

## Assessment of Project Baseline Effect on Performance of Rwanda Education Funded Projects: A Case of Pan African Education Empowerment Project in Rwanda

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### ABSTRACT

*A project's baseline is the research conducted at the commencement of the project to identify the current state of the project via data collecting, providing a benchmark against which subsequent modifications may be evaluated. The general objective of the study was the assessment of project baselines on performance of Rwanda education funded projects. A case of Pan African Education Empowerment Project in Rwanda and the specific objectives were to evaluate the influence of stakeholder's participation as an effective baseline-survey on performance of education funded project of Pan African Education Empowerment Project in Rwanda, to examine the effect of project team competency as an effective baseline-survey on performance of education funded projects of Pan African Education Empowerment Project in Rwanda and to determine the effect of project costs as an effective baseline-survey on performance of education funded project of Pan African Education Empowerment Project in Rwanda. The study guided by the following theories: Stakeholder's participation theory, project team competency theory, Project Costs Effectiveness theory and Expected Quality Standard theory. Project coordinators, PAEE project officers, District Education Officers in the Nyarugenge District, and project beneficiaries in the Nyarugenge District made up the target population of this descriptive research that used both quantitative and qualitative methods. In all there were 2689 from which a sample size of 348 was picked, the sample size calculated by Yamane formula. Researchers utilized a basic random sample strategy to choose participants from the whole population of interest, and a stratified sampling strategy to divide those participants into manageable subsets. Questionnaires, interviews, and records were used to compile the information needed for the study. Frequency tables, percentages, means, and standard deviations were generated using SPSS version 21 when data processing is complete. The predictors (Project cost effectiveness, Project team competency, and Stakeholders' engagement) and the Performance of education sponsored project of Pan African Education Empowerment Project in Rwanda are well correlated (R value of 0.807). There is a 0.221 coefficient for stakeholders' engagement ( $t = 3.938, p = 0.000$ ), a 0.398 coefficient for project team competency ( $t = 8.381, p = 0.000$ ), and a 0.254 coefficient for project cost effectiveness ( $t = 4.286, p = 0.000$ ). This means that the performance of the Pan African Education Empowerment Project -funded education initiative in Rwanda improves in direct correlation with the level of each of these factors. These coefficients have important statistical significance and major roles in contributing to the success of the education financed project of Pan African Education Empowerment Project in Rwanda, since their p-values are considerably below the normal significance threshold of 0.05. Pan African Education Empowerment Project in Rwanda is recommended to strengthen stakeholder engagement, providing comprehensive training, investing in project team competency through professional development, conducting cost-benefit analyses, and implementing strong monitoring mechanisms to optimize financial resources and enhance the success of education funded projects.*

**Keywords:** Baseline-Survey, Cost, Performance, Project Baseline, Project Team Competency, Stakeholder's Participation

### I. INTRODUCTION

The initiation of baseline-surveys, especially in the context of initiatives supported by donors, is mostly driven by the donor agencies themselves. Initiatives pertaining to agriculture, health, water, and livelihood often conduct baseline studies. Problems with stakeholder participation, capability, and collaboration are some of the obstacles that these studies encounter. Thambura et al. (2023) aimed to identify the factors that influence the execution of the Kazi Kwa Vijana project's assessment and monitoring program. Critical technical components of evaluation and monitoring, as shown by the study's findings, are capacity building, human resource development, and training.

This paper presents the results of a baseline survey that the Kenya Women and Children's Wellness group carried out on the subject of Gender Based Violence (GBV). Research by Ika et al. (2019) showed that data gathered at the grassroots level is crucial for informing evidence-based planning and for influencing actions at the macro level. Released in 2019 by United States Agency for International Development (USAID), the baseline provides a framework for analyzing how gender-based violence affects health, intergenerational dynamics, and demographic consequences.

Inadequate funding is a major contributor to projects' inability to meet deadlines, which accounts for 32% of all project failures. As indicated, the expected quality standard and beneficiary satisfaction is at the low level for some education funded project. The non-performance of education project is sought to be an affected by increased cost, poor performance measures, lack of clear direction, poor coordination as well as lack of open competition (Cheporiot et al., 2018).

Despite the importance of baseline projects in setting criteria for future project assessments, many Rwandan education initiatives fail to conduct baseline research. Donors place a high value on baseline research, yet it is often overlooked. Different people have different views on the results and quality of the project baseline investigations, which makes the difference wider. Additionally, owing to the lack of expertise, inexperience, or both on the part of project personnel, some baseline investigations do not provide the anticipated results. The lack of funds makes the situation worse since baseline surveys can't be conducted, which affects the creation of crucial project tools like the logical framework (Sebaganwa & Mulyungi, 2018).

Both multinational assistance initiatives under Rwanda's Pan African Education Empowerment Project have failed to launch because of inadequate baseline-surveys. Because of the accessibility of resources, both quantitative and qualitative approaches may be successfully implemented. While not essential to gauging project success, a baseline-survey is nonetheless conducted for certain projects due to donor requirements. Other requirements include competent and experienced management, well-trained personnel, and strong leadership. To prevent the adoption of ambiguous project activities and indicators, research in Rwanda found that 60% of stakeholders were not included in the selection and prioritizing of projects. In addition, when stakeholders are involved, they are more likely to support and feel responsible for the project's results and indicators. Therefore, the purpose of this research is to determine how setting a baseline affects the success of government-funded education programs in Rwanda. Nyarugenge District: A Test Case for Pan-African Educational Empowerment.

Therefore, the general objective of the study was the assessment of project baselines on performance of Rwanda education funded projects. A case of Pan African Education Empowerment Project in Rwanda.

### 1.1 Specific objectives:

- i. To evaluate the effect of stakeholder's participation as an effective baseline-survey on performance of education funded project of PAEEP in Rwanda
- ii. To examine the effect of project team competency as an effective baseline-survey on performance of education funded projects of PAEEP in Rwanda.
- iii. To determine the effect of project costs as an effective baseline-survey on performance of education funded project of PAEEP in Rwanda.

### 1.2 Null Hypotheses

**Ho<sub>1</sub>:** There is no significant relation of stakeholder's participation as an effective baseline-survey on the performance of education funded project of PAEEP in Rwanda.

**Ho<sub>2</sub>:** project team competency as an effective baseline-survey has no significant contribution on the performance of education funded project of PAEEP in Rwanda.

**Ho<sub>3</sub>:** There is no significant contribution of project costs as an effective baseline-survey on the performance of education funded project of PAEEP in Rwanda.

## II. LITERATURE REVIEW

### 2.1 Theoretical review

Stakeholder's participation theory is essential for development programs to succeed, especially in the field of education. By incorporating different perspectives, skills, and experiences, including stakeholders in a project augments the possibility of success. All aspects of this involvement, including making decisions, allocating resources, and owning projects, contribute to sustainable development. Project improvement and innovation are driven by community stakeholders' active engagement, which promotes project acceptance and revitalization (Gibson, 2019). By aligning project objectives with community needs, stakeholder participation in decision-making ensures legitimacy and compliance (Eyiah-Botwe, 2015). Evaluating the Pan African Education Empowerment Project in Rwanda requires stakeholder participation to ensure the project's longevity, foster ownership, and link project goals with community needs.

Project team competency theory, however, is essential for constructing and maintaining project baselines. According to Musumba et al. (2013), a professional project team that is well-informed about and adheres to the project requirements is essential for minimizing errors and delays. According to Busiinge (2019), clear approval procedures are crucial for keeping project quality high and meeting stakeholder expectations. Furthermore, Baker and Fisher (2018) advocate for the implementation of measurable and easily observable approval standards to guarantee a project's success.

Evaluating Rwanda's Pan African Education Empowerment Project effectively requires competent project teams. Reducing the likelihood of errors and increasing the likelihood of success, it ensures that project baselines are properly defined and maintained.

One essential part of project management is the theory of project costs and effectiveness, which guarantees that resources are used efficiently and that budgetary constraints are met. For projects to be successful, Akingbade et al. (2015) emphasized the need for efficient methods of tracking and assessing progress. Thomas & Mengel (2018) point out that it is necessary to implement progressive and participatory cost structures in order to improve cost-effectiveness. When evaluating Rwanda's Pan African Education Empowerment Project, it is important to keep costs down and make sure resources are being used wisely so that the project can achieve its full potential. For the Pan African Education Empowerment Project in Rwanda to achieve its full potential, it is essential to follow the principles of Project Costs Effectiveness theory, which guarantee the most efficient use of resources while staying within budget constraints.

For a project to be successful and stay competitive in the market, the theory of Expected Quality Standards is crucial. According to Cleland et al. (2016), quality assurance is a key factor in achieving organizational excellence and gaining a competitive edge. In addition, Chaffey (2017) emphasized the importance of quality assurance as a method of purposeful administration and evaluation that is in line with the objectives of the organization. Ling and Ma (2019) talk about how to evaluate quality standards by looking at organizational responsibility and how well they match with project principles and goals.

The success of the Pan African Education Empowerment Project in Rwanda hinges on its ability to meet quality standards, integrate into existing systems, and achieve its intended goals effectively. Therefore, ensuring excellence in project planning and execution is essential for its success and sustainability.

## 2.2 Empirical review

A study conducted by Georgieva & Allan (2018), Revealed through stakeholders' participation, to evaluate the success or failure of a project later on, it is necessary to collect crucial data from the outset via a baseline-survey in Bulgaria and UK. Several writers on stakeholder engagement have provided accounts regarding the significance of baseline-surveys, with a focus on how incorporating stakeholders might impact project performance, especially via the baseline-survey.

A study by Lebans and Euske (2016), showed that without involving stakeholders in baseline study conducted in US, exactly how much a project's baseline influences its success is unknown. The research argued that decision-makers would benefit from knowing what influence stakeholders had on the project's success by having them participate in the baseline-survey. As indicated, stakeholders' involvement is considered as important tool used during a baseline study to evaluate project feasibility and ensuring that project performance is being achieved.

A study done by Busiinge (2019) in Uganda showed that stakeholder's participation plays a significant role to provide information about the project situation and offers decision on data being collected at the beginning of the intervention, then one has baseline data. Stakeholders' participation as important aspect of baseline-survey simply is put in front as this helps to assess the ongoing progress of the project at the beginning of a project to establish the status quo and the value for performance indicators.

Ochieng (2018) conducted a study on determinants of effective baseline survey for donor funded slum upgrading projects in Nakuru county. The study adopted a descriptive research design, qualitative and quantitative approaches. Additionally, the study targeted 320 participants from three donor funded projects in water, health and sanitation and livelihoods. The target population was comprised of project managers, project officers, stakeholders and beneficiaries. Stratified random sampling was used to select a sample size of 76 participants who were administered with a semi-structured questionnaire for data collection. The collected data was analyzed using both descriptive and inferential statistics. From the study findings, the study established that it is important to carry out stakeholder analysis to assess their influence in baseline surveys (mean=4.143), lack of stakeholder participation at onset of projects leads to adoption of unclear indicators (mean= 3.857), quality of project management team, skills and project organization affects baseline survey (mean=3.971), project teams should possess required technical expertise and skills in baseline

surveys (mean= 4.514), baseline survey success is judged by efficiency with which objectives are met within set timelines and budget (mean= 3.971) and that scope and work definition is important in designing effective baseline surveys (mean= 3.943). The study established a strong and significant correlation between stakeholder participation, project team competency, project, project scope and effective baseline survey ( $r= 0.743, 0.726, 0.698$  and  $0.685$ ). As a result, the study recommends that transparency and accountability of all baseline survey activities should be maintained by all stakeholders.

In a study conducted by Kobusingye et al. (2017) investigated the influence of stakeholder's involvement on project outcomes: A case of water, sanitation, and hygiene (WASH) project in Rwanda. The purpose of this study was to evaluate stakeholders' involvement in project outcome through gathering and analyzing the information on the level of involvement of stakeholders in the process of project cycle management (PCM). Data was collected from a sample of 409 stakeholders in the WASH project in Rwanda. The primary data was collected from the community members using a semi structured questionnaire. In addition to questionnaire, the other primary data was obtained through interview to and observations. The researcher analyzed quantitative data using descriptive statistics by applying the statistical Package for Social Science (SPSS V.21.0). Conceptual content analysis was used for data that was qualitative in nature or aspect of the data collected from the open-ended questions and the interview guide. In addition, descriptive analysis was applied to determine the relative contribution of each of the four variables with respect to project outcome. This study found that stakeholders' involvement in project initiation, planning, implementation, and review contributed to project outcome. This study found that stakeholder's involvement in project implementation contributed most to project outcome ( $r = 0.971$ ) followed by project review ( $r= 0.681$ ), then project planning ( $r =0.651$ ) while projects identification ( $r = 0.571$ ) had the least influence on project outcome. The study recommends that enough funds and skills should be allocated to projects. The study also recommends that the constituents should play a critical role in decision making because they are the beneficiaries of the projects and know well projects are beneficial to them.

A study conducted in U.S by Roberts (2020), showed that implementing policies must conduct baseline studies since the cost efficiency of the project is crucial for any donor to determine future project success based on available finances. Donor-funded projects may determine whether or not they are feasible in light of the existing state of affairs and their projected future outcomes via a comparison of actual achievements achieved so far with projected outcomes. It revealed that the project cost estimates the funds which are the basis of estimating both quantitative and qualitative methods in achieving the project performance. Using the same logical framework matrix and tools, managers may assess how well the project is doing in terms of delivering the desired outcomes after doing periodic cost checks on the project going forward.

A survey done by Kilby (2019) showed that the project cost effectiveness address issues hindering the project performance and the project costs need to be conducted before project activities financed by the World Bank. baseline-surveys, which the research found to be an essential metric, should be conducted early on in a project for obvious reasons related to the project's success. In order to have an accurate depiction of the project's starting point, project managers must ensure that any potential influence of cost estimating is reflected during the assessment stage, when the baseline analysis is undertaken after project activities have already been launched.

A study conducted by Kuprenas (2019) showed that the project cost effectiveness as aspect of baseline-survey is the basic for project implementation as this assist in carrying out a baseline-survey on funds needed to achieve the project performance. The project costs estimate the funds required for the project intensity and project scope.

### III. METHODOLOGY

#### 3.1 Research Design

A combination of descriptive surveys and correlational studies were carried out by the researcher. In order to determine the efficacy of a project's baseline, descriptive survey research used both quantitative and qualitative methods, collecting data through questionnaires. The purpose of this research was to examine the relationships between project performance variables in the context of education-funded projects in Rwanda using a correlational study design.

#### 3.2 Study Population and Sample Size

The population is defined as the total collection of elements about which wish to make a sum. The study targeted a total of A total of 2689 individuals, including project coordinators, project officers of PAEE, District education Officers in Nyarugenge District and project beneficiaries in Nyarugenge District.



Therefore, equal opportunity was given to participate in the research study since the entire population was adopted in the research. Slovin's formula was used to determine the sample size for this investigation to ascertain the suitable sample size of 348 individuals for the population under investigation. Statistically, PAEE was well-represented in the survey. This research study's sample population was obtained using a stratified sampling strategy, and basic random sampling procedures were used within that group.

### 3.3 Data Collection Instruments

Data Collection Instruments are tools or techniques used to gather information and data for research purposes. In this study, questionnaires were used to gather primary data. PAEE employees served as the primary sources. Textbooks, journals, publications, and websites that discuss the subject served as secondary data sources. Questionnaires contained some study-related questions that were the same for everyone in order to collect data.

### 3.4 Data Analysis Method

Data analysis involves reducing the accumulated data to a manageable size, developing summaries, researching patterns and applying statistical techniques, while data preparation includes editing, coding and data entry. Data coding involves assigning numbers or other symbols to responses. Data entry converts information gathered by secondary or primary methods into a medium for visualization and manipulation. Version 22.0 of the Statistical Package for Social Science (SPSS) was used as a tool to analyze the data. The Statistical Package for Social Sciences (SPSS) for quantitative analysis was used in the study.

## IV. FINDINGS & DISCUSSIONS

### 4.1 Response Rates

This chapter focuses on the analysis of the data gathered from a sample size of 348 individuals from 2689 population employees of PAEE. The data are presented in tables and then analyzed.

**Table 1**

*Perceptions of respondents on Stakeholder's Participation as an Effective Baseline-Survey*

|  | SD |     | D  |     | N  |     | A   |      | SA  |      | Mean        | Std. Dev.    |
|--|----|-----|----|-----|----|-----|-----|------|-----|------|-------------|--------------|
|  | fi | %   | fi | %   | fi | %   | fi  | %    | fi  | %    |             |              |
| Stakeholders' participation contributes to the performance of Rwanda education funded project.                                 | 10 | 3.3 | 23 | 7.6 | 11 | 3.7 | 68  | 22.6 | 189 | 62.8 | 4.34        | 1.076        |
| Stakeholders influence and interest has led to the performance of Rwanda education funded project.                             | 13 | 4.3 | 28 | 9.3 | 18 | 6.0 | 82  | 27.2 | 160 | 53.2 | 4.16        | 1.154        |
| Stakeholders' commitment remained important in achieving the performance of Rwanda education funded project                    | 14 | 4.7 | 9  | 3.0 | 14 | 4.7 | 62  | 20.6 | 202 | 67.1 | 4.43        | 1.039        |
| Involvement of stakeholders in decision making remained important achieving the performance of Rwanda education funded project | 13 | 4.3 | 17 | 5.6 | 9  | 3.0 | 134 | 44.5 | 128 | 42.5 | 4.15        | 1.025        |
| Advisory service provided by stakeholders contributed to the performance of Rwanda education funded project                    | 10 | 3.3 | 22 | 7.3 | 28 | 9.3 | 98  | 32.6 | 143 | 47.5 | 4.14        | 1.070        |
| <b>Overall</b>   |    |     |    |     |    |     |     |      |     |      | <b>4.24</b> | <b>1.072</b> |

Table 1 represents findings regarding the effect of stakeholder's participation as an effective baseline-survey on performance of education funded project of PAEEP in Rwanda.

The majority of respondents agree that stakeholders' participation contributes to the performance of Rwanda education funded project, where 22.6% agreed, and 62.8% strongly agreed. The very high mean score of 4.34 indicates very strong positive agreement, with a moderate level of heterogeneity in responses (Std. Dev. = 1.076). Also, a significant majority of respondents agrees that stakeholders influence and interest has led to the performance of Rwanda education funded project, with 27.2% agreeing and 53.2% strongly agreeing. The high mean score of 4.16 demonstrates strong positive agreement, with a moderate level of heterogeneity in responses (Std. Dev. = 1.154). Furthermore, a notable majority of respondents agrees that stakeholders' commitment remained important in achieving the performance of Rwanda education funded project, with 20.6% agreeing and 67.1% strongly agreeing.



The very high mean score of 4.43 indicates a very strong positive agreement, with heterogeneity in responses (Std. Dev. = 1.039).

Moreover, the majority of respondents agrees that involvement of stakeholders in decision making remained important achieving the performance of Rwanda education funded project, with 44.5% agreeing and 42.5% strongly agreeing. The high mean score of 4.15 indicates strong positive agreement, with heterogeneity in responses (Std. Dev. = 1.025). Lastly, numerous respondents agrees that advisory service provided by stakeholders contributed to the performance of Rwanda education funded project, with 32.6% agreeing and 47.5% strongly agreeing. The high mean score of 4.14 indicates strong positive agreement, with a moderate level of heterogeneity in responses (Std. Dev. = 1.070).

The overall very high mean score across statements is 4.24, indicating a very strong positive agreement with the stakeholder’s participation as an effective baseline-survey in the performance of education funded project of PAEEP in Rwanda. The standard deviation of 1.072 highlights a moderate level of heterogeneity in respondents’ opinions.

The findings are supported by the emphasis of Eyiah-Botwe (2015) on stakeholder participation. Eyiah-Botwe showed that stakeholders' involvement in decision-making aligns with institutional objectives, satisfying compliance regulations. This is aligned with findings in the Table 1 findings, where stakeholder participation in Rwanda's education-funded project is shown to strongly contribute to project performance and success. The high mean scores and statements from Project Coordinators highlight the important role of stakeholders' commitment, active involvement, and advisory services in achieving optimal project outcomes and strengthening sustainable educational development.

In Theory of Change, active stakeholder participation is fundamental to achieving sustainable outcomes. By involving stakeholders in the project planning, implementation, and decision-making processes, the theory posits that performance of education funded project of PAEEP in Rwanda is more likely as it aligns with the needs and context of the beneficiaries.

**Table 2**  
*Perceptions of respondents on Project Team Competency as an Effective Baseline-Survey*

|  | SD |      | D  |      | N  |     | A   |      | SA  |      | Mean        | Std. Dev.    |
|--|----|------|----|------|----|-----|-----|------|-----|------|-------------|--------------|
|  | fi | %    | fi | %    | fi | %   | Fi  | %    | fi  | %    |             |              |
| The project team competence as important project baseline is useful to achieve performance of Rwanda education funded project        | 10 | 3.3  | 23 | 7.6  | 16 | 5.3 | 99  | 32.9 | 153 | 50.8 | 4.20        | 1.062        |
| The project team competence is measured by skill set of team members and has led to performance of Rwanda education funded project   | 19 | 6.3  | 28 | 9.3  | 21 | 7.0 | 96  | 31.9 | 137 | 45.5 | 4.01        | 1.212        |
| The project team competence is measured by technical expertise has led to the performance of Rwanda education funded project         | 30 | 10.0 | 34 | 11.3 | 29 | 9.6 | 51  | 16.9 | 157 | 52.2 | 3.90        | 1.401        |
| The project team competence measured by trainings has led to the performance of Rwanda education funded project                      | 14 | 4.7  | 39 | 13.0 | 14 | 4.7 | 84  | 27.9 | 150 | 49.8 | 4.05        | 1.218        |
| The project team competence measured by both formal and informal trainings led to the performance of Rwanda education funded project | 10 | 3.3  | 34 | 11.3 | 13 | 4.3 | 125 | 41.5 | 119 | 39.5 | 4.03        | 1.092        |
| <b>Overall</b>   |    |      |    |      |    |     |     |      |     |      | <b>4.03</b> | <b>1.197</b> |

Table 2 represents findings regarding the effect of project team competency as an effective baseline-survey on performance of education funded project of PAEEP in Rwanda.

The results indicate that 32.9% of respondents agreed and 50.8% strongly agreed that the project team competence as important project baseline is useful to achieve performance of Rwanda education funded project, yielding a very high mean score of 4.20, indicating a very strong positive agreement and a standard deviation of 1.062 highlights heterogeneity in responses among respondents. In addition, 31.9% of the participants agreed and 45.5% strongly agreed that the competence of the project team is determined by the skill set of its members. This has resulted in the successful implementation of the Rwanda education funded project, as indicated by a high mean score of 4.01, which signifies strong positive agreement. The standard deviation of 1.212 indicates that there is heterogeneity in the responses among the participants.



Similarly, 52.2% of respondents strongly-agreed and 16.9% agreed that the project team competence is measured by technical expertise has led to the performance of Rwanda education funded project, with a high mean-score of 3.90, indicating strong positive-agreement and a standard-deviation of 1.401 shows heterogeneity in responses among respondents. Additionally, 27.9% of respondents-agreed and 49.8% strongly-agreed that project team competence measured by trainings has led to the performance of Rwanda education funded project, resulting in a high mean-score of 4.05, indicating strong positive agreement and a standard-deviation of 1.218 highlight heterogeneity in responses among respondents. Moreover, 41.5% of respondents-agreed and 39.5% strongly agreed that the project team competence measured by both formal and informal trainings led to the performance of Rwanda education funded project, with a high mean score of 4.03 indicating a strong positive agreement and a standard deviation of 1.092 shows heterogeneity in responses.

The overall high mean for project team competency as an effective baseline-survey on performance of education funded project of PAEEP in Rwanda is 4.03, indicating a strong positive agreement, and the standard deviation of 1.197 highlights heterogeneity in responses across all statements among respondents.

The findings align with the emphasis of Olawale et al. (2020) on the critical importance of project team competency. The researchers highlighted that project team competency is integral to accurately recording and perceiving approval requirements for project data. The study's results further support this perspective by demonstrating that a competent project team, as measured by diverse skill sets, technical expertise, and training, significantly influences the successful performance of education-funded projects in Rwanda, reinforcing the crucial role of project team competency in the performance of education funded project of PAEEP in Rwanda.

The project team represents the agents in Agency Theory. A competent team ensure better alignment with the project's goals, translating directives from principals (project sponsors) into actions effectively, thereby improving performance of education funded project of PAEEP in Rwanda.

**Table 3**  
*Perceptions of respondents on Project Costs as an Effective Baseline-Survey*

|  | SD |     | D  |      | N  |     | A   |      | SA  |      | Mean        | Std. Dev.    |
|--|----|-----|----|------|----|-----|-----|------|-----|------|-------------|--------------|
|  | fi | %   | fi | %    | fi | %   | fi  | %    | fi  | %    |             |              |
| Low project costs as an effective baseline-survey have led to the performance of education funded project        | 13 | 4.3 | 23 | 7.6  | 11 | 3.7 | 87  | 28.9 | 167 | 55.5 | 4.24        | 1.111        |
| The project costs effectiveness measured by sufficient budget led to the performance of education funded project | 8  | 2.7 | 38 | 12.6 | 25 | 8.3 | 69  | 22.9 | 161 | 53.5 | 4.12        | 1.163        |
| Proper project budget allocation led to the performance of education funded project in Rwanda                    | 19 | 6.3 | 34 | 11.3 | 9  | 3.0 | 77  | 25.6 | 162 | 53.8 | 4.09        | 1.259        |
| Proper project resource use led to the performance of education funded project in Rwanda                         | 6  | 2.0 | 12 | 4.0  | 14 | 4.7 | 123 | 40.9 | 146 | 48.5 | 4.30        | .885         |
| The project costs are properly planned to achieve the performance of education funded project in Rwanda          | 5  | 1.7 | 18 | 6.0  | 10 | 3.3 | 109 | 36.2 | 159 | 52.8 | 4.33        | .920         |
| <b>Overall</b>   |    |     |    |      |    |     |     |      |     |      | <b>4.21</b> | <b>1.067</b> |

Table 3 represents findings regarding the effect of project costs as an effective baseline-survey on performance of education funded project of PAEEP in Rwanda.

The majority of respondents, 84.4%, agree (28.9% agree, 55.5% strongly agree) that low project costs as an effective baseline-survey has led to the performance of education funded project. The very high mean score of 4.24 indicates a very strong positive agreement, with heterogeneity in responses (Std. Dev. = 1.111).

Also, a significant majority, 76.4%, agrees (22.9% agree, 53.5% strongly agree) that the project costs effectiveness measured by sufficient budget led to the performance of education funded project. The high mean score of 3 demonstrates strong positive agreement, with heterogeneity in responses (Std. Dev. = 1.163). Similarly, a notable majority, 81.7%, agrees (25.6% agree, 53.8% strongly agree) that proper project budget allocation led to the performance of education funded project in Rwanda. The high mean score of 4.09 indicates strong positive agreement, with heterogeneity in responses (Std. Dev. = 1.259). Furthermore, the majority, 89.4%, agrees (40.9% agree, 48.5% strongly agree) that proper project source use led to the performance of education funded project in Rwanda. The very high mean score of 4.30 indicates a very strong positive agreement, with heterogeneity in responses (Std. Dev. = 0.885). Lastly, numerous respondents, 89%, agrees (36.2% agree, 52.8% strongly agree) that the project costs are properly planned to achieve the performance of education funded project in Rwanda. The very high mean score of 4.33 indicates very strong positive agreement, with some heterogeneity in responses (Std. Dev. = 0.920).



Overall, the very high mean score across statements is 4.21, indicating a very strong positive agreement with the role of project costs as an effective baseline-survey on performance of education funded project of PAEEP in Rwanda. The standard deviation of 1.067 highlights a moderate level of heterogeneity in respondents' opinions.

The findings are supported by the study of Akingbade et al. (2022) on project cost management. Researchers highlighted the importance of monitoring and evaluating cost-effectiveness in program planning. The results from the education-funded project in Rwanda align with the crucial role of low project costs, effective budgeting, proper allocation, resource use, and planning in ensuring project success. This supports the researcher's emphasis on the significance of strategic cost management for successful project outcomes.

In the Theory of Change framework, the allocation and management of resources, including project costs, directly impact the outcomes. Efficient resource utilization, including cost management, is critical for achieving desired changes and sustainability.

**Table 4**  
*Perceptions of Respondents on Performance of Education Funded Project of PAEEP in Rwanda*

|   | SD |     | D  |     | N  |     | A   |      | SA  |      | Mean        | Std. Dev.   |
|---|----|-----|----|-----|----|-----|-----|------|-----|------|-------------|-------------|
|   | fi | %   | fi | %   | fi | %   | fi  | %    | fi  | %    |             |             |
| There is performance satisfaction of education funded project of PAEEP in Rwanda.                           | 2  | 0.7 | 20 | 6.6 | 23 | 7.6 | 104 | 34.6 | 152 | 50.5 | 4.28        | .913        |
| The performance education funded project of PAEEP is measured by expected quality standards                 | 5  | 1.7 | 21 | 7.0 | 20 | 6.6 | 109 | 36.2 | 146 | 48.5 | 4.23        | .965        |
| The performance of education funded project of PAEEP is measured by beneficiaries' satisfaction             | 20 | 6.6 | 12 | 4.0 | 19 | 6.3 | 123 | 40.9 | 127 | 42.2 | 4.08        | 1.114       |
| The performance education funded project of PAEEP is measured by government policies, rules and regulations | 10 | 3.3 | 18 | 6.0 | 14 | 4.7 | 128 | 42.5 | 131 | 43.5 | 4.17        | .997        |
| <b>Overall</b>  |    |     |    |     |    |     |     |      |     |      | <b>4.19</b> | <b>.997</b> |

Table 4 represents findings regarding the performance of education funded project of PAEEP in Rwanda.

A significant majority of respondents expressed agreement (34.6%) and strong agreement (50.5%) with the statement that there is performance satisfaction of education funded project of PAEEP in Rwanda. The very high mean score of 4.28 reflects a very strong positive agreement, accompanied by a standard deviation of 0.913, indicating some heterogeneity in responses among participants.

Similarly, a significant proportion of participants agreed with the notion that the performance education funded project of PAEEP is measured by expected quality standards, with 36.2% in agreement and 48.5% strongly in agreement. The very high mean score of 4.23 signifies a very strong positive agreement, and the standard deviation of 0.965 shows some heterogeneity in responses. Furthermore, regarding the performance of education funded project of PAEEP is measured by beneficiaries' satisfaction, almost all respondents collectively agreed (40.9%) and strongly agreed (42.2%), with a high mean score of 4.08, indicating strong positive agreement and a standard deviation of 1.114, highlighting some heterogeneity in responses among participants. The performance education funded project of PAEEP is measured by government policies, rules and regulations statement strongly agreed by numerous participants, with 42.5% in agreement and 43.5% strongly in agreement. This agreement is supported by a high mean score of 4.17, indicating a strong positive agreement and the standard deviation of 0.997 shows some heterogeneity in responses.

The overall high mean score of 4.19 indicates a strong positive agreement with the performance of education funded project of PAEEP in Rwanda, and the standard deviation of 0.997 highlights some heterogeneity in responses among participants.

These results are in line with what Ika, Diallo, and Thuillier (2019) found when they looked at what really matters for a project's success. The researchers emphasized that in order to succeed in a project, one must have good planning, organizational structure, knowledge, and decision-making procedures. As highlighted by Ika, Diallo, and Thuillier (2019), the education-funded project in Rwanda had a favorable effect, adhered to quality standards, and produced transformational consequences. This is supported by the strong agreement and positive reactions to the project's performance.





**Table 5**  
*Model Summary*

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .807 <sup>a</sup> | .651     | .648              | .39394                     |

a. Predictors: (Constant), Project cost effectiveness, project team competence, stakeholders' participation

An examination of regression Table 5 displays the model summary. Project cost effectiveness, project team competence, and stakeholders' engagement were shown to have a significant positive relationship with the dependent variable, Performance of education sponsored project of PAEEP in Rwanda, as indicated by the R value of 0.807. An R-squared value of 0.651 indicates that the independent variables in the model account for approximately 65.1% of the variation in the outcomes of the education programs in Rwanda that are funded by PAEEP. Not only that, but the Adjusted R Squared score of 0.648 accounts for the number of variables in the model and signifies that 64.8% of the variability is covered, which is important when considering the potential for overfitting.

The results are in line with what Adan (2019) has said about how important project baselines are. Project cost effectiveness, project team competence, and stakeholders' participation were determined to have a strong positive correlation with the performance of education funded projects in Rwanda, according to the regression analysis. According to Adan, project baselines are crucial because they serve as standards against which to measure progress, direct decisions, and guarantee the most effective use of resources for the best possible results.

**Table 6**  
*ANOVA*

| Model |            | Sum of Squares | df  | Mean Square | F       | Sig.              |
|-------|------------|----------------|-----|-------------|---------|-------------------|
| 1     | Regression | 86.041         | 3   | 28.680      | 184.808 | .000 <sup>b</sup> |
|       | Residual   | 46.091         | 297 | .155        |         |                   |
|       | Total      | 132.132        | 300 |             |         |                   |

a. Dependent Variable: Performance of Rwanda Education funded project

b. Predictors: (Constant), Project cost effectiveness, project team competence, stakeholders' participation

Table 6 shows that there was a highly significant F-statistic of 184.808 ( $p = 0.001$ ) in the Analysis of Variance (ANOVA). By comparing the model with predictors (Constant, Project cost effectiveness, Project team competence, and Stakeholders' participation) to the Performance of Rwanda Education funded project, the F-statistic determines the overall significance of the regression model. The small p-value ( $p = 0.001 < 0.05$ ) linked to the F-statistic in this instance suggests that the predictors collectively explain a substantial amount of the variation in the dependent variable, which is the Performance of Rwanda Education funded project.

Baker and Fisher (2018) emphasized the crucial role of project baselines, which supports the findings. From their vantage point, it is clear that project baselines are crucial in project management since they direct the assessment of results and progress. The results of the Analysis of Variance (ANOVA) prove that project baselines are critical to effective project management, lending credence to Baker and Fisher's assertion. These baselines significantly impact the outcomes of initiatives funded by Rwanda Education.

**Table 7**  
*Coefficients*

| Model |                             | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. |
|-------|-----------------------------|-----------------------------|------------|---------------------------|-------|------|
|       |                             | B                           | Std. Error | Beta                      |       |      |
| 1     | (Constant)                  | .526                        | .133       |                           | 3.953 | .000 |
|       | Stakeholders' participation | .221                        | .056       | .222                      | 3.938 | .000 |
|       | Project team competence     | .398                        | .047       | .427                      | 8.381 | .000 |
|       | Project cost effectiveness  | .254                        | .059       | .244                      | 4.286 | .000 |

a. Dependent Variable: Performance of Rwanda Education funded project

In the context of regression analysis, the regression model is represented by the equation  $y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3$ . Here, y represents the dependent variable, which is the performance of education. The predictors  $x_1$  to  $x_3$  correspond to the independent variable x, which is the project baseline. The predictors for the project baseline are stakeholders' participation, project team competence, and project cost effectiveness.

Performance of the Rwanda Education funded project =  $0.526 + 0.221 \times \text{Stakeholders' participation} + 0.398 \times \text{Project team competence} + 0.254 \times \text{Project cost effectiveness}$

Table 7 presents the regression coefficients for the model predicting the Performance of the Rwanda Education funded project. The constant, representing the intercept, is 0.526 with a standard error of 0.133. This constant indicates that when all predictor variables (Stakeholders' participation, Project team competence, Project cost effectiveness) are zero, the estimated mean performance score of the Rwanda Education funded project is 0.526. Stakeholders' participation has an unstandardized coefficient of 0.221 ( $p = 0.000 < 0.05$ ), indicating that for a one-unit increase in stakeholders' participation, the predicted change in the performance score of the Rwanda Education funded project is 0.221 units. Project team competence has an unstandardized coefficient of 0.398 ( $p = 0.000 < 0.05$ ), signifying that a one-unit increase in project team competence is associated with a predicted increase of 0.398 units in the performance score of the Rwanda Education funded project. Similarly, Project cost effectiveness has an unstandardized coefficient of 0.254 ( $p = 0.000 < 0.05$ ), implying that a one-unit increase in project cost effectiveness corresponds to a predicted increase of 0.254 units in the performance score of the Rwanda Education funded project. All predictors show significant positive relationships with the dependent variable, reinforcing their importance in influencing the performance of education funded project of PAEEP in Rwanda.

The findings align with the emphasis of Gharashe (2009) on the significance of project baselines. Gharashe highlights that project baselines, established through comprehensive research at project commencement, serve as benchmarks for subsequent evaluations. In the context of Rwanda's Education funded project, regression analysis confirms the positive impact of stakeholders' participation, project team competence, and project cost effectiveness on performance, supporting the crucial role of project baseline data in shaping performance of education funded project of PAEEP in Rwanda.

## V. CONCLUSIONS & RECOMMENDATIONS

### 5.1 Conclusions

The general aim of the study was the assessment of project baselines on performance-of Rwanda education funded-projects. A case of Pan African Education Empowerment Project in Rwanda. Specifically, the study followed these objectives: Based on the findings on the effect of stakeholder's participation as an effective baseline-survey on performance of education funded project of PAEEP in Rwanda, the majority of respondents indicated a positive perception where very high mean across statements indicated a very strong positive agreement with the stakeholder's participation as an effective baseline-survey in the performance of education funded project of PAEEP in Rwanda. Based on statistical evidence, it is clear that the competency of project teams has a significant impact on the performance of education funded projects in Rwanda under the PAEEP. A considerable number of participants agreed that project team competency serves as an effective baseline survey for evaluating the performance of these projects. The overall high mean for project team competency as an effective baseline-survey on performance of education funded project of PAEEP in Rwanda indicated a strong positive agreement. Regarding the effects of project costs as an effective baseline-survey on performance of education funded project of PAEEP in Rwanda, the majority of respondents expressed a strong agreement that project costs as an effective baseline-survey influence performance of education funded project of PAEEP in Rwanda. The very high mean across statements indicated a very strong positive agreement with the role of project costs as an effective baseline-survey on performance of education funded project of PAEEP in Rwanda.

According to the results, all three of the null hypotheses tested with a p-value, the involvement of stakeholders is significantly related to the success of the PAEEP-funded education initiative in Rwanda. Likewise, the success of the PAEEP-funded education initiative in Rwanda is strongly impacted by project team competence. In addition, the p-value indicates that project costs significantly contribute to the performance of the PAEEP education financed project in Rwanda, therefore rejecting the null hypothesis linked to project costs. The findings of this study provide credence to the idea that baseline surveys about stakeholder involvement, project team competence, and project expenses were crucial to the smooth running of PAEEP, a Rwandan education-funded initiative. Therefore, the study was a success, and the research gap was closed. Project baselines do affect the success of education-funding initiatives in Rwanda.

### 5.2 Recommendations

PAEEP in Rwanda should actively strengthens and enhance stakeholder engagement throughout the project life cycle. Also, PAEEP in Rwanda is recommended to conduct comprehensive training sessions for stakeholders to

ensure a shared understanding of the project's objectives, expected outcomes, and their roles in contributing to success. Additionally, PAEEP should invest in ongoing professional development programs for project teams, focusing on enhancing their competencies and skills relevant to education project management. Furthermore, PAEEP in Rwanda should strengthen a collaborative and innovative team culture. Encourage the sharing of best practices, lessons learned, and effective project management strategies among team members. PAEEP in Rwanda should conduct a comprehensive cost-benefit analysis at the inception of each education funded project to identify potential areas for optimization efficiency. Moreover, PAEEP in Rwanda is recommended to implement strong monitoring and evaluation mechanisms to track project costs throughout its duration.

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