



Effect of Project Management Practices on Implementation of Basic TVET Programs in Rwanda: A Case Study of KFW Project, Phase II

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Annotation. The study was conducted to examine the effect of project management practices on implementation of Basic TVET Programs in Rwanda: A Case study of KFW Project, Phase II (2019-2023). Methodology was based on sample size of 69 of respondents, and universal sampling technique was applied to select respondents, techniques of data collection were questionnaire and interviews while, methods of data analysis are descriptive statistics and multiple linear regression. After analysis, the following findings were found: It was found that the Rwanda TVET Board did well regarding project management practices where project planning was appreciated on overall mean of 3.65, stakeholder engagement was appreciated on overall mean of 3.92, risk management was rated on overall mean of 3.93 interpreted as high mean, communication was appreciated on overall mean of 3.97, monitoring and evaluation practices was appreciated on overall mean of 3.95 and reporting was appreciated on overall mean of 3.64 interpreted as high mean. For the first specific objective which was to examine the existence of a statistically significant relationship between project planning and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023). According to the result in table 4.15, project planning has a positive effect on implementation of basic TVET programs under the KFW project, Phase II (2019–2023) by considering the coefficient of $X_1 = 0,242$, $P < 0.05$. For the second specific objective which was to assess whether a statistically significant relationship exists between stakeholder engagement and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023). According to the result in table 4.15, stakeholder engagement has a positive effect on the implementation of basic TVET programs under the KFW project, Phase II by considering the coefficient of $X_2 = 0,173$, $P < 0.05$. For the third specific objective which was to investigate whether a statistically significant relationship exists between risk management and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023). According to the result in table 4.15, risk management has a positive effect on implementation of basic TVET programs under the KFW project, Phase II (2019–2023).by considering the coefficient of $X_3 = 0,100$, $P < 0.05$. For the fourth specific objective which was to examine whether a statistically significant relationship exists between communication and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023). According to the result in table 4.15, communication has a positive effect on implementation of basic TVET programs under the KFW project, Phase II (2019–2023) by considering the coefficient of $X_4 = 0,137$, $P < 0.05$. For the fifth specific objective which was to assess whether a statistically significant relationship exists between monitoring and evaluation practices and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023). According to the result in table 4.15, monitoring and evaluation practices has a positive effect on

implementation of basic TVET programs under the KFW project, Phase II (2019–2023) by considering the coefficient of $X_5 = 0,135$, $P < 0.05$. For the sixth specific objective which was to investigate whether a statistically significant relationship exists between reporting and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023). According to the result in table 4.15, reporting has a positive effect on the implementation of basic TVET programs under the KFW project, Phase II (2019–2023) by considering the coefficient of $X_6 = 0,156$, $P < 0.05$. According to the findings of the study, the researcher concludes that if project management practices are well implemented greatly and positively influence the implementation of Basic TVET Programs in KFW project.

Keywords: Project management practices, implementation, project.



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INTRODUCTION

1. GENERAL INTRODUCTION

1.1 Background to the study

Globally, Technical and Vocational Education Training (TVET) is recognized as a pivotal driver for socio-economic development (Gyimah, 2020). In developed countries such as Germany, Switzerland, and South Korea, TVET systems are well-integrated into the educational frameworks and labor markets. For instance, Germany's dual education system, combining classroom instruction with on-the-job training, has been a model for aligning TVET with industry needs (Roll, 2021). South Korea has achieved similar success by investing heavily in technology-driven TVET to meet the demands of its advanced industrial economy (Zeng).

In contrast, developing countries face challenges such as insufficient funding, outdated curricula, and a mismatch between training and labor market needs. For example, countries in South Asia, such as India, have made significant investments in TVET infrastructure but struggle to provide quality training that meets industry standards (Sevilla & Farías, 2020). Similarly, countries like Indonesia are working to improve access to TVET through public-private partnerships but face challenges in expanding programs to rural areas.

In Africa, TVET is viewed as a solution to youth unemployment and a tool for driving industrialization. Developed economies on the continent, such as South Africa, have relatively advanced TVET systems with significant public and private investment. However, gaps persist in aligning TVET curricula with the skills demanded by industries (Sevilla & Farías, 2020). On the other hand, developing economies such as Nigeria and Ghana are still grappling with issues of inadequate funding, infrastructure, and qualified trainers. In Nigeria, the government's push for TVET expansion through the National Board for Technical Education (NBTE) has yielded mixed results, as funding remains a significant barrier (Mutungi, 2023). Similarly, Ghana's emphasis on skills development has led to increased TVET enrolment, but disparities in quality between urban and rural areas persist (Owusu-Agyeman & Aryeh-Adjei, 2024).

In Eastern Africa, TVET has become a cornerstone of educational reform aimed at addressing high unemployment rates among youth. Ethiopia, for instance, has integrated TVET into its national development strategy, focusing on agricultural and industrial skills to support its economic transformation (Odjo, 2024). Kenya has implemented TVET reforms under its Vision 2030 agenda, emphasizing the development of skills for sectors such as construction, ICT, and healthcare. Despite these efforts, countries in the region face challenges such as inadequate facilities, limited industry linkages, and low societal perception of TVET (Nyangweso, 2022).

Rwanda has positioned TVET as a key component of its Vision 2050 and National Strategy for Transformation (NST2). NST2 focuses on enhancing the quality of education and aligning it with the labor market demands. This includes expanding access to TVET schools, ensuring at least one TVET school in every sector, and introducing Dual Training programs that combine theoretical learning with practical workplace experience (Kamanzi, 2023). The goal is to address unemployment and reduce the skills mismatch in the country. Vision 2050 takes a broader view, aiming to transform Rwanda into a middle-income country with high-quality standards of living for all Rwandans. It emphasizes the importance of human development, competitiveness, and integration into the global economy. TVET schools play a crucial role in this vision by equipping students with the skills needed to contribute to economic growth and prosperity.

In Rwanda, resources play a pivotal role in the success of Technical and Vocational Education and Training (TVET) programs, which aim to equip individuals with market relevant skills and drive economic development. The country's National Strategy for Transformation (NST1, 2017–2024) emphasizes the need to strengthen TVET infrastructure, improve resource allocation, and enhance the quality of training to meet labor market demands (Ministry of Education, 2021). Despite these efforts, challenges such as limited funding, outdated equipment, and inadequate facilities continue to hinder the effectiveness of TVET programs (Niyonasenze et al., 2024).

The KfW Project, Phase II, has been instrumental in addressing some of these resource-related challenges. Through partnerships with the Rwandan government, the project has supported the construction of modern TVET facilities, provision of state-of-the-art training equipment, and capacity-building programs for trainers. These resources are intended to improve student access to quality education and ensure alignment with industry standards (Uwizeyimana & Mutabazi, 2023). This study evaluates how these resources have impacted the implementation of TVET programs under the KfW Project, focusing on their adequacy, utilization, and contribution to enhancing training quality. The analysis will rely on quantitative data from project reports and qualitative insights from interviews with stakeholders to provide a comprehensive assessment.

1.2 Statement of the problem

Despite Rwanda's commitment to enhancing Technical and Vocational Education and Training (TVET) programs, significant challenges hinder their effective implementation. The Rwanda TVET Board's (RTB) Strategic Plan 2021-2024 outlines the government's ambitious target of increasing TVET enrolment from 31.1% in 2017 to 60% by 2024. However, as of the 2022/23 Education Statistical Yearbook, only 103,555 students were enrolled, highlighting a substantial gap between the current enrolment and the projected target. Additionally, the 2022/23 Education Statistical Yearbook indicates a high repetition rate in secondary education, which may be an indicator of deficiencies in curriculum delivery, resource adequacy, and student preparedness (Bayley, 2022). These challenges underscore persistent issues in infrastructure, funding, and curriculum effectiveness, aggravated by inadequate project management practices in the sector.

One critical concern is the misalignment between TVET training and labor market demands, particularly in high-demand sectors such as construction, ICT, and agriculture (Tran et al., 2022). Despite the government's efforts to promote skills-based education, only 50% of TVET graduates secure employment within six months of graduation (Chitema, 2021), raising questions about the effectiveness of current TVET implementation strategies. The limited integration of industry needs into curriculum design, coupled with weak stakeholder engagement, further contributes to high unemployment rates among TVET graduates.

Furthermore, the lack of effective project management practices in the design and execution of TVET initiatives has led to inefficiencies in planning, resource allocation, and performance monitoring. These gaps hinder the overall success and sustainability of TVET programs, limiting their contribution to Rwanda's development goals under Vision 2050 and the National Strategy for Transformation (Muhanguzi, 2024).

Therefore, this study seeks to analyse the impact of project management practices on the implementation of Basic TVET programs in Rwanda, with a specific focus on the KFW project, Phase II. By examining key factors such as project planning, resource allocation, stakeholder engagement, and performance evaluation, this research aims to identify best practices for improving the quality, accessibility, and labor market relevance of TVET programs. Ultimately, addressing these challenges is essential to bridging the gap between TVET training and employment opportunities, ensuring that Rwanda's workforce is equipped with the skills necessary for sustainable economic development.

1.3 Broad and specific objectives of the study

1.3.1 Broad objective

The broad objective of the study is to analyse the effect of project management practices on the implementation of basic TVET programs in Rwanda, case of KFW project, phase ii 2019-2023.

1.3.2 Specific objectives

- i) To examine the existence of a statistically significant relationship between project planning and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023).
- ii) To assess whether a statistically significant relationship exists between stakeholder engagement and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023).
- iii) To investigate whether a statistically significant relationship exists between risk management and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023).
- iv) To examine whether a statistically significant relationship exists between communication and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023).
- v) To assess whether a statistically significant relationship exists between monitoring and evaluation practices and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023).
- vi) To investigate whether a statistically significant relationship exists between reporting and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023).

1.4 Conceptual framework

A conceptual framework is a structure or system of concepts, assumptions, expectations, beliefs, and theories that support and guide research. It helps to illustrate the relationships between variables and serves as a foundation for understanding how these variables interact to influence the research problem. According to Adom et al. (2018), a conceptual framework "acts as a map that guides the researcher in data collection, analysis, and interpretation by outlining key variables and their interconnections.

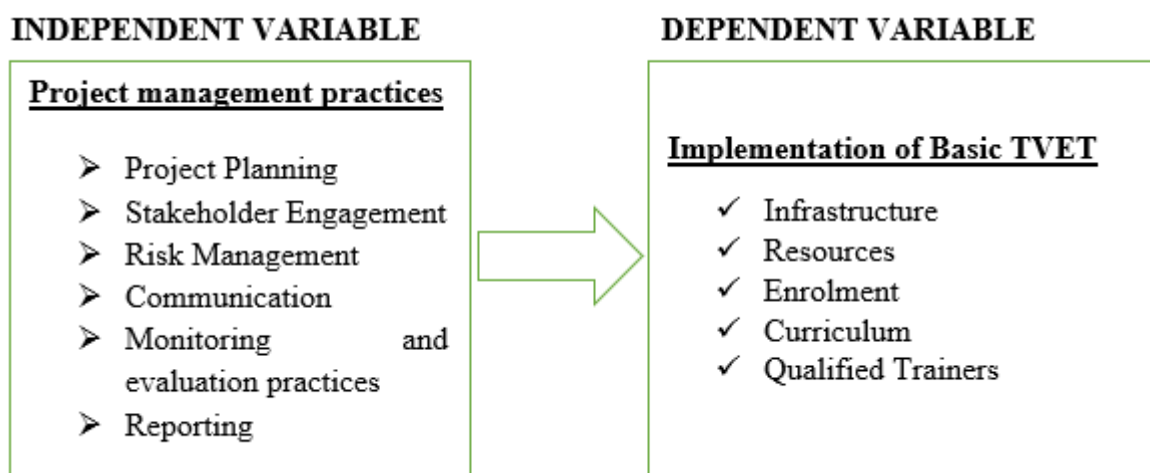


Figure 1.1: Conceptual framework

Source: Researcher's compilation, 2025

2. LITERATURE REVIEW

2.1 Theoretical foundation of the study

The theoretical review provides a foundation for understanding the concepts, principles, and frameworks that underpin the study. In this case, the researcher employed project management theory, systems theory, and human capital theory to analyse the applicability to the problem under investigation (Passey, 2020).

Project Management Theory

Project Management Theory, significantly developed by Harold Kerzner, provides a comprehensive framework for effectively organizing, planning, executing, and controlling projects. It emphasizes the importance of balancing project scope, time, cost, and quality to ensure successful outcomes. This theory is particularly relevant to the implementation of TVET programs by the Rwanda TVET Board, where systematic management is essential for delivering vocational training initiatives aligned with national development goals. By applying the principles of this theory, the Board can ensure efficient resource utilization, adherence to project timelines, and satisfaction of stakeholder expectations. For example, the Board can employ tools like Gantt charts and risk management frameworks to monitor progress and mitigate potential challenges. As noted by Uwizeye (2023), this approach has led to improvements in the management of TVET projects, resulting in more efficient program delivery and higher student enrolment rates. Ultimately, Project Management Theory offers a structured pathway for managing the complexities involved in TVET program implementation, contributing to national capacity building.

Systems Theory

Systems Theory, introduced by Ludwig von Bertalanffy, views an organization or project as a set of interconnected components that work together to achieve a common goal. This theory is highly applicable to the Rwanda TVET Board, which operates in a complex ecosystem involving students, instructors, government entities, industry stakeholders, and funding agencies. By adopting a systems perspective, the Board can analyse how these elements interact and identify areas where coordination can be improved to enhance the effectiveness of TVET programs. For instance, aligning curriculum development with industry needs ensures that graduates possess the skills required by the labor market. Moreover, understanding the inter-dependencies between funding, training facilities, and program delivery helps to address gaps that may hinder progress. Mukeshimana and Uwizeye (2022) highlighted the effectiveness of Systems Theory in addressing systemic inefficiencies within Rwanda's TVET sector, leading to improved resource allocation

and better alignment with national development priorities. This holistic approach ensures that all components work synergistic to achieve the overarching goal of building a skilled workforce.

Human Capital Theory

Human Capital Theory, developed by Gary Becker, underscores the economic value of investing in education and skills development. This theory is particularly pertinent to the Rwanda TVET Board's efforts to implement vocational training programs, as these initiatives aim to enhance the productivity and employability of individuals. By equipping citizens with technical and vocational skills, the Board not only addresses unemployment but also contributes to national economic growth. For example, providing training in sectors such as agriculture, construction, and information technology ensures that graduates meet the labor market's demands, which boosts productivity. Human Capital Theory also provides a strong justification for the government's investment in TVET programs, as the benefits of increased earnings, reduced dependency, and economic growth outweigh the initial costs. Ndayambaje et al. (2023) observed that this theory aligns with Rwanda's development vision, which prioritizes human capital as a key driver of socioeconomic transformation. By applying this theory, the Board can design programs that have both short-term and long-term impacts on the country's workforce and economy.

2.2 Research Gaps

Despite the extensive research conducted globally and regionally on the implementation of Technical and Vocational Education and Training (TVET) programs, several critical gaps remain, particularly in the Rwandan context. Studies such as those by UNESCO (2021) and Marope et al. (2019) emphasize the importance of project management practices like planning, stakeholder engagement, and risk management; however, their integration within Rwanda's TVET system remains under explored.

Furthermore, while accessibility challenges in rural areas have been highlighted by the World Bank (2022), little attention has been given to the equitable access of marginalized groups to TVET programs in Rwanda. Trainer competency, as a key determinant of program quality, is another area with limited research, particularly on how professional development is prioritized to align with labor market needs. Similarly, while stakeholder engagement has been studied in neighbouring countries (Oketch et al., 2020), empirical evidence on its impact in Rwanda is scarce.

Finally, there is a significant gap in assessing whether Rwanda's TVET curriculum and training quality align with the demands of the job market. Risk management and monitoring mechanisms, crucial for ensuring program sustainability, have also been under-researched, particularly in addressing operational risks in under-resourced areas. Lastly, trends in enrolment, especially among women and marginalized groups, lack comprehensive evaluation, leaving gaps in understanding the effectiveness of policies aimed at enhancing equity and accessibility. This study seeks to address these gaps by providing a holistic analysis of how project management practices influence the implementation of TVET programs in Rwanda, offering valuable insights for stakeholders and policymakers.

3. RESEARCH METHODOLOGY

3.1 Research Design

The research design for this study on the effect of project management practices on the implementation of basic TVET programs in Rwanda, specifically the KFW Project, Phase II (2019–2023), follows a mixed-methods approach, combining both qualitative and quantitative research methods. Qualitative data was collected through semi-structured interviews and focus groups with key stakeholders, such as project managers, trainers, and policymakers, while quantitative data was gathered via structured surveys from a larger sample of participants. This design allowed a comprehensive analysis of project management practices, including planning,

risk management, stakeholder engagement, and communication, and their impact on TVET outcomes. Data was analysed using thematic analysis for qualitative data and descriptive/inferential statistics for quantitative data. The study also ensures ethical standards, including informed consent and confidentiality.

3.2 Target population

The population of the study refers to the entire group of individuals, items, or data points that meet the specific criteria for a particular research study (Casteel & Bridier, 2021). This population is the broad set from which a sample is drawn for analysis. The study population consisted of KFW Project employees, students enrolled in the KFW project, as well as TVET trainers and educators, totaling 69 respondents.

3.3 Sample size

Sample size refers to the number of observations, individuals, or units selected from a larger population for the purpose of a study or survey. It represents the subset of the population that were studied to make inferences about the entire population (Schoch, 2020). In this sample size, all targeted population was included.

3.4 Sampling technique

Sampling techniques refer to the methods or strategies used to select a subset (sample) of individuals, groups, or items from a larger population for the purpose of conducting research. These techniques are essential for ensuring that the sample is a representative of the population and that the findings can be generalized accurately (Kothari, 2020). This study adopted universal sampling method to include all concerned individuals.

3.5 Data collection instruments

Questionnaire

The questionnaire is a structured instrument used to collect quantitative data from a large sample of respondents, including TVET trainers, students, and project managers. It is designed with both closed-ended and open-ended questions to ensure a balanced collection of numerical data and additional qualitative insights (Njiri et al., 2024). Closed-ended questions provide specific, measurable responses, while open-ended questions allow respondents to share in-depth perspectives about project planning, resource availability, and other related aspects. This instrument is particularly effective for capturing broad trends, such as satisfaction levels with the infrastructure, enrolment processes, or the quality of training programs, making it essential for statistical analysis.

Interview guide

An interview is a qualitative data collection method in which a researcher interacts directly with participants to gather detailed information about their experiences, opinions, and insights (Lim, 2024). Interviews are used to collect qualitative data through in-depth discussions with key stakeholders, such as Rwanda TVET Board (RTB) officials, project manager. These are semi-structured to allow for flexibility while maintaining a focused line of inquiry. Interviews provide deeper insights into complex issues, such as policy implementation challenges, stakeholder engagement strategies, and the alignment of TVET curriculum with labor market demands.

This instrument was invaluable for exploring the reasons behind specific findings from the questionnaires and uncovering issues that may not be evident through structured questions alone.

3.6 Data analysis

Data analysis is the systematic process of organizing, interpreting, and transforming collected data into meaningful insights to answer research questions or test hypotheses (Saharan et al., 2020). For this study, quantitative data from survey was analysed using statistical tools, such as descriptive

statistics to summarize findings and inferential statistics, like correlation and regression, to examine relationships between variables such as project management practices and TVET outcomes. Qualitative data from interviews was undergo thematic analysis to identify recurring patterns and insights, ensuring an in-depth understanding of participants' perspectives (Braun & Clarke, 2022). Data were performed using SPSS.

The regression model used was represented as follow.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 M_1 + \epsilon$$

Where:

Y = Implementation of Basic TVET Programs

α = Constant Term

β = Beta coefficients

X_1 = Project Planning

X_2 = stakeholder Engagement

X_3 = Risk Management

X_4 = Communication

X_5 = Monitoring and evaluation practices

X_6 = Reporting

ϵ = Error Term

Descriptive statistics

Descriptive statistics is the term given to the analysis of data that helped to describe, show or summarize data in a meaningful way. Descriptive statistics was applied to populations, and the properties of populations, like the mean or standard deviation, which were called parameters as they represent the whole population. In this study, researcher used descriptive statistics to make conclusions from the data already analyzed or reach conclusions, it was simply a way used to describe our data.

The best known and frequently used measure of the center of a distribution of a quantitative variable is well known as the mean. The mean refers to averaging; adding up the data points and dividing by how many there are. The mean is the balance point of the data or the measure of the center of a distribution of quantitative variable. Mean as descriptive statistical for measuring central tendency of distributions was evaluated based on the following intervals and equivalences:

[4.21-5.00] = Very high mean,

[3.41-4.20] = High mean

[2.61-3.40] = Moderate mean

[1.81-2.60] = Low mean

[1.00-1.80] = Very low mean

The standard deviation helps to measure how far or near from the mean. A measure of the center is not enough to describe a distribution well. It tells the researcher about the spread of the data.

The standard deviation was evaluated by using Homogeneity and heterogeneity. This means that when there is under or equal 0.5 there is homogeneity and that means similar perceptions from respondents, and if the standard deviation is greater than or equal 0.5 it means heterogeneity of responses, it means that there is difference in perceptions from respondents.

4. FINDINGS OF THE STUDY

The findings of the study align with formulated research objectives to achieve the broad purpose of the study.

4.1 Findings on the first objective

To examine the existence of a statistically significant relationship between project planning and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023). The results have shown a statistically significant relationship between project planning and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023). According to the result in table 4.15, project planning has a positive effect on implementation of basic TVET programs under the KFW project, Phase II (2019–2023) by considering the coefficient of $X_1 = 0,242$, $P < 0.05$.

4.2 Findings on the second objective

To assess whether a statistically significant relationship exists between stakeholder engagement and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023). The results have shown a statistically significant relationship between stakeholder engagement and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023). According to the result in table 4.15, stakeholder engagement has a positive effect on the implementation of basic TVET programs under the KFW project, Phase II by considering the coefficient of $X_2 = 0,173$, $P < 0.05$.

4.3 Findings on the third objective

To investigate whether a statistically significant relationship exists between risk management and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023). The results have shown a statistically significant relationship between risk management and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023). According to the result in table 4.15, risk management has a positive effect on implementation of basic TVET programs under the KFW project, Phase II (2019–2023).by considering the coefficient of $X_3 = 0,100$, $P < 0.05$.

4.4 Findings on the fourth objective

To examine whether a statistically significant relationship exists between communication and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023). The results have shown a statistically significant relationship between communication and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023). According to the result in table 4.15, communication has a positive effect on implementation of basic TVET programs under the KFW project, Phase II (2019–2023) by considering the coefficient of $X_4 = 0,137$, $P < 0.05$.

4.5 Findings on the fifth objective

To assess whether a statistically significant relationship exists between monitoring and evaluation practices and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023). The results have shown a statistically significant relationship between monitoring and evaluation practices and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023). According to the result in table 4.15, monitoring and evaluation practices has a positive effect on implementation of basic TVET programs under the KFW project, Phase II (2019–2023) by considering the coefficient of $X_5 = 0,135$, $P < 0.05$.

4.6 Findings on the sixth objective

To investigate whether a statistically significant relationship exists between reporting and the implementation of basic TVET programs under the KFW project, Phase II (2019–2023). The results have shown a statistically significant relationship between reporting and the

implementation of basic TVET programs under the KFW project, Phase II (2019–2023). According to the result in table 4.15, reporting has a positive effect on the implementation of basic TVET programs under the KFW project, Phase II (2019–2023) by considering the coefficient of $X_6 = 0,156$, $P < 0.05$.

5. CONCLUSION AND RECOMMENDATIONS

This study examined the effect of project management practices on the implementation of Basic TVET programs in Rwanda, focusing on the KfW-funded Phase II project (2019–2023). Based on the data collected and analysed, the following conclusion and recommendations are made.

5.1 Conclusion

This research presents the sensitivity of project management practices to implementation of Basic TVET Programs in KFW project. According to the findings of the study conducted on the effect of project management practices to practices to implementation of Basic TVET Programs in KFW project. This study has demonstrated the critical role that project management practices play in the successful implementation of Basic TVET programs under the KfW Phase II project in Rwanda. The findings confirm that when project management elements, such as planning, stakeholder engagement, risk management, communication, monitoring and evaluation, and reporting, are effectively applied, they positively and significantly enhance the implementation outcomes of TVET initiatives. The research concluded that strong and well-structured project management practices are not just supportive mechanisms but are key drivers in ensuring the quality, efficiency, and sustainability of TVET program delivery. Conversely, ineffective or poorly executed project management can hinder progress, resulting in suboptimal implementation, wasted resources, and reduced impact on national development goals. Ultimately, the study underscores the importance of institutionalizing best project management practices within TVET governance structures to improve performance, maximize stakeholder satisfaction, and ensure that Rwanda's workforce development efforts remain aligned with its Vision 2050 and National Strategy for Transformation. the researcher concludes that if project management practices are well implemented greatly and positively influence the implementation of Basic TVET Programs in KFW project. Researcher concludes that adequate project management practices and advances can improve the implementation of Basic TVET Programs in KFW project while on other hand the poor or wrong project management practices can lead to poor implementation of Basic TVET Programs in KFW project.

5.2 Recommendations

Based on findings of table 4.9, where the respondents asserted that there are qualified trainers, training materials, modern equipment, and adequate facilities to enhance learning outcomes at moderate level by considering the mean of 3.00 interpreted as moderate mean. and based on findings of table 4.12 where the respondents revealed that the TVET Board provide opportunities for trainers to enhance their skills and knowledge through training and mentorship at low level by considering the mean of 2.25 interpreted as low mean. Further, it is recommended that Rwanda TVET Board (RTB) continues provide opportunities for trainers to enhance their skills and knowledge through training and mentorship.

We therefore suggest the following recommendations:

- Rwanda TVET Board should deliver specialized training in project planning and execution for project teams, departmental staff, and senior management. Strengthening these skills will promote better alignment with strategic goals and improve implementation efficiency.
- The integration of technology-driven tools, such as Gantt charts, dashboards, and digital resource trackers, should be prioritized to boost planning accuracy, coordination, and accountability throughout the project lifecycle.

- Targeted training on strategic implementation should be offered to middle and top-level management. This will enhance their understanding of how well-executed strategies directly influence TVET success and long-term sustainability.
- Rwanda TVET Board should institutionalize regular CPD programs that include mentorship, refresher training, and upskilling initiatives for TVET trainers. This will ensure that instructors stay current with industry demands and are better equipped to deliver high-quality, practice-oriented training.
- The organization should provide specialized training on project planning to the project team, functional department staff and top management.
- We suggest the management of Rwanda TVET Board to provide training of concerning the contribution of good strategic implementation.

5.3 Areas for further researches

The study focused on the projects in the sectors of education and infrastructure. To explore more the study area, the study on the effect of project management skills on implementation of Basic TVET Programs in KFW project is highly recommended for further research.

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