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**INTEGRATED MANAGEMENT SYSTEM FOR
CONTINUOUS MEDICAL EDUCATION IN
KENYA**

SYNERGY Informatics Ltd.

**FINAL EVALUATION OF TECHNICAL AND
FINANCIAL REPORTS**

To

AFRINIC Ltd.

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Table of Contents

| | |
|--|-----------|
| EXECUTIVE SUMMARY | 3 |
| I. CONTEXT AND DESCRIPTION | 3 |
| II. PURPOSE AND EXPECTED USE | 3 |
| III. OBJECTIVES | 4 |
| IV. FINDINGS AND CONCLUSIONS | 4 |
| V. KEY RECOMMENDATIONS | 4 |
| THE EVALUATION | 5 |
| 1. BACKGROUND INFORMATION | 6 |
| 1.1. PURPOSE | 6 |
| 1.2. AUDIENCE AND USE | 6 |
| 1.3. OBJECTIVES | 7 |
| 1.4. METHODOLOGY | 7 |
| 1.5. TEAM..... | 9 |
| 2. THE PROJECT | 10 |
| 2.1. CONTEXT | 10 |
| 2.2. UNDERLYNG RATIONALE | 11 |
| 2.3. STAKEHOLDERS AND BENEFICIARIES | 12 |
| 2.3.1. Stakeholders | 12 |
| 2.4. CONCEPTUAL MODEL..... | 13 |
| 2.4.1. Resources and activities | 13 |
| 2.5. RESULT CHAIN AND LOGICAL FRAMEWORK..... | 14 |
| 2.6. PROJECT MONITORING SYSTEM | 14 |
| 2.7. EVALUATION FINDINGS | 15 |
| 2.7.1. DESIGN..... | 15 |
| 2.7.2. EFFECTIVENESS..... | 15 |
| 2.7.3. EFFICIENCY OF PLANNING AND IMPLEMENTATION | 16 |
| 2.8. RECOMMENDATIONS | 18 |

EXECUTIVE SUMMARY

I. CONTEXT AND DESCRIPTION

FIRE is a Grant and Awards program designed by AFRINIC in order to support and encourage the development of solutions to information and communication needs in the Africa Region. It places particular emphasis on the role of the Internet in the social and economic development for the benefit of the African community.

Launched in May 2012, the program is partly funded by two donors: IDRC and SIDA International Development Agencies. In 2013, AFRINIC selected eleven grant recipients which received 10 000 USD each for their project.

The grantees are bound by several obligations, which are among other things:

- Implementation and use of the project funds solely to perform the objectives and activities of their project
- Use the funds in accordance with the budget set out in their application
- Submission of an Interim and a Final Report in accordance with AFRINIC's report guidelines outlined in the Memorandum of Grant Conditions.

II. PURPOSE AND EXPECTED USE

AFRINIC required this evaluation in order to confirm that the project is run in accordance with the following criteria:

- Quality and reliance of design
- Effectiveness
- Efficiency of implementation
- Impact and potential of sustainability
- Replicability

AFRINIC also requires this evaluation to be run on the basis of the Interim and Financial Reports sent by the project in accordance with their obligations.

III. OBJECTIVES

AFRINIC requires this evaluation to ensure of the following:

- The project meets identified objectives;
- Enhance the Design and the implementation of FIRE programme;
- Demonstrate and Improve the impact of the various projects on the local community;
- Develop recommendations to improve the implementation and the monitoring of future projects;
- Ensure that funds allocated to the various projects are used efficiently and within the initial identified scope.

IV. FINDINGS AND CONCLUSIONS

The project paid an important attention to achieve the activities as planned but it is also important to pay attention to certain details as the quality of the financial report. Overall, the project has been well implemented and should have an important impact on the community.

V. KEY RECOMMENDATIONS

This project has great potentials of success and a long-term social impact. However, various recommendations could be made to ensure complete success. The project team should develop additional tools to ensure the uptake by the older doctors. To capitalize on the experience acquired from the ministry of information on project implementation, we recommend an archiving system to be set up and maintained by Synergy Inc.

A clear strategy should be put in place to ensure that all the results will be correctly disseminated and that the contribution effort asked from practitioners will be really followed. It is also important to continue the efforts started to enable financial sustainability of the project.

THE EVALUATION

1. BACKGROUND INFORMATION

1.1. PURPOSE

AFRINIC required this evaluation in order to confirm that the project is run in accordance with the following criteria:

- Quality and reliance of design
- Effectiveness
- Efficiency of implementation
- Impact and potential of sustainability
- Replicability

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- Develop recommendations to improve the implementation and the monitoring of future projects;
- Ensure that funds allocated to the various projects are used efficiently and within the initial identified scope.

This evaluation is also required by AFRINIC in order to help the project in its implementation in accordance with the Memorandum of Grant Conditions.

1.2. AUDIENCE AND USE

The stakeholders who will make use of the evaluation reports are:

1. FIRE programme – AFRINIC
2. International Development Research Center (IDRC)
3. Swedish International Development Agency (SIDA)
4. The grantees
5. Prospective applicants to FIRE program

1.3. OBJECTIVES

AFRINIC requires this evaluation to ensure of the following:

- The project meets identified objectives;
- Enhance the Design and the implementation of FIRE programme;
- Demonstrate and Improve the impact of the various projects on the local community;
- Develop recommendations to improve the implementation and the monitoring of future projects;
- Ensure that funds allocated to the various projects are used efficiently and within the initial identified scope.

1.4. METHODOLOGY

The evaluation methodology is linked with the objectives, the evaluation questions and the type of evaluation.

| Evaluation criteria | Key Results Areas | Evaluation questions | Data sources |
|----------------------------|---|--|---|
| Design | Assess the extent to which the project responds to priority issues and identified objectives. | <ul style="list-style-type: none"> • Are the project objectives still valid? • Has the project team put in place the appropriate strategies? • Are there major risks that have not been taken into account? | <ul style="list-style-type: none"> • Design documentation. • Project objectives. • Interim and final technical reports. |
| Effectiveness | Assess the project major key results. | <ul style="list-style-type: none"> • Are the obtained results aligned with planned objectives? • Are the results in acceptable both in terms of the quantity and their quality? | <ul style="list-style-type: none"> • Interim and final technical reports. • Project management plan. • Result monitoring report. |
| Efficiency | Assess the extent to which: - Project plan has been | <ul style="list-style-type: none"> • To which percentage has project plan been achieved to date? | <ul style="list-style-type: none"> • Project management plan. |

| | | | |
|-----------------------|---|---|---|
| | <p>followed;</p> <ul style="list-style-type: none"> - Project reports are up to date. | <ul style="list-style-type: none"> • Are expenses aligned with established budget? • Have data collected archived for future use? | <ul style="list-style-type: none"> • Monitoring and control reports. • Financial reports. • Interim and final technical reports. |
| Impact | <p>Assess to which extent the project will have a long-term positive impact on local community.</p> | <p>To which extent has the project's general objectives and final goals been achieved?</p> | <ul style="list-style-type: none"> • Project objectives • Interim and final technical reports. • FIRE programme objectives |
| Sustainability | <p>Assess to which extent the project has been socially and politically adopted by the local community.</p> | <ul style="list-style-type: none"> • Will the project contribute to long-term benefits? • Would the long-term benefits be materialized by the implementation of an organization? • What are the costs implications for scaling up impact? • Are there savings that could be made without compromising delivery? | <ul style="list-style-type: none"> • Project benefits report. • Project cost report. • Project monitoring report. |

1.5. TEAM

M. Kenneth SANVI, PMP, is a Canadian Consultant in International Development, specialized in all areas of project management. M. SANVI is a seasoned expert with many audits and evaluations projects in several countries in Africa. He is also a trainer in many areas among which, monitoring and evaluation.

Ms. Rebecca GIDEON, CISA will perform the evaluation of Information Technology aspects of the reports. Ms. Gideon is an experienced Information Technology professional with over seven years of diversified experience.

2. THE PROJECT

2.1. CONTEXT

This project goal is to improve the quality of health care provided to the Kenyan population by having well trained and updated health care specialists, whilst ensuring their availability at their workstations to serve the sick.

It aims at improving the provision, monitoring and management of continuous medical education for health care workers in Kenya. The project hinges on e-learning and m-learning concepts and digitization of doctors management systems.

Doctors are thus able to access continuous medical education material via the Internet or their mobile phones wherever they are. The Kenya Dentist and Medical board, the regulatory body of doctors, will approve this material.

Doctors are required by law to have done a certain amount of Continuous Medical Education (CME) for quality in order to have their practice licenses renewed. Unfortunately most CME activities are done in form of conferences and meetings in the capital city Nairobi and few other towns.

Thus doctors spent a lot of time traveling and are out of hospitals where they are needed to attend to patients especially in rural areas. Moreover, there is no evaluation at the conferences in terms of their impact on doctors' knowledge and ultimately medical practice.

The project has both E-CME (Internet based) and M-CME (mobile based) material for doctors who will access them reliably, conveniently and at reduced cost. The other aspect is the digitization of doctors' management systems. Once a doctor does an E-CME, points are awarded instantly enabling him/her to monitor progress. Furthermore, doctors can scan their training certificates and apply for initial registration electronically without traveling to the capital. Payment and licenses renewal can be made online. On the other end, the regulatory body will have data on doctors available in each part of the country at certain time and on their uptake of CME, which will assist with doctor redistribution to avoid skewed concentration in cities.

Last but not least, the project shall assist with archiving important doctors' documents including their qualifications, certifications and licenses previously maintained digitally by the board as back up.

2.2. UNDERLYNG RATIONALE

Synergy informatics offers innovative solutions to improve medical training, practice and research with the ultimate goal of improving the quality of health care delivery to the population.

This project takes advantage of the rapid growth of Internet and mobile technology in Kenya to get solutions in the health care delivery especially in medical information access and delivery as well as medical human resources management.

Kenya currently has approximately 67% mobile phone penetration and has acute shortage of health care providers and thus the need to develop innovative ways to enhance their capacity, maximal utilization and their overall management. E-Learning and m-Learning, in general e-Health, have not been adopted in most African countries. Yet there lie potential innovative ideas and solutions to the problems facing health care delivery in Africa.

This project objective can be summarized as follow:

1. Enhance the access and delivery of Continuous Medical Education (CME) material to doctors by developing E-CME and M-CME platform;
2. Enhance the monitoring and reporting of Continuous Medical Education (CME) and Continuous Professional Development (CPD) activities by the Kenya Medical and Dentist Board;
3. Develop integrated system to enable initial online registration of doctors, annual renewal and monitoring of distribution of doctors at the workstations;
4. Develop and maintain a digital back up to the doctors' records and information including certificates.

2.3. STAKEHOLDERS AND BENEFICIARIES

2.3.1. Stakeholders

- a. FIRE programme – AFRINIC
- b. International Development Research Center (IDRC)
- c. Swedish International Development Agency (SIDA)
- d. The grantees
- e. Prospective applicants to FIRE program
- f. Kenya Medical Practitioners and Dentist Board
- g. Kenyan healthcare providers
- h. Kenyan population

2.3.2. Users & Beneficiaries

- a. Healthcare providers

Doctors with reliable Internet connection or a mobile device will be able to have easy access to up to date medical information.

- b. Kenyan population

Population in rural areas will be well served by better-trained practitioners, with up dated information on technics. Practitioners will also be able to spend more time with the population attending their needs instead of having to travel hundreds of kilometres to attend CME activities.

- c. Kenya Medical Practitioners and Dentist Board

The KMPDB will benefit with an application that will enable prompt monitoring of CME update by practitioners, online payment of renewal for practice licenses and initial registration of doctors. It will also enable them to better track doctors' distribution over the country and keep a digital databank of doctors' information and documents.

d. Kenyan Government

A direct benefit of the application is a better doctor to patient ratio. As doctors will not have to travel long hours anymore to attend CME activities, they will have more time to care for their patients and would be able to provide a better quality of healthcare.

e. CPD Providers

Organizations and institutions in charge of creating learning content and events for healthcare providers will be able to make them available via an online portal.

2.4. CONCEPTUAL MODEL

2.4.1. Resources and activities

Synergy Informatics manages this project in partnership with the Kenya Medical Practitioners and Dentist Board, which will be the administrator of the system. The head of daily operations at Synergy Informatics was the chief executive officer. He has been supported by 2 information technology staff. The CEO worked with team of 4 directors of the company with regular scheduled meetings, plus meetings from time to time.

The following activities have been identified:

- a. Development of the IMCS software;
- b. Organization of a workshop with CPD providers;
- c. Organization of workshops to training KMPDB staff to use software;
- d. Development of online CPD materials;
- e. Organization of a training activities for doctors to learn how to use the software;
- f. Promotional activities to enrol doctors in the programme.

2.4.2. Expected results

This project aims at developing an online and mobile platform that will:

- a. Enable medical practitioners to have remote access to Continuous Medical Education;
- b. Enhance monitoring and reporting capabilities of KMPDB in regards to practitioners access to CME;

- c. Enhance registration and renewal process of practitioners licenses;
- d. Ensure that practitioners can dedicate more time to patients, as they now don't have to travel to have access to CME.

2.5. RESULT CHAIN AND LOGICAL FRAMEWORK

To implement this project, the team closely collaborated with the Kenyan Medical Practitioners and Dentist Board as they will be the administrator of the system. A software was developed and training workshops organized to help various stakeholders make use of the tool.

The report clearly described how the different stakeholders have been involved in the project implementation. KMPDB contacts were used to market and publicize the platform. They also organize an initial all day conference for CPD providers from all over the country.

The CPD providers were trained on the use of platform and made aware of the guidelines that would be followed in project implementation. Up to 85% of all CPD providers attended the national training in Nairobi.

CPD providers were involved in the registration and mobilization of their members to register in the platform. Platform champions were also recruited at every CPD provider.

Social media has been also employed with the use of Facebook and twitter.

The Kenya government has also supported the project team through the ministry of information and communication.

The generation gap was a major challenge for the project team during the dissemination. In effect, the older doctors have found difficult to embrace use of new information technology and social media. The second challenge encountered is the organization of the regional training sessions due to the large geographical area. The third one was the size of the project team which could not allow them to attend all the workshops and to continue the daily project work.

2.6. PROJECT MONITORING SYSTEM

It appears that the project team has been keeping record of practitioners, CPD providers registered, CPD activities reported on the portal. There is no indication however of how project lifecycle has been monitored and data archived

2.7. EVALUATION FINDINGS

2.7.1. DESIGN

➤ Valid objectives

The project objectives remain valid throughout the project lifecycle. In effect, all of the project's outputs identified have been delivered. Project team has also ensured that the dissemination of the results of the project is effective. The fact that other countries show interest in the project results demonstrates the real importance of the objectives of the project.

➤ Appropriate strategies

To ensure a good success, project team worked in close collaboration with KMPDB and CPD providers. Various workshops were organized to enable stakeholders to better understand the application. CPD activities were then developed and made available online and communications efforts deployed to inform stakeholders. In effect, a Facebook group as well as twitter account were created. In view of the above, it appears that project team has a defined strategy laid out. The final report clearly stated how the project team conducted the different activities in order to achieve the objectives. It also clearly demonstrated how the project team has ensured that the results would be disseminated.

The fact that more than within 10 months of implementation over two thirds of active doctors nationally have registered in the platform is an indication of how well the project went.

➤ Major risks not accounted for

Based on the report, there were three major challenges encountered during the implementation stage. The first one was due to the gap generation. In effect, the older doctors (50 years or more) found it difficult to embrace use of new information technology and social media.

The second challenge faced is the dimension of the country. In effect, to organize and attend the regional training sessions on such a large geographical area revealed to be very difficult.

The last one is due to the fact of being a small organization with minimal staffing, mainly technical staff. Thus, it became a challenge to have the whole staff in regional trainings for several days with none of them left to continue with other aspects of the project.

2.7.2. EFFECTIVENESS

➤ Results aligned with planned objectives

Based on the report, results obtained are aligned with planned objectives. Nevertheless, the development of online CPD activities is still an ongoing activity as nearly half of all doctors have not been reached. In addition, the 30 CPD providers' trainings is still an on-going activity due to

the fact that it's been hard to bring several providers at a single venue. Despite of these challenges, the results seem to be aligned with planned objectives, as per the report.

➤ Results acceptability

As previously stated, we can make an objective assessment of the acceptability both in terms of neither quantity nor quality of results obtained. Even though there are some on-going activities, all the obtained results have been obtained according to the planning established and the quality reflected seems to be more than expected.

2.7.3. EFFICIENCY OF PLANNING AND IMPLEMENTATION

➤ Percentage of achieved project plan

Based on the report we can assess that most of the activities have been completed. Nevertheless, there remain some practitioners and CPD providers that have not yet registered on the platform. In addition, some of the CPD providers' trainings have not been completed yet.

➤ Expenses aligned with budget

It is important to ensure that financial reports reflect budget categories that were originally approved. It is also important when filling up the report, to indicate budgeted amounts as well as expenditures and display variances. Indeed, we can notice on the basis of reports submitted, the emergence of new categories of expenditure. As such, we have noticed the following expenses that were not budgeted and for which an explanation should be provided:

- Tablet computer;
- Project Manager (2 additional units);
- Marketing Representative;
- Graphic designer;
- Operational Research;
- Trip to Zambia.

This point had already been mentioned in the interim report but the final report does not bring complementary explanations to the addressed lacks.

➤ Archive of collected data

The archiving process has not been defined in this report. Though we can assume that some form of archiving is being performed, we recommend that project team clearly articulate which data are being collected and how the archiving is being performed.

2.7.3. IMPACT

➤ General objectives and final goals achieved

The project main objective is the provisioning of a mean to ease CME for medical practitioners while facilitating record keeping for the KMPDB. Though the application has been conceived and deployed, general adoption of it remains to be achieved. Based on the final report, 3,100 over a total of 5,000 Kenyan and 90 CPD providers over a known total of 145 have registered on the platform. Communication and dissemination efforts should continue to be made with the expectation to achieve a 100% adoption rate.

➤ Long-term benefits contribution

Several benefits have been identified and can be classified in these two main categories:

a. Administrative

Medical practitioners in Kenya are required to take CME activities. The KMPDB is responsible of monitoring these activities and ensuring that practitioners follow them. They are also responsible of ensuring that licenses are renewed and that all practitioners are registered. This project eases this process by providing an electronic platform for practitioners to take the CME activities, KMPDB to easily follow evolution of doctors CME activities and process renewal and registration of practitioners.

b. Social Impact

Current practice requires practitioners to travel to the capital city for CME activities. This project enables them to take activities online or via a mobile device thus allowing them to spend more time with their patients.

Based on the report, the project implementation had attracted a grant from the World Bank via the ministry of Information. The project team also managed to elicit interest of the Ugandan Medical regulatory body and they expressed interest in having the project team develop and implement a similar project for their doctors.

In addition, other medical cadres of staff in Kenya including nurses and clinical officers are keen to have a similar management system for their CPD activities.

To enable financial sustainability, an annual subscription fee could be levied to help support the project.

2.8. RECOMMENDATIONS

This project has great potentials of success and a long-term social impact. However, various recommendations could be made to ensure complete success. The project team should develop additional tools to ensure the uptake by the older doctors. To capitalize on the experience acquired from the ministry of information on project implementation, we recommend an archiving system to be set up and maintained by Synergy Inc.

A clear strategy should be put in place to ensure that all the results will be correctly disseminated and that the contribution effort asked from practitioners will be really followed. It is also important to continue the efforts started to enable financial sustainability of the project.