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Monitoring and Evaluation Practices and the Performance of Projects: A Critical Review

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Abstract: *Authors and reviewers are endowed with the capability of writing and reviewing articles. However, they sometimes face challenges in observing expected standards in writing quality papers. The challenges are perhaps attributed to lack of either meticulousness or just negligence on part of the reviewers/authors. It is because of this that five selected journal articles about the effect of monitoring and evaluation practices on performance of projects have been reviewed to evaluate their conformity to basic quality research standards. The review was conducted through desk research. Monitoring and evaluation practices and project performance concepts were identified, disaggregated and entered into academic search engines to produce sought for articles. The quality of the articles were then evaluated by scrutinizing the purpose/objectives of the study, the hypothesis of the study, the study design, the sample design, data collection methods, data analysis methods and findings. Although monitoring and evaluation practices had statistically significant influence on performance of projects, some gaps were evident in methodology, which perhaps affected the findings. First, study design- use of descriptive design which elicits relationships or describes the world as it exists and cross sectional design which studies participants at one point in time are perhaps not consistent with cause-effect studies exhibited in the articles. More so, despite the fact that justification of study design improves the quality of findings, in some articles, it was overlooked. Second, sample design- while some articles did not specify sample determination models, others neither specified nor justified sampling techniques, which perhaps weakened the strength of research findings. Third, although, the dominant data collection instrument was questionnaire, as a way of quality control, neither validity nor reliability tests were performed. Fourth, in spite of the fact that research involves people and calls for observation of ethical standards, there was no evidence of ethical practice in the articles undermining the validity of the findings. Last, the findings of research should be discussed for authentication. Nevertheless, there was no evidence of discussions of findings in the articles. The paper recommends: continued research in monitoring and evaluation as a discipline to strengthen its application in projects; and taking extra caution in structuring research methodology as it forms the basis of credible research findings.*

***Keywords*:** Monitoring; evaluation; performance; and project

1. INTRODUCTION

Although authors and reviewers are endowed with the capability of writing and reviewing articles, sometimes they face challenges in observing expected standards in writing quality papers. The challenges are perhaps attributed to lack of either meticulousness or just negligence on part of the reviewers/authors [3]. In such regard, a number of parameters may be used to evaluate an article.

First is the quality of purpose/objective statement of the article. This is perhaps because it is the purpose/objective which guides the researchers to: choose research design; determine relevant data; categorize such data; choose appropriate data collection techniques, and design the final report [6]. Additionally, in cause-effect studies, a good purpose/objective statement starts with an explanatory variable and ends with a response variable [6]. Nevertheless, authors and reviewers quite often neither regard the importance nor observe the essential standards while designing purpose/objective of a study.

Second is the hypothesis of the study. A hypothesis is a theory proposed by a researcher or an intelligent guess about the value of a population parameter. In research, it is always the null hypothesis that is tested. It should be given priority and will always remain valid until evidence is produced to nullify it [3]. Nevertheless, in some articles, authors formulate hypotheses which do not resonate well with the study designs, data collections methods and data analysis methods. Occasionally, hypotheses are stated, which do not elicit explanatory and response variables in cause effect studies [3]. Additionally, when a hypothesis has been tested, it should be interpreted and appropriate conclusion derived. However, some authors fail to suitably interpret hypotheses and develop suitable conclusion of a study.

Third is the research design. A research design is a master plan for a piece of research, which positions the researcher in an empirical world and connects research questions to data [6]. Research design once identified must be justified to show why it best fits the needs of a particular study [3]. While researchers may mention research design in studies, some nevertheless do no provide justification for the selection of a particular design. More so, selecting a research

design, which links neatly to sample designs, data collection instruments and data analysis methods is often a challenge to most researchers.

Fourth is the sample design. A sample design is a practical plan of determining the sample size from a preselected target population and deciding on a suitable sampling technique in a study. A sample is a subset of the population. It should be representative of the whole population. In a study, an optimum sample size determined through a scientific model is required to achieve significant results. Also, a well justified sampling strategy should be selected so as to obtain a representative sample [6]. However, some articles report findings without the target population, sample size determination model and sampling strategy. Additionally, in some studies even if sampling strategies are reported, their justification is often overlooked. It also worth writing that the selection of the sampling technique is guided by the study design whose choice depends on the objectives of the study.

Fifth is data collection instrument. A research instrument is a tool a researcher uses in collecting data enabling answering of study questions [7; 6]. Research instrument selection depends on: the nature of research objective/hypotheses; the design of the study; and quantity of knowledge existing about the variable of a study [7]. Nevertheless, research instrument can be provided for quantitative or qualitative data as guided by the study design. Additionally, for quality control measures, a research instrument should be tested for validity and reliability before implementation [7].

Last is observing ethical standards. Research studies involve collecting data from people and about the people. It is consequently imperative that ethical standards be observed during research exercise. Relevant ethical standards should therefore not only be articulated in research reports but should appear to have been implemented and observed [3; 6]. Nevertheless, some authors and reviewers not only overlook reporting ethical standards but do not perfectly monitor implement processes during studies.

2. PURPOSE OF THE REVIEW

The purpose of the review is to evaluate selected research articles for conformity to basic quality research standards.

3. METHODOLOGY

The review was conducted through desk research. Monitoring and evaluation practices, and project performance concepts were identified, disaggregated and entered into academic search engines to generate sought for articles. Five journal articles were therefore selected and reviewed to determine their conformity to quality research standards. The quality of the articles were then evaluated by scrutinizing the purpose/objectives of the study, the hypothesis of the study, the study design, the sample design, data collection methods, data analysis methods and findings. Conclusions and recommendations were thereafter crafted.

4. CRITICAL REVIEW

Authors seem to have different approaches to the practice of monitoring and evaluation practices. For example, on utilization of monitoring and evaluation results in solving project problems [10] studied Digital Education Technologies with monitoring and evaluation component to improve education. Other authors studied monitoring and evaluation practices through: stakeholders involvement-designing monitoring and evaluation tools, developing project indicators, data collection and analysis [1]; and application of monitoring and evaluation in promoting-accountability, effective information gathering and dissemination, partnership in planning, and supportive supervision [8; 5]. Nevertheless, monitoring and evaluation practices can perhaps be conducted by doing the tasks associated with the components of a monitoring and evaluation system, namely; human capacity development for monitoring and evaluation management; partnership for planning, coordinating and managing monitoring and evaluation system; developing monitoring and evaluation frameworks; developing monitoring and evaluation work plans; communication and advocacy to promote monitoring and evaluation culture; routine monitoring; data base management; supportive supervision and data auditing; evaluation and research; and data dissemination and application.

Although authors have different indicators of measuring performance, there is concurrence that measures revolve around project effectiveness, efficiency and sustainability. Indicators of effectiveness were pegged on ability of learners', teachers' and schools to achieve set objectives [10]. Efficiency indicators were fixed on - ability of learners to participate well in literacy lessons, acquire literacy skills within time, and acquire numeracy skills within time [10]; budget preparation; cash balance determination; preparation of cash flow statements; and management of cash surplus [5]; and completion of project in time, within the budget and within scope to the users' satisfaction [2]. Sustainability indicators hinges on- ability of schools to sustain started and functioning projects [10], ability of food security projects to continue with operations after funders have pulled out [1]; and ownership of a project and affordability of project services [8]. Nevertheless, broad performance measurement may be derived from project effectiveness, efficiency, relevance, impact and sustainability [9].

In the articles, the quality of the purpose/objective statements was evaluated. A good purpose/objective in cause-effect study starts with an explanatory variable and ends with a response variable [6]. While in [10], the objective of the study was to investigate the influence of

utilization of monitoring and evaluation results on the performance of Digital Education Technologies project in public primary schools, in [5] the purpose of the study was to establish the influence of monitoring and evaluation procedures on the performance of constituency development funded health projects in Kenya. Similarly, whereas in [1] the purpose of the study was to investigate the effect of participatory monitoring and evaluation on sustainability of donor funded food security projects in Rwanda, in [2] the purpose of the study was to establish the influence of M&E on completion of government funded agricultural projects in Kenya. Additionally, [8] examined the role of monitoring and evaluation on projects sustainability in Rwanda. As suggested by [6] the purpose statements in the articles were explicitly stated, exhibited the causal-effect between explanatory and the response variables. Additionally, appropriate study design can be explicitly deduced from the statements.

A hypothesis is a theory proposed by a researcher or an intelligent guess about the value of a population parameter. In research, it is always the null hypothesis that is tested. It should be given priority and will always remain valid until evidence is produced to nullify it [3]. In [10] an alternative hypothesis was stated- "utilization of monitoring and evaluation results has a significant influence on the performance of digital education technology project in selected public primary schools in Malawi." Although both the explanatory and response variables were accurately expressed in the hypothesis, it violated [3] assertion that, it is always the null hypothesis which is tested, should be given priority and remains valid until evidence is produced to nullify it. Even though the hypotheses was not stated in [1; 2; 5; 8] violating [3] view that the null hypothesis must be stated and remains valid until evidence is provided to nullify it, indication of *p* and *t* values in the findings suggests that it could have been an oversight.

Research design is a master plan for a piece of research, which positions the researcher in an empirical world and connects research questions to data [6]. Descriptive design which describes the characteristics of a situation, a group of people and the population of interest was used in [1; 2; 5; 8]. In the articles, the purpose of the study exhibited cause-effect, which perhaps is suitable with causal comparative design [4]. Additionally, descriptive design is not consistent with regression analysis, which is the dominant statistical method in the articles. Though [10] used unjustified descriptive cross sectional survey design, it violated [3] assertion that a design should be justified to show its suitability in a study. Moreover, since cross sectional design just describes participants at one point in time [7] it is perhaps not consistent with cause-effect studies.

A sample is a subset of the population selected such that it is representative of the whole population. An optimum sample size determined through scientific models is required to achieve significant results. Also, a well justified sampling strategy must be provided to get a representative sample [6]. Whereas standard sample size determination models- Krecjie-Morgan and Yamane were used in [10, 1; 8] conforming to the condition that in research, sample size should be scientifically determined [6] it was however, an oversight in [2; 5]. Nevertheless, the sample sizes were relatively large and were therefore consistent with the study design, data collection instruments and statistical way of analysis used in the articles. Additionally, probability sampling technique- stratified used in [1; 10] was consistent with sample sizes, study design, data collection instruments and mode of statistical analysis. However, while [10] justified the choice of stratified sampling technique- ensuring all categories of the population were represented in the study, [1] on the other hand overlooked the justification. Though [2; 5; 8] overlooked the sampling techniques, evidence of large sample sizes, and p –values in the findings suggests probability sampling technique could have been used. Nevertheless, it was difficult to conclude the type of probability sampling technique that could have been suitable.

According to [3;6], it is good practice not only to justify a research tool in a study, but also to test it for validity and reliability for quality control measures. While the dominant research tool was questionnaire [1; 2; 5; 10] which was perhaps consistent with study design, sample design and data analysis methods used in the articles, it was an oversight in [8]. Nevertheless, the study design- descriptive, the sample design-large sample size, and statistical analysis-regression in [8] suggest that questionnaire would have been consistent. Additionally, whereas [3] suggest that research instrument used in any study should be correctly justified, it was an oversight in [1; 5; 10]. However, [2] used questionnaire because of its simplicity in administration, ease in scoring of items and ease of analysis. According to [3; 6], it is good practice for research instruments to be tested for validity and reliability for quality control measures. However, [1; 2; 8; 10] had no evidence of test for validity and reliability of the research instrument casting doubt on quality of data that was generated.

Research involves collecting data from people and about the people. It is consequently important that ethical standards are observed during research. In research therefore, relevant ethical standards should not only be articulated in reports but should appear to have been observed [3; 6]. However, [1; 2; 5; 8; 10] did not report the ethical standards which were observed in the studies before data collection, during data collection, during data analysis and during results dissemination. This perhaps undermined the validity of the results in the studies.

Regression analysis revealed statistically significant results: $F_{(1,\ 183)} = 57.266$; $P < .05$ with 23.9% of the variation in

performance of Digital Education Technologies project attributed to utilization of monitoring and evaluation results [10]; $F_{(3, 66)} = 23.568$; $p < .05$ with 52.9% variance in project sustainability attributed to participatory monitoring and evaluation practices [1]; $F_{(1, 43)} = 5.409$; $P < .05$ with 11.4% variance in financial performance of Constituency Development Funded projects were attributed to monitoring and evaluation practices [5]; $F_{(4, 79)} = 18.168$; $p < .05$ with 75.5% variance in project completion attributed to monitoring and evaluation [2]; and 98.0% of the variation in of project sustainability attributed to monitoring and evaluation practices [8]. The use of regression in the studies is justified because of the causal nature of the problems which were investigated. More so, the studies used large samples, probability sampling techniques and structured questionnaires, which are consistent with regression analysis.

According to [3], the overall research finding in a study is a combination of literature review and empirical findings. While the findings were discussed in [10], it was however overlooked in [1; 2; 5; 8]. Lack of discussions and synthesis with relevant literature could have made it difficult to deduce solid conclusions about the study findings. Nevertheless, monitoring and evaluation practices had a statistically significant positive influence on performance [1; 2; 5; 8; 10].

5. CONCLUSIONS

Although monitoring and evaluation practices had statistically significant influence on performance projects, some gaps were evident in methodology, which perhaps affected the findings. First, study design- use of descriptive design which elicits relationships or describes the world as it exists and cross sectional design which studies participants at one point in time are perhaps not consistent with cause-effect studies expressed in the articles. More so, despite the fact that justification of study design improves the quality of findings, in some articles, it was overlooked. Second, sample design- while some articles did not specify sample determination models, others additionally, neither specified nor justified sampling techniques, which perhaps weakened the strength of research findings. Third, although, the dominant data collection instrument was questionnaire, as a way of quality control, validity and reliability tests were not performed. Fourth, in spite of the fact that research involves people and calls for observation of ethical standards, there was no evidence of ethical practice in the articles undermining the validity of the findings. Last, findings of research needs to synthesized with relevant literature for authentication. Nevertheless, there was no evidence of discussions of findings in the articles.

6. RECOMMENDATIONS

- The findings revealed that monitoring and evaluation practices influenced the performance of the projects studied. Incessant research should therefore be continued in monitoring and evaluation as a discipline to strengthen its application in projects.
- Research methodology is the bedrock of any study as it addresses the study process. It is the how/process, which produces results for decision making. If the methodology is poorly structured then there is likelihood of obtaining flawed results. The paper has revealed numerous gaps in research methodology which perhaps influenced the findings. It therefore recommended that every researcher should exercise more caution in structuring research methodology in studies if valid and reliable findings have to be realized.

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