

Assessment of project implementation and project schedule at RV3CBA project, Nyabihu and Musanze Districts, Rwanda

Gasangwa Sylieen

Date of Submission: 25-01-2023

Date of Acceptance: 05-02-2023

ABSTRACT

Project scheduling as a basic time-management tool, consists of a list of times at which possible tasks, events, or actions are intended to take place, or of a sequence of events in the chronological order in which such things are intended to take place. However, some projects failure due to less attention paid to project scheduling performance. The general aims this study was to assess the main factors affecting the implementation of project schedule implementation; the influence of stakeholder's involvement on the implementation of project schedule of RV3CBA project; examine the influence of resources provision in the implementation of project schedule of RV3CBA project; to examine influence of stakeholder's communication on the implementation of project schedule of RV3CBA project and determine how leadership influences the implementation of project schedule of RV3CBA project. The study adopted Descriptive research where both quantitative and qualitative methods were used. The study population are 8002 stakeholders who were involved in RV3CBA project implementation and a sample of 142 was calculated using Solvin's sample size formula. Furthermore, the project managers will understand the optimum way to get stakeholders involved in project schedule design and implementation and resources utilization for project success. As findings through data collected with means of questionnaire majority of respondents, stakeholders were found to be moderately involved in RV3CBA project schedule implementation. The same finding was realized by Duncan (1994) who theorized that unless all parties to a project are involved in process of planning get a clear understanding of what it is the project is expected to deliver, planning is sure to be inadequate or misguided; the main factors that influence on the project schedule implementation includes: inefficient resources allocation; project budget disbursement schedule. The same findings

were found by Siborurema (2015); project implementation schedule, depends very much on effective communications between the stakeholders, funding agencies, host governments and project beneficiaries. Lastly, the findings showed that leadership's skills are very important for a good project schedule implantation. This finding is realistic since leadership is very important in project management process leadership. It is in line with Hwang & Ng (2013, pg.272) who stated that " a competent project manager is crucial to project success". Therefore, getting a good project leader is paramount to the performance of the project schedule implementation. Therefore, no matter the resources availability, the leadership, management skills and knowledge are more important for a project execution success.

I. INTRODUCTION

In the history of humanity, people have been working on improving the practices of project management. There are many practices in history of implementing projects that were successfully completed, despite all the complications and uncertainties that could have led the project a failure (Carayannis & Anbar, 2003). The pyramids of Giza, Great wall of China and Coliseum are all good practices of such projects. Many of these projects required an enormous workforce, large scope, many years of work and advanced planning and execution.

Globally, in its easy definition, effectiveness of project implementation integrates four basic elements. A project is generally considered to be successfully implemented if it comes in on schedule (time criterion), comes in on budget (monetary criterion), achieves basically all the goals originally set for it (effectiveness criterion), and is accepted and serve the beneficiaries that was intended (Anyango, 2016). Project scheduling as a basic time management

instrument, consists of times at which implementable tasks, events, or actions that are intended to be done, or of a classification of events in the chronological order in which such actions are to take place.

Projects in Africa like other developing countries are also subject to failure due mainly to poor project planning and scheduling. According to Delelegne(2016) many projects take longer time to complete, cost more than necessary and some projects are cancelled because of various factors directly and/or indirectly related with it. Additionally, Adebayo etal.(2018) asserted that lack of skilful planning, estimation and scheduling of projects has been established to cause significant failure in projects across Nigeria.

Rwanda has made significant achievements in its recovery in the past two decades, there has been important socioeconomic progress with a rapid economic growth rate (among the fastest in the world) coupled with substantial gains in poverty reduction. Many different Growth oriented projects were undertaken across all sectors (GoR, 2019). This paper considered the Reducing Vulnerability to Climate change through Community Based Adaptation project (RV3CBA) as a case of study. This is a project implemented by Ministry of Environment Rwanda for life span 5 years, from 2018-2022 and was undertaken in specific area Nyabihu and Musanze districts (MINIRENA, 2013).

1.1 Statement of the Problem

According to Asmaa etal, (2015) project schedule describes strategic direction for a project to be implemented. It describes milestones and deliverables needed to be achieved on regular basis for the success of the project. For Vanhoucke (2012) regular follow up and monitoring of the schedule gives an overview of impact of the challenges on the projects and provides way forward to improve the scope of a phase in the project. Also (Chira, 2014) asserted that a well-managed project will require a proper schedule and related documents. Without a schedule the project manager will never know when to finish. Projects are needed to be completed within the time frame, budgeted cost and required quality.

However, many projects take longer time to complete, cost more than necessary and some cancelled due to various factors directly or indirectly related with it. Project failures has

significant effect from economic as well as political points of view. If the project takes longer time it has implications on resources, budgets, increase labor, material, machinery and cost of equipment. (Delelegne, 2016). Moreover, in a survey conducted in Canada on 176 private and public companies in 1997 resulted that, 61 % of respondents reported project failures. Of the failed projects, more than three quarters exceeded schedules by 30 percent and more than half exceeded the planned budget. The primary reason the failure was poor project planning, and projects failed more often because of scheduling overruns than budget overruns. In these situations, project managers who do not optimize resources will cause delays in activity completion.

In Rwanda some public funded projects fail or are not completed due to various reasons including the poor project schedule performance. As matter of fact, the Report of the Auditor General of State Finances (2019) identified 18 cases of stalled projects worth Frw 112,552,600,100 that resulted from inadequate contract management. The delayed and abandoned works result into increased cost of Government projects, significant delays in completion of planned activities across public institutions and lack of value for money of Government projects. It is against the above scenario that this study aims at assessing factors the project schedule implementation in public funded projects.

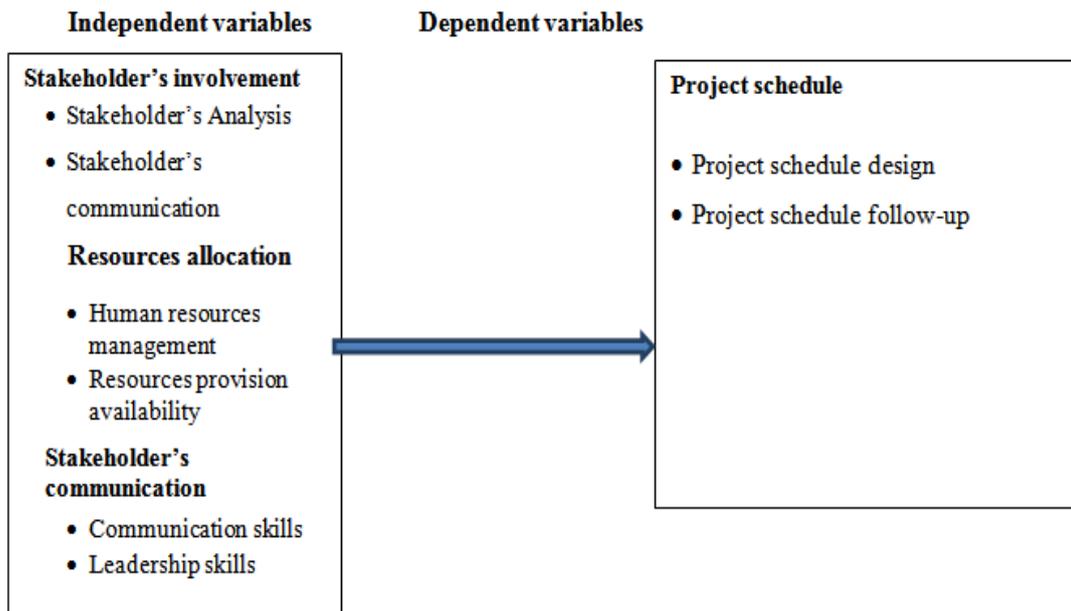
1.2 Objectives of the Study

- i. Assess the influence of stakeholder's involvement on the implementation of project schedule of RV3CBA project
- ii. Examine the effect of resources provision in the implementation of project schedule of RV3CBA project
- iii. Examine influence of stakeholder's communication on the implementation of project schedule of RV3CBA project
- iv. To examine Leadership influences the implementation of project schedule case of RV3CBA project

II. LITERATURE REVIEW

2.1. Conceptual Framework

The concept framework is a prerequisite step in academic research since it enables researchers to make clear his/her research questions and objectives.



Source: Researcher, 2022

III. METHODOLOGY

3.1 Research design

Manheim and Rich (1995), define research design as a plan of the study that organizes observations in such a way as to establish a sound logical basis for casual influence. The author also added that it is a plan of action adopted by researcher in carrying out the research. This study will adopt the descriptive design to explore the factors affecting the project schedule implantation. Descriptive research design is used by many researchers because it enables them to describe record, analyze and report conditions that exist or existed.

Moreover, the researcher adopted descriptive research design because it enabled him to explain the phenomenon by collecting data analyzing them before presentation using mathematically based method such as the statistical package for social sciences (SPSS).

3.2 Data collection

For this case, the subjects of study include stakeholders of RV3CBA project (beneficiaries and project staff) who contributed in implantation of the project in Nyabihu and Musanze districts. The main means of collecting information consisted of asking stakeholders structured and predefined questions. Since it was possible to study all the population, the researcher selected a representative sample on which the study was carried out. The researcher used different instruments to collect data namely reports documentary and questionnaires.

3.4 Target population

All the items under consideration in any field of inquiry constitute a 'universe' or 'population'. It can be presumed that in the inquiry of all the items covered no element of chance is left and highest accuracy is obtained (Kothari, 2004).

The population of this study consists of project stakeholders including beneficiaries of RV3BCA project, project staff (SPIU Coordinator, project coordinator, monitoring and evaluation specialist and project field officer).

Target population is the group about which the researcher would like to make statements based on the conditions and concerns under the study (Henry, 1990). In line with this, the target population beneficiaries are 8004.

3.4 Sample size

Cramer and Howitt (2004) defined a sample as a set of entities drawn from a population with the aim of estimating characteristics of the population. Cramer and Howitt (2004) further define a sample size as the number of cases or entities in the sample studied.

They suggested that the question of an appropriate sample size is a complex issue which depends on many factors. One significant factor is the researchers' expectations of the trend of responses. The sample size of the study will be 142 respondents selected from 8004 stakeholders. To determine this sample, the researcher used the

Solvin's sample size formula and it is shown below.

$$n = \frac{N}{1 + Ne^2} \times RR$$

 n = sample size
 N = target population
 e = margin error (10%)
 Response rate: 70%

$$n = \frac{8004}{1 + 8004 \times (0.1)^2} = \frac{8004}{81} = 98.8 \sim 99$$

$$n = \frac{99 \times 100}{70} = 142 \text{ respondents}$$

3.5 Sampling techniques

Upon selecting the study's respondents, the researcher used both convenience strategies.

Population composition

Population Category	Population	Sample	Sampling technique
Project beneficiaries	7700	90	Convenience
District staff/Project intervention areas in Nyabihu and Musanze districts	204	30	
Project management team	60	15	
Project steering committee members	20	7	
Total	8004	142	

Source: Primary data (2022)

The purpose sampling, selective, or subjective, defined as a form of non-probability sampling in which researchers rely on their own judgment when choosing members of the population to participate in their study. It is a sampling technique where samples are obtained from convenient elements. The researcher used this technique to sample the beneficiaries that were involved in RV3BCA project in Nyabihu and Musanze districts

3.5 Validity

In this perspective, ahead of designing the final questionnaire, the researcher conducted a pilot test to predict accurately the effectiveness of this survey instrument. According to Lovell and Lawson (2010), validity depends upon judgment of experts who after examining the contents decide what they think it measures.

3.6 Reliability

A reliable instrument is the one that consistently produces the expected results (Mulusa, 2010). Reliability will be increased by precise identification of the data required and repeated review of instruments by knowledgeable evaluators and field test on appropriate population. Through pilot inconsistencies were corrected to enhance the reliability of the research instrument.

3.7 Data Collection Techniques

For this case, the subjects of study include stakeholders of RV3CBA project (beneficiaries and project staff) who contributed in implantation of the project in Nyabihu and Musanze districts.

The main means of collecting information consisted of asking stakeholders structured and predefined questions. Since it was possible to study all the population, the researcher selected a representative sample on which the study was carried out. The researcher used different instruments to collect data namely reports documentary and questionnaires.

IV. FINDINGS

4.0 Introduction

This section presents the summary of the findings of the study in chapter four according to the objectives. Data were collected through administering of questionnaires to the respondents and face to face interviews were also conducted to gather key information. This analysis and interpretation of findings was aimed at achieving the research objectives: i) Assess the influence of stakeholder involvement on the implementation of project schedule of RV3CBA project; ii) Examine the influence of resources provision in the implementation of project schedule of RV3CBA project; iii) Examine influence of stakeholder's communication on the implementation of the project schedule of RV3CBA project; iv) To examine Leadership influences the implementation of project schedule case of RV3CBA project

4.1. Stakeholder involvement on the implementation of project schedule of RV3CBA project

The first research question dealt with the question on how does stakeholder's involvement influence project schedule implementation of

RV3CBA project? through data collected with means of questionnaire majority of respondents (69.7%) respondents strongly agreed that project stakeholders played their roles and responsibilities in implementing projects schedule, Also 60.6% of respondents strongly agreed that Stakeholders were involved the process of decision making in all stages of projects schedule implementation; 52.8% of respondents strongly agreed that Stakeholder's decisions were effective in ensuring uninterrupted flow of project activities, 69.7% of respondents strong agreed that the concerns of stakeholders were timely taken care to avoid unnecessary conflicts during project schedule implementation and finally, 56.3% of respondents strongly agreed that Stakeholder analysis was done to identify the level of input into projects.

According to the research findings stakeholders were found to be moderately involved in RV3CBA project schedule implementation. The same finding was realized by Duncan (1994) who theorized that unless all parties to a project are involved in process of planning get a clear understanding of what it is the project is expected to deliver, planning is sure to be inadequate or misguided. Through interview researcher wanted to know the level of the involvement on the side of key stakeholders. It was found that before the start of the project, stakeholders like local leaders, population beneficiaries and project staff were meet for project preparation and beneficiaries' selections.

Moreover, population beneficiaries through interview agreed that they used to meet with local authorizes and project staff to get explanation about the contribution they ought to play and the benefits that will come to them during and after project implementation. Citizens also confirmed that they got explanations about the time frame of the project as well as the steps that the project would follow. As matter of fact, the Reducing Vulnerability to Climate Change in North West Rwanda through community-based adaption (RV3CBA) project evaluation report (2018) demonstrates that the project targeted beneficiaries were mobilized to participate in project activities, where Records indicate that more than 8,000 people participated in adaptation planning.

These findings are in line with the findings from Njogu (2016) that stakeholder's involvement in the process of project identification enabled the project managers to identify individuals who are likely to be affected by the

project and this also led to easy implementation of project schedule. Also, these findings are in line with Mbaabu (2012) that involvement of stakeholders in development of preliminary proposal project proposal enable them to identify, select the project of their interest and eradicate conflict which may arise during project development stages as well as implementing the project schedule on predicted time.

4.2. Resources provision project schedule implementation of RV3CBA project

The second research question was to assess how does resources provision influence implementation of project schedule of RV3CBA project? Findings basing on respondents' views showed that 52.1% of respondents strongly agree that project resources provision accelerates the supply of project materials for timely schedule implementation; at least 65.5% of respondents agreed that resources provision ensures there is timely provision of funds for project schedule implementation, 65.5% respondents strongly agree that there is a smooth delivery of project activities on time whenever resources are availed on time.

To the contrary, 59.2% of respondents agreed that there is independency in the budgetary decisions for project schedule implementation for staff in charge of budgeting 72.5% respondents stated that Resources provision ensures Cost-efficiency in accelerating and reworking schedules and their activities. It was also found that delay in funds disbursement would negatively affect the project schedule.

As matter of fact, through interview it was found out that there was a delay in disbursement of the final tranche by a whole year (June 2017 August 2018), due to institutional reforms by the Government of Rwanda. This therefore led to a request for an extension of the project life cycle to December 2019, which was granted. Fortunately, the delay did not affect the effectiveness of the project since the final performance report indicates that at the time, the majority of the project activities had been undertaken.

The findings from this study are similar to a study by Siborurema (2015) who showed that among the main factors that influence on the project schedule implementation includes: inefficient resources allocation (66.7%); project budget disbursement schedule (60%) and inefficient communication among project stakeholders (53.3%)

4.3. Stakeholder's communication on the implementation of project schedule of RV3CBA project

The third research question of this study was to analyse how stakeholder's communication influence the implementation of project schedule of RV3CBA project. The findings from collected data shows that 68.3% Communication promotes common understanding on project schedule implementation; 62% of respondents strongly agree that teamwork and team building skills are important skills for a project schedule implementation.

Furthermore, 52.1% of respondents strongly agreed that the project ability of a leader on how to plan, control and coordinate the various stages enable him/her to maintain project stakeholders within the objective-oriented direction. Finally, at least 56.4% agreed that Problem solving skills enables managers to discover problems on time, judging and decision-making which is a good tool for project schedule implementation.

The findings agree with John (2012) who postulates that project implementation schedule, depends very much on effective communications between the stakeholders, funding agencies, host governments and project beneficiaries. Moreover, Panos (2007), asserts that communication involves processes of dialogue, exchange of information and resources, and the capacities that enable understanding, negotiation and decision making'. Simply put, communication gives the project beneficiaries a voice, or empowers them, by that they can participate effectively in discussions of projects schedule.

4.4. Leadership skills on the implementation of project schedule of RV3CBA project

As leadership is concerned, 66.2% of respondents strongly agreed that conceptual thinking helps in detecting problems and patterns resulting to successful projects schedule implementation; 62% of respondents strongly agree that a leader's effectiveness depends on the capacity to solve multiple problems, 66.2% strongly agreed that technical and professional expertise is crucial for project leaders to the success of implementation of a project schedule; 68.3% of respondents strongly agree that interpersonal effectiveness is key in accomplishing project goals on project time frame; 75.4% strongly agreed that effective communication and timely feedback lead to high performing teams; while

77.5% of respondents strongly agree that both the leader and project team need to take self-development courses in order to work properly.

The findings showed that leadership's skills are very important for a good project schedule implantation. This finding is realistic since leadership is very important in project management process leadership. It is in line with Hwang &Ng (2013, pg.272) who stated that " a competent project manager is crucial to project success". Therefore, getting a good project leader is paramount to the performance of the project schedule implementation. Therefore, no matter the resources availability, the leadership, management skills and knowledge are more important for a project execution success.

V. CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

Finally, it important to note that project schedule defines direction for a project to be implemented or to run. It describes certain deliverables and milestones which needed to be achieved on a timely basis towards project completion. Moreover, a well-managed project will require a proper schedule. Without a schedule you will never know when you're going to finish your project.

Projects need to be completed in the set timeframe with budgeted cost spent and with quality required. Nevertheless, nontreaty many projects delayed to complete, cost more than planned and some cancelled of different factors. When a project delayed, it required additional resources and cost and it increases labour, material, machinery and equipment cost. The results of this study showed that stakeholder's involvement, resources provision, stakeholder's communication and leadership skills are key factors that have critical contributions to the project schedule implementation once are considered during project implementation.

The field survey carried out in Nyabihu district revealed series of conclusions as follows:

- I. Stakeholders' involvement enables beneficiaries to understand they responsibility and the role to play during project schedule implementation.
- II. Delay in funds disbursement affect negatively on project schedule since the project is extended to perform the remaining activities of the project.

- III. Stakeholder's communication is of great importance for project schedule implementation where for example good communication skills allow stakeholders to equally get informed about the performance of the project and make effort to meet the deadlines as set by project staff.
- IV. Leadership skills were also found to influence the implantation of project schedule because a good leader joins together efforts from all stakeholders to work as a team towards project schedule success.

5.2 Recommendations

The following were the recommendations of the study:

- I. The study recommends that stakeholders participation need to be increased in project implementation schedule. This will promote the implementation of project performance since there will be little resistance from stakeholders.
- II. The study recommends that the project managers and funders should provide the necessary resources and facilities for project schedule implementation. This will facilitate effective and implementation of project schedule.
- III. The study further recommends that the qualified staff should be recruited and trained on project schedule management. This will give them the ability and capacity in project schedule development, implementation and increase innovativeness among project team.
- IV. The study finally recommends that participative leadership should be adopted to avoid poor project schedule performance that leads to the delay in project deliverables, misuse of resources and project overrun

REFERENCE

- [1]. Achaka, C. H. (2012) "Effectiveness of Scheduling Techniques in The Success of Mechanical Construction Project
- [2]. Adebayo O.R., Eniowo O. D., & Ogunjobi V. O (2018) International Journal of Engendering Research, 8(5), 177-184 <http://doi.org/10.31033/ijemr.8.5.21A> made B., Chimezie Henry Achaka, Emmanuel Chinenye Uban (2013).
- [3]. Anyango, M. (2016). Factors Determining Project Implementation Of Health Projects In Gedo, Vol.1 (January 2013) ISSN 2249-6149 Available online on http://www.rspublication.com/ijeted/ijeted_index.htm Region, Somalia. Unpublished Master's thesis, University of Nairobi
- [4]. AOG. (2019). Report of Auditor General Statement for the year ended 30 June 2019 for the Year. Kigali: Ministry of Environment.
- [5]. Asmaa Atef Mohamed Abdel-Baset Ibrahim El-henawy (2015). Project scheduling: survey and research potentials. Volume 4– Issue 4, 235 - 241, 2015, ISSN: - 2319–8656
- [6]. Azzopardi, S. (2014). The Evolution of Project Management. Retrieved from <https://www.projectsmart.co.uk/evolution-of-project-management.php> 15th march 2021
- [7]. Bokor O., Kocsis T. and Szenik, G. "New tools in project scheduling of the construction project planning," Civil and Environmental Engineering Budownictwo/Inzynieria Srodowiska, vol. 2, pp. 215-221, 2011.
- [8]. Carayannis, K. & Anbar, C. (2003). Brief history of project management, department of management science. The George Washington University.
- [9]. Chira, A. (2014). "Best-Order Crossover in an Evolutionary Approach to Multi-Mode Resource-Constrained Project Scheduling", international journal of computer information systems and industrial management applications. ISSN 2150-7988 Volume 6 (2).
- [10]. Damoah, I. (2011). An analysis of the causes of project failure and the impact on stakeholders: a case study of the Ghana National Insurance Scheme (NHIS) project. Unpublished Dissertation, University of Wales.
- [11]. Darshit R. Shah, Dixit N. Patel (2018) factors affecting scheduling of multiple projects Volume: 05 Issue: 03 e-ISSN: 2395-0056, Mar-2018