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Resources Management Practices and Project Performance in Rwanda: A Case of Skills Development Fund Project

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Abstract

This study examined the effect of resources management practices on project performance specifically in Skills Development Fund Project. The researcher used descriptive research design with qualitative and quantitative approaches. The target population was 1340 project beneficiaries, stakeholder and external parties and the sample size was 297 respondents calculated using Krejcie and Morgan Table. The researcher used simple random sampling techniques for selecting the sample size. Data collection tools were questionnaire and interview guide. The results of first objective indicate that project team acquisition has a significant positive effect on the performance of SDF projects in Rwanda. The respondents strongly agreed with this assertion, as reflected by the overall mean score of 4.235. The correlation analysis further supported these findings, revealing a strong relationship between project team acquisition and timely completion ($r=0.933$), completion with required quality ($r=0.959$), and completion within budgeted cost ($r=0.973$). The findings of second objective demonstrate a significant positive relationship between project team development and the performance of SDF projects in Rwanda. The respondents strongly agreed with this relationship, as evidenced by the overall mean score of 4.222. The correlational analysis further supported these results, revealing a strong and statistically significant relationship between project team development and timely completion ($r=0.967$), completion with required quality ($r=0.993$), and completion within budgeted cost ($r=0.993$). Lastly, the third objective indicate that project team management has a significant positive effect on the performance of SDF projects in Rwanda. The respondents strongly agreed with this assertion, as reflected by the overall mean score of 4.278. The correlational analysis further supported these findings, revealing a strong and statistically significant relationship between project team management and timely completion ($r=0.954$), completion with required quality ($r=0.993$), and completion within budgeted cost ($r=0.993$). These correlations indicate that effective project team management is associated with improved timely completion, quality, and cost control of SDF projects. Additionally, the regression results showed that project resource management accounted for 93.5% of the variability in timely completion, 99.4% of the variability in completion with required quality, and 99.4% of the variability in completion within budgeted cost. Thus, based on the descriptive,

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correlation, and regression results, we can conclude that project team, acquisition, development, and management have a positive and significant impact on the performance of SDF projects in Rwanda.

Keywords: *Resources Management Practices, Project Performance, Skills Development Fund, Rwanda*

1. Introduction

Management of time, cost and quality within the project environmental constraints are very often quoted as the main concerns (and sometimes the only concerns) of project management (Rugenyi, 2015). The clients or the eventual asset-holders, on the other hand, are supposed to be only interested in the output of the system. Studies have shown that, although cost performance was not better, time performance was comparatively the worst. Despite advances in project management methodologies many projects continue to fail for several reasons including poor quality of the project, failure to deliver activities on planned time and budget (Hasan & Mukhtar, 2019). Earlier studies reveal that project management in the construction industry in Rwanda remains rudimentary. A study done in Kenya for public building projects established that out of one hundred (100) of the projects, seventy-three (73) experienced time overruns compared to thirty-eight (38) out of one hundred (100), which suffered cost overruns (Miller & Spoolman, 2011). Another study undertaken for both public and private building projects came up with a similar conclusion (Morley, 2010).

The previous studies conducted in the same field here in Rwanda has demonstrated an existing problem by showing inadequacy in construction projects with poor project team acquisition to enhance project performance (Musirikare & Kule, 2016). Time and cost performance of projects in Rwanda are poor to the extent that, over 70% of the projects initiated are likely to escalate in time with a magnitude of over 50% due to poor project team management (Tuyishime, 2020). In addition, over 50% of the projects are likely to escalate in cost with a magnitude of over 20% and this is most of the time related to poor project team development (Tuyishime, 2020). However, these studies have also ignored the role of project team acquisition, its development and management in enhancing project performance, which demonstrated a huge knowledge gap in the previous studies. This study, therefore, seeks to establish the influences of effective management practices on project performance using a case of skills development fund project.

1.1 Objectives of the study

1.1.1 General objective

The general objective of this research was to examine the effect of resource management practices on project performance in using a case of skills development fund project.

1.1.2 Specific objectives

(i) To assess the effect of acquiring team on project performance in skills development fund project.

- (ii) To examine the effect of developing team on project performance in skills development fund project.
- (iii) To determine the effect of managing team on project performance in skills development fund project.

1.1.3 Research Hypotheses

- Ho1. Acquiring team has no significant effect on project performance in skills development fund project.
- Ho2. Developing team has no significant effect on project performance in skills development fund project.
- Ho3. Managing team has no significant influence project performance in skills development fund project.

2.1 Empirical Review

2.1.1 Project team acquisition and project performance

The empirical research conducted by Assaf *et al.*, (2014) on effectiveness of project teams and their impact on the performance of Saudi construction projects. They used descriptive research design and the results revealed that a positive and high correlation between team effectiveness and project success ($r=0.896$ and $\text{sig}=0.000$) at 0.01 level of significance. Consequently, this study has undertaken an empirical assessment of the linkages between team effectiveness and project success in Saudi construction industry. The key conclusions of the study are clear objectives mean that the right projects are selected; clear processes and roles ensure that projects are done right; and leadership competences correlate directly with project success. From the results, it was broadly perceived among the sample that potential impacts of teamwork were significantly greater on the success of the project and that is why complex projects today utilize teams as part of the project management.

The empirical research conducted by Dasí *et al.* (2021) on teams and project performance: an ability, motivation, and opportunity approach. The research design used in this research is quantitative research design. The results of the study showed significance of the solutions and explained variances of Models 1 to 3 comprising all projects indicate that the multiplicative model offers the best solution with an F-value of 6.25 and an adjusted R-squared of 0.14, whereas the constraining factor model (CFM) has an F-value of 3.56 and an adjusted R-squared of 0.11. The additive model is almost as good as the CFM—it has a higher F-value but a lower adjusted R-squared. The study showed that in simple projects, ability is the key factor both as a main effect and as a constraining factor that acts as a bottleneck for project performance. In the case of complex projects, the multiplicative model is superior given the significant interaction effects of motivation.

Miller and Spoolman (2011) conducted research on the outcome of HRM practices on western firms' performance in Greece, they used descriptive research design and found that HRM practices of staffing, training and promotion, involvement of employees, incentives, and safety and health have positive relationship with firm's performance. They found that strategic use of HRM practices positively affect performance of organizations with a Pearson correlation of 0.630 and sig of 0.00 at 0.01 level of sig. Researchers have investigated the outcome of HRM practices on Western firms' performance and found a positive association between HRM practices and performance ($r=.0721$ and 0.00 Sig) at 0.01 level of significance. In conclusion, the researchers recommended to increase number of staff to ensure performance.

2.1.2 Project team development and project performance

The empirical research carried out by Atkson (2014) on project planning and project team development. The research used descriptive explanatory research design. The findings demonstrated that the demand for careful project planning has made project team development a key activity in organizations and projects in general with the mean of 4.23 and mean of 1.896 standard deviation. Project team development is the operation of an internal control system. Project team development of projects must be actively managed; it is an important part of the project management process and should be reviewed by the project manager, financial team, stakeholders, and key project team members regularly.

A descriptive research design study of Baily (2017) demonstrated that the project team development has a positive and significant relationship between physical control, authorization and approval control, personnel control, segregation of duties, supervision control, management control, organizational control ($r=0.626, 0.723, 0.678, 0.712, 0.681, 0.563, 0.712$) at 0.01 level of significance. Furthermore, the project team development like any form of control process is not about collecting and measuring how much cost you have expended on the project, and then simply looking at the budget and deciding what is left obviously finished the project.

The empirical research of Chidi and Shadare (2011) conducted on project team development and project performance used both qualitative and quantitative research design. The results of the study have found that financial planning involves setting objectives, assessing assets and resources, estimating future financial needs and making plan to achieve monetary goals. He continued to suggest that one systematic approach for attaining effective management performance is financial planning, budgeting and that sustainability of any project lies in effective project team development right from the implementation stage to post implementation phase. It is important to lay and plan our budget for money received.

The empirical research of Ekanem (2010) conducted on public finance management and project performance. The descriptive research design was used, and the findings of this research demonstrated a mean of 3.960 and standard deviation of 1.230 stating that the main aim of public finance management is to facilitate effective and efficient use of limited resources. This starts with budgeting for recurrent and development expenditure. The government sets levels to efficiently collect revenue and allocate spending of resources among all sectors to meet national objectives.

2.1.3 Project team management and project performance

The empirical research conducted by Kara and Kester (2015) concentrated on the impact of effective project team management on project team productivity with a case study of Ghana broadcasting corporation education project. The researchers used descriptive research design and the findings indicated that 100% of the project team affirms that their productivity is increased when their task is well communicated to them. They can therefore work better and confidently. Hence, in this project team motivation impacted positively on t productivity trough. It is crucial for a project team to communicate project activities well to members. All the project team was unanimous on the fact that their tasks were well communicated to them. And this enabled them to work knowing exactly what was expected from them and to work with more confidence and this confidence impacted on their productivity.

The previous research conducted by Castro *et al.*, (2022) on whether project manager's soft skills matter used correlational research design. The findings of the study have revealed that there is a positive and significant relationship between project manager's emotional intelligence, trustworthiness, job satisfaction and project success ($r=0.610, 0.711, \text{ and } 0.702$) at significance level of 0.01. The results reveal also that project managers' emotional intelligence and their team members' trust in them impact project success significantly. The findings provide organizations with a necessary complementary behavioral view of project management. Organizations can take project manager trustworthiness and emotional intelligence into account when recruiting and training project managers and throughout the project planning and execution life span.

The empirical research of Manata *et al.*, (2022) concentrated on documenting the interactive effects of project manager and team level communication behaviors in integrated project delivery teams. The researchers used descriptive research design. The results indicate that team information sharing was perceived as beneficial, but the effects of project manager communication behaviors were inconsistent at 68.2% of all participants. Interaction analyses indicated that project managers' communication behaviors hindered team functioning if teams were already engaging in adequate levels of information sharing at 76.0% of all participants. This research contributes to the project management corpus by explicating an integrative model whereby project manager and team-level information-sharing behaviors are modeled simultaneously.

2.2 Research Gap

Many studies have been done on project performance mainly on relationship between project management and project performance. Little has been done on the relationship between effective management practices and project performance. This study therefore attempted to fill the research gap that exists by investigating the influence of effective management practices on project performance in skills development project in Rwanda.

The empirical researches conducted in the field of project team management and project performance such as the research of Kara and Kester (2015) conducted on the impact of effective project team management on project team productivity; research of Castro *et al.*, (2022) done on whether project manager's soft skills matter used correlational research design; and research of Manata *et al.*, (2022) carried out on documenting the interactive effects of project manager and team level communication behaviors in integrated project delivery teams have shown a big knowledge gap by ignoring the effect of project team management on project performance.

3. Materials and Methods

The study adopted a descriptive research design, which is suitable for describing the characteristics of certain groups, estimating proportions, and making predictions. The combination of qualitative and quantitative approaches was used to ensure minimal bias and maximize the reliability of the collected evidence. Data analysis involved the use of statistical measures such as mean, standard deviation, correlation, and regression analysis.

The target population for this study was the project managers of local government-funded projects in Musanze District, Rwanda. The total target population consisted of 1340 individuals, including beneficiaries, project staff, and external auditors. To obtain a researchable sample within the available resources, sampling techniques were employed. The sample size was determined using the Krejcie and Morgan table, which resulted in 297

respondents. Different sampling techniques, such as census and simple random sampling, were used to select the primary informants from the target population.

Data collection methods included both primary and secondary sources. Primary data was collected through self-administered questionnaires and face-to-face interviews. Questionnaires contained a mix of close-ended and open-ended questions, while interviews allowed for more descriptive information. Secondary data was gathered from textbooks, reports, journals, and district and sector records.

The questionnaires and interview guides were the primary data collection instruments. A pilot study was conducted to test the validity and reliability of the instruments. The content material validity index (CVI) was used to assess validity, with a value above 70% considered acceptable. Reliability was determined through consistency testing using the same questionnaire administered to different technical respondents at different times.

Data analysis involved editing, cleaning, and entering the collected information into Statistical Product and Service Solution (SPSS) software. Descriptive tables, correlation analysis, and regression analysis were produced. The research objectives guided the analysis and interpretation of findings. Qualitative data was presented in narratives using direct quotes from the respondents.

Ethical considerations were given utmost importance throughout the research process. The ethical principles of respect for persons and justice were followed, ensuring full disclosure of the study's nature, risks, benefits, and alternatives to the participants. Confidentiality and privacy of information were maintained, and participants' well-being and dignity were protected.

4. Presentation of findings

4.1 The effect of acquiring project team on project performance in skills development fund project.

The first objective of this research was measured using statements related to project team acquisition such as plan of HRM used as input, negotiation used as technique, virtual teams as tools, multiple criteria decision analysis used as technique, project staff assignment as output and project management plan as output to promote performance of SDF project.

Table 1: Project team acquisition and performance of SDF project

Statements of project team acquisition	Mean	SD
HRM Plan is used as an input of project team acquisition to enhance performance of skill development project	4.220	0.983
Negotiation is used as a technique of project team acquisition to promote performance of skill development project	4.244	0.941
Virtual teams are tools of project team acquisition used to increase performance of this project	4.220	0.983
Multiple criteria decision analysis is used as a technique of project team acquisition to promote performance of this project	4.220	0.971
Project staff assignment as output of project team acquisition to promote project performance	4.255	0.919
Project management plan updates is used as output of project team acquisition to enhance performance of this project	4.255	0.919
Overall mean	4.235	

Key: 5 to 1 strongly agree to strongly disagree

The results in Table 1 show a mean of 4.220 and standard deviation of 0.983 which implies that respondents strongly agreed that HRM Plan is used as an input of project team acquisition to enhance performance of skill development project. The mean of 4.244 and standard deviation of 0.941 showed that respondents strongly agreed that negotiation is used as a technique of project team acquisition to promote performance of skill development project. The mean of 4.220 and standard deviation of 0.983 showed that respondents strongly agreed that virtual teams are tools of project team acquisition used to increase performance of this project.

The mean of 4.220 and standard deviation of 0.971 showed that respondents strongly agreed that multiple criteria decision analysis is used as a technique of project team acquisition to promote performance of this project. The mean of 4.255 and 0.919 showed that respondents strongly agreed that project staff assignment as output of project team acquisition to promote project performance. The mean of 4.255 and standard deviation of 0.919 showed that respondents strongly agreed that project management plan updates is used as output of project team acquisition to enhance performance of this project. Since the overall mean is 4.235 it implies that respondents strongly agreed that project team acquisition affects performance of SDF project in Rwanda.

Table 2: Performance of SDF project

Statements	Mean	SD
The length of time this project has taken is within the timeline as planned	4.232	0.925
There has been no problem in getting the resources required on time in this project	4.244	0.928
The cost has reached at its maximum to ensure performance	4.267	0.909
Finances are being managed well to increase performance	4.232	0.925
Overall mean	4.243	

Source: Field Data, 2023

The results in Table 2 showed a mean of 4.232 and standard deviation of 0.925 show that respondents strongly agreed that the length of the project has taken timeline planned. The mean of 4.244 and standard deviation of 0.928 show that respondents strongly agreed that there has been no problem in getting the resources required on time in this project. The mean of 4.267 and standard deviation of 0.909 show that respondents strongly agreed that cost has reached at its maximum to ensure performance. The mean of 4.232 and standard deviation of 0.925 show that respondents strongly agreed that finances are being managed well to increase performance. The overall mean of 4.243 showed that respondents strongly agreed that there is project performance in SDF in Rwanda.

Table 3: Correlation analysis between project team acquisition and performance of SDF project

		Timely completion	Completion with required quality	Completion within budgeted cost
Project team acquisition	Pearson Correlation	0.933**	0.959**	0.973**
	Sig. (2-tailed)	.000	.000	.000
	N	258	258	258

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

Source: Field Data, 2023

The results in Table 3 show a relationship between project team acquisition and timely completion ($r=0.933$ and $sig=0.00$), project team acquisition and completion with required quality ($r=0.959$ and $sig=0.00$), and project team acquisition and completion within budgeted cost ($r=0.973$ and $sig=0.00$). Hence, this showed that project team acquisition has a positive and significant effect on performance of SDF project, Rwanda.

4.2 The effect of developing project team on project performance in skills development fund project

The second objective of this research look at the effect of project team development on performance of SDF project. These objective statements measure skill improvement and technical competencies, decreasing costs, reducing schedules, improving team spirit, and sharing expertise as practice of project team development increases performance of SDF project in Rwanda.

Table 4: Project team development and performance of SDF project

Statements	Mean	SD
Improving skills and technical competencies as practice of project team development affects performance of this project	4.220	0.983
Decreasing costs as means of project team development affects performance of skill development	4.220	0.971
Reducing schedules as practice of project team development affects performance of skill development project	4.232	0.974
Improving team spirit as practice of project team development enhances performance of this project	4.244	0.928
Cooperation between members increase project performance	4.220	0.971
Sharing expertise as practice of project team development increases performance of skill development	4.197	1.034
Overall mean	4.222	

Source: Field Data, 2023

The results in Table 4 show that mean of 4.220 and standard deviation of 0.983 showing that respondents strongly agreed that improving skills and technical competencies as practice of project team development affects performance of this project. The mean of 4.220 and standard deviation of 0.971 showing that respondents strongly agreed that decreasing costs as means of project team development affects performance of skill development. The mean of 4.232 and standard deviation of 0.974 showing that respondents strongly agreed that reducing schedules as practice of project team development affects performance of skill development project.

The mean of 4.244 and standard deviation of 0.928 showing that respondents strongly agreed that improving team spirit as practice of project team development enhances performance of this project. The mean of 4.220 and standard deviation of 0.971 showing that respondents strongly agreed that cooperation between members increase project performance. The mean of 4.197 and standard deviation of 1.034 showed that respondents strongly agreed that sharing expertise as practice of project team development increase performance of SDF project. Hence, since the overall mean is 4.222 which implies that respondents strongly agreed that project team development has an effect on performance of SDF project in Rwanda.

Table 5: Correlation analysis between project team development and performance of SDF project

		Timely completion	Completion with required quality	Completion within budgeted cost
Project team development	P. Correlation	0.967**	0.993**	0.993**
	Sig. (2-tailed)	.000	.000	.000
	N	258	258	258

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

Source: Field Data, 2023

The results in Table 5 showed a relationship between project team development and timely completion ($r=0.967$ and $\text{sig}=0.00$), project team development and completion with required quality ($r=0.993$ and $\text{sig}=0.00$), project team development and completion within budgeted cost ($r=0.993$ and $\text{sig}=0.00$). Hence, this implies that there is a significant and positive relationship between project team development and performance of SDF project in Rwanda.

4.3 The effect of managing project team on project performance in skills development fund project.

The third objective of this research deals with effect of project team management on performance of SDF project. The objective is measured by the statements that looks at team identification, identification of skill and competencies, team building, capacity building, monitoring skills, and setting new targets as practices of project team management that enhance performance of SDF project.

Table 6: Project team management and performance of SDF project

Statements	Mean	SD
Team identification as practice of project team management facilitates performance of skill development project	4.197	1.034
Identification of skill and competencies as practice of project team management increases performance of skill development project	4.581	0.740
Team building as practice of project team management enhances project performance	4.244	0.941
Capacity building as practice of project team management helps to promote skill development project	4.244	0.928
Evaluation of team as practice of project team management promotes project performance	4.232	0.974
Monitoring skills of employee as practice of project team management affect project performance	4.220	0.971
Setting new targets as practice of project team management enhance performance of the project	4.232	0.950
Overall mean	4.278	

Source: Field Data, 2023

The results in Table 6 show a mean of 4.197 and standard deviation of 1.034 implying that respondents strongly agreed that team identification as practice of project team management facilitates performance of skill development project. The mean of 4.581 and standard deviation of 0.740 which implies that respondents strongly agreed that identification of skill and competencies as practice of project team management increases performance of skill development project. The mean of 4.244 and standard deviation of 0.941 implies that respondents strongly agreed that team building as practice of project team management enhances project performance. The mean of 4.244 and standard deviation of 0.928 show that respondents strongly agreed that capacity building as practice of project team management helps to promote skill development project.

The mean of 4.232 and standard deviation of 0.974 show that respondents strongly agreed that evaluation of team as practice of project team management promotes project performance. The mean of 4.220 and standard deviation of 0.971 showing that respondents strongly agreed that monitoring skills of employees as practice of project team management affect project performance. The mean of 4.232 and standard deviation of 0.950 showing that respondents strongly agreed that setting new targets as practice of project team management enhance

performance of the project. Hence, since the overall mean is 4.278 implies that project team management has an effect on performance of SDF project, Rwanda.

Table 7: Correlation analysis between project team management and performance of SDF project

		Timely completion	Completion with required quality	Completion within budgeted cost
Project team management	P. Correlation	.954**	.993**	.993**
	Sig. (2-tailed)	.000	.000	.000
	N	258	258	258

Source: Field Data, 2023

The results in Table 7 show a positive and significant relationship between project team management and timely completion ($r=0.954$ and $\text{sig}=0.00$), project team management and completion with required quality ($r=0.993$ and $\text{sig}=0.00$) and project team management and completion within budgeted cost ($r=0.993$ and $\text{sig}=0.00$). Hence, this implies that there is a positive and significant relationship between project team management and performance of SDF project in Rwanda.

4.4 Regression analysis

Table 4. 8: Model Summary of project resources management practices and timely completion

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.967 ^a	.935	.934	.23866

a. Predictors: (Constant), Project team management, Project team acquisition, Project team development

Source: Field Data, 2023

The results in Table 8 show that one unit increase of project resource management affects 93.5% ($R \text{ square} = 0.935$) variability of timely completion of SDF project in Rwanda.

Table 9: Analysis of Variance of project resources management practices and timely completion

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	208.230	3	69.410	1218.556	.000 ^b
Residual	14.468	254	.057		
Total	222.698	257			

a. Dependent Variable: timely completion

b. Predictors: (Constant), Project team management, Project team acquisition, Project team development

Source: Field Data, 2023

The results in Table 9 show a ($\text{sig} = 0.00 < 0.05$) which implies a significant relationship between project resource management practices and timely completion of SDF project.

Table 10: Coefficients between project resources management practices and timely completion

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.098	.072		1.361	.175
Project team acquisition	.026	.066	.026	.401	.009
Project team development	.985	.104	.983	9.510	.000
Project team management	.010	.106	.009	.090	.028

a. Dependent Variable: Timely completion

Source: Field Data, 2023

The results in Table 10 show the equation model of $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$ becomes timely completion = 0.098 + 0.026 (project team acquisition) + 0.985 (project team development) + 0.010 (project team management), and all calculated significant level are positive. Hence, a positive and significant relationship between project resources management practices and timely completion of SDF project in Rwanda.

Table 11: Model Summary of project resources management practices and completion with required quality.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.997 ^a	.994	.994	.07237

a. Predictors: (Constant), Project team management, Project team acquisition, Project team development

Source: Field Data, 2023

The results in Table 11 show that one unit increase of project resource management affects 99.4% (R square = 0.994) variability of completion with required quality of SDF project in Rwanda.

Table 12: Analysis of variance (ANOVA) of project resource management practices and completion with required quality.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	215.786	3	71.929	13732.465	.000 ^b
Residual	1.330	254	.005		
Total	217.116	257			

a. Dependent Variable: Completion within required quality

b. Predictors: (Constant), Project team management, Project team acquisition, Project team development

Source: Field Data, 2023

The results in Table 12 show a (sig = 0.00 < 0.05) which implies a significant relationship between project resource management practices and completion with required quality of SDF project.

Table 13: Coefficients of project resources management practices and completion with required quality.

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.007	.022		.332	.740
Project team acquisition	.113	.020	.114	5.690	.000
Project team development	.554	.031	.560	1.647	.000
Project team management	.556	.032	.550	17.319	.000

a. Dependent Variable: Completion with required quality

Source: Field Data, 2023

The results in Table 13 show the equation model of $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$ becomes completion with required quality = 0.007 + 0.113 (project team acquisition) + 0.554 (project team development) + 0.556 (project team management), and all calculated significant level are positive. Hence, a positive and significant relationship between project resources management practices and completion with required quality of SDF project in Rwanda.

Table 14: Model summary of project resources management practices and completion within budgeted cost.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.997 ^a	.994	.994	.07237

a. Predictors: (Constant), Project team management, Project team acquisition, Project team development

Source: Field Data, 2023

The results in Table 4.14 show that one unit increase of project resource management affects 99.4% (R square = 0.994) variability of completion within budgeted cost of SDF project in Rwanda.

Table 15: Analysis of variance (ANOVA) of project resources management practices and completion within budgeted cost.

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	215.786	3	71.929	13732.465	.000 ^b
Residual	1.330	254	.005		
Total	217.116	257			

a. Dependent Variable: Completion within budgeted cost

b. Predictors: (Constant), Project team management, Project team acquisition, Project team development

Source: Field Data, 2023

The results in Table 15 show a (sig = 0.00 < 0.05) which implies a significant relationship between project resource management practices and completion within budgeted cost of SDF project.

Table 16: Coefficient between project resource management practices and completion within budgeted cost.

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	.007	.022		.332	.740
Project team acquisition	.113	.020	.114	5.690	.000
Project team development	.446	.031	.450	14.179	.000
Project team management	.444	.032	.439	13.816	.000

a. Dependent Variable: completion within budgeted cost

Source: Field Data, 2023

The results in Table 16 show the equation model of $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$ becomes completion within budgeted cost = 0.007 + 0.113 (project team acquisition) + 0.446 (project team development) + 0.444 (project team management), and all calculated significant level are positive. Hence, a positive and significant relationship between project resources management practices and completion within budgeted cost of SDF project in Rwanda.

4.5 Discussion of findings

The first objective of this research examined the effect of project team acquisition on project performance. The findings of Assaf et al. (2014) support the current study's results on the positive effect of project team acquisition on project performance. Assaf et al. found a strong correlation ($r=0.896$) between team effectiveness and project success, indicating that effective project teams contribute to successful project outcomes. Similarly, the current study reports a significant positive effect of project team acquisition on timely completion ($r=0.933$), completion with required quality ($r=0.959$), and completion within budgeted cost ($r=0.973$). These findings align with the notion that selecting and acquiring the right project team positively impacts project performance.

The second objective of the study was about project team development and project performance. The studies of Atkinson (2014) and Baily (2017) both support the current study's findings on the relationship between project team development and project performance. Atkinson emphasizes the importance of project team development in organizations, stating that it is an essential part of the project management process. Similarly, Baily's study demonstrates a positive and significant relationship between various aspects of project team development and control measures. These findings align with the current study's results, which show a significant positive relationship between project team development and timely completion ($r=0.967$), completion with required quality ($r=0.993$), and completion within budgeted cost ($r=0.993$).

The third objective of the study was about project team management and project performance. The research conducted by Kara and Kester (2015) supports the current study's findings on the positive effect of project team management on project performance. Kara and Kester's study found that effective project team management, including clear communication of tasks, positively impacted team productivity. This aligns with the current study's results, which indicate a significant positive effect of project team management on timely completion ($r=0.954$), completion with required quality ($r=0.993$), and completion within budgeted cost ($r=0.993$). The strong correlation between project team management and project performance in both studies suggests that effective management practices contribute to improved project outcomes.

5.1 Conclusion

In conclusion, the results of this study regarding the first objective indicate that project team acquisition has a significant positive effect on the performance of SDF projects in Rwanda. The respondents strongly agreed with this assertion, as reflected by the overall mean score of 4.235. The correlation analysis further supported these findings, revealing a strong relationship between project team acquisition and timely completion ($r=0.933$), completion with required quality ($r=0.959$), and completion within budgeted cost ($r=0.973$). Therefore, based on the descriptive and correlation results, we can conclude that project team acquisition plays a crucial role in enhancing the performance of SDF projects in Rwanda.

Regarding the second objective, the findings of this research demonstrate a significant positive relationship between project team development and the performance of SDF projects in Rwanda. The respondents strongly agreed with this relationship, as evidenced by the overall mean score of 4.222. The correlational analysis further supported these results, revealing a strong and statistically significant relationship between project team development and timely completion ($r=0.967$), completion with required quality ($r=0.993$), and completion within budgeted cost ($r=0.993$). Therefore, based on the descriptive and correlation results, we can conclude that project team development significantly influences the performance of SDF projects in Rwanda.

The third objective indicates that project team management has a significant positive effect on the performance of SDF projects in Rwanda. The respondents strongly agreed with this assertion, as reflected by the overall mean score of 4.278. The correlational analysis further supported these findings, revealing a strong and statistically significant relationship between project team management and timely completion ($r=0.954$), completion with required quality ($r=0.993$), and completion within budgeted cost ($r=0.993$). These correlations indicate that effective project team management is associated with improved timely completion, quality, and cost control of SDF projects.

In addition, the regression results showed that project resource management accounted for 93.5% of the variability in timely completion, 99.4% of the variability in completion with required quality, and 99.4% of the variability in completion within budgeted cost. Thus, based on the descriptive, correlation, and regression results, we can conclude that project team management has a positive and significant impact on the performance of SDF projects in Rwanda.

5.2 Recommendations

The government should prioritize investment in project team acquisition, development, and management by allocating adequate resources and funding. Clear guidelines and standards should be established to ensure consistent practices across SDF projects, and collaboration among projects should be encouraged to share best practices.

The Skills Development Fund (SDF) should develop comprehensive strategies and policies that prioritize project team acquisition, development, and management. This can be achieved through targeted training and capacity-building programs for project team members, along with regular evaluation and assessment of practices. Open communication and collaboration among project teams should also be fostered to create a positive work environment.

The stakeholders should recognize the significance of project team acquisition, development, and management and provide feedback and input during project planning and execution phases. They should also support initiatives aimed at enhancing these practices and promote knowledge

exchange among stakeholders. The staff of SDF should embrace a proactive approach by seeking professional growth opportunities and utilizing training programs to enhance project management and teamwork skills.

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