the overall fit of the model and relate contribution of each of the predictors. T-statistic was used in testing the hypothesis. A regression model in form: $Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$ was developed to show extent of perceived relationships among the study variables.

Functions in the multiple regression model include:

Y= Performance of agricultural projects**,** X_1=Financing reform

X_2=Marketing reform X_3= Capacity building reform,

X4=Participatory Monitoring $\beta_1 \ldots \beta_4$ = Beta Coefficient

The strength of the relationship amongst the variables was determined using correlation where, where a rank (r) of 1 implied a perfect positive correlation, a rank of 0.10<r>0.29 could imply a weak positive correlation while a rank of 0.30<r>0.50 imply a positive moderate correlation, a rank of 0.5<r>1 implied a strong positive correlation, rank of -1 could imply perfect negative correlation, rank of -0.29<r>-0.10 imply weak negative correlation, a rank of -0.50<r>-0.30 implies a moderate negative correlation and a rank of -1<r>-0.5 imply strong negative correlation. Since variables were measured on a likert scale, the extent of these relationships was determined at a 95% confidence level, meaning a sample proportion (p) less is or equal to 0.05 was statistically significant.

Hypothesis testing was done to establish statistical significance of independent variables on the dependent variable. To examine the moderating effect on relationship between the independent and the dependent variable, a 2-step stepwise regression was used. Stepwise regression inferred moderating effect using significance of coefficient of the interaction term and change in R^2. Multiple regression was used to examine joint influence of three reform interventions against the performance of agricultural projects while the t-statistic was used to test the study hypotheses. The β-coefficient was used to show the strength of the influence by variables. The p-value represented a confidence level of the study which was set at 0.05.

In determining the significance, F tests were used. Where the general rule adopted was; if $F_{Computed} < F_{Critical,}$ one accepts the null hypothesis because $p>.05$ and when $F_{Computed} > F_{Critical}$, one should reject the null hypothesis because $p<.05$. The decision rule adopted for this study was therefore; if p-value < α, the null hypothesis is rejected and alternative hypothesis is accepted and if p-value > α, null hypothesis is accepted and the alternate hypothesis is rejected. The model used in these tests was designed to ascertain the contribution of the independent variables being measured against the dependent variable, rather than the model's ability to adequately explain the concept. The t-statistic followed R^2 in the second model was subtracted from the first model to measure the moderating effect of participatory monitoring on the relationship between reforms and performance of agricultural projects. The procedure adopted for testing the hypotheses is therefore as shown in Table 3.4.

Table 3.4: Models for Hypothesis Testing

Objective	Hypothesis	Model	Type of Analysis
Examine the influence of financing reform on the performance of agricultural projects funded by the World Bank in Trans-Nzoia County,	**H_1**: Financing reform significantly influences the performance of agricultural projects funded by the World Bank	$Y = a + \beta_1 X_1 + \varepsilon$, Y= Performance of Agricultural Projects, a=constant X_1= Financing Reform, β_1 =Beta Coefficient e=error term	Linear Regression
Assess the influence of marketing reform on performance of agricultural projects funded by the World Bank in Trans-Nzoia County,	**H_2:** Marketing reform significantly influences the performance of agricultural projects funded by the World Bank	$Y = a + \beta_2 X_2 + \varepsilon$, Y= Performance of Agricultural Projects, a=constant X_2= Marketing Reform, β_2 =Beta Coefficient e=error term	Linear Regression
Establish the influence of capacity building reform on performance of agricultural projects funded by the World Bank in Trans-Nzoia County,	**H_3:** Capacity building reform significantly influences the performance of agricultural projects funded by the World Bank	$Y = a + \beta_3 X_3 + \varepsilon$, Y= Performance of Agricultural Projects, a=constant X_3= Capacity Building β_3 =Beta Coefficient e=error term	Linear Regression
Determine the joint influence of reform interventions on the performance of agricultural projects funded by the World Bank in Trans-Nzoia County,	**H_4:** Joint reform interventions significantly influence the performance of agricultural projects funded by the World Bank,	$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$, Y= Performance of Agricultural Projects, a=constant X_1, X_2, X_3= Reform Interventions β_1 β_2, & β_3=Beta Coefficients	Multiple Regression
Establish the moderating influence of participatory monitoring on the relationship between reform interventions and performance of agricultural projects funded by the World Bank in Trans-Nzoia County,	**H_5:** The strength of the relationship between reform interventions and performance of agricultural projects funded by the World Bank in Trans-Nzoia County is moderated by participatory monitoring	$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$, Y= Performance of Agricultural Projects, a=constant X_1, X_2, X_3= Reform Interventions X_4=Participatory monitoring β_1 β_2, β_3 & β_4=Beta Coefficients	t-statistic Significance of the coefficient, interaction term and change in R^2

3.8 Ethical Considerations

The ethical considerations in this study were based on fundamentals in social science research. Ethical principles widely documented and ascribed to by Morgan, (2014), were incorporated in this study. First and foremost, the researcher got approval from National Commission of Science, Technology and Innovation (NACOSTI) to conduct this study. A research permit is a mandatory requirement for conducting research. Additionally, the researcher wrote a letter of submittal of data collection instruments that was sent with the questionnaires to inform respondents about importance of assisting in the research process. Letter of transmittal of data collection instruments assured respondents that the study was for academic purposes only and that their identity would be kept in utmost confidence.

Research ethics advocated by Creswell and Plano, (2011) were incorporated in this study, meaning the researcher adhered to the ethical norms meant for the promotion of knowledge, truth and avoidance of error. These was achieved through prohibitions against data fabrication, falsifying information or misrepresenting data to promote the truth. The researcher worked to promote values deemed essential to collaborative research such as trust, accountability and mutual respect with the respondents. Other standards such as on guidelines for authorship, copyright and patents, data sharing and confidentiality in peer review, intellectual property, respect of human rights and compliance with the law and safety standards were given invariable consideration.

3.9 Operationalization of Variables

Variables operationalization is illustrated on Table 3.5:

Table 3.5: Operationalization of Study Variables

Objective	Variable	Indicators	Measurements	Measurement Scale	Research Approach	Type of Statistical Analysis	Techniques for Analysis
Examine the influence of financing reform on the performance of agricultural projects funded by the World Bank in Trans-Nzoia County,	**Independent variable**: Financing Reform	▪ Credit procedures ▪ Collateral options ▪ Credit structure ▪ Credit regulations ▪ Digitized credit ▪ Credit flexibility ▪ Repayment regulations ▪ Interest rates ▪ Credit institutions ▪ Cost of Credit ▪ Knowledge on credit ▪ Repayment capacity	"A composite index was obtained by calculating the average of the total sum of the responses of each respondent to measure this variable"	Interval	Quantitative	Inferential	Frequency, mean and standard deviation
Assess the influence of marketing reform on the performance of agricultural projects funded by the World Bank in Trans-Nzoia County,	**Independent variable:** Marketing Reform	▪ Market demographics ▪ Market accessibility ▪ Marketing regulations ▪ Marketing architecture ▪ Marketing intelligence ▪ Market composition ▪ Marketing structures ▪ Digitized markets ▪ Market space ▪ Marketing groups ▪ Bulk marketing ▪ Marketing complexities	"A composite index was obtained by calculating the average of the total sum of the responses of each respondent to measure this variable"	Interval	Quantitative	Inferential	Frequency, mean and standard deviation

Objective	Variables	Indicators	Measurement	Measurement Scale	Research Approach	Type of Statistical Analysis	Analysis Tool(s)
Establish the influence of capacity building reform on performance of agricultural projects funded by the World Bank in Trans-Nzoia County,	**Independent variable**: Capacity Building Reform	▪ Capacity building content ▪ Capacity building regulations ▪ Capacity building methods ▪ Capacity building approaches ▪ Competence of instructors ▪ Curriculum content ▪ Skilled manpower ▪ Capacity building tools ▪ Exhibitions and tours ▪ Field days and field visits ▪ Peer-to-peer sessions ▪ Farmer alumni groups	"A composite index was obtained by calculating the average of the total sum of the responses of each respondent to measure this variable"	Interval	Quantitative	Inferential	Frequency, mean and standard deviation
Determine the joint influence of reform interventions on the performance of agricultural projects funded by the World Bank in Trans-Nzoia County,	**Three independent variables examined jointly** Reform Interventions	▪ Financing reform ▪ Capacity building reform ▪ Financing reform	"A composite index was obtained by calculating the average of the total sum of the responses of each respondent to measure this variable"	Interval	Quantitative	Inferential	Frequency, mean and standard deviation multiple regression

Objective	Variables	Indicators	Measurement	Measurement Scale	Research Approach	Type of Statistical Analysis	Analysis Tool (s)
Establish the moderating influence of participatory monitoring on the relationship between reform interventions and performance of agricultural projects funded by the World Bank in Trans-Nzoia County,	**Moderating variable:** Participatory monitoring	▪ Participation in project layout ▪ Participation in design ▪ Participation in design of monitoring framework ▪ Participation in project appraisal ▪ Participation in monitoring the objectives ▪ Participation in developing project outputs ▪ Participation in designing monitoring instruments ▪ Participation in routine activity tracking	"A composite index was obtained by calculating the average of the total sum of the responses of each respondent to measure this variable"	Interval	Quantitative	Parametric	Frequency, mean and standard deviation Stepwise regression F-Statistic R^2
	Dependent variable: performance of agricultural projects funded by the World Bank in Trans-Nzoia County	▪ Satisfactory production ▪ Prescribed quality ▪ Surplus production ▪ Anticipated profit ▪ Satisfactory income ▪ Produce safety ▪ Post-harvest security ▪ Productive capacity ▪ Positive feedback ▪ Stable produce prices ▪ Encouraged farmers ▪ Post-harvest safety	"A composite index was obtained by calculating the average of the total sum of the responses of each respondent to measure this variable"	Interval	Quantitative	Parametric	Measures of central tendency and standard deviation

CHAPTER FOUR
DATA ANALYSIS, PRESENTATION, DISCUSION AND INTERPRETATION OF FINDINGS

4.1 Introduction

This chapter entails data analysis, presentation, discussion and interpretation of study findings. Analyzed data was illustrated through cross tabulations and the measures of central tendency and organized according to study themes. Data analysis was through descriptive statistics followed by inferential analysis. Stepwise regression inferred the moderating effect alongside the significance of the coefficient and the change in R^2. Multiple regression was used to establish the joint influence.

The chapter is clustered into sub-sections; section 4.2 has questionnaire response rate, 4.3 has demographic characteristics of respondents in terms of age, gender, the highest level of education, level of literacy, farming occupation and type of project support. Subsequent sections of the chapter presents data on each objective where the analysis was conducted by determining frequencies and percentages followed by the mean and standard deviation. Inferential analysis was undertaken through linear regression and correlation to determine the preferred test statistics.

4.2 Questionnaire Response Rate

The response rate was found to be 95.14%; out of the 268 questionnaires administered, 255 were fully filled and returned. This high rate is attributable to the administration of questionnaires at locations convenient to respondents. The data collection process was keenly supervised to minimize omission and miscalculation errors. Idea of informing respondents about the purpose and use of study results also had an impact on response rate as it helped farmers respond to the questionnaires with confidence.

To ensure normality in data collection, questionnaires were distributed to respondents randomly. Targeted farmers for this study were those enlisted for technical, financial and advisory support from the two World Bank funded projects in the County. Under the quantitative approach, response rate was first determined since it was necessary in showing extent of parameters such as external validity and reliability. Response rates for each sub-county were determined and found as distributed on the basis shown in Table 4.1.

Table 4.1 Questionnaire Response Rate

Cluster	Sample Size (n)	No Returned	Response Rate (%)
Cherangany	38	36	94
Endebess	37	34	92
Central	34	34	97
Kaplamai	33	31	90
Kiminini	43	40	93
Kwanza	38	37	94
Saboti	40	38	96
County-based staff	3	3	100
PMU officials	2	2	100
Total	**268**	**255**	**95.14**

4.3 Demographic Characteristics of Respondents

Demographic characteristics of respondents examined were in context of gender, age, the highest level of education, literacy, primary farming occupation, type of project support and number of years supported. Demographics were to confirm proportions of respondents based on background information.

4.3.1 Distribution of Respondents by Gender

Respondents were asked to specify their gender by choosing male or female. Results on gender are illustrated in Table 4.2.

Table 4.2: Distribution of Respondents by Gender

Gender	Frequency	Percentage
Female	93	36.3
Male	142	55.9
Missing response	20	7.8
Total	**255**	**100**

Gender of respondents was found to be evenly distributed; 93(36.3%) being female while 142 (55.9%) were male. This implies that the agricultural industry in Kenya was dominated by the male. Though a good attempt had been made to include both gender in the design and implementation of projects, equality aspect was yet to be realized. Though not mandatory, the Constitution of Kenya, promulgated in 2010 makes it mandatory for a third of either gender to be involved in development initiatives. This was however yet to be achieved in these projects.

4.3.2 Distribution of Respondents by Age

The researcher requested respondents to select their age from a cluster ranging from 20-40 years. Five categories were given from where age was to be selected. Results on age are shown in Table 4.3.

Table 4.3: Distribution of Respondents by Age

Age	Frequency	Percentage
20-25 Years	15	5.9
26-30 Years	0	0
31-35 Years	45	17.6
36-40 Years	57	22.5
Above 40 Years	138	53.9
Total	**255**	**100**

Results obtained show 53.9% of respondents were over 40 years hence experienced and knowledgeable in matters appertaining to farming. It was clear that the older generation dominated farming. A great deal of workforce, skills and knowledge would be lost in the next couple of years since the younger generation was not very keen on farming hence unavailable to replenish the aging workforce.

4.3.3 Distribution of Respondents by Highest Level of Education

Respondents were to specify their highest education level, ranging from lack of formal education, to primary school level, secondary school level, certificate, diploma and to degree level. Results on the highest education level are presented in Table 4.4.

Table 4.4: Distribution of Respondents by Highest Level of Education

Highest Level of Education	Frequency	Percentage
No formal education	12	4.9
Primary school level	120	47.1
Secondary school level	105	41.2
Certificate level	15	5.9
Diploma level	3	1
Total	**255**	**100**

Results reveal that 15(5.9%) had attained the certificate education level while a paltry 3(1%) had attained diploma level. Those with higher education levels combined were 18(6.9%). The dominant group (88.3%) comprised those with low levels of education, implying that the less educated generation dominated the farming industry. This has implications in that less educated workforce was driving the farming agenda hence it would be difficult to adopt to modern farming techniques, now that the more educated generation shunned farming and hence not available to replenish the less-educated workforce.

4.3.4 Distribution of Respondents by Level of Literacy

Respondents were requested to specify their level of literacy in terms of reading and writing. Findings are illustrated in Table 4.5:

Table 4.5: Distribution of Respondents by Level of Literacy

Level of Literacy	Frequency	Percentage
Can read	5	2
Can write	10	3.9
Can read and write	215	84.3
Cannot read and write	23	8.8
Total	**255**	**100**

Results in Table 4.5 show 5(2%) of the respondents could read, 10(3.9%) could write, 215(84.3%) could read and write, while 23(8.8%) of the respondents could not read and write. The dominant group (84.3%) of the respondents had the capacity to read and write. These results have huge implications on the farming sector, as they show that many farmers had obtained an ability to read and write, perhaps through farming exposure, despite their varied academic levels.

4.3.5 Distribution of Respondents by Primary Farming Occupation

Respondents were asked to specify their primary faming occupation. This ranged from maize farming, to crop farming, livestock marketing, horticultural trading and banana farming. Findings on the distribution of respondents by primary farming occupation are shown in Table 4.6.

Table 4.6: Distribution of Respondents by Primary Farming Occupation

Farming Occupation	Frequency	Percentage
Maize farmer	110	43.1
Livestock farmer	40	15.7
Crop farmer	13	4.9
Livestock marketer	55	21.6
Horticultural trader	15	5.9
Banana farmer	22	8.8
Total	**255**	**100**

Results from table 4.6 indicates that majority of respondents 110(43.1%) were maize farmers, 40(15.7%) were livestock farmers, 13(4.9%) were farmers of other crops, 55(21.6%) were livestock marketers, while 15(5.9%) were horticultural traders and 22(8.8%) were banana farmers. The dominant group (43.1%) were maize farmers. These results corroborate assertion that maize farming was a predominant activity in Trans-Nzoia County, hence qualifying its branding as the grain basket of Kenya.

4.3.6 Distribution of Respondents by Type of Project Support

Respondents were asked to name the project that supported them. Projects supporting farmers were either KAPAP or KASLMP. Results on the type of project support are shown in Table 4.7.

Table 4.7: Distribution of Respondents by Type of Project Support

Type of Project	Frequency	Percentage
KAPAP	153	59.8
KASLMP	102	40.2
Total	**255**	**100**

Results in Table 4.7 shows that a large number of farmers 153(59.8%) were supported under the Kenya Agricultural Productivity Agribusiness Project while 102(40.2%) of farmers were supported by Kenya Agriculture Sustainable Land Management Project. The dominant group (59.8%) were supported by the Kenya Agricultural Productivity Agribusiness Project, meaning majority of farmers were involved in productivity at expense of agribusiness and land management.

These findings imply that middlemen continues to exploit farmers at local level since marketing value chains were neither owned nor managed by producers. These results also imply that the land conservation practices in Kenya weren't given much attention.

4.3.7 Distribution of Respondents by Number of Years Supported

Respondents were asked to specify number of years they had been supported by either of the two projects. This ranged from less than a year, between 2-5 years and between 5-8years. The results are shown in Table 4.8.

Table 4.8: Distribution of Respondents by Number of Years Supported

Number of Years Supported	Frequency	Percentage
Below 1 year	3	0.01
Between 2-5 years	240	94.1
Between 5-8 years	12	4.9
Total	**255**	**100**

Results in Table 4.8 are indicates that 3(0.01%) of respondents had been supported for less than a year, 240(94.1%) had been supported for 2-5 years, and 12(4.9%) had been supported for 5-8 years. The dominant group (94.1%) had been supported for between 2-5 years, hence they possessed requisite experience to effectively articulate the issues under examination.

4.4 Treatment and Decision Rule for Likert-Scale

Based on how the likert-scale questions were handled, a range of different analysis techniques may be used. While researchers are increasingly assuming that likert-type questions comprise the interval-level measurement, certain presumptions must be met (Sekaran, 2000). While non-parametric tests are preferred when the data is obviously ordinal, when the investigator is convinced that the data can be justified as interval, the researcher's focus should shift to sample size and distribution normality. The sample size and normality of the distribution are considered more important than measurement levels when determining whether the parametric tests or the inferential statistics should be used in research (Creswell and Plano, 2011).

Nevertheless, the nature of non-equidistance and skewedness depend on the preferred statistical method for analyzing the likert type data. Guest, (2013) feels that parametric methods could be used to analyze data that by nature are not equidistant. Applied researchers also believe likert-type data are equidistant so that the parametric methods can be applied in futuristic analyses. There was the need to consider the way subjects perceived responses before deciding on what statistical methodology to adopt and use in analyzing the likert-type data. Distance between the points on a regular five-point-like scale varies generally on how the conversational anchors have been structured and deployed.

Statisticians opine that likert-type questions may well be ordinal, scales consisting of sums across items can therefore be treated as interval. This view is also corroborated by Guest, (2013) and Sekaran, (2000) who concludes that treatment of sum of likert items is analogous to everyday life since ordinarily, the sum of correct answers on a multiple-choice test, each of which is binary is considered interval. This perhaps helps strengthen the argument that likert scale data and small samples of unequal variances that are not in normal distribution, then parametric statistics can then be used without reaching incorrect conclusion. In a survey to assess whether the type of data collection and analysis carried out with likert scale affects findings drawn from results obtained, Guest, (2013) concludes that the parametric and non-parametric tests carried out with likert-scale correlation such as the Pearson and or Spearman, do not necessarily affect the findings.

In a study to compare the type 1 and type 2 errors of t-test versus the Mann-Whitney-Wilcoxon (MWW) test for 5-point likert items, Sekaran, (2000) found that for the 5-point-likert items, MWW and t-test have similar powers generally. Researchers must therefore not worry about finding a difference where none is present. In this study, the base population corresponds to normal distribution and sampling frame is sufficiently large. This means that data is, therefore amenable to parametric tests. The researcher utilized multiple likert questions where responses were summed together resulting in data that was then treated as interval. Likert-type items consisting of sums across items are considered interval (Guest, 2013). All questions asked in a structured questionnaire so utilized the same likert scale, with coding indicating the magnitude of difference between items that were used to measure a single latent variable.

Anchors utilized in this study ranged from a very low score to very high between 1 to 5, with other anchors representing, low, high and neutral. Consequently, averages of summed scores also ranged from 1 to 5. In order to fulfil the equidistance assumption, the decision rule was designed such that very low/strongly disagree (SD) 1.0<SD<1.8; low/disagree (D) 1.8<D<2.6; neutral (N) 2.6<N<3.4; high/agree (A) 3.4<A<4.2; and very high/strongly agree (SA) 4.2<SA<5.0 were fairly spread. This gave equidistance of 0.8. This rule was also followed during the descriptive analysis and interpretation of data collected.

4.4.1 Factorability and Sphericity

The variables of this study were subjected to factorability and sphericity using Kaiser-Meyer-Olkin (KMO) measure, to test for sample sufficiency. This measure compared sizes of the observed correlation coefficients to the sizes of the partial correlation coefficients and for the sum of analysis variables. Overall, sampling adequacy was at 70.4%. A KMO index greater than 0.7 is considered factorable. The scale obtained gave an equidistance of 0.8. This weighting criterion in the analysis of likert-type data qualified the measurement as the interval scale. Similarly, the supposition test of sphericity by the Bartlett test (H_0: "that all correlation coefficients are not quite far from zero") was rejected on a standard statistical significance $p<.05$. Consequently, not all coefficients were found to be zero and the second affirmation of factor analysis was fulfilled. Factor analysis was fulfilled and the data collected was factorable.

4.4.2 Multicollinearity and Heteroscedasticity

The study variables were further subjected to multicollinearity test using the Variance Inflation Factor (VIF) and tests of tolerance in regression analysis. Results are shown in Table 4.9.

Table 4.9: Test of Multicollinearity

Coefficient	**Collinearity Statistics**	
Variable	**Tolerance**	**VIF**
Financing Reform	0.531	1.882
Marketing Reform	0.388	2.577
Capacity Building Reform	0.460	2.174
Participatory Monitoring	0.403	2.483

Dependent Variable: Performance of Agricultural Projects

Results in Table 4.9 show that the VIF factor ranged from 1.882 to 2.577, which is within the set criteria by the rule of thumb. This finding is corroborated by Guest, (2013) and Sekaran, (2000) who suggest that VIF should be less than 10. Tolerance values were found between 0.388 to 0.531 which is within set criteria too. Tolerance values of not more than 0.1 imply multicollinearity. Since none of the tolerance values for the independent variable were below 0.1, this then implies that there was no any multicollinearity.

4.4.3 Skewness and Kurtosis

The study variables were subjected to the test of skewness and kurtosis, both tests are associated with the standard error which were converted to Z-scores derived using the equation. Findings on skewness and Kurtosis are presented in Table 4.10:

Table 4.10: Skewness and Kurtosis

Statistics	Financing Reform	Marketing Reform	Capacity Building Reform	Participatory Monitoring	Performance of Agricultural Projects
Response	233	243	248	250	245
Missing response	22	12	7	5	10
Skewness	.385	.190	.362	-.042	-.258
Std. error of skewness	.250	.245	.243	.241	.244
Kurtosis	-.0506	-1.294	-.595	-1.066	-.664
Std. error of Kurtosis	.495	.485	.481	.478	.483

When Z-scores for reform interventions (financing, marketing and capacity building) were computed, they were found to be positively skewed while the Z-scores for participatory monitoring and performance of agricultural projects were found to be negatively skewed. All values of skewness were found close to zero implying the said variables were close to normal distribution. Kurtosis values were found close to zero implying that the study variables were also close to normal distribution.

Kurtosis measures the peakedness of a distribution, it measures the cumulative size of the two tails and the quantity of likelihood in the tails, often especially in comparison with normal distribution. If the value of Kurtosis is larger than 3, then the data set has heavier threads than the normal distribution. The dataset will therefore possess lighter tails than normal distribution if Kurtosis is less than 3. This makes normal distribution Kurtosis to be equal to Zero.

4.4.4 Test of Normality

Variables of the study were further subjected to the normality test to establish if the distribution was normal. Test of normality was thorough the Kolmogorov-Smirnov (K-S) test and the Shapiro-Wilk (S-W) test. These tests are founded on the largest vertical variance amongst the postulated and empirical distributions. Results on normality are shown in Table 4.11.

Table 4.11: Test of Normality

Variable	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Performance of Agricultural Projects	0.123	245	0.121*	0.966	245	0.212*
Financing Reform	0.107	233	0.631*	0.974	233	0.711*
Marketing Reform	0.11	243	0.376*	0.927	243	0.510*
Capacity Building Reform	0.114	248	0.623*	0.972	248	0.781*
Participatory Monitoring	0.108	250	0.376*	0.959	250	0.753*

Results in Table 4.11 indicates that all the p-values for normal distribution were found to be above 0.05. The K-S test was done to check if the data found followed or did not follow the specified distribution. W-S test was used to counter-check validity of the normality results. From results, the null hypothesis is rejected since all variables under study were found to have normal distribution. Results from K-S test acquired noted highly significant variables and demonstrated normal distribution of parameters under study. A significant value of not more than 0.05 shows an abnormality. In this study therefore the null hypothesis for the test of normality undertaken imply data used was normally distributed. Normal Q-Q plots, which are a diagrammatic representation of normality are shown in Appendix VII.

4.5 Relationship between Reform Interventions and Performance of Agricultural Projects

Correlation through the Pearson's Product Moment technique was done to establish the extent of association amongst three reform interventions and the performance of agricultural projects. This also established the strength and direction of relationship between the independent and dependent parameters. The correlation coefficient values

found ranged from +1 to -1. A coefficient of +1 specifies the two variables were linked perfectly and positively. Correlation was set at 95% confidence interval and the level of significance at 0.000 (2-tailed test), both r and t-values were used in interpreting the extent of correlation. Results of correlation are as illustrated in Table 4.12.

Table 4.12: Correlation Results

		Performance of Agricultural projects	Financing reform	Marketing Reform	Capacity Building Reform
Performance of Agricultural Projects:	Correlation Sig. (2-tailed) **N**	1.000* 0.000 **255**			
Financing Reform:	Correlation Sig. (2-tailed) **N**	0.234** 0.0000 **255**	1.000* 0.000 **255**		
Marketing Reform:	Correlation Sig. (2-tailed) **N**	.287** 0.0000 **235**		1.000* 0.000 **235**	
Capacity Building Reform:	Correlation Sig. (2-tailed) **N**	.199** 0.0000 **038**			1.000* 0.000 **238**

**** Correlation is Significant at the 0.05 level (2-tailed)**

Results in Table 4.12 shows that there exists a significant, positive correlation between three reform interventions and performance of agricultural projects. These results also show a correlation coefficient of 0.23 between financing reform and the performance of agricultural projects. Therefore, a unit increase in financing reform increased the performance of agricultural project by 23.4%. Results show a correlation coefficient of 0.287 existed between marketing reform and performance of agricultural projects. This means one-unit increase in the marketing reform increased performance of agricultural project by 28.7%.

Further, results in Table 4.16 show a correlation coefficient of 0.038 existed between capacity building reform and performance of agricultural projects; implying a unit increase capacity building reform increased the performance of agricultural project by 3.8%. In conclusion, all reform interventions exhibited positive significant correlation with performance of agricultural projects in varying degrees. Reform interventions as defined in the World Bank context are therefore critical determinants in performance of projects at varying magnitudes.

4.6 Analysis on Performance of Agricultural Projects Indicators

Performance of agricultural projects was a dependent variable and was measured using 12 indicators. Respondents were given items rated on a five-point likert scale ranging from strongly agree (SA); agree (A); 3=neutral (N); disagree (D) and strongly disagree (SD). Qualitative results on this variable are presented in Table 4.13.

Table 4.13: Qualitative Results on Performance of Agricultural Projects

Statements	**SD F (%)**	**D F (%)**	**N F (%)**	**A F (%)**	**SA F (%)**	**Total F (%)**	**M**	**SD**
a) Satisfactory production	0 (0)	5 (2)	36 (14)	99 (39)	110 (43)	250 (100)	4.26	0.777
b) Prescribed produce quality	0 (0)	10 (4)	20 (8)	148 (58)	71 (28)	250 (100)	4.12	0.722
c) Surplus production	3 (1)	5 (2)	33 (13)	122 (48)	87 (34)	250 (100)	4.14	0.799
d) Anticipated profits	0 (0)	13 (5)	33 (13)	158 (62)	46 (18)	250 (100)	3.95	0.723
e) Satisfactory income	0 (0)	8 (3)	41 (16)	130 (51)	71 (28)	250 (100)	4.06	0.757
f) Produce safety	0 (0)	51 (20)	15 (6)	110 (43)	71 (28)	247 (99.7)	3.81	1.074
g) Post-harvest security	3 (1)	5 (2)	31 (12)	143 (56)	69 (27)	250 (100)	4.08	0.755
h) Productive capacity	0 (0)	10 (4)	48 (19)	128 (50)	64 (25)	250 (100)	3.98	0.786
i) Positive feedback	0 (0)	8 (3)	31 (12)	130 (51)	82 (32)	250 (100)	4.14	0.746
j) Stable produce prices	43 (17)	74 (29)	33 (13)	36 (14)	59 (23)	245 (99.7)	2.97	1.461
k) Encouraged farmers	3 (1)	13 (5)	26 (10)	130 (51)	77 (30)	247 (99.8)	4.07	0.845
l) Post-harvest safety	26 (10)	46 (18)	51 (20)	69 (27)	59 (23)	250 (100)	3.36	1.302
Composite							**3.911**	**0.856**

Qualitative results in Table 4.13 shows the mean score on performance of agricultural projects was 3.91 and the composite standard deviation of 0.856. Mean score leaned towards “agreed”. From frequencies and percentages, 5(2%) of respondents disagreed, 36(14%) were neutral, 99(39%) agreed and 110(43%) strongly agreed on satisfactory production. On prescribed produce quality, 10(4%) disagreed, 20(8%), were neutral, 148(58%) agreed and 71(28%) strongly agreed. On surplus production, 3(1%) strongly disagreed, 5(2%) disagreed, 33(13%) were neutral, 122(48%) agreed 87(34%) strongly agreed. On anticipated profits, 13(5%) of respondents disagreed, 33(13%) neutral, 158(62%) agreed while 46(18%) strongly agreed. Qualitative results on satisfactory income were; 8(3%) disagreed, 41(16%) were neutral, 130(51%) agreed and 71(28%) strongly agreed. On produce safety; 51(20%) disagreed, 15(6%) were neutral, while 110(43%) agreed and 71(28%) strongly agreed.

Frequencies and percentages on post-harvest security were 3(1%) strongly disagreed 6(2%) disagreed, 31(12%) neutral, 143(56%) agreed while 69(27%) strongly agreed. Results on produce capacity were; 10(4%) of respondents disagreed, 48(19%) neutral, 128(50%) agreed, while 64(25%) strongly agreed. Results on positive feedback were; 8(3%) disagreed, 31(12%) were neutral, 130(51%) agreed, 82(32%) strongly agreed. On stable produce prices; 43(17%) strongly disagreed, 74(29%) disagreed, 33(13%) were neutral, 36(14%) agreed and 59(23%) strongly agreed. Qualitative results on the encouraged farmers were; 3(1%) strongly disagreed, 13(5%) agreed, 26(10%) were neutral, 130(51%) agreed and 77(30%) strongly agreed. Results on post-harvest safety, were; 26(10%) strongly disagreed, 46(18%) disagreed, 51(20%) neutral, 69(27%) agreed, while 59(23%) strongly agreed.

The mean (M) and standard deviation (SD) shows that respondents agreed strongly on satisfactory production (M=4.26, SD=0.777), agreed strongly on the prescribed quality produce (M=4.12, SD=0.722), agreed on the surplus production (M=4.14, SD=0.799), agreed on anticipated profits (M=3.95, SD=0.723), and agreed to a certain extent on satisfactory income (M=4.06, SD=0.757). Respondents also agreed on produce safety (M=3.81, SD=1.074), agreed on post-harvest security (M=4.08, SD=0.755), agreed on productive capacity (M=3.98, SD=0.786) and agreed on positive feedback (M=4.14, SD=0.746). Respondents however disagreed on stability of producer prices (M=2.97, SD=1.461), disagreed on encouraged farmers (M=3.07, SD=0.845) and also disagreed on post-harvest safety (M=3.66, SD=1.302).

Results from mean and standard deviation indicated that responses were concentrated around the mean (M=3.91, SD=0.856) implying that participants agreed to most of the statements on performance of agricultural projects. These results indicate the reactions from farmers were not far from the mean since the small standard deviations were described. This ordinarily means majority of respondents were of the same mind and agreed that the performance of agricultural projects was a composite with a variety of indicators.

Table 4.14: Summary of Responses from Key Informant Interview on the Performance of Agricultural Projects

Item	Responses
Do farmers have knowledge of project performance?	*Most farmers understood performance of agricultural projects in terms of increase in yield and increased farm revenue. It was found that the two projects have delivered tangible results. Most of the farmers supported were happy about the project results.*
What's the rationale for project performance?	*The two projects helped realize increased productivity at farm level, the change in farmer profits, and increased access to finance, reduced post-harvest losses and better and predictable markets.*
How do measure project performance?	*Farmers recognize project performance whenever they obtained enough harvests, when they were able to live better, when they were able to produce in surplus and when they sold their surplus.*
Any recommendation/improvements?	*Farmers proposed that the project enlists more farmers, widens its scope, engages more field officers so as to expand its outreach capacity. It appears, the project human resource capacity is constrained.*

Table 4.15: Summary of Responses from Focus Group Discussions on the Performance of Agricultural Projects

Question	Response
What's the rationale for project performance?	*Ministry of agriculture officials observed that the two projects had led to massive increase in productivity both at farm and communal levels, improved farm profits, increased access to finance, reduced perennial post-harvest losses, change volume of produce sold and predictable markets and marketing structures.*
Views on the rationale for examining project performance?	*Ministry of Agriculture officials observed the rationale for examining performance was indeed helpful as it helped farmers remain largely focused on farm delivery. This rationale would help the farming community to deliver on their objectives and mandate.*
How do measure project performance?	*Farmers and government officials alike recognized performance parameters in terms of enough harvests, better and meaningful livelihoods to the farming communities and their dependents and good prices for agricultural commodities at the market.*
Any recommendation/improvements?	*Most of the government officials thought that enhancing the concept of project performance to farmers would directly impact activities of the farm. It was observed that the farming community in most parts of Kenya suffered capacity constraints. A lot still needs to be done to boost productivity*

4.7 Analysis of Financing Reform

Financing reform was measured through 12 indicators. Respondents were given items on a five-point likert scale where 5=strongly agree (SA), 4=agree (A), 3=neutral (N), 2=disagree (D), 1=strongly disagree (SD), from where they were expected to make choices. The descriptive results on this variable are therefore as shown in Table 4.16.

Table 4.16: Qualitative Results on Financing Reform

Statements	**SD F (%)**	**D F (%)**	**N F (%)**	**A F (%)**	**SA F (%)**	**Total F (%)**	**M**	**SD**
a) Credit procedures	13 (5)	38 (15)	46 (18)	122 (49)	33 (13)	253 (99.7)	3.49	1.063
b) Collateral options	5 (2)	41 (16)	43 (17)	125 (49)	41 (16)	255 (100)	3.61	1.004
c) Credit structure	41 (16)	54 (21)	23 (9)	84 (33)	54 (21)	255 (100)	3.22	1.411
d) Credit regulations	5 (2)	33 (13)	18 (7)	133 (52)	66 (26)	255 (100)	3.87	1.012
e) Digitized credit	3 (1)	33 (13)	5 (2)	140 (55)	74 (29)	255 (100)	3.98	0.964
f) Credit flexibility	3 (2)	43 (13)	46 (7)	102 (52)	61 (26)	255 (100)	3.69	1.051
g) Repayment regulations	10 (4)	74 (30)	18 (7)	92 (37)	54 (22)	247 (96.9)	3.42	1.240
h) Interests rates	54 (21)	28 (11)	20 (8)	79 (31)	71 (28)	252 (98.8)	3.34	1.520
i) Credit institutions	0 (0)	26 (10)	36 (14)	125 (49)	69 (27)	255 (100)	3.93	0.902
j) Cost of credit	26 (10)	74 (29)	23 (9)	94 (37)	36 (14)	252 (98.8)	3.16	1.275
k) Knowledge on credit	15 (6)	99 (40)	38 (16)	56 (23)	38 (16)	247 (96.9)	3.01	1.229
l) Repayment capacity	43 (17)	82 (32)	33 (13)	46 (18)	51 (20)	255 (100)	2.92	1.412
Composite							**3.47**	**1.173**

Qualitative results on financing reform were: on credit procedures 13(5%) respondents strongly disagreed, while 38(15%) disagreed, 46(18%) were neutral 122(49%) agreed and 33(13%) strongly agreed. On collateral options, 5(2%) of respondents strongly disagreed, 41(16%) disagreed, 43(17%) were neutral, 125(49%) agreed and 41(16%) strongly agreed. On credit structure 41(16%) of the respondents strongly disagreed, 54(21%) agreed, 23(9%) were neutral, 84(33%) agreed and while 54(21%) strongly agreed. On credit regulations 5(2%) respondents strongly disagreed, 33(13%) disagreed, 18(7%) were neutral, 133(52%) agreed, 66(26%) strongly agreed. On digitized credit, 3(1%) strongly disagreed, 33(13%) disagreed, 5(2%) were neutral, 140(55%) agreed and 74(29%) strongly agreed. On flexibility of credit 3(1%) strongly disagreed, 43(13%) disagreed, 46(7%) neutral and 61(26%) strongly agreed.

On repayment regulations, descriptive results indicate 10(4%) of respondents strongly disagreed, while 74(30%) disagreed, while 18(7%) were neutral, 92(37%) agreed and 54(22%) strongly agreed. On interest rates, 54(21%) strongly disagreed, 28(11%) disagreed, 20(8%) were neutral, 79(31%) agreed while 71(28%) strongly agreed. On credit institutions, 26(10%) disagreed, 36(14%) were neutral, 125(49%) agreed and 69(27%) strongly agreed. On the cost of credit, 26(10%) of the respondents strongly disagreed, 74(29%) disagreed, 23(9%) were neutral, 94(37%) agreed, while 36(14%) strongly agreed. On knowledge of credit, 15(6%) of respondents strongly disagreed, 99(40%) disagreed, 38(16%) were neutral, 56(23%) agreed, 38(16%) strongly agreed. On the repayment capacity 43(17%) strongly disagreed, 82(32%) disagreed, 33(13%) were neutral, 46(18%) agreed and 51(20%) strongly agreed.

Descriptive findings showed respondents agreed M=3.49, SD=1.063) on the credit procedures, agreed to a certain extent (M=3.61, SD=1.004) on collateral options, agreed to a less extent on the structure of credit (M=3.22, SD=1.411), agreed to a certain extent on credit regulations (M=3.95, SD=0.723), agreed on credit flexibility (M=3.69, SD=1.051)) and agreed on repayment regulations (M=3.42, SD=1.240), agreed to a less extent on interest rates charged (M=3.34, SD=1.520), agreed to a large extent on credit institutions (M=3.92, SD=0.902). Respondents disagreed on cost of credit (M=3.16, SD=1.275), disagreed on knowledge of credit (M=3.01, SD=1.229) and disagreed on the repayment capacity (M=2.92, SD=1.412). Composite mean and standard deviation was (M=3.47, SD=1.173) implying respondents did not agree to most statements on financing reform. The responses were scattered far from the mean.

4.7.1 Test of Hypothesis One

H_0: "Financing reform has no influence on performance of agricultural projects funded by the World Bank in Trans-Nzoia County"**,**

H_1: "Financing reform significantly influences the performance of agricultural projects funded by the World Bank in Trans-Nzoia County"**,**

The null hypothesis was tested and results were as shown in Table 4.17

Table 4.17: Linear Regression Results of Financing Reform and Performance of Agricultural Projects

Variables Entered

Model	Variables Entered
1	Credit procedures, credit structure, collateral options, credit regulations, digitized credit, credit flexibility, repayment regulations, interest rates, credit institutions, cost of credit, knowledge on credit, repayment capacity

a. Dependent Variable: Performance of Agricultural Projects
b. Tolerance = .000 limits reached.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.253[a]	0.244	0.204	3.878

a. Predictors: (Constant), Financing Reform
b. Dependent Variable: Performance of Agricultural Projects

Analysis of Variance

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1034.800	25	258.700	0.297***	0.055.[b]
Residual	.000	2			
Total	1034.800	27			

a. Predictors: (Constant), Financing Reform
b. Dependent Variable: Performance of Agricultural Projects

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	25.481***	3.878	3.129		0.0525
Financing Reform	0.507**	0.093	0.194	0.027	

a. Predictors: (Constant), Financing Reform
b. Dependent Variable: Performance of Agricultural Projects

Linear regression results show a positive significant relationship between financing reform and performance of agricultural projects r =0.0244 (p-value< 0.05). Table 4.17 indicates financing reform is an important explanatory variable on the performance of agricultural projects. This is because financing reform had statistically significant influence on performance of agricultural projects to an extent; r =0.0244, (p-value< 0.05). The β coefficient of 0.194 indicates that a unit increase in financing reform led to 19.4% increase in the performance of agricultural projects. The study hypothesis was tested using the t-statistic and found to be 0.027< 0.05). This therefore means this relationship is valid. From the inferential results, the null hypothesis for the first objective of this study is rejected.

Table 4.18: Summary of Responses from Key Informant Interview on Financing Reform

Question	Response
General understanding about financing reform:	*Most officials and farmers understood different farm financing models, most common funding approaches utilized was provision of collateral on cereal banking. These efforts were meant to ensure farmers accessed cheaper credit so as to boost productivity and increase profits.*
Why fund agriculture:	*Agriculture held highest potential for poverty reduction and had become a complex composite that is influenced by a mix of factors: limited technological adaptation and under performance across key labor-intensive value chains critical for growth and competitiveness that initially plagued the sector are effectively surmounted. It contributes 25% of GDP and 50% of exports.*
Are financing models inbuilt project processes?	*Most financing models tailor-made according to the needs of the farming community. These solutions are not in-build but product-specific.*
Any key recommendations?	*Farming communities in most parts of the Country Trans –Nzoia included needed exposure to more funding, more funding models and other arrangements. It was felt that more innovative approaches were needed to open up the field.*

Table 4.19: Summary of Focus Group Discussions on Financing Reform

Question	Response
Your view on financing reform:	*Most players in the agricultural sector seem to understand different farm financing models, the most common funding approaches utilized was the provision of collateral on cereal banking. These efforts were meant to ensure farmers accessed cheap credit so as to boost productivity at local and farm level, increase farmer profits by expanding farm surplus and reduce post-harvest losses. The project also seeks to expand market space and infrastructure.*
Your view on financing agriculture:	*Officials emphasized agriculture held highest potential for poverty reduction and a complex composite influenced by myriad factors such as: limited technological adaptation and under performance across key labor-intensive value chains critical to growth, competitiveness that initially plagued the sector are surmounted. Agriculture continues to make 25% of Kenya's GDP, 50% of exports earnings and holds a huge job creation and poverty reduction potential. Sector challenges included lack of a consistent land policy, poor regulatory and legal framework that prevents private investment in key value chains, high costs and poor input, lack of infrastructure, severe losses pre- and post-harvest and inadequate capital.*
Are financing models inbuilt project processes?	*Most of the financing models are tailor-made according to the needs of the farming community. These solutions are not in build but product-specific, meaning they are built on need basis.*
Any key recommendations?	*It was noted that farming community in most parts of the Country needed exposure to more funding models and arrangements. It was felt that more innovative approaches to open up the field of farm financing needed to be done*

4.8 Analysis of Marketing Reform

Marketing reform was a composite measured by 12 indicators. Qualitative results on the analysis of the marketing reform are shown in Table 4.20:

Table 4.20: Qualitative Results of Marketing Reform

Statements	SD F (%)	D F (%)	N F (%)	A F (%)	SA F (%)	Total F (%)	M	SD
a) Market demographics	59 (23)	38 (15)	8 (3)	74 (29)	74 (29)	252 (98.8)	3.260	1.582
b) Market accessibility	10 (4)	110 (43)	10 (4)	51 (20)	71 (28)	252 (98.8)	3.250	1.373
c) Marketing regulations	8 (3)	94 (37)	20 (8)	71 (28)	56 (22)	250 (98)	3.300	1.270
d) Marketing architecture	61 (24)	87 (34)	5 (2)	31 (12)	69 (27)	252 (98.8)	2.840	1.589
e) Marketing intelligence	0 (0)	10 (4)	3 (1)	89 (35)	145 (57)	247 (96.9)	4.490	0.723
f) Market composition	10 (4)	94 (37)	26 (10)	74 (29)	48 (19)	252 (98.8)	3.220	1.250
g) Marketing structures	46 (18)	94 (37)	15 (6)	61 (24)	36 (14)	252 (98.8)	2.790	1.372
h) Market digitization	18 (7)	59 (23)	33 (13)	82 (32)	61 (24)	252 (98.8)	3.430	1.279
i) Market space	28 (11)	117 (46)	23 (9)	36 (14)	48 (19)	252 (98.8)	2.840	1.345
j) Marketing associations	38 (15)	87 (34)	13 (5)	56 (22)	56 (22)	250 (98)	3.020	1.450
k) Marketing models	8 (3)	54 (21)	36 (14)	97 (38)	59 (23)	252 (98.8)	3.580	1.153
l) Marketing complexities	3 (1)	18 (7)	20 (8)	94 (37)	117 (46)	252 (98.8)	4.210	0.940
Composite							**3 .350**	**1.280**

Results from qualitative analysis in Table 4.20 are as follows: on market demographics 59(23%) of respondents strongly disagreed, 38(15%) disagreed, 8(3%) were neutral, 74(29%) agreed while 74(29%) strongly agreed. On market access, 10(4%) strongly

disagreed, 110(43%) disagreed, 10(4%) were neutral, 51(20%) agreed, while 71(28%) strongly agreed. On marketing regulations, 8(3%) of respondents strongly disagreed, 94(37%) disagreed, 20(8%) were neutral, 71(28%) agreed, while 56(22%) strongly agreed. On market architecture, 61(24%) of respondents strongly disagreed, 87(34%) disagreed, while 5(2%) were neutral, 31(12%) agreed, while 69(27%) strongly agreed. On market intelligence, 10(4%) disagreed, 3(1%) were neutral while 89(35%) agreed and 145(57%) strongly agreed.

On market composition, results show 10(4%) respondents strongly disagreed, 94(37%) disagreed, 26(10%) were neutral, 74(29%) agreed while 48(19%) strongly agreed. On market structures, 46(18%) strongly disagreed, 94(37%) disagreed, while 15(6%) were neutral, 61(24%) agreed and 36(14%) strongly agreed. On market digitization, 18(7%) strongly disagreed, 59(23%) disagreed, while 33(13%) were neutral, 82(32%) agreed and 61(24%) strongly agreed. Findings on market space indicate that 28(11%) strongly disagreed, 117(46%) disagreed, 23(9%) were neutral, 36(14%) agreed while 48(19%) strongly agreed. On market groups, 38(15%) strongly disagreed, 87(34%) disagreed, 13(5%) were neutral, 56(22%) agreed, 56(22%) strongly agreed. On bulk commodity marketing, 8(3%) strongly disagreed, 54(21%) disagreed, 36(14%) were neutral, 97(38%) agreed and 59(23%) strongly agreed. On market complexity, 3(1%) strongly disagreed, 18(7%) disagreed, 20(85) neutral, while 94(37%) agreed and the remaining 117(46%) strongly agreed.

Results on mean and standard deviation show that respondents disagreed on market demographics (M=3.260, SD=1.582), disagreed strongly on market access (M=3.250, SD=1.373), disagreed on marketing regulations (M=3.30, SD=1.270), disagreed on marketing architecture (M=2.840, SD=1.589), strongly agreed on market intelligence (M=4.490, SD=0.723), disagreed on composition of markets, (M=3.220, SD=1.250), disagreed on market structures (M=2.790, SD=1.372), agreed on market digitization (M=3.430, SD=1.279) disagreed on marketing space (M=2.840, SD=1.345), agreed on associations (M=3.020, SD=1.350), agreed on market models, (M=3.580, SD=1.153). and agreed on market complexities (M=4.210, SD=0.940). The composite mean and standard deviation of (M=3.350, SD=1.280) imply respondents did not agree to most

of the statements. Results from Table 4.20 also show that responses were scattered far from the mean. Higher levels of standard deviation imply that respondents did not hold similar views on the concept of marketing reform.

4.8.1 Test of Hypothesis Two

H_0: "Marketing reform has no influence on the performance of agricultural projects funded by the World Bank in Trans-Nzoia County",

H_1: "Marketing reform significantly influences performance of agricultural projects funded by the World Bank in Trans-Nzoia County".

Marketing reform was a composite measured by 12 indicators. Using t-statistics, the hypothesis was tested, whose results are presented in Table 4.21:

Table 4.21: Linear Regression Results of Marketing Reform and Performance of Agricultural Projects

Variables Entered

Model	Variables Entered	Variables Removed	Method
2	Market demographics, market accessibility, marketing regulations, marketing architecture, marketing intelligence, market composition, market structures, market digitization, market space, marketing groups and associations, bulk marketing and marketing complexities.		Enter

a. Dependent Variable: Performance of Agricultural Projects

b. Tolerance = .000 limits reached.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	0.472[a]	0.223	0.467	2.136

a. Predictors: (Constant), Marketing Reform

b. Dependent Variable: Performance of Agricultural Projects

Anova[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1034.800	25	258.700	F (1,246) = 82.393***,	0.0024[b]
Residual	.000	0			
Total	1034.800	4			

a. Predictors: (Constant), Marketing Reform

b. Dependent Variable: Performance of Agricultural Projects

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	28.151***	2.136	2.111	0.004	0.004.
Marketing Reform	0.259**	0.052	1.81	0.013	
Durbin Watson			1.44		

a. Predictors: (Constant), Marketing Reform

b. Dependent Variable: Performance of Agricultural Projects

Results from linear regression in Table 4.21 shows marketing reform was an important explanatory variable on performance in agricultural projects. This is so because the study established marketing reform possessed statistically significant influence on the performance of agricultural projects to an extent; r =0.0472 (p-value< 0.05). The value of R was 0.223, implying that marketing reform explained 22.3% in the variation in performance of agricultural projects.

The β coefficient was 0.259, indicating that a unit increase in marketing reform led to 25.9% increase in the performance of agricultural projects. The test of hypothesis was done using the t-statistic and found to be 0.013< 0.05). Inferential analysis established that there is a significant relationship between marketing reform and the performance of agricultural projects. In conclusion therefore, using the inferential analysis and the t-statistic, the null hypothesis of the second objective is rejected.

Table 4.22: Summary of Responses from Key Informant Interview on Marketing Reform

Question	Response
Do farmers understand Marketing approaches?	
	For market-level assessments, the World Bank usually assesses the degree to which a project intervention improves structure and functioning of financial markets. The World Bank's major focus is to create markets for smallholder farmers through the Creating Markets Advisory Window (CMAW), a process that is meant to ensure diversified approaches to marketing are adopted in all project interventions
Have these approaches led to general improvements in productivity?	
	The World Bank currently focuses on creation of markets. In many economies, it has been found that most marketing interventions designed led to general improvement in productivity and led to betterment of livelihoods of individuals and the communities within which those projects are operationalized.
What's offered in the marketing space?	
	Capacity building, field exposure, interactive learning sessions, experiential and peer-to-peer learning, funding in market creation and design of innovative marketing structures, development of on-line marketing platforms and investment in marketing infrastructure in general.
Why is the CMAW important?	*Creation of Markets Advisory Window (CMAW) is a product of the World Bank that seeks to leverage on every available opportunity to create markets for smallholders. This initiative has been very successful in Africa and is currently being replicated in other continents.*

Table 4.23: Summary of Focus Group Discussions on Marketing Reform

Item	Response
Do farmers understand Marketing approaches?	*The concept of on-line marketing not well understood and structured. Most of the farmers confuse on-line marketing to be limited to cyber-cafes. Farmers have not well embraced the idea of marketing their commodities through smart phones. Market-level assessments to ascertain the degree to which market-based interventions improves the structure and functioning of markets & market structures not well modelled. The overriding focus to create markets for small holder farmers and ensure diversity of market approaches not well grounded.*
Generally, which marketing models have been developed?	*The creation of markets advisory window has tended to focus on physical markets. Meaning, a lot of infrastructure issues have been given invariable consideration. Most actors currently focus on creation of markets in the context of infrastructure- something that does not augur well with the modern farming arrangements.*
What's are key market characteristics?	*Open air marketing, commodity marketing on market days, farm-gate sales to middlemen and brokers, selling in bulk to supermarkets schools, hospitals, selling commodity through Sacco's, communal cereal banking, selling commodities, batter trade at local level and investment in the warehouse receipting model.*
Any recommendations on marketing going forward?	*The state actors and development partners to design more effective marketing tools and channels, the farming community to be given more exposure to commodity marketing and more capacity enhancement approaches to be inculcated to marketing initiate vise so as to improve farming activities.*

4.9 Analysis of Capacity Building Reform

To measure capacity building reform, 12 indicators were used. A likert scale of 1-5 where; 5= strongly agree (SA), 4= agree (A), 3=neutral (N), 2= disagree (D) and 1= strongly disagree (SD). Qualitative findings were as shown in Table 4.24.

Table 4.24: Qualitative Results of Capacity Building Reform

Statements	**SD F (%)**	**D F (%)**	**N F (%)**	**A F (%)**	**SA F (%)**	**Total F (%)**	**M**	**SD**
a) Capacity building content	176 (69)	41 (16)	3 (1)	13 (5)	20 (8)	252 (98.8)	1.66	1.239
b) Capacity building regulations	3 (1)	10 (4)	13 (5)	115 (45)	115 (45)	255 (100)	4.29	0.820
c) Capacity building methods	0 (0)	0 (0)	5 (2)	87 (34)	163 (64)	255 (100)	4.62	0.528
d) Capacity building approaches	0 (0)	8 (3)	10 (4)	130 (51)	107 (42)	255 (100)	4.32	0.695
e) Competence of instructors	43 (17)	82 (32)	41 (16)	56 (22)	33 (13)	255 (100)	2.82	1.313
f) Capacity building curriculum	0 (0)	5 (2)	8 (3)	140 (55)	97 (38)	250 (98)	4.32	0.636
g) Skilled manpower	99 (39)	71 (28)	13 (5)	46 (18)	26 (10)	255 (100)	2.32	1.406
h) Capacity building tools	3 (1)	5 (2)	8 (3)	110 (43)	128 (50)	252 (98.8)	4.40	0.741
i) Exhibitions and tours	3 (1)	3 (1)	5 (2)	128 (50)	117 (46)	255 (100)	4.39	0.680
j) Field days and field visits	8 (3)	8 (3)	10 (4)	107 (42)	122 (48)	255 (100)	4.29	0.913
k) Peer-to- peer learning sessions	5 (2)	18 (7)	13 (5)	71 (28)	148 (58)	255 (100)	4.33	0.995
l) Farmer alumni groups	10 (4)	38 (15)	23 (9)	84 (33)	99 (39)	255 (100)	3.88	1.200
Composite							**3.80**	**0.930**

Descriptive results on capacity building content show 176(69%) of the respondents strongly disagreed, 41(16%) disagreed, 3(1%) were neutral, 13(5%) agreed while the 20(8%) strongly agreed. On capacity building regulations, 3(1%) strongly disagreed, 10(4%) disagreed, 13(5%) were neutral, 115(45%) agreed while 115(45%) strongly agreed. On capacity building methods, 5(2%) were neutral, 87(34%) agreed, 163(64%) strongly agreed. On capacity building approaches, 8(3%) of the respondents disagreed, 10(4%) were neutral and 130(51%) agreed, 107(42%) strongly agreed. On competence of instructors, 43(17%) of the respondents strongly disagreed, 82(32%) disagreed, 41(16%) were neutral, 56(22%) agreed, while 33(13%) strongly disagreed. On capacity building curriculum, 5(2%) disagreed, 8(3%) were neutral, 140(55%) agreed, 97(38) strongly agreed. On skilled manpower, 99(39%) strongly disagreed, 71(28%) disagreed, 13(5%) were neutral, 46(18%) agreed, while 26(10% strongly agreed.

On capacity building tools, 3(1%) strongly disagreed, 5(2%) disagreed, 8(3%) neutral, 110(43%) agreed while 128(50%) strongly agreed. On exhibitions and tours, 3(1%) of respondent strongly disagreed, 3(1%) disagreed, 5(2%) neutral 128(50%) agreed while 117(46%) strongly agreed. On field days and visits, 8(3%) strongly disagreed, 8(3%) disagreed, 10(4%) were neutral, 107(42%) agreed, while 122(48%) strongly disagreed. On peer-to-peer learning, 5(2%) of participants disagreed strongly, 18(7%) disagreed, 13(5%) were neutral, 71(28%) agreed while 148(58%) strongly agreed. On formation of alumni groups, 10(4%) strongly disagreed, 38(15%) disagreed, 23(9%) neutral, and 84(33%) agreed while 99(39%) strongly agreed.

Results show capacity building content (M=1.66, SD=1.239), agreed on capacity building regulations (M=4.29, SD=1.820), agreed on the capacity building methods (M=4.62, SD=1.582), agreed on capacity approaches (M=4.32, SD=0.695), disagreed on competence of instructors (M=2.82, SD=1.313), agreed on capacity curriculum (M=4.32, SD=0.636), disagreed on skilled manpower (M=2.32, SD=1.406), agreed on capacity building tools (M=4.40, SD=0.741), agreed on tours and exhibitions (M=4.39, SD=0.680), agreed on field days and farm visits (M=4.29, SD=0.913), agreed on peer-to-peer sessions (M=4.33, SD=0.995) and agreed on farmer alumni groups (M=3.88, SD=0.930). The composite (M=3.80, SD=0.980) implied that respondents agreed to most statements. Results show that responses were concentrated around the mean. Lower levels of standard deviation imply participants held conflicting views on capacity building reform.

4.9.1 Test of Hypothesis Three

H_0: "Capacity building reform has no influence on the performance of agricultural projects funded by the World Bank in Trans-Nzoia County",

H_1: "Capacity building reform significantly influences performance of agricultural projects funded by the World Bank in Trans-Nzoia County"

Capacity building reform is a composite of 12 indicators; capacity building content, capacity building regulations, capacity building methods, capacity approaches, the competence of instructors, capacity curriculum, capacity building tools, exhibitions and tours, field days and field visits, peer-to-peer learning sessions, farmer alumni groups. To test hypothesis, the t-statistic was used. Linear regression results on the influence of capacity building reform on the performance of agricultural projects are illustrated in Table 4.25.

Table 4.25: Linear Regression of Capacity Building Reform and Performance of Agricultural Projects

Variables Entered

Model	Variables Entered	Variables Removed	Method
3	Capacity building content, capacity building regulations, capacity building methods capacity building approaches, competence of instructors, capacity building curriculum, capacity building tools, exhibitions and tours, field days and field visits, peer-to-peer learning sessions, farmer alumni groups.	None.	Enter

a. Dependent Variable: Performance of Agricultural Projects

b. Tolerance = .000 limits reached

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
3	0.199[a]	0.139	0.148	4.7521

a. Predictors: (Constant), Capacity Building Reform

b. Dependent Variable: Performance of Agricultural Projects

Anova[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	4713.800	14	187.300	F (1,246) = 89.02***,	0.005[b]
Residual	.000	0	.		
Total	4713.800	4			

a. Predictors: (Constant), Capacity Building Reform

b. Dependent Variable: Performance of Agricultural Projects,

Coefficients[A]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.1111***	4.752	0.47	0.0231	0.0027.
Capacity Building Reform	0.0982**	0.104	1.71	0.022	
Durbin Watson			1.533		

a. Predictors: (Constant), Capacity Building Reform

b. Dependent Variable: Performance of Agricultural Projects

Results in Table 4.25 show that capacity building reform was a significant explanatory variable in the performance of agricultural projects. This is because it was found to possess statistically significant influence on performance of agricultural projects to an extent; r =0.0199, (p-value< 0.05). The β coefficient of 0.0982 means a unit increase in capacity building reform led to 9.82% increase in performance of agricultural projects. The test of hypothesis using t-statistic was found to be 0.022< 0.05). This establishes that there is significant relationship between capacity building reform and performance of agricultural projects.

Results from inferential analysis on the third objective of the study demonstrates that capacity building reform significantly influences performance of agricultural projects funded by the World Bank. From these findings, the null hypothesis of the third objective of the study is therefore rejected.

Table 4.26: Summary of Responses from Key Informant Interview on Capacity Building Reform

Question	Response
Which capacity building approaches have been adopted?	*Various approaches have been adopted. Mostly adopted ones include the peer-to-peer learning, classroom instruction and experiential learning that includes field days and agricultural shows and exhibitions. It appears most farmers are comfortable with these approaches.*
Can we quantify the exact contribution of these approaches?	*It is hard to tell the exact contribution of each of the capacity building approaches but each model seems to bear impact in one way or the other it is recognizable that each of the capacity building approaches has led to skill development*
Is peer-to peer learning a success?	*This is one approach that has been considered very impactful. Besides, farmer field days, field visits and exhibitions are considered impactful.*
Any recommendations for improvement?	*Most farmers wanted skills development through peer-to-peer learning to be scaled up.*

Table 4.27: Summary of Focus Group Discussions on Capacity Building Reform

Question	Response
Which capacity building approaches have been adopted?	*Various approaches have been adopted. Mostly adopted ones include the peer-to-peer learning, classroom instruction and experiential learning that includes field days and agricultural shows and exhibitions. It appears most farmers are comfortable with these approaches.*
Can we quantify the exact contribution of these approaches?	*It is hard to tell the exact contribution of each of the capacity building approaches but each model seems to bear impact in one way or the other it is recognizable that each of the capacity building approaches has led to skill development and personal growth. Over time, the capacities of the individual farmers have been build and farmers now appreciate each of these approaches individually.*
Is peer-to peer learning a success?	*This is one approach that has been considered very impactful. Besides, farmer field days, field visits and exhibitions are considered impactful.*
Any recommendations for improvement?	*Farmers see the need of being involved in future raining curriculum that will be tailor-made to their needs, seek for opportunities that would broaden their farming skills and provide them with learning opportunities. It appears that most farmers wanted skills development through peer-to-peer learning to be scaled up.*

4.10 Analysis of Joint Reform Interventions and Performance of Agricultural Projects

The fourth objective of the study sought to determine the joint influence of the reform interventions on the performance of agricultural projects. Available literature suggests reforms jointly and individually significantly influences the performance of projects. The analysis on this objective was through multiple regression. For every variable, a composite index was calculated and used to test the hypothesis through t-statistic. The preceding hypothesis was tested and a multiple regression model depicting the extent of the relationship between variables developed.

4.10.1 Test of Hypothesis Four

H_0: Reform interventions jointly influences performance of agricultural projects funded by the World Bank.

H_1: Joint reform interventions significantly influences performance of agricultural projects funded by the World Bank,

This study hypothesized a positive relationship between joint reform interventions (financing, marketing and capacity building) against dependent variable. Under this, the hypothesis of the study was tested using the t-statistic. The extent of relationships between variables as tested through multiple regression. This method of analysis was considered appropriate since both dependent and independent variables were measured on an interval scale. Since tests of independence and homogeneity of variance revealed that variances were equal for dependent variable. Since also the visual representation of normality was symmetrical, this distribution was adjudged to be normal hence amenable to regression tests. Inferential results obtained are shown in Table 4.28:

Table 4.28: Multiple Regression on Reform Interventions and the Performance of Agricultural Projects

Variables Entered

Model	Variables Entered	Variables Removed	Method
4	Financing Reform Marketing Reform Capacity Building Reform	None.	Enter

a. Dependent Variable: Performance of Agricultural Projects
b. Tolerance = .000 limits reached.
c. Predictors: (Constant), Financing, Marketing and Capacity Building Reforms

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
3	0.334[a]	0.212	0.585	4.740

a. Dependent Variable: Performance of Agricultural Projects
b. Predictors: (Constant), Financing, Marketing and Capacity Building Reforms

Anova[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2342.200	17	117.280	F (1,246) = 41.387***,	0.0023[b]
Residual	.000	0			
Total	2342.800	17		Durbin Watson = 1.623	

a. Predictors: (Constant), Financing, Marketing and Capacity Building Reforms

b. Dependent Variable: Performance of Agricultural Projects

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	6.713	4.740	0.71	0.222	0.0027.
Financing Reform	0.045	0.088	0.16	0.244	
Marketing Reform	0.257	0.136	1.888	0.472	
Capacity Building Reform	0.618	0.038	1.70	0.243	

a. Predictors: (Constant), Financing, Marketing and Capacity Building Reforms

b. Dependent Variable: Performance of Agricultural Projects

When reform interventions were run jointly, marketing and capacity building reforms were statistically significant, while financing reform was not statistically significant. Table 4.28 shows joint reforms significantly influence the performance of agricultural projects. This is so because they possess statistically significant traits on performance of agricultural projects to an extent; r =0.033 (p-value< 0.05). The test of hypothesis using the t-statistic showed significant levels of influence; from whose findings the null hypothesis is rejected. From the results, a multiple regression model to summarize this relationship is formulated as:

$$\boldsymbol{Y = 6.713 + 0.244X_1 + 0.472X_2 + 0.199X_3 + 0.243X_3 + e}$$

4.11 The Moderating Effect of Participatory Monitoring

To establish the moderating effect of participatory monitoring on the relationship between reform interventions and performance of agricultural projects, qualitative measurements on participatory monitoring were done, whose descriptive results are illustrated in Table 4.29:

Table 4.29: Qualitative Results on Participatory Monitoring

Statements	**SD F (%)**	**D F (%)**	**N F (%)**	**A F (%)**	**SA F (%)**	**Total F (%)**	**M**	**SD**
a) Participated in project layout	33 (13)	52 (20)	26 (10)	108 (42)	36 (14)	255 (100)	3.24	1.294
b) Participated in the pre-project design,	26 (10)	79 (31)	28 (11)	74 (29)	48 (19)	255 (100)	3.16	1.324
c) Participated in developing the monitoring framework	28 (11)	54 (21)	38 (15)	74 (29)	61 (24)	255 (100)	3.32	1.343
d) Participated in project pre-appraisal process	23 (9)	79 (31)	20 (8)	77 (30)	56 (22)	255 (100)	3.52	0.962
e) Participated in project appraisal process	8 (3)	66 (26)	20 (8)	112 (44)	48 (19)	255 (100)	3.72	1.99
f) Participated in monitoring project objectives	3 (1)	23 (9)	41 (16)	110 (43)	79 (31)	255 (100)	3.63	1.023
g) Participated in project monitoring approaches	5 (2)	46 (18)	46 (18)	128 (50)	31 (12)	255 (100)	2.32	1.406
h) Participated in developing project outputs	15 (6)	15 (6)	48 (19)	122 (48)	54 (21)	255 (100)	3.65	1.023
i) Participated in anticipating results	8 (3)	33 (13)	54 (21)	115 (45)	46 (18)	255 (100)	3.72	1.055
j) Participated in designing project monitoring instruments	20 (8)	84 (33)	38 (15)	69 (27)	43 (17)	255 (100)	3.12	1.266
k) Participated in tracking project results	23 (9)	59 (23)	33 (13)	94 (37)	46 (18)	255 (100)	3.32	1.262
l) Participated in routine project activity tracking	38 (15)	54 (21)	28 (11)	77 (30)	59 (23)	255 (100)	3.25	1.410
Composite							**3.80**	**0.930**

Results from qualitative analysis on participatory monitoring were as follows. On participation in project layout, 33(13%) respondents strongly disagreed, 52(20%) disagreed, 26 (10%) were neutral, 108(42%) agreed and 36(14%) strongly agreed. On participation in pre-project design, 26(10%) strongly disagreed, 79(31%) disagreed, 28(11%) were neutral, 74(29%) agreed, while 48(19%) strongly disagreed. On participation in developing the monitoring framework, 28(11%) strongly disagreed, 54(21%) disagreed, 38(15%) were neutral, 74(29%) agreed while 61(24%) strongly agreed. On participation in pre-appraisal process, 23(9%) strongly disagreed, 79(31%) agreed, 20(8%) were neutral, 77(30%) agreed, 56(22%) strongly agreed.

On participation in appraisal process, 8(3%) respondents strongly disagreed, 66(26%) disagreed, 20(8%) were neutral, 112(44%) agreed, 48(19%) strongly agreed. On participation in developing monitoring objectives, 3(1%) strongly disagreed, 23(9%) disagreed, 41(16%) were neutral, 110(43%) agreed, 79(31%) strongly agreed. On participation in design of monitoring approaches, 5(2%) strongly disagreed, 46(18%) disagreed, 46(18%) were neutral, 128(50%) agreed while 31(12%) strongly agreed. On participation in the design of outputs, 15(6%) strongly disagreed, 15(6%) disagreed, 48(19%) were neutral, 122(48%) agreed, 54(21%) strongly agreed. On participation in anticipating outputs, 8(3%) strongly disagreed, 33(13%) disagreed while 54(21%) were neutral, 115(45%) strongly agreed 46(18%) strongly agreed.

On participation in the design of monitoring instruments, 20(8%) strongly disagreed, 84(33%) disagreed, 38(15%) were neutral, 69(27%) agreed, 43(17%) strongly agreed. On participation in results measurement, 23(9%) respondents strongly disagreed, 19(23%) disagreed, 33(13%) were neutral, 94(37%) and 86(28%) strongly agreed. On participation in tracking outputs, 38(15) strongly disagreed while 54(21%) disagreed, 28(11%) were neutral, 77(30%) agreed and the 59(23%) strongly agreed. Results from the mean and standard deviation indicate that respondents disagreed on participation in project layout (M=3.24, SD=1.294), agreed on participation in pre-project design (M=3.16, SD=1.324), disagreed on participation in design of monitoring framework (M=3.32, SD=1.343), agreed on participation in pre-appraisal process (M=3.52, SD=0.962), agreed on appraisal process (M=3.72, SD=1.99), agreed on participation in monitoring objectives (M=3.632, SD=1.023). Respondents further disagreed on participation in designing monitoring approaches (M=3.32, SD=1.406) and agreed in participation in developing outputs (M=3.65, SD=1.023).

Descriptive results further show that respondents agreed on participation in developing anticipated results (M=3.72, SD=1.055), agreed on participation in the design of monitoring instruments (M=3.72, SD=1.266), disagreed on participation in designing results framework (M=3.32, SD=1.262) and agreed on participation in routine tracking of outputs (M=3.25, SD=1.410). Composite mean and standard deviation (M=3.80, SD=0.930) implies that participants agreed to most statements used in measuring participatory monitoring. Descriptive results also show responses were concentrated around the mean and the lower levels of standard deviation imply that participants held convergent views on participatory monitoring.

4.11.1 Test of Hypothesis Five:

H_0: The strength of the relationship between reform interventions and performance of agricultural projects is not moderated by participatory monitoring,

H_1: The strength of the relationship between reform interventions and performance of agricultural projects is moderated by participatory monitoring.

The null hypothesis was tested in a two-step stepwise regression model. Moderating effect was tested using the significance of the coefficient of the interaction term and change in R^2. A composite of joint reform interventions was first determined, then the moderating effect and the interaction term were then developed and utilized to show the extent of moderating effect. Since the study hypothesized a moderating influence by participatory monitoring on the association between the three independent variables and the dependent variable, in testing the hypothesis, moderating effect was computed by stepwise regression involving testing the influence of independent variables against the dependent variable.

Step One: Establishing Composite of Reform Interventions

A composite model to test reform interventions through a multiple regression model which had already been established in the fourth objective was revisited:

$$Y = 6.713 + 0.244X_1 + 0.472X_2 + 0.199X_3 + 0.243X_3 + e$$

The multiple regression composite for joint reforms was therefore run as shown in Table 4.30.

Table 4.30: Multiple Regression for Joint reforms

Variables Entered

Model	Variables Entered	Variables Removed	Method
3	Financing Reform Marketing Reform Capacity Building Reform	None.	Enter

Dependent Variable: Performance of Agricultural Projects

Predictors: (Constant), Financing Reform, Marketing Reform and Capacity Building Reform

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error
3	0.774[a]	0.226	0.221	4.740

Dependent Variable: Performance of Agricultural Projects

Predictors: (Constant), Financing Reform, Marketing Reform and Capacity Building Reform

Anova[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2342.200	5	117.280	F (1,246) = 41.387***,	0.053[b]
Residual	.000	0			
Total	2342.800	5			

Predictors: (Constant), Financing Reform, Marketing Reform and Capacity Building Reform

Dependent Variable: Performance of Agricultural Projects

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	6.713	4.740	0.71	0.222	0.057.
Financing Reform	0.045	0.088	0.16	0.192	
Marketing Reform	0.257	0.136	1.888	0.000	
Capacity Building Reform	0.618	0.038	1.70	0.003	

Predictors: (Constant), Financing Reform, Marketing Reform and Capacity Building Reform

Dependent Variable: Performance of Agricultural Projects

Step Two: Introduction of the Moderator Variable

The second step entailed the introduction of a moderating variable (participatory monitoring) which was examined alongside the joint reforms and the performance of agricultural projects as shown in Table 4.31

Table 4.31: Effect of the Moderator Variable

Variables Entered

Model	Variables Entered	Variables Removed	Method
4	Financing Reform Marketing Reform Capacity Building Reform Participatory Monitoring	None.	Enter

Dependent Variable: Performance of Agricultural Projects

Predictors: (Constant), Financing Reform, Marketing Reform, Capacity Building Reform and Participatory Monitoring

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error
4	0.712[a]	0.5069	0.5069	4.740

Dependent Variable: Performance of Agricultural Projects

Predictors: (Constant), Financing Reform, Marketing Reform, Capacity Building Reform and Participatory Monitoring

Anova[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2342.200	5	117.280	F (1,246) = 41.387***,	0.053[b]
Residual	.000	0			
Total	2342.200	5			

Predictors: (Constant), Financing Reform, Marketing Reform, Capacity Building Reform and Participatory Monitoring

Dependent Variable: Performance of Agricultural Projects

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	6.713	4.740	0.71	0.222	0.057.
Financing Reform		0.088	0.16	0.192	
Marketing Reform Participatory Monitoring		0.136	1.888	0.000	
Capacity Building Reform		0.038	1.70	0.003	

Predictors: (Constant), Financing, Marketing, Capacity Building & Participatory Monitoring

Dependent Variable: Performance of Agricultural Projects

Introduction of a moderator variable in the second model increased the value of R^2 from 0.221 (22.1%) to 0.5069 (50.69%). This implies that, on the introduction of the moderator variable, R^2 increases to 0.5069 (50.69%) up from 0.221(22.1%), meaning the moderator variable was responsible for an extra 28.59% variation in performance of agricultural projects. The complete model after incorporating the moderating effect is therefore summarized as:

$$\boldsymbol{Y = 6.713 + 0.244X_1 + 0.472X_2 + 0.199X_3 + 0.243X_3 + 0.2859 + e}$$

Table 4.32: Summary of Responses from Key Informants on Participatory Monitoring

Question	Response
Describe how farmers participated in project process?	
	Farmers mostly participated in designing project interventions, participated in identifying project areas of focus and participated in project budgeting process.
Were farmers satisfied with the participatory processes?	
	It appears most of participatory processes were not done to their satisfaction since there was no much time to plan and the prevailing weather conditions were not favorable at the time; it was a rainy season and many farmers were busy.
Is participation enough	*No. Other processes need to be considered too. Though participation on key farm processes are critical to boosting delivery and performance. The disenfranchisement originally associated with some participation models such as rapid rural assessment and participatory development no longer exist. Farmers are generally happy with modern trends and content of participation*
Any recommendations?	*There needs to be affirmative deliberate efforts to enhance the concept of participation in projects going forward. The principles of public participation need to be up scaled in projects so as to ensure stakeholders are involved in monitoring progress of their projects at every stage.*

Table 4.33: Summary of Focus Group Discussion on Participatory Monitoring

Question	Response
Were farmers satisfied with the participatory processes?	
	It appears most of participatory processes were not done to their satisfaction since there was no much time to plan and the prevailing weather conditions were not favorable at the time; it was a rainy season and many farmers were busy.
Is participation enough	*Not at all. Other critical processes need to be considered. Though participation on key farm processes are critical to boosting delivery and performance. The disenfranchisement originally associated with some participation models such as rapid rural assessment, and participatory rural development no longer exist. Farmers are generally happy with modern trends and content of participation*
Do farmers appreciate participatory monitoring concept?	
	Modern participatory monitoring approaches apply customized training approaches. Many development outfits now place premium on these strategies and appear widely appreciated
Any recommendations?	
	There needs to be affirmative deliberate efforts to enhance the concept of participation in projects going forward. The principles of public participation need to be up scaled in projects so as to ensure stakeholders are involved in monitoring progress of their projects at every stage. Effective tracking of project results will largely depend on the extent of involving stakeholders and end-users in monitoring these processes

Results from key informant interviews and focus group discussions were useful in triangulating quantitative findings. In most instances qualitative findings mirrored the results from inferential analysis. It is therefore safe to conclude reform interventions as modelled by the World Bank indeed influenced performance of agricultural projects. Participatory monitoring, as a concept was found to be well-internalized into project execution.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter has a summary of findings, conclusions and recommendations. Summary of findings was organized according to objectives of the study. The conclusions and recommendations were informed by the analysis, interpretation and discussion on the themes of study. Based on the conclusions, the theoretical implications of the study to policy, practice and methodology were derived. The chapter has recommendations on how greater impact can be achieved by applying participatory monitoring as a practice in projects. The chapter also contains suggestions for further research.

5.2 Summary of Findings

This study sought to establish the moderating influence of participatory monitoring on the relationship between reform interventions and performance of agricultural projects funded by World Bank in Trans-Nzoia County. The study achieved this through five study hypothesis that include; (H_1): financing reform significantly influences the performance of agricultural projects funded by the World Bank; (H_2): marketing reform significantly influences the performance of agricultural projects funded by World Bank; (H_3): capacity building reform significantly influences performance of agricultural projects funded by the World Bank; (H_4): joint reform interventions significantly influences performance of agricultural projects funded by the World Bank and (H_5); the strength of the relationship between reform the interventions and performance of agricultural projects funded by the World Bank is moderated by participatory monitoring.

The researcher utilized the descriptive survey design as supported by mixed-methods approach in examining the perceived relationships between predictor variables (reform interventions) and the dependent variable. In order to examine the moderating effect of participatory monitoring, the researcher sought to understand the extent to which respondents in ongoing projects participated in various monitoring activities starting from design of the project, to implementation as well as reflection. Using correlation, it was established, their existed significant and positive correlation between the three reform interventions and performance of agricultural projects as conceptualized in the World Bank interventions.

Results show that a correlation coefficient of 0.234 existed between financing reform and performance of agricultural projects, meaning unit increase in financing reform led to an increase in performance of agricultural projects by 23.4%. The findings also show there was a correlation coefficient of 0.287 between marketing reform and the performance of agricultural projects; meaning a unit increase in marketing reform increased performance of agricultural projects by 28.7%. Further, results also show a correlation coefficient of 0.038 between capacity building reform and the performance of agricultural projects; implying that a unit increase in capacity building reform led to 3.8% increase in the performance of agricultural projects.

Using linear regression and t-statistic, it was established that there was a significant relationship between financing reform and performance of agricultural projects by r =0.0244 (p-value< 0.05); there is a significant positive influence between marketing reform and performance of agricultural projects r =0.0472 (p-value< 0.05); there exists a significant positive relationship between capacity building reform and performance of agricultural projects r =0.199 (p-value< 0.05). Through multiple regression, it was established the extent of relationship between variables of the study is summarized as; $Y = 6.713 + 0.244X_1 + 0.472X_2 + 0.199X_3 + 0.243X_3 + 0.2859 + e$. Using significance of the coefficient of the interaction term and change in R^2, the moderating effect was found to be responsible for 28.59% variation in the performance of the agricultural projects as conceptualized by the World Bank.

5.3 Conclusions

Conclusions in this study were drawn in line with the study objectives that were tested in response to validating or refuting the knowledge claims on parameters under study. Conclusions deduced are organized according to objectives of the study and the study hypothesis. The dependent variable was measured by following indicators; satisfactory production, prescribed quality, anticipated profit, satisfactory income, produce safety, post-harvest security, productive capacity, positive feedback, surplus production, stable producer prices, encouraged farmers and post-harvest safety. By interrogating the four theories anchoring this study, namely; the theory of change, the outcomes theory, responsive-constructivist evaluation theory and empowerment theory whose relationship with participatory monitoring practice was holistically, this therefore grounds this study as a theory-based research

The theory of change is the main theory underpinning this study and is critical in the expansion of philanthropy and initiatives such as rural development. The theory maps backwards by supporting the identification of preconditions for change processes in projects by outlining causal linkages in interventions. The theory supports building blocks required to bring about change and show how long term goals can be reached. The theory of change postulates that participants in a project intervention need to be clear about the indicators and in formulating action plans. It theory underscores the role of periodic monitoring in project performance and not only help in determining the change process but also brings out the pertinent distinctions between the desired and actual outcomes.

Responsive-constructivist evaluation theory which anchors participatory monitoring is critical in measuring project outcomes as it postulates that participatory monitoring efforts must attempt to be approachable to the apprehensions and issues voiced by the stakeholders in their own terms. That results in a participatory model must point to the problems inherent from the previous generation of assessors, such as policy making, ethical imperfections and inconsistent deductions. The theory lays blame for failure of many projects on non-utilization of participatory processes in programmes. The theory recognizes the role played by feedback in monitoring and provision of multiple reports in suitable forms.

Outcomes theory was applied to anchor the results measurement and the process of achieving outcomes in projects. Outcomes theory focuses on prioritizing participatory approaches, holds parties to account and facilitates planning. The theory is related to concepts like strategic planning, management by results, results-based management. Outcomes theory underscores the need for interactions in interventions for betterment of results. The theory has a subset of interventions where projects could work to produce results. Empowerment theory highlighted in this study is linked to community participatory processes and is considered a critical reflective tool useful in facilitating access to resources and power for the underprivileged.

The first objective of this study sought to examine the influence of financing reform on the performance of agricultural projects funded by the World Bank. Descriptive results showed the majority of respondents concurred to a high extent that credit procedures had reduced, collateral options had diversified and credit to farmers is

more structured, more institutions were offering credit, cost of credit was manageable, knowledge of credit had increased and repayment capacity been enhanced as a result of these reform. Respondents also cited to a great extent that credit regulations were much simpler, the credit process had become more flexible, repayment processes and regulations governing credit simplified and the interest rates had become flexible. Respondents cited to a moderate extent that knowledge on credit had expanded and loan repayment capacities had increased. Inferential statistics also demonstrated that financing reform had largely taken root in the field of agriculture and greatly impacted productivity at farm level.

The second objective sought to assess influence of marketing reform on performance of agricultural projects funded by the World Bank. Results from descriptive analysis shows most of participants agreed that market demographics had improved, market access had expanded and market regulations enacted due to the projects had improved credit access. Respondents cited to some extent that marketing architecture was good, market intelligence had improved and market composition had expanded. Respondents also cited to a moderate extent that marketing structures were better and digitization of markets had taken root. Qualitative findings obtained also corroborated the inferential results and demonstrated that market reforms implemented were influential to the performance of agricultural projects.

The third objective sought to establish the influence of capacity building reform on the performance of agricultural projects funded by the World Bank. Qualitative results on capacity building reform revealed that participants agreed to a very high extent that the training content, capacity regulations, training methods, competence of instructors and peer-to-peer learning sessions greatly influenced performance of agricultural projects. Respondents also cited to a great extent that the training curriculum, skilled manpower and capacity building tools influenced performance. Respondents cited to a moderate extent that farm exhibitions were good capacity building approaches. However, a few respondents cited to a low extent that farmer alumni groups were helpful. From the inferential statistics, marketing reform in this study is demonstrated to be influential on the performance of projects.

The fourth objective sought to determine the joint influence of reform interventions on the performance of agricultural projects funded by the World Bank. Descriptive results

from indicators measuring the three reform interventions (financing, marketing and capacity building) demonstrates that majority of respondents concurred that reforms jointly influenced the performance of agricultural projects. Inferential statistics also showed that the reform interventions jointly influenced the performance of agricultural projects. Marketing and capacity building reforms were found to have the highest level of influence. A multiple regression model to show the extent of this relationship was therefore formulated.

The fifth objective sought to establish the moderating influence of participatory monitoring on the relationship between reform interventions and the performance of agricultural projects funded by the World Bank. Descriptive results show majority of the respondents interviewed concurred that they participated in project pre-appraisal, appraisal, developing project monitoring objectives, developing project outputs and in developing anticipated outcomes. Respondents also cited to some extent that they participated in developing project layout, participated in tracking project results and participated in routine project activity tracking.

Respondents cited albeit to a less extent that they participated in the design of the project monitoring instruments and participated in pre-project design. Using inferential statistics, the moderating effect was demonstrated using significance of the coefficient of the interaction term and change in R^2. A model comprising a composite of reforms, the moderating variable and the interaction term were developed to show the extent of the moderation. Inferential results obtained on this variable were in consonance with the descriptive results.

5.4 Contribution to Knowledge

Contribution of this study to knowledge and growth of project management discipline is summarized in Table 5.1.

Table 5.1: Contribution of the Study to Knowledge

Objective	Findings	Conclusion	Contribution to Knowledge
Examine the influence of financing reform on the performance of agricultural projects funded by the World Bank	Financing reform has an influence on the performance of agricultural projects in Trans-Nzoia County to an extent of r =0.0244 (p-value< 0.01),	Financing reform had a statistically significant influence on the performance of agricultural projects	The study empirically proved the influence of financing reform on performance of agricultural projects. No prior documented study
Assess the influence of marketing reform on the performance of agricultural projects funded by the World Bank	Marketing reform has an influence on performance of agricultural projects in Trans-Nzoia County to an extent of r =0.0472 (p-value< 0.01)	Marketing reform had a statistically significant influence on the performance of agricultural projects	The study empirically proved the influence of marketing reform on performance of agricultural projects.
Establish the influence of capacity building reform on the performance of agricultural projects funded by the World Bank	Capacity building reform has an influence on the performance of agricultural projects in Trans-Nzoia County to an extent r =0.0199, (p-value< 0.01)	Capacity building reform had a statistically significant influence on the performance of agricultural projects	The study empirically proved the influence of capacity building reform on the performance of agricultural projects.
Determine the joint influence of reform interventions on the performance of agricultural projects funded by the World Bank	Joint reforms have an influence on the performance of agricultural projects in Trans-Nzoia County through a model $Y = 6.713 + 0.244X_1 + 0.472X_2 + 0.199X_3 + 0.243X_3 + 0.2859 + e$	Joint reforms have a statistically significant influence on the performance of agricultural projects	Study empirically proved the influence of joint reforms on the performance of agricultural projects. No documented study done in this field before
Establish the moderating influence of participatory monitoring on relationship between reform interventions and performance of agricultural projects funded by the World Bank.	Participatory monitoring has a moderating influence on the relationship between reforms and the performance of projects. Moderator variable was responsible for 28.59% variation in project performance	Participatory monitoring had a statistically significant influence on the performance of agricultural projects	The study empirically proved the moderating influence of participatory monitoring on the relationship between reforms and performance of agricultural projects.

5.5 Recommendations

Recommendations from this study are made in context of theory, policy, practice and the study methodology.

5.5.1 Recommendations for Theory

This study revealed statistically significant and positive relationships between the key variables. This means theory of participatory monitoring is enriched from academic stand-point. The study provides documented analysis and gives response to the critical questions on the trustworthiness and utilization of participatory monitoring in projects. The study therefore gives credence to the principle of stakeholder participation in monitoring of development projects. This therefore enriches the participant-centered model. Stakeholder participation has been scrutinized by many authors such as; Burton et al., (2006) and Abbot and Guijt, (2008). Lack of an accepted study on participation backed by empirical evidence therefore undermined the utilization of participatory approaches in projects across development spectrum. Furthermore, the study findings are consistent with theories underpinning participatory approaches.

5.5.2 Recommendations for Policy

Given the magnitude of this study, it portends huge implications in terms of policy and legal reform in project environment and public participation. The empirical evidence demonstrated here supports aspirations promulgated in the 2010 Constitution of Kenya that underscores the tenets of public participation; a form of stakeholder participation in public finance management. The Kenyan government, especially the legislative arm will find the arguments in this study useful and perhaps use them to redefine the threshold of public participation in the context of stakeholder engagement based on the empirical juxtaposition contained herein.

Findings from this study show that reform interventions under study have an influence on performance of agricultural projects. This therefore means efforts to improve the value chain in terms of financing, marketing and capacity building will henceforth need to be grounded on theoretical positioning. These findings provide quantifiable evidence upon which policymakers can make policies grounded on evidence. In this context, this study therefore will support research-based policy making, grounded on empirical evidence.

Research findings indicate statistically significant moderating effect by participatory monitoring on the relationship between reform interventions and the performance of agricultural projects. Knowing that project monitoring is perceived to be a role of project managers and a team of experts, the finding of the study present a paradigm shift in this thinking. This means, future policies needs to originate from stakeholder engagements with teams of beneficiaries. The study therefore amplifies the need for stakeholder participation in policy formulation.

5.5.3 Recommendations for Practice

The study findings give an indication that the performance of projects is influenced by many elements. Findings in this study were unequivocal that participatory monitoring moderated the interplay between the reform interventions and performance of projects. These results have a huge bearing on project management. Public and private project implementation entities therefore need to embrace this concept for the effective project execution and better results. Project managers should therefore embrace participatory approaches in results measurement and routine tracking of progress. This study has underscored the ideals of participation in projects work and therefore elevated them. Data obtained will support the various project management approaches and therefore ground the theory of project management. Findings from this study therefore helps to bridge the gap between the theory and practice of project management.

Findings from this study show importance of stakeholder involvement in the execution of programmes. Through the study, various elements of participatory monitoring have been documented. They include; participation in layout, participation in developing the results framework, participation in designing outputs, participation in the design of monitoring instruments, participation in routine results measurement and participation in project reporting. Each of these elements impacts project management as a practice. The study findings therefore provide an insight on how participatory monitoring can be inculcated in wider result measurement agenda in order to boost the performance of projects and programmes. The study places participatory monitoring at the core of the results measurement agenda and shows the importance of participation by stakeholders in pre-feasibility, feasibility and ex-ante monitoring (Crawford and Bryce, 2003). Through this study, the concept of participatory monitoring in projects has therefore been accounted for.

5.5.4 Recommendations of the Study on the Methodology

This study adopted pragmatic paradigm to support mixed-methods research. The study adopted the principles of descriptive survey design under the mixed-mode approach. Data was collected using structured questionnaire, key informants and focus group discussions. Collected data was analyzed through descriptive statistics, linear, multiple and stepwise regression. Hypothesis testing was undertaken by t-statistics. A departure from most of other studies of this magnitude was that the researcher tested hypothesis using data from a composite of items. Advantage of this approach is, the researcher was able to isolate individual items and determined their statistical significance separately without generalizing. Again, this approach provided detailed information on each of the variables under study. Using mixed-mode approach, the researcher was able to correlate results achieved making triangulation of data from both descriptive and inferential statistics possible.

5.6 Suggestions for Further Research

Arising from the implications and limitations of the study, the recommendations for further research are made. While this study found participatory monitoring moderated the relationship between reform interventions and performance of agricultural projects, it presented rich prospects for future research. Much as the study confirmed individual reform interventions influenced the performance of agricultural projects to a certain extent, perhaps another research to examine other reform packages outside this sphere could be done. Whereas the Bretton Woods institutions recommended many reforms, a handful of these reforms have thoroughly been investigated. Other funding agencies in the development sphere have adopted other reform packages that could be examined as well, using the approach adopted here.

Given that this study focused on the moderating influence of participatory monitoring on the relationship between three reform interventions and performance of agricultural projects, similar studies could be done on other variables that could possibly moderate such a relationship. Variables such as operational procedures, project environment and project evaluation could be used as a moderator variable in a similar study. Finally, a similar study could also be replicated in a developing country with similar conditions to Kenya to determine if the same results would be obtained.

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APPENDIX I

LETTER OF TRANSMITTAL OF DATA COLLECTION INSTRUMENTS

Peter W. Makokha,
P.O Box 50708-00100
Nairobi,

18th February, 2016

Dear Respondent,

RE: REQUEST FOR INFORMATION

I am a Ph.D. student at the University of Nairobi conducting research on "*Reform Interventions, Participatory Monitoring and Performance of Agricultural Projects Funded by the World Bank in Trans-Nzoia County, Kenya."*

You have been selected as one of the respondents to assist in providing the requisite data and pertinent information for this research. I kindly request you to spare time and answer the attached questionnaire. The information you shall offer will be used for academic purposes only. Kindly note that your identity will be kept in confidence. Do not append your name anywhere on this questionnaire.

Kindly respond to all questions in the questionnaire with utmost honesty. If you have any questions, kindly contact the undersigned.

Yours Sincerely,

Makokha Wanyama Peter
Cell phone: 0722254941

APPENDIX II

QUESTIONNAIRE FOR FARMERS

This questionnaire is designed to gather information regarding the moderating influence of participatory monitoring on the relationship between reform interventions and performance of agricultural projects in Trans-Nzoia County. Kindly respond to all questions as appropriate. Your identity is kept in utmost confidence.

Date…… Project Name…...…..……

Location…… ……. Mobile Number ……

SECTION A: Demographic Characteristics of Respondents

1.0 Bio-Data

Questions	**Codes**	**Response**
1.1 Gender of Respondent	1=Female; 2= Male	
1.2 Age of Respondent	Below 20 1=20-25 2=26-30 3=31-35 4=36-40 5=Above 40	
1.3 Highest Level of Education	1= No Formal Education 2=Primary School Level 3=Secondary School Level 4= Certificate Level 5=Diploma Level 6=Degree Level 7= Others (Specify)	
1.4 Literacy of Respondent	1=Can Read 2=Can Write 3=Can Read and Write 4=None of the Above	
1.5 Primary Farming Occupation	1=Maize Farmer 2=Livestock Farmer 3=Crop's Farmer 3=Grain Trader 4=Livestock Marketer 5= Horticultural Trader 6=Bee Keeper 7= Others (Specify)	
1.6 Name of project supporting your farming activities	1=**KAPAP** 2=**KASLMP**	
1.7 Number of years you were supported by this project	1= Below 1 year 2=Between 2-5 years 3=Between 5-8 years 4=Above 8 years	

SECTION B: Financing Reform

2. To what extent has your project (KAPAP/KASLMP) contributed to the following processes? Select one option using the following measurement scale:

5=Strongly Agree, (SA)

4=Agree, (A)

3=Neutral, (N)

2=Disagree (D)

1= Strongly Disagree (SD)

	Statement	5	4	3	2	1
2.1	Enhanced credit procedures					
2.2	Reduced collateral options					
2.3	Simplified credit structure					
2.4	Eased credit regulations					
2.5	Digitized credit acquisition process					
2.6	Enhanced credit flexibility					
2.7	Simplified repayment regulations					
2.8	Reduced interest rates					
2.9	Increased credit institutions					
2.10	Reduced the cost of credit					
2.11	Expanded knowledge on credit					
2.12	Broadened the repayment capacity					

SECTION C: Marketing Reform

3. To what extent has the projects (KAPAP/KASLMP) contributed to the following market and marketing processes? Select one option using the following measurement scale:

5=Strongly Agree, (SA)

4=Agree, (A)

3=Neutral, (N)

2=Disagree (D)

1= Strongly Disagree (SD)

	Statement	5	4	3	2	1
3.1	Market demographics					
3.2	Access to markets					
3.3	Marketing regulations					
3.4	Marketing architecture					
3.5	Market intelligence					
3.6	Market composition					
3.7	More marketing structures					
3.8	Digitization of commodity marketing					
3.9	Expanding of marketing space					
3.10	Marketing groups and associations					
3.11	Bulk marketing					
3.12	More complex markets					

SECTION D: Capacity Building Reform

4.0. To what extent has the programme impacted on the following capacity building parameters? Select one option using the following measurement scale:

5=Strongly Agree, (SA)

4=Agree, (A)

3=Neutral, (N)

2=Disagree (D)

1= Strongly Disagree (SD)

	Statement	5	4	3	2	1
4.1	Training content					
4.2	Capacity building regulations					
4.3	Capacity building methods					
4.4	Capacity building approaches					
4.5	Competence of instructors					
4.6	Capacity building curriculum					
4.7	Skilled manpower					
4.8	Capacity building tools					
4.9	Exhibitions and tours					
4.10	Field days and field visits					
4.11	Peer-to-peer learning sessions					
4.12	Farmer alumni groups					

SECTION E: Participatory Monitoring

5.0 To what extent did you participate in the following monitoring approaches. Select one option using the following measurement scale:

5=Very highly,

4=Highly,

3=Neutral, (N)

2=Low

1= Very low

	Processes	**5**	**4**	**3**	**2**	**1**
5.1	Participated in project layout					
5.2	Participated in the pre-project design					
5.3	Participated in developing the monitoring framework					
5.4	Participated in project pre-appraisal process					
5.5	Participated in project appraisal process					
5.6	Participated in monitoring project objectives					
5.7	Participated in developing project monitoring approaches					
5.8	Participated in developing the project outputs					
5.9	Participated in developing anticipated outcomes					
5.10	Participated in the design of project monitoring instruments					
5.11	Participated in tracking project results					
5.12	Participated in routine project activity tracking					

SECTION F: Performance of Agricultural Projects

6.0 This project (KAPAP/KASLMP) has led to the achievement of the following performance parameters. Select one option using the following measurement scale:

5=Strongly Agree, (SA)

4=Agree, (A)

3=Neutral, (N)

2=Disagree (D)

1= Strongly Disagree (SD)

	Statement	**5**	**4**	**3**	**2**	**1**
6.1	Satisfactory production					
6.2	Prescribed produce quality					
6.3	Surplus production					
6.4	Anticipated profits					
6.5	Satisfactory income					
6.6	Produce safety					
6.7	Post-harvest security					
6.8	Productive capacity					
6.9	Positive feedback					
6.10	Stable produce prices					
6.11	Encouraged farmers					
6.12	Post-harvest safety					

Thank You

APPENDIX III

KEY INFORMANT INTERVIEW GUIDE FOR AGRICULTURE EXTENSION OFFICIALS

Discussion Topic	Key Concepts to be explored	Guiding Questions
Introduction	a) Gauge level of exposure b) Set climate for interaction	*i. How long have you worked in this County?* *ii. How do you rate the performance of this County government?* *iii. Is the World Bank strategy in agriculture a step in the right direction?*
Knowledge about project performance	c) General understanding about project performance parameters	*i. Are these reforms understood and appreciated?* *ii. What specific performance parameters do farmers understand?*
Knowledge about participatory monitoring practices	d) What is the contribution on participatory monitoring to project performance? e) Are these participatory monitoring approaches understood by government officials? f) Is participatory monitoring sufficient?	i. *Does participatory monitoring as applied, lead to efficiency and effectiveness*? ii. *What is the exact contribution of participatory monitoring on the delivery of project outcomes?* iii. *Are these participatory options the best bet for agricultural-based interventions particularly in Kenya?* *iv. What's the worth of participation?*
Knowledge about financing reform	g) Do farmers understand different financing reforms adopted h) Have these interventions led to general improvement in productivity in Trans-Nzoia County?	*i. What is the contribution of these financing reform to betterment of agricultural processes?* *ii. Is the financing reform inbuilt in project processes?* *iii. Are farmers better with these interventions?*

Knowledge about marketing reform	i) Do farmers understand different marketing reforms adopted j) Have these marketing reforms led to general improvement in productivity in Trans-Nzoia County?	*i. What is the contribution of these marketing reform to betterment of agricultural processes?* *ii. Are the marketing reforms inbuilt in project processes?* *iii. Are farmers better with these reform interventions?* *iv. Do farmers have any general recommendations on how to improve marketing approaches?*
Knowledge about Capacity building reform	k) Do farmers understand different capacity building approaches utilized by the two projects? l) Have these capacity building approaches led to any improvement in productivity in Trans-Nzoia County?	*i. What is the contribution of these capacity building reform to betterment of agricultural processes?* *ii. Is capacity building reform inbuilt in project processes?* *iii. Are farmers better with these reform interventions?* *iv. Do farmers have any general recommendations on how to improve capacity building approaches?*

APPENDIX IV
FOCUS GROUP DISCUSSION GUIDE FOR PROJECT MANAGEMENT UNIT STAFF

Discussion Topic	Key Concepts to be explored	Guiding Questions
Knowledge about project performance	a) General understanding about project performance parameters	*i. Are these reforms understood and appreciated?* *ii. What specific performance parameters do farmers understand?*
Knowledge about participatory monitoring practices	b) What is the contribution on participatory monitoring to project performance? c) Are participatory monitoring approaches understood by government officials? d) Is participatory monitoring sufficient?	i. *Does participatory monitoring as applied, lead to efficiency and effectiveness*? ii. *What is the exact contribution of participatory monitoring on the delivery of project outcomes?* iii. *Are these participatory options the best bet for agricultural-based interventions particularly in Kenya?* *iv. What the worth of participatory processes is as applied?*
Knowledge about financing reform	e) Do farmers understand different financing reforms adopted f) Have these interventions led to general improvement in productivity in Trans-Nzoia County?	*i. What is the contribution of these financing reform to betterment of agricultural processes?* *ii. Is the financing reform inbuilt in project processes?* *iii. Are farmers better with these reform interventions?*
Knowledge about marketing reform	g) Do farmers understand different marketing reforms adopted h) Have these marketing reforms led to general improvement in productivity in Trans-Nzoia County?	*v. What is the contribution of these marketing reform to betterment of agricultural processes?* *vi. Are the marketing reforms inbuilt in project processes?* *vii. Are farmers better with these reforms?* *viii. Do farmers have any*

		general recommendations on how to improve marketing approaches?
Knowledge about Capacity building reform	i) Do farmers understand different capacity building approaches utilized by the two projects? j) Have these capacity building approaches led to any improvement in productivity in Trans-Nzoia County?	*i. What is the contribution of these capacity building reform to betterment of agricultural processes?* *ii. Is the capacity building reform inbuilt in project processes?* *iii. Are farmers better with these reform interventions?* *iv. Do farmers have any general recommendations on how to improve capacity building approaches?*

APPENDIX V

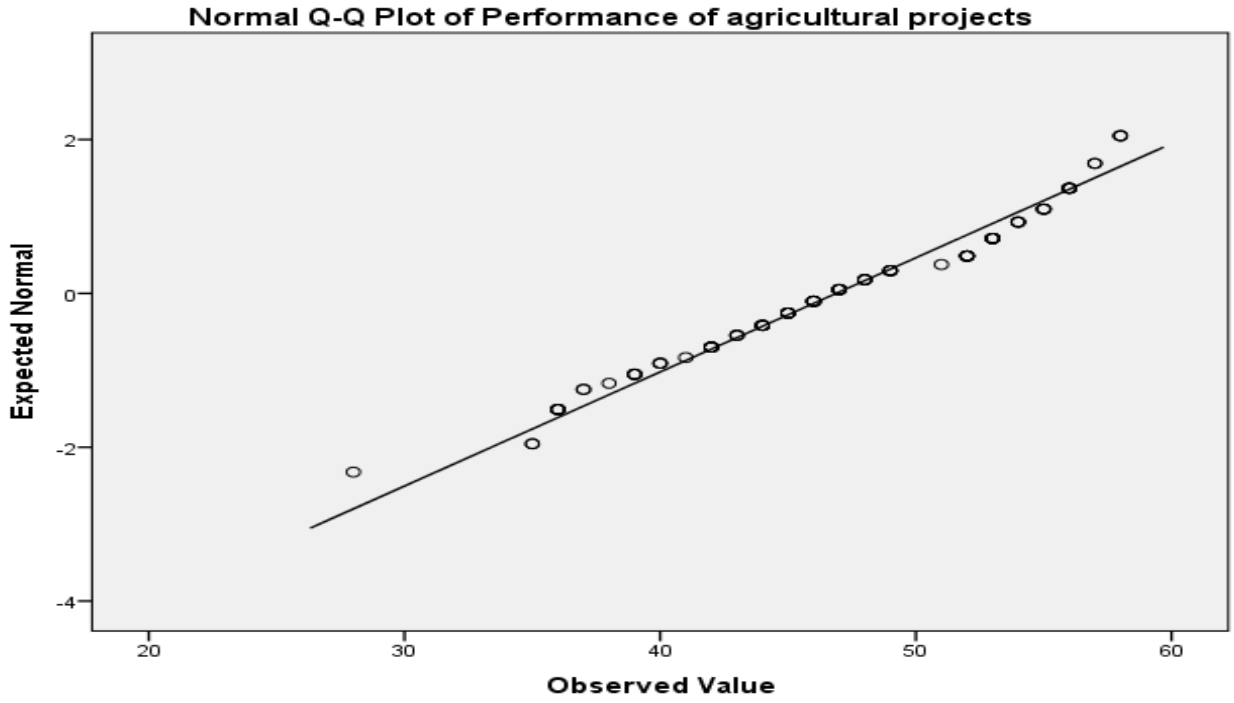
DEMOGRAPHIC DISTRIBUTION OF RESPONDENTS IN SUB-COUNTIES

SUB-COUNTY	NUMBER OF RESPONDENTS	
Kwanza Sub-County	Kapomboi	44
	Kwanza	45
	Keiyo	40
	Bidii	19
	Subtotal	**121**
Cherangany Sub-County	Suwerwa	30
	Kiptororo	25
	Makutano	22
	Sinyerere	20
	Sitatunga	33
	Subtotal	**120**
Endebess Sub-County	Kenya seed	21
	ADC	45
	Mumia	40
	Endebess	15
	Subtotal	**111**
Central Sub-County	Hospital	15
	Kibomet	10
	Kipsongo	14
	Lessos	17
	Masaba	12
	Milimani	19
	Sokoni	18
	Tuwani	22
	Webuye	15
	Subtotal	**129**
Kaplamai Sub-County	Kaplamai	44
	Motosiet	40
	Bidii	17
	Subtotal	**101**
Kiminini Sub-County	Matisi	25
	Kisawai	20
	Kiminini	33
	Market	15
	Makhonge	19
	Subtotal	**102**
Saboti Sub-County	Hospital	45
	Kiyoro	38
	Machewa	34
	Waitaluk	29
	Sub-total	**116**
Extension Staff		10
Project Officials		5
Total		**815**

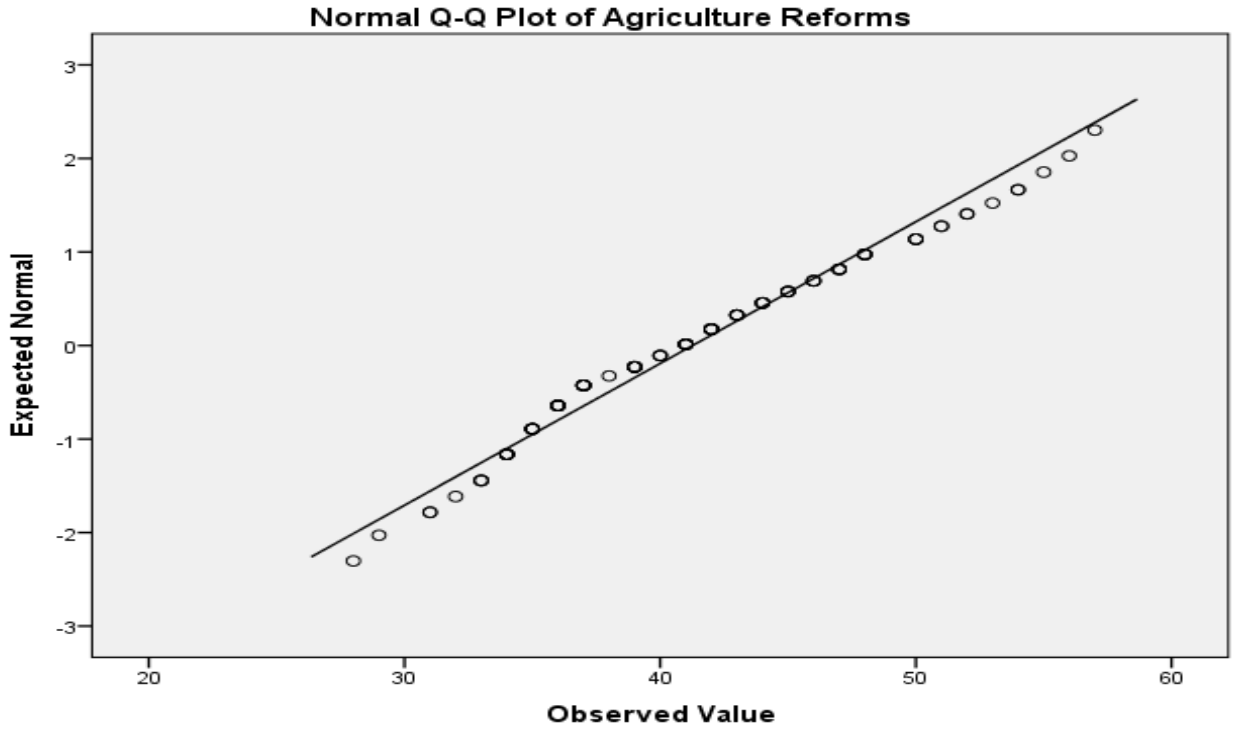
APPENDIX VI

PLOTS FOR NORMALITY TESTS

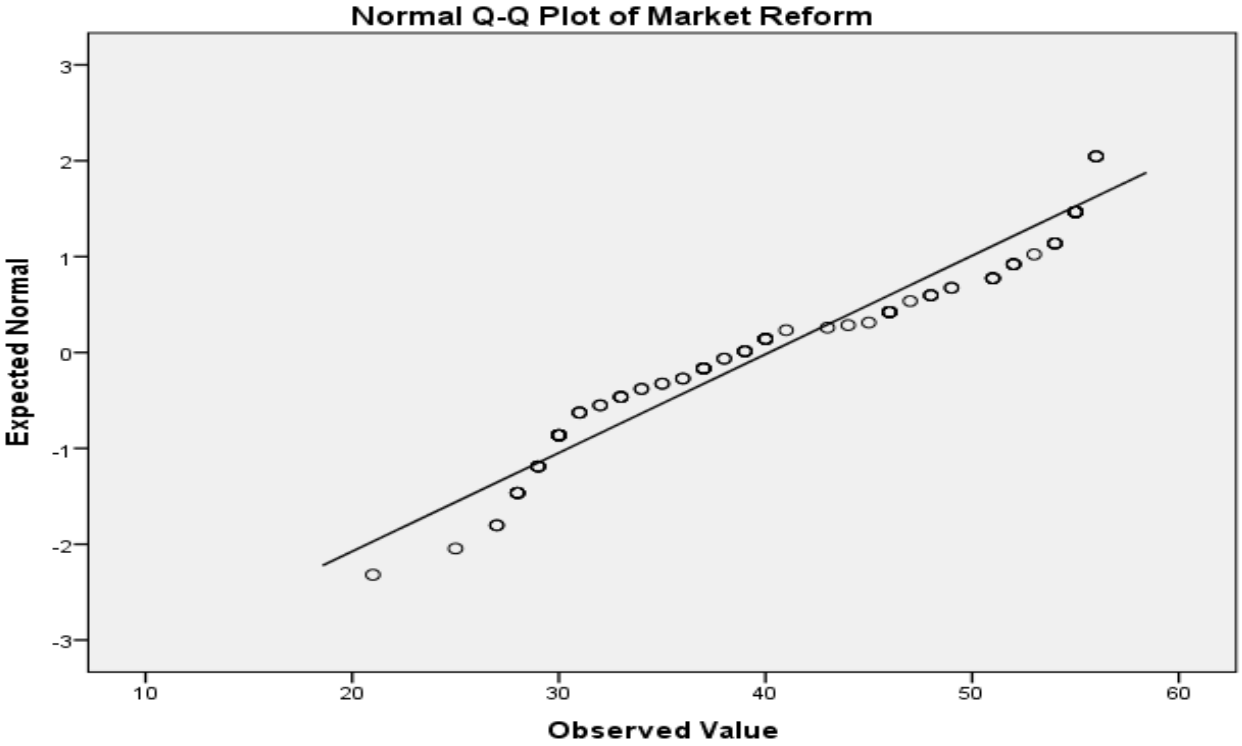
1. Performance of Agricultural Projects



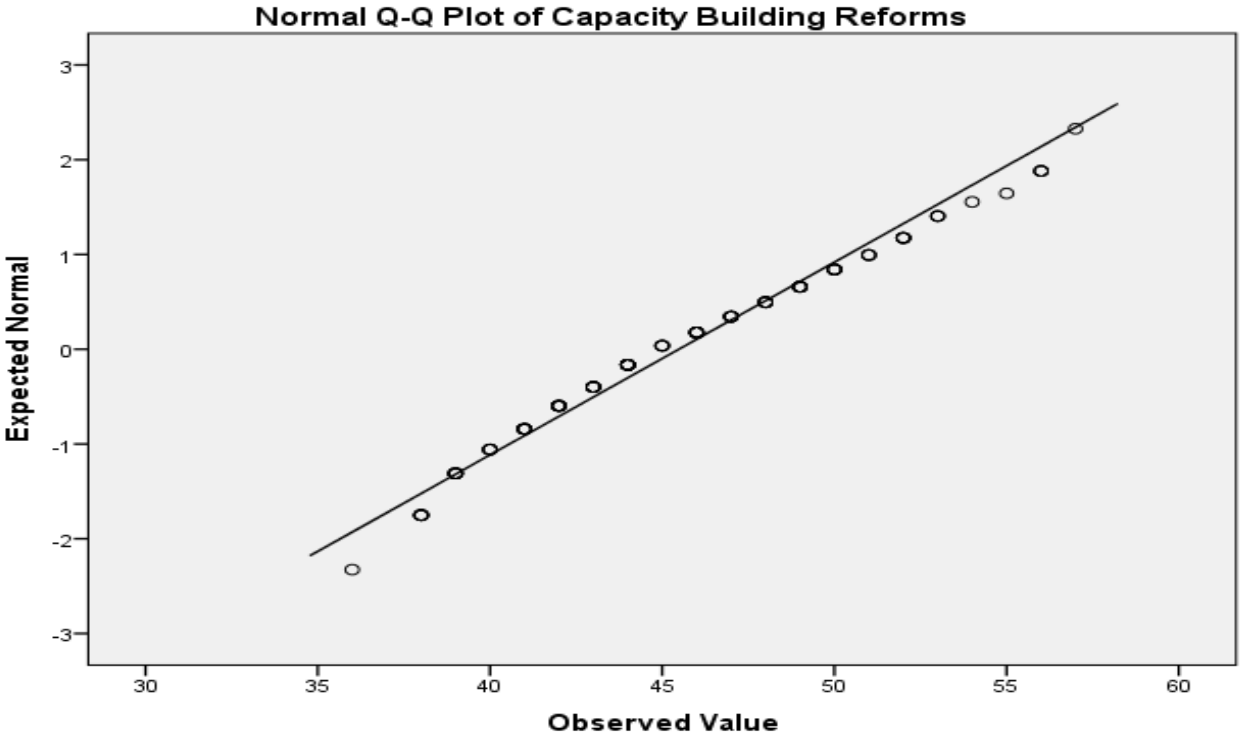
2. Financing Reform



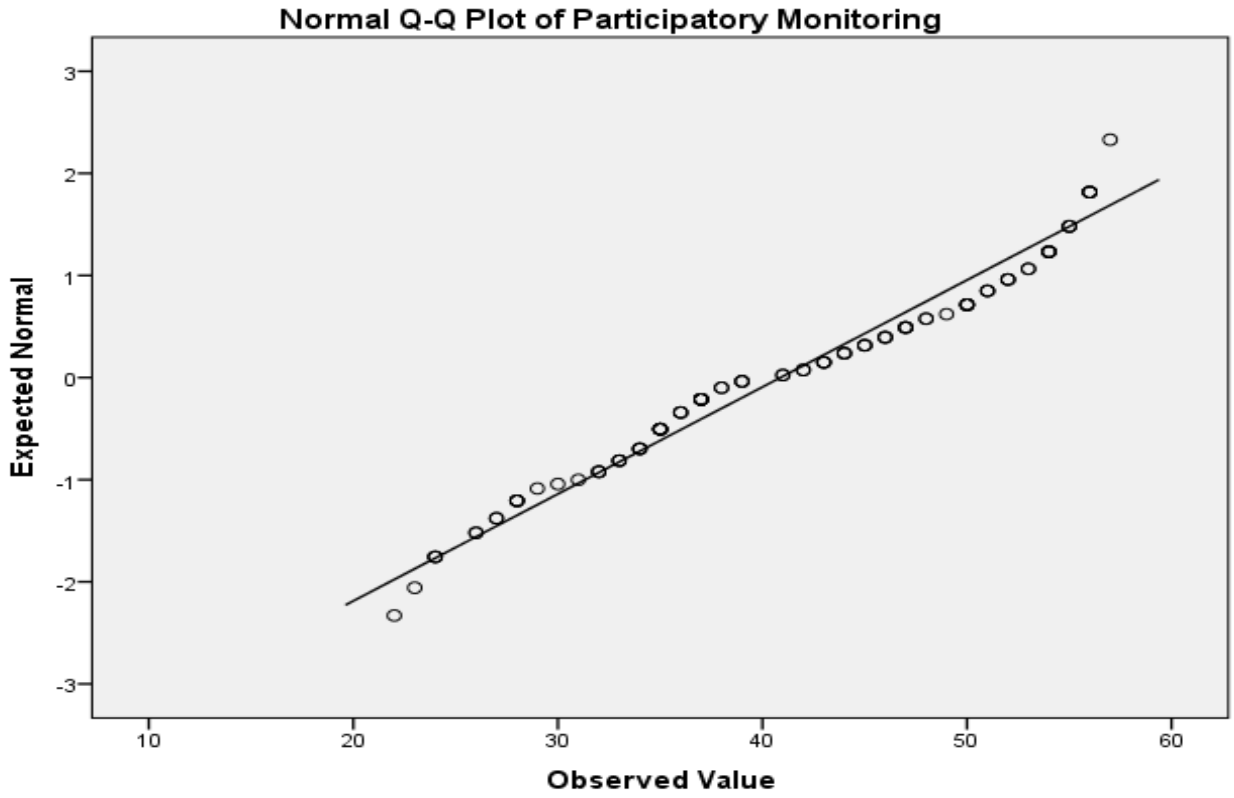
3. Marketing Reform



4. Capacity Building Reform



5. Participatory Monitoring



APPENDIX VII

RELIABILITY TESTS

1. Reliability Tests for Performance of Agricultural Projects

Reliability Statistics		Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Cronbach's Alpha	No of Items					
0.841	**12**					
Satisfactory production		42.64	39.861	0.498	0.517	0.83
Prescribed produce quality		42.77	41.274	0.393	0.321	0.836
Surplus production		42.76	38.166	0.665	0.647	0.819
Anticipated profits		42.92	39.849	0.544	0.531	0.827
Satisfactory income		42.8	40.02	0.528	0.394	0.828
Produce safety		43.06	34.945	0.722	0.668	0.81
Post-harvest security		42.8	37.958	0.696	0.591	0.817
Productive capacity		42.9	41.103	0.374	0.3	0.837
Positive feedback		42.71	39.464	0.579	0.412	0.825
Stable produce prices		43.93	35.799	0.422	0.347	0.847
Encouraged farmers		42.83	38.763	0.547	0.364	0.826
Post-harvest safety		43.55	37.281	0.406	0.321	0.843

2. Reliability Test for Participatory Monitoring

Reliability Statistics		Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Cronbach's Alpha	No. of Items					
0.882	**12**					
Participated in project layout		37.67	81.092	0.365	0.512	0.886
Participated in the pre-project design		37.75	74.896	0.638	0.674	0.869
Participated in developing the monitoring framework		37.56	72.835	0.718	0.727	0.864
I participated in project pre-appraisal process		37.67	73.213	0.707	0.693	0.865
Participated in project appraisal process		37.41	76.669	0.648	0.572	0.869
Participated in monitoring project objectives		36.94	79.794	0.607	0.526	0.872
Participated in project monitoring approaches		37.32	82.503	0.422	0.51	0.881
Participated in developing the project outputs		37.15	77.846	0.671	0.612	0.869
Participated in design of monitoring instruments		37.26	81.265	0.491	0.477	0.877
Participated in designing project monitoring instruments		37.77	76.381	0.602	0.549	0.871
Participated in tracking project results		37.53	76.595	0.589	0.58	0.872
Participated in routine project activity tracking		37.65	75.927	0.541	0.531	0.876

3. Reliability Test for Financing Reform

Reliability Statistics		Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Cronbach's Alpha	No of Items					
0.759	**12**					
Collateral procedures		37.81	40.68	0.118	0.424	0.666
Collateral options		37.67	37.551	0.389	0.511	0.626
Credit structure		38.06	36.278	0.302	0.47	0.639
Credit regulations		37.4	39.72	0.227	0.416	0.65
Digitized credit		37.38	37.629	0.411	0.415	0.624
Credit flexibility		37.67	36.877	0.428	0.409	0.619
Repayment regulations		37.83	35.47	0.444	0.474	0.613
Interest rates		37.98	34.195	0.392	0.358	0.62
Credit institutions		37.42	40.703	0.178	0.351	0.656
Cost of credit		38.16	39.072	0.18	0.466	0.66
Knowledge on credit		38.23	37.742	0.283	0.431	0.642
Repayment capacity		38.37	36.8	0.274	0.482	0.645

4. Reliability Tests for Marketing Reform

Reliability Statistics		Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Cronbach's Alpha	No. of Items					
0.857	**12**					
Market demographics		36.91	76.481	0.567	0.551	0.844
Market accessibility		36.92	75.576	0.725	0.713	0.832
Marketing regulations		36.91	75.585	0.778	0.679	0.829
Marketing architecture		37.32	70.72	0.801	0.752	0.824
Marketing intelligence		35.72	94.161	-0.018	0.036	0.871
Market composition		36.98	77.52	0.709	0.694	0.834
Marketing structures		37.38	76.155	0.69	0.592	0.835
Market digitization		36.76	78.016	0.667	0.604	0.837
Market space		37.32	76.657	0.681	0.547	0.835
Marketing groups and associations		37.14	74.771	0.701	0.678	0.833
Bulk marketing		36.6	92.889	0.013	0.235	0.876
Marketing complexities		35.97	96.926	-0.178	0.28	0.88

5. Reliability Tests for Capacity Building Reform

Reliability Statistics		Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Cronbach's Alpha	No. of Items					
0.769	**12**					
Capacity building content		43.81	19.197	0.306	0.449	0.528
Capacity building regulations		41.21	21.087	0.321	0.289	0.532
Capacity building methods		40.88	22.108	0.357	0.421	0.539
Capacity building approaches		41.22	21.134	0.368	0.392	0.526
Competence of instructors		42.66	20.983	0.123	0.379	0.584
Capacity building curriculum		41.2	22.591	0.177	0.187	0.559
Skilled manpower		43.11	19.957	0.164	0.449	0.578
Capacity building tools		41.07	22.168	0.246	0.264	0.549
Exhibitions and tours		41.12	22.026	0.248	0.489	0.547
Field days and field visits		41.19	20.381	0.393	0.375	0.516
Peer-to-peer learning sessions		41.18	20.252	0.311	0.268	0.529
Farmer alumni groups		41.68	21.384	0.116	0.24	0.582

APPENDIX VIII

RESEARCH PERMIT

CONDITIONS

1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit
2. Government Officers will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice

REPUBLIC OF KENYA

NACOSTI

National Commission for Science, Technology and Innovation

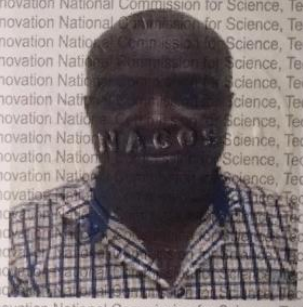
RESEARCH CLEARANCE PERMIT

Serial No. A 7848

CONDITIONS: see back page

THIS IS TO CERTIFY THAT:
MR. PETER WANYAMA MAKOKHA
of UNIVERSITY OF NAIROBI, 50708-1000
Nairobi,has been permitted to conduct
research in *Transnzoia County*
on the topic: *REFORM INTERVENTIONS, PARTICIPATORY MONITORING AND PERFORMANCE OF AGRICULTURAL PROJECTS FUNDED BY THE WORLD BANK IN TRANS NZOIA COUNTY, KENYA*
for the period ending:
17th February,2017

Permit No : NACOSTI/P/16/29085/9491
Date Of Issue : 18th February,2016
Fee Recieved :ksh 2000



Applicant's Signature

Director General
National Commission for Science, Technology & Innovation

APPENDIX IX

TABLE FOR DETERMINING SAMPLE SIZE FOR A GIVEN POPULATION

Table for Determining Sample Size for a Given Population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: "N" is population size
"S" is sample size.

Source: Krejcie & Morgan, 1970

APPENDIX X

ANTI PLAGIARISM CERTIFICATE

REFORM INTERVENTIONS, PARTICIPATORY MONITORING AND PERFOMANCE OF AGRICULTURAL PROJECTS FUNDED BY THE WORLD BANK IN TRANS-NZOIA COUNTY, KENYA

ORIGINALITY REPORT

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1	Makokha Peter Wanyama, Lydia N. Wambugu, Peter Keiyoro. "Marketing Reform Interventions in the Performance of World Bank Financed Agricultural Programmes in Trans-Nzoia County, Kenya", Journal of Sustainable Development, 2021 Publication	4%
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