



Assessing the Effect of Strategic Planning Practices on Project Success of Rwanda Green Investment Facility (RGIF) in Gasabo District, Rwanda

Gilbert Ndahimana, Ruth Odengo

University of Kigali

<https://orcid.org/0009-0004-3035-0762>

Email: gilbertndahimana0@gmail.com

Abstract: This study examines the effect of strategic planning practices on project success, with a particular emphasis on the Rwanda Green Investment Facility (RGIF) project in Gasabo District, Rwanda. The population comprised 291 stakeholders, including project managers, technical staff, government officials, private investors, and beneficiaries. Using a stratified random sampling technique, a sample of 169 respondents was selected. The study was guided by three theoretical frameworks: Goal-Setting Theory, Resource-Based View (RBV) Theory and Systems Theory. Employing a descriptive and correlational research design, data were collected through structured questionnaires, interviews, and document reviews, then analyzed via SPSS version 25. The results revealed strong positive correlations between strategic planning variables and project success (ranging from 0.665 to 0.771, $p < 0.01$). Regression analysis indicated that needs analysis, goal setting, resource allocation, and monitoring and evaluation significantly predict project success, with an R -squared of 81.7%. The hypotheses testing confirmed that all planning practices have a statistically significant impact ($p < 0.05$). Overall, findings demonstrated that effective strategic planning enhances project efficiency, stakeholder engagement, and sustainability. The study concludes that integrating comprehensive planning practices is vital for project success, recommending continuous stakeholder involvement, regular review of goals, efficient resource management, and robust M&E systems. These insights provide practical guidance for policymakers, project managers, and development partners aiming to optimize green investment initiatives in Rwanda and similar perspectives.

Keywords: Strategic planning practices, Needs analysis, Goal setting, resource allocation, Monitoring and evaluation, Project success

How to cite this work (APA):

Ndahimana, G. & Odengo, R. (2026). Assessing the Effect of Strategic Planning Practices on Project Success of Rwanda Green Investment Facility (RGIF) in Gasabo District, Rwanda. *Journal of Research Innovation and Implications in Education*, 10(4), 158 – 169. <https://doi.org/10.59765/vnfy3>

1. Introduction

Globally, Strategic planning has been found to be one of the most important determinants in ensuring project success in several industries including infrastructure, health, ICT and renewable energy among others. As stated by the United Nations Development Programme (UNDP, 2022), successful development projects are characterized by their adoption of certain management models including RBM and logical framework

approaches which help in establishing clear objectives, measurable impacts and good monitoring tools. The International Monetary Fund (IMF, 2021). Also notes that countries incorporating strategic planning in their national policies end up benefiting from greater efficiency of projects, better financial management, and enhanced accountability. For example, huge renewable energy projects in Europe and Asia have succeeded mainly because of the strategic planning of logistics, financing, stakeholder involvement, and environmental sustainability.

In Rwanda, strategic planning has been central to the country's development trajectory and project success across multiple sectors. Vision 2020 and Vision 2050 provide long-term frameworks that guide social, economic, and environmental development (Government of Rwanda, 2020). The Rwanda Development Board (2021) reports that ICT, tourism, and transport projects succeed because they integrate strategic planning components such as stakeholder engagement, risk management, and resource allocation. A notable example is the Rwanda Green Investment Facility (RGIF) Project, which aims to mobilize private sector investment for sustainable and green development initiatives. The RGIF project involved detailed feasibility studies, risk mitigation strategies, and extensive consultations with stakeholders, ensuring alignment with Rwanda's climate and economic goals (Ministry of Environment, 2021). By strategically channeling private investment into renewable energy, energy efficiency, and green infrastructure, RGIF has successfully demonstrated how effective planning transforms national development visions into tangible, sustainable outcomes. Rwanda's experience with RGIF shows that strategic planning enhances project performance, attracts investment, promotes sustainability, and ensures long-term national benefits.

Project success is a critical measure of whether development interventions achieve their intended objectives, deliver planned outputs within the expected time and budget, maintain the required quality, satisfy stakeholders, and generate sustainable social, economic, and environmental outcomes. In Rwanda, strategic planning has been institutionalized through national development frameworks such as Vision 2050 and the National Strategy for Transformation, which seek to guide development interventions toward national priorities, economic transformation, and environmental sustainability (Government of Rwanda, 2020). Within this context, the Rwanda Green Investment Facility (RGIF) was established to mobilize and facilitate investment in green and climate-resilient development initiatives. The success of such projects depends not only on the availability of strategic frameworks but also on the extent to which project activities are effectively planned, implemented, monitored, and adapted to changing circumstances (Ministry of Environment, 2021; Rwanda Development Board, 2021).

Despite the existence of these strategic planning frameworks, concerns remain regarding the achievement of optimal project success in development and green investment initiatives in Rwanda. Project success may be affected by delays in implementation, inefficient utilization of resources, difficulties in meeting planned targets, variations in the quality of project outputs, and inadequate stakeholder satisfaction. In the context of RGIF projects in Gasabo District, challenges related to stakeholder participation, resource utilization, administrative processes, feedback mechanisms, and

monitoring and evaluation may create difficulties in achieving project objectives within planned schedules and budgets. These challenges raise an important concern about whether existing strategic planning practices are being sufficiently and consistently applied to achieve the expected level of project success. Evidence from previous studies also demonstrates the importance of strategic planning in determining project outcomes. Iribagiza and Kirabo (2024), for example, examined project management practices, including planning, risk control, and monitoring and evaluation, in USAID-sponsored projects in Rwanda and found that effective planning and risk management contributed to project performance.

Similarly, Karasira (2021) examined project planning and implementation success in the Sebeya Watershed Management Project in Rubavu District and highlighted the importance of scope and resource planning in achieving project objectives. Although these studies provide evidence of the relationship between planning practices and project outcomes, they do not specifically establish how needs analysis, goal setting, resource allocation, and monitoring and evaluation collectively effect the success of RGIF projects in Gasabo District. The existing knowledge therefore leaves an empirical gap concerning the extent to which specific strategic planning practices effect project success, particularly in green investment projects involving public institutions, private investors, technical actors, and beneficiaries. The limited evidence specific to RGIF makes it difficult to determine whether challenges in project completion, budget adherence, quality of outputs, achievement of objectives, stakeholder satisfaction, and sustainability are associated with weaknesses in strategic planning practices. Addressing this gap is important because evidence on the relationship between strategic planning practices and project success can support project managers and relevant institutions in strengthening planning and implementation processes.

Therefore, the central problem addressed by this study is the need to establish the extent to which strategic planning practices effect the success of the Rwanda Green Investment Facility (RGIF) project in Gasabo District. Specifically, the study examines whether needs analysis, goal setting, resource allocation, and monitoring and evaluation significantly effect project success. By examining these relationships empirically, the study seeks to provide evidence that can contribute to improved project planning, implementation, performance, stakeholder satisfaction, and sustainability of green investment initiatives in Rwanda.

1.1 General Objective

The main objective of this study was to assess the effect of strategic planning practices on success of Rwanda Green Investment Facility (RGIF) project in Gasabo District, Rwanda.

1.2 Specific Objectives

- i. To determine the effect of needs analysis on the success of the Rwanda Green Investment Facility (RGIF) project in Gasabo District.
- ii. To examine the effect of goal setting on the success of the Rwanda Green Investment Facility (RGIF) project in Gasabo District.
- iii. To assess the effect of resource allocation on the success of the Rwanda Green Investment Facility (RGIF) project in Gasabo District.
- iv. To evaluate the effect of monitoring and evaluation on the success of the Rwanda Green Investment Facility (RGIF) project in Gasabo District.

2. Literature Review

This chapter presents a review of existing literature on the effect of strategic planning on project success, with a particular focus on the Rwanda Green Investment Facility (RGIF) project.

2.1 Theoretical Review

The theoretical review provides the foundation upon which this study is built, highlighting the key theories that explain the relationship between strategic planning and project success. Several theories of management and project planning have been advanced to explain how structured processes, resource allocation, and stakeholder engagement effect the outcomes of development projects. For this study, the most relevant theories include the Goal-Setting Theory, the Resource-Based View (RBV) Theory, and the Systems Theory, all of which provide useful insights into how strategic planning drives project success.

2.1.1 Goal-Setting Theory

The Goal-Setting Theory was first introduced by Edwin Locke in 1968 through his ground breaking research on motivation and task performance. Later, Locke collaborated with Gary Latham, and together they expanded the theory in 1990 and 2002, providing more refined insights into the relationship between goals, motivation, and organizational success. Their studies demonstrated that setting specific and challenging goals, as opposed to vague or easy goals, led to significantly higher levels of performance. Over the years, Goal-Setting Theory has become one of the most widely applied motivational theories in organizational behavior and project management (Sandras, 2023).

2.1.2 Resource-Based View (RBV) Theory

The Resource-Based View (RBV) Theory was first introduced by Jay Barney in 1991, building on earlier insights from Edith Penrose in 1959 about the role of resources in organizational growth (Jeremy & Barteremy, 2020). Barney's influential work argued that organizations achieve sustained competitive advantage not merely by responding to external market forces but through the effective use of their unique internal resources. Since then, the RBV framework has become central to strategic management, offering a lens through which to evaluate how resources contribute to long-term performance and competitive differentiation (Grant, 2024).

2.1.3 Systems Theory

The Systems Theory was introduced by Ludwig von Bertalanffy in 1968 as part of his General Systems Theory, which examined how different parts of a system interact to create an interdependent whole. Later, scholars such as Katz and Kahn in 1978 and Scott in 2019 applied the theory to organizations, arguing that institutions and projects function as open systems that interact with their environments (Hyancinthe, 2022). Systems Theory has since been widely adopted in organizational studies, management, and project planning, as it emphasizes the holistic view of processes, feedback mechanisms, and adaptation.

2.2 Empirical Review

Empirical studies provide evidence-based insights into the relationship between strategic planning and project success across different contexts. Previous research has consistently highlighted that effective strategic planning practices enhance project performance, improve resource utilization, and contribute to long-term sustainability. This section reviews existing empirical findings related to the key components of strategic planning needs analysis, goal setting, resource allocation, and monitoring and evaluation while identifying their effect on project outcomes.

2.2.1 Needs Analysis and Project Success

In Rwanda, the importance of needs analysis has been documented but remains underexplored in green investment contexts. Mukamana and Habimana (2022) carried out a quantitative study on 60 donor-funded agricultural projects using regression analysis. They reported that projects involving participatory needs assessments achieved 28% higher productivity increases among farmers compared to projects designed without local consultations ($\beta = 0.44$, $p < 0.01$). Similarly, the Ministry of Infrastructure (2021) noted that infrastructure projects that engaged communities during needs analysis recorded fewer implementation disputes and higher satisfaction levels. Nevertheless, little

empirical evidence exists on how needs analysis affects the success of environmentally focused projects, such as the Rwanda Green Investment Facility (RGIF) in Gasabo District, leaving a clear research gap this study aims to fill.

2.2.2 Goal Setting and Project Success

In Rwanda, studies highlight the importance of well-structured project goals, though evidence remains limited in emerging sectors such as green investment. Uwamahoro and Ndayisenga (2023) conducted a survey of 55 agricultural projects and found that 68% of projects with SMART goals achieved full implementation, compared to 43% for projects without such clarity. Similarly, a Ministry of Local Government report (2022) noted that 71% of infrastructure projects with clear goals recorded timely completion, while only 49% without them met deadlines. However, there is still a lack of empirical research on how goal setting specifically affects the success of environmentally sustainable projects, such as the Rwanda Green Investment Facility, creating a research gap this study addresses.

2.2.3 Resource Allocation and Project Success

In Rwanda, resource allocation has been identified as a crucial factor in determining project completion and success. Munyaneza and Habimana (2023) assessed 40 road infrastructure projects through structured questionnaires and secondary reviews of official project reports. The study found that 65% of projects with well-allocated resources were completed on schedule, compared to 44% of those with resource constraints. Similarly, a Rwanda Development Board (2022) report noted that 72% of stakeholders perceived projects with transparent budgeting and skilled staff deployment as more effective and sustainable. Nevertheless, existing studies have primarily focused on infrastructure and agricultural projects, with little emphasis on investment facilities such as the Rwanda Green Investment Facility (RGIF). This gap highlights the importance of investigating how strategic resource allocation practices affect the success of environmentally focused and investment-driven projects in Rwanda.

2.2.4 Monitoring and Evaluation Practices and Project Success

In East Africa, M&E has been recognized as an essential tool for improving accountability, transparency, and long-term sustainability of projects. Odhiambo (2022) examined 65 water, sanitation, and community development projects in Kenya and Uganda using household surveys, interviews, and project document analysis. Regression results showed that structured M&E practices accounted for 41% of the variance in project performance ($\beta = 0.41$, $p < 0.05$). Projects with adaptive evaluation mechanisms and continuous stakeholder feedback were more likely to maintain functionality and

achieve intended outcomes. However, many East African studies rely on cross-sectional data, which limits understanding of the longitudinal impact of M&E on project sustainability. There is therefore a research gap in evaluating long-term project outcomes, particularly in investment and environmentally focused initiatives.

2.3 Research Gap

Despite the extensive research on strategic planning and project success globally, there remains a limited understanding of how specific planning practices directly affect the success of environmentally focused investment projects. Most studies focus on large infrastructure or development projects in high-resource contexts, such as those analyzed by Johnson and Peters (2021) and Thompson and Green (2020), which may not reflect the challenges faced in developing countries. While needs analysis, goal setting, resource allocation, and monitoring and evaluation are individually recognized as contributors to project outcomes, few studies have examined their combined effect in a holistic manner, particularly in projects that involve both public and private sector collaboration. This gap underscores the need for more context-specific research on sustainable investment initiatives. In the African and East African context, research on strategic planning often emphasizes social development projects in sectors such as health, education, and agriculture. Studies by Mensah (2021) and Odhiambo (2022) show that adequate planning and resource allocation improve project performance, yet these investigations rarely include environmentally sustainable or green investment projects. Additionally, most research focuses on short-term outputs and lacks longitudinal analysis, leaving limited empirical evidence on the long-term impact of planning practices on sustainability, efficiency, and stakeholder satisfaction. The absence of comprehensive, quantitative evaluation of planning components in green projects highlights a critical methodological and contextual gap in the existing literature. In Rwanda, while some studies have explored strategic planning in infrastructure and agricultural initiatives (Mukamana & Habimana, 2023; Ministry of Local Government, 2022), there is scarce research on environmentally sustainable investment projects such as the Rwanda Green Investment Facility (RGIF) in Gasabo District. Existing studies often examine isolated components of planning rather than assessing the holistic effect of needs analysis, goal setting, resource allocation, and monitoring and evaluation on project success. Addressing this gap will provide practical insights for policymakers, project managers, and development partners on optimizing planning practices to enhance project efficiency, sustainability, and socio-economic impact in the context of green investment projects in Rwanda.

3. Methodology

3.1 Research Design

This study adopted a descriptive and correlational research design. The descriptive design was systematically described the current practices of strategic planning in the Rwanda Green Investment Facility (RGIF) project, including needs analysis, goal setting, resource allocation, and monitoring and evaluation practices. The correlational research design examined the relationships between these strategic planning practices and project success, assessing the extent to which each planning element effects outcomes such as timely completion, budget adherence, quality of outputs, and stakeholder satisfaction. This research design was chosen because it allows for a comprehensive understanding of both the existing strategic planning practices and their impact on project success. Descriptive analysis provides detailed insight into how planning is currently implemented, while correlational analysis identifies the strength and direction of the relationships between strategic planning components and project success. This approach ensured that the study captured practical, evidence-based insights to inform improvements in project management and enhance the performance of the RGIF project.

3.2 Study Population

The target population comprised all stakeholders involved in the Rwanda Green Investment Facility (RGIF) project in Gasabo District. This included project managers, technical staff, government officials, private sector partners, and beneficiaries or end-users. These respondents are directly involved in the planning, implementation, and monitoring of the RGIF project, making them well-positioned to provide accurate and comprehensive information regarding strategic planning practices and project outcomes. The rationale for selecting this population is that they offer both managerial and operational perspectives necessary for understanding the effect of strategic planning on project success. By including beneficiaries and end-users, the study also captures feedback on project effectiveness and satisfaction, ensuring a holistic view of project performance.

3.3 Sample Size and Sampling

Thus, the study targeted a sample size of approximately 169 respondents. This sample ensured that all categories of the population are proportionately represented, providing reliable and generalizable data for the study. Sampling Technique making, and oversight. Their inclusion is essential for obtaining in-depth insights into how strategic planning effects project success (Sekaran & Bougie, 2019). Finally, simple random sampling was

used to select participants from the larger group of beneficiaries and technical staff. This method ensures that each individual within these categories has an equal chance of being selected, thereby minimizing bias and enhancing the generalizability of the findings (Kothari, 2019). By combining these techniques, the study achieves inclusiveness, objectivity, and relevance, thereby increasing the reliability and validity of its outcomes

3.4 Data Collection

A questionnaire is considered one of the most effective instruments for collecting data from a relatively large number of respondents within a limited period (Kothari, 2019). In this study, self-administered questionnaires were distributed to technical staff, private sector partners, and direct beneficiaries of the RGIF project. The instrument consisted of structured statements covering the key variables of the study, namely strategic planning, needs analysis, resource allocation, and monitoring and evaluation practices. Responses were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), enabling the quantification of participants' perceptions and attitudes. To enhance accuracy and reliability, the researcher was present to address any ambiguities or uncertainties that may arise during the process. Secondary data was also collected through a systematic review of relevant documents such as RGIF project reports, government policy papers, donor reports, and peer-reviewed journal articles. This method provided verified background information and contextual evidence to support primary data. Documentary review ensures triangulation, allowing the study to validate and enrich findings with information already documented in official records and existing research. By integrating both historical and current records, the analysis was strengthened and grounded in evidence.

3.5 Pilot Study, Validity and Reliability

A pilot study was conducted involving 30 respondents from the RGIF project stakeholders who were not part of the final sample. These included 2 technical staff, 3 private sector partners, and 25 project beneficiaries. The pilot exercise assessed whether the questionnaires and interview guides are clear, relevant, and appropriately structured to capture data on strategic planning dimensions such as needs analysis, goal setting, resource allocation, and monitoring and evaluation. According to Mugenda and Mugenda (2003), a pilot sample ranging between 10–30% of the total study sample is adequate to identify potential weaknesses in the research instruments. Feedback from the pilot participants was used to refine ambiguous questions and improve the overall quality of the instruments.

Content validity was established through expert review, where academic specialists in project management and monitoring and evaluation evaluated the questionnaires and interview guides. Each item was assessed for clarity, relevance, and alignment with the study objectives. To quantify this, the Content Validity Index (CVI) was applied, with experts rating each item on a 4-point scale (1 = not relevant, 4 = highly relevant). A CVI score of 0.78 or above was considered acceptable, indicating sufficient coverage of the study constructs (Polit & Beck, 2022).

Cronbach's alpha is a measure used to assess the reliability of variables, with values ranging from 0 to 1. In this study, the Cronbach's alpha values for all variables are considered acceptable, indicating a satisfactory level of reliability.

3.6 Data Analysis

The study employed multiple regression analysis to examine the effects of independent variables needs analysis, goal setting, resource allocation, and monitoring and evaluation practices on the dependent variable, project success. This method allows the study to determine the individual and combined impact of these strategic planning components on project outcomes, providing a clear understanding of which elements most strongly effect project success in the RGIF project. Regression analysis quantified the relationships between each independent variable and project success, showing both the direction and strength of these effects. To test the overall significance of the model, Analysis of Variance (ANOVA) was conducted. This ensures that the regression model as a whole significantly predicts project success and identifies whether the independent variables collectively explain variations in outcomes. Additionally, R-squared values were calculated to assess the proportion of variation in project success explained by the strategic planning variables. Higher R-squared values indicate stronger explanatory power, highlighting which factors such as monitoring and evaluation practices or effective resource allocation contribute most to achieving project objective.

The regression model for this study was expressed as:
 $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$ Where: Y = Project

success X_1 = Needs analysis; X_2 = Setting Clear Objectives; X_3 = Resource allocation; X_4 = Monitoring and evaluation practices ε = Error term; β_0 = Intercept; $\beta_1, \beta_2, \beta_3, \beta_4$ = Beta coefficients representing the effect of each independent variable

3.7 Ethical Considerations

Ethical considerations are critical in research to ensure the protection of participants, maintain the integrity of the study, and promote credibility of the findings. In this study, ethical principles such as informed consent, confidentiality, voluntary participation, anonymity, and avoidance of harm was strictly adhered to. Participants were fully informed about the purpose, objectives, and procedures of the study before they provide their consent. They have the right to decline or withdraw from the study at any stage without any negative consequences, ensuring voluntary participation. Confidentiality and anonymity was maintained throughout the research process. Personal identifiers were not being included in the data collection instruments, and all collected information was stored securely and accessed only by the researcher. Data was reported in aggregate form to prevent the identification of individual participants, thereby safeguarding their privacy and personal information. This ensures that participants can freely express their views without fear of exposure or repercussions.

4. Results and Discussions

4.1 Response Rate

The response rate was determined by comparing the number of questionnaires successfully completed and returned by respondents with the total number of questionnaires distributed. This assessment was conducted to establish the adequacy of the data collected for analysis and to determine the level of participation in the study. A high response rate indicates sufficient participation and provides an appropriate basis for analyzing the study variables. The response rate results are presented in the following table.

Table 1: Response rate of respondents

Response Rate	Frequency	Percentage
Questionnaires Returned	169	100.0%
Total	169	100.0%

Source: Primary data, 2024

The study targeted a total of 291 respondents from Rwanda Green Investment Facility (RGIF) in Gasabo District, Project Manager (1), Technical Staff (10), Government Officials (3), Private Sector Partners (10), Beneficiaries / End-Users (145). Therefore, a total of sample size was 169 and equivalent questionnaires were distributed to respondents, all of whom completed and returned them without any missing responses, resulting in an impressive response rate of 100%. The findings presented in this chapter underscore the effectiveness of the data collection process and the insights gained from the analysis.

4.2 Inferential Statistics

This section presents the findings from inferential statistical test including correlation coefficient and

multiple linear regression analysis between independent variable and dependent variables in this research study.

4.2.1 Correlation Analysis

Correlation analysis was conducted to determine the direction and strength of the relationships between the strategic planning practices and project success of the Rwanda Green Investment Facility (RGIF) in Gasabo District. Pearson's correlation coefficient was used to establish the extent to which needs analysis, goal setting, resource allocation, and monitoring and evaluation were associated with project success. The correlation coefficients were interpreted based on their magnitude and statistical significance at the 5% level. The results are presented in the following table.

Table 2: Correlation Matrix

		Needs analysis	Goal setting	Resource allocation	Monitoring and evaluation	Project success
Needs analysis	Pearson	1				
	Correlation					
	Sig.(2-tailed)					
Goal setting	N	169				
	Pearson	.996 ^{**}	1			
	Correlation					
Resource Allocation	Sig.(2-tailed)	.000				
	N	169	169			
	Pearson	.980 ^{**}	.978 ^{**}	1		
Monitoring and evaluation	Correlation					
	Sig.(2-tailed)	.000	.000			
	N	169	169	169		
Project success	Pearson	.889 ^{**}	.887 ^{**}	.885 ^{**}	1	
	Correlation					
	Sig.(2-tailed)	.000	.000	.000		
	N	169	169	169	169	
	Pearson	.708 ^{**}	.665 ^{**}	.716 ^{**}	.771 ^{**}	1
	Correlation					
	Sig.(2-tailed)	.000	.000	.000	.000	
	N	169	169	169	169	169

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

Source: Primary data, 2026

The results present the relationship between effect of strategic planning practices on project Success of Rwanda Green investment facility (RGIF) in Gasabo District, Rwanda. effect of strategic planning practices and the factors are; needs analysis, goal setting, resource allocation, monitoring and evaluation. It is in this regard, the statistical package for social science (SPSS) software version 25.0 was used to determine the Pearson

coefficients. The Pearson coefficient correlation is between -1 and 1 where -1 to 0 presents negative correlation (-1 to -0.5 indicates high negative correlation and -0.5 to 0 indicates low negative correlation) and 0 to 1 presents positive correlation (0 to 0.5 presents low positive correlation while 0.5 to 1 presents high positive correlation). According to the results, the correlation between needs analysis, goal setting, resource allocation and monitoring and evaluation was 0.708, 0.665, 0.716

and 0.771 respectively, it presents that there was a significant relationship between The analysis of the effect of strategic planning practices on project Success of Rwanda Green investment facility (RGIF) in Gasabo District, Rwanda. Mukamana and Habimana (2022) carried out a quantitative study on 60 donor-funded agricultural projects using regression analysis. They reported that projects involving participatory needs assessments achieved 28% higher productivity increases among farmers compared to projects designed without local consultations.

Munyaneza and Habimana (2023) assessed 40 road infrastructure projects through structured questionnaires and secondary reviews of official project reports. The study found that 65% of projects with well-allocated

resources were completed on schedule, compared to 44% of those with resource constraints.

4.2.2 Multiple Regression Analysis

Regression analysis was conducted to determine the effect of strategic planning practices on the success of the Rwanda Green Investment Facility (RGIF) project in Gasabo District. Multiple linear regression was used to assess the individual contribution of needs analysis, goal setting, resource allocation, and monitoring and evaluation to project success while controlling for the effects of the other variables. The results of the regression analysis are presented in the following table.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.904	.811	.811	.87778

a. Predictors: (Constant), Monitoring and Evaluation, Resource allocation, Goal setting, Needs analysis

Source: Primary data, 2026

The results present the Model Summary, the researcher wanted to know effect of strategic planning practices on project Success of Rwanda Green investment facility (RGIF) in Gasabo District, Rwanda, the researcher used regression analysis to measure on the effect of needs analysis on the success of the Rwanda Green Investment Facility (RGIF) project in Gasabo District, the effect of goal setting on the success of the Rwanda Green Investment Facility (RGIF) project in Gasabo District, the effect of resource allocation on the success of the Rwanda Green Investment Facility (RGIF) project in Gasabo District, and the effect of monitoring and evaluation on the success of the Rwanda Green Investment Facility (RGIF) project in Gasabo District. Correlation coefficient ($R=0.904a$) demonstrated the relationship between effect of strategic planning

practices on project Success of Rwanda Green investment facility (RGIF) in Gasabo District, Rwanda, therefore The results present the Model Summary, the results presented that the $R\text{ Square}=0.904$. It was statistically significant clear that 90.4% of all variables of strategic planning practices and project Success of Rwanda Green investment facility (RGIF) in Gasabo District, Rwanda. Similarly, the Ministry of Infrastructure (2021) noted that infrastructure projects that engaged communities during needs analysis recorded fewer implementation disputes and higher satisfaction levels. Nevertheless, little empirical evidence exists on how needs analysis effects the success of environmentally focused projects, such as the Rwanda Green Investment Facility (RGIF) in Gasabo District, leaving a clear research gap this study aims to fill.

Table 4: ANOVA^a of strategic planning practices and project Success of Rwanda Green investment facility (RGIF)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	564.963	4	141.241	183.311	.000 ^b
	Residual	126.362	164	.771		
	Total	691.325	168			

a. Dependent Variable: Project success

b. Predictors: (Constant), Monitoring and evaluation, Resource allocation, Goal setting , Needs analysis

Source: Primary data, 2026

The results indicate ANOVA^a, the results presented than the variables were statistically significant with $F=183.311$ and $p\text{ value}=0.000b$, it means that this model is

fit be used in predicting the study variables. Uwamahoro and Ndayisenga (2023) conducted a survey of 55 agricultural projects and found that 68% of projects with

SMART goals achieved full implementation, compared to 43% for projects without such clarity.

Table 5: Coefficients^a of strategic planning practices and project Success of Rwanda Green investment facility (RGIF)

Model Summary					
		Unstandardized		Standardized	
Model		Coefficients		T	Sig.
		B	Std. Error	Beta	
1	(Constant)	31.979	1.585		20.182 .000
	Needs analysis	2.958	.248	4.610	11.919 .000
	Goal setting	-3.856	.277	-5.099	-13.918 .000
	Resource allocation	.305	.092	.570	3.319 .001
	Monitoring and evaluation	.517	.055	.694	9.415 .000

a. Dependent Variable: Project success

Source: Primary data, 2026

The results present the constant of independent variables of effect of strategic planning practices. It is statistically significant since p value is less than 0.05. The results present the variables of strategic planning practices; needs analysis was statistically significant with p value=0.000b, the goal setting was statistically significant with p value=0.000b, and the resource allocation was statistically significant with p value=0.001b. and monitoring and evaluation was statistically significant with p value=0.000b.

According to SPSS generation of Table in regard to the equation $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$, where by Y= Project success, then the Equation served as;

$$Y = 31.979 + 2.958X_1 + -3.856X_2 + -0.305X_3 + 0.517X_4$$

It is in this regard that using the regression equation mentioned above in respect to the holding all constants (needs analysis, goal setting, resource allocation and monitoring and evaluation) in line with the project success was at 31.979, This indicated that, this ensured project success,

there was a need project needs analysis, goal setting, resource allocation and monitoring and evaluation to undertook and ensure success of project

The SPSS Calculated the t-statistic as t-test increased on 11.919 and t-test decreased on -13.918 and t-test increased on 3.319 and t -test increased on 9.415. and the results present the constant of independent variables of effect of strategic planning practices. It is statistically significant since p value is less than 0.05. The results present the variables of project planning was statistically significant with p value=0.000b, the results present the

variables of strategic planning practices; needs analysis was statistically significant with p value=0.000b, the goal setting was statistically significant with p value=0.000b, and the resource allocation was statistically significant with p value=0.001b. and monitoring and evaluation was statistically significant with p value=0.000b.

From the Table 2 Coefficients of strategic planning practices. and project Success of Rwanda Green investment facility (RGIF), Unstandardized Coefficients were used in order to attain the t-test used in explanation above by B values undergo series of dividing from B value and std error thus attainment of the t-test; 31,979, divided 1.585 resulted into constant with 20.182, then 2.958 divided 0.248 resulted into needs analysis factor with 11.919, then -3.856 divided

0.277 resulted into goal setting factor with -13.918, and then -0.305 divided 0.092 resulted into resource allocation with factor with 3.319 and then 0.517 divided 0.055 resulted into monitoring and evaluation with factor with 9.415 value. Similarly, a Ministry of Local Government report (2022) noted that 71% of infrastructure projects with clear goals recorded timely completion, while only 49% without them met deadlines. Rwanda Development Board (2022) report noted that 72% of stakeholders perceived projects with transparent budgeting and skilled staff deployment as more effective and sustainable.

4.2.3 Decision on Null Hypotheses

The four null hypotheses were tested using the t-statistic and corresponding p-values from the multiple regression coefficients presented in Table 5. The t-statistic assesses whether each regression coefficient is statistically

different from zero after controlling for the other strategic planning practices in the model. The hypotheses were tested at the 5% level of significance. Where the p-value was less than 0.05, the null hypothesis was rejected, indicating a statistically significant effect of the respective strategic planning practice on project success. Where the p-value was greater than 0.05, the null hypothesis would not be rejected. The results in Table 5 show that all four strategic planning practices have statistically significant relationships with project success.

Testing research hypothesis One

H₀₁: There is no significant effect of needs analysis on the success of the Rwanda Green Investment Facility (RGIF) project in Gasabo District.

As shown in Table 5, needs analysis has a positive and statistically significant regression coefficient ($B = 2.958$, $t = 11.919$, $p = 0.000$). Since the p-value is less than the 5% level of significance ($p < 0.05$), the null hypothesis is rejected. This indicates that needs analysis has a statistically significant positive effect on the success of the RGIF project in Gasabo District. The positive coefficient implies that an increase in needs analysis, while holding the other strategic planning practices constant, is associated with an increase in project success.

Testing research hypothesis two

H₀₂: There is no significant effect of goal setting on the success of the Rwanda Green Investment Facility (RGIF) project in Gasabo District.

The results in Table 5 indicate that goal setting has a statistically significant negative coefficient ($B = -3.856$, $t = -13.918$, $p = 0.000$). Since the p-value is less than 0.05, the null hypothesis is rejected. Therefore, goal setting has a statistically significant effect on project success when the other variables in the regression model are controlled for. The negative coefficient indicates an inverse conditional association between goal setting and project success in the estimated model. This finding should be interpreted cautiously and in conjunction with the descriptive and correlation results because the coefficient represents the unique effect of goal setting after accounting for needs analysis, resource allocation, and monitoring and evaluation.

Testing research hypothesis Three

H₀₃: There is no significant effect of resource allocation on the success of the Rwanda Green Investment Facility (RGIF) project in Gasabo District.

As presented in Table 5, resource allocation has a positive and statistically significant regression coefficient ($B = 0.305$, $t = 3.319$, $p = 0.001$). Since the p-

value of 0.001 is less than the 5% significance level, the null hypothesis is rejected. Therefore, resource allocation has a statistically significant positive effect on the success of the RGIF project in Gasabo District. The positive coefficient indicates that improvements in resource allocation are associated with increases in project success, holding the other strategic planning practices constant.

Testing research hypothesis Four

H₀₄: There is no significant effect of monitoring and evaluation on the success of the Rwanda Green Investment Facility (RGIF) project in Gasabo District.

The findings in Table 5 show that monitoring and evaluation has a positive and statistically significant regression coefficient ($B = 0.517$, $t = 9.415$, $p = 0.000$). Since the p-value is less than 0.05, the null hypothesis is rejected. Therefore, monitoring and evaluation has a statistically significant positive effect on the success of the RGIF project in Gasabo District. The positive coefficient indicates that stronger monitoring and evaluation practices are associated with higher levels of project success, holding the other strategic planning variables constant.

5. Conclusions and Recommendations

5.1 Conclusion

This study's conclusion highlights several key insights derived from the analysis of strategic planning practices and their effect on the success of the Rwanda Green Investment Facility (RGIF) project in Gasabo District. The conclusion emphasizes that the effect of needs analysis, goal setting, resource allocation, and monitoring and evaluation played a significant role in determining project outcomes. The conclusion clearly states that the findings consistently showed that these factors were positively correlated with project success, and their effective implementation contributed to timely completion, high-quality outputs, stakeholder satisfaction, and achieving intended social, economic, and environmental impacts.

The conclusion also affirms that the inferential statistics, including correlation and regression analyses, demonstrated a strong and statistically significant relationship between strategic planning practices and project success. The regression model indicated that approximately 81.7% of the variance in project success could be explained by the combined effect of these strategic factors. The findings confirmed that each factor independently and collectively had a meaningful impact on project outcomes. Therefore, the conclusion clearly states that strategic planning practices are essential for the success of development projects like RGIF. It recommends that future projects should prioritize

comprehensive needs assessments, structured goal setting, efficient resource management, and rigorous monitoring and evaluation to enhance success rates. The conclusion emphasizes that understanding and implementing these practices can substantially improve project effectiveness, stakeholder satisfaction, and sustainable impacts. This study concluded that the strategic planning practices examined needs analysis, goal setting, resource allocation, and monitoring and evaluation significantly affected the success of the RGIF project in Gasabo District. The findings provided valuable insights into how careful planning and management could lead to improved project performance and outcomes, contributing to Rwanda's broader development goals. This conclusion reinforces the importance of strategic planning in project management and offers a foundation for future research and practice improvements.

5.2 Recommendations

Based on the study findings, the following recommendations are proposed to strengthen strategic planning practices and improve the success and sustainability of RGIF projects in Gasabo District. The recommendations are directed to relevant institutions responsible for project planning, implementation, resource management, and monitoring and evaluation.

1. The Rwanda Green Investment Facility (RGIF) should institutionalize comprehensive and participatory needs analysis at the beginning of every project cycle.
2. RGIF should involve project beneficiaries, local authorities, technical experts, private-sector actors, and other relevant stakeholders in the assessment process to ensure that project interventions respond to actual needs.
3. RGIF, together with its project implementing partners, should establish clear, measurable, achievable, relevant, and time-bound (SMART) goals for all green investment projects.
4. The Ministry of Environment (MoE), in collaboration with RGIF, should strengthen mechanisms for strategic allocation and management of financial, human, and material resources across green investment projects.

References

- Grant, R. M. (2024). *Contemporary strategy analysis: Text and cases* (11th ed.). Wiley.
- Government of Rwanda. (2020). *Vision 2050: Long-term national development plan*. Government of Rwanda.
- Hyacinthe, K. (2022). Systems theory in organizational planning and management. *International Journal of Management Studies*, 9(2), 77–90.
- International Monetary Fund. (2021). *Fiscal policies and project efficiency in developing countries*. International Monetary Fund.
- Iribagiza, J., & Kirabo, A. (2024). Effect of project management practices on the performance of USAID projects in Rwanda. *Journal of Development Management Studies*, 12(1), 45–62.
- Jeremy, S., & Barteremy, W. (2020). Resource-based view and competitive advantage in projects. *Journal of Strategic Management*, 12(3), 44–62.
- Karasira, P. (2021). Project planning and implementation success: The case of Sebeya Watershed Management Project, Rubavu District, Rwanda. *Rwandan Journal of Project Management*, 5(2), 33–49.
- Khanday, M. U., & Khanam, T. (2019). Research methodology: A step-by-step guide for beginners. *International Journal of Educational Research*, 8(2), 55–69.
- Kothari, C. R. (2019). *Research methodology: Methods and techniques* (4th ed.). New Age International Publishers.
- Ministry of Environment, Rwanda. (2021). *Rwanda Green Investment Facility (RGIF) project report*. Ministry of Environment.
- Ministry of Infrastructure. (2021). *Infrastructure project planning and stakeholder engagement report*. Government of Rwanda.
- Ministry of Local Government. (2022). *Infrastructure project goal setting and completion rates*. Government of Rwanda.
- Mugenda, O. M., & Mugenda, A. G. (2003). *Research methods: Quantitative and qualitative approaches*. ACTS Press.
- Mukamana, J., & Habimana, S. (2022). Participatory needs assessments and agricultural productivity in Rwanda. *Rwandan Journal of Development Studies*, 8(1), 23–38.
- Munyaneza, E., & Habimana, F. (2023). Resource allocation and road infrastructure project success in Rwanda. *Rwandan Journal of Development Studies*, 9(2), 41–58.
- Odhiambo, P. (2022). Resource allocation and M&E practices in East African community projects. *Development Policy Review*, 40(3), 310–329.

- Polit, D. F., & Beck, C. T. (2022). *Nursing research: Generating and assessing evidence for nursing practice* (11th ed.). Wolters Kluwer.
- Rwanda Development Board. (2021). *Annual project performance report*. Rwanda Development Board.
- Rwanda Development Board. (2022). *Stakeholder perceptions on project resource allocation and performance in Rwanda*. Rwanda Development Board.
- Sandras, P. (2023). Goal-setting theory in organizational performance. *International Journal of Motivation Studies*, 9(1), 22–39.
- Sekaran, U., & Bougie, R. (2019). *Research methods for business: A skill-building approach* (7th ed.). Wiley.
- United Nations Development Programme. (2022). *Results-based management in development projects*. United Nations Development Programme.
- Uwamahoro, D., & Ndayisenga, P. (2023). Goal setting and agricultural project success in Rwanda. *Rwandan Journal of Infrastructure Development*, 6(1), 33–48.