Influence of Project Management Practices on Performance of Sustainable Agriculture Intensification Food Security Project (SAIP) in Kayonza District, Rwanda (2020-2023)

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ABSTRACT

The study aimed to investigate the influence of project management practices on the performance of the Sustainable Agriculture Intensification Food Security Project (SAIP) in Kayonza District, Rwanda. Specifically, it examined the influence of project planning, project implementation, project risk management, and project monitoring and evaluation (M&E) on SAIP's performance. The study was guided by the systems theory, stakeholder theory, and the theory of change. The target population included 317 employees involved in SAIP, and the researcher adopted a census approach, collecting data from every unit in the population rather than using sampling. Quantitative data collection was conducted through questionnaires, and both descriptive and correlation analyses were employed. The study utilized SPSS for data analysis, ensuring that quantitative data contributed to the overall findings. The correlation coefficient (R = 0.821) indicated a strong positive relationship between project management practices and project performance. The R^2 value of 0.675 suggested that approximately 67.5% of the variance in project performance could be explained by project monitoring and evaluation, project implementation, project risk management, and project planning. The findings demonstrated that project planning significantly influenced project performance, with an unstandardized coefficient (β1) of 0.332. This meant that for every one-unit increase in project planning, project performance was expected to increase by 0.332, with a significance level of 0.000 (t=5.929). Project implementation also had a positive influence, with an unstandardized coefficient (β2) of 0.166, indicating that a one-unit increase in project implementation resulted in a 0.166 increase in project performance. The significance level was 0.003 (t=3.018), confirming a statistically significant relationship. Similarly, project risk management was found to play a critical role in project performance, with an unstandardized coefficient (β3) of 0.200. This indicated that an increase of one unit in project risk management corresponded to a 0.200 increase in project performance, with a significance level of 0.000 (t=3.704). Project monitoring and evaluation also had a substantial impact, with an unstandardized coefficient (β4) of 0.242, meaning that a one-unit increase in project monitoring and evaluation resulted in a 0.242 increase in project performance. The significance level was 0.000 (t=4.654), highlighting a strong positive relationship. The study concluded that project management practices are essential in enhancing the effectiveness of the Sustainable Agriculture Intensification Food Security Project in Kayonza District. The strong correlation between project planning, implementation, risk management, and monitoring and evaluation with project performance demonstrated that structured management approaches significantly contribute to project success. Based on these findings, the study recommended that SAIP adopt a structured planning framework with clear roles and timelines to enhance efficiency and effectiveness in project execution.

Keywords: Project, Project Management Practices, Performance, Sustainable Agriculture Intensification Food Security Project (SAIP)

I. INTRODUCTION

A project is a short-term endeavor designed to achieve specific goals within a set timeframe, varying in size and scope, and often involving diverse, global teams. Projects play a crucial role in enterprise productivity across various sectors, with substantial financial investments demonstrating their importance. Improvements in project management can significantly enhance wealth creation in advanced economies (Magagan & Ngugi, 2021).

Globally, projects are initiated, designed, and implemented through contracts among employers, consultants, and contractors to achieve goals aligned with economic development, human welfare, and environmental protection. Project management involves various aspects, with a strong focus on contract management (Kaufmann & Kock, 2022). Effective project measures, including planning, processes, and information systems, should adapt to changing conditions while being precise.

In the United Kingdom, project management has a rich history connected to the industrial revolution, with major infrastructure projects like railways and bridges laying the groundwork for formal project management practices. The development of methodologies such as PRINCE2 (Projects IN Controlled Environments) reflects the UK's focus on structured and standardized approaches to managing complex projects across sectors, including government and healthcare (Simonaitis *et al.*, 2023).

Moreover, In Germany, project management is deeply rooted in the country's engineering and manufacturing excellence. Known for its precision and efficiency, Germany has developed a rigorous approach to project management, particularly in automotive and construction industries. The concept of "Vorsprung durch Technik" (progress through technology) captures the German commitment to innovation-driven project management. The use of tools like the V-Modell, a project management method focused on software development, exemplifies Germany's emphasis on clear processes, risk management, and quality assurance (Beiker, 2022).

Project management is crucial for driving economic growth and development across Africa. By adopting international standards and promoting professional development, African nations enhance efficiency and competitiveness in key sectors such as mining, construction, IT, oil and gas, telecommunications, and infrastructure, supporting broader national and regional goals. In Nigeria, project management is vital in sectors such as oil and gas, telecommunications, and infrastructure. As the economy grows rapidly, the Project Management Institute's Nigeria Chapter is crucial in promoting best practices and enhancing skills (Igberaese, 2022). Meanwhile, Kenya relies on project management to support development initiatives in agriculture, technology, and energy. As an innovation hub in East Africa, Kenya's focus on infrastructure and technology projects aligns with its Vision 2030 goals, necessitating skilled project managers and supported by local and international training and certification opportunities (Ong'anya, 2024).

Project management is a vital component of Rwanda's development strategy, significantly impacting sectors such as agriculture and construction by enhancing performance and efficiency through effective planning, implementation, and evaluation practices. Project management in Rwanda has become an integral part of the country's development trajectory, especially in sectors like agriculture and construction. In agriculture, project management practices have significantly influenced the performance of agricultural initiatives, such as those in Ngororero District, highlighting the positive correlation between effective management practices and project success (Murangwabugabo *et al.*, 2021). Similarly, in the construction industry, project management is crucial but often falls short due to a lack of formal training and the prevalence of non-professional managers. Studies show that while most construction professionals apply project management practices, many acquire skills through experience rather than formal education, resulting in less effective management and frequent time and cost overruns (Sibomana *et al.*, 2020).

Effective project management is essential for enhancing agricultural project performance in Rwanda. According to Tuyisenge and Kabanda (2023), structured project planning can improve agricultural project performance by 25%. Additionally, Murangira *et al.* (2022) indicates that strong project management practices can enhance agricultural project efficiency by 40%.

1.1 Statement of the Problem

Despite the potential for improvement, Rwanda's project performance faces significant challenges, including inadequate project planning, weak risk management practices, and inefficiencies in execution. These issues hinder the overall effectiveness and sustainability of agricultural projects, limiting their ability to achieve the anticipated outcomes and contributing to the ongoing struggle for progress in the sector (Nshimiyimana, 2022).

According to Sibomana *et al.* (2020), Rwanda's agricultural sector faces significant challenges from climate change, with 88% of plots affected by soil erosion and severe drought impacting up to 157,700 people while endangering approximately 62,000 metric tons of crops. Implementing effective project management strategies, such as climate-resilient agricultural practices and robust water management systems, can mitigate these issues and enhance food security. Furthermore, in the agricultural sector, the overestimation of food crop production due to a flawed performance contract system presents serious challenges (Heinen, 2022).

According to Nyakarengo and Wanjiku (2023) inefficient resource management and lack of community engagement significantly undermine project outcomes, limiting the achievement of food security and economic improvement for farmers in regions such as Kayonza. In a study conducted across eight sites in Rwanda, including Kayonza district, it was found that only 18% of projects are completed within budget, 50% exceed costs, and 30% are abandoned (Gasana & Njenga, 2024). The Sustainable Agricultural Intensification and Food Security Project (SAIP) in Kayonza District, Rwanda, encounters significant challenges such as inadequate project planning, insufficient risk management practices, and low stakeholder engagement. As a result, the project struggles with missed timelines, budget overruns, and reduced community participation, limiting its overall success and impact (Nyakarengo & Wanjiku, 2023).

While the previous studies including Nshimiyimana (2022), Sibomana *et al.* (2020), Nyakarengo and Wanjiku (2023), Gasana and Njenga, (2024) provided valuable insights, there is a clear research gap in understanding how project planning, implementation, risk management and M&E practices specifically influence the performance of agricultural projects in Rwanda. This study aimed to fill these gaps by investigating the influence of these project management practices on the performance of SAIP in Kayonza District, Rwanda.

1.2 Research Hypotheses

Ho_1: There is no significant influence of project planning practices on performance of Sustainable Agriculture Intensification Food Security Project (SAIP) in Kayonza District.

Ho_2: There is no significant influence of project implementation practices on performance of Sustainable Agriculture Intensification Food Security Project (SAIP) in Kayonza District.

Ho_3: There is no significant influence of risk management practices on performance of Sustainable Agriculture Intensification Food Security Project (SAIP) in Kayonza District

Ho_4: There is no significant influence of monitoring and evaluation practices on performance of Sustainable Agriculture Intensification Food Security Project (SAIP) in Kayonza District.

II. LITERATURE REVIEW

2.1 Theoretical Review

For this study, theoretical framework is a thorough look at and evaluation of the existing theories and ideas about the topic under study. It is the process of systematically analyzing and putting together information from different sources in order to get a full picture of issue.

2.1.1 Systems Theory

According to Powell (2023), Systems Theory, developed primarily by Ludwig von Bertalanffy in the 1940s, focuses on understanding the interconnectedness of components within complex systems. It posits that a system is more than just the sum of its parts; rather, the interactions and relationships among the components significantly impact the system's behavior and outcomes. Systems Theory has been applied across various fields, including biology, sociology, and management. It encourages an interdisciplinary approach, highlighting those problems cannot be understood in isolation. For organizations, adopting a Systems Theory perspective can lead to more effective decision-making, as it encourages stakeholders to consider both internal processes and external influences. This theory is especially relevant in areas like environmental sustainability and project management, where multiple stakeholders and factors interact. Understanding these interactions enables project managers to design interventions that are holistic, optimizing the overall system's performance while addressing specific challenges. Systems Theory ultimately calls for viewing problems through a broader lens, enhancing collaboration and comprehensive solutions that enhance system effectiveness.

This study used Systems Theory to understand how various factors influences project management practices and their collective impact on sustainable agriculture intensification food security Project.

2.1.2 Stakeholder Theory

Stakeholder Theory, initially articulated by R. Edward Freeman in the 1980s, argues that the success of an organization is heavily dependent on its ability to manage relationships with various stakeholders. Unlike traditional views that prioritize shareholder value, Stakeholder Theory emphasizes the importance of considering the interests and influences of all parties affected by an organization’s actions, such as employees, customers, suppliers, and the broader community. In a general context, this theory asserts that businesses do not operate in a vacuum; rather, they are embedded in a complex web of relationships. Effective stakeholder management fosters trust, enhances reputation, and can lead to competitive advantages. Moreover, Stakeholder Theory encourages organizations to adopt a more ethical approach, prioritizing transparency and accountability. In project management, particularly in sectors like sustainable agriculture, understanding stakeholder dynamics can guide decision-making processes and improve project outcomes. By engaging all relevant parties early in the project lifecycle, managers can ensure that diverse perspectives are considered, leading to more sustainable and equitable solutions that ultimately contribute to food security and community well-being (Dmytriyev & Freeman, 2023).

This study used Stakeholder Theory to identify and analyze the roles of various stakeholders in project management practices of the Sustainable Agriculture Intensification Food Security Project, assessing how their engagement and influence affect project outcomes.

2.1.3 Theory of Change (ToC)

The Theory of Change (ToC) is a conceptual framework that outlines the steps necessary to achieve a desired outcome, and it has been developed and refined since the 1990s, particularly in the fields of social change and program evaluation (Ivan, 2020). It focuses on the causal pathways that connect project activities with short-term and long-term goals, delineating both the preconditions necessary for success and the interventions required to bring about change. In general terms, ToC encourages organizations to reflect critically on their assumptions, clarify their objectives, and identify the specific actions needed to drive change. This theory helps practitioners visualize how their initiatives will lead to intended outcomes while accounting for external factors and risks that could impact success. It promotes rigorous evaluation and adaptive management practices, whereby feedback from stakeholders is used to refine strategies over time. In the context of project management, particularly for sustainable agriculture projects, ToC serves as a valuable tool for planning, implementation, and assessment. By systematically mapping out the necessary steps and anticipated impacts, organizations can better align their efforts with their overarching goals of improving food security and promoting agricultural sustainability.

This study used the Theory of Change to enable the identification of key interventions and expected outcomes, thus enhancing the project's planning and evaluation processes of the Sustainable Agriculture Intensification Food Security Project.

2.2 Empirical Review

It involved in examining published studies, articles, and other relevant literature to gather and synthesize existing empirical evidence on a particular topic.

Agaba and Turyasingura (2023) evaluated the impact of participatory project implementation on the sustainability of government-funded projects in Uganda, specifically focusing on the Parish Development Model in Kabale District. Descriptive, bivariate, and multivariate analyses were among the methodologies used, and the quantitative findings were provided in the form of frequency tables, a Pearson correlation matrix, and linear regression. Results showed that the Parish Development Model's sustainability was positively affected by participatory project execution ($r=-0.890$, $p=0.000$), suggesting strong statistical significance. Project success and longevity are enhanced when more effort is placed into participatory implementation strategies such creating project teams, checking that customers are happy, producing the desired results, and broadening the project's scope.

Fikadu and Kant (2023) analyzed how project risk management strategies impact project performance in selected west Guji zone projects in Ethiopia. The researcher utilized both quantitative and qualitative research methods, including descriptive and explanatory designs. Data was collected by purposeful sampling from persons with relevant expertise and connection to the initiatives. Purposive sampling. The data was analyzed using IBM SPSSv20 and STATA14/SE software for descriptive and inferential analysis. Data study indicates that project risk management approaches improve project performance in the west Guji zone. Qualitative and quantitative risk assessments are ineffective and infrequently used. Project risk monitoring has a good impact, but qualitative risk analysis has a low impact, followed by quantitative risk response. Based on the study and conclusions, the researcher advised stakeholders and interested bodies.

Mohamed (2024) looked at the influence of monitoring and evaluation (M&E) techniques on the performance of NGO-funded projects in Wajir County, Kenya. It focused on 25 projects managed by five NGOs. Quantitative data was gathered from a random sample of 173 project staff, while qualitative data was collected from 25 project managers, 25 monitoring and evaluation personnel, and one government representative. The need of strong monitoring and evaluation procedures in improving project results was emphasized by the results. Successful projects were affected by excellent M&E planning, active community engagement, open communication of outcomes, and M&E application. The research used descriptive and inferential statistics and thematic analysis to show that organized M&E frameworks improve NGO project performance and propose improved M&E methods to fix performance difficulties.

III. METHODOLOGY

3.1 Research Design

For this study, descriptive and correlation analysis were used. A descriptive study was used to describe participant demographic information.

3.2 Population of the Study

The population of the study was 317 employees and beneficiaries of the Sustainable Agriculture Intensification Food Security Project in Kayonza District, Rwanda. Their input is crucial for a comprehensive understanding of project management practices and their impact on project outcomes.

The researcher used census method approach rather than sampling due to the small population. Instead, then selecting a subset of the population by sampling, this method collected data from every single unit or person inside the population. The goal of this approach is to fully understand the population under investigation.

3.3 Data Collection Methods and Instruments

The research relied on questionnaire technique and Documentation technique.

3.3.1 Questionnaire technique

The questionnaire includes a series of questions focused on issues relevant to the respondents' experiences and perceptions regarding the Sustainable Agriculture Intensification Food Security Project (SAIP) in Kayonza District, Rwanda. These questions are designed to elicit both written and quantitative data, providing insights into the effectiveness and implementation of project management practices within the project. The researcher distributed the questionnaire among participants to systematically collect responses, which facilitated the analysis of the project's impact on food security and agricultural sustainability in the district.

3.3.2 Documentation Technique

This technique is important because it reviews the literature and tries to locate global perspectives in order to make a comparative framework for analysis and evaluation for readers; therefore, the researcher used this documentary technique in order to conduct and get secondary data.

3.4 Data Analysis

The data used the descriptive statistics and regression analysis model to analyze the collected data where the findings were drawn from. The process of data analysis was used by the researcher after data collection in order to make deep interpretation and understanding by using statistical analysis method. The statistical method provides a forum for original, high-quality articles reflecting the varied facets of contemporary statistical theory as well as of significant applications.

The researcher employed descriptive and correlational analysis in this method. The frequency, proportion, and percentage values computed for each variable were used in the descriptive analysis. To investigate and quantify the statistical link between two variables, a correlation analysis was established. Researcher used correlation analysis to determine the significance and strength of the link between the independent and dependent variables.

So, the Spearman or Pearson correlation coefficient measures the extent to which one variable tends to increase in connection to another but does not mandate that the increase be represented by a linear relationship. If one variable improved while the other one worsened, then the rank correlation coefficient was negative.

The correlation coefficient is a statistical measure of association (r). From minus one to plus one, that's where its numeric value sits. It is a positive indicator of how closely related the two factors are. The strength of a connection may be determined by examining the value of the correlation coefficient (r), which can take on any number from 0 to 1, with 0 indicating no association at all (or that the variables are independent and not related).

IV. FINDINGS & DISCUSSIONS

4.1 Response Rate

The response rate measures the proportion of people who were given the survey or questionnaire and actually completed and returned it.

Table 1

Response Rate

Questionnaire	Frequency	Percentage
Returned and completed	291	91.80
Incomplete	16	5.05
Unreturned	10	3.15
Total	**317**	**100.0**

The researcher distributed 317 questionnaires at that moment 291 were returned and fully completed, resulting in a completion rate of approximately 91.80%. Meanwhile, about 3.15% of the questionnaires were unreturned, which accounts for 10 of them. Additionally, 16 questionnaires were returned incomplete, representing around 5.05% of the overall distribution. This indicates a high response and completion rate but with a small proportion of participants who either did not return or did not fully complete their questionnaires.

4.2 Inferential Statistics

Inferential statistics involves drawing conclusions from statistical samples. It employs various methods such as regression analysis and correlation analysis to make inferences about a population based on sample data.

4.2.1 Correlation Analysis

Correlation analysis is a statistical method used to evaluate the strength and direction of relationships between two variables, helping to identify patterns and predict outcomes based on observed data.

Table 2

Correlation Matrix

Pearson Correlation						
		Project Planning	Project Implementation	Project Risk Management	Project Monitoring and Evaluation	Project Performance
Project Planning	Pearson Correlation	1	.769**	.625**	.600**	.736**
	Sig. (2-tailed)		.000	.000	.000	.000
	N		291	291	291	291
Project Implementation	Pearson Correlation		1	.633**	.569**	.692**
	Sig. (2-tailed)			.000	.000	.000
	N			291	291	291
Project Risk Management	Pearson Correlation			1	.749**	.703**
	Sig. (2-tailed)				.000	.000
	N				291	291
Project Monitoring and Evaluation	Pearson Correlation				1	.693**
	Sig. (2-tailed)					.000
	N					291
Project Performance	Pearson Correlation					1
	Sig. (2-tailed)					
	N					

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

Table 2 presents the correlation matrix among various dimensions of the Sustainable Agriculture Intensification Food Security Project (SAIP) and project performance. The analysis shows a strong positive correlation between project planning and project performance ($r = 0.736$, $p < 0.05$), indicating that improvements in project planning are associated with enhanced project performance. Similarly, a strong positive correlation exists between project implementation and project performance ($r = 0.692$, $p < 0.05$), suggesting that effective implementation practices positively impact performance of Sustainable Agriculture Intensification Food Security Project (SAIP). Furthermore, project risk management demonstrates a significant positive correlation with project performance ($r = 0.703$, $p < 0.05$), highlighting the importance of managing risks to achieve better project results. Finally, there is a strong positive correlation between project monitoring and evaluation and project performance ($r = 0.693$, $p < 0.05$), indicating that effective monitoring and evaluation processes contribute to improved performance of Sustainable Agriculture Intensification Food Security Project (SAIP).

The findings are consistent with Magagan and Ngugi (2021), who emphasized the critical role of effective project management in enhancing overall project performance. The strong positive correlations observed between project planning, implementation, risk management, and monitoring and evaluation with project performance in the Sustainable Agriculture Intensification Food Security Project (SAIP) underscore the necessity of participatory management. These dimensions align with organizational strategies and stakeholder interests, ensuring projects are delivered on time, within budget, and create value.

4.2.2 Regression Analysis

Regression analysis is a statistical technique used to model and analyze the relationships between a dependent variable and one or more independent variables, allowing for prediction and evaluation of trends within data.

Table 3

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.821[a]	.675	.670	.38513

a. Predictors: (Constant), Project Monitoring and Evaluation, Project Implementation, Project Risk Management, Project Planning

Table 3 presents the model summary for the influence of predictors: project monitoring and evaluation, project implementation, project risk management, and project planning on project performance. The results indicate a strong correlation (R = 0.821) indicates relationship between the predictors and performance of Sustainable Agriculture Intensification Food Security Project (SAIP). The R Square value of 0.675 signifies that 67.5% of the variance in project performance explained by the combined influence of the predictors. The Adjusted R Square value of 0.670 indicates that the model accounts for 67% of the variance when adjusting for the number of predictors used.

These results are in line with those of Ciric *et al.* (2022), who highlighted the importance of good project management for the success of projects in a variety of industries, including agricultural. The high connection and considerable R Square value in the Sustainable Agriculture Intensification Food Security Project (SAIP) show that project monitoring and evaluation, implementation, risk management, and planning all have a major impact on performance. This emphasizes the necessity of effective management strategies in reducing delays, budget overruns, and ultimately improving project results.

Table 4

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	88.008	4	22.002	148.662	.000[b]
	Residual	42.421	286	.148		
	Total	130.429	290			

a. Dependent Variable: Project Performance

b. Predictors: (Constant), Project Monitoring and Evaluation, Project Implementation, Project Risk Management, Project Planning

Table 4 presents the ANOVA results for the regression analysis conducted to assess the predictors of project performance, which include project monitoring and evaluation, project implementation, project risk management, and project planning. The ANOVA indicates that the model is statistically significant, with an F-value of 148.662 and a significance level (Sig.) of .000. This result confirm that the combined influence of the predictors has a significant influence on performance of the Sustainable Agriculture Intensification Food Security Project (SAIP) in Kayonza District.

The findings are consistent with Sibomana *et al.* (2020), who emphasized that effective project management is vital for successful outcomes in various sectors, including construction. The statistical significance of the model indicates that project monitoring, evaluation, implementation, risk management, and planning significantly influence project performance. This aligns with the necessity for structured management practices to mitigate risks and enhance efficiency in the Sustainable Agriculture Intensification Food Security Project (SAIP).

Table 5

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.384	.134		2.866	.004
	Project Planning	.332	.056	.332	5.929	.000
	Project Implementation	.166	.055	.167	3.018	.003
	Project Risk Management	.200	.054	.206	3.704	.000
	Project Monitoring and Evaluation	.242	.052	.244	4.654	.000

a. Dependent Variable: Project Performance

The adopted model presented as follow:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where;

Project Performance = 0.384 + 0.332 × Project Planning + 0.166 × Project Implementation + 0.200 ×

Project Risk Management + 0.242 × Project Monitoring and Evaluation + 0.134.

Table 5 displays the coefficients for the regression model evaluating the impact of project planning, project implementation, project risk management, and project monitoring and evaluation on project performance.

The constant (β = 0.384, Sig. = 0.004) indicates that when all predictor variables are equal to zero, the expected project performance score is 0.384. This value is statistically significant, suggesting that the model has a baseline level of project performance even without the influence of the independent variables.

The unstandardized coefficients show the influence of each predictor on project performance. For instance, project planning has a coefficient of 0.332 (Sig. = 0.000), indicating a significant positive influence to project performance; for every unit increase in project planning, project performance increases by 0.332 units. Similarly, project implementation has a coefficient of 0.166 (Sig. = 0.003), indicating a positive influence; project risk management has a coefficient of 0.200 (Sig. = 0.000), and project monitoring and evaluation has a coefficient of 0.242 (Sig. = 0.000), both of which also indicate significant positive influence to project performance. All predictors are statistically significant, confirming their influence in enhancing performance of Sustainable Agriculture Intensification Food Security Project (SAIP) in Kayonza District.

The regression model coefficients align with Ong'anya (2024), who emphasized that effective project management is essential for advancing development initiatives across sectors. The statistical significance of the predictors indicates that project planning, implementation, risk management, and monitoring significantly enhance project performance. This indicates the necessity of skilled project managers and structured practices within the Sustainable Agriculture Intensification Food Security Project (SAIP) to achieve successful outcomes and support broader developmental goals.

All null hypotheses were rejected, indicating significant influences: H01, which proposed that project planning practices had no significant influence, was rejected with a significance level (p) less than 0.05. Similarly, H02, suggesting no significant influence of project implementation practices, was also rejected for the same reason. H03, concerning the influence of risk management practices, followed suit, with p being less than 0.05 leading to its rejection. Finally, H04, positing no significant influence of monitoring and evaluation practices, was rejected as well, confirming that all four practices significantly affect the performance of the SAIP.

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

The rejection of all hypotheses (H_{01}, H_{02}, H_{03}, H_{04}) at a significance level of $\rho<0.05$ indicates significant influence of project planning, implementation, risk management, and monitoring and evaluation practices on performance of SAIP. This highlights that these project management components are essential in enhancing and improving overall project effectiveness. The findings emphasize the need for optimizing planning practices, ensuring effective implementation, managing risks appropriately, and establishing strong monitoring and evaluation systems to enhance productivity and service delivery in the Sustainable Agriculture Intensification Food Security Project.

5.2 Recommendations

SAIP should implement a structured project planning framework that includes clear timelines, defined roles, and resource allocation to ensure effective project execution. It is recommended that SAIP regularly review and update project plans based on stakeholder feedback and emerging challenges to enhance adaptability and responsiveness. SAIP should establish a strong implementation monitoring system to track progress against set milestones and make necessary adjustments in real time. It is recommended that SAIP foster collaboration among team members through regular meetings and progress reports to ensure alignment and accountability during implementation.

SAIP should conduct comprehensive risk assessments at the outset of each project phase to identify potential challenges and develop mitigation strategies accordingly. It is recommended that SAIP create a risk management training program for project staff to enhance their ability to identify, assess, and respond to project risks effectively. SAIP should implement a standardized M&E framework that outlines specific indicators and metrics to assess project success and impact. It is recommended that SAIP conduct regular evaluation workshops with stakeholders to review project outcomes and gather understandings for continuous improvement. SAIP should develop an integrated performance management system that combines data from project planning, implementation, risk management, and M&E to facilitate informed decision-making and enhance overall project effectiveness.

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