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INFLUENCE OF PROJECT LIFE CYCLE ON INFORMATION AND COMMUNICATION TECHNOLOGY PROJECT PERFORMANCE IN REGULATED SAVINGS AND CREDIT COOPERATIVES

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Abstract: The project is one of the crucial functions in many organizations. Previous studies have revealed several factors that influence project management performance, but this study focused mainly the Project Life Cycle. This central focus of this study was to investigate the influence of project life cycle on ICT projects in regulated Saccos. The specific objectives of the study were to determine the influence of project identification on the performance of ICT projects, to establish the influence of project planning on the performance of ICT projects, to determine the influence of Project execution on performance of ICT projects and to investigate the influence of project closure on the performance of ICT projects. The study was guided by the theory of change, general systems theory, five-phase project model and six phase project model. The study adopted descriptive research design by carrying out a census on all 45 ICT projects in regulated Saccos within Nairobi. The study used primary and secondary data. Pretested questionnaire that contains closed-ended questions were used in collecting primary data. The collected data was edited for consistency and completeness and then coded and entered into SPSS for analysis. Quantitative data was analyzed using descriptive statistics such as frequencies, percentages, mean and standard deviation. Multiple linear regression was used to analyze the relationship between the independent and dependent variables. The descriptive results of the study indicate that there is no statistically significant relationship between project initiation (β=0.048, $p<0.05$) and project closure (β=0.031, $p<0.05$) with performance of ICT projects. However, the study found that there is statistically significant relationship between project planning (β=0.095, $p<0.05$) and project execution (β=0.063, $p<0.05$) and ICT project performance. The study concludes that the institutions within savings and cooperative societies need to focus on critical activities in all the stages of a project lifecycle. The study suggests that future research need to focus on communication and stakeholder management in ICT projects within the regulated savings and credit cooperatives sector.

Key Words: Project Identification, Project Planning, Project Execution, Project Closure

Introduction

Good project performance is the ultimate objective of any project and this is only possible if the scope of a given project is met within time and budget. Meeting this objective is far more important than the constraints that may be experienced in the project especially constraint in budget, time and management. Organizations must adopt good project management practices in order to assure themselves of good performance (Noshrima & Noor, 2011).

Previous studies viewed the performance of projects as an intangible thing thus making choosing of project performance measuring tools a hard job. The main aim of project performance measurement is to give managers and other staff members' ability to develop speed, traction, and direction of their organization. There is a need for project managers to adopt good approach in managing projects thus improving their efficiency and effectiveness of processes and products (Norshima & Noor, 2011). Liu (2010) argued that ICT projects are unique as compared to the other projects. In addition, they are

characterized by uncertainty, emergency, uniqueness and short term. For one to implement ICT project successfully, there is need to analyze the challenges of ICT projects at various levels in the project lifecycle, and efficient project and innovation management practices have to be adopted.

Project management is increasingly becoming an important function within organizations hence it is worthwhile to explore the various factors that influence their performance. From the reviewed literature, there is so far no study on project lifecycle and performance of ICT projects in Kenya. The aim of this study is to analyze the influence of the various project management phases on the performance of ICT projects. Globally ICT projects are delivered on revenue expectations. A survey conducted by PWC (2012), 22.4 % respondents form ICT sector agreed that business imperatives are the main reason for the establishment of ICT projects, 40.2% respondents agreed that revenue generation was the main driving factor while 30.1% agreed that before implementation of ICT projects, there is always returns in mind. Previous studies have confirmed that a good number of ICT projects do not deliver expected revenue returns hence considered to have failed (Duchler & Genus 2003). A successful project can be categorized using four distinct aspects namely; business success, project efficiency, customer satisfaction and future potential.

In Thailand, the revenue department was computerizing the tax system. The project goal was to computerize seven areas of taxation. However, at the end of the project, only two areas of taxation had partially met their objectives while the other five were not operational. This is a case of an ICT project that has partially failed; thus an ICT project where the primary goals are unattained or one which there are significant undesirable outcomes (Kitiyadisai 2000).

Regionally, ICT project faces similar challenges as it does globally. There are cases of total and partial failure. There are also cases of sustainability failure thus projects that initially succeed but t some years down the line, they are abandoned. In South Africa, touch screen kiosks were created for rural communities in the North-West Province. The community initially received the project well, but the project wasn't sustainable due to lack of local content and interactivity that led to their abandonment. The kiosks were later removed less than a year after their installation (Benjamin, 2001). Some ICT projects fail due to ineffective analysis or planning; others fail due to lack of proper involvement of all stakeholders during the planning or implementation phase. In Ghana Volta River Authority had a project on personnel computerization and Accounts analysis. The implementation of this project faced opposition from lower- level staff. However, the top management and finance department supported the implementation of the project since they appreciated the changes that the new system brought. The resistance led to non-use of the system, particularly among the older workers. (Tettey, 2000).

The Kenyan Government adopted Vision 2030 that has mainly been characterized by dynamism in the telecommunication sector. The national government has put in place plans to exploit its potential by promoting ICT-enabled services. In 2004, the Kenyan government approved the e-government strategy that led to the start of the e-government journey. E-government can be defined as the use of Information Communication Technology by the various government agencies to transform government operations in areas such as the internet, mobile, computing, and network with the aim of improving efficiency and service delivery (Wamoto, 2015).

Kenya is renowned for the ICT development in Communication sector and is known for innovative solutions such as Safaricom's MPESA. The Kenya Communication Authority (2016) report indicates that Kenya's mobile penetration is at 88.1 % and stands at 37.8 Million users. In the financial sector, there is the emergence of Innovation incubation centres and technical & financial companies such as I-lab, Techno Brain, and Sybrin that have played a great role in the development of financial solutions

and have contributed to the development of entrepreneurial mindset among the young people (International Data Corporation, 2014). Some of the projects that have been implemented under this strategy include the Integrated Financial Management Information System (IFMIS) (Wamoto, 2015). The Kenyan Government has also automated services through the e-government. Citizens can now access shared services through a portal and through the single national Window (Kenya Trade Networks Agency, 2014). Janja (2012) argues that one of the challenges of e-government project is change management. Mohamed and Arsad (2006) state that the implementation of such projects requires a large number of staff.

Statement of the Problem

The constantly changing customer needs and business environment is one of the factors that have led to the growth of ICT projects in many organizations. However, there are a number of cases of ICT project that failed to take off. Despite most of the project adopting standard project management lifecycle, ICT projects within organizations are yet to show a good track record of success (Standish Group Report, 2009).

In 2014, Kenya Bankers Association (KBA) implemented chip-based ATM project. Banks were expected to switch their ATM cards from Magnetic stripes to Chips' by 31st March 2014. However, the banks failed to meet the deadline since they were facing significant challenges in the implementation phase of the project (KBA, 2014). In 2012, Central Bank of Kenya implemented a new trading system. Implementation of this project resulted in the bond market experiencing reduced activity by averagely 50%. According to CBK publications (2012), Even though the project implementation was considered successful, the post-implementation effects did not meet the expectation of the end users thus resulting in the reduced activity.

Saccos face a myriad of challenges in the running of ICT projects. Firstly there are no empirical studies from the reviewed literature on success or failure of ICT projects in this critical sector of our economy thus leaving no documentation on the projects best practices in that area. Secondly, while all projects are faced with a unique set of challenges, ICT projects pose even a greater challenge due to their uniqueness and speciality especially in this emerging sector that has high regulations, funding mechanism, and approval matrix. Previous studies have focused majorly on the growth of ICT in Kenya (Mungai & Vundi, 2015). However, there is a knowledge gap on factors that influence the performance of ICT projects, especially in Saccos. This project sought to determine the influence of project lifecycle on the performance of ICT projects in regulated Saccos.

The objectives of this study were:

i. To determine the influence of Project Identification on Performance of ICT Projects.
ii. To establish the influence of Project Planning on Performance of ICT Projects.
iii. To determine the influence of Project Execution on Performance of ICT Projects.
iv. To investigate the influence of Project Closure on the Performance of ICT projects.

Theoretical Review

This study was being guided by two project life cycle models namely; five phase project model and six phase project model.

Theory of Change

The theory of Change was put forward by Carol Weiss (1990). It offers insight into how and why a particular initiative works. It provides knowledge about whether a given project works as expected and

the various approaches that it employs to be efficient. This theory provides the project team members and evaluators with the direction which a project should take and the goals that it wants to attain (Msila & Setlhako, 2013).Weiss emphasizes the need of the project evaluators to understand the project and how it works. For a project evaluator to conduct an effective evaluation, they need to have a clear understanding of what evaluation entails and what it takes for one to carry out a proper assemesent and what they need to do with the outcome of the assessment.

Weiss (1972) defines the purpose of project evaluation as a process the specific outcomes of a project against the set objectives as a way of influencing the subsequent decision making in the project and improving the future performance. This theory is applied in a complex project with the aim of offering guidance of how a given project should work through an efficient method. This theory is applicable in this study in that the study is focused on project performance and for performance to be determined, the evaluation must be done. This study assessed the influence that project monitoring has on the performance of ICT projects.

General System Theory

This theory of General Systems was founded by Ludwig von Bertalanffy in 1946. This theory was originally developed specifically for Biological Sciences. However, it was later modified and applied in other disciplines. The theory is about complex systems in science, nature, and society. It offers a framework upon which one can examine a group of objects that work together in order to generate results. According to general systems theory, a system is defined as a composition of internal relationships, elements, and attributes that exist in the environment. It is a set of particular things with interrelated parts that affect one another they also have subsystems that influence the entire system (Rosen, 1969). Strengthening one part of a system generally strengthens the entire system, in the same breadth weakening one part of the system generally weakens the entire system. This theory is applicable in this study because a project is a system that has many parts that are interrelated and segmented in phases that affect each other. The initiation phase directly affects planning and indirectly affects the implementation and monitoring, and all the other phases affect each other in the same manner. This study focused on the performance on ICT projects and the influence that the project life cycle has on that performance.

Five Phase Project Model

Project Management Body of Knowledge classifies the project life cycle into five categories thus Project Initiation, planning, execution, controlling and monitoring and project closing (Project Management Institute, 2008). Project Initiation phase is the first step of a project lifecycle. At this stage, the project is elaborated and explored with a focus on examining its feasibility. A decision is then made on who will the project and the stakeholders. An analysis is then done on whether the project has the support of the various stakeholders (PMI, 2008).

Project planning phase involves the definition of activities and required resources for the project. These are then arranged in an orderly manner with the aim of meeting the project objective. The project plan is the document that is generated at this stage, and it contains the project in an orderly fashion, namely; who is in charge of the tasks, when will they be done, in what sequence and what resources are required. Project execution is done against the project plan. Project plan guides the implementation by specifying what is to be done, in what sequence and by who. It makes the project coordination simpler and efficient. It forms a basis upon which the project control is done (PMI, 2008).

Project Monitoring and controls primary objective is to ensure that the scope of the project, budget and timelines are adhered to in order for the project to proceed efficiently. It entails assessing the actual performance and comparing that with the planned performance. It also involves putting in corrective measures that will make the variance between that actual performance and expected performance minimal. It is done continuously during the project implementation. The Project closing phase is the final stage of a project lifecycle. The primary objective of this stage is to close the project logistics and administration. It also includes documentation of lessons learned (PMI, 2008). This study assessed the influence that the project identification, planning, execution, and monitoring has on the ICT project performance.

Conceptual Framework

This study aimed to fill the research gap that has been identified and established in the literature review. In order to fill the research gap identified in the literature review, the study proposed conceptual framework as shown in figure 1 below. This study's dependent variable, project performance and the independent variables were project initiation, project planning, project execution and project monitoring.

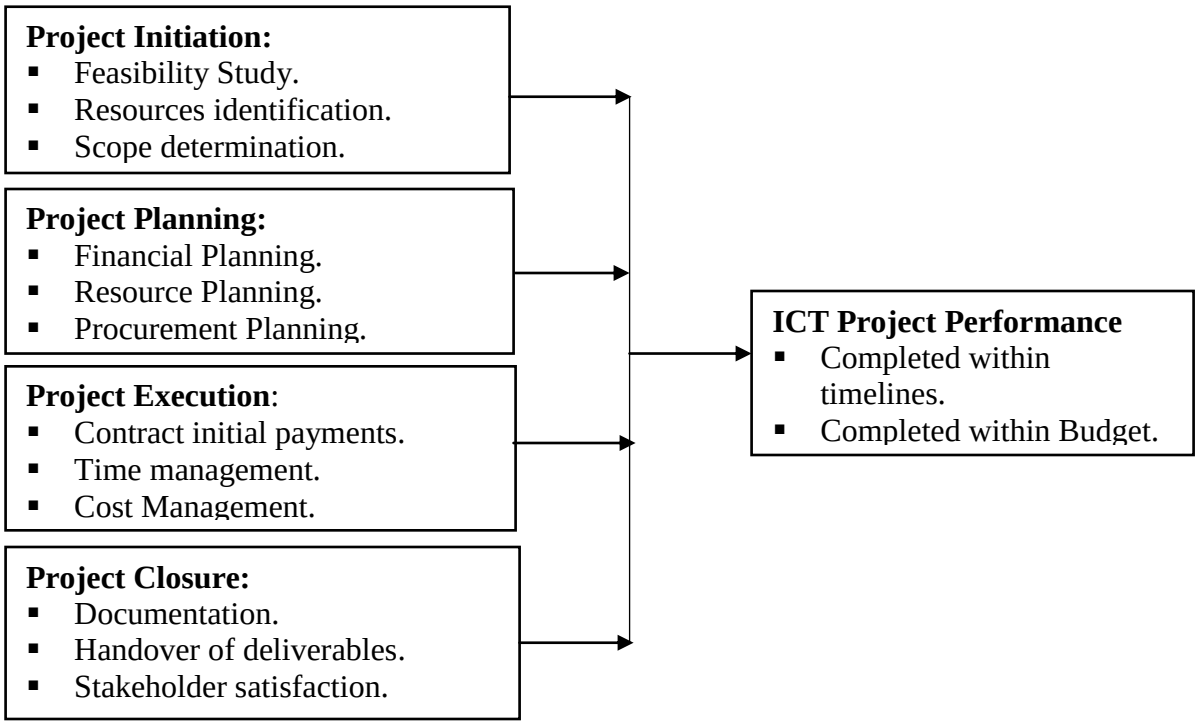

Figure 1: Conceptual Framework

Empirical Studies

Project Initiation and Project Performance

This is the first phase in Project Lifecycle, and it involves designing of a clear guideline for the management of a given project. It also includes identification of the main project elements and specifies the stages to be followed to realize the project objectives. Specification of project timelines, the persons responsible for the various tasks are also done at this stage, (UK Government, 2010). The

Project initiation phase in ICT projects is a critical step in the project since it determines the project planning and execution.

It is this phase that determines the overall performance of the ICT projects. This step is generally initiated by request for intervention by either internal or external customers. At this phase, assessment for the level demand is done. An examination of the client expectation and motivations to make the request is also done through information gathering. In addition, the stakeholders are identified, they are then briefed on the project objective and scope, and the project team takes their expectations into account. Project selection happens in this phase, and it requires the viability of the selected project to be defined and justified. The expected benefits and success are also defined, agreed upon and quantified (Bhuian & Hoque. 2011).

According to PMI (2008), at the end of this phase, a project proposal is produced. In the proposal, the problem at hand is acknowledged, the proposed solution is described and how it will be executed. A Project Charter is the primary output of this phase, the charters' main purpose is to outline the projects' business case, the approval and the resources that have been committed to the project.

Project Planning and Project Performance

This is the second phase of the project lifecycle. At this stage, the various activities to be carried out in the project, the business owners and the end product is defined and how it will be achieved. The primary purpose of this phase is to clearly identify the major tasks and estimation of required time and resources. It also provides the framework for monitoring and control by the management. Technical design and implementation plan are finalized at this phase.

Action planning that is done at this phase may expose logistical constraints that can affect the feasibility of the project based on the selected design. This phase entails project activity scheduling and how the various activities interrelate. The project activities comprise of; procurement processes, fundraising activities, regulatory requirements and actual works in the project site. A project plan contains details on how the anticipated project benefits and success will be delivered. The project plan also gives specifics of anticipated risks and mitigation plans, the procedures that will be employed in project monitoring and control. Lastly, the project plan contains the project closure process.

Project Execution and Project Performance

This is the phase where the planned activities are being conducted. Project Implementation can be defined as the act of performing activities and task that lead to the production of project deliverables. For a project to be considered successful, the various tasks have to be completed efficently. The project plan offers a guide on how the project team members need to carry out the various tasks thus making it the reference point for project implementation (Mc Conville 2006).

According to PMI (2008), this phase has the following key aspects; the inputs that are in this phase include, project plan, organization policies, business environment, change requests and organizations assets. The application of the available tools and techniques affect the progress of the project. The various tools that are generally used in project implementation include project management information system, project team and stakeholders consultative meetings and monitoring and control activities. During the project implementation, change requests are made and implemented, monitoring and control is conducted, and project progress reports are updated. The role of the project team is critical at this phase since they coordinate the various activities and manage the various technical and organizational interphases.

Project Closure and project performance

This is the final stage of the project lifecycle. A project can be closed because of two reasons; firstly is when all the objectives of the project have been met. This is the most common and most desired reason for project closure. Secondly, is when major stakeholders make a reason to halt a project. This can be as a result of the project not being viable, changes in the regulations or when the sponsor withdraws funding, etc. What the commencement of this stage begins with is acceptance of the final product by the customer (PMI, 2013.

Some of the major tasks that take place at this stage include; Project team communication of the project closure to the stakeholder. The project team then releases of the product deliverables, i.e. the final products of the projects to the customers. Termination of all the supplier contracts unless the vendors will be required in the sustainability of the project. Handover of the project documentation to the relevant stakeholders. Once all these have been done post-implementation review is undertaken to determine the level of project success (Norshima & Noor, 2011).

Research Methodology

This study adopted a descriptive research design. This study design aimed at generating knowledge that can be used to describe a particular issue in a structured manner that is easy to understand. This design is critical since this study sought to demonstrate how the project lifecycle affects the performance of ICT projects in regulated Saccos. The unit of analysis included ICT projects in regulated Sacco's within Nairobi region and the unit of observation included Sacco managers within the regulated Saccos in Nairobi. The attribute that made this population relevant is because they take part in the ICT project delivery in the Saccos hence they have the information that is required by the researcher.

Table 1: Sample Size

Section	Population	Percentage
ICT Managers	45	50
Middle level managers	45	50
Total	**90**	**100**

The study employed stratified random sampling technique. The projects were randomly selected while the managers within the specific projects will be selected in a stratified manner. The sample size will be selected using a formula that was adopted by Kothari (2004):

$$NC = \frac{Z^1 pqN}{D^2(N-1) + Z^2 pq}$$

Where:

NC= is the desired sample size

D = desired level precision i.e 0.05

N = Total number of population in the targeted population

Z = is the confidence level (95%) where z is equal to 1.96

P = is the proportion of the strata population for entire population

q = or (1-p) is the proportion to the total population

d= the desired level of statistical significance set (0.05)

This study used a questionnaire to collect primary data. The study used a 6-point structured Likert type questionnaire as a tool for data collection. The study used inferential and descriptive analysis. The characters of variables that were administered in the questionnaire were summarized and presented in an organized and simple manner that enables interpretation, through descriptive statistics such as measures of dispersion, e.g. standard deviation, range and variance and measures of central tendency such as mean, median and mode. The summary of such variables was also done through tables. The direct relationship between the dependent variables and the independent variable were determined using multiple linear regression. The multiple linear regression was adopted because this study is assessing the relationship between a set of independent variables and a dependent variable. The model is defined below:

$$y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \pi$$

Where:

β_0 = Constant.

X_1= Project Initiation.

X_2 = Project Planning.

X_3 = Project Execution.

X_4= Project Monitoring.

β= Beta Coefficient.

Y= Performance of ICT Projects in Regulated Saccos.

Data Findings, Analysis and Discussion

The response rate was 79%, i.e. a total of 71 questionnaires against a target population of 90. A response rate of 50% is sufficient for data analysis and reporting, 60% is a good response rate while 70% is excellent (Orodho, 2007).

Descriptive Analysis

The questionnaire contained the four variables. The respondents' responses were expected to be indicated on a scale of 1-5, where 5 indicated to a great extent, 4 to a good extent, 3 to a fair extent, 2 o a low extent while 1 indicated none at all.

Project Lifecycle

The aggregate mean is 3.54 while the SD is 0.88 which shows low variation in the responses given by the respondents.

Table 2: Descriptive statistics on project life cycle

Variable	Mean	Std Dev
The organization conducts project feasibility study	3.21	1.31
The organization provides project resources timely	3.56	0.98
The organization agrees with the stakeholders on project scope	3.61	0.90
The project manager develops financial plans	3.58	0.84
The project manager does resource planning ahead of the project	3.48	0.81
The project team members celebrate achieved project milestones	3.51	0.95
Monitoring and evaluation is conducted in ongoing projects	3.45	0.98
Project documentation is maintained	3.54	0.88

Project Initiation

The aggregate mean is 3.41 while the aggregates SD is 0.93 which shows a low variation in the responses given on project initiation. The organizations take various measures in project initiation such as feasibility study to a fair extent (M=3.41; SD=0.93). On resource identification, the projects identify and specify the required resources to a fair extent (M=3.38; SD=0.88), and the sponsors provide the required resources to a fair extent (M=3.54; SD=1.01). The project scope determination is critical in project initiation stage, and the projects determine the project scope to a fair extent (M=3.39; SD=0.96).

This findings shows that project teams conduct project initiation activates to a fair extent. According to (PMI, 2008), the end product of project initiation phase is a project proposal. The project proposal acknowledges the problem at hand, the solution that has been proposed and how it will be executed. The output of the project initiation phase is a project charter. The project charter outlines the business case, the committed resources and approval. It is at the project initiation phase where the project stakeholders are identified, and their objectives are taken into account. In addition, the project scope is determined and agreed by the stakeholders.

Table 3: Descriptive statistics on Project initiation.

Variable	Mean	Std Dev
Feasibility study is normally conducted in ICT projects	3.31	0.92
Feasibility study influences project success	3.42	0.86
Project team identifies and specifies required resources	3.38	0.88
Project sponsor provides required resources	3.54	1.01
Project scope is determined and agreed upon	3.39	0.96
Aggregate	**3.41**	**0.93**

Project Planning

The study findings represent an aggregate mean score of 3.51 and standard deviation of 1.12; this shows a low variation in the responses given by the respondents. In the project planning phase, financial planning is a key determinant of project success, and the projects conduct financial planning to a fair extent (M=3.38; SD=0.88), and they adhere to the financial plans to a fair extent (M=3.44; SD=0.91). In addition to the financial plans, the stakeholders in the projects plan for other resources to a fair extent (M=3.37; 0.98).The project makes the make or buy decision to a fair extent (M=3.55; SD=0.98).

This findings indicates that project planning is done by the various institutions to a fair extent. Project planning if rigorously prepared by the project management team forms a foundation for the project success. The various project plans should be clear and thoroughly defined, such plans greatly reduce project risks, cost and failure of the projects (Lewis, 2010). According to (Divr & Lechler, 2004), formal project planning has a direct impact on the success of a project.

Table 4: Descriptive statistics on project planning.

Project Planning	Mean	Std Dev
Financial plan specifies required finances at every stage up to closure	3.38	0.88
Financial plans are adhered to during the project implementation	3.44	0.89
Every team member understands their role	3.46	0.91
Resource planning is done by all stakeholders	3.37	0.98
Procurement plan specifies what is to be purchased and what is to be made	3.83	2.47
Make or buy decision is agreed upon and specified	3.55	0.98
Aggregate	**3.51**	**1.12**

Project Execution

Project execution is a key determinant of project success, and the study represent an aggregate mean score of 3.43 and standard deviation of 0.95. The timely signing of contracts with external vendors greatly determine the project success, and the projects execute such contracts in a timely manner to a fair extent (M=3.39; SD=1.09). In addition, the projects pay the suppliers timely to a fair extent (M=3.27, 1.03). In every project that is being executed, cost monitoring has to be conducted, and the projects conducted the costs to a fair extent (M=3.70, SD=0.72).

This findings reveals that the various stakeholders in the sector execute projects within the specified dimensions to a fair extent. According to PMI (2008), the tools and techniques applied at this phase influence the progress of the project. These tools and techniques entail the project management information systems, the various communication channels and monitoring and evaluation activities, project team and stakeholder meetings. During this phase, the various project deliverables are measured and assessed. In addition, the approved changes are executed and documented.

Table 5: Descriptive statistics on project execution.

Variable	N	Mean	Std Dev
Timely signing of contracts influences ICT projects success	71	3.39	1.09
Payments to suppliers are done timely	71	3.27	1.03
Time is specified for the milestones to be achieved	71	3.35	1.10
Execution reports contain time taken at each stage	71	3.37	0.85
Each team member has a cost reduction target	71	3.49	0.91
Cost monitoring tools are effective	71	3.70	0.72
Aggregate		**3.43**	**0.95**

Project Closure

The study represents an aggregate mean of 3.25 and standard deviation of 1.05. This shows a low variation in the responses given by the respondents. Verification of the final project deliverables greatly influence project acceptability and the projects conduct the final deliverables to a fair extent (M=3.25; SD1.05). Post implementation assessment takes place in the projects to a fair extent

(M=3.21; SD=1.05) while the celebration of the project closure by all stakeholders is done to a fair extent (M=3.37; SD=0.99).

The findings show that the identified dimensions of project closure are done to a fair extent in the various projects. During the project closedown. The client has to assess the satisfaction of the original goals of the project and examine the various influences of the project. Project closure is very important to the client because if the final output is the key determinant of the project success. There is a need for project management team to be concerned with the utilization phase of the final project outcome. The project implementation can only be considered to be a success when the client is able to use the investment (PMI, 2008).

Table 6: Descriptive statistics on project closure.

Project closure	Mean	Std Dev
Verification of final project deliverables takes place	3.25	1.05
Post implementation assessment takes place	3.21	1.05
System documentation are handed over	3.28	0.97
Knowledge transfer takes place	3.32	1.07
Disbursing project resources takes place	3.37	0.97
Celebration of project closure by the stakeholders happens	3.37	0.99
Aggregate	**3.30**	**1.02**

Regression Analysis

The study applied multiple regression model

$$y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \pi$$

Where Y is the dependent variable which is the performance of ICT projects in savings and credit cooporatives. α is constant in the equation, β1 is the coefficient for project identification, β2 is the coefficient for project planning, β3 is the coefficient for project execution, and β4 is the coefficient for project closure. The results of the regression analysis have been interpreted according to the values of t, R square and F at 95% level of significance. The results are shown in the table below.

Dimensions of Project Initiation and ICT project performance

The first specific objective of the study was to determine the influence of project identification on the performance of ICT projects in regulated savings and credit cooporatives.

The regression model explains that 4.8% of variation in the performance of ICT projects is accounted for by various aspects of project initiation (R. Square= .048). According to the study, the identified aspects of project initiation explained a small variance in the performance of the ICT projects in the regulated Savings and credit cooperatives sector (R. Square= .048). Thus 4.8% of the variation on the performance of ICT projects is explained by the identified aspects in project initiation stage while other factors can explain 95.2%.

Table 7: Model Summary for Project Initiation and ICT project performance

R	R. Square	Adjusted R. Square	Std. Error of the Estimate
.220	.048	-.025	.504

Analysis of variance (ANOVA) of the variance on the coefficient of determination (R. Square) was calculated in order to determine how best the regression model fits into our data and an F value of .658 (P>0.05) shows that this model is suitable at 95% confidence level.

Table 8: ANOVA for Project Initiation and ICT project performance

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	.835	5	.167	.658	.656[b]
Residual	16.489	65	.254		
Total	17.324	70			

The regression equation explained that a unit increase in timely identification of project resources would increase the performance of ICT projects by .061 while a unit increase in timely provision of the required resources by the project sponsors would increase the performance of ICT projects by .091. This study findings are supported by Judgev and Muller (2005) who in their study implied that the views of project success have evolved over time. Over the years, many scholars had restricted their determinant of project success to project implementation initiatives. Lately quite a number of studies have appreciated the role of the entire project lifecycle in determining project success. Thus project initiation initiatives are as critical as the other initiatives at the various stages in the project lifecycle.

Table 9: Regression Coefficients for Project Initiation and ICT project performance

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.307	.315		4.147	.000
Feasibility study conducted	-.002	.081	-.004	-.030	.976
Feasibility and project success	-.024	.085	-.042	-.285	.776
Identification of resources	.061	.088	.108	.689	.494
Provision of required resources	.091	.079	.186	1.153	.253
Project scope determination	-.095	.078	-.183	-1.216	.228

Dimensions of Project Planning and ICT project performance

The second study objective was to establish the influence of project planning on the performance of ICT projects in regulated savings and credit cooporatives.

The regression model explains that 9.5% of the variation in the performance of ICT projects is accounted for by the various aspects on project planning (R. Square= .095). According to the study, the various aspects of project planning explained a small variance in the performance of ICT projects in regulated Savings and credit cooperatives sector (R. Square= 0.095. Thus 9.5% of the variation in the performance of ICT projects is explained by the various aspects of project planning while other factors explain 80.5%.

Table 10: Model Summary for Project Planning and ICT project performance

R	R. Square	Adjusted R. Squared	Std. Error of the Estimate
.308[a]	.095	.009	.494

A determination of how best the regression model fits into the data was done by determining the F value. Analysis of Variance (ANOVA) of the variance on the coefficient of determination (R. Square) was calculated and an F value of 1.104 ($P<0.05$) shows that the regression model is suitable at 95% confidence level.

Table 11: ANOVA for Project Planning and ICT project performance

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1.617	6	.269	1.104	.370[b]
Residual	15.369	63	.244		
Total	16.986	69			

The regression analysis further revealed that increase in project members understanding their role would increase the performance of ICT projects by .140. While a unit increase in clear specification of the financial plan would increase the performance of ICT projects by .056.

This finding is supported by Whittaker (1999) who indicated that one of the main reasons behind failed projects is poor project planning, weak project plans and inadequate risk management. He further argued that project planning has a facilitating effect on project success and project uncertainty. Nguyen (2003) also support the findings of this study. He indicates that the most significant cause of project failure is poor project planning. A project that has roper planning with accurate estimation, appropriate risk analysis and proper scheduling is most likely to be completed within budget and on time.

Table 12: Coefficients for Project Planning and ICT project performance

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.244	.305		4.077	.000
Financial plan specification	.056	.091	.100	.616	.540
Financial plans are adhered to	-.078	.093	-.141	-.838	.405
Members understanding their roles	.140	.101	.257	1.385	.171
Resource planning	-.156	.082	-.309	-1.907	.061
Procurement plan	-.001	.025	-.004	-.035	.972
Make or buy decision	.084	.074	.165	1.128	.264

Dimensions of Project Execution and ICT project performance

The third study objective was to determine the influence of project execution on the performance of ICT projects in regulated savings and credit cooporatives.

The regression model explains that 6.3% of variation in the performance of the ICT projects is accounted for by the various aspects of project execution (R. Square= .063). According to the study, the various aspects of project execution is accounted for by project execution (R. Square= .063). Thus 6.3% of the variation in the performance of ICT projects is explained by the identified aspects in project execution while other aspects explain 93.7%.

Table 13: Model Summary for Project Execution and ICT project performance

R	R. Square	Adjusted R. Square	Std. Error of the Estimate
.251	.063	-.009	.500

In order to determine how best, the regression model fit into our data, Analysis of Variance (ANOVA) of the variance on the coefficient of determination (R. Square) was calculated and an F value of .877 ($P< 0.05$) shows that the model fits at 95% confidence level.

Table 14: ANOVA for Project Execution and ICT project performance

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1.095	5	.219	.877	.502[b]
Residual	16.229	65	.250		
Total	17.324	70			

The regression table revealed that a unit increase in timely signing of contracts in projects would increase the performance of ICT projects by .089 while a unit increase in effectiveness of cost monitoring tools would increase the performance of ICT projects by .072. The study findings are supported by Kerzner (1998) who in his book identified 5 various criteria which can be used to measure project success, among the criteria are project being completed within budget and in time. In addition, the project should be completed at the expected level of quality thus being accepted by the client and eh client accepting to be used by the vendor as a reference. These are initiatives that take place at the project implementation phase and are critical success factors of projects. The implementation forms that bridge between the project plan and project acceptability by the client.

Table 15: Coefficients for Project Execution and ICT project performance

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.470	.286		5.136	.000
Timely signing of contracts	.089	.075	.194	1.183	.241
Timely supplier payments	-.107	.075	-.221	-1.418	.161
Execution reports	.077	.081	.171	.956	.342
Cost reduction targets	-.152	.104	-.259	-1.459	.149
Cost monitoring tools	.072	.087	.132	.828	.411

Dimensions of Project Closure and ICT project performance

The final study objective was to investigate the influence of project closure on the performance of ICT projects in regulated savings and credit cooporatives.

The regression model explains that 3.1% of variation in the performance of ICT projects is accounted for by various aspects of project closure (R. Square= .048). According to the study, the identified aspects of project closure explained a small variance in the performance of the ICT projects in the regulated Savings and credit cooperatives sector (R. Square= .031). Thus 3.1% of the variation on the performance of ICT projects is explained by the identified aspects in project closure stage while other factors can explain 96.9%.

Table 16: Model Summary for Project Closure and ICT project performance

R	R. Square	Adjusted R. Square	Std. Error of the Estimate
.176	.031	-.060	.512

Analysis of Variance (ANOVA) of the variance on the coefficient of determination (R. Square) was calculated in order to determine how best the regression model fits into our data and an F value of 0.343 ($P< 0.05$) shows that the model is suitable at 95% confidence level.

Table 17: ANOVA for Project Closure and ICT project performance

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	.539	6	.090	.343	.912
Residual	16.785	64	.262		
Total	17.324	70			

The regression table further showed that a unit increase in timely disbursement of project resources would increase the performance of ICT projects by .092 while a unit increase in verification of the project deliverables would increase the performance of ICT projects by .044. The study findings are supported by (Turner & Miller, 2005) who in his study found out that top management support, client consultation, monitoring and feedback and client acceptance are critical determinants of project success. In his study, Davis (2014) agrees with the study findings by identifying nine themes that he describes as success factors of a project, among the nine themes are: acceptance of the project and use of its final products by the client. Stakeholder satisfaction and strategic benefits of the particular project to the top management. These identified factors take place at the last stage of the project i.e. project closure stage.

Table 18: Coefficients for Project Closure and ICT project performance

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.159	.288		4.032	.000
Verification of project deliverables	.044	.077	.093	.578	.566
Post implementation assessment	-.062	.088	-.131	-.699	.487
Documentation are handed over	.001	.093	.002	.013	.990
Knowledge transfer	.006	.085	.013	.071	.944
Disbursing project resources	.092	.090	.180	1.025	.309
Celebration of project closure	-.005	.080	-.009	-.058	.954

Conclusion

The study sought to understand influence of project life cycle on information communication technology project performance in regulated savings and credit cooporatives. From the study findings and the explanations given, this study makes four conclusions. The first conclusion of the study in the context of regulated Savings and cooperative society in Kenya is that Project initiation activities such as project feasibility study, and project scoping improve the level of performance of ICT projects by 4.8% (R. Square= 0.048) as revealed by the study.

The second conclusion that the study makes is that project planning is a very critical component and determinant of project success hence the institutions in the sector need to adopt project planning activities such as Financial and Resource planning. This study reveals that project planning influences the performance of ICT projects by 9.5% (R. Square= 0.095). The third conclusion is that the study makes is that institutions in regulated savings and credit cooperatives need to adopt key project execution activities such as timely signing of contracts with third party vendors and effective use of cost monitoring since they have an impact on the performance of ICT projects. As revealed by the study, project execution influences the performance of ICT projects by 6.3% (R. Square= 0.063). The final conclusion made by the study is that institution in the sector need to appreciate and adopt project

closure activities such as system documentation handover, post implementation assessment and knowledge transfer since these activities affect the performance of ICT projects by 3.1% (R. Square= 0.031) as revealed by the study.

Recommendations of the study

In view of the findings of this study and the conclusions, the study makes four recommendations to the savings and credit cooporatives based on the objectives. ICT is becoming a great enabler of processes within institutions within the savings and credit cooperatives and there is need for the institutions the sector to take measures which ensure that the delivery of the ICT projects are done in a manner that there is a higher chance of success. In line with the first objective, the study recommends that institutions in the sector need to invest in critical project initiation activities such as feasibility study that will show them the feasibility of a proposed project before it takes off.

In line with the second objective, the study recommends that it's crucial for institutions in this sector to undertake proper project planning since it's a determinant of project execution model and success. In line with the third objective, the study recommends that institutions in this sector must determine and act on critical project execution activities such as timely signing of contracts with third party vendors. In line with the final objective, the study recommends that the institutions in this sector must immediately adopt project closure activities such as system documentation and hand over ad knowledge transfer since they greatly influence the sustainability and success of a project.

Suggestions for Further Research

The study findings and conclusions that have been presented above have one limitation. The study focused on the project life cycle. However, the study didn't focus on communication management, stakeholder engagement management and monitoring and evaluation that also affect ICT project performance. These are critical areas in ICT project management that are likely to have a notable impact on project performance. In view of this study's limitation, this study recommends future studies on project communication management, project stakeholder engagement management, and ICT project monitoring and evaluation. In addition, the study recommends further research on ICT project acceptability by the customers.

References

Benjamin, P. (2001). *Community development and democratization through information technology. In Reinventing Government in the Information Age*. London: Routledge.

Bhuian, Islam. S., N. U., & Hoque. M. (2011). The Association between Project Success and Project Initiation Phase: A Study on Some Selected Projects in Bangladesh. *European Journal of Business and Management, 3*(12), 60-69.

Dachlur. D., & Genus. A. (n.d.). Avoiding IS/IT implementation failure. *Technology Analysis and Strategic Management, 15*(4), 54-87.

Davis, K. (2014). Different stakeholder groups and their perceptions of project success, *International Journal of Project Management*, 32, 189–201.

Divr, D., & Lechler, T. (2004). Plans are nothing, changing plans is everything: the impact of changes on project success. *Research Policy, 33*(1), 1-15.

International Data Corporation (2014). *Access to credit among micro, small, and medium enterprises.* Retrieved from http://www.ifc.org/wps/wcm/

Janja, J. (2012). Donor-funded information technology transfer projects. *Information Technology for Development, 8*(4), 185-197.

Jugdev, K., Muller. R. (2005). A retrospective look at our evolving understanding of project success. *Project Management Journal*, 36(4), 19 – 31

Kenya Communication Authority. (2016). *Kenya National ICT Master Plan: 2013/14-2017/18*. Retrieved from https://www.kenet.or.ke/sites/.../Final 20ICT%20Masterplan%20Apr%202014 .pdf

Kerzner, H. (1987). In search of excellence in project management. *Journal of Systems Management*, 38(2), 30 – 40

Kitiyadisai, K. (2000). *The implementation of IT in reengineering the Thai Revenue Department. In Information Flows, Local Improvisations and Work Practices*. Proceedings of the IFIP WG9.4 Conference 2000, Cape Town, South Africa

Kothari, C. R. (2004). *Research methodology: Methods and techniques.* New Delhi: New Age International (P) Limited Publishers.

Lewis, M. (2010) Cause, Consequence and Control: Towards a Theoretical and Practical Model of Operational Risk. *Journal of Operations Management, 21*(2), 205-224.

Liu, D. (2010). Knowledge sharing and investment decisions in information security. *Decision Support Systems, 1*(2), 21-34.

McConville, J.R. (2006). *Applying Life Cycle Thinking to International Water and Sanitation Development Projects: An assessment tool for project managers in sustainable development work.* Michigan: Michigan Technological University.

Mohamed,M. & Arsad, S. (2006). Information technology and social transformation. *The Information Society, 17*(1), 5-20.

Msila V. & Setlhako A. (2013). Evaluation of Programs: Reading Carol H. Weiss. *Universal Journal of Educational Research, 1*(4), 323-327.

Mungai, A. & Vundi, S. (2015). An Examination of the Contributions of Digital Technology Growth in Kenya on Access to Tourist and Travel Markets. *Journal of Educational Policy and Entrepreneurial Research, 2*(1), 62-69.

Nguyen, N. C. (2015). Revisiting the construction project failure factors in Vietnam. Built Environment Project and Asset Management, 5(4), 12-34.

Norshima, Z. S. & Noor, T. H. (2011). Trust Management of Services in Cloud Environments: Obstacles and Solutions. *ACM Computing Surveys, 46*(1), 12-30.

Orodho, A. J. (2007). *Techniques of Writing Research Proposal and Reports*. Nairobi: HP Enterprises.

PMI. (2013). *Project Management Body of Knowledge.* Newton Square: Project Management Institute.

PricewaterhouseCoopers (2012). *ICT Sector in Kenya.* Retrieved from https://www.pwc.com/

Rosen, L.M. (1969). Heutagogy and lifelong learning: A review of heutagogical practice and self-determined learning. *International Review of Research in Open and Distance Learning, 13*(1), 56-71.

Standish Group. (2009). *CHAOS Summary Report*. Retrieved from

http://www.standishgroup.com/sample_research/PDFpages/extreme_chous.pdf

Tettey, W.J. (2000). Computerization, institutional maturation and qualitative change. *Information Technology for Development, 9*(2), 59-76.

Turner, J.R., Müller, R. (2005). Project manager's leadership style as a success factor on projects: a review, *Project Management Journal* 36 (2), 49–61

Wamoto, F.O. (2015). E-government Implementation in Kenya, an evaluation of Factors hindering or promoting e- government successful implementation. *International Journal of Computer Applications Technology and Research, 4*(12), 906-915.

Weiss, C. H. (1972). *Evaluation Research: Methods Of Assessing Program Effectiveness.* Englewood Cliffs, N.J.: Prentice-Hall.

Whittaker, B. (1999). What Went Wrong? Unsuccessful Information Technology Projects. *Information Management & Computer Security*, *7*(1), 23-29.