

Influence of project planning practices on success of malaria prevention and control intervention project in Kirehe District, Rwanda

Ingabire Denyse^{1*}

Sam Bazimya²

^{1*}dingabire15@gmail.com

¹<https://orcid.org/0009-0006-4418-7833>

^{1,2}University of Kigali, Rwanda

Recommended Citation: Ingabire, D., & Bazimya, S. (2026). Influence of project planning practices on success of malaria prevention and control intervention project in Kirehe District, Rwanda. *African Quarterly Social Science Review*, 3(3), 813–827. <https://doi.org/10.51867/AQSSR.3.3.65>

ABSTRACT

This study examined the influence of project planning practices on the success of malaria prevention and control intervention projects in Kirehe District, Rwanda. The study specifically assessed the influence of project resource planning practices, risk planning practices, stakeholder planning practices, and monitoring and evaluation planning practices on project success. The study was guided by Resource-Based View Theory, Stakeholder Theory, Systems Theory and Theory of Constraints. A descriptive and correlational research design was adopted using both quantitative and qualitative research approaches. The study population consisted of 352 respondents involved in malaria prevention and control programs, from which a representative sample of 187 was selected using Slovin's formula. Data were collected using questionnaires, interviews, and document review methods. Quantitative data were analyzed using SPSS version 29 through descriptive and inferential statistics including correlation and regression analysis, while qualitative data were analyzed using thematic analysis. The coefficient findings showed that project resource planning had a positive and significant influence on success of Malaria Prevention and Control Intervention Project in Kirehe District, Rwanda ($B = 0.247$, $t = 5.744$, $p = 0.000$). Risk planning also had a positive and significant influence on project success ($B = 0.342$, $t = 6.706$, $p = 0.000$), while stakeholder planning positively and significantly influenced project success ($B = 0.231$, $t = 4.620$, $p = 0.000$). Monitoring and evaluation planning had a positive and significant influence on project success ($B = 0.174$, $t = 2.900$, $p = 0.004$). The study concluded that project planning practices significantly improved the success of Malaria Prevention and Control Intervention Project in Kirehe District, and recommended that project authorities strengthen integrated resource planning, risk planning, stakeholder planning, and monitoring and evaluation planning to improve efficiency, effectiveness, impact, and sustainability of malaria prevention interventions.

Keywords: Project Planning Practices, Project Success, Malaria Prevention And Control, Kirehe District, Rwanda.

I. INTRODUCTION

Health projects have increasingly become critical instruments for improving public health outcomes across the world. Over the past decades, governments and development agencies have relied on structured project management approaches to implement health interventions addressing infectious diseases and other public health challenges. Effective planning practices have been recognized as essential for ensuring successful implementation of health projects, particularly those involving complex interventions such as malaria control programs. These practices include resource allocation, stakeholder coordination, risk management, and monitoring systems designed to ensure efficient project implementation (Kerzner et al., 2022).

Several countries have implemented structured planning mechanisms in health intervention projects to strengthen disease control programs. For instance, Sweden has adopted comprehensive project planning frameworks within its public health programs aimed at controlling vector-borne diseases through coordinated planning among national health agencies and regional governments. The planning processes emphasize early risk assessment, resource mobilization, and stakeholder coordination in health project implementation. These structured planning approaches have enabled European health institutions to achieve greater efficiency in implementing disease prevention initiatives (International Monetary Fund [IMF], 2023).

Health intervention projects addressing infectious diseases have been implemented through coordinated project planning frameworks involving federal agencies, state governments, and community health organizations. Malaria prevention initiatives led by international health agencies in collaboration with U.S. research institutions emphasize detailed project planning processes that include resource allocation, stakeholder engagement, and risk assessment

mechanisms. These practices enable large-scale health programs to maintain operational efficiency and sustainability during implementation (Winch et al., 2021).

Malaria control initiatives have relied heavily on systematic planning frameworks implemented through national malaria elimination strategies. Countries such as India and Thailand have integrated project planning methodologies into malaria intervention programs through structured coordination between public health authorities and community health workers. Resource planning, stakeholder coordination, and monitoring mechanisms have contributed significantly to improving malaria prevention programs in these countries. These coordinated planning approaches have strengthened the implementation capacity of health institutions responsible for disease control initiatives (Ibeneme et al., 2022).

Morocco adopted comprehensive malaria elimination strategies that involved detailed planning processes focusing on resource mobilization, risk identification, and community participation. Through coordinated planning and monitoring mechanisms, Morocco successfully eliminated indigenous malaria transmission and maintained strong surveillance systems. The country's success illustrates the importance of systematic project planning in achieving sustainable health outcomes within disease control programs (IMF, 2023).

Malaria remains one of the most significant public health challenges despite substantial investments in prevention programs. Countries such as Ghana have implemented malaria control interventions involving large-scale distribution of insecticide-treated nets, indoor residual spraying, and community awareness programs. These initiatives require comprehensive planning practices to coordinate resources, stakeholders, and monitoring mechanisms. Effective project planning has enabled several malaria programs in West Africa to achieve improvements in malaria prevention and treatment services (World Health Organization, 2023).

Tanzania has implemented malaria prevention programs through coordinated health intervention projects supported by international health partners. These programs rely on detailed planning practices involving resource allocation, stakeholder engagement, and continuous monitoring to ensure effective service delivery. Tanzania has implemented community-based malaria prevention programs supported by coordinated planning mechanisms that involve local government institutions and community health workers. These initiatives have contributed significantly to reducing malaria prevalence across several regions in the country (Mremi et al., 2022).

Kenya has also adopted comprehensive planning strategies in malaria prevention and control programs implemented through national health institutions and international development partners. The country's malaria control programs rely on coordinated planning frameworks involving distribution of insecticide-treated nets, vector surveillance systems, and community awareness campaigns. These initiatives require systematic planning mechanisms to ensure proper resource allocation and stakeholder coordination. The integration of planning practices within malaria control interventions has improved program implementation efficiency across several counties (Omondi et al., 2023).

The Government of Rwanda has implemented several malaria prevention and control programs including distribution of insecticide-treated mosquito nets, indoor residual spraying, and community-based health education campaigns. These initiatives require coordinated project planning processes to ensure efficient allocation of resources and effective implementation of malaria prevention strategies. Planning practices within malaria intervention programs involve collaboration between government institutions, development partners, and local communities. Strengthening project planning practices therefore remains essential for improving the success of malaria prevention programs across the country (Rwanda Biomedical Centre, 2023).

Kirehe District is among the regions in Rwanda that experience relatively high malaria prevalence due to environmental conditions favorable for mosquito breeding. Several malaria prevention and control intervention projects have been implemented in the district through collaboration between the Ministry of Health, Rwanda Biomedical Centre, and international health organizations. These programs involve activities such as community mobilization, mosquito net distribution, vector control programs, and health awareness campaigns. Effective project planning practices are essential in ensuring that these interventions achieve intended health outcomes and contribute to the reduction of malaria transmission in the district.

1.1 Statement of the Problem

Project performance has become a major concern in development management because some projects fail to achieve expected results in terms of time, cost, quality, and sustainability. In Rwanda, public investment projects have experienced delays, cost increases, and implementation challenges due to coordination, operational, institutional capacity, and planning challenges (IMF, 2023; Office of the Auditor General, 2022, 2023). These challenges demonstrate that improving the success rate of projects remains an important priority for policymakers and development institutions in Rwanda (Office of the Auditor General of State Finances, 2023).

Malaria remains a significant concern, with Kirehe among the 15 high-burden districts accounting for approximately 89% of national malaria cases in 2024 (Munyakange et al., 2025). Molecular surveillance has also confirmed the presence of the *Pfkelch13* R561H mutation in surveillance sites covering Kirehe and Ngoma (Schreidah

et al., 2024). However, little empirical evidence exists regarding the performance and success of malaria prevention and control intervention projects at the district level, and no empirical study has specifically examined such projects in Kirehe District. This study therefore sought to examine the influence of project planning practices on the success of Malaria Prevention and Control Intervention Projects in Kirehe District, Rwanda.

1.1 Research Objectives

- i. To assess the influence of project resource planning on success of Malaria Prevention and Control Intervention Project in Kirehe District.
- ii. To investigate the influence of risk planning on success of Malaria Prevention and Control Intervention Project in Kirehe District.
- iii. To assess the influence of stakeholder planning on success of Malaria Prevention and Control Intervention Project in Kirehe District.
- iv. To assess the influence of monitoring and evaluation planning on success of Malaria Prevention and Control Intervention Project in Kirehe District.

II. LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Resource-Based View Theory

Resource-Based View Theory was introduced by Penrose (1959). The theory explains that organizations achieve superior performance when they effectively utilize valuable, rare, inimitable, and non-substitutable resources. According to the theory, organizational success depends largely on how internal resources are organized and managed to create competitive advantage. These resources may include financial assets, human expertise, knowledge systems, and technological capabilities that support organizational operations (Barney, 1991).

The study applied Resource-Based View Theory to examine how resource planning practices contribute to improving the success of malaria prevention and control intervention projects in Kirehe District. Effective allocation and management of human, financial, and technical resources enhanced the ability of project teams to achieve project objectives within planned timelines and budgets. The theory therefore explains how proper management of project resources contributes to improved project performance (Samset & Volden, 2016).

2.2.2 Stakeholder Theory

Stakeholder Theory was developed by Freeman (1984). The theory proposes that organizations should consider the interests of all stakeholders who influence or are affected by organizational activities. Stakeholders may include employees, communities, government institutions, investors, and other groups that interact with an organization or project. According to the theory, successful organizations maintain strong relationships with stakeholders and ensure that their expectations are addressed during decision-making processes (Freeman et al., 2010).

Stakeholder Theory emphasizes that organizations operate within complex environments where different actors influence the implementation of activities and achievement of objectives. These actors often have diverse interests that must be considered during planning and implementation processes. Failure to address stakeholder expectations may lead to conflicts, resistance, or reduced cooperation during project implementation. Organizations that actively engage stakeholders in decision-making processes are more likely to achieve sustainable outcomes (Freeman et al., 2010).

2.2.3 Theory of Change

Theory of Change was widely developed within development practice by Weiss (1995), who emphasized the importance of explaining how and why development interventions lead to expected outcomes. The theory explains the causal relationships between project activities, outputs, outcomes, and long-term impacts. It provides a structured framework that helps organizations understand how specific interventions contribute to desired changes within communities or organizations. Through this approach, project planners identify the logical sequence linking project inputs to intended results. The theory therefore supports systematic planning and evaluation of development interventions (Funnell & Rogers, 2011).

The Theory of Change emphasizes the importance of clearly defining the pathways through which project activities are expected to produce results. This process involves identifying assumptions, defining intermediate outcomes, and specifying the mechanisms through which change will occur. By establishing these logical relationships, project managers can design more effective strategies for achieving intended outcomes. The theory therefore helps organizations understand how planned activities contribute to broader development goals. It also strengthens accountability by clarifying how project resources lead to measurable results (Vogel, 2012).

2.2.4 Theory of Constraints

Theory of Constraints was developed by Goldratt and Cox (1984). The theory explains that every system or organization operates with at least one limiting factor known as a constraint that restricts its ability to achieve optimal performance. According to the theory, improving performance requires identifying and addressing the constraints that limit productivity within a system (Mabin & Balderstone, 2003).

The Theory of Constraints proposes that organizations should focus on identifying the most critical constraint affecting their operations and implement strategies to eliminate or reduce its impact. These constraints may include resource limitations, operational bottlenecks, coordination challenges, or external environmental factors. By addressing these constraints, organizations can improve efficiency and enhance the effectiveness of their activities. The theory therefore provides a systematic approach for improving performance within complex operational systems (Mabin & Balderstone, 2003).

2.2 Empirical Review

2.2.1 Project Resource Planning Practices and Success of Projects

Too and Weaver (2021) conducted a study in the United Kingdom examining how resource management practices influence project success within construction projects. Correlation analysis showed a strong positive relationship between resource planning and project success with a correlation coefficient of $r = 0.71$. The findings demonstrated that projects with structured resource planning systems experienced fewer delays and improved cost control. The study concluded that effective planning of project resources contributes significantly to successful project delivery.

In Tanzania, Mushi and Mwaipopo (2023) conducted a study examining the relationship between resource allocation and the performance of development projects implemented within local government authorities. Regression results indicated that resource planning had a significant positive influence on project performance with $R^2 = 0.52$. The study concluded that projects with well-structured resource allocation frameworks achieved higher levels of efficiency and effectiveness. The researchers recommended strengthening planning mechanisms during project design stages.

Benimana and Dushimimana (2026) conducted a study to determine how proper planning of financial and human resources influenced project outcomes in Rwanda. The analysis revealed that resource planning significantly influenced project success with $\beta = 0.61$ and $p < 0.05$. The findings show that projects with effective resource planning experienced fewer cost overruns and improved operational efficiency. The study recommended strengthening resource planning frameworks within development projects in order to improve project performance and sustainability.

2.2.2 Project Risk Planning Practices and Success of Projects

In an empirical investigation based in Wu et al., (2017) explored how project risk management practices influence the overall success of infrastructure developments. Utilizing a quantitative research design, the authors gathered data from 198 project managers via structured questionnaires. Their regression analysis indicated that risk planning exerts a significant influence on project performance, yielding a coefficient of $\beta = 0.55$ with $p < 0.05$. Ultimately, the study concluded that projects which adopt a systematic approach to identifying and managing risks are characterized by fewer implementation disruptions and greater operational stability.

Research by Niragire and Kwena (2024) in Rwanda investigated the degree to which risk management practices affect the performance of development projects under government programs. The regression results established that risk planning significantly correlates with project success, showing $\beta = 0.57$ and $p < 0.05$. The study's conclusion emphasizes that meticulous risk planning enables managers to better anticipate operational hurdles, thereby directly improving the performance metrics of the project.

Uwimana et al., (2023) researched the role of risk planning practices in enhancing the success of donor-funded projects. The findings revealed that risk planning is a significant driver of project performance, with $\beta = 0.60$ and $p < 0.05$. The authors concluded that the effective identification and mitigation of potential risks are fundamental to boosting both the immediate success and the long-term sustainability of project interventions.

2.2.3 Stakeholder Planning Practices and Success of Projects

Oketch and Owuor (2022) examined the effect of stakeholder participation on the performance of county government development projects in Kenya. The study employed a descriptive survey design and obtained data from 150 project officers engaged in county development initiatives. The results indicated that projects that integrated stakeholders into planning activities achieved greater implementation efficiency and stronger support from local communities.

Nshunguyinka (2020) conducted a study in Rwanda to assess how stakeholder involvement contributes to the performance of community development projects. A quantitative research approach was applied and information was collected from 118 project personnel participating in government funded programs. The findings indicated that active

stakeholder participation promotes higher levels of transparency and accountability during project execution. The study recommended improving coordination among stakeholders during the planning stages of projects.

2.2.4 Monitoring and Evaluation Planning Practices and Success of Projects

In an investigation situated in Bangladesh, Rahman (2019) analyzed the impact of monitoring and evaluation (M&E) protocols on the overall performance of development projects. The results of the regression analysis indicated that M&E planning is a significant determinant of project success, yielding a coefficient of beta = 0.64 ($p < 0.05$). The authors concluded that projects supported by comprehensive monitoring frameworks demonstrate higher levels of efficiency and are more effective in reaching their predefined objectives.

Workneh and Aga (2022) investigated the role of monitoring and evaluation in enhancing the performance of public development projects. The study used a quantitative approach, sourcing data from 112 project staff members within government programs. The findings highlight that projects utilizing structured monitoring systems are better positioned to achieve improved operational efficiency.

Similarly, Uwera and Wanjiku (2023) evaluated the influence of M&E practices on the success of development projects managed by international organizations. The researchers collected data from 128 project personnel and applied regression analysis to the findings. The results indicated that monitoring and evaluation planning is a significant predictor of project performance. The study concluded that formalizing monitoring frameworks is a key strategy for increasing project accountability and ensuring that organizational objectives are met successfully.

III. METHODOLOGY

3.1 Research Design

This study adopted a descriptive and correlational research design using both quantitative and qualitative approaches. According to Creswell and Creswell (2022), a well-designed research framework helps researchers organize their study in a way that allows accurate interpretation of findings and ensures reliability of results. The descriptive design enabled the researcher to describe the current planning practices used in malaria intervention projects, while the correlational design helped examine the relationship between project planning practices and project success.

3.2 Target Population

The population of this study consisted of 352 respondents involved in the implementation of malaria prevention and control intervention project in Kirehe District. These respondents included project managers, health professionals, monitoring officers, community health workers, and local administrative staff involved in malaria intervention programs.

3.3 Sampling and Sample Size

The sample size was determined using Slovin (1960) formula with a 5% margin of error.

$$n = \frac{N}{1 + N(e)^2}$$

In this formula, n represents the size of the sample, N the number of participants.

$$n = \frac{352}{1 + 352(0.05)^2}$$

$$n = \frac{352}{1 + 0.88} = \frac{352}{1.88} = 187$$

Therefore, the study sample consisted of 187 respondents. This study used stratified sampling and simple random sampling techniques. Stratified sampling was used to categorize the population into different groups according to their roles in malaria intervention projects. Simple random sampling was then applied to select respondents from each category in order to ensure equal chances of participation.

3.4 Data Collection Instruments and Procedures

This study used questionnaires, interviews, and documentation review to collect both quantitative and qualitative data regarding project planning practices and project success. In this study, documentation involved reviewing project reports and official records related to malaria prevention and control intervention projects in Kirehe District. These documents provided information regarding project implementation processes and project performance indicators.

Structured questionnaires were administered to project staff involved in malaria intervention projects in Kirehe District. The questionnaire consisted of closed-ended questions measured using a five-point Likert scale to capture respondents' perceptions regarding project planning practices and project success. In addition, interviews were

conducted with selected project managers and monitoring officers involved in malaria intervention projects in Kirehe District. These interviews helped obtain detailed information regarding project planning practices and factors influencing project success.

3.6 Data Analysis

Quantitative data obtained from the questionnaires were coded, entered, cleaned, and analyzed using SPSS version 29, while qualitative data obtained from interviews was analyzed using thematic analysis. Descriptive analysis was used to summarize data using frequencies, percentages, means, and standard deviations. Mean values was used to determine the level of agreement among respondents, while standard deviation indicated the degree of variation in responses. Inferential statistics was used to examine relationships between project planning practices and project success. This study applied correlation and multiple regression analysis to determine the strength and direction of relationships between variables.

3.7 Ethical Considerations

Ethical considerations are essential in ensuring that research is conducted responsibly and respectfully toward participants. Permission was obtained from relevant authorities before conducting data collection in Kirehe District. Participants were informed about the purpose of the study and voluntarily agreed to participate. Information obtained from respondents were treated confidentially and used only for academic purposes. Respondents' identities were not disclosed in the research report. Participation in the study was entirely voluntary, and respondents had the right to withdraw at any time.

IV. FINDINGS & DISCUSSION

4.1 Response Rate

The results in Table 1 show that 168 questionnaires, representing 89.8%, were returned complete and considered valid for analysis. The table also shows that 11 questionnaires, representing 5.9%, were returned incomplete, while 8 questionnaires, equivalent to 4.3%, were not returned. Therefore, the response rate was high enough to support the analysis and interpretation of the study findings.

Table 1

Response Rate

Questionnaires	Frequency	Percentage (%)
Returned complete	168	89.8
Returned incomplete	11	5.9
Unreturned	8	4.3
Total	187	100.0

4.1.1 Project Resource Planning and Project Success

The findings in Table 2 showed that project resource planning was positively associated with project success. Respondents reported a high overall level of resource planning ($M = 4.21$, $SD = 0.470$), with resource allocation recording the highest mean ($M = 4.30$). Pearson correlation analysis showed a strong positive and statistically significant relationship between resource planning and project success ($r = 0.785$, $p < 0.001$). Multiple regression further demonstrated that resource planning had a significant positive contribution to project success ($\beta = 0.264$, $B = 0.247$, $t = 5.744$, $p < 0.001$).

Table 2*Descriptive statistics on Project Resource Planning*

Statements	N	Mean	Std. Dev.
Resource Allocation is adequately conducted to ensure that malaria prevention resources and intervention materials are properly distributed to targeted communities in Kirehe District.	168	4.30	0.459
Staff Deployment is effectively organized to ensure that health workers and community volunteers are sufficiently assigned to malaria prevention and control activities in Kirehe District.	168	4.21	0.422
Budget Forecasting is carefully carried out to estimate financial requirements necessary for malaria prevention and control interventions in Kirehe District.	168	4.27	0.521
Material Scheduling is systematically arranged to ensure timely availability of malaria prevention supplies such as mosquito nets, medicines, and spraying materials in Kirehe District.	168	4.20	0.432
Workforce Planning is effectively conducted to ensure adequate human resources for implementation of malaria prevention and control interventions in Kirehe District.	168	4.08	0.518
Overall mean and standard deviation	168	4.21	0.470

These findings indicate that effective allocation of financial, human, and material resources is important for successful implementation of malaria interventions. Timely availability of personnel, mosquito nets, medicines, spraying materials, and operational funds can reduce implementation disruptions and improve service delivery. The findings are consistent with Sangwa et al., (2023), who emphasized the importance of resource identification and allocation in project implementation, and with Nanette and Wabala (2026), who found that effective financial and human resource allocation improves public-sector project performance. The findings are also consistent with the Resource-Based View, which emphasizes the strategic importance of effectively organizing valuable resources to achieve organizational objectives.

Qualitative findings indicated that effective resource planning was perceived as essential to successful implementation of malaria prevention and control activities. Participants particularly highlighted that resource planning contributed to project success by reducing operational disruptions and enabling consistent delivery of planned malaria prevention and control activities. To this end, one of the respondents was quoted as:

“I was involved in malaria prevention activities where planning of materials and workforce made field work easier. I received supplies and instructions on time, which helped me support households during awareness and prevention campaigns. This experience showed me that good resource planning strengthens the success of malaria prevention interventions” (Community Health Worker).

Participants also emphasized that timely allocation of financial resources, adequate staffing, availability of medicines and supplies, and appropriate deployment of community health workers enabled activities to be implemented as planned. One of the respondents said:

“I participated in planning malaria prevention resources, and the process helped ensure that mosquito nets, medicines, and spraying materials reached communities according to need. I also observed that staff deployment was organized based on field demands and community health priorities. This made project activities more coordinated and improved implementation in Kirehe District” (Project Coordinator)

The qualitative findings therefore supported the quantitative results, which showed a strong positive association between resource planning and project success. Participants particularly highlighted the importance of aligning resources with programme priorities and ensuring that resources reached implementation levels in a timely manner. This suggests that resource planning contributed to project success by reducing operational disruptions and enabling consistent delivery of planned malaria prevention and control activities.

4.1.2 Influence of Risk Planning on Project Success

The findings in Table 3 indicate that risk planning was also found to be positively associated with project success. The overall mean for risk planning was 4.22 (SD = 0.482), indicating a high level of risk planning practices. Risk mitigation recorded the highest mean (M = 4.32), followed by risk monitoring (M = 4.29). Pearson correlation showed a strong positive and statistically significant relationship between risk planning and project success ($r = 0.812$, $p < 0.001$). In the regression model, risk planning had the largest standardized coefficient among the four predictors ($\beta = 0.326$, $B = 0.342$, $t = 6.706$, $p < 0.001$).

Table 3*Descriptive statistics on Risk Planning*

Statements	N	Mean	Std. Dev.
Risk Identification is systematically conducted to determine potential challenges that may affect malaria prevention and control interventions in Kirehe District.	168	4.15	0.532
Risk Assessment is regularly performed to evaluate the likelihood and impact of risks affecting malaria intervention activities in Kirehe District.	168	4.12	0.467
Risk Mitigation strategies are implemented to minimize the effects of identified risks during malaria prevention and control project implementation in Kirehe District.	168	4.32	0.481
Risk Monitoring is continuously undertaken to track emerging risks that may hinder malaria prevention and control activities in Kirehe District.	168	4.29	0.481
Contingency Planning is established to ensure alternative solutions are available when unexpected challenges affect malaria intervention activities in Kirehe District.	168	4.19	0.451
Overall mean and standard deviation	168	4.22	0.482

The findings in Table 3 suggest that identifying, assessing, monitoring, and mitigating risks enables malaria intervention teams to respond to operational uncertainties before they disrupt implementation. This is particularly important for interventions involving field campaigns, supply chains, community mobilisation, and health-service delivery. The findings support Kerzner et al., (2022) who emphasized that systematic risk identification and mitigation improve project performance. They are also consistent with Workneh and Aga (2022), who reported that risk planning enhances project performance by enabling managers to anticipate implementation challenges. The findings therefore support the Theory of Constraints by demonstrating the importance of identifying and addressing factors that may restrict project implementation.

The interview findings revealed that participants identified risk planning as an important component of successful malaria intervention implementation. Key risks mentioned included shortages of medicines and supplies, inadequate funding, changes in malaria patterns, logistical challenges, staff shortages, and difficulties reaching some communities. Respondents indicated that identifying such risks in advance enabled project teams to develop mitigation measures and respond more effectively when challenges occurred. To this end, one of the respondents said:

"I was involved in identifying and monitoring risks that could affect malaria prevention activities in Kirehe District. I observed that early risk planning helped the project team respond to implementation challenges before they became serious. This made malaria prevention activities more stable and better organized" (Monitoring Officer).

Another respondent explained:

"I took part in assessing health risks that could affect malaria control activities, especially during field campaigns. I noticed that contingency planning helped the team continue activities even when unexpected operational challenges occurred. This supported timely implementation and improved project success" (Health Professional).

These findings were consistent with the quantitative results, which demonstrated a strong positive association between risk planning and project success and identified risk planning as the strongest predictor among the four planning practices. Participants' emphasis on early risk identification, mitigation and continuous monitoring suggests that proactive risk management enhanced the project's ability to maintain implementation despite operational uncertainties.

4.1.3 Influence of Stakeholder Planning on Project Success

The findings in Table 4 indicate that stakeholder planning recorded an overall mean of 4.15 (SD = 0.392), indicating a high level of stakeholder planning practices. Stakeholder coordination had the highest mean (M = 4.18), while stakeholder engagement recorded the lowest, although still high, mean (M = 4.11). A strong positive and statistically significant relationship was observed between stakeholder planning and project success ($r = 0.813$, $p < 0.001$). Regression analysis further showed that stakeholder planning significantly contributed to project success ($\beta = 0.265$, $B = 0.231$, $t = 4.620$, $p < 0.001$).

Table 4*Descriptive statistics on Stakeholder Planning*

Statements	N	Mean	Std. Dev.
Stakeholder Mapping is conducted to identify key stakeholders involved in malaria prevention and control interventions in Kirehe District.	168	4.16	0.368
Stakeholder Analysis is carried out to understand the level of influence and interest of stakeholders involved in malaria prevention initiatives in Kirehe District.	168	4.16	0.384
Stakeholder Engagement is actively promoted to encourage community participation in malaria prevention and control activities in Kirehe District.	168	4.11	0.370
Stakeholder Coordination is effectively maintained among health institutions, local authorities, and community organizations implementing malaria interventions in Kirehe District.	168	4.18	0.404
Stakeholder Communication is consistently practiced to ensure stakeholders receive timely information about malaria prevention and control activities in Kirehe District.	168	4.13	0.432
Overall mean and standard deviation	168	4.15	0.392

These findings indicate that effective stakeholder mapping, engagement, coordination, and communication contribute to successful malaria interventions. Malaria prevention requires collaboration among health institutions, local authorities, community health workers, project personnel, and communities. Effective stakeholder planning can therefore improve coordination, clarify responsibilities, strengthen community participation, and facilitate timely communication. The findings are consistent with Cherkos and Kifle (2026), who emphasized the importance of identifying and managing stakeholder interests throughout the project cycle. They also support Stakeholder Theory, which holds that project outcomes are influenced by the quality of relationships and engagement among stakeholders.

The interview findings suggest that stakeholder planning facilitated effective implementation through improved coordination among health workers, community health workers, local authorities, community leaders and other partners. Participants emphasized that involving stakeholders early helped clarify responsibilities, improve communication, mobilize communities and strengthen acceptance of malaria prevention activities. Community participation was particularly viewed as important for interventions requiring household-level cooperation and behavioural change. One of the respondents said:

"I participated in coordinating local leaders, health teams, and community health workers during malaria prevention activities. I saw that stakeholder planning helped clarify roles and reduced confusion during implementation. This improved cooperation and made communities more responsive to malaria control messages" (Local Administrative Staff).

Another respondent explained:

"I worked with different stakeholders in planning and implementing malaria prevention activities in Kirehe District. I observed that clear communication and coordination helped align efforts among health institutions and local authorities. This created stronger commitment toward achieving project objectives" (Project staff).

The findings support the quantitative evidence of a strong positive association between stakeholder planning and project success. Participants indicated that regular communication and coordination reduced misunderstandings, improved information flow and encouraged shared responsibility for project activities. Effective stakeholder planning therefore appeared to strengthen implementation by ensuring that different actors understood their roles and remained engaged throughout the project cycle.

4.1.4 Influence of Monitoring and Evaluation Planning on Project Success

The findings in Table 5 reveal that monitoring and evaluation planning recorded the highest overall mean among the four planning practices ($M = 4.24$, $SD = 0.458$). Evaluation scheduling recorded the highest individual mean ($M = 4.30$), followed by progress tracking and reporting systems (both $M = 4.26$). Monitoring and evaluation planning had the strongest correlation with project success ($r = 0.831$, $p < 0.001$). Regression analysis showed a statistically significant positive contribution to project success ($\beta = 0.186$, $B = 0.174$, $t = 2.900$, $p = 0.004$).

Table 5*Descriptive statistics on Monitoring and Evaluation Planning*

Statements	N	Mean	Std. Dev.
Data Collection procedures are clearly established to gather reliable information on malaria prevention and control activities implemented in Kirehe District.	168	4.21	0.422
Progress Tracking is regularly conducted to monitor the implementation status of malaria prevention interventions in Kirehe District.	168	4.26	0.504
Performance Measurement is applied to evaluate whether malaria prevention activities are achieving expected results in Kirehe District.	168	4.16	0.456
Evaluation Scheduling is planned to periodically review the effectiveness of malaria prevention and control interventions in Kirehe District.	168	4.30	0.459
Reporting Systems are established to communicate monitoring and evaluation findings to project managers and health authorities responsible for malaria interventions in Kirehe District.	168	4.26	0.451
Overall mean and standard deviation	168	4.24	0.458

The findings suggest that systematic data collection, progress tracking, performance measurement, evaluation, and reporting strengthen project accountability and enable timely corrective action. Monitoring and evaluation systems are particularly important in malaria interventions because project managers need reliable information to determine whether planned activities are being implemented and whether expected results are being achieved. The findings are consistent with Kusek and Rist (2021), who emphasize the role of monitoring systems in tracking implementation and performance. They also support Rahman (2019), who found that structured monitoring frameworks improve project implementation outcomes. The findings are consistent with the Theory of Change because monitoring and evaluation provide evidence on the links between project activities, outputs, outcomes, and longer-term results.

The interview findings further indicated that the participants regarded monitoring and evaluation (M&E) planning as critical for tracking implementation progress and identifying areas requiring corrective action. Respondents also indicated that timely feedback from monitoring activities enabled project teams to address implementation gaps and improve service delivery. One of the respondent explained that:

"I participated in planning how malaria prevention data would be collected, tracked, and reported. I observed that regular progress tracking helped the project team identify implementation gaps and act on them quickly. This improved accountability and supported better project performance in Kirehe District" (Monitoring and evaluation officer).

They described routine data collection, progress monitoring, performance reviews and reporting as mechanisms for determining whether planned malaria activities were being implemented effectively. One of the respondent opined:

"I was involved in providing field information used for monitoring malaria prevention activities. I noticed that evaluation scheduling and reporting systems helped the team understand whether planned activities were producing expected results. This strengthened decision-making and improved the success of the intervention project" (Health professional).

The findings indicate that the strongest correlation between M&E planning and project success and a statistically significant positive contribution in the regression model. Participants' experiences suggest that well-planned M&E systems promoted accountability, evidence-based decision-making and continuous improvement. Thus, M&E planning helped ensure that project activities remained aligned with intended outputs and outcomes.

4.2 Multiple Regressions Analysis

Regression analysis was conducted to determine the influence of project resource planning, risk planning, stakeholder planning, and monitoring and evaluation planning on success of Malaria Prevention and Control Intervention Project in Kirehe District.

Table 6*Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.918 ^a	.843	.839	.16412	1.721

a. Predictors: (Constant), Monitoring and Evaluation Planning, Project Resource Planning, Risk Planning, Stakeholder Planning

b. Dependent Variable: Project Success

The results in Table 6 indicates model summary. The R value of 0.918 shows a very strong relationship between project planning practices and project success. The R Square value of 0.843 indicates that project resource planning, risk planning, stakeholder planning, and monitoring and evaluation planning jointly explained 84.3% of the variations

in project success. This means that the planning practices included in the model had strong explanatory power in relation to the success of the malaria prevention and control intervention project. The Durbin-Watson value of 1.721 was close to 2, indicating that there was no serious autocorrelation problem in the model.

Table 7
ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.531	4	5.883	217.889	.000 ^b
	Residual	4.391	163	.027		
	Total	27.922	167			

a. Dependent Variable: Project Success

b. Predictors: (Constant), Monitoring and Evaluation Planning, Project Resource Planning, Risk Planning, Stakeholder Planning

The findings in Table 7 indicates ANOVA summary. The F value was 217.889, showing that the overall regression model had strong predictive capacity. The significance value was 0.000, which is below the 0.05 level of significance. This means that the model was statistically significant in explaining the influence of project planning practices on project success. Therefore, project resource planning, risk planning, stakeholder planning, and monitoring and evaluation planning jointly had a significant influence on the success of Malaria Prevention and Control Intervention Project in Kirehe District.

Table 8
Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.047	.148		.318	.754		
	Project Resource Planning	.247	.043	.264	5.744	.000	.454	2.202
	Risk Planning	.342	.051	.326	6.706	.000	.412	2.429
	Stakeholder Planning	.231	.050	.265	4.620	.000	.288	3.471
	Monitoring and Evaluation Planning	.174	.060	.186	2.900	.004	.235	4.263

a. Dependent Variable: Project Success

The regression results showed that all four project planning practices had statistically significant positive associations with project success. Resource planning was significant ($B = 0.247$, $t = 5.744$, $p < .001$; $VIF = 2.202$), as was risk planning ($B = 0.342$, $t = 6.706$, $p < .001$; $VIF = 2.429$). Stakeholder planning also showed a significant positive association ($B = 0.231$, $t = 4.620$, $p < .001$; $VIF = 3.471$), while monitoring and evaluation planning was significant ($B = 0.174$, $t = 2.900$, $p = .004$; $VIF = 4.263$). The tolerance and VIF statistics indicate that multicollinearity was within generally acceptable limits, although monitoring and evaluation planning showed the highest VIF and therefore warrants some caution in interpretation.

Risk planning had the largest unstandardized coefficient, followed by resource planning, stakeholder planning, and monitoring and evaluation planning, indicating that each practice made a significant positive contribution to project success when the other practices were controlled. The null hypotheses for all four objectives were therefore rejected. The fitted model was:

$$\text{Project Success} = 0.047 + 0.247 (\text{Project Resource Planning}) + 0.342 (\text{Risk Planning}) + 0.231 (\text{Stakeholder Planning}) + 0.174 (\text{Monitoring and Evaluation Planning}) + \varepsilon.$$

4.3 Discussion

4.3.1 Project Resource Planning

The findings indicate that effective project resource planning was positively associated with the success of the Malaria Prevention and Control Intervention Project. Adequate planning and allocation of financial, human, material, and logistical resources were perceived to facilitate timely implementation and reduce operational disruptions. These findings are consistent with Nangalama and Gor (2026), who found that effective resource allocation improves project efficiency, and Wu et al., (2017), who emphasized the role of resource forecasting in reducing implementation delays. Similarly, Mushi and Mwaipopo (2023) and Benimana and Dushimimana (2026) reported positive relationships between resource planning and project performance in public-sector and Rwandan projects. The findings are also consistent with

Resource-Based View Theory, which emphasizes the effective organization and utilization of valuable resources to achieve project objectives.

The inferential findings further demonstrated a strong positive relationship between resource planning and project success, with resource planning making a statistically significant positive contribution when other planning practices were controlled. This is consistent with Too and Weaver (2014), who reported that structured resource planning improves cost control, operational efficiency, and project performance. The qualitative findings similarly indicated that timely availability of staff, funds, medicines, prevention materials, and logistics facilitated implementation. Collectively, the evidence suggests that effective resource planning strengthens the capacity of malaria interventions to deliver planned activities efficiently and consistently.

4.3.2 Risk Planning

The findings show that risk planning was positively associated with project success and represented the strongest predictor among the four planning practices. Effective identification, assessment, mitigation, monitoring, and contingency planning enabled project teams to anticipate and respond to operational, financial, logistical, and implementation challenges. These findings are consistent with Kerzner et al., (2022), who emphasize the importance of systematically identifying and managing uncertainties during project implementation. They also agree with Wu et al., (2017)) and Niragire and Kwenya (2024), who found that risk planning improves operational stability and project performance. Theory of Constraints further supports the findings by emphasizing the identification and management of factors that constrain project performance.

The significant positive regression contribution of risk planning is consistent with Uwimana et al., (2023), who found that risk planning predicts project performance, and linked early risk management with reduced delays and cost overruns. Qualitative findings reinforced this evidence, with participants identifying shortages of supplies, inadequate funding, staffing challenges, logistical constraints, and changing malaria patterns as risks requiring proactive management. These findings suggest that systematic risk planning improves the project's ability to maintain implementation and achieve intended outcomes despite uncertainties.

4.3.3 Stakeholder Planning

The findings demonstrate a strong positive association between stakeholder planning and project success. Effective stakeholder mapping, analysis, engagement, coordination, and communication were perceived to improve collaboration among project staff, health professionals, community health workers, local authorities, community leaders, and beneficiaries. The findings are consistent with Freeman et al., (2010), who emphasize the importance of identifying and managing stakeholder interests, and Oketch and Owuor (2022), who links stakeholder planning with reduced conflicts and improved project relationships. They also agree with Nshunguyinka (2020), who found that stakeholder involvement strengthens collaboration, transparency, accountability, and project performance. Stakeholder Theory provides further support by emphasizing the importance of managing relationships with groups that affect or are affected by project activities.

The regression findings confirmed that stakeholder planning made a statistically significant positive contribution to project success, consistent with Freeman et al., (2010), who reported that stakeholder engagement and coordination improve project governance and implementation. Qualitative findings similarly emphasized the importance of communication, community participation, and clear stakeholder responsibilities in implementing malaria interventions. The evidence therefore suggests that effective stakeholder planning promotes cooperation, reduces implementation conflicts, and strengthens community ownership of project activities.

4.3.4 Monitoring and Evaluation Planning

The findings indicate that monitoring and evaluation (M&E) planning had a strong positive relationship with project success. Planning for data collection, progress tracking, performance measurement, evaluation scheduling, and reporting enabled project teams to monitor implementation and identify areas requiring corrective action. These findings are consistent with Kusek and Rist (2021), who emphasize the role of monitoring systems in tracking implementation progress, resources, and performance. They also agree with Rahman (20219) and Samset and Volden (2016), who found that structured monitoring systems strengthen accountability, implementation control, and achievement of project objectives. Theory of Change similarly supports the findings by linking monitoring of activities and outputs with achievement of intended outcomes and impacts.

The regression analysis further showed that M&E planning made a statistically significant positive contribution to project success, consistent with Rahman (2019), who found that effective monitoring mechanisms improve accountability, performance, and achievement of organizational objectives. Qualitative findings reinforced this result by highlighting the importance of routine data collection, progress monitoring, performance reviews, reporting, and

timely feedback. Overall, the findings suggest that effective M&E planning strengthens evidence-based decision-making, accountability, and continuous improvement in malaria prevention and control interventions.

Across the four objectives, the findings consistently demonstrate that project resource planning, risk planning, stakeholder planning, and M&E planning are positively associated with project success. The combined regression model further showed that the four practices jointly explained a substantial proportion of the variance in project success. This supports Kerzner et al., (2022), who emphasize that effective project management depends on integrated planning of resources, risks, stakeholders, and performance. The findings therefore suggest that the success of the Malaria Prevention and Control Intervention Project in Kirehe District is better understood as the outcome of coordinated planning practices rather than any single planning activity.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

The study concludes that project planning practices are important predictors of the success of the Malaria Prevention and Control Intervention Project in Kirehe District, Rwanda. Project resource planning, risk planning, stakeholder planning, and monitoring and evaluation planning all demonstrated statistically significant positive relationships with project success. Among the four practices, risk planning made the strongest relative contribution, followed by stakeholder planning, resource planning, and monitoring and evaluation planning. The qualitative findings further reinforced the importance of timely resource availability, proactive risk management, stakeholder coordination, and continuous monitoring in supporting effective implementation.

Overall, the findings demonstrate that malaria intervention success is better achieved through an integrated planning approach rather than isolated planning activities. Strengthening planning systems across resources, risks, stakeholders, and monitoring and evaluation can therefore improve implementation efficiency, accountability, sustainability, and achievement of intended health outcomes.

5.2 Recommendations

Based on the findings, the study recommends that project managers strengthen resource planning by improving forecasting and timely allocation of financial, human, medical, and logistical resources. Risk planning should be institutionalized through regular identification, assessment, mitigation, and monitoring of potential implementation risks, supported by appropriate contingency measures.

Stakeholder planning should be strengthened through effective communication, coordination, and meaningful engagement of health workers, community health workers, local authorities, community leaders, and beneficiaries. In addition, monitoring and evaluation systems should be enhanced through timely data collection, progress tracking, performance measurement, reporting, and use of findings to guide corrective action. Overall, implementing agencies should adopt an integrated planning approach that coordinates resources, risks, stakeholders, and monitoring and evaluation throughout the project cycle to enhance the effectiveness, sustainability, and success of malaria prevention and control interventions.

Declaration of Interest

The authors declare that they do not have any known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Funding Declaration

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

REFERENCES

- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Benimana, W., & Dushimimana, J. de D. (2025). Project management practices and performance of an agricultural project: A case of Value Chain Development Project in Gakenke District, Rwanda. *Journal of Research Innovation and Implications in Education*, 9(1), 585–593. <https://doi.org/10.59765/pj84h7r>
- Cherkos, F. D., & Kifle, K. T. (2026). Importance and interrelationship of stakeholder management critical success factors in Ethiopia mega construction projects. *Built Environment Project and Asset Management*, 16(2), 242–262. <https://doi.org/10.1108/BEPAM-01-2025-0051>

- Creswell, J. W., & Creswell, J. D. (2022). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.
- Emmanuel, N. (2020). Stakeholder involvement and performance of donor funded projects in Rwanda: A case study of Empowering Youth Through an Inclusive Cooperative Movement in Rwanda (EYICM) Project in Bugesera District. *Journal of Advance Research in Business Management and Accounting*, 6(9), 25–96. <https://doi.org/10.53555/nnbma.v6i9.899>
- Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman.
- Freeman, R. E., Harrison, J. S., Wicks, A. C., Parmar, B. L., & de Colle, S. (2010). *Stakeholder theory: The state of the art*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511815768>
- Funnell, S. C., & Rogers, P. J. (2011). *Purposeful program theory: Effective use of theories of change and logic models*. Jossey-Bass.
- Goldratt, E. M., & Cox, J. (1984). *The goal: A process of ongoing improvement*. North River Press.
- Ibeneme, S., Karamagi, H., Muneene, D., Goswami, K., Chisaka, N., & Okeibunor, J. (2022). Strengthening health systems using innovative digital health technologies in Africa. *Frontiers in Digital Health*, 4, 854339. <https://doi.org/10.3389/fdgth.2022.854339>
- International Monetary Fund. (2023). *Rwanda: Technical assistance report—Public investment management assessment (PIMA) and climate PIMA* (IMF Staff Country Reports, 2023/300). International Monetary Fund. <https://doi.org/10.5089/9798400250743.002>
- Kerzner, H., Zeitoun, A., & Vargas, R. V. (2022). *Project management next generation: The pillars for organizational excellence*. John Wiley & Sons. <https://doi.org/10.1002/9781119832300>
- Kusek, J. Z., & Rist, R. C. (2004). *Ten steps to a results-based monitoring and evaluation system: A handbook for development practitioners*. World Bank.
- Mabin, V. J., & Balderstone, S. J. (2003). The performance of the theory of constraints methodology: Analysis and discussion of successful TOC applications. *International Journal of Operations & Production Management*, 23(6), 568–595. <https://doi.org/10.1108/01443570310476636>
- Mremi, I. R., Sindato, C., Kishamawe, C., Rumisha, S. F., Kimera, S. I., & Mboera, L. E. G. (2022). Improving disease surveillance data analysis, interpretation, and use at the district level in Tanzania. *Global Health Action*, 15(1), 2090100. <https://doi.org/10.1080/16549716.2022.2090100>
- Munyakanage, D., Nzungize, L., Migambi, T., Mosengo, P., Habimana, G., Mbituyumuremyi, A., Mutabazi, A., & Hakizimana, E. (2025). Pyrethroid susceptibility and resistance patterns in *Anopheles gambiae* populations from Rwanda. *Malaria Journal*, 24, 435. <https://doi.org/10.1186/s12936-025-05696-w>
- Nangalama, D., & Gor, K. (2026). Strategic resource allocation and organizational performance of health-based non-governmental organizations in Kenya. *European Journal of Management, Economics and Business*, 3, 251–263. [https://doi.org/10.59324/ejmeb.2026.3\(3\).17](https://doi.org/10.59324/ejmeb.2026.3(3).17)
- Niragire, D., & Kwena, R. (2024). Effect of project risk management on success of community-based projects: A case of Peer Driven Change Project in Burera District, Rwanda. *African Quarterly Social Science Review*, 1(4), 176–194. <https://doi.org/10.51867/AQSSR.1.4.16>
- Office of the Auditor General of State Finances. (2023). *Annual audit report for the year ended 30 June 2023*. Republic of Rwanda.
- Oketch, G. O., & Owuor, D. E. (2022). Stakeholders' involvement in project life-cycle and sustainability of National Government Constituency Development Fund projects in Kenya: A case study of Likoni Constituency. *The Strategic Journal of Business & Change Management*, 9(2), 195–221.
- Omondi, C. J., Odongo, D., Otambo, W. O., Ochwedo, K. O., Otieno, A., Lee, M.-C., Kazura, J. W., Githeko, A. K., & Yan, G. (2023). Malaria diagnosis in rural healthcare facilities and treatment-seeking behavior in malaria endemic settings in western Kenya. *PLOS Global Public Health*, 3(7), e0001532. <https://doi.org/10.1371/journal.pgph.0001532>
- Penrose, E. T. (1959). *The theory of the growth of the firm*. Basil Blackwell.
- Rahman, M. L. (2019). Participatory monitoring and evaluation in development projects of Bangladesh. *International Journal of Project Organisation and Management*, 11, 93–109. <https://doi.org/10.1504/IJPOM.2019.100577>
- Rwanda Biomedical Centre. (2023). *Rwanda malaria strategic plan 2020–2024: Mid-term review report*. Ministry of Health, Republic of Rwanda.
- Samset, K., & Volden, G. H. (2016). Front-end definition of projects: Ten paradoxes and some reflections regarding project management and project governance. *International Journal of Project Management*, 34(2), 297–313. <https://doi.org/10.1016/j.ijproman.2015.01.002>
- Schreidah, C., Giesbrecht, D., Gashema, P., Young, N. W., Munyaneza, T., Muvunyi, C. M., Thwai, K., Mazarati, J.-B., Bailey, J. A., Juliano, J. J., & Karema, C. (2024). Expansion of artemisinin partial resistance mutations and



- lack of histidine rich protein-2 and -3 deletions in *Plasmodium falciparum* infections from Rukara, Rwanda. *Malaria Journal*, 23, 150. <https://doi.org/10.1186/s12936-024-04981-4>
- Slovin, E. (1960). *Slovin's formula for sampling technique*. <https://prudencexd.weebly.com/>
- Too, E. G., & Weaver, P. (2014). The management of project management: A conceptual framework for project governance. *International Journal of Project Management*, 32(8), 1382–1394. <https://doi.org/10.1016/j.ijproman.2013.07.006>
- Uwera, C., & Wanjiku, C. (2023). Monitoring and evaluation practices and performance of non-government organizations in Rwanda: A case study of Income-Generating Activities Project by Health Relief and Development Organization. *Journal of Entrepreneurship & Project Management*, 7(4), 30–47. <https://doi.org/10.53819/81018102t2146>
- Uwimana, P., Mukamana, D., Babenko-Mould, Y., & Adejumo, O. (2022). Exploring factors affecting the facilitation of nursing students to learn paediatric pain management in Rwanda: A descriptive qualitative study. *PLOS ONE*, 17(2), e0263609. <https://doi.org/10.1371/journal.pone.0263609>
- Vogel, I. (2012). *Review of the use of "theory of change" in international development*. UK Department for International Development.
- Weiss, C. H. (1995). Nothing as practical as good theory: Exploring theory-based evaluation for comprehensive community initiatives for children and families. In J. P. Connell, A. C. Kubisch, L. B. Schorr, & C. H. Weiss (Eds.), *New approaches to evaluating community initiatives: Concepts, methods, and contexts* (pp. 65–92). Aspen Institute.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171–180. <https://doi.org/10.1002/smj.4250050207>
- Winch, G. M., Cao, D., Maytorena-Sanchez, E., Pinto, J. K., Sergeeva, N., & Zhang, S. (2021). Operation Warp Speed: Projects responding to the COVID-19 pandemic. *Project Leadership and Society*, 2, 100019. <https://doi.org/10.1016/j.plas.2021.100019>
- Workneh, E. Y., & Aga, D. A. (2022). The effect of monitoring and evaluation practices on the success of development projects of non-governmental organizations. *African Journal of Leadership and Development*, 7(2), 17–32. <https://doi.org/10.63990/2022ajoldvol7iss2pp17-32>
- World Health Organization. (2023). *World malaria report 2023*. <https://www.who.int/publications/i/item/9789240086173>
- Wu, Z., Nisar, T., Kapletia, D., & Prabhakar, G. (2017). Risk factors for project success in the Chinese construction industry. *Journal of Manufacturing Technology Management*, 28(7), 850–866. <https://doi.org/10.1108/JMTM-02-2017-0027>