

INFLUENCE OF PROJECT MANAGEMENT PROCESSES ON PROJECT SUCCESS IN RWANDAN HEALTH SECTOR. A CASE STUDY OF SINGLE STREAM OF FUNDING FOR HIV/AIDS PROJECT.

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ABSTRACT

Project management is a strategic competency that enables entities to link project success to business goals. Global Fund is a public-private partnership and international financing institution dedicated to attracting and disbursing additional resources to prevent and treat HIV and AIDS, TB and malaria. Every project is always constrained with resources that determine project management process and success. SSF/ HIV project is an example of a project in which project management process determines the success. The purpose of this study was to investigate the influence of project management processes on the success of SSF/ HIV project. The study was guided by four research objectives namely: to determine the influence of project initiation and planning process on project success; to examine the influence of project execution process on project success; to investigate the influence of monitoring and controlling of projects on project success. Descriptive survey research design was adopted for the study. The target population of the study was 110 respondents. Random sampling technique was employed for the study to select the respondents. Questionnaires with close-ended questions were used to collect data. The collected data was analyzed using SPSS. The study findings revealed that project planning process, project execution process and project monitoring positively and significantly correlated to project success ($r=0.279, 0.762, 0.236$). The P values for all the variables was less than 0.05 ($p<0.05$) indicating the relationship between the study variables is significant. The study suggests the introduction of effective monitoring tools; training of staff on use of monitoring tools; use of effective communication and improved reporting and documentation in order to improve the monitoring and control process.

Key words: *project initiation and planning, project execution, monitoring and controlling, project success.*

1.0 Background.

Project management is a strategic competency that enables entities to link project success to business goals (Project Management Institute, 2014). For organizations running several short-term customer projects, Kerzner (2003) observed that project management is designed to control company resources in a given activity within the constraints of time, cost, acceptable level of performance and good customer relations. Project management follows a specific sequence of phases which define the work to be done, the person to do the job, the milestones, and the person to approve and review the milestones as well as the control and monitoring of the milestones (Project Management Institute, 2013).

In the quest to survive and remain competitive, organizations have been forced to continuously adapt to changing business environment. Project Management has been identified as a part of a competitive strategy for organizations. It is viewed as a strategic competency for organizations that links project success to business goals (Project Management Institute, 2014). Project managers are always looking forward to seeing public projects perform well. This involves finishing the project on time, within budget, meeting end product specifications, meeting customer needs and requirements and meeting management objectives (Cooke-Davies, 2002).

The Global Fund is a public-private partnership and international financing institution dedicated to attracting and disbursing additional resources to prevent and treat HIV and AIDS, TB and malaria. Its aim is to contribute to achieving Millennium Development Goal 6 (WHO, 2008) by attracting and disbursing additional public and private resources to prevent and treat three diseases that kill over 6 million people worldwide each year. The initiative's context brought forward by former UN Secretary-General Kofi Annan in 2001 is provided by the Millennium Declaration (1), the work done by the WHO Commission on Macroeconomics and Health (WHO, 2001), the UN General Assembly Special Session on HIV/AIDS (African Union, 2001), the Abuja Declaration by African Heads of State to earmark 15% of national budgets for health (3), and the Genoa G8 meeting in 2001. The aim of these commitments is to consolidate a high level of political will and to boost national and international funding for health and the fight against these diseases in developing. The Global Fund Executive Secretariat is based in Geneva, and the organization has no country-level presence. The Local Fund Agent (LFA) is a private country-level audit bureau responsible for providing technical and financial monitoring of program implementation by the principal recipient signing the grant agreement, with oversight by the Country Coordinating Mechanism (CCM). The LFA is a local or regional firm appointed by international bureaus selected at the time the programs were launched in 2002 under the Global Fund LFA competitive bidding process.

According to the report by (UNDP 2015) Zambia has developed policies and guidelines for both testing and treatment of HIV/AIDS. The HIV testing policy requires full pretest counseling. It also requires that diagnostic testing and counseling be offered to people living with HIV/AIDS as part of a comprehensive HIV/AIDS care package. The government is considering putting in place a policy of opt out HIV testing. In 1987, an emergency plan on safe blood supply was launched. All district, provincial and central referral hospitals have blood transfusion facilities. All blood products used in these health institutions are required to be screened for HIV. In 2002, the government decided to make antiretroviral therapy widely available to everyone needing treatment and allocated US\$ 3 million to purchase antiretroviral drugs for 10 000 people, to be provided through the public health service. Treatment was initially provided in the public sector at a subsidized rate. In June 2005, the government declared that the entire antiretroviral therapy service package would be provided free of charge in the public sector. A comprehensive implementation plan for 2004–2005 to roll out access to treatment across the country was developed, and treatment guidelines have been updated in line with international standards. At the end of 2005, the Ministry of Health and cooperating partners

began evaluating the achievements, outputs, challenges and lessons learned in the implementation of the antiretroviral therapy implementation plan for 2004–2005, with technical support from WHO. The findings from the evaluation will form the basis of the implementation plan to be developed for 2006–2008. This plan is expected to be available by April 2006. Meanwhile, a transition plan has been developed and disseminated to all service delivery site.

In Rwanda, Global Fund is fighting HIV/AIDs through SSF/HIV project and its impact in the fighting HIV/AIDS cannot be under looked. The Single Stream of Funding (SSF/HIV) project aim at scaling up Access to HIV/AIDS services with focus on Prevention in Rwanda (RBC, 2014). The project is managed by the Ministry of Health through its Single Project Implementation Unit (SPIU) since 2010 to strengthen Rwanda's Health system. This is done through specific activities such availing health infrastructure and equipment that contributes to improving health and living conditions of all Rwandans.

In the effort to achieve its objectives the project through the Ministry of health purchased and distributed 30 mini trucks to 30 District Pharmacies in 2012. The trucks were meant to serve as transportation means for active distribution of medicines at District pharmacy to Hospital and Health Centers. In the same year 2012, the Ministry of Health distributed 284 motorcycles to Health Centers in the country to equip health care providers with means of transport to improve service delivery and monitor community health workers activities. This also enables health actors at decentralized level to coordinate services and track health progress (RBC, 2014).

1.2 Statement of Problem

Project managers should pay a great deal of attention to managing a project. Harrington & McNellis, (2006) argue one of the most common reasons for project failure is the inability to properly define or effectively manage project scope. The successful project manager has learned that rigorous scope control is essential to deliver projects on time and on budget. An increase in project management processes that doesn't include a corresponding adjustment to project cost or timeline may result in the project being delivered late or over budget. Baca (2005), states that project management processes changes are to bring disturbances to the project success. Mochal (2004) stated that without proper project management processes, projects end up trying to complete more work than what was originally agreed to and budgeted for. In other words, projects would be heading down the road to trouble.

Rwanda, as a developing country, is faced with a many project management challenges both technical and non-technical. Whereas projects in general have their challenges regarding implementation and consequently success, most projects are plagued by a unique set of problems and challenges. For example, the nature of project funding in Rwanda poses a significant challenge for government as well as non-governmental agencies. The funding provided by donors for projects such as development projects is so extensive that some are now referred to as development partners, a reflection of how dependent Rwanda development is on donor support (Baria, 2006). This financial support comes with conditions which affect the project right from the pre-planning stage throughout the entire project life cycle. The experience is that, in addition to projects reflecting the donor's thematic area rather than meeting a development need of the expected beneficiaries, donor interests often result in delays in implementation, changes in scope, and occasionally an abrupt cancellation of a project. These challenges in project management have an impact on the overall quality and success of projects.

The objectives of SSF/HIV revolved around reduced sexual transmission of HIV and reduced mother to child transmission of HIV among others. However according to SPIU annual report the objectives have not been met satisfactory. This has been contributed to by a lack of consistent monitoring and evaluation

processes and auditing. Despite the quest for project success, single stream of funding for HIV/AIDS project have continuously experienced time overrun, budget overrun, unmet end product specifications, unmet sub recipients need and unmet management objectives (RBC 2014). The Global Fund (2010) noted a huge number of project management weaknesses at the level of sub recipients audited, which was attributed by inadequate professional skills of some project implementers and inadequate capacity of the project management unit to provide sufficient oversight and supportive supervision. Single Project Implementation Unit (SPIU) (2010) has noted also serious weaknesses in overall project management in several sub recipients of Global Fund. Therefore, the need to conduct a study about such challenging situation for the current health projects. The researcher aimed to fill the gap in Ministry of Health by examining the influence of project management processes on project success. Therefore, the study aimed to examine the influence of project management processes on success of SSF/HIV funded by Global Fund under the Ministry of Health.

1.3 Objectives

1.3.1 General Objective

The general objective of the study was to determine the influence of project management process on project success; case of SSF/HIV Project.

1.3.2 Specific Objectives

The objectives of the study were:

1. To determine the influence of project initiation and planning process on project success.
2. To examine the influence of project execution process on project success.
3. To investigate the influence of monitoring and controlling of projects on project success.

2.0 Literature Review

2.1 Empirical review

Management of human actions may take on the active role of supervising, handling, or controlling the actions or mannerisms of others (Arshida and Agil 2012). Managers direct work toward a common goal. He adds that a well-run project or finite work effort involves management activities. Project management processes aid in the manager's handling of the constant array of management type issues. Interrelated projects form programs that drive toward organizational goals and achieve optimal results from a big picture point of view (Andersen, H. & Aarseth, 2007).

The project management discipline emerged from many different fields such as defense, construction, and engineering (Sharp *et. al* 2000). The United States honor Gantt and Fayol and consider them as forefathers for project management (Melik, 2007). He adds that Gantt focused on techniques for planning and control. He is 24 most famous for the Gantt chart. Fayol is known for creating the five management functions of organizing, planning, coordinating, commanding, and controlling. Both gentlemen are associated with Taylor's scientific management theories. Taylor can be considered as the forerunner to many modern tools for project managements. He used work breakdown structures (WBS) and tools for resource allocations. During the 1950s, project management formally became acknowledged as a separate profession rising from the aforementioned management discipline thus marking the era of modern Project Management.

The Project Management Institute (PMI) was established in 1969 to support and serve the interests of the project management profession (PMI, 2008). PMI is an internationally recognized organization whose objective is the support of the project management discipline Lewis, (2010). The principle of PMI is the support of common tools and techniques for the management of projects that can support extensive and varied applications of projects ranging from the construction industry to the software industry ("PMI,"

2009). In 1981, the PMI Board of Directors sanctioned the assembly of A Guide to the Project Management Body of Knowledge (PMBOK Guide). This guide contains standards and practice guidelines that are extensively applied throughout the project management industry (“PMI 2008). At the time of this publication, 44 project management processes are documented falling under five major process areas: initiating, planning, executing, controlling and monitoring, and closing (PMI, 2004). PMI is dedicated to advancing the project management discipline and subsequently the PMBOK undergoes periodic revisions. It has been expanded to incorporate a Code of Ethics and eventually will include aspects of leadership. PMI solicits project management practitioners to review and provide up-to-date concepts into revisions of project management guidelines and standards. This organization sets standards, provides project management education, conducts research, and provides for professional exchange of ideas and information. It also recognizes program management as an extension to project management discipline (PMI, 2008).

2.4 Conceptual Framework

In this study the dependent variable is project success while the independent variables are the three-critical process that influence project progress and success which are: project initiation and planning process, project execution process and monitoring and controlling of projects. The variables and their relationship are shown in the Figure 2.1 below:

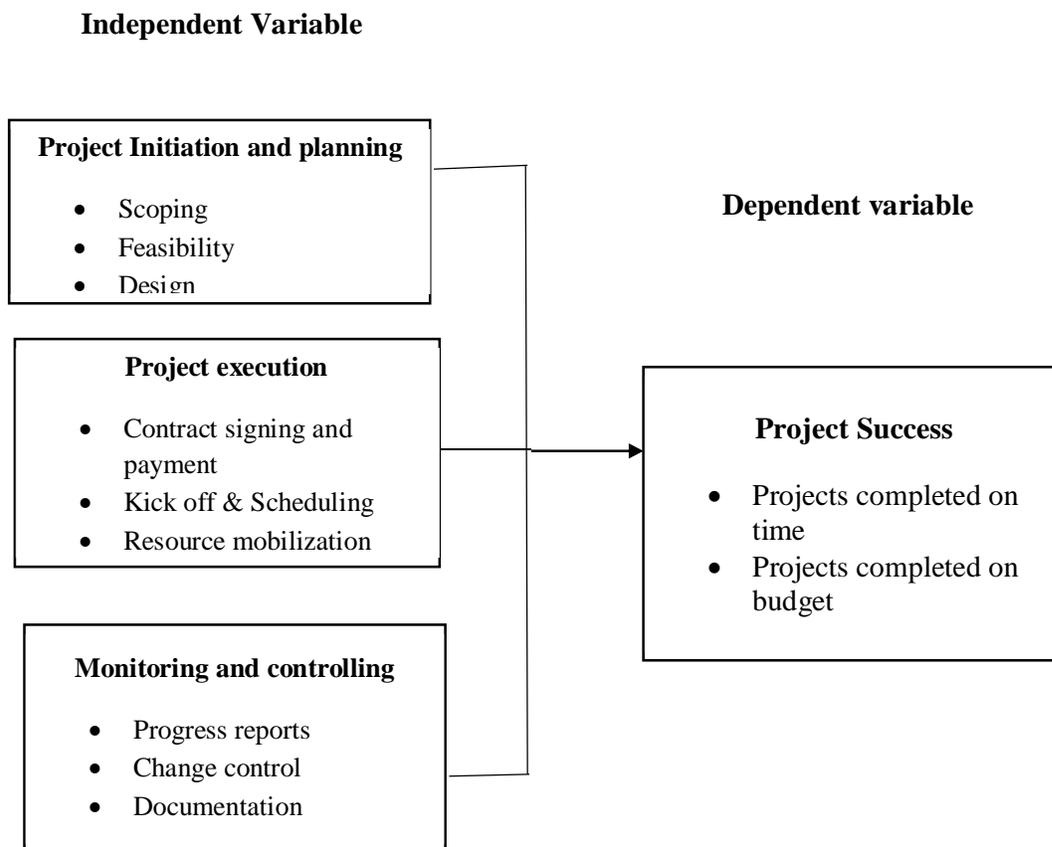


Figure 2.15 Conceptual framework

2.4.1 Influence of Project Initiation and Planning on Project Success

Project initiation is the creation of sound guideline for management of a project by identifying key elements and determining the steps to be followed to achieve objectives. At initiation, the timelines are defined and the persons responsible for each action are identified, (UK Government, 2010). The end result of initiation is a project proposal that acknowledges an existing problem, a proposed solution and how it will be executed. The output of this stage is a project charter whose purpose is to outline the business case, the approval and committed resources (PMI, 2013). This is the stage where stakeholders are identified; briefed on the scope and objectives and their expectations are taken into account.

Project planning on the other hand is the establishment of a predetermined course of action within a predicted environment (Kerzner, 2003). Kerzner further asserts that the planning process must be systematic, flexible, disciplined and capable of accommodating input from diverse functions. The planning process is most effective when it iterated and occurs throughout the life of the project. Indeed, every phase of the project processes require substantial planning. Subsidiary plans for each stage are integrated into the overall project plan. The final comprehensive plan will define the project's execution, its monitoring and control and closure (PMI, 2013). Well prepared plans include subsets that explain the management of scope, requirements, schedule, cost, quality, risk, resources, process improvement and stakeholders. The final aspect of planning is the element of communication that ensures stakeholders remain informed and updated on the project progress to facilitate their effective participation.

In many organizations, project management teams are bestowed with diverse responsibilities. The most significant tasks include planning, estimating, scheduling and executing the plan. These activities are iterative and continuous throughout the life of the project (Perminova, *et., al* 2008). Formal planning has a direct impact on project success (Divr&Lechler, 2004). They considered that a rigorously prepared plan is a foundation for project success. Indeed, a clear and thoroughly defined project plan can reduce risks, failure and the cost of the project (Lewis, 2010).

Project initiation and planning is a critical phase in project management. It starts with a joint meeting of project stakeholders to clearly understand objectives, deliverables and criteria of project success (Jacob and McClelland, 2001). During project selection, the need and viability for the project is defined and justified. At this stage, the desired success and benefits are specifically outlined, quantified and agreed upon. The project plan is drafted detailing activities to be executed to meet the triple constraints as well as the expected goals and benefits (Harvard University School of Management, 2007). The resulting plan provides details on how the desired success and benefits will be delivered; the management of key stakeholders; determines the required resources and their availability. Besides, the plan also provides details of risks involved and the mitigation plan; the monitoring and controlling procedures and metrics. Finally, the closure process is pre-determined and all parties must approve the project closure process and checklist. It consists of the activities and documentation that signify the formal end to a project.

2.4.2 The influence of project execution on project success

The execution stage involves the implementation of project activities. Thus, it is the process of leading and performing work as described in the management plan and effecting changes approved to realize the set objectives. This stage is characterized by continuous performance of project activities, change requests, monitoring and control, risk, quality, communication and stakeholder management (Desmond, 2004).

In a typical Global Fund, the execution involves signing of service contracts, down payment, holding internal and external kick off meetings, and initiating the procurement processes. During implementation, a number of factors affect the direction of the project. The PMI (2013) outlines the key aspects in this phase. First, the inputs in this stage include the plan, the change requests, business environmental aspects and organizational policies and assets.

Secondly, the available tools and techniques applied during execution influence the progress of the project. These include the project management information systems, stakeholder and project team meetings, communication channels and monitoring and control activities. In the course of execution, deliverables are assessed and measured; change requests are affected and documented; project documents are updated to reflect progress and change requests. The project team directs the project activities and manages the various organizational and technical interfaces existing within the project.

Successful project execution is an organizational priority. Various researchers have shown that several project success factors can impact a project at all phases. In the execution phase, project success is related to the project's timely completion, on budget and within agreed quality (Kerzner, 2003). However, the understanding of project success has been altered to include limitation to minimum changes in the scope of the activities, shift in the corporate culture and acceptance of project results by clients (Alexandrova, 2012). Shenhar and Divr (1997) postulated that project success is measured in four dimensions, one of which is project efficiency during execution and immediately after completion. The researchers pointed out that shorter product life cycle and time-to-market increased an organization's competitive advantage. Further, they affirmed that impact of project management on the performance of an organization can be viewed in two broad dimensions of the commercial success of projects and the future potential created.

2.4.3 Influence of Monitoring and Controlling on Project outcomes

Project monitoring is the systematic and regular collection and analysis of data over a period of time to identify and measure changes. Monitoring involves the collection of data prior to and during project implementation (United Nations Environment Programme, 2008). The primary purpose of monitoring is to document the implementation process, facilitate decision making, and provide feedback for plan review and lessons learnt. According to PRINCE 2, project control is project management function that comprises of monitoring, evaluating and comparing actual versus planned results (ILX Group, 2015). It tracks the project progress towards achieving the stated objectives within project constraints; identifies deviations; evaluates alternative courses of action and takes remedial actions (Larson and Gray, 2011).

Together, monitoring and control form the project control cycle of Action-Plan-Monitor Compare; and then re-plan as necessary. Project monitoring and control have increasingly become key functions of project management as projects grow bigger and more complex. It is the process of tracking, analyzing and reporting progress with respect to objectives. This task helps stakeholders to understand the current state of the project, activities undertaken, and the budget, schedule and scope forecasts. Monitoring and control cycle consists of: making a plan; implementing the plan; monitoring and recording the actual output; report the actual output, the planned parameters and the variations and finally; take corrective action on the variations (Shrenash, and Sawant, 2013). This phase of the project provides an understanding of the project's progress so that appropriate corrective action can be taken when the project's performance deviates significantly from the plan. In traditional project management, control would involve identification of deviations from the project plan and put things back on track. However, the adaptive project management approach identifies changes in the business environment and adjusts the plans accordingly.

This task is carried out throughout the life of the project by taking measurements that help the project team understand progress. This stage has an impact on the business objectives and acceptance of the eventual project success in terms of quality. By applying the Deming cycle or the Plan-Do-Check-Act cycle philosophy (American Society of Quality, 2015) to this project stage, the project team ensures project specifications and constraints are adhered to as closely as possible. Indeed, this philosophy is affirmed by the theory of constraints (TOC) as applied by organizations and project managers, who work towards

continually improving their ability to meet project commitments of budget, time and quality through the nature of project planning, project scheduling, project visibility and control, resource behaviour and multiple project synchronization (Avraham Goldratt Institute, 2009). The TOC contribution requires a project manager to understand the system process and the organization's goal (Gupta & Boyd, 2008). The performance of an organization requires that improvement is seen as a long term and continuous process to improve and sustain high quality project results and therefore ensure project success in all dimensions.

3.0 Research design

The study adopted a descriptive survey design. According to Zikmund (2003), surveys provide a fast, inexpensive, efficient and accurate way of investigating a population. Orodho (2003) argues that descriptive survey research designs are used in preliminary and exploratory studies to allow researchers to gather and summarize information, present and interpret data for clarification purposes. Descriptive research determines and reports things as they are, therefore establishing the current status of the population under study (Mugenda & Mugenda, 2003). By studying a population sample, a descriptive design provides qualitative descriptions of trends, perceptions and attitudes of the population.

3.3 Target population

Target population for this study included 110 staff members from Ministry of Health who are concerned with implementation of the project

3.4 Sample size and sampling method

Sample size refers to the number of units or people that are chosen from which the researcher wish to gather information or data (Evans *et al.*, 2000). A sample size of 86 respondents determined using the sample size determination formula by Slovin's (1960) was used.

$$n = \frac{110}{1+110(0.05)^2} = 86$$

Where;

n is the sample size,

N is the population size (110)

e is the desired level of precision (0.05)

4.0 RESEARCH FINDINGS AND DISCUSSIONS

4.3 Influence of project initiation and planning on project success

The study sought to establish the extent to which respondents agreed with the statements below on project planning and initiation on project success. The following statements were presented to respondents in order to gauge their extent of agreement. The results are tabulated in Table 4.2

Table 4.31: Respondents views on Project Planning and Initiation on Project Success

Statements	Strongly agree	Agree	Not sure	Disagree
Project initiation and planning influences project success	74%	20%	6%	
Standards and goals for measuring performance are clear and attainable	60%	20%	5%	15%
Planning meetings are held with stakeholders to plan for the project success	38%	55%	7%	
Project plan outlines all projects stages up to closure	7%	69%	24%	
Required project resources are identified and committed	58	42%		
Individual responsibilities and performance standards are well known	26%	71%	3%	
Standards for measuring performance are clear and attainable	4%	65%		31%

Table 4.2 indicate that majority (74%) of the respondents strongly agreed with the statement that project initiation and planning influences project success, 20% only agreed while 6% of the respondents were not sure of the statement. The table also shows that majority 60% of the respondents strongly agreed with the statement that standards for measuring performance are clear and attainable, 20% just agreed 5% were not sure while 15% disagreed. The findings also indicate that 55% of the respondents agreed with the statement that Planning meetings are held with stakeholders to plan for the project success, 38% strongly agreed while 7% were not sure. Majority (69%) of the respondents agreed that project plan outlined all project's stages up to closure, 7% strongly agreed while 24% were not sure. Fifty eight percent of the respondents strongly agreed with the statement that required project resources were identified and committed while 42% just agreed. Majority 71% of the respondents agreed that individual responsibilities are well known, 26% strongly agreed while 3% were not sure of the statement. Majority (65%) of the respondents just agreed that standards for measuring performance are clear and attainable, 4% strongly agreed while 31% disagreed.

Table 4.32: Correlation between Project Planning and Initiation on Project Success

		Project Planning and Initiation	Project Success
Project Planning and Initiation	Pearson Correlation	1	
	Sig. (2-tailed)		
Project Success	Pearson Correlation	.449**	1
	Sig. (2-tailed)	.000	
		N	N
		75	75

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

Table 4.3 indicate that project planning and initiation is significantly correlated to project success ($r=0.449$, $p<0.01$). This implies that project planning and initiation would result to project success.

Furthermore, regression analysis was done to determine the effect of project planning and initiation on project success and the following results were obtained. The results of the analysis are shown in Table 4.4:

Table 4.33: Model summary showing effect of Project Planning and Initiation on Project Success

Model R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.442 ^a	.411	.398

a. Predictors: (Constant), Project planning and initiation

Further analysis of the project planning and initiation on project success obtained an adjusted R 39.8%. This implies that the simple linear model with project planning and initiation as the independent variable explains 39.8 % of the variations in project success. This means that when project planning and initiation was used the success of the project changed by 39.8 %.

Table 4.34: ANOVA results showing the effect of project planning and initiation on project success
 ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	42.431	1	40.431	11.388	.000 ^a
	Residual	142.688	74	.617		
	Total	1.953	75			

b. Dependent Variable: Project success

c. Predictors: (Constant), project planning and initiation

A regression analysis was done to determine the effect of project planning and initiation on project success in Rwanda. From the analysis, a p-value less than 0.05 ($p\text{-value} = 0.0000$) was obtained. This implies that the simple linear model with project planning and initiation as the only independent variable is significant.

Table 4.35: Coefficient results showing the relationship between Project planning and initiation on project success

Coefficients (a)

Model		Unstandardized		Standardized	T	Sig.
		Coefficients B	Std. Error			
1	(Constant)	.651	.231		5.973	.000
	Project planning and initiation	.555	.062	.444	8.815	.000

a. Dependent variable: Project success

Correlation coefficients show that project planning and initiation (X1) is significant ($p\text{-value} = 0.0000$) in influencing project success (Y). The results of the analysis are shown in Table 4.6. The fitted model from this analysis is shown below:

$$Y = 0.651 + 0.555X_1$$

4.4 Influence of Project Execution and Project Success

The study sought to establish the influence of project execution on project success. The respondents were asked to indicate their level of agreement with statements related to project executions. The responses from strongly agree to strongly disagree were tabulated in Table 4.7

Table 4.36: Respondents views on Project Execution on Project success

Statement	Strongly agree	Agree	Disagree
Project success is influenced by project execution plan	45%	55%	
Activities are carried out in accordance with an execution plan	19%	43%	38%
Responsibility for each task is clearly defined	26%	43%	31%
Supervision roles and reporting structures are well defined	6%	59%	35%
Appropriate tools required for project tasks are availed	36%	19%	45%
Regular meetings are held to review project progress and address issues	13%	38%	49%

From the responses, the respondents agreed that activities are carried out in accordance with project execution plan; responsibility for tasks was clearly defined; and roles are well defined with 45% of the respondents strongly agreeing whereas 55% of the respondents agreed with the statements. Sixty two percent of the respondents agreed with the statement that activities are carried out in accordance with an execution plan whereas 38% of the respondents disagreed with the statement. Regarding responsibility for each task is clearly defined 69% of the respondents agreed with the statements whereas 31% of the respondents disagreed with the statement. The findings also established that staff agreed that Supervision roles and reporting structures are well defined where 65% of the respondents agreed with the statement, 35 % of the respondents disagreeing. 55% of the respondents indicated that appropriate tools required for project tasks were availed thus agreeing with the statement that for efficient success of the project execution is a necessary pre- requisite determinant of the success. The corresponding percentages regarding regular meetings held to review project progress and address issues while executing projects 51% of the respondents agreed with the statement 41% of the respondents disagreeing.

With respect to the influence of project execution on project success, the respondents indicated that project activities are carried out in accordance to project plans. The literature review agrees that these activities are iterative and continuous throughout the life of the project (Perminova *et al*, 2008). The findings showed that responsibilities for each task, supervision roles and reporting structures are well defined. The findings also showed that project progress is monitored and compared with the project plan and to ensure full compliance. One of the key dimensions of project success is efficiency during execution as postulated by (Shenhar; *et al*, 1997). The respondents agreed that required tools are availed for project activities in good time and progress review meetings are held to address emerging issues. The timely completion, on budget and on agreed quality should define the execution process as they greatly influence the success of a project. More precisely, desired project success is influenced by meeting the business objectives of an organization and the same time meeting customer expectation within the triple constraints (Bloch, *et al*, 2012; Gwaya, *et al*, 2014; Kamau, 2013). The results from the study to a large extent realized that the key activities during execution have impact project success.

Table 4.37: Correlation between project execution and Project Success

		Project Execution	Project Success
Project Execution	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	75	
Project Success	Pearson Correlation	.548**	1
	Sig. (2-tailed)	.000	
	N	75	75

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

Table 4.8 indicate that project execution is significantly correlated to project success ($r=0.548$, $p<0.01$). This implies that project execution would result to project success.

Furthermore, regression analysis was done to determine the effect of project execution on project success and the following results were obtained. The results of the analysis are shown in Table 4.9:

Table 4.38: Model summary showing effect of Project execution on Project Success

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.667 ^a	.417	.408	.6457

b. Predictors: (Constant), Project execution

Further analysis of the project execution on project success obtained an adjusted R 40.8%. This implies that the simple linear model with project execution as the independent variable explains 40.8 % of the variations in project success. This means that when project execution was used the success of the project changed by 40.8 %.

Table 4.39: ANOVA results showing the effect of project execution on project success
 ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	42.431	1	40.431	11.388	.000 ^a
	Residual	142.688	74	.617		
	Total	1.953	75			

b. Dependent Variable: Project success

c. Predictors: (Constant), project execution

A Regression analysis was done to determine the effect of project execution on project success in Rwanda. From the analysis, a p-value less than 0.05 (p-value = 0.0000) was obtained. This implies that the simple linear model with project execution as the only independent variable is significant.

Table 4.40: Coefficient results showing the relationship between project execution and project success Coefficients (a)

Model		Unstandardized Coefficients		Standardize d	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.447	.231		5.973	.000
	Project execution	.544	.062	.444	8.815	.000

b. Dependent variable: Project success

Correlation coefficients show that project execution (X2) is significant (p-value = 0.0000) in influencing project success (Y). The results of the analysis are shown in Table 4.11. The fitted model from this analysis is shown below:

$$Y = 0.447 + 0.544X_2$$

4.5 Project monitoring on Project Success

Respondents were asked to indicate their level of agreement on statements that characterize project monitoring and its influence on project success. The following findings were recorded.

Table 4.41: Respondents views on Project Monitoring on Project Success

Statement	Strongly			
	agreed	Agree	Not sure	Disagree
Project monitoring influence project success	34%	56%	10%	
Effective project monitoring processes exist	8%	42%	20%	30%
Project monitoring tools are effective	35%	49%	4%	12%
Status reports are regular and stakeholders are informed	5%	62%		33%
Project changes follow formulated procedures for review and approval	63%	20%	17%	

According to table 4.12, 34% of the study respondents strongly agreed with the statement that project monitoring influence project success, 56% just agreed while 10% were not sure of the statement. Majority (42%) of the respondents agreed that effective project monitoring processes existed, 8% strongly agreed 20% were not sure while 30% disagreed with the statement. The table also shows that 35% of the respondents strongly agreed with the statement that project monitoring tools were effective, 49% agreed, 4% were not sure while 12% disagreed. Majority (62%) of the respondents only agreed that status reports were regular and stakeholders were informed, 5% strongly agreed while 33% disagreed. Majority (63%) of the respondents strongly agreed with the statement that project changes follow formulated procedures for review and approval, 20% agreed while 17% were not sure.

Table 4.42: Correlation between project monitoring and Project Success

		Project monitoring	Project Success
Project monitoring	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	75	
Project Success	Pearson Correlation	.612**	1
	Sig. (2-tailed)	.000	
	N	75	75

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

Table 4.13 indicate that project monitoring is significantly correlated to project success ($r=0.612$, $p<0.01$). This implies that project monitoring would result to project success.

Furthermore, regression analysis was done to determine the effect of project monitoring on project success and the following results were obtained. The results of the analysis are shown in Table 4.14:

Table 4.43: Model summary showing effect of Project monitoring on Project Success

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.514 ^a	.504	.499	.54897

c. Predictors: (Constant), Project monitoring

Further analysis of the project monitoring on project success obtained an adjusted R 449.9%. This implies that the simple linear model with project monitoring as the independent variable explains 49.9% of the variations in project success. This means that when project monitoring was used the success of the project changed by 49.9%.

Table 4.44: ANOVA results showing the effect of project monitoring on project success ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	42.431	1	40.431	11.388	.000 ^a
	Residual	142.688	74	.617		
	Total	1.953	75			

b. Dependent Variable: Project success

c. Predictors: (Constant), project monitoring

A regression analysis was done to determine the effect of project monitoring on project success in Rwanda. From the analysis, a p-value less than 0.05 ($p\text{-value} = 0.0000$) was obtained. This implies that the simple linear model with project monitoring as the only independent variable is significant.

Table 4.45: Coefficient results showing the relationship between project monitoring and project success

Coefficients (a)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error			
1	(Constant)	.887	.231		5.973	.000
	Project monitoring	.481	.040	.665	5.815	.000

c. Dependent variable: Project success

Correlation coefficients show that project monitoring (X3) is significant (p-value = 0.0000) in influencing project success (Y). The results of the analysis are shown in Table 4.16. The fitted model from this analysis is shown below:

$$Y = 0.887 + 0.481X_3$$

4.6 Correlation Analysis

To quantify the relationship and strength of the relationship between the variables, the study used Karl Pearson's coefficient of correlation.

The Pearson product-moment correlation coefficient (or Pearson correlation coefficient for short) is a measure of the strength of a linear association between two variables and is denoted by *r*. The Pearson correlation coefficient, *r*, can take a range of values from +1 to -1. A value of 0 indicates that there is no association between the two variables. A value greater than 0 indicates a positive association, that is, as the value of one variable increases so does the value of the other variable. A value less than 0 indicates a negative association, that is, as the value of one variable increases the value of the other variable decreases

Table 4.46: Correlation Analysis

		Project success	Project initiation & planning	Project execution process	Project monitoring
Project success	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	75			
Project initiation & planning	Pearson Correlation	.279**	1		
	Sig. (2-tailed)	.005			
	N	75	75		
Project execution process	Pearson Correlation	.762**	.157	1	
	Sig. (2-tailed)	.000	.116		
	N	75	75	75	
Project monitoring	Pearson Correlation	.236*	.275*	.199	1
	Sig. (2-tailed)	.016	.041	.321	
	N	75	75	75	75

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

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

Table 4.17 indicates that project initiation and planning process, project execution process and project monitoring positively and significantly correlates to project success ($r=0.279, 0.762, 0.236$). The *P values* for all the variables was less than 0.05 ($p<0.05$) indicating the relationship between the study variables is significant. This implies that ensuring and adhering to project initiation and planning process, project execution process and project monitoring would lead to project success

4.7 Regression Analysis

Regression analysis was done to determine the relationship between project management practices and project success

Table 4.47: Model Summary of the combined effect

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.542 ^a	.594	.568	.130

a. Predictors: (Constant), Project planning and initiation, Project execution, Project monitoring

Table 4.18 shows that the coefficient of determination R square is 0.594 and R is 0.542 at 0.05 significant level. The coefficient of determination indicates that 56.8% of the variation in the dependent variable Project success is explained by the independent variables (Project planning and initiation, Project execution, Project monitoring).

Table 4.48: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.575 ^a	3	.192	11.388	.000 ^b
	Residual	1.379	72	.017		
	Total	1.953	75			

a. Dependent Variable: Project success

b. Predictors: (Constant), Project planning and initiation, Project execution, Project monitoring

Table 4.19 presents the results of Analysis of Variance (ANOVA) on project management practices on project success. The ANOVA results for regression coefficient indicate that the significance of the F is 0.00 which is less than 0.05. This implies that there is a positive significant relationship between project management practices on project success and that the model is a good fit for the data

Table 4.49: Coefficient results showing the relationship between the combined project management practices and project success

Model		Unstandardized		Standardized	t	Sig.
		Coefficients				
		B	Std. Error	Beta		
1	(Constant)	.455	.231		1.973	.106
	Project planning and initiation	.016	.009	.444	1.815	.009
	Project execution	.182	.050	1.231	3.616	.036
	Project monitoring	.153	.017	1.075	3.159	.025

From the data in the above table the established regression equation was

$$Y = 0.455 + 0.016 X_1 + 0.182 X_2 + 0.153 X_3$$

From the above regression equation, it was revealed that holding Project planning and initiation, Project execution and Project monitoring to a constant zero, project success would be at 0.455. A unit change on project planning and initiation would lead to a change in project success by a factor of 0.016, a unit change in project execution would lead to change in project success by a factor of 0.18 and a unit change in project monitoring would lead to change in project success by a factor of 0.153

5.0. Conclusions

The study concluded that project initiation and planning processes influences project success. This is supported by the positive significant correlation realized between project planning and project success. The study also concluded that standards for measuring performance were clear and attainable. This ensured that the performance of the project is kept within the expected scope. The single stream of funding for HIV/AIDS project was found to have a project plan that outlined all project's stages up to closure. Individual responsibilities were well known. This prevented the conflicts of interest as well as enhancing smooth line of operation which is necessary for project success.

The study further concluded that project execution influences project success. This was evidenced by the correlation analysis that showed a positive significant relationship between the two variables. The study also concluded that the project was being carried out within the project execution plan. The study also concluded that the roles and responsibilities of the individuals involved in implementation of the project were well laid down and this helped in monitoring the performance of each implementer.

Additionally, the study concluded that project monitoring influence project success. A significant relationship was established between project monitoring and project success. The study concluded that the single stream of funding for HIV/AIDS project had effective project monitoring processes with effective monitoring tools

5.4 Recommendations

This study makes the following recommendations.

The study recommends that during project initiation stakeholders and all the team members of the project should be involved to enhance the success of a project. A lot of emphasis should be laid down when formulating the business case to ensure all the activities are enlisted.

The study recommends that effective project planning and initiation activities be applied to all projects. This can be achieved by adopting and continuously enforcing project management best practices across the organization. This study also recommends that emphasis be given to implementation activities that will ensure plans are effectively executed in order to fully meet set objectives.

The study suggests the introduction of effective monitoring tools; training of staff on use of monitoring tools; use of effective communication and improved reporting and documentation in order to improve the monitoring and control process.

5.5. Areas for further research

given the findings and conclusions drawn from the undertaken research project, it is apparent that there is a changing landscape as far as project implementation and project management in general is concerned. What was considered critical in yesteryears may not necessarily be the same today and in future. Technology is among the factors that are significantly changing the landscape of project implementation. It is therefore importance for a study to be undertaken on the emerging trends in project management and their effect on project implementation as well as effects of globalization on project implementation.

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