

Moderating Influence of Contextual Determinants on Relationship between Monitoring and Evaluation Practices and Performance of County Maternal Health Programmes in Kenya

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Abstract

Effective monitoring and evaluation practices is widely known to help improve performance, the quality and effectiveness of planning and decision making and achievement of results. This is because monitoring focuses on the implementation process and progress towards the achievement of project objectives. Despite the Kenya Government's effort to promote County Maternal Health programmes through legal frameworks such as the county integrated monitoring and evaluation practices tool, and while there is empirical evidence that monitoring and evaluation practices contributes to enhanced performance, actual performance of county health sector across Kenya remains poor. The purpose of the study was to establish moderating influence of contextual determinants on the relationship between monitoring and evaluation practices and performance of County Maternal Health programmes in Kenya. The paradigm that is suitable for this study is pragmatism. The study adopted a descriptive survey research design. The study targeted 8 regional blocks in Kenya (Central, Western Coast, Eastern, Rift Valley, North Eastern, Nyanza, Nairobi) where one county from each block was selected. From these counties the target population was 1165 respondents including Medical officers, Clinical Officers, Trained Community health workers, Nurses, County Health Management Team and County Delivery Unit officers from level 4 and 5 hospitals. Sampling procedure for this study was guided by the research design which is descriptive survey design. Stratified random sampling was used to obtain 282 respondents from which information was obtained for this study. The research instruments that were used for data collection are: a self-administered structured questionnaire and interview guides. Descriptive and inferential data analysis techniques were used in this study. Regression was conducted for testing the study hypothesis. The research established that there was a strong correlation between the performance of county maternal health programmes and contextual determinants ($r=0.638$, $p=0.000<0.05$). The study found that after introduction of contextual determinants into the relationship, and the interaction term in model 2 increased the R square by 0.08. This implies that the interaction between contextual determinants and monitoring and evaluation practices explains 8.0% variations in performance of county maternal health programmes. The study concluded that contextual determinants significantly moderate the relationship between monitoring and evaluation practices and performance of County Maternal Health Programmes in Kenya. The study recommends investing in robust and dynamic technical coordination platforms that can sustain the agenda for change. and at all levels is necessary to ensure the sustainability of M&E reforms in the health sector.

Keywords: project performance, monitoring and evaluation, project objectives, contextual determinants, M&E reforms, technical coordination platforms

1. Introduction

The rising globalization of the economy led to increased need for monitoring and evaluation solutions worldwide as a vital dynamic to boost the performance of County Maternal Health programs. Monitoring is a continuous process that aims to collect and evaluate data on various factors related to the organization's goals and operations. It provides key stakeholders with objective and detailed information on the progress of the organization (Mayer et al., 1995). An ongoing or completed project, policy, program, including its design, implementation, and results, is evaluated in an objective and systematic manner.

The evaluation principles are important in enhancement of the performance of the County Maternal Health programmes. Therefore, unindustrialized nations are putting all the efforts in strengthening the current systems of monitoring and evaluation. As per World Health Organization (WHO) (2015), each nation requires a powerful system of monitoring and evaluation (M&E) to strategically plan the nations' health sector. All key programmes and health activity need to be covered by this system. This system should help in monitoring and evaluation of the effectiveness of the programmes. It should also ensure that the management is accountable and effective. A lot of nations don't possess powerful system of monitoring and evaluation, resulting in a reduction in their capability of using systems effectively.

The challenges affecting global efforts to improve performance of the County Maternal Health programmes have been analyzed by several scholars (Elmusharaf, Byrne & O'Donovan, 2015; Banchani & Tenkorang, 2014; Wamalwa, 2015 & Kasina, 2016) and they have been numerous and almost uniform in middle developed economies like India, Malaysia and the least developed countries (LDCs) like the sub-Saharan Africa economies. United Nations Children's Emergency Fund (UNICEF) (2013) categorizes issues that govern the health of mothers and their infants into two categories; environmental and economically structured challenges. Environmental issues such as malnutrition among the under-five year's old children have been identified as a global challenge for the delivery of maternal health programmes in the 21st century (Black *et al*, 2008).

There has been some achievement in millennium development goals four and five over the last ten years. However, these achievements are uneven across various regions and countries. Both the under-five and maternal mortality rates are noted to have been increasing (UNICEF, 2013). In relation to the above realization, governments and various development agencies have increased their efforts to develop and implement various Maternal Child Health (MCH) programmes to curb the number of mothers dying, the pains of poor deliveries and the sorrow of mothers losing their young ones (WHO, 2012). Globally, studies by scholars like Alfred (2015), Ijeoma (2010) have focused on MCH program implementation in African countries; with 57% of all maternal deaths occurring on the continent, Africa has the highest maternal mortality rates in the world, despite improvements in MCH program implementation. According to Alfred, in Bangladesh complications arising from pregnancy related conditions and childbirth contribute to more deaths and disability compared to any other reproductive health problems. This state is worsening as the Bangladesh population is ever increasing and the rate at which County Maternal Health care programmes have been implemented is insufficient for the last 2 decades. United Nations Population Fund (UNFPA) (2010) shows that, due to inadequate access to modern health services or proper planning and implementation of MCH programmes, the country is losing its glory of achieving the SDGs

Despite the government's commitment to increasing common people's access to health services through initiatives such as the Essential Service Package (ESP), uptake of health services and implementation of various health programs, particularly those aimed at women and infants, remains below the acceptable standard in Kenya (World Bank, 2011). The utilization of health services and the implementation of constantly suggested MCH projects by various donors and the government has been a difficult behavioral issue since the 1990s.. According to studies on preventive and curative services, health services use is linked to treatment availability, quality, and cost, as well as social structure, attitudes, and the user's distinctive features (UNICEF, 2013).

1.1 Statement of the Problem

Maternal Health is an important and fundamental human right and a key indicator of sustainable development. Poor infrastructure, limited financial resources from both the federal government and stakeholders, a lack of experienced people to handle the conditions of pregnant women, poorly informed customers, particularly those in rural regions, on MCH services and their value, and the amount of technology deployed have all hampered the implementation of Maternal Health programs. M&E systems have helped to enhance Maternal Health around the world by recording and assessing the many difficulties that mostly concern low-income countries. M&E inefficiency is one of the major management stages that have played a key role in government institution operations failure. This is a result of focus of monitoring on the process of implementation as well as progress towards the project objectives achievement (Ediau & BEH, 2012).

Despite the Kenya Government's effort to promote Maternal Health Programmes, the performance is still poor. Failure in monitoring and evaluation (M&E) activities challenge Kenya Vision 2030 on the plans for a healthy population contributing to building of the country. Furthermore, this poor performance occurs as Kenya strives to achieve worldwide universal health coverage by 2030. The Kenya Vision 2030's Social Pillar aimed to invest in individuals to enhance the quality of life for all Kenyans by focusing on a variety of human and social welfare projects and programs, including health as a significant sector. One of the four main areas of focus for the current government under the Big4 Agenda is Universal health coverage which aimed at up scaling health services Kenya

among them being County Maternal Health services (Kenya Health Sector Strategic and Investment Plan 2012-2027). County Maternal Health has also earned support at the national and county levels, particularly through the Beyond Zero Campaign project, which intended to eliminate unnecessary deaths among women and children through prioritization of policy, financial allocation, and enhanced service delivery. The campaign aimed to develop on present systems of health and community by mobilizing private and public sector contributions, catalyzing innovation and fast-tracking action by political and stakeholders leaders, and promotion of leadership and accountability at the community, family and national levels for the full execution of Kenya's, maternal, Human Immunodeficiency Virus (HIV) and child health policies.

According to the Kenya Demographic and Health Survey (KDHS) conducted in 2008-09, 47 percent of pregnant women attend at least four Antenatal Care (ANC) visits. At least four ANC visits are made by 60% of women in urban areas, compared to only 44% of women in rural areas. According to the report, most pregnant women received antenatal care late in their pregnancy; only 15% of pregnant women received antenatal care during their first trimester, and the average month of first visit is 5.7 (Kenya National Bureau of Statistics (KNBS) and International Coaching Federation (ICF) Macro, 2010). Despite rising ANC attendance in Kenya, deliveries in health facilities remain low, with only 43% of all live births occurring in a modern health facility in the five years before the 2008-09 KDHS (KNBS and ICF Macro, 2010). Kenya's 2009 National Reproductive Health Strategy aimed to reduce the Measles, Mumps, and Rubella (MMR) to at least 147 deaths per 100,000 live births by 2015, as well as raise the number of women utilizing competent care during delivery to 90%. The aim has yet to be met when compared to the 2008 KDHS MMR of 488 fatalities per 100,000 live births.

Prior to the implementation of maternal health programs in Kenya, approximately 20% of deliveries took place in health facilities, with only 7% of newborns being resuscitated by skilled health workers trained in neonatal resuscitation and 22% being born in health facilities with resuscitation equipment (KDHS, 2009). The Kenyan government developed a long term development blue-print (Vision 2030) which articulates the country's development goals including health goals- "to provide equitable and affordable healthcare at the highest quality standards". The key focus areas in the health sector are access, equity, quality, capacity, and institutional framework. Counties have several obstacles in developing and implementing Monitoring and Evaluation (M&E) systems at this early stage. The proposed M&E Policy and Framework, which are critical to the formalization of the M&E institutions that are being formed, have yet to be finalized. In certain counties, M&E units are not yet operational, and where they are, they may lack the necessary skills and capability. The M&E reports of counties that have created M&E units are not adequately coordinated, resulting in the usage of diverse M&E terminologies and ideas. The County Maternal Health programs continue to suffer as a result of the aforementioned problems. In Kenya, the number of girls and women dying from childbirth and other pregnancy-related causes is still high, at 510 per 100,000 live births. The goal is to reduce global maternal mortality to fewer than 70 per 100 000 live births between 2016 and 2030 as part of the Sustainable Development Agenda.

Several studies have been conducted on monitoring and evaluation practices. Likalama (2017) conducted a survey of selected private schools in Kenya's Uasin Gishu County to determine the impact of monitoring and evaluation on financial performance. Barasa (2014) investigated the impact of M&E capacity building on completion of projects in Kenya, using the example of Constituency Development Fund Projects in Kakamega County. The studies did not focus on M&E techniques and performance of County Maternal Health programs, or the moderating role of contextual variables. Therefore, this study aimed at contributing to the understanding of the moderating influence of contextual determinants on the relationship between M&E practices and performance of County Maternal Health programmes in Kenya.

1.2 Research Hypotheses

H₁: Contextual determinants significantly moderate the relationship between monitoring and evaluation practices and performance of County Maternal Health Programmes in Kenya.

H₀: Contextual determinants don't significantly moderate the relationship between monitoring and evaluation practices and performance of County Maternal Health Programmes in Kenya.

1.3 Contextual Determinants of Performance of County Maternal Health Programmes

Contextual factors are characteristics that define an institution's internal and external environments, which can influence organizational behavior and outcomes to a higher extent. The organizational structure is primarily considered to denote activity configuration that is typically durable and definite; the organizational structure's prominent quality is its inherent orderliness. The majority of structure descriptions concentrate on a wide range of patterned regular features.. The structure is explained as the specified organization framework, with official functions and procedures aligned. The relationships and work roles among positions in the organization, as well

as among people of the organization, have been defined as a result of the provision of communication channels (Okello & Mugambi, 2015).

The goal of structure in health authorities is to divide work, jobs, and responsibilities among the members of the organization, so structuring the coordination of their operations so that they all work toward the same goals and objectives. Jobs, authority to perform job duties, logical grouping of jobs, manager control span, and coordination mechanisms are all part of an organization's structure. Therefore, when implementing the strategy for technology, the decision making should be regarding the structure of the organization. This includes decisions based on employment into County Maternal Health Programs and divisions, the scope of a manager's control, and the control mechanisms of such a structure (Chawla, Berman & Kawiorska, 2012).

The leadership in County Maternal Health Program of health is key in enhancing the performance of the organization as well as in maximizing the organizations' efficiency and effectiveness. Leadership capability exists on both a personal and a collective level, which when combined leads to organizational leadership (Kivipold & Vadi, 2010). Leadership is also a whole organization property where shared qualities of leadership are entrenched in the systems and structure of the organization. Researchers who focused on the technological leadership reform in academic institutions highlights the significance not just for implementation of Information Technology (IT), but for successful IT implementation. Leadership is a key part of successful technology use. Leadership of the organization needs to be efficient in intellectual as well as comprehension for it to give a clear future vision. There must be a clear communication of the vision to majority of the staff who are later engaged and motivated rather than direct guidance. IT needs to top the priority list of any leader as technology and information utilization by an organization is a representation of the main differentiator in the modern business competitiveness. It is vital to evaluate the extent to which organizational leadership influences the deployment of Electronic Project Monitoring Information System (e-ProMIS) based on the preceding research findings. Transformational and transactional leadership were the two styles of organizational leadership evaluated in this study.

The culture of the County Maternal Health Program consists of a shared pattern of common expectations that a group learns as it addresses external adoption and internal incorporation problems that have been working effectively for years, and thus new members must be taught the proper manner of perceiving, thinking, and feeling in response to the challenges. Culture of an organization culture is deliberated to be among the significant parts in improving as well as preventing innovation. As a result of influencing the behavior of an employee, it might result in the staff accepting the innovation as a key organization value. Recently, the dimension of the culture most contemporary branches of management studies have highlighted in includes management of supply chain, IT, customer affairs as well as management of knowledge. Regardless of the significance given to the culture as an innovation stimulant, studies particularly unindustrialized republics have remained restricted which will then be basis of this study (Nitithamyong & Skibniewski, 2010).

The development of significant IT skills is essential for electronic based technologies execution in health officials. This as a result of the fact that absence of the skills makes maintenance and adoption of the technologies impossible. The IT skills are highly valued as they assist in Web-based project management information system implementation. This calls for training of the staff either through formal training or learning from the peers. The Nitithamyong and Skibniewski (2010) case studies back these views and recommend that those using the technology needs formal training on the working of the system or its relationship to the processes of the business during the early execution. They recommend the conduction of the training on project teams to reap greater benefits from using technology in their work. Additionally, persistent opportunities for training need to be given to improve the varying necessities and support the members of the team who join the project later.

2. Theoretical Review

The study was founded on the program theory developed by Bickman et al. (2011) which comprise numerous statements that explain a specific program, explain how, why and under what conditions program impacts occur, forecast program outcomes, and identify the prerequisites necessary to achieve optimal program outcomes. The program hypothesis has been utilized to manage assessment for a long time; it demonstrates the ability of the program to fix an issue by tending to the requirements in the need appraisal. It additionally offers instruments to decide territories of effect in assessment (Rogers, 2014)

Program Theory organizes an evaluation by identifying essential program components and explaining how they are used to identify with one another (Donaldson & Lipsey, 2014). Then, inside the structure, data collection strategies are created to determine the magnitude and nature of each component's even. When gathered, the information are dissected inside the structure. To start with, information that has been gathered by various strategies or from various sources on a similar program component are triangulated. Stake (2016) presented a methodology

that asks for illustrating the program's planned precursors (whatever should happen before it goes live), exchanges (exercises and yields), and outcomes. The data on the current work is compared to what was anticipated and what the benchmarks for that type of program are.

Another early advocate hypothesis, Weiss (1972) prescribed utilizing way outlines to show the groupings of ventures between a projects' intercession and the ideal results. This sort of easygoing model enables the evaluator to distinguish the variable to incorporate into the assessment, find where in the chain of occasions the succession separates, and stay receptive to alterations in program usage that may influence the example delineated in the model.

In today's assessment practice, program hypothesis is defined as the creation of a plausible and reasonable model of how a program should function (Briceño, 2010) or a set of recommendations on what goes on operating at a profit box during the change on contribution to yield, that is, how a bad situation is changed into a better one. It's also referred to as the process by which program portions are challenged to impact outcomes. Rossi (2012) defines program hypothesis as "the authoritative arrangement that governs how to collect, create, and deliver assets, as well as how to sort out program activities with the purpose of producing and maintaining the planned administration framework." The hypothesis also oversees the administration utilization plan, which considers how the projected target populace receives the anticipated mediation through communication with the project's benefit conveyance framework. Finally, it considers how the suggested intervention for the selected target population achieves the optimal social benefits (impacts). According to Patton (2008), advantages of the hypothesis-based structure to observation and assessment include the ability to attribute venture results to specific undertakings or exercises and the ability to discern unforeseen and unwanted program or task effects. Hypothesis-based assessments enable the evaluator to explain why and how the program is working in this way.

Checking and evaluating the capabilities of executives is a personally connected endeavor, so attempting to get them to deal with assignments causes a great deal of bewilderment (Crawford & Bryce, 2013). The need of checking and evaluating is undeniable. As a result, this theory assumed a few key roles in the appraisal process. As a result, this theory was important to the study in terms of the application of monitoring and evaluation findings, technical data management, and monitoring plan implementation.

3. Conceptual Framework

The link between independent variables, dependent variables and moderating variables is depicted in Figure 1.

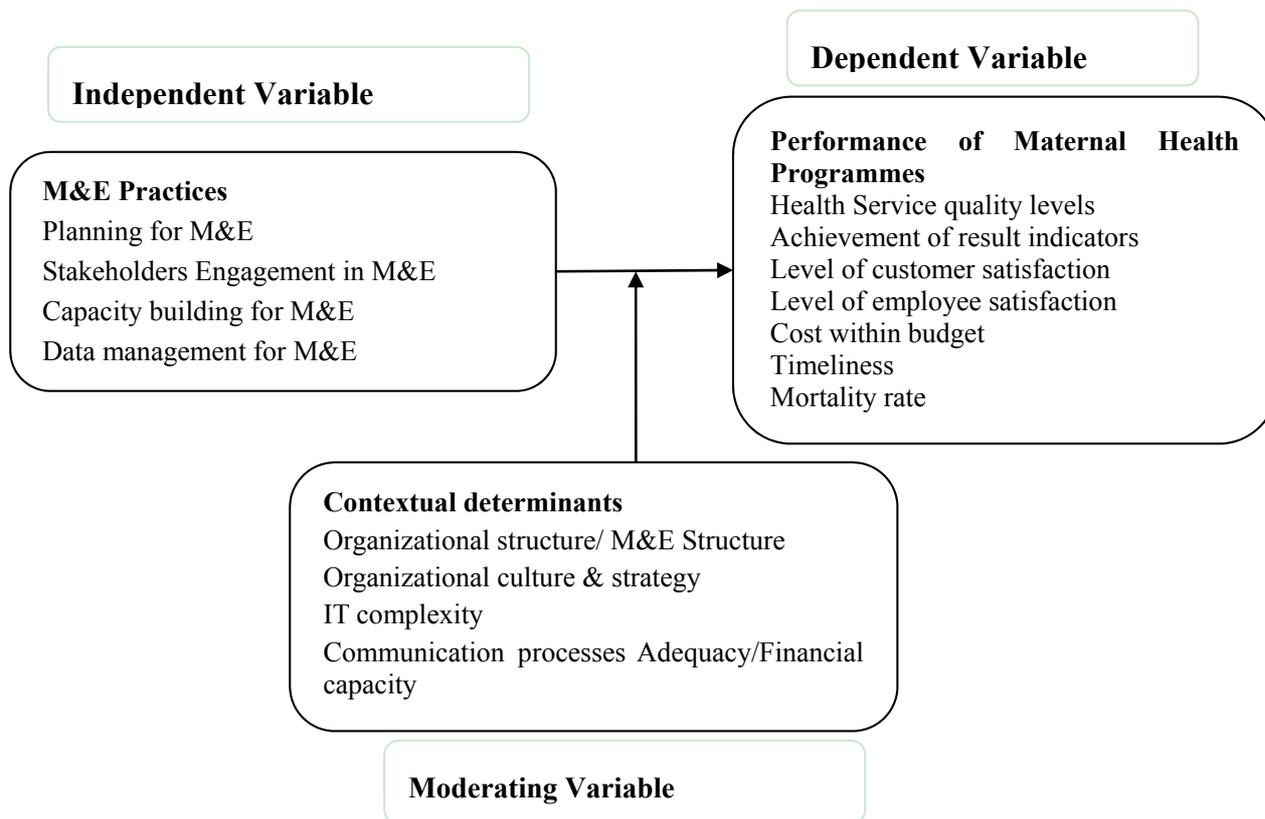


Figure 1. Conceptual framework

4. Research Methodology

4.1 Research Design

The study adopted a combination of descriptive research design, correlational, observational and cross-sectional design. Mixed method enables a study develop a more complete understanding of a phenomenon from complementary data sources. The collection of designs was useful in enhancing accuracy since it allowed triangulation for comparing and contrasting quantitative and qualitative findings for corroboration and validation. Quantitative data was used to provide the study to work with a large sample of the population that gave the statistical power to look at influence and empirical associations among the variables.

4.2 Target Population

The study targeted 8 regional blocks in Kenya (Central, Western, Coast, Rift Valley, Eastern, Nyanza, Nairobi, North Eastern) where one county from each block was selected using simple random sampling. From these counties the target population comprised Medical officers, Nurses, Clinical Officers, County Health Management Team (CHMT), Trained Community health workers and County Delivery Unit officers from level 4 and 5 hospitals. The study considered medical staff from all the regional blocks in Kenya for representation and allow for generalization of data on maternal health programmes. The medical staff was also selected as they are familiar with maternal health programmes.

4.3 Sample Size and Sampling Procedure

The sample size of 282 was attained using (Yamane, 1967) simplified formula. This formula was used to compute the size of the sample as shown in the formula

$$n = \frac{N}{1+N(e)^2}$$

Where; **n** is the sample size
N is the population size and
e is the margin of error ($e = 0.05$)

$$n = \frac{1165}{1+1165(0.05)^2}$$

$$= 282$$

Stratified random sampling was used to obtain a sample from each stratum. Stratified random sampling has been chosen because it ensures small groups are represented in the sample. The categories will form strata from which the study sample was obtained. The formation of strata is based on the county officials linked to health sector making each stratum a group of units with special characteristics. The number of targeted Counties was 9 with 388 Hospitals having a total 1165 staff.

4.4 Research Instruments

In this study primary data was used. The research instruments that were used for data collection are: a self-administered structured questionnaire and interview guides. A self-administered questionnaire was used to collect quantitative data. The interview guides and observation checklist was used to collect qualitative data.

Pilot testing was done to pretest the quality of research instruments in their ability to measure study concepts. During pilot testing, 32 questionnaires were administered to staff in the Ministry of Health headquarters in Kenya and selected counties at random representing 10% sample size. The results of the pilot test formed the basis for refining questionnaire items before administering the questionnaire on the study population. Burns et al (2008) suggest that the role of pretesting is to gain knowledge on how the questionnaire would be interpreted by the respondents. Pretesting is important for testing the appropriateness of measures, in order to gain insight as to whether the same questions were answered consistently in the same way.

4.5 Validity of Research Instruments

Construct validity, criteria validity, and content validity are the three basic types of validity. A number of tests were carried out to ensure construct validity. One of the measures was to have my superiors assess the questionnaire for appropriateness and meaning. Other approaches included soliciting feedback from a panel of experts in the subject to see whether constructs were being measured accurately. To further enhance construct validity or suitability of indicators factor analysis was done using principle component analysis (PCA) and those indicators found not to be suitable was left out in further statistical analysis. Factor loading for each item will also give an indication as to whether the constructs are distinct from each other (Thong & Olsen, 2012). Similarly, the items in the instruments were examined for appropriateness and intelligibility by the same panel of experts for content validity.

The recommendations of experts including that of my supervisors and conclusions from pilot testing was used to review the research instrument items where necessary in as far as retaining meaning, change or elimination of questions (Achoki et al., 2019). Adzobu (2015) argues that the wording of questions should not lead to multiple answers to the same question by the same individual. Care therefore was taken to ensure respondents answer to what questions address by ensuring construct and content validity of instruments.

4.6 Reliability of Research Instruments

Reliability was enhanced by use of split half method on the questionnaire. The reliability of the instrument was tested to determine the usefulness of the questionnaires to the current study. Burns et al (2008) argue that reliability testing is important for new questionnaires because they have not been used in previous studies and therefore their reliability is not known. To test reliability through split half method, items of the same construct was split into two to obtain two sets from same questionnaire. However, during piloting the entire instrument was administered to a population similar to that of the study area. The credibility of the qualitative instruments was ensured through consultations with research experts and the supervisors. Split half method for reliability requires only one administration of questionnaire to respondents. The administered questionnaire test results were split into two using an even and odd approach. Total scores for each half of scores were calculated for each respondent. Correlation between even and odd test results was computed to obtain a Cronbach's Alpha coefficient. A Cronbach Alpha reliability coefficient varies from 0 and 1. According to Creswell (2012) reliability of 0.7 and above is considered sufficient. The instruments were considered reliable if the Cronbach Alpha reliability coefficient is 0.7

and above. Cronbach's alpha, which is calculated as follows, was used to determine the study instrument's reliability coefficient:

$$\alpha = \frac{k}{k-1} \times \left[\frac{1 - \sum (S^2)}{\sum S^2 \text{ sum}} \right]$$

Where: α = Cronbach's alpha
 k = Number of responses
 $\sum (S^2)$ = Variance of individual items summed up
 $\sum S^2 \text{ sum}$ = Variance of summed up scores

4.7 Data Collection Procedures

The primary data was collected from the respondents in all counties by the research assistants. The research assistants used drop and pick later method of questionnaire administration. Other questionnaires were filled in the presence of research assistants to avoid loss of questionnaires. The County Governors or their deputies, County executive committee members for health (CEC health), County chief officers for health (CO health), County directors of health, the in charge of maternal health at the county level and Maternal health Non-Governmental Organisation (NGO) officials working in the region were interviewed by the researcher assisted by well-trained research assistants.

4.8 Data Analysis Techniques

This study utilized the descriptive and inferential statistics. Data was analyzed using the Statistical Package for the Social Sciences (SPSS version 25). Qualitative data was analyzed within specified themes using descriptive narratives. Quantitative data was descriptively analyzed by use of central tendencies and measures of dispersion measures. The measure of central tendency was the arithmetic mean while standard deviation was the measure of dispersion for data obtained from interval scales and ratio scales. The standard deviation determined how strong or weak data is from the measure of central tendency which is arithmetic mean. Stepwise regression was conducted for the hypothesis to measure the strength of the link between the moderating, predictor, and response variables. The hypothesis that contextual determinants significantly moderate the link between M&E practices and performance of County Maternal Health Programmes in Kenya was tested by use of two models. Model 1 without moderating and model two with moderating variable included.

Step one: Influence of M&E practices on Performance of County Maternal Health Programmes in Kenya

In the first model, Monitoring and evaluation practices influence on Performance of County Maternal Health Programmes in Kenya was tested, with the equation adopted as

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where

Y = Performance of County Maternal Health Programmes

X_1 = Planning for M&E

X_2 = Stakeholders engagement in M&E

X_3 = Capacity building for M&E

X_4 = Data management for M&E

ε = Error term

Step Two: Influence of Moderated M&E practices by Contextual Determinants on Performance of County Maternal Health Programmes in Kenya

In the second model, contextual determinants was introduced to the model with the equation adopted as $Y = \beta_0 + \beta_1 X_1 * X_5 + \beta_2 X_2 * X_5 + \beta_3 X_3 * X_5 + \beta_4 X_4 * X_5 + e$

Where:

- Y = Performance of County Maternal Health Programmes in Kenya
- a = Constant
- β = Coefficient
- X₁ = Planning for M&E
- X₂ = Stakeholders engagement in M&E
- X₃ = Capacity building for M&E
- X₄ = Data management for M&E
- X₅ = Contextual determinants
- e = error term

From the models, the percentage change in R² between the models was used to test whether there is a moderating influence of contextual determinants. According to Ludwig et al. (2014), if the difference between R² (Magnitude of moderation) in Model 2 and Model 3 is between 0 to 0.02 implies a very weak moderating effect, 0.02 to 0.04 implies weak moderating effect, 0.04 to 0.05 implies strong moderation and above 0.05 implies very strong moderating effect of contextual determinants on the link between the M&E practices and performance of County Maternal Health Programmes in Kenya.

5. Research Findings

The study hypothesis stated, “Contextual determinants do not significantly moderate the association between M&E practices and performance of County Maternal Health Programmes in Kenya”. The goal is to determine how the predictor variables vary when a moderating variable is introduced in the model. The model was as follows:

$$Y = \beta_0 + \beta_1 X_1 * (X_5) + \beta_2 X_2 * (X_5) + \beta_3 X_3 * (X_5) + \beta_4 X_4 * (X_5) + e$$

Where:

- Y = Performance of County Maternal Health Programmes in Kenya
- a = Constant
- β = Coefficient
- X₁ = Planning for M&E
- X₂ = Stakeholders engagement in M&E
- X₃ = Capacity building for M&E
- X₄ = Data management for M&E
- X₅ = Contextual determinants
- e = error term

Stepwise regression method comprised of three models was used to test the moderating influence of contextual determinants on relationship between monitoring and evaluation practices and performance of County Maternal Health Programmes in Kenya.

Step one: Influence of M&E Practices on Performance of County Maternal Health Programmes in Kenya

In step one, the independent variable M&E practices was regressed on performance of County Maternal Health Programmes in Kenya. The outcomes are presented in Table 1.

Table 1. M&E practices and performance of county maternal health programmes in Kenya

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	0.849	0.721	0.714	1.490		
ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	921.983	4	230.496	101.895	1.02E-42
	Residual	357.41	158	2.262		
	Total	1279.393	162			
Regression Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.267	0.182		6.962	.001
	Planning for M&E	0.889	0.143	0.859	6.217	.014
	Stakeholder engagement for M&E	0.895	0.245	0.838	3.653	.013
	Capacity building for M&E	0.802	0.212	0.796	3.783	.007
	Data Management for M&E	0.911	0.265	0.855	3.438	.016
Predictors: (constant), Planning for M&E, Stakeholder Engagement for M&E, Capacity Building for M&E, Data Management for M&E						
Dependent Variable: Performance of County Maternal Health Programmes						

Step Two: Influence of Monitoring and Evaluation Practices and Contextual Determinants on Performance of County Maternal Health Programmes in Kenya

In step two the influence of the moderator (contextual determinants) was introduced into the model between M&E practices and performance of County Maternal Health Programmes in Kenya. The outcomes are presented in Table 2.

Table 2. M&E practices, contextual determinants and performance of county maternal health programmes

Models Summary						
Model	R	R Square	Adjusted R Square	Std. Error	F	p-value
1	0.849	0.721	0.714	1.490	134.785	.000
2	0.929	0.862	0.858	0.949	260.874	.000
Model	Sum of Squares		Df	Mean Square	F	Sig
1	Regression	921.983	4	230.496	101.895	1.02E-42
	Residual	357.41	158	2.262		
	Total	1279.393	162			
ANOVA						
Model	Sum of Squares		Df	Mean Square	F	Sig
1	Regression	909.918	5	181.984	196.910	9.97E-66
2	Residual	145.099	157	0.924		
	Total	1055.017	162			
Regression Coefficients						
		Unstandardized Coefficients		Standardized Coefficients	T	Sig
		B	Std. Error	Beta		
	(Constant)	1.278	0.191		6.691	.000
	Planning for M&E	0.817	0.311	0.718	2.627	.009
	Stakeholder engagement for M&E	0.612	0.217	0.609	2.820	.005
	Capacity building for M&E	0.599	0.278	0.489	2.155	.032
	Data Management for M&E	0.789	0.316	0.611	2.497	.013
2	Contextual determinants	0.576	0.104	0.459	5.538	.000
Predictors: (constant), Planning for M&E, Stakeholder Engagement for M&E, Capacity Building for M&E, Data Management for M&E, Contextual determinants						
Dependent Variable: Performance of County Maternal Health Programmes						

The results in Table 2 indicate that after introducing contextual factors into the association, and the interaction term in model 2 increased the R square by 0.08. This implies that the interaction between contextual determinants and monitoring and evaluation practices explains 8.0% variations in performance of county maternal health programmes. F was at $F(5, 157) = 196.910$, $p < 9.97E-66 < 0.05$ and therefore the overall moderating influence was substantial. As a result, the null hypothesis was rejected, and it was determined that the significant association between M&E techniques and performance of Kenyan County Maternal Health Programs is influenced by contextual factors.

6. Conclusions

The study aimed to establish the moderating influence of contextual determinants moderates on the link between M&E practices and performance of County Maternal Health Programmes in Kenya. The study concluded that contextual determinants are very important since they moderate the link between M&E practices and performance of County Maternal Health Programmes in Kenya. The study concluded that the aim of structure in health officials is to divide work, duties, and obligations among the members of the organization, thus coordinating the coordination of their activities so that they all work toward the same goals and objectives. Jobs, authority to perform work duties, hierarchical grouping of jobs, manager control span, and coordination process are all part of an organization's structure. As a result, when implementing a technology plan, decisions should be made in light of the organization's structure.

7. Recommendations

Investment in strong and dynamic technical coordination structures that can sustain the change agenda at all times and at every level is needed to guarantee the sustainability of M&E health sector reforms. Advocacy should begin with a stakeholders' roundtable on M&E, which was also used to develop an annual capacity enhancement plan with full resource commitment by different partners and stakeholders, using the platform of the health data collaborative and other Technical Working Groups (TWGs) for engaging leadership at the Ministry of Health (MOH) and at the county level. Within the collaborative framework, the health sector M&E TWG should bring together development partners at the national level around the HDC roadmap for M&E strengthening. According to the report, the county government should ensure that all hospitals have enough staff to support the success of maternal programs. Furthermore, it is suggested that hospital administration be flexible and provide a free working environment where employees can freely express their opinions on the services provided.

As moderating variables, the study focused solely on contextual determinants. As a result, the study suggests that more research be done on other moderating variables affecting the relationship between monitoring and assessment techniques and effectiveness of County Maternal Health programs, such as legal compliance.

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