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Monitoring and Evaluation Practices and Performance of Construction Projects: A Case of IPRC Gishari Rwamagana District-Rwanda.

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Abstract

This research aimed at investigating the effect of Monitoring and Evaluation practices and Construction Project Performance of IPRC Gishari Rwamagana District - Rwanda. The author was interested in the study due to many construction project failures and successes in the construction industry both internationally and locally in Rwanda. The study was guided by four specific objectives; to examine the effect of M&E planning on construction project performance of IPRC Gishari Rwamagana District – Rwanda, to assess the effect of M&E staff training on Construction project Performance of IPRC Gishari Rwamagana District – Rwanda, to establish the effect of Baseline Surveys on Construction project Performance of IPRC Gishari Rwamagana District – Rwanda, and to determine the effect of Information System on Construction project Performance of IPRC Gishari Rwamagana District – Rwanda. This study is expected to be relevant to Policymakers and Researchers; by providing knowledge to the private sector, policymakers, and other departments, especially to the construction firms. The study provides guidance to the employees and the supervisory teams on how they can manage projects within their organizations. A descriptive research design was employed including both qualitative and quantitative research approaches. The target population was 153 from which a sample size of 111 respondents was selected using stratified random sampling: 102 staff, 6 heads of units, and 3 executive team members. The data collected from the field was analyzed and interpreted using frequency tables and percentages by using SPSS version 20.0. Results of the study indicated that majority of respondents were in agreement to the fact that the construction project of IPRC Gishari was completed within the estimated cost, time and that the beneficiary were satisfied with the outcome of the project. Furthermore, M&E Planning had a statically significant and positive effect on the performance of Construction projects of IPRC Gishari in Rwamagana District-Rwanda with a multiple linear regression coefficient of

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B1 = .363, with þ = .001<.05 at a 5% level of significance. In addition, M&E Staff Training had a statically significant and positive effect on the performance of Construction projects of IPRC Gishari in Rwamagana District-Rwanda with a coefficient of B2 = .313, with þ = .002<.05 at a 5% level of significance. It was also noted that baseline surveys had no statically significant and negative impact on the performance of Construction projects of IPRC Gishari in Rwamagana District-Rwanda based on coefficient of B3 = -.092, with þ = .386>.05 at a 5% level of significance. However, Information systems were found to have a statically significant and positive effect on the performance of Construction projects of IPRC Gishari in Rwamagana District-Rwanda based on multiple linear regression coefficient of B4 = .254, with þ = .012<.05 at a 5% level of significance. The study concluded that M&E practices had a positive and statically significant contribution on Construction Project Performance at IPRC Gishari, Rwamagana District-Rwanda. This was explained statically by the Adjusted R Square (.571) which showed that, keeping other factors constant, 57.1% change in the construction project performance of IPRC Gishari could be explained by the effectiveness of M&E Practices. The study recommends that organizations should always engage in M&E practices in all Construction projects because they help to effectively and efficiently manage available resources to achieve project goals such as cost, schedules, and beneficiary satisfaction. Further studies are recommended to cover areas that were not covered by this study and on more projects to have a representative sample of the construction industry.

Keywords: *Monitoring, Evaluation, Construction Project, Performance*

1.1 Introduction

Monitoring and evaluation (M&E) has grown in importance as a tool for attaining environmental, economic, and social sustainability on a worldwide scale. The environmental, economic, and social aspects of every country around the world are areas of focus and most countries globally strive to find mechanisms to ensure sustainability of these aspects. The construction industry plays a major role in the economic and social welfare of any country as well as have a significant impact on the environment (Biwott, Egesah, & Ngeywo, 2017).

According to Garret (2020), 1.18 million (9.60% of the total population) people in Australia were working in the industry of construction which is about 1 out of every 10 jobs in the country's economy. Australia's construction industry supported more full-time jobs (992,000) across the whole economy more than any other sector and that during 2018-19, the value of wages and salaries paid to those working in construction totaled $66.2 billion, a sum larger than every other sector apart from professional services according to Garret (2020). Monitoring and evaluation holds great significance in Spain as part of worldwide efforts to improve environmental and socio-economic performance (Mrosek, Balsillie & Schleifenbaum, 2006). In France, the growth of M&E has been divided into many separate periods, which helps to demonstrate how concepts have developed and expectations have grown through time. In China, dedicated personnel in the government are assigned to oversee the monitoring and evaluation functions.

In the African setting, during the third term in power since democracy, the South African government prioritized monitoring and evaluation (Abraham, 2015). According to the facts, Kenya mostly depends on conventional and informal control structures to meet its performance goals. In Kenya, formal M&E processes have not been completely incorporated into the government's control systems for construction project (Abdulkadir, 2014). The Rwanda Economic Development and Poverty Reduction Strategy (REDPRS, 2008-2012) aimed at

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boosting the growth of the economy through enhancing infrastructural services to achieve the major goal of the Second Economic Development and Poverty Reduction Strategy (EDPRS 2) for the Construction projects sector, which is to triple access to M&E services to around 16% of home at the very least, 50% of selected government institutions by 2012.

1.2 Problem statement

Almost 50% of World Bank construction project investments failed to deliver the projected long-term benefits once the project was completed. As a result, when construction projects fail to reach their targeted long-term objectives as intended, it poses a serious danger to both project managers and beneficiaries. Despite the fact that the Rwandan government developed a monitoring and evaluation program in 2010, several government constructions projects have failed to meet their objectives (MINECOFIN, 2021).
According to Hudson (2020), 65.7% of public construction projects as implemented during the period starting from 2009 till end 2012 were delayed, whereas only 5.2% of these projects faced cost overruns. The city of Kigali repossessed 58 properties including unfinished construction projects highlighting delays in their development, the city also gave notice to 153 property owners to resume their construction projects. According to Moise (2019), The Government of Rwanda in 2019 abandoned the Butaro road project because an Indian company had double the cost of the construction project. The project had started off with NPD Cotraco as the contractor in 2016 at a budget cost of 71 billion Rwandan francs but gave up on the project. The project later attracted bids from Indian companies which skyrocketed the project cost to $150 million which led to eventual abandonment and project failure.

Several construction projects have been done by IPRC Gishari that range from Workshops construction, Classroom constructions, Football grounds construction and construction of houses for survivors of the 1994 genocide against the Tutsi. However, most of the projects have notably been completed far beyond their initial planned project periods as reported by IPRC Gishari Building design and Quantity surveyor and noted that it was seemingly because of lack of monitoring and evaluation practices during the project execution (Samuel, 2016).The above statistics and figures highlight projects that did not meet their planned costs, intended timeline for project implementation as well as service to the community hence impacting the social economic aspects of the country. It's based on this background that the researcher wished to establish the relationship between M&E practices and construction projects performance taking IPRC Gishari-Rwamagana District, Rwanda as a case study.

1.3 Objectives

i. To examine the relationship between monitoring and evaluation planning and the performance of construction project of Integrated Polytechnic Regional College Gishari in Rwamagana District - Rwanda
ii. To assess the relationship between monitoring and evaluation staff training and the performance of construction project of Integrated Polytechnic Regional College Gishari in Rwamagana District - Rwanda.
iii. To establish the relationship between baseline surveys and the performance of construction Project of Integrated Polytechnic Regional College Gishari in Rwamagana District - Rwanda.
iv. To determine the relationship between information systems and the performance of construction Project of Integrated Polytechnic Regional College Gishari in Rwamagana District - Rwanda.

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2.1 Literature review

2.1.1 Theoretical literature

A project is a collection of related tasks that, when performed in the proper sequence, result in the project's completion. A construction project, sometimes known as a 'project,' is the planned construction, renovation, or refurbishment of a building, structure, or infrastructure. Othman (2014), further highlighted that the majority of construction projects are one-of-a-kind. That is, a project team, brief, and funding are assembled to create a one-of-a-kind design that results in a singular project. M&E are two independent yet complimentary disciplines that are key in project success.

M&E are inextricably interwoven aspects of construction project management, resulting in a great deal of ambiguity when attempting to implement them on construction projects (Crawford & Bryce, 2003). McCoy, Everard, Polak, & Galletta (2008), described monitoring as the routine tracking of important parts of Construction project implementation performance, generally inputs, activities, and outputs, through record keeping, frequent reporting, and surveillance. Its goal is to see if the inputs, actions, and outputs (immediate deliverables) are all running well. Financial resources, people resources, equipment employed on the Construction project, and every other input that goes into the Construction project implementation should all be recorded.

Evaluation, like monitoring, is defined variably by different writers. In this research, evaluation is defined as a one-time (not continuous) examination of a current or finished Construction project to identify its actual impact (strategic aim or objectives for which it was undertaken), sustainability, effectiveness, and efficiency in comparison to the projected impact (strategic goal or objectives for which it was implemented).

According to Das & Ngacho (2017), performance of construction projects is based on six key performance indicators (KPIs) namely time, cost, quality, safety, minimum site disputes and environmental impact. This research study will focus on mainly three out of the six key performance indicators as highlighted above and the cost, time and beneficiary satisfaction.

2.1.2 Empirical literature

Kissi (2019) made a study on the Impact of project monitoring and evaluation practices on construction project success criteria in Ghana. The authors felt that Monitoring and evaluation (M&E) of projects was a very important aspect of project execution and management and that proper M&E practices had a significant effect on the successful delivery of projects. The purpose of their study was to examine the impact of project M&E practices on construction project success criteria.

Structured questionnaires were used to solicit the views of project professionals in the Ghanaian construction industry. The questions were developed through critical review of literature and complemented with a pilot interview on the subject. Their study utilized a partial least square–structural equation modeling (PLS–SEM) to establish the impact of project M&E practices (constructs) on project success based on the hypothesis. Results showed that M&E practices had a positive statistically significant relationship with construction project success criteria. In addition, health and safety performance and project scope showed a strong

significant relation with M&E practice, implying that, in developing countries, the two main constructs should be given critical attention in achieving project success.

A systematic methodology for tracking and assessing the construction project progress was conducted by Shirowzhan *et al*. (2019). The study's aim was to define methods for tracking and measuring physical improvements in the construction industry, as well as to determine how existing computer technology can be used to track real physical progress at the construction site. They spoke about the findings of a questionnaire survey conducted in the Malaysian construction industry and proposed a prototype system called Digitalizing Construction Monitoring (DCM).

The DCM re-engineer the standard practice of tracking construction project progress using new technology and information systems. According to the research, the machine can automatically interpret building drawings and extract data on structural elements, which it then stores in a database. It can also collect engineering data from digital images, and when simulation is done for these two databases, the percentage of progress can be measured and displayed automatically in Microsoft Construction Project.

Sandrine (2018), conducted a study titled Monitoring and Evaluation Mechanisms and Performance of Government Projects taking a case study of Skills Development projects. The general objective of the study was to analyze the influence of monitoring and evaluation mechanisms on the performance of Government projects in Rwanda. The researcher's specific objectives were to analyze the contribution of the human capacity for M&E to the performance of Government projects in Rwanda, to examine how partnership for planning influences the performance of Government projects in Rwanda, and to assess the relationship between supportive supervision and performance of Government projects in Rwanda.

The study adopted a case study and descriptive design to get results and the target population was composed of 170 employees (WDA, 2017). The researcher used purposive sampling method by selecting employees of WDA specifically in the department of skills development projects to represent the group in sampling. The study used both primary and secondary data collection methods. Quantitative data were analyzed using both descriptive and inferential statistics through Statistical Packaging for Socio Sciences (SPSS) software. The findings of the study were a correlation of 0.984, which is categorized as a positive correlation which led to confirm that there was a significant relationship between Monitoring and evaluation mechanisms and project performance.

The study concluded that monitoring and evaluation were essential in enhancing the performance of the project. According to the research questions, the findings of the study also revealed that the management of the project was entrusted with resources and loaded with the responsibility of managing those resources effectively and efficiently which influence the performance of the project. The researcher recommended that all projects should concentrate on M&E in order to improve performance of projects.

2.1.3 Results Based Theory

According to FAO-UN (2021), Results-based management (RBM) is defined as orienting all action and use of resources towards achieving clearly defined and demonstrable results. RBM increases transparency and accountability, allowing interventions to complement each other and avoid overlap and waste. Three interconnected processes, namely good planning,

monitoring and evaluation (M&E), can greatly enhance the effectiveness of investment projects and plans. Good planning helps to focus resource allocation and subsequent implementation on the results that matter. Effective M&E helps to assess progress towards the achievement of results and to learn from the past to ensure that future initiatives better contribute to development impacts. This theory will help the researcher to assess the performance of construction projects in terms of results of the project.

2.1.4 Constraint Theory

Dr. Eliyahu Goldratt conceived the Theory of Constraints (TOC) and introduced it to a wide audience through his bestselling 1984 novel, "The Goal". Since then, TOC has continued to evolve and develop, and today it is a significant factor within the world of management best practices. One of the appealing characteristics of the Theory of Constraints is that it inherently prioritizes improvement activities. The top priority is always the current constraint. In environments where there is an urgent need to improve such as construction projects, TOC offers a highly focused methodology for creating rapid improvement.

Lean Production (2021) highlights that the constraint theory is a methodology for identifying the most important limiting factor (i.e., constraint) that stands in the way of achieving a goal and then systematically improving that constraint until it is no longer the limiting factor. The Theory of Constraints takes a scientific approach to improvement. It hypothesizes that every complex system, including construction processes, consists of multiple linked activities, one of which acts as a constraint upon the entire system. The researcher takes interest in this theory to justify the need and find relationship between M&E practices and the performance of construction projects.

2.2 Conceptual framework

The independent variable of this study which is Monitoring and Evaluation Practices isbroken down into four constructs which are M&E planning, M&E staff training, Baseline surveys and Information systems. The dependent variable which is performance of construction project is divided into three constructs which are cost of the project, time.

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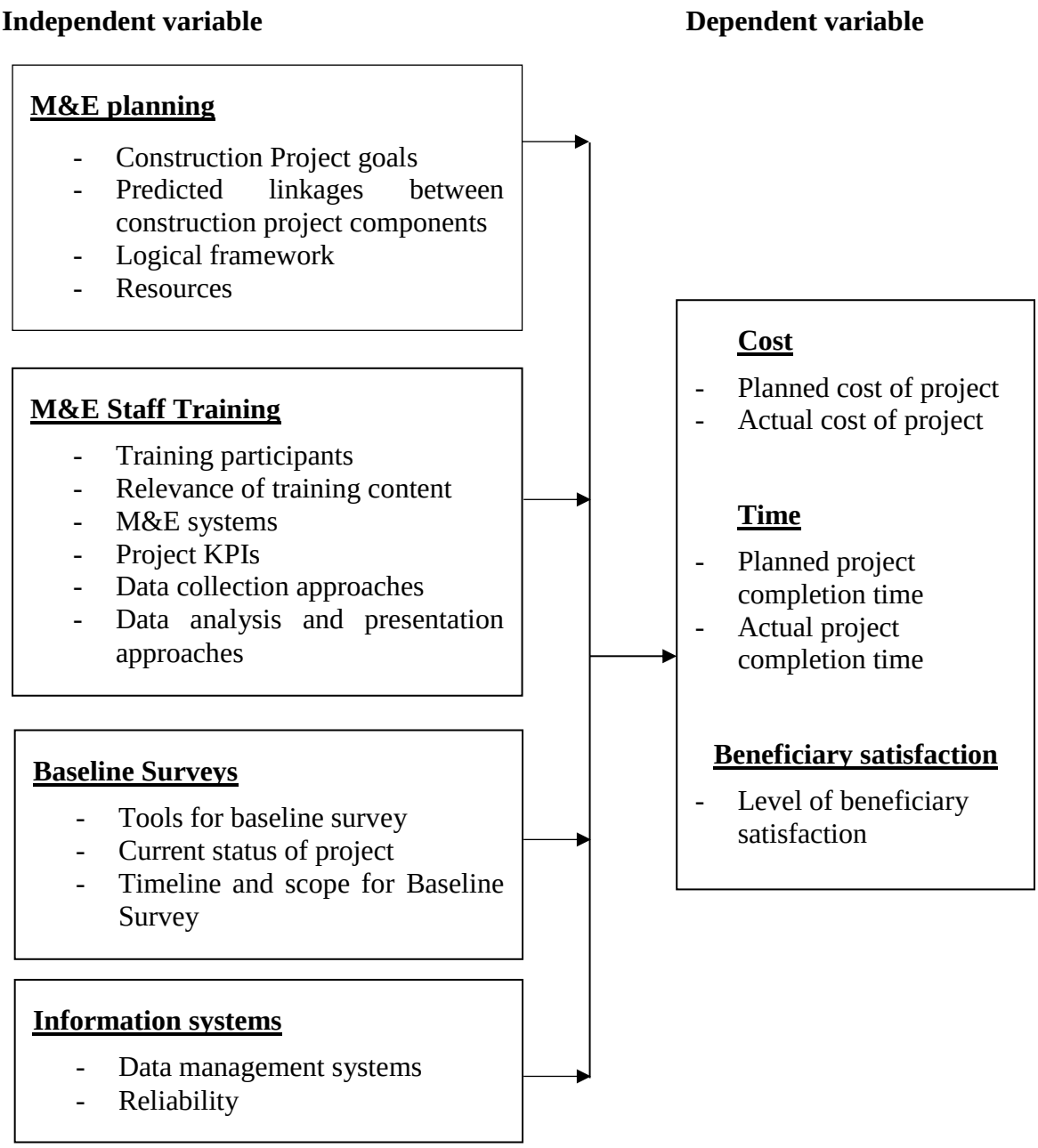

Figure 1: Conceptual Framework

3.0 Methods/Procedures/Methodology

This research study employed a descriptive research design. This research strategy was preferred because it permitted the collection of data through questionnaires that were administered to the sample population. The data collected by this design was used to suggest reasons for particular relationships between variables (Saunders & Thornhill, 2007).

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The target population of this study was 193 respondents from which the sample size of 130 was drawn, using sloven's formula (IPRC Gishari, 2021). The confidence level used is 95%. This research was mainly based on the secondary database, but it was supported by the primary data. Secondary data was collected through Books, journals and IPRC Gishari reports. Primary data was collected through structured questionnaires that were given to the sample population. The study used questionnaires which were in relation to the objectives of the study and were answered by the selected respondents.

The instruments' validity and reliability were tested by piloting. Content validity was used in this study to determine how well the sample of items represented the content that the exam is supposed to evaluate. In dealing with reliability, a pre-test was carried out; a total number of 10 respondents were used for the pretesting. The research instrument were considered reliable where a Cronbach coefficient was 80.5%. Statistical Package for Social Science version 20 (SPSS V.20), was employed in this study and the data was analyzed using descriptive statistics such as mean and standard deviation, as well as inferential statistics such as correlation and multivariate regression analysis.

4.0 Key result and findings

4.1 Response rate

The response rate refers to the percentage of feedback obtained from respondents compared to the number of administered questionnaires to respondents

Table 1: Response rate

Sample Category	Sample Size	Frequency	Percent
Executive Team Member	3	3	100.0
Head of Unit	6	6	100.0
Staff	121	102	84.3
Total	**130**	**111**	**85.4**

Source: Primary data, (2021)

From Table 1, it can be noted that the questionnaires were distributed to 130 respondents comprising of 121 staff, 6 heads of units and 3 executive team members. Number of responses shows that 102 out of 121 staff gave feedback which is at 84.3%, 6 out of 6 heads of unit provided feedback which is at the rate of 100% whereas 3 out of 3 executive team members provided feedback which is at the rate of 100%. The overall responses were 111 out of 130 which is at the rate of 85.4%.

4.2. Demographic Characteristics of Respondents

In this section, the researcher analyses the education level, age, and gender proportions of the respondents from which data was collected. It also presents finding on the existence of an M&E unit at IPRC Gishari as well as how the respondents' position within the organization is linked to Construction Projects, M&E or related to both.

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Table 2: Education Level of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Advanced Diploma	13	11.7	11.7	**11.7**
	B.Sc with Post Graduate Diploma in Education (PGDE)	2	1.8	1.8	**13.5**
	Bachelors	79	71.2	71.2	**84.7**
	Masters	17	15.3	15.3	**100.0**
	Total	**111**	**100.0**	**100.0**	

Source: Primary data, (2021)

Table 2 presents the education level of the respondents. It shows that out of 111 respondents, 13 respondents representing 11.7% had an Advanced Diploma, 2 respondents representing 1.8% had a post graduate diploma with education, and 79 respondents representing 71.2% have a bachelor's degree whereas 17 respondents representing 15.3% have a master's degree.

Table 3: Age of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Above 50 years	3	2.7	2.7	**2.7**
	Between 20 to 30 years	12	10.8	10.8	**13.5**
	Between 31 to 40 years	89	80.2	80.2	**93.7**
	Between 41 to 50 years	7	6.3	6.3	**100.0**
	Total	**111**	**100.0**	**100.0**	

Source: Primary data, (2021)

Table 3 presents the age of respondents. From Table 3 above, it can be noted that out of 111 respondents, 12 respondents representing 10.8% of the total respondents were aged between 20 to 30 years, 89 respondents representing 80.2% were aged between 31 to 40 years, and 7 respondents representing 6.3% were aged between 41 to 50 years whereas 3 respondents representing 2.7% were aged above 50 years.

Table 4: Gender and Position of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Female	4	3.6	3.6	**3.6**
	Male	107	96.4	96.4	**100.0**
	Total	**111**	**100.0**	**100.0**	
Position	Executive Team	3	2.7	2.7	2.7
	Head of Unit	6	5.4	5.4	8.1
	Staff	102	91.9	91.9	100.0
	Total	**111**	**100.0**	**100.0**	

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Table 4 above shows the gender of respondents. Out of 111 respondents, 4 respondents representing 3.6% were females while 107 respondents representing 96.4% were male. Therefore, most respondents were males.

Table 4 also presents the category of respondents' position in the organization. From 111 respondents, 2.7% of respondents belonged to the executive team, 5.4% of respondents were heads of units whereas 91.9% belonged to staff.

Table 5: Linkage of respondents' position to M&E and/or Construction Project

	Frequency	Percent	Valid Percent	Cumulative Percent
Both M&E and Construction Project	20	18.0	18.0	**18.0**
Construction project	10	9.0	9.0	**27.0**
M&E	12	10.8	10.8	**37.8**
None of the above	69	62.2	62.2	**100.0**
Total	**111**	**100.0**	**100.0**	

Source: Primary data, (2021)

Table 5 presents the linkages between the respondents' position and M&E or construction project activities. From 111 respondents, 18% of the respondents were linked to both M&E and Construction Projects, 9% of respondents were linked to construction projects only, 10.8% were linked to M&E only whereas 62.2% were neither linked to M&E nor Construction Project.

4.2 Presentation of Findings

This section presents findings of the research by examining the effect of M&E Planning on the performance of Construction project, assessing the impact of M&E staff training on the performance of Construction project, establishing the relationship between baseline surveys and the performance of Construction Project and determining the contribution of information system on the performance of Construction Project of IPRC Gishari in Rwamagana District - Rwanda.

Table 6: Existence of M&E Unit at IPRC Gishari

	Frequency	Percent	Valid Percent	Cumulative Percent
Don't know	4	3.6	3.6	**3.6**
No	25	22.5	22.5	**26.1**
Yes	82	73.9	73.9	**100.0**
Total	**111**	**100.0**	**100.0**	

Source: Primary data, (2021)

Table 6 presents the respondents opinions on the existence of M&E unit at IPRC Gishari. Out of 111 respondents, 73.9% said that the M&E unit existed, 22.5% said that there was no M&E unit whereas 3.6% said they didn't know whether there was an M&E unit or not.

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4.2.1 Performance of Construction Project

This subsection presents findings on the different measures for performance of construction project of IPRC Gishari which include whether the client was satisfied with the outcome of the project (beneficiary satisfaction), whether the project was completed within the expected time and whether the project was executed with the estimated cost. Table 7 below presents findings of the study on performance of the construction project for IPRC Gishari.

Table 7: Performance of Construction Project of IPRC Gishari

Statements	1	2	3	4	5	Total	
	%	%	%	%	%	Mean	Standard Deviation
The project was completed within the expected time	3.6	17.1	49.5	20.7	9.0	3.14	.933
The client was satisfied with the outcome of the project	.0	11.7	37.8	39.6	10.8	3.50	.841
The project was executed within the estimated cost	5.4	16.2	42.3	27.0	9.0	3.18	.993

Source: Primary data, (2021)

From Table 7 above, it can be noted that regarding whether the project was completed within the expected timelines, 3.6% strongly disagreed, 17.1% disagreed, 49.5% were not sure, 20.7% agreed whereas 9.0% strongly agreed. On whether the client (beneficiary) was satisfied with the outcome of the project 0.0% were strongly in disagreement, 11.7% disagreed, 37.8% were not sure, 39.6% agreed whereas 10.8% strongly agreed. On whether the project was executed within the estimated cost, 5.4% were strongly in disagreement, 16.2% disagreed, 42.3% were not sure, 27.0 agreed whereas 9.0% were strongly in agreement.

4.2.2 The effect of M&E Planning on the performance of Construction project

This subsection analyses findings on the effect of M&E planning on the performance of Construction Projects. It shows whether there was an M&E Plan conducted, how the M&E plan helped in understanding expectations of the project and how it predicted linkages between construction project components. This subsection also highlights how the M&E plan helped project team to understand the project logical framework, provided clarity on project resources, whether the purpose of M&E was clearly communicated and if the planning meetings involved everyone. Table 8 shows the rating of respondents' agreement on measures of M&E planning. The response items were constructed on a five-point Likert scale where: 1=Strongly Disagree, 2= Disagree, 3=Not Sure, 4= Agree, 5= Strongly Agree.

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Table 8: M&E Planning in IPRC Gishari Construction Projects.

Statements	1 %	2 %	3 %	4 %	5 %	Total Mean	Standard Deviation
M&E Plan conducted	1.8	8.1	25.2	41.4	23.4	3.77	.963
M&E plan helped in understanding expectations of the project	1.8	6.3	17.1	45.0	29.7	3.95	.942
M&E plan predicted linkages between construction project components	.0	8.1	24.3	49.5	18.0	3.77	.839
M&E plan helped project team to understand the project logical framework	.0	8.1	16.2	47.7	27.9	3.95	.878
M&E plan provided clarity on project resources	1.8	7.2	21.6	42.3	27.0	3.86	.962
Purpose of the M&E was clearly communicated	.0	8.1	31.5	40.5	19.8	3.72	.876
The planning meeting involved everyone	7.2	30.6	18.9	34.2	9.0	3.07	1.142
Satisfied with the level of planning for M&E	3.6	9.9	18.9	55.0	12.6	3.63	.953

Source: Primary data, (2021)

Table 8 presents the findings on M&E planning for IPRC Gishari construction projects. From 111 respondents, 1.8% strongly disagreed, 8.1% disagreed, 25.2% were not sure, 41.4 agreed whereas 23.4% strongly to the conduct of M&E planning. On whether M&E plan helped in understanding expectations of the project, out of 111 respondents, 1.8% were strongly in disagreement, 6.3% disagreed, 17.1% were not sure, 45% agreed whereas 29.7% were strongly in agreement.

On whether M&E plan predicted linkages between construction project components, 0% strongly disagreed, 8.1% disagreed, 24.3% were not sure, 49.5% agreed whereas 18% strongly agreed. On whether M&E plan helped project team to understand the project logical framework 0% were strongly in disagreement, 8.1% disagreed, 16.2% were not sure, 47.7% agreed whereas 27.9% were strongly in agreement. On whether M&E plan provided clarity on project resources, 1.8% were strongly in disagreement, 7.2% disagreed, 21.6% were not sure, 42.3% agreed whereas 27% were strongly in disagreement.

On whether the purpose of the M&E was clearly communicated, 0% were strongly in disagreement, 8.1% disagreed, 31.5% were not sure, 40.5% agreed whereas 19.8% were strongly in agreement. On whether the M&E planning meeting involved everyone, 7.2% were strongly in disagreement, 30.6% disagreed, 18.9% were not sure, 34.2% agreed whereas 9% were strongly in agreement. On whether the respondents were satisfied with the level of planning for M&E, 3.6% were strongly in disagreement, 9.9% disagreed, 18.9% were not sure, 55% agreed whereas 12.6% were strongly in agreement.

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Table 9: Correlation Analysis between M&E Planning and Construction Project Performance

		M&E Planning	Construction Project Performance
M&E Planning	Pearson Correlation	1	**.702****
	Sig. (2-tailed)		**.000**
	N	111	**111**
Construction Project Performance	Pearson Correlation	.702**	**1**
	Sig. (2-tailed)	.000	
	N	111	**111**

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

Source: Primary data, (2021)

From Table 9, the Pearson product correlation of M&E Planning and Construction Project Performance was found to be highly positive and statically significant ($r = .702$, $p < .001$). This shows that the conduct of M&E planning in construction projects leads to good construction project performance. Hence, **$H0_1$** was rejected.

4.2.3 The impact of M&E staff training on the performance of Construction project

This subsection presents findings about the impact of M&E staff training on the performance of construction projects. It highlights whether staff training was conducted before implementation of M&E, whether the training covered all aspects of the project sufficiently, was sufficiently done to prepare staff, clarified on project performance indicator and reporting tools used for M&E reports project deliverables, and it clarified on data collection, analysis, and channels of communication.

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Table 10: M&E staff training in Construction projects at IPRC Gishari

Statements	1	2	3	4	5	Total	
	%	%	%	%	%	Mean	Standard Deviation
Staff training was conducted before the M&E	4.5	13.5	39.6	34.2	8.1	3.28	.955
The training covered all project aspects sufficiently	6.3	9.0	41.4	36.0	7.2	3.29	.957
The training was sufficiently done to prepare staff	4.5	14.4	38.7	36.9	5.4	3.24	.927
The training clarified on Project performance indicators	2.7	11.7	36.9	44.1	4.5	3.36	.851
The training clarified on Reporting tools used for M&E reports Project deliverables	3.6	10.8	39.6	35.1	10.8	3.39	.946
Training clarified on data collection analysis and channels of communication	1.8	13.5	47.7	29.7	7.2	3.27	.852

Source: Primary data, (2021)

Table 10 presents the findings on different measures of M&E staff training variable. Concerning whether M& staff training was conducted as part of the M&E, out of 111 respondents, 4.5% strongly disagreed, 13.5% agreed, 39.6% were not sure, 34.2% agreed whereas 8.1 strongly agreed. On whether the training covered all project aspect sufficiently, 6.3% of the respondents strongly disagreed, 9% disagreed, 41.4% were not sure, 36% agreed whereas 7.2% strongly agreed.

On whether the training was sufficiently done to prepare staff, 4.5% strongly disagreed, 14.4 disagreed, 38.7% were not sure, 36.9% agreed whereas 5.4% were strongly in agreement. Concerning how the training clarified on project performance indicators, 2.7% strongly disagreed, 11.7% agreed, 36.9% were not sure, 44.1% agreed whereas 4.5% strongly agreed.

On how the training clarified on reporting tools used for M&E reports, 3.6% strongly disagreed, 10.8% disagreed, 39.6% were not sure, 35.1% agreed whereas 10.8% were strongly in agreement and on whether there was clarification on data collection, analysis and channels of communication, 1.8% strongly disagreed, 13.5 agreed, 47.7% were not sure, 29.7% agreed whereas 7.2% strongly agreed.

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Table 11: Correlation between M&E Staff training and Construction Project Performance

		M&E Staff Training	Construction Project Performance
M&E Staff Training	Pearson Correlation	1	**.691****
	Sig. (2-tailed)		**.000**
	N	111	**111**
Construction Project Performance	Pearson Correlation	.691**	**1**
	Sig. (2-tailed)	.000	
	N	111	**111**

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

Source: Primary data, (2021)

From Table 11, the Pearson product correlation of M&E staff training and Construction Project Performance was found to be moderately positive and statically significant ($r = .691$, $p < .001$). This shows that the conduct of M&E staff training in construction projects leads to good construction project performance. Hence, **$H0_2$** was rejected.

4.2.4 The relationship between Baseline Surveys and the performance of Construction Project

This subsection presents findings on the relationship between Baseline Surveys and the performance of Construction Projects. It specifically focuses on whether a Baseline Survey was conducted and how it helped in alignment of project activities to meet project plan. The subsection further presents findings on how the tools for Baseline Survey were clear and simple to use, how the Baseline Survey helped in understanding the current status of the project and whether the Baseline Survey was conducted before implementation of the project and covered all project components.

Table 12: Baseline Surveys in IPRC Gishari Construction Project

Statements	1 %	2 %	3 %	4 %	5 %	Total Mean	Standard Deviation
There was a baseline survey conducted for the project	1.8	11.7	42.3	32.4	11.7	3.41	.908
The baseline survey helped in alignment of project activities to meet project plan	.0	11.7	37.8	38.7	11.7	3.50	.851
Tools for baseline survey were clear and simple to use	1.8	11.7	45.0	27.9	13.5	3.40	.927
The baseline survey helped to understand the current status of project	1.8	9.9	35.1	39.6	13.5	3.53	.913
The baseline survey was conducted before implementation of the project and covered all project components	.0	11.7	39.6	36.0	12.6	3.50	.862

Source: Primary data, (2021)

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Table 12 presents findings on the various measures of the Baseline Survey variable. From 111 respondents, it can be noted that concerning there was a baseline survey conducted for the project 1.8% of the respondents strongly disagreed, 11.7% disagreed, 42.3% were not sure, 32.4 agreed whereas 11.7% strongly agreed. Regarding whether the baseline survey helped in alignment of project activities to meet project plan, 0% of the respondents strongly disagreed, 11.7% disagreed, 37.8% agreed whereas 11.7% strongly agreed.

Concerning whether the tools for baseline survey were clear and simple to use, 1.8% were strongly in disagreement, 11.7% disagreed, 45% were not sure, 27.9% agreed whereas 13.5% strongly agreed. On whether the baseline survey helped to understand the current status of project, 1.8% were strongly in disagreement, 9.9% disagreed, 35.1% were not sure, 39.6% agreed whereas 13.5% were strongly in agreement. Regarding whether the baseline survey was conducted before implementation of the project and covered all project components, 0% were strongly in disagreement, 11.7% disagreed, 39.6% were not sure, 36% agreed whereas 12.6% strongly agreed.

Table 13: Correlation Analysis between Baseline Surveys and Construction Project Performance

		Baseline Survey	**Construction Project Performance**
Baseline Survey	Pearson Correlation	1	**.593****
	Sig. (2-tailed)		**.000**
	N	111	**111**
Construction Project Performance	Pearson Correlation	.593**	**1**
	Sig. (2-tailed)	.000	
	N	111	**111**

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

Source: Primary data, (2021)

From Table 13, the Pearson product correlation of Baseline Survey and Construction Project Performance was found to be moderately positive and statically significant ($r = .593$, $p < .001$). This shows that the conduct of Baseline Surveys in construction projects leads to good construction project performance. Hence, **$H0_3$** was rejected.

4.2.5 The contribution of information system on the performance of Construction Project

This subsection presents findings on the different measures of the contribution of information systems on the performance of construction projects which include whether the information system in place captured and disseminated data in a timely and structured way and whether the information captured through the information system was useful for construction project management decisions.

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Table 14: Information systems in IPRC Gishari Construction Project

Statements	1 %	2 %	3 %	4 %	5 %	Total Mean	Standard Deviation
The information system captured data in a timely and structured way	.0	10.8	40.5	42.3	6.3	3.44	.771
The information system disseminated data in a timely manner	.0	10.8	40.5	42.3	6.3	3.44	.771
The information captured through the Information system was useful for construction project management decisions	.0	9.9	36.0	36.0	18.0	3.62	.895

Source: Primary data, (2021)

Table 14 presents findings on the various measures of information System variable. Out of 111 respondents, none was strongly in disagreement on whether the information system captured and disseminated data in a timely and structured way, whereas 10.8% disagreed, 40.55 were not sure, 42.3% agreed and 6.3% strongly agreed. It can also be noted from table 13 that none of the respondents strongly disagreed on whether the information captured through the Information System was useful for construction project management decisions whereas 9.9% disagreed, 36% were not sure, 36% agreed and 18% were strongly in agreement.

Table 15: Correlation Analysis between Information Systems and Construction Project Performance

		Information System	Construction Project Performance
Information System	Pearson Correlation	1	**.657****
	Sig. (2-tailed)		**.000**
	N	111	**111**
Construction Project Performance	Pearson Correlation	.657**	**1**
	Sig. (2-tailed)	.000	
	N	111	**111**

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

Source: Primary data, (2021)

From Table 15, the Pearson product correlation of Information System and Construction Project Performance was found to be moderately positive and statically significant ($r = .657$, $p < .001$). This shows that the availability and use of Information Systems in construction projects lead to good construction project performance. Hence, **$H0_4$** was rejected.

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4.2.6 Pearson correlation

A Pearson correlation test was used to determine the relationship between M&E Planning, M&E Staff Training, Baseline Survey and Information Systems as part of the independent variable and Construction Project Performance. Table 16 below shows the results.

Table 16: Pearson Correlation

		M&E Planning	M&E Staff Training	Baseline Survey	Information System	Construction Project Performance
M&E Planning	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	111				
M&E Staff Training	Pearson Correlation	.731**	1			
	Sig. (2-tailed)	.000				
	N	111	111			
Baseline Survey	Pearson Correlation	.737**	.726**	1		
	Sig. (2-tailed)	.000	.000			
	N	111	111	111		
Information System	Pearson Correlation	.701**	.681**	.741**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	111	111	111	111	
Construction Project Performance	Pearson Correlation	.702**	.691**	.593**	.657**	**1**
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	111	111	111	111	**111**

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

Source: Primary data, (2021)

From Table 16, it can be noted that M&E Planning, M&E Staff Training, Baseline Survey and Information System have a positive correlation with Construction project performance with correlation coefficient of r = .702, .691, .593 and .657 respectively with $p < .05$. This means that a positive change in the independent variable leads to a positive change in the dependent variable. However, this association does not represent a cause-and-effect relationship.

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4.2.7 Multiple Linear Regression Model Summary (MLRMS)

The MLRMS explains the contribution of the independent variable on the dependent variable their relationship.

Table 17: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.766[a]	.587	.571	**.50486**

a. Predictors: (Constant), Information System, M&E Staff Training, M&E Planning, Baseline Survey

Source: Primary data, (2021)

From Table 17, it can be concluded that M&E practices had a positive and significant contribution on Construction Project Performance at IPRC Gishari, Rwamagana District-Rwanda. This can be explained statically by the Adjusted R Square (.571) which shows that, keeping other factors constant, 57.1% change in the construction project performance of IPRC Gishari can be explained by the effectiveness of M&E Practices.

4.2.8 Analysis of Variance (ANOVA)

The ANOVA results in the Table 17 shows how the regression model predicts the outcome.

Table 18: Analysis of Variance (ANOVA[a])

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.359	4	9.590	37.624	**.000[b]**
	Residual	27.018	106	.255		

a. Dependent Variable: Construction Project Performance

b. Predictors: (Constant), Information System, M&E Staff Training, M&E Planning, Baseline Survey.

Source: Primary data, (2021)

From the Table 18, the ANOVA shows that the regression ($F(4,106) = 37.624$, $p=.000 <0.05$) which shows a statically significant and positive relationship between M&E Practices and the construction project performance

4.2.9 Regression coefficients

The regression coefficients shown in the table 19 are used to determine the level of significance of the effect of M&E Planning, impact of M&E staff training, the relationship between baseline surveys and the contribution of information system on the performance of Construction Project of IPRC Gishari in Rwamagana District - Rwanda.

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Table 19: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.314	.254		1.237	**.219**
	M&E Planning (X_1)	.363(B_1)	.108	.352	3.351	**.001**
	M&E Staff Training (X_2)	.313(B_2)	.098	.327	3.207	**.002**
	Baseline Survey (X_3)	-.092(B_3)	.106	-.095	-.870	**.386**
	Information System (X_4)	.254(B_4)	.099	.258	2.557	**.012**

a. Dependent Variable: Construction Project Performance

Source: Primary data, 2021

From regression coefficients Table 19, it can be noted that the coefficients of M&E Planning, M&E Staff training and Information System had a significant and positive effect on the construction projects performance of IPC Gishari, Rwamagana District-Rwanda which contradicts the null hypothesis of $H_0$1, $H_0$2 and $H_0$4. Baseline Survey had no significant and negative effect on the performance of construction project of IPRC Gishari, Rwamagana District-Rwanda which confirms the null hypothesis $H_0$3.

5.0 Summary

This section presents a summary of findings on the study of M&E Practices and Construction Project Performance; a case of IPRC Gishari in Rwamagana district-Rwanda. A total of 111 respondents were interviewed. If focusses on the specific objectives of the study.

Findings on the demographic characteristics of respondents shows that 3.6% of the respondents were female while 96.4% were male. The age of the respondents was distributed in a way that 10.8% were aged between 20 to 30 years, 80.2% were aged between 31-40 years, 6.3% were aged between 41 to 50 years whereas 2.7% were aged above 50 years.

The education level distribution was in such a way that 11.7% had an advanced diploma certificate, 73% had a bachelor's degree whereas 15.3% had a master's degree. From 111 respondents, 2.7% of respondents belonged to the executive team, 5.4% of respondents were heads of units whereas 91.9% belonged to staff.

Furthermore, it can be noted from the descriptive statistics that 73.9% agreed that IPRC Gishari had an M&E Unit, 22.5% disagreed whereas 3.6% didn't know whether the unit existed. The findings also revealed that 18% of the respondents' positions in the organization was linked to both M&E and construction projects, 9% were linked to only construction project, and 10.8% were linked to only M&E function whereas 62.2% belonged to neither M&E nor construction project.

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5.1.1 Findings on the performance of construction project of IPRC Gishari

This section summarizes finding on the performance of the Construction Project of IPRC Gishari where performance descriptors were the cost of the project, time and beneficiary or satisfaction. From the findings, it can be noted that regarding whether the project was completed within the expected timelines, 3.6% strongly disagreed, 17.1% disagreed, 49.5% were not sure, 20.7% agreed whereas 9.0% strongly agreed.

On whether the client (beneficiary) was satisfied with the outcome of the project 0.0% were strongly in disagreement, 11.7% disagreed, 37.8% were not sure, 39.6% agreed whereas 10.8% strongly agreed. On whether the project was executed within the estimated cost, 5.4% were strongly in disagreement, 16.2% disagreed, 42.3% were not sure, 27.0 agreed whereas 9.0% were strongly in agreement. Therefore, majority of the respondents were in agreement with the fact that the project was completed within the estimated cost and time and that the client was satisfied with the outcome of the project.

5.1.2 Findings on the relationship between M&E Planning and the performance of Construction project

This subsection summarizes findings on the relationship between M&E planning and the performance of Construction Projects. It shows whether there was an M&E Plan conducted, how the M&E plan helped in understanding expectations of the project and how it predicted linkages between construction project components. It also presents statistics on how the M&E plan helped project team to understand the project logical framework, provided clarity on project resources, whether the purpose of M&E was clearly communicated and if the planning meetings involved everyone.

From Table 8, out of 111 respondents, 1.8% strongly disagreed, 8.1% disagreed, 25.2% were not sure, 41.4 agreed whereas 23.4% strongly to the conduct of M&E planning. On whether M&E plan helped in understanding expectations of the project, out of 111 respondents, 1.8% were strongly in disagreement, 6.3% disagreed, 17.1% were not sure, 45% agreed whereas 29.7% were strongly in agreement.

On whether M&E plan predicted linkages between construction project components, 0% strongly disagreed, 8.1% disagreed, 24.3% were not sure, 49.5% agreed whereas 18% strongly agreed. On whether M&E plan helped project team to understand the project logical framework 0% were strongly in disagreement, 8.1% disagreed, 16.2% were not sure, 47.7% agreed whereas 27.9% were strongly in agreement. On whether M&E plan provided clarity on project resources, 1.8% were strongly in disagreement, 7.2% disagreed, 21.6% were not sure, 42.3% agreed whereas 27% were strongly in disagreement.

On whether the purpose of the M&E was clearly communicated, 0% were strongly in disagreement, 8.1% disagreed, 31.5% were not sure, 40.5% agreed whereas 19.8% were strongly in agreement. On whether the M&E planning meeting involved everyone, 7.2% were strongly in disagreement, 30.6% disagreed, 18.9% were not sure, 34.2% agreed whereas 9% were strongly in agreement. On whether the respondents were satisfied with the level of planning for M&E, 3.6% were strongly in disagreement, 9.9% disagreed, 18.9% were not sure, 55% agreed whereas 12.6% were strongly in agreement.

The multiple linear regression coefficient of $B_1 = .363$, with $p = .001<.05$ at a 5% level of significance shows that, M&E Planning had a statically significant and positive relationship

with the performance of Construction projects of IPRC Gishari in Rwamagana District-Rwanda.

It is notable that 36.3% of the variability in the performance of construction projects can be attributed to the effectiveness of M&E planning.

5.1.3 Findings on the relationship between M&E staff training and the performance of Construction project

This subsection summarizes findings about the relationship between M&E staff training and the performance of construction projects. It presents findings on indicators of M&E Staff training such as whether staff training was conducted before implementation of M&E, whether the training covered all aspects of the project sufficiently, was sufficiently done to prepare staff, clarified on project performance indicator and reporting tools used for M&E reports project deliverables, and it clarified on data collection, analysis, and channels of communication.

It was observed that concerning whether M& staff training was conducted as part of the M&E, out of 111 respondents, 4.5% strongly disagreed, 13.5% agreed, 39.6% were not sure, 34.2% agreed whereas 8.1 strongly agreed. On whether the training covered all project aspect sufficiently, 6.3% of the respondents strongly disagreed, 9% disagreed, 41.4% were not sure, 36% agreed whereas 7.2% strongly agreed.

On whether the training was sufficiently done to prepare staff, 4.5% strongly disagreed, 14.4 disagreed, 38.7% were not sure, 36.9% agreed whereas 5.4% were strongly in agreement. Concerning how the training clarified on project performance indicators, 2.7% strongly disagreed, 11.7% agreed, 36.9% were not sure, 44.1% agreed whereas 4.5% strongly agreed.

On how the training clarified on reporting tools used for M&E reports, 3.6% strongly disagreed, 10.8% disagreed, 39.6% were not sure, 35.1% agreed whereas 10.8% were strongly in agreement and on whether there was clarification on data collection, analysis and channels of communication, 1.8% strongly disagreed, 13.5 agreed, 47.7% were not sure, 29.7% agreed whereas 7.2% strongly agreed.

The multiple linear regression coefficient of $B_2 = .313$, with $þ = .002<.05$ at a 5% level of significance shows that, M&E Staff Training had a statically significant and positive relationship with the performance of Construction projects of IPRC Gishari in Rwamagana District-Rwanda. It is notable that 31.3% of the variability in the performance of construction projects can be attributed to the effectiveness of M&E Staff Training.

5.1.4 Findings on the relationship between baseline surveys and the performance of Construction Project

This subsection summarizes findings on the relationship between Baseline Surveys and the performance of Construction Projects. It specifically focuses on whether a Baseline Survey was conducted and how it helped in alignment of project activities to meet project plan. The subsection further presents findings on how the tools for Baseline Survey were clear and simple to use, how the Baseline Survey helped in understanding the current status of the project and whether the Baseline Survey was conducted before implementation of the project and covered all project components. From 111 respondents, it can be noted that concerning there was a baseline survey conducted for the project 1.8% of the respondents strongly disagreed, 11.7% disagreed, 42.3% were not sure, 32.4 agreed whereas 11.7% strongly agreed. Regarding whether the baseline survey helped in alignment of project activities to meet project plan, 0%

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of the respondents strongly disagreed, 11.7% disagreed, 37.8% agreed whereas 11.7% strongly agreed.

Concerning whether the tools for baseline survey were clear and simple to use, 1.8% were strongly in disagreement, 11.7% disagreed, 45% were not sure, 27.9% agreed whereas 13.5% strongly agreed. On whether the baseline survey helped to understand the current status of project, 1.8% were strongly in disagreement, 9.9% disagreed, 35.1% were not sure, 39.6% agreed whereas 13.5% were strongly in agreement. Regarding whether the baseline survey was conducted before implementation of the project and covered all project components, 0% were strongly in disagreement, 11.7% disagreed, 39.6% were not sure, 36% agreed whereas 12.6% strongly agreed.

The multiple linear regression result coefficient of $B_3 = -.092$, with $þ = .386 > .05$ at a 5% level of significance shows that, baseline surveys had no statically significant and negative relationship with the performance of Construction projects of IPRC Gishari in Rwamagana District-Rwanda.

5.1.5 Findings on the relationship of information system with the performance of Construction Project

This subsection summarizes findings on the different measures of the relationship of information systems with the performance of construction projects which include whether the information system in place captured and disseminated data in a timely and structured way and whether the information captured through the information system was useful for construction project management decisions

Out of 111 respondents, none was strongly in disagreement on whether the information system captured and disseminated data in a timely and structured way, whereas 10.8% disagreed, 40.55 were not sure, 42.3% agreed and 6.3% strongly agreed. It can also be noted from table 14 that none of the respondents strongly disagreed on whether the information captured through the Information System was useful for construction project management decisions whereas 9.9% disagreed, 36% were not sure, 36% agreed and 18% were strongly in agreement.

The multiple linear regression coefficient of $B_4 = .254$, with $þ = .012 < .05$ at a 5% level of significance shows that, Information systems had a statically significant and positive relation with the performance of Construction projects of IPRC Gishari in Rwamagana District-Rwanda.

5.2 Conclusions

The study concluded that M&E practices had a positive and statically significant relationship with Construction Project Performance at IPRC Gishari, Rwamagana District-Rwanda. This is explained statically by the Adjusted R Square (.571) which shows that, keeping other factors constant, 57.1% change in the construction project performance of IPRC Gishari can be explained by the effectiveness of M&E Practices.

Furthermore, the Pearson correlation showed that M&E Planning, M&E Staff Training, Baseline Survey and Information System had a positive correlation with Construction project performance with correlation coefficient of $r = .702, .691, .593$ and $.657$ respectively with $p < .05$. This means that a positive change in the independent variable led to a positive change in the dependent variable. However, this association did not represent a cause-and-effect relationship.

The multiple linear regression coefficients of the measures of the independent variable showed that M&E Planning, M&E Staff training and Information System had a statically significant and positive relationship with the construction projects performance of IPC Gishari, Rwamagana District-Rwanda which contradicts the null hypothesis of $H_0$1, $H_0$2 and $H_0$4. Baseline Survey had no significant and negative relationship with the performance of construction project of IPRC Gishari, Rwamagana District-Rwanda which confirms the null hypothesis $H_0$3

5.3 Recommendations

The researcher recommends that organizations should always engage in M&E practices in all Construction projects specifically M&E planning, M&E staff training, baseline surveys and information systems. This is because these M&E practices helps to effectively and efficiently manage available resources to achieve project goals such as cost, schedules and beneficiary satisfaction.

In the conduct of M&E planning, organizations should ensure that the plan clarifies to the project team the Construction Project goals, predict linkages between construction project components, help the team to understand logical framework as well as clearly define resources available for the project. M&E Staff Training should ensure that all project participants are trained and that the training content is relevant to the project needs.

The M&E Staff training should cover the M&E systems, project key performance indicators (KPIs), data collection, analysis, and presentation approaches. Despite the fact that there was no statically significant association of baseline surveys to construction project performance, when performed, baseline surveys help in determining the current status of the project and hence can help in evaluation of the impact of the project.
The use of Information systems is of paramount importance in construction projects, these help in data recording, processing, and tracking of project progress. The project's environment such as the political, legal and environmental aspects must also facilitate the construction project implementation

5.4 Suggestions for further study

This study focused on only M&E planning, M&E staff training, baseline surveys and information systems as measures of M&E practices. Further studies should be conducted on other M&E practices which were not covered by this study and their effect on Construction project performance.

Measures of construction project performance were also limited to cost, time and beneficiary satisfaction which are not exhaustive. Further studies should be done on more measures of construction project performance taking into account different moderating factors.

Lastly, this study focused on the M&E practices and the construction project of IPRC Gishari in Rwamagana district-Rwanda, yet there are many more construction projects that are carried out in Rwamagana and other districts of the country and even globally meaning the results of this study may not be representative of all construction projects. Therefore, further studies should be conducted on a good sample of all construction projects to determine representative findings on the effect of M&E Practices on construction project performance.

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