



PROJECT MANAGEMENT PRACTICES AND PERFORMANCE OF WATER SUPPLY PROJECTS IN RWANDA: A CASE OF NZOVE NTORA IN WASAC LTD

Niyigena AFISSA¹,
Dr Gitahi Njenga²

¹ School of Business Management, Mount Kenya University,
Kigali, Rwanda

² Master of Business Administration, Project Management Option

Abstract

The purpose of this study was to find out the project management practices and performance of water supply projects in Rwanda with a case study of Nzove Ntora in Wasac Ltd. This study was achieved the following objectives: To analyze the influence of project analysis; to examine the influence of project formulation; to assess the influence of project implementation and to determine the influence of project evaluation to the performance of Nzove Ntora in Wasac Ltd. The theory makes claims about comprehensive rationality. It is premised on the existence of complete information about alternatives and consequences; complete baseline data; and completely sufficient time, capability and other resources. Rationality is associated with a scientific approach to analysis and problem solving in the decision-making and planning context. Rational planning comprises the basis for conventional project management in which formal project planning is central and decision-making is analytical. Dwelt much on specific type of monitoring and evaluation where he says that, for M&E to be successful, it has to be participatory. Evaluation also has been criticized in a sense that good evaluations need expertise, resources, and above all time. This normally leads to a lagged cycle of commissioning evaluations to address policy questions, only to have evaluations reported well after the necessary decisions have been made. Conversely, decision-makers often view earlier evaluations as out of date; and rightly or wrongly, irrelevant to current policy questions. A correlation design was utilized in order to interpret data. Therefore, both quantitative (questionnaire) and qualitative (interview) research techniques were used by researcher in order to collect data

(information) related to the objectives of the study and for data analysis. The entire target population of the study who was the total number of the target population was 81 persons including the key informants. This study used census inquiry method. Data source refers to any material was consulted or used in the due course of the study. Both the primary and secondary data was used in the study. Spearman (Pearson) correlation coefficient measures the extent to which, as one variable increases, the other variable tends to increase, without requiring that increase to be represented by a linear relationship. If, as the one variable increases, the other decreases, the rank correlation coefficients were negative. Statistical correlation is measured by what is called coefficient of correlation (r). Its numerical value ranges from +1.0 to -1.0. It indicates the strength of relationship. In general, $r > 0$ indicates positive relationship, $r < 0$ indicates negative relationship while $r = 0$ indicates no relationship (or that the variables are independent and not related). Here $r = +1.0$ describes a perfect positive correlation and $r = -1.0$ describes a perfect negative correlation. The findings shows that there is strong mean and standard deviation of 4.26 and 0.855 respectively, implies that the project evaluation ensure all activities that are being developed within institutions at Nzove Ntora in Wasac Ltd. The study concludes that project management practices have a significant positive impact on the performance of Nzove Ntora in Wasac Ltd.'s water projects. The study recommends that organizations in Rwanda's water sector achieve their goals. Annual goals should be aligned with major change initiatives or quality programs and integrated with stakeholder engagement. This

makes stakeholder involvement part of the plan and sustainable. Stakeholder engagement should focus on stakeholder engagement to improve her Nzove

1. Introduction

All over the world, project management is important in any activity, business sector, private as well as public sector; as an important project delivery tool, its history is closely related to the history of government project services (Basu, 2017). To determine the direction of an organization, it is necessary to understand its current position and the possible paths through which it can take specific actions. According to Wiley & Sons (2005), well-designed project planning helps you prioritize, acquire and allocate the necessary resources to achieve your goals. It provides a framework for analysis and rapid adaptation to future challenges. In China, the implementation of water supply projects is increasingly important to donors, as pressure from domestic constituencies to sharply reduce or possibly halt foreign aid projects grows. At that time, donor organizations can stop development cooperation with "third world countries". In addition, donors have also begun to see that aid provided in recent decades has produced few benefits for recipient countries, and these benefits often end when foreign aid is withdrawn from projects or programs (Brown, 2015).

United States, Project management is the planning, monitoring, and control of the project delivery and support process, taking into account the environmental, economic, and social aspects of the life cycle of project resources, processes, deliverables, and impacts, to achieve stakeholder satisfaction. , and is conducted in a transparent, fair and ethical manner, including actively involving stakeholders, taking into account performance in the project management process). A good way to ensure project performance is to keep this goal in mind from the beginning of the project (Pfeiffer, 2014). Once it is included in the project vision, it cannot be forgotten. Sustainable operation in all areas of the project will ensure that damage to the environment is minimized. When project managers manage the consumption of project resources, they must consider all factors inside and outside the organization throughout the life of the project. Therefore, it is important that they use a sustainable life cycle mindset from the beginning to the end of the project (Gilbert, 2015). Because the projects are temporary, many may be confused about how they will work if sustainability works in the long term.

Ntora in her Wasac Ltd water supply project within Rwanda's water sector.

Keywords: *Project management practices and performance of water supply projects.*

However, projects can help organizations achieve long-term investment goals.

Rwanda as a country has too many obstacles that are typical of neighboring governments (Kovach & Mandell, 2017). The money it costs to host important events can put a strain on cash-strapped local authorities who have to centralize their day-to-day operations. Also, decision making in community management can be a difficult problem due to its complexity. Citizens are often more directly involved in decision-making in the city than at other levels of government through citizen tables and city council meetings. This can make it difficult to agree on what cities should strive for. In addition, neighboring governments increasingly rely on the involvement and organization of other legislative, non-profit and private organizations to conduct business. The interdependence of this type of local authorities can use important troubles, as they must be included in all relevant partners.

In any case, neighborhood governments can pick up numerous benefits from actualizing a key arrange, agreeing to Pindur (2016). Vital arranging can offer assistance distinguish critical issues in a community and how assets ought to be utilized. The arranging prepare can too offer assistance teach citizen members almost the capacities and objectives of the region. The method can to help nearby governments in bringing together different partners (citizens, trade proprietors, and staff of all levels) through agreement building. At long last, key arranging can progress organizational execution and the capacity of the government to reach expressed destinations since city staff and citizens are working toward the same mission.

In May 2006, amid the discourse for the plan of Financial Improvement and Destitution Decrease Methodology (EDPRS), the government of Rwanda presented Imihigo (Execution contracts) as a performance-based administration apparatus to fortify key arranging and administration and progress benefit conveyance in the local government. The work out finished in institutionalizing execution contracts within the central and nearby government planning system in arrange to extend the rate and the quality of the execution of government programs and needs. Imihigo is presently coordinates into the national

arranging framework through the EDPRS Segment Vital Plans (SSP) and Locale Improvement Plans (DDPs). Yearly assessment is conducted to decide the degree to which areas have achieved their targets and contributed to enhancements within the socio-economic prosperity of citizens. Whereas critical positive results have been realized, a number of crevices still exist for neighborhood government to attain their goals. Most striking among these is the challenge related to arranging: markers, baselines and targets. This considers looks for to look at these planning-related challenges in detail and give proposals for assist enhancement.

The Government of Rwanda recognizes that accessibility of effective and solid vitality supply may be a pre-requisite for social thriving, human improvement and financial development. These are too the key goals of Rwanda's Vision 2020 whose overarching objective is to convert the nation into a center pay economy by making strides its competitiveness whereas guaranteeing solidarity and comprehensive development. Accomplishing the Vision 2020 destinations will require changing the nation from a low-income agrarian economy to a medium pay trade situated economy, operating as a knowledge-based benefit center. Three key limitations will get to be overcome. To begin with, the beginning but growing private division is however to play its part as a development driver, in show disdain toward of the maintained changes within the trade administrative environment. Moment, lacking physical foundation remains a key official imperative to financial development, human improvement and development in trades (Karekezi & Kithyoma, 2017).

Third, organization and specialized capacity has developed as bottleneck to accomplishing the specified quick economic growth. The vitality segment is additionally confronted with a cross-section of all these bottlenecks. A vitality segment approach and methodology was arranged in 2009 and verbalizes the order of the vitality segment to successfully contribute to the country's advancement plan. Be that as it may, accomplishing the sector's objectives and targets will require prioritizing the taking after arrangement objectives: advancement of residential vitality sources; proficient utilize of vitality; rationalizing vitality estimating and appropriations; organization advancement of the segment; and capacity building. This considers points to complement Government's endeavors in ensuring the accessibility of solid and reasonable vitality generation that's moreover naturally maintainable. This thinks about serves a number of purposes.

To begin with, it recognizes the center vitality framework bottlenecks confronting the nation and

alternatives for relieving these challenges. Moment, it presents a street outline and activity arrange covering both the development of physical foundation and the improvement of segment structure, direction, and organization capacity; recognizing between the short-and longer-term measures, (Karekezi & Kithyoma, 2017). Third, it recognizes imaginative approaches to crowd-in private segment speculation and financing counting the utilize of fractional credit ensures and foundation of an vitality effectiveness advancement support. The guide and activity arrange are anticipated to direct the arrangement of the moment Financial Improvement and Destitution Lessening Methodology and for educating discourse on key change measures. This think about is in line with the African Improvement Bank's Ten Year Technique (2013-2022) whose foremost objective is to guarantee that development is more comprehensive which comprehensive development is maintainable through a slow move to green development, (Hamilton, 2016).

Rwanda is one of those countries where the government spends a lot of money and effort to develop all aspects of project planning, but it still fails in some private projects and the government. The Rwandan government has created many development projects for different regions and has invested a lot of effort to make these projects successful. Pressure from different donors can sometimes force project managers to act outside of normal management principles (Belagis, 2018). Today is the time to work on the implementation of the government program; Every effort should be made to ensure that all government program funds contribute to high performance. Project planning plays a key role in facilitating them. WASAC's capacity as a project implementing organization has adopted this to improve its performance.

Poor project management practices have a negative impact on project performance, and their project management practices have become a key point affecting organizational performance. A MINIFRA (2016) report shows that there are a number of government projects that have failed mainly due to poor project management practices, e.g. off-grid power plants and energy, Busoro wet peat mine dredging project. Today is the time to work on improving the organization's performance; In Rwanda, local governments have been hesitant to define core governance functions; expect it to be part of the central government. This can be attributed to an inability to perform this task or a reluctance to engage with the importance of project management practices, so their management style does not have a solid key plan. According to Makombe (2016), often contrary to the procedures

carried out by the organization; an approach adopted by neighborhood government experts to identify neighborhood needs, annual goals, and identify activities to achieve those goals. It is understood that there are still gaps in education in most parts of Rwanda. Find inconsistent and reliable markers, baselines and targets. This makes degree progression difficult and often unimaginable and has a significant impact on progress. Most government projects have project plans that help ensure good execution, but due to various reasons such as poor project formulation, poor project implementation, poor project evaluation and poor project quality, some of them are not implemented Nzove Ntora, Wasac Ltd. and continued as expected. Poor project analysis, project mission and vision All the above factors hinder the implementation of Rwandan government projects. No data are available on the

2. Review of Literature

Project analysis

Item analysis is described by Bryson et al. (2015) as "the appropriate and rational integration of an organization's (or other) core activities and applications that incrementally improves the fulfillment of its mission, order collection, continuous learning, and open value creation that support it." Project analysis can be a way for organizations to be proactive in order to strengthen their position in both internal and remote environments (Poister & Streib, 2014). Project management and milestones are often used interchangeably in business, but they are not the same concept (Poister 2014). Current research considers important agreements to be fundamental to the overall project management process (Poister et al., 2014). In any case, this relationship was not so obvious before the study. Eadie & Steinbacher (2016) write that it is difficult to describe how life planning fits into life management because it is initially unclear what life planning entails.

They write: "Project management is less a product of progress in project planning than a response to early distractions from the explanatory procedures of method development. According to Vinzant & Vinzant (2016), key planning is only part of project management. The other two components are asset allocation and valuation and control. Resource allocation includes not only budgeting tools but also human resource management tools. The control and evaluation part of project management ensures the achievement of the objectives set in the important plans, often in support of executive management. It is the identifiable evidence of markers and the evaluation of these markers that allows organizations to decide whether they are effectively moving towards their stated goals. Project

role of program planning and implementation of Rwandan government programs, including this one. Therefore, this study evaluates the impact of project management practices and performance of water supply projects in Rwanda with reference to Nzove Ntora of Wasac Ltd.

The objectives of the paper are:

- i. To analyze the influence of project analysis on performance of Nzove Ntora in Wasac Ltd;
- ii. To examine the influence of project formulation on performance of Nzove Ntora in Wasac Ltd;
- iii. To assess the influence of project implementation on performance of Nzove Ntora in Wasac Ltd;
- iv. To determine the influence of project evaluation on performance of Nzove Ntora in Wasac Ltd.

management must integrate all these components (Vinzant & Vinzant 2016).

According to the terminology of Wechsler & Backoff (2017), project management is the integration of process strategy tools: key planning, resource allocation tools, and control and evaluation tools. Considering the importance of project management, the concept of project management is mostly associated with it and is widely discussed in all discussions related to organizational management. Thomas & David (2012) also stated that a company's strategy constitutes a comprehensive master plan that defines how the company will achieve its mission and goals. It optimizes competitive advantage and minimizes competitive disadvantage. Strategy is not just a race for today, it is a race for tomorrow. This dynamic strategic expression includes initial future goals and an assessment of how those goals will be achieved. Future goals are related to the organization's overall goals (mission), what it wants to be (vision), and specific operational goals (Robert, 2014).

Project formulation

The main part shows the technical definition and its form. It should be noted that technology can be a board placement created by an organization that requires it to get from where it wants to be. Detailed techniques help officials determine where their company is located, the closure it seeks, and the consequences it will use to achieve that closure (Pearce & Robinson, 2009). The respected creators describe technique detailing as a continuation: Methodology detailing is a method of creating the organization's mission and goals by choosing one of the optional methods (Barnat, 2014). In addition, Mitchell describes methodological definitions as key

milestones in management processes, offering a clear set of recommendations with a supporting career that breaks down an organization's mission and goals into essential elements and provides a methodology. On the other hand, Hurricane suggests that critical measures consist of multiple components that build on previous measures and works (Hurricane, 2009). Sometimes the main definitions are called "main choreography". Substantial planning also allows organizations to assess their resources, allocate budgets and identify the most successful schemes to maximize ROI (return on speculation) (SF, 2016). Pearce & Robinson (2009) stated that there are three main phases in program layout, these phases are project mission, key objectives, methods and techniques. As can be seen from all previous definitions, the method that determines the current stage of the main management processes is integrated into the organization's mission and goals and develops the organization's methodology and measures.

Project implementation

Strategy implementation is where the actual actions of the organization are carried out through central control levers (Allio 2005). It is a set of exercises to translate critical measures into solid organizational execution. Regardless, important changes in arrangements are required, but the approach can be somewhat challenging. As Brinkschröder (2014) said: "Organizations invest a lot of time and resources in setting up methods, but very little is implemented effectively." Subsequently, research has shown that it is one of the fundamental dimensions of business success for any organization (Lubis, Torong, and Muda 2016); because it requires the most important considerations to achieve technical and implementer acceptance (Misankova & Kocisova 2014). Execution deals (Misankova & Kocisova 2014, 862) with the question of who, where, when and how (Allio 2005) to reach a company's destination. In the key implementation approach, the entire organization is involved to ensure synergy. According to Van der Kolk & Schokker (2016), key management is the most critical and challenging part of a well-thought-out regulatory approach and requires a share of investment to improve organizational progress (Van der Kolk & Schokker 2016).

It requires all-inclusive plans to guarantee that all the targets of the organization are accomplished. In quintessence, this paper presents a brief methodology execution handle; it surveys basic highlights of the vital usage strategies, counting technique execution components, technique usage handle, and components that lead to the disappointment of methodology usage. Need of clear common understanding of in general points

and plans as a major obstruction to technique execution (Brinkschröder, 2014). In any organization, the arrange may well be inconceivably complex (Dunlop, Firth & Lurie 2013), but understanding the usage prepare may lead to be successful and therewith fruitful (Brinkschröder 2014).

Project evaluation

Strategy evaluation handle distinguishes the level of procedure usage (Elshamly 2013), gives early signals around components that might ruin the victory of the procedure by inciting administration to inquire questions on the execution prepare or the leaders' unwavering quality and competency (Carpenter & Sanders, 2009). Procedure assessment handle highlights firms' viability in responding to modern challenges (Johnson & Scholes, 2002) that make them accomplish their vital points. In reality, firms ought to audit their capabilities and competencies for effective usage of their technique (Popa, 2012). Subsequently, technique assessment handle guarantees that firms adjust their procedure to any chance of changes within the environment. Ostensibly, a strong procedure assessment handle gives data to the administration on the cause of disappointment in accomplishing the firm's vital objective. Undoubtedly, procedure assessment ensures the trade from collapse (Dubihlela & Sandada, 2014), anticipates firms from taking off-base choices and makes a difference them to expect issues on the off chance that there's alter within the inner and outside environment (Elshamly, 2013).

Strategy evaluation handle has gotten constrained consideration within the key administration writing (Edwards & LaFief, 2004, cited in Abdul Najib Container Abdul Majid & Mas Bambang Baroto, 2016), particularly in huge firms. Writing appears that there are few considers on procedure evaluation/performance nexus centered on Little and Medium Undertaking (SMEs) (Dubihlela & Sandada, 2014; Popa 2012). Besides, most of the studies in Nigeria did not consider technique assessment as isolated develops within the vital management process (Monday 2015; Muogbo, 2013). We contend that technique assessment handle may be a partitioned build and the relationship between procedure assessment handle and execution may depend on settings. Relevantly, this study centers on multinational firms working within the versatile media transmission segment in Nigeria. All inclusive, media transmission contributes to financial improvement and development of nations. Moreover, the versatile telecommunication sector in Nigeria could be a major donor to Net Residential Item The consider, hence, endeavors to fill the relevant crevice within the writing by exploring the effect of methodology

assessment prepare on vital performance of multinational firms within the portable media transmission division in an developing advertise., (GDP), outside coordinate speculation and business development.

Agreeing to GSMA (2015), the versatile administrators contributed \$8.3 billion in esteem included to the Nigerian economy in 2014 (\$2.2 billion of this comes from esteem included produced from coordinate effect of compensation, charges and profits, \$3.7 billion comes from esteem included produced over the portable biological system that remains inside Nigeria and \$2.4 billion comes from consequent rounds of consumption made specifically or by implication captured utilizing the multiplier). Ostensibly, efficient approach to technique assessment prepare seem improve key execution of firms.

Performance of water supply project

Over the past few decades, open management writing has focused unusually heavily on project execution. In a presentation at the Open Society Project National Conference in the US, Ingraham (2015) stated that "performance is based on governance and accountability". Performance measurement will be different. Open regulators can monitor more effectively and provide open governance more effectively. Performance measurement is "scheduled periodic evaluations to track issues, progress, and trends" (Hatry et al. 2017). In an open organization, these measures should flow from the organization's clear mission, goals, and objectives (Poister, 2013). Performance measurement is described by Poister as a method for displaying and characterizing the use of such measures" (2013). A framework that combines the collection of information about performance indicators and the monitoring of progress is called performance management (VanDooren et al., 2010).). The topic of performance in open organizations is the subject of ongoing research by numerous government researchers. This interest in management topics is largely due to recent efforts in the public domain to reshape public organizations more within the framework of private enterprises. Review efforts, such as underutilized open governance, have created a strong performance measurement hub. Bouckaert wrote a point-by-point history of the use of executive measures in open games in 1990 (see also Williams, 2013). This article highlights the long history of the use of open sector measures, which began in the early 1900s as a result of the need for more efficient government. From the 1940s to the 1970s, open organizations were particularly interested in implementing measures to help reduce costs. In the 1970s, control

efforts were replaced instead by calls for citizen funds. In the 1980s and 1990s, there was a tendency to rethink government to ensure maximum productivity and efficiency.

Theoretical Review

Theoretical summary involves reviewing research topics. This study looks at the theory: rational planning theory, contradiction theory and criticism.

The Theory of Rational Planning

As a norm-norm theory (Bell 2018; Mintzberg & Lampel, 2013), rational programming is used as the main theory to be tested in this study due to the rationale provided in the previous section. However, any planning activity is considered to be rational (Alexander, 2014). Thus, planning is interpreted as rational action (Faludi, 2013). At the beginning of planning, planning is sometimes considered synonymous with decision making (Mintzberg, 2014). The theory makes claims about synthetic rationality (Dror, 2018; Faludi, 2013). This presupposes the existence of complete information about alternatives and consequences, complete baseline data and fully sufficient time, capacity and other resources (Bell 2018; Forester, 2014; Lindblom, 2014; Steiss, 2013). 15 Rationality is related to scientific methods of analysis and problem solving related to decision making and planning (Alexander, 1992). Rational planning forms the basis of traditional project management, where formal project planning is central and decision making is analytical (Andersen, 2014).

Project management literature is dominated by assumptions of rationality (Dean and Sharfman, 2013). Rational or classical (Joyce, 2015) planning theory views strategy as "a rational process of deliberate calculation and analysis aimed at maximizing long-term benefits" (Whittington, 2014). Likewise, rational planning in relation to strategy is described as follows: "It is characterized by a series of analytical, logical and rational procedures that are precisely followed to formulate a desired strategy." (Collier 2014) According to this theory, strategy is a formal Deliberate, conscious and deliberate planning process is clearly stated and rigorous (Boyne & Gould-Williams, 2013). It is very analytical, mechanical and linear at the same time. Formal project planning often involves the use of quantitative methods. It prescribes the centralization of the system and requires a high degree of coordination and integration. This is a cyclical process and once the plan is implemented and completes its cycle, the phases are repeated. On terms similar to rational planning theory, a

typical formal project planning process includes the following steps (Bryson, 2014; Poister, 2013). Awareness of current or prospective competitors (Bryson & Roering, 2017). Organizations engage in formal project planning to synchronize their activities and act rationally (Mintzberg, 2014). Proponents of formal planning argue that it helps clarify goals and objectives; facilitates the communication of mission and goals throughout the organization and provides bottom-up employee support (Boyne, 2014; Poister and Streib, 2014).

Conflicting Theories

When reviewing the literature, the researcher established that, though there were no strong conflicting theories in the area of monitoring and evaluation, there are still some areas where different authors had divergent emphasis in regard to the importance of monitoring and evaluation systems and tools to enhancing project sustainability. Gizachew (2011) dwelt much on specific type of monitoring and evaluation where he says that, for M&E to be successful, it has to be participatory. Mackay (2007) on the other hand, without specifying the type of monitoring and evaluation to be employed, emphasized the four importance of M&E concepts; project durability, policy development, management of the projects and accountability. Monsalve (2004) shared the same views with Mackay, and had two more important aspects of monitoring and evaluation where he said that, it provides data for planning future resource needs and advocacy.

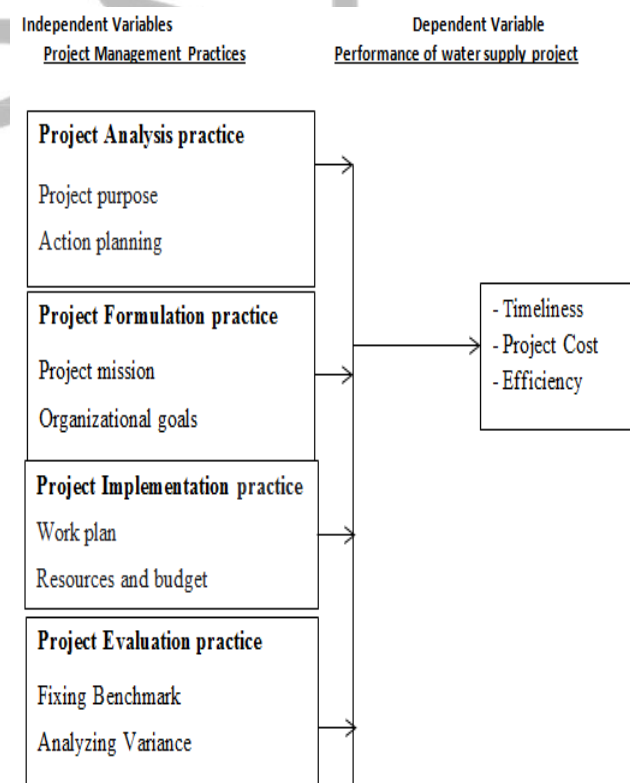
Bambarger (2006) like other authors acknowledges the importance of beneficiaries' participation in project monitoring and evaluation tools for sustainability of project, but used a different approach where he said that, it's a powerful tool for learning about what works, what does not, and the reasons why. It is important to note however, that, though sometimes used divergent wording and ideas, there common words that keep coming when talking about the importance of monitoring and evaluation tools in project management. This theory was used to determine clearly the influence of monitoring and evaluation practices on sustainability of World Bank funded project and how conflict can affect negatively sustainability of the project.

Criticism Theories

Various evaluators often consider supervision to play a secondary and relatively simple role compared to the evaluation itself. He suggests that this view underestimates the potential of monitoring information to add value to evaluation efforts, particularly in terms of increasing the "half-

life" of evaluation results. In fact, he is concerned that proponents of this theory ignore the fact that supervision complements the fragmented and ad hoc nature of assessment, whereby the process of supervision allows for the development of a framework within which individual assessments are made (Debord Er, 2001). Evaluation is also criticized in the sense that good evaluation requires expertise, resources and, above all, time. This often results in a cycle lag in commissioning evaluations to address policy issues, and evaluations are delivered well only after the necessary decisions have been made. Instead, politicians often view past judgments as outdated, true or false, unrelated to current policy problems. Unfortunately, although monitoring and evaluation are understood to serve multiple purposes, it is sometimes mistakenly perceived as a tedious task simply to provide donors with the information they need (Woodhill 2000). Of course, accountability to funding agencies is one function of an effective monitoring and evaluation system, but it is certainly not the only or most important function. This theory was used to know the importance of criticism in projects and how criticism can affect the sustainability of a project.

Conceptual Framework



Source: Researcher (2023)

3. Materials and Methods

This study uses a descriptive and relational design to characterize the phenomenon under study. Use a correlational design to interpret the data. Therefore, researchers use quantitative (surveys) and qualitative (interviews) research methods to collect data (information) related to the research objectives and perform data analysis. Researchers use descriptive research design because it is a powerful tool that scientists and researchers use to gather information about a particular group or phenomenon.

Target Population

The ideal research practice collects information from the entire population; it ensures maximum coverage of citizens' problems in the survey. However, due to limited time and resources, it was not possible to cover the entire study population, so a random sample, defined as a subset of the population, was used. Duttolf (2011) argues that if the sample is properly selected, the information gathered about the sample can be used to make statements about the population as a whole. The entire target group of the study who obtained information and data related to the objectives of the study were the employees of Nzove Ntora of Wasac Ltd. The total number of the target group was 81 people, including key informants. Therefore, this total population was used to obtain the sample size of the study.

Sample Size

Due to the information required, the researchers decided to use the entire population as a simple size, thus the sample size was 81 respondents.

Sampling technique

Universal sampling

This study uses the census survey method. Census method is also known as full enumeration survey method where every element of the universe is selected for data collection (Bryman, 2012).

Data Collection Methods

As stated by (Hagood, 2012), "if the person or agency that published the data in advance or supervised the collection of the data, the publication was called a primary source"; (Audrey, 2011) adds that "primary sources come directly from the people or workers you are researching and are therefore the most direct form of information a researcher can obtain". Therefore, the researchers first collected the raw data as a result of the researchers' research. In this study, primary data consisted of information from questions (qualitative

and quantitative) asked by those involved in the research and analysis of the impact of the Rwanda water project on project management practices and operations in relation to Wasac Ltd's Nzove Ntora.

Secondary data sources

Secondary data is usually derived from primary data, usually a survey of research done by others on a topic or a review evaluation or summary of primary material (Audrey, 2011). Additionally, Roth notes, they are one step up from the original version, usually a survey of other people's research on a topic or a peer review, or a summary of the main material, a journal article, a review review. Main common secondary sources. Secondary data sources for this study include documents available to the researchers on different views of project management practices in project outcomes in Rwanda. Secondary data was therefore used for documentation techniques where the researchers referred to Nzove Ntora of Wasac Ltd to collect data on the impact of project management practices on project performance.

Data analysis

This part of the study, describes the steps the researcher should take after collecting field data; this study begins with data editing, data coding, and data tabulation. During the editing process, the researchers carefully checked and validated the questionnaires to avoid errors and duplication. Once this type of data processing is in place, researchers' analysis becomes simple. In coding, data is gathered by categorizing the various responses provided into easily interpretable categories, assigning symbols or numbers to identifying responses. Tabulation means putting the data into some sort of statistical table that shows the number of responses to a particular question. These tables were constructed in such a way that the frequency of responses to the given question is shown as a percentage.

4. Results

The extent of project Formulation was done at Nzove Ntora in Wasac Ltd was determined from the responses gotten from the various indicators of project Formulation, presented in table 4.6 with the respective mean and standard deviations in table 1 interpretation of the statistical analysis follows.

Table 1: Shows the project Formulation at Nzove Ntora in Wasac Ltd

Indicators		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
<i>Nzove Ntora in Wasac Ltd is creating a product through project formulation for services that perceived as unique "throughout the industry</i>	Frequency	0	0	10	31	40	81
	Percentage	0%	0%	12.3%	38.2%	49.3%	100%
<i>Nzove Ntora in Wasac Ltd is concentrating on project formulation on a limited part of the market and a focus on cost</i>	Frequency	0	3	20	40	18	81
	Percentage	0%	3.7%	24.6%	49.3%	22.2%	100%
<i>Project formulation consists in analysis of project environment at Nzove Ntora in Wasac Ltd</i>	Frequency	0	2	19	40	20	81
	Percentage	0%	2.4%	23.4%	49.3%	24.6%	100%
<i>Project formulation consists in development of mission and vision statements at Nzove Ntora in Wasac Ltd</i>	Frequency	0	1	5	30	45	81
	Percentage	0%	1.2%	6.1%	37%	55.5%	100%
<i>Establishment of long-term objectives; and generation of project options and selection of particular strategies to implement at Nzove Ntora in Wasac Ltd</i>	Frequency	1	3	5	35	37	81
	Percentage	1.2%	3.7%	6.1%	43.2%	45.6%	100%

Source: Primary Data (2023)

Table 2: Mean and Standard Deviation on project Formulation at Nzove Ntora in Wasac Ltd

Indicators	Frequency	
	Mean	SD
<i>Nzove Ntora in Wasac Ltd is creating a product through project formulation for services that perceived as unique "throughout the industry</i>	4.67	0.543
<i>Nzove Ntora in Wasac Ltd is concentrating on project formulation on a limited part of the market and a focus on cost</i>	4.43	0.725
<i>Project formulation consists in analysis of project environment at Nzove Ntora in Wasac Ltd</i>	4.21	0.966
<i>Project formulation consists in development of mission and vision statements at Nzove Ntora in Wasac Ltd</i>	4.28	0.872
<i>Establishment of long-term objectives; and generation of project options and selection of particular strategies to implement at Nzove Ntora in Wasac Ltd</i>	4.52	0.680

Values are mean scores on a 5- point scale (1=strongly disagree, 5=strongly agree); N=81

Source: Primary Data (2023)

Percentages for each indicator 4.6. in the table shows the percentage of respondents who answered the statement of the questionnaire, while the frequency also corresponds to the number of

respondents in each statement. This applies to projects accepted by Nzove Ntora, Wasac Ltd. 4.6. the table shows the extent to which Nzove Ntora, Wasac Ltd has created products through project

formulation services that are considered unique in the 'industry'. None of the respondents agreed or strongly disagreed that Nzove Ntora of Wasac Ltd created a product that was considered unique "in the entire industry" through a design formulation service. Neutral response 10 (12.3%) and 30 (38.2%) respondents agreed that Nzove Ntora of Wasac Ltd creates products through design formulation services "which are considered unique in the industry, while 40 (49.3) it was strongly supported that Company Nzove Ntora of Wasac Ltd works through project formulation services to create a product that is considered to be "unique in the industry with a mean of 4.67 and a standard deviation of 0.543 as shown in Table 4.6 It was found that Nzove Ntora of Wasac Ltd used project formulation services to create a product that would be considered unique "across the industry". 4.6.

The table below describes that 3 (3.7%) respondents individually disagreed and were neutral about Nzove Ntora of Wasac Ltd focused on project development in a limited market segment with a focus on cost. Twenty (24.6%) were neutral, 40 (49.3%) agreed, and 18 (22.2%) strongly agreed, with a mean and standard deviation of 4.43 and 0.725, respectively. It also means that Nzove Ntora of Wasac Ltd has a good grasp of purpose and goals, focuses on formulating projects in a limited market segment and keeps an eye on costs, the response is still mixed. From 4.6. table 2 (2.4%) respondents do not agree that the project formulation consists of project environmental analysis SIA Nzove Ntora in Wasac, 19 (23.4%) are neutral, 40 (49.3%) respondents agreed to each. and 20 (24.6%) strongly agreed as shown in Figure 4.7. in the table

The effect of Project Analysis at Nzove Ntora in Wasac Ltd

Table 3: The effect of Project Analysis at Nzove Ntora in Wasac Ltd

Indicators		Strongly disagreed	Disagree	Neutral	Agree	Strongly agree	Total
Project analysis emphasize a clear vision, the ability to communicate the vision to team members	Frequency	0	6	0	40	35	81
	Percentage	0%	7.4%	0%	49.3%	43.2%	100%
Project analysis emphasize the ability to organize in an effective and efficient manner and balancing the conflict of interest of all subordinates and stakeholders	Frequency	0	5	5	30	41	81
	Percentage	0%	6.1%	6.1%	37%	50.6%	100%

with a strong mean of 3.97 and a standard deviation of 1.039 from 4.7. tables that show that they all have a heterogeneous reaction or different perception and that there is a very significant level of evaluation in the wording of the project. in the environmental analysis of the project at Nzove Ntora in Wasac Ltd.

In addition, none of the respondents agreed that there is a project formulation consisting of developing mission and vision statements for Nzove Ntora in Wasac Ltd, while 1 (1.2%) disagreed that there is a project formulation consisting of developing mission and vision. notifications. Nzove Ntora, Wasac Ltd. 5 (6.1%) were neutral on this issue, 30 (37%) agreed, 45 (55.5%) strongly agreed that Nzove Ntora of Wasac Ltd was included in the formulation of the project. Mission and Vision Development with a mean of 4.28 and a standard deviation of 0.872 indicating that Wasac Ltd in Nzove Ntora had a project formulation that included mission and vision development as 1 (1.2%) respondents strongly disagreed and 3 (3 .7%) of the respondents did not agree with setting long-term goals; and at Nzove Ntora, Ltd. Wasac Project opportunities for the implementation and selection of specific strategies, 5 (6.1%) were neutral, 35 (43.2%) agreed to set long-term goals; generating project opportunities and selecting specific strategies for implementation by Nzove Ntora by Wasac Ltd while 37 (45.6%) strongly agreed with a mean of 4.52 and a standard deviation of 0.680. This meant setting long-term goals and selecting project opportunities and specific implementation strategies at Nzove Ntora, Wasac Ltd.

Project analysis emphasize project purpose at Nzove Ntora in Wasac Ltd	Frequency	0	2	10	30	39	81
	Percentage	0%	2.4%	12.3%	37%	48.1%	100%
Project analysis is used as key goals and action planning at Nzove Ntora in Wasac Ltd	Frequency	1	2	3	43	32	81
	Percentage	1.2%	2.4%	3.7%	53%	39.5%	100%

Source: Primary data (2023)

Table 4: Mean and Standard Deviation on Project Analysis at Nzove Ntora in Wasac Ltd

Indicators	Mean	SD
Project analysis emphasize a clear vision, the ability to communicate the vision to team members	4.71	0.526
Project analysis emphasize the ability to organize in an effective and efficient manner and balancing the conflict of interest of all subordinates and stakeholders	4.54	0.696
Project analysis emphasize project purpose at Nzove Ntora in Wasac Ltd	3.77	1.264
Project analysis is used as key goals and action planning at Nzove Ntora in Wasac Ltd	3.78	1.166
Average on project Analysis at Nzove Ntora in Wasac Ltd	4.07	0.989

Values are mean scores on a 5- point scale (1=strongly disagree, 5=strongly agree); N=81

Source: Primary data (2023)

According to 3. table, no respondent strongly agrees or a neutral project analysis emphasizes a clear vision, the ability to express the vision to team members, 6 (7.4%) respondents disagree, 40 (49.3%) agree and 35 (43.2%) completely agree. . agree that project analysis emphasizes a clear vision and the ability to communicate that vision to team members. 4.9. the mean and standard deviation of the table are 4.71 and 0.526 respectively, indicating that the responses are heterogeneous and strong. This further shows that the respondents are sufficiently educated. As can be seen in 4.8. in the table, none of the respondents agreed with this statement, but 5 (6.1%) disagreed, 5 (6.1%) were neutral and 30 (37%) agreed that the project analysis emphasized effective organizational capacity and efficiency. way to balance conflicts of interest among all subordinates and stakeholders while 41 (50.6%) strongly agree with a strong mean of 4.54 and standard deviation of 0.696 as shown in

Figure 4.9. in the table. It also meant that a greater proportion of respondents performed project analysis adequately and adequately, emphasizing the ability to effectively organize and balance the conflicting interests of all subordinates and stakeholders. No respondent objected to the project analysis emphasizing the project objective Nzove Ntora, Wasac Ltd. From 4.9. of the 35 respondents in the table, 2 (2.4%) disagreed with the statement, 10 (12.3%) were neutral, 30 (37%) agreed with the statement and 39 (48.1%) strongly agreed. mean of 3.68 and standard deviation of 1.105 means that the project analysis highlights Nzove Ntora of Wasac Ltd. the purpose of the project. This means that the analysis of the project highlights Wasac Ltd. Objectives of the Nzove Ntora project. Therefore, 1 out of 81 answers (1.2%) 4.8. indicated in the table that they strongly oppose the use of project analysis as a key objective and action plan in Nzove Ntora, Wasac Ltd. Another 2 (2.4%) disagreed, 3 (3.7%)

were neutral, 43 (53%) agreed, 32 (39.2%) strongly agreed that Nzove Ntora Planning Wasac Ltd. item analysis was used for the main purpose and activity.

the response was 3.78 with a standard deviation of 1.116.

The effect of Project implementation at Nzove Ntora in Wasac Ltd

Table 5: Project implementation at Nzove Ntora in Wasac Ltd

Indicators		Strongly disagreed	Disagree	Neutral	Agree	Strongly agree	Total
Nzove Ntora in Wasac Ltd guides its customer without any time limit	Frequency	0	0	0	40	41	81
	Percentage	0%	0%	0%	49.3%	50.6%	100%
Nzove Ntora in Wasac Ltd has clear reason for being in the business activities	Frequency	0	1	1	34	45	81
	Percentage	0%	1.2%	1.2%	41.9%	55.5%	100%
Project implementation is planning the work, planning the tasks and subtasks at Nzove Ntora in Wasac Ltd	Frequency	0	0	12	30	39	81
	Percentage	0%	0%	14.8%	37%	48.1%	100%
Project implementation is planning the time, and planning the people and resources at Nzove Ntora in Wasac Ltd	Frequency	1	2	3	43	32	81
	Percentage	1.2%	2.4%	3.7%	53%	39.5%	100%

Source: Primary data (2023)

Table 6: Mean and Standard Deviation on project implementation at Nzove Ntora in Wasac Ltd

Indicators	Frequency	
	Mean	SD
Nzove Ntora in Wasac Ltd guides its customer without any time limit	4.41	0.815
Nzove Ntora in Wasac Ltd has clear reason for being in the business activities	4.26	0.958
Project implementation is planning the work, planning the tasks and subtasks at Nzove Ntora in Wasac Ltd	4.01	1.040
Project implementation is planning the time, and planning the people and resources at Nzove Ntora in Wasac Ltd	4.08	0.166
Average on project implementation at Nzove Ntora in Wasac Ltd	4.23	0.937

Values are mean scores on a 5- point scale (1=strongly disagree, 5=strongly agree); N=81

Survey results, from 81 respondents, 4.10. the table shows that 41 (50.6%) strongly agree and 40 (49.3%)

agree that Nzove Ntora from Wasac Ltd. guide your clients without time limit. No one is either neutral or

strictly against the fact or against the addition of a statement. Most of the respondents believed that Nzove Ntora at Wasac Ltd managed his client without time limit. The strong mean and standard deviation of 4.41 and 0.815 respectively mean that Nzove Ntora of Wasac Ltd leads his client without time limit. Most of the respondents also confirmed that Nzove Ntora of Wasac Ltd had clear reasons to engage in business as shown in Figure 4.10. in the table, of which 34 (41.9%) agreed and 45 (55.5%) strongly agreed that Nzove Ntora of Wasac Ltd. reasons Reasons for participation in business 39 (48.1%) strongly agree and agree 30 (37%) both indicate that some respondents are neutral, 12 (14.8%) respectively. The strong mean of 4.26 also indicates that most of the respondents who fit the status of Wasac Ltd Nzove Ntora have clear reasons

5. Conclusions

The study concludes that project management practices have a significant positive impact on the performance of Nzove Ntora in Wasac Ltd.'s water projects. Have. Project management practices enable Nzove Ntora's water projects at Wasac Ltd to facilitate the achievement of water project objectives. In addition, all Wasac Ltd Nzove Ntora stakeholders can be involved in the decision-making and task assignment processes critical to the success of any water project. The study concludes that stakeholder engagement had a significant positive impact on the performance of his Nzove Ntora in Wasac Ltd water projects. I have Stakeholder involvement is key to ensuring project quality and timely completion. Stakeholder involvement leads to project implementation that meets the needs of users of the service, thereby embracing project

6. Recommendations

In this study, organizations in Rwanda's water sector started their project management procedures so that they could determine what processes could be implemented to reduce costs. By definition, it recommends that project management practices should be implemented. cost. The study recommends that organizations in Rwanda's water sector achieve their goals. Annual goals should be aligned with major change initiatives or quality programs and integrated with stakeholder engagement. This makes stakeholder involvement part of the plan and sustainable. Stakeholder engagement should focus on stakeholder engagement to improve her Nzove Ntora in her Wasac Ltd water supply project within Rwanda's

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for their business. Furthermore, 32 (39.5%) strongly agree and 43 (53%) agree that they are Nzove Ntora, Wasac Ltd. project implementation planning tasks, planning tasks and subtasks. Overall, 3 (3.7%) respondents were neutral, 2 (2.4%) disagreed and 1 (1.2%) strongly disagreed, with a mean response of 4.01 and a standard deviation of 1.040. This shows that all respondents agree with this statement. Project implementation is time planning, people and resource planning in Nzove Ntora company Wasac Ltd, 39 (48.1%) strongly agree, 30 (37%) agree that project implementation is time planning, people and resource planning in Nzove Ntora company Wasac Ltd. Twelve of all respondents (14.8%) were neutral with a mean response of 4.10 and a standard deviation of 1.167.

quality and efficiency. Additionally, stakeholder engagement drives project satisfaction, ownership, and sustainability. The study concludes that monitoring and evaluation have a significant positive effect on the performance of his Nzove Ntora in Wasac Ltd water projects. His Nzove Ntora from Wasac Ltd focuses on oversight and innovation to improve the performance of water projects. This study constantly assesses and tracks project progress to help maximize project efficiency, streamline activities, maximize operational performance, reduce expenses, and eliminate unnecessary costs. I understand enables feedback to stakeholders.

water sector. The study found that organizations within Wasac Ltd's water supply project at Nzove Ntora focus on customer wants and expectations, provide timely stakeholder-targeted services, and engage constructively with service users. We recommend that you focus on building strong relationships. The study asked organizations within Nzove Ntora in Wasac Ltd Water Supply Projects to improve the performance of organizations within Nzove Ntora in Wasac Ltd Water Supply Projects, drive process integration and focus work towards further goals. It recommends identifying monitoring and evaluation methods that can help Cost reduction in the project process for Wasac Ltd's water supply project at Nzove Ntora.

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Reference

1. Aktia Bank Plc's ABPlc's. (2014). *Marketing Intelligence, European Journal of Business and Social Sciences*: Available: <http://www.aktia.com/en/konserni/aktian-historia> (Accessed: 04.05.2019)
2. Amelework, M. (2015). *Assessment of project Management Practice: the case of Ethiopian Insurance Corporation*, A Thesis for the Degree of Master of Business Administration,
3. Arasa, R & K'Obonyo, P. (2012). The relationship between project Planning and Firm Performance. *International Journal of Humanities and Social Science*. 2 (22), 20-22
4. Arslan A, Muhammad S.A, Adeel, & Hanan,I, (2013). A conceptual framework on Evaluating SWOT Analysis as the mediator in project Marketing Planning through Marketing Intelligence. *European Journal of Business and Social Sciences*, 2 (1), 91-98
5. Azhar, A., Ikram, S., Rashid, S & Saqib, S. (2013). *The Role of Leadership in Strategy*. Islamabad University Press.
6. Baroto, M.B., Arvand, N. & Ahmad, F.S. (2014). Effective Strategy Implementation, *Journal of Advanced Management Science*, 31(1), 1-5
7. Bryman, A., (2012). *Social Research Methods*, Fourth Edition. Published in the United States by Oxford University Press Inc., New York
8. Bryman, A. & Bell, E. (2011). *Business research methods*, Oxford University Press, New
9. Bryman, A., & Bell, E. (2015). *Business Research methods*, Oxford: UK Oxford University Press.
10. Cooper, R. D., & Shindler, S. P. (2011). *Business research methods*, (9th ed.). New York, USA: McGraw-Hill.
11. Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage Publications.
12. Croson, R., Schultz, K., Siemsen, E & Yeo, M. L. (2013), "Behavioral operations: the state of the field", *Journal of Operations Management*, 31, (2), 10-15.
13. Dinberu, G. (2016). *Assessment of project Management and Implementation Practice in the case of NIB International Bank*, A Thesis for the Degree of Master of Business Administration,
14. Dunlop A. Firth V. & Lurie R. (2013). *Dynamic strategy implementation: Delivering on your project ambition*. Published by Deloitte University Press
15. Feger, A. L. R. (2014). Creating cross-functional project consensus in manufacturing facilities", *International Journal of Operations & Production Management*, 34(4), 334-345
16. Fred R. D. (2011). *Strategy management concept and cases*. 13 edition Francis Marion University Florence, South Carolina
17. Grant, M.R (2010). *Contemporary Strategy Analysis*. 7th edition. Chichester: Wiley Corporation.
18. Harrison, J. S. (2013). *project Management of Resource and Relationships*. New York. NY: John Wiley and Sons.
19. Heizer, J.& Render, B. (2011). *Operations management*, Global edition, Pearson
20. Hill, A& Hill, T. (2012). *Operations management* (Third edition ed.), Palgrave
21. Hill, C.W. L & Gareth R. J (2012). *Essentials of project Management*, South-Western, (3rd ed.) Cengage Learning.

22. International Manufacturing Strategy Survey [IMSS]. (2015). *The International Manufacturing Strategy Survey* Retrieved 2018-10-29, from <http://www.manufacturingstrategy.net/>
23. Kellermanns, F. W., Walter, J., Floyd, S. W., Lechner, C. & Shaw, J. C. (2011). To agree or not to agree? A meta-analytical review of project consensus and organizational performance", *Journal of Business Research*, 64(2), 126-133.
24. Kim, Y. H., Sting, F. J. & Loch, C. (2014). "Top-down, bottom-up, or both? Toward an integrative perspective on operations strategy formation", *Journal of Operations Management*, 32(8), 462-474.
25. Meyer, M. & Botha, E. (2010). *Organized Development and Transformation in South Africa*. Mayville, Durban: Butterworth Publishers.
26. Ongore, V.O. & Kusa, G.B.(2013). Determinants of Financial Performance of Commercial Banks in Kenya. *International Journal of Economics and Financial Issues*. 3(1), 237-252.
27. Robinson R.B. & John A. P.(2011). *project Management Strategy Formulation and Implementation and Control*. McGraw-Hill/Irwin
28. Slack, N & Lewis, M. (2011). *Operations strategy* (3 ed.), Pearson Education, Harlow, England.
29. Stevenson, W. J. (2012), *Operations management: Theory and Practice*, Global Edition, Pearson.
30. Thomas L. W. and Hunger J. D. (2012) *project Management and Business Policy: Toward Global Sustainability*. 13th Ed Pearson Prentice Hall.
31. Thompson. M. (2012). *Crafting and Executing Strategy*. McGraw Hill/Irwin companies/inc
32. Timotios, Y. (2016). *Assessment of project Management and Implementation Practice in the case of Nib International Bank*, A Thesis for the Degree of Master of Business Administration, toward global sustainability) Pearson Education, Inc., publishing as Prentice Hall.
33. Zafar, F., Babar, S. & Abba, H. (2013). The art of project Management; A key to success in corporate sector, *European Journal of Research and Reflection in Management Sciences*, 19,(3),13-23.