UNIVERSIDAD PARA LA COOPERACIÓN INTERNACIONAL
(UCI)

PROPOSAL TO CREATE A PROJECT MANAGEMENT OFFICE (PMO)
At the Annotto Bay Hospital -(ABH)

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FINAL GRADUATION PROJECT
SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
MASTER IN PROJECT MANAGEMENT (MPM) DEGREE

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APPROVAL PAGE

UNIVERSIDAD PARA LA COOPERACIÓN INTERNACIONAL
(UCI)

This Final Graduation Project was approved by the University as
partial fulfilment of the requirements to opt for the
Master in Project Management (MPM) Degree

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DEDICATION

This work is dedicated to my husband, son, and my mom who in many ways supported me through the development of this research and to the Annotto Bay Hospital for serving as the model for this thesis.

ACKNOWLEDGMENTS

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ABBREVIATIONS AND ACRONYMS

- ABH — Annotto Bay Hospital
- CT — Computed Tomography
- FGP — Final Graduation Project
- NERHA — North East Regional Health Authority
- P3M3 — Portfolio, Programme, and Project Management Maturity Model
- PE — Project Executive
- PfM3 — Portfolio Management Maturity Model
- PgM3 — Programme Management Maturity Model
- PM3 — Project Management Maturity Model
- PMI — Project Management Institute
- PMO — Project Management Office
- PPP — Public-Private Partnerships
- SEI — Software Engineering Institute
- SW-CMM — Software Capability Maturity Model
- WBS — Work Breakdown Structure

EXECUTIVE SUMMARY (ABSTRACT)

The Annotto Bay Hospital (ABH) is one of two hospitals in the parish of St. Mary; the only type B general hospital for the parish of St. Mary. To upgrade from a type B to a type A facility, projects related to improvements in medical offerings and increased physical infrastructure are needed to be done. The hospital does not have a dedicated project management unit to undertake projects locally. The Project Unit at the North East Regional Health Authority (NERHA) has been assigned the task of overseeing or implementing projects for over 70 facilities in the region which has resulted in unhappy stakeholders and cost overrun. The deadline for project completion is sometimes ambiguous.

The primary purpose of this research is to facilitate guided project endeavours through implementation of a project management office (PMO) on-site at the Annotto Bay Hospital.

The general objective of this project was to develop a project management office proposal for the Annotto Bay Hospital to facilitate local approval and management of all the projects undertaken at the facility. The specific objectives were: to perform a maturity analysis for determining the organisational needs in project management, to identify the role and function of the PMO and its specific staffing needs, to establish the functions that the PMO should have on the Hospital to progress toward upgradation a to Type A facility, and to create an implementation plan for the PMO at ABH besides managing all projects executed locally.

The analytical approach methodology was used in this research. Questions were asked from the top management at the hospital to the regional project office and the data was analysed. Theories and existing data were used to compare the new findings.

The maturity assessment concluded that besides weaknesses in certain facets of project management such as stakeholder and risk management, the Annotto Bay Hospital has strengths in some areas such as financial management. Following the review of three basic types of PMO's, it was concluded that the directive type of PMO was most suitable for the Hospital. The proposed PMO would have the main responsibilities of establishing project methodologies, project tracking, and project support.

In response to the main objective of the project, a PMO is essential and should be developed to allow ABH management to focus on the core duties of operational management at the facility.

In accordance with the results of the research, some recommendations are:

The performance of a maturity assessment at least every two years to update the status of ABH as well as the establishment of a routine review programme every six months to evaluate the PMO's relevance should be done. These recommendations will advice key management whether the facilitly will be better suited to another PMO

type. A review panel should be implemented within management and staff structure to review the role of the existing PMO and identify its adequacy or deficiency thereof.

The implementation of a PMO is recommended on a systematic basis to allow a smooth transition and successful implementation through consulation and meetings with the relevant stakeholders in a timely manner.

1. INTRODUCTION

1.1. Background

The Annotto Bay Hospital (ABH), the larger hospital in the parish of St. Mary, is located on the northern coast of Jamaica, which is one of the island's primary tourist destinations. Though the town of Annotto bay is estimated to house less than 5,600 residents, the hospital is located on the border of parish of Portland and close to the parish of Kingston where celebrities and socialites come to enjoy vacations. It is a farming town and boasts acres of banana and coconuts.

The Annotto Bay Hospital is the most advanced hospital in St. Mary. To get the hospital to its current state and offerings, numerous public-private partnerships (PPP) and charitable work have been done through projects. ABH is a Type B hospital that handles critical cases from all the local health centres in St. Mary and Portland; in addition to its own patients, critical cases from Port Antonio and Port Maria hospitals are also taken care of. The ABH is also a trailblazer in scientific education by hosting the annual laparoscopic conference with overseas doctors and opportunities for hands-on practice for attendees. This conference is the only one of its kind within the NERHA. A facility like this with high patient volume, including trauma cases, should have been a Type A hospital to begin with.

The characteristics of a Type B facility include its location in an urbanised area and the provision of in and outpatient services. In addition, there are four main specialties under which the services offered are classified: - Paediatrics, Obstetrics and Gynaecology, Internal Medicine, and General Surgery.

To upgrade to a Type A hospital, ABH must undertake several projects to expand the physical infrastructure for offering additional imaging services

such as Computed Tomography (CT) and Ultrasonography. Additional wards and clinics are to be built to offer additional disciplines such as Ophthalmology, Dermatology, and Psychiatry. Besides the training and development of the medical, paramedic, and administrative staff, new equipment will need to be procured. Undoubtedly, the acquisition of new employees will have to take place to meet the growing demands of the healthcare system at ABH.

The absence of a PMO at the ABH to undertake regionally beneficial programmes weighs heavily on the rate of development of the facility. Currently, the Project Unit based at the NERHA office cannot realistically process and implement each project for four general hospitals, seventy-three health centres, and two community hospitals, spanned across three parishes, at an acceptable pace. The regional office is located at a journey of over an hour from the Annotto Bay Hospital.

1.2. Statement of the problem

Besides sorting of projects with regards to importance at ABH, the problem at hand is lack of organisation in project implementation, monitoring, and control. Projects are not locally managed at the facility level which leads to poor stakeholder relations, undefined project scope, and a financial overrun of projects. The benefits of the projects undertaken may not readily be identified and felt by the stakeholders throughout the parish of St. Mary. This pushes the prospect of upgradation to a Type A facility further down the pipeline.

As the more specialised hospital in that parish, the procurement and maintenance team should be able to successfully lead small, medium, and even large-scale projects. Their efforts need to be compounded with a suitable project manager and team. This way they could focus on procuring the requisite services and material along with carrying out repairs on existing infrastructure for development. These primary functions are often neglected

while working on several projects simultaneously, bit by bit, to appear more productive.

This is the opportunity for the absence of a semi-autonomous PMO at the ABH to become a thing of the past. The health region has the mandate of operation and management of the health facilities it governs. However, some smaller scale projects may fall prey to oversight and delay owing to lack of importance. Not being on the ground of the hospital affects how the regional project unit deals with incoming project requests.

The imminent need for a PMO is propelled by the dire necessity of having a Type A facility in the North East Regional Health Authority.

1.3. Purpose

There is still much to be accomplished of the many projects undertaken at the ABH largely due to lack of communication with stakeholders, such as staff members, about recommendations or specifications since they utilise resources to provide care and sponsors. These scenarios are all too familiar as the regional PMO may not get all the details of every project due to lack of human resources to cover all the projects submitted from the almost 80 health facility that the region governs.

Employees of the ABH are first hand witnesses to the efforts being put in by management to develop the facility. However, they are aware that more efforts are needed to be done. The need for a more formalised project management has led to the formulation of a study to determine the most suitable type of PMO for a type B facility.

The identification of a suitable PMO will lead to the establishment of a local PMO at the ABH. This will improve the project management process at the local level by providing semi-autonomy to the ABH to undertake projects

relevant to its facility. Ultimately, the process for a facility upgradation will have a working timeline.

1.4. General objective

To develop a project management office proposal for the Annotto Bay Hospital to facilitate local approval and management of all the projects undertaken at the facility.

1.5. Specific objectives

- To perform a maturity analysis to determine the organisational needs in project management. This will be measured using the P3M3 Project Management (PM) Assessment Tool.

- To identify the role and function of the PMO and its specific staffing needs.The role and function of the PMO will be generated from the results of the P3M3 PM Assessment Tool.

- To establish the functions that the PMO should have in the Hospital to progress toward upgradation a to Type A facility. Specific functions of the PMO will be generated from the results of the P3M3 PM Assessment Tool.

- To create an implementation plan for the PMO at ABH to manage execution of all projects locally. This will be done once the PMO type is ascertained and with the guidance of scholarly resources such as a Guide to the Project Management Body of Knowledge, PMBOK Guide 6th Edition.

2. THEORETICAL FRAMEWORK

2.1 Company/Enterprise framework

This research has been conducted in St. Mary, Jamaica. The organisation of choice is the North East Regional Health Authority (NERHA). The only Type B hospital in the parish, Annotto Bay Hospital (ABH), was chosen as the model case study for implementing a PMO. The application of a PMO can then be used for other healthcare facilities within the health region.

Annotto Bay Hospital is a public healthcare facility which primarily serves a geographic area consisting of 196,410people.

2.1.1 Company/Enterprise background

The main function undertaken by Annotto Bay Hospital is healthcare services. The services are secondary in nature. Secondary health facilities have specialists in the field of Obstetrics & Gynaecology, Paediatrics, Internal Medicine, Anaesthetics, Psychiatry, and Surgery including Orthopaedics. Unlike primary healthcare centres which offer outpatient services only, the hospital offers inpatient services with a bed capacity of approximately 119 patients.

The range of projects that are undertaken at the ABH encompasses all the medical specialties besides educational, construction, and environmental development, road works, among others.

2.1.2 Mission and vision statements

Mission Statement reads: To determine the type of PMO that will be the most cost effective in managing the projects at ABH to facilitate growth in its medical offering through a highly trained, engaged, and committed staff.

Vision Statement reads: A 'Type A' medical facility for NERHA, facilitated by timely execution of projects to improve healthcare and promote healthier lives primarily for the people of St. Mary and Portland.

2.1.3 Organisational structure

ORGANISATIONAL STRUCTURE OF TOP MANAGERS AT THE
ANNOTTO BAY HOSPITAL
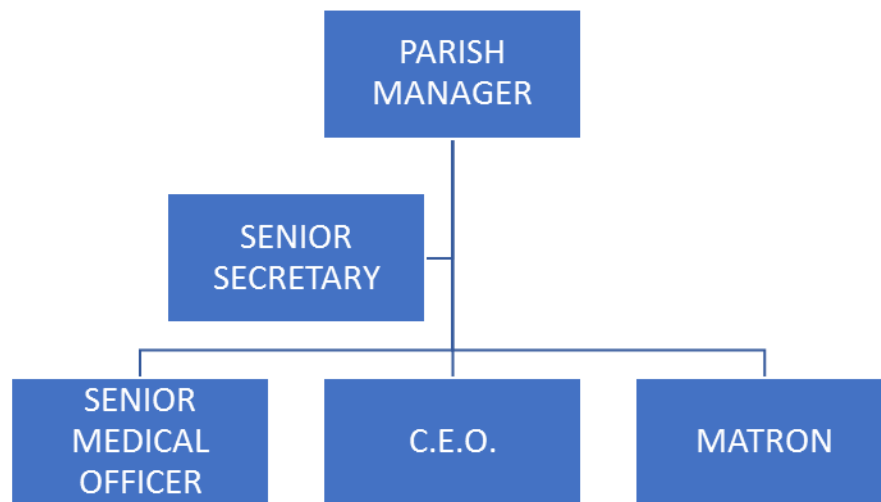
Figure 1. Organisational Structure of Top Managers at Annotto Bay Hospital

(Source: Own Elaboration, 2017)

2.1.4 Products offered

Annotto Bay Hospital is a government operated facility which offers secondary public healthcare delivery to the residents of St. Mary and Portland. The primary objective of this research is to determine the organisational needs of the hospital in project management using maturity analysis. The result will influence staffing and specific roles of project personnel while fostering productivity towards the upgradation to a type A hospital.

2.2 Project Management concepts

Project Management is the practice of utilising different skill sets, people, and tools to bring about a change or produce a product or service output. Coordination and determination are required to achieve the desired results. The project manager should also possess the knowledge of the processes that constitute the project management processes.

The main project management concepts related to this project are discussed below:

2.2.1 Project

A project as defined by (Project Management Institute, 2017) is a temporary endeavour carried out to create a unique service, product or result. It must have a definitive start and end date. For this research, the project will be the identification of a suitable project management office (PMO) for the Annotto Bay Hospital.

2.2.2 Project management

Project Management means the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements (Project Management Institute, 2017). The appropriate application and integration of project management processes identified for the project allow the accomplishment of project management. Project Management enables the execution of projects effectively and efficiently (Project Management Institute, 2017).

2.2.3 Project life cycle

There are the series of stages that the project goes through from its beginning to the end. In most projects, the stages are sequential and the names are determined by the management. The general life cycle for projects, as listed in *A Guide to the Project Management Body of Knowledge Institute* (PMBOK® Guide, Project Management Institute, 2017), includes:

- The start of project
- Organisation and preparation
- Execution of project work
- Monitoring and control
- Project closure

2.2.4 Project management processes

To successfully apply knowledge to project management, there needs to be successful management of project management processes. A process defines similar activities undertaken to yield a specific result. Five project management process groups are required for all projects, which are Initiating, Planning, Executing, Monitoring, and Controlling and Closing. These process groups are further divided into 47 project management processes and ten project management knowledge areas.

Initiation: it defines the processes performed to define a project or new phase of an existing project by obtaining authorisation to start the project or phase. The authorization is given to Project Manager when the document is signed off by the Sponsor or Initiator (Project Management Institute, 2017).

Planning: it includes the processes required to establish the scope of the project, refine the objectives, and define the course of action required to obtain the objectives that the project was undertaken to achieve (Project Management Institute, 2017).

Executing: it includes the processes performed to complete work defined in the project management plan to satisfy the project requirements (Project Management Institute, 2017).

Monitoring and Controlling: it encompasses the process required to track, review, and regulate the progress and performance of the project, identify any areas in which changes to the plan are required, and initiate the corresponding changes (Project Management Institute, 2017).

Closing: it entails the processes performed to formally close the project, phase, or contract (Project Management Institute, 2017).

For this Final Graduation Project (FGP), all project management process groups were utilised to conduct the research from initiation, in which the CEO. of ABH authorised the commencement of the FGP, to formally closing the project.

TYPICAL PROJECT PROCESS GROUPS
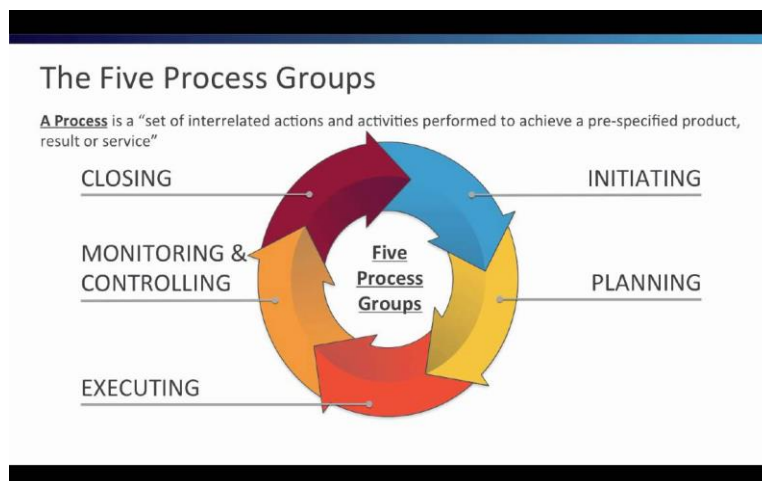
Figure 2. Typical Project Life Cycle

(Source: own elaboration)

2.2.5 Project management knowledge areas

Knowledge area refers to a complete set of concepts, terms and activities that make up a professional field, project management field or area of specialisation (Project Management Institute, 2017, p. 60).

The knowledge areas are relevant because they provide a detailed description of each project management process in terms of input, tools, techniques, and output.

All knowledge areas were utilised in the study to develop the most suitable PMO for Annotto Bay Hospital, except the Project Procurement Management.

The relevant knowledge areas of research, based on the PMBOK guide fifth edition (Project Management Institute, 2017), are listed below:

- Project Integration Management: This is the first knowledge area for the development of the project. It begins with the development of the project charter followed by the development of the project management plan. In regard to the execution process, there is direction and management of the project work. Monitoring and controlling of the work in the project precede the final stage of closing the project.

- Project Scope Management: The specific and total work required to complete the project successfully is defined in this knowledge area. For this research, it includes the scope definition and the WBS formulation.

- Project Schedule Management: It includes all the processes required to complete the project on time. The project end date as defined by the University of International Cooperation (UCI) is 130 days from the commencement.

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- Project Cost Management: The cost management knowledge area includes the processes ranging from planning and funding to controlling costs as well as the other processes in-between that allow the project's cost to remain within the bounds of the approved budget.

- Project Quality Management: This knowledge area is concerned with satisfying the project need for which it was undertaken. The activities that ensure that quality is maintained in this project include: performing quality assurance in the form of tutor review and controlling quality which means making the relevant editions to the FGP.

- Project Resource Management: This knowledge area is concerned with the processes that organise, manage, and lead the project team. It facilitates the formulation of a project team.

- Project Communications Management: This knowledge area is concerned with all the processes required to ensure on time and appropriate communication through planning, storage, and disposition of project information.

- Project Risk Management: It includes all the processes carried out for decreasing the likelihood of negative outcomes and improving the possibility of positive events occurring in a project. For this research, it means meeting deliverable deadlines and following instructions.

- Project Stakeholder Management: It includes all the processes required to identify the people, organisations, and groups that could impact or be impacted by the project along with developing the relevant strategies to manage stakeholder expectations. It is crucial to have constant communication with stakeholders to understand their needs and address any

issues. The satisfaction of the stakeholders should be a key project objective. The stakeholders for the FGP include hospital management being led by the CEO., hospital staff, maintenance and procurement team, regional project management team, and needless to say, the patients of the facility.

- Project Procurement Management: It refers to all the processes carried out to acquire products, services, or results from outside the project team. For the FGP, this knowledge area was not applicable.

2.3. Project Management Office (PMO)

The project management office (PMO) is an entity established to manage projects in an organisation (Beard, 2003). The key sign that a company or organisation requires a PMO includes a failure to deliver projects on time and within budget. The key roles that a PMO serves is to provide support to the project manager in the form of training, oversight, and managing shared resources among other duties (Project Management Institute, 2017, p.11)

The three main types of PMO's are supportive, controlling, and directive. They differ in functions in regard to project management. First, the supportive PMO's have a low degree of control. They serve to provide best practices and supply templates to the project team. The controlling PMO's have more control compared to the supportive PMO's. Moreover, compliance to methodologies and governance is emphasised in this PMO. Finally, directive PMO's have the highest level of control of all the PMOs. The projects are directly managed by this PMO type.

RELATIONSHIP BETWEEN PMO SERVICES, SCOPE, AND DELIVERY
METHOD

Services	Scope of Influence			Approach of Delivering		
	Enterprise	Departmental	Program - Project	Strategic	Tactical	Operational
1) Report project/program status (information) to upper (senior) management	√	√	√			√
2) Develop and implement a standard project management methodology	√	√	√		√	
3) Monitor and control project/program performance	√	√	√			√
…	…	…	…	…	…	…
26) Networking and environmental scanning, mapping project relationships and environment within the organization and external to it	√	√	√	√		
27) Recruit, select, evaluate, and decide on the salaries of project managers; establish a project management career path	√	√			√	

Figure 3. Relationship between PMO Services, Scope, and Delivery Method
(Source: Pinto, 2012)

Figure No. 3 shows the relationship between some of the 27 functions of the PMO, the scope of service, and operational methodology.

2.3.1 Project Management Maturity

Organisations tend to think that their project management strategies are secure and mature if they undertake projects and meet their objectives. This may be a basic portion of project management outcome, to satisfy the upper management. However, there are defined guidelines to determine project management maturity.

Project Management Maturity can be defined as the consistent methods and repeatable delivery of project goals within a company (Foti, 2002). It is important to note that maturity in project management varies per industry and organisation.

The assessment process involves a PM model being chosen to measure the performance of processes, its control, and management.

For instance, the Berkeley method (Ibbs & Kwak, 2000) has the following levels:

-Level 1- Ad hoc processes: This is the initial level where management awareness takes place.

- Level 2- Planned: There is more structure in the process and standards. There is now a greater project focus.

-Level 3- Managed at Project Level: At this level, detailed information is available, and the focus is wider than project only, now it is organisational centred.

-Level 4- Managed at Corporate Level: Data is used to make decisions and management demands compliance.

-Level 5- Learning: Measures are in place to monitor project efficacy and efficiency and management is focused on continuous improvement.

Other maturity models include: -

- SEI's Software Capability Maturity Model (SW-CMM): This model was introduced in the early nineties to improve quality in software development and maintenance organisations. Since then, numerous maturity models have emerged in varied areas.

- Portfolio, Programme, and Project Management Model (P3M3): It was created by the Government of the United Kingdom as a framework for managing project activities in an organisation. The three components that are

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integrated in this framework include the Portfolio Management Maturity Model (PfM3), the Programme Management Maturity Model (PgM3), and Project Management Maturity Model (PM3).

- Organisational Project Management Maturity Model (OPM3): It has been developed directly within the project management profession. It is the level of an organisation's ability to implement organisational strategy through the successful, consistent, and predictable delivery of projects. Increasing process capability is a key feature of this model.

3. METHODOLOGICAL FRAMEWORK

3.1 Information sources

In this research study, information sources refer to the location of data from which knowledge or information can be gathered to complete the study. The information sources for this project range from personal experiences to PMBOK as well as from websites to academic journals.

3.1.1. Primary sources

Primary sources are original materials on which other research studies are based (Ajuwon et al., 2011).

Primary sources can include texts of law, newspaper reports by witnesses, speeches, interviews, and original research.

Questionnaire distributed to the CEO., maintenance or procurement team, and regional Project Manager as well as personal experiences documented about the Hospital-related activities.

3.1.2. Secondary sources

A secondary source of information is one that was created by someone who did not have first-hand experience or did not participate in the events or conditions being researched (Ajuwon et al., 2011).

Secondary sources include books, data analysis and interpretation, scholarly articles, and documentaries.

The sources of information that are secondary in this project include PMBOK, related websites, search engines, and scholarly works found in the journals.

Chart 1 Information sources (Source: own elaboration)

Objectives	Information sources	
	Primary	**Secondary**
• To perform a maturity analysis to determine the organisational needs in project management.	ABH organisational structure of top Managers and organisational processes and policies.	Research articles from PMO practitioners and PM tools and techniques.
• To identify the role and function of the PMO and its specific staffing needs.	Questionnaire responses from CEO and key stakeholders at the ABH and regional project manager at NERHA.	Web research and literature review on PMO types and functions.
• To create an implementation plan for the PMO to manage all projects executed at ABH.	CEO and regional project manager.	PMBOK, literature review, and website research on PMO implementation.
• To establish the functions that the PMO should have on the Hospital to progress toward upgradation from a Type B to a Type A facility.	The CEO of the hospital.	PMBOK and PMO journal articles.

3.2. Research methods

A research method refers to the way the research is conducted. It defines how data is collected and how the investigation is carried out. The research methodology provides the reader insight into the research's validity and reliability.

3.2.1 Analytical-empirical method

This method "focuses on objective knowledge, research questions that can be answered in the form of yes or no and operational definitions of variables to be measured," (University of Southern California, n.d.). Existing data and theories are put to the test in this research method. The explanation of the results is a key point.

3.2.2 Interpretive method

The interpretive methodology focuses on answers to questions such as "how, why, by what means people do what they do?" (University of Southern California, n.d.). The connection between research subject and the phenomenon under investigation is also determined.

3.2.3 Descriptive method

Fact finding enquiries of varied kinds are used in this research method. The major purpose of descriptive research is the presentation of the current state of affairs. The researcher has no control over the variables - a report is made of past and present happenings. Surveys are the tools used to gather information for the research.

3.2.4 Qualitative method

This research concerns the quality of any kind. It is also known as opinion or attitude research. It is undertaken to find out how people feel or what they

think about an area or institution. The quality of the responses influences the conclusion.

For this research study, the analytical-empirical method and the interpretive methods are used.

Chart 2. Research methods (Source: own elaboration)

Objectives	Analytical-Empirical Method	Interpretive Method
• To perform a maturity analysis to determine the organisational needs in project management.	This method was used to assess the current maturity status of the ABH. The Berkeley method was used to measure the company's current PM Maturity level to get it to an expected standard.	The interpretive method determined the type of maturity analysis to be used for the maturity model of the hospital's project management needs.
• To identify the role and function of the PMO and its specific staffing needs.	The analytical method was used to study and document the specificities of a PMO and staffing requirements at the ABH for the first time.	This method determined the type of PMO based on its role and function, suitable for a hospital setting.

• To establish the functions that the PMO should have on the Hospital to progress toward upgradation to a Type A facility.	This method identified the gaps in functions at the ABH and just how the PMO could be the link between moving from Type B to a Type A facility in an upgradation.	The interpretative method determined why an upgradation was necessary and how to achieve it through a PMO.
• To create an implementation plan for the PMO to manage all projects executed at ABH.	The analytical-empirical method served as a guide through research of other PMO implementation plans to formulate a relevant implementation plan.	This method described how a properly worded implementation plan could have a positive effect on the establishment of a PMO at ABH.

3.3. Tools

Research tools are instruments of measurement designed to obtain data on a topic of interest from research subjects (EBSCO, n.d.).

Expert judgement is often considered as an asset and a very important project management tool. The expert may be a customer or another stakeholder, but he or she provides crucial input into estimating and planning any activity.

Meetings are held with key stakeholders to identify the objectives, success criteria, and other key information in a project (Project Management Institute, 2017).

Analytical techniques are used to appraise and analyse data and forecast outcomes based on certain key variables and their relations to similar factors.

Scheduling tools refer to the plans and software that permit a schedule model for the project to be created. It details when the research will end and how this is achieved.

The tools used in the FGP include Expert Judgement, Meetings, Analytical Techniques, Scheduling Tools, Product Analysis, Alternative Generation, Decomposition, and Berkeley Project Management maturity model.

Chart 3. Tools (Source: own elaboration)

Objectives	Tools
• To perform a maturity analysis to determine the organisational needs in project management.	Berkeley PM process maturity model and analytical techniques.
• To identify the role and function of the PMO and its specific staffing needs.	Expert Judgement, Meetings, and Alternative Generation.

• To establish the functions that the PMO should have on the Hospital to progress toward upgradation from a Type B to a Type A facility.	Expert Judgements, Meetings, Stakeholder consultations, and Decomposition.
• To create an implementation plan for the PMO to manage all projects executed at ABH.	Expert Advice, Meetings, and Product analysis.

3.4.   Assumptions and constraints

Assumption**:** "*A factor in the planning process that is considered to be true, real or certain without proof or demonstration*" (Project Management Institute, 2017, p. 123).

Constraint: A constraint is described as a limiting factor that can affect the execution of a project or process (Project Management Institute, 2017, p. 123).

The assumptions of this final graduation project are:

- The Annotto Bay Hospital needs a PMO to handle its projects in a timely manner.
- The addition of a PMO at ABH will increase the likelihood of a facility upgradation from a Type B to a Type A Hospital.
- The organisational unit PMO will work best at the ABH given the need to collaborate with human resources, governance, and operational functions.
- The key stakeholders will be on-board for the implementation of a PMO at the hospital.

The constraints of the final project included:

- Identifying and utilising the most appropriate assessment model for the FGP.
- Management's lack of knowledge or interest in PM tools and techniques besides lack of urgency in exploring the value of a PMO.
- Scope & Time: The scope was broad - performing maturity assessment of ABH through to implementation of a PMO. Varied maturity assessments and PMO frameworks could have been explored given a longer period for project completion. Moreover, the key stakeholders were also difficult to contact given their busy schedule.
- Cost: The costs associated with this project included local travel expenses to hold meetings with key stakeholders and costs associated with gaining internet access.

Chart 4. Assumptions and constraints (Source: own elaboration)

Objectives	Assumption	Constraints
• To perform a maturity analysis to determine the organisational needs in project management.	The Annotto Bay Hospital needs a PMO to handle its projects in a timely manner.	Identifying and utilising the most appropriate assessment model for the FGP.
• To identify the role and function of the PMO and its specific staffing needs.	The organisational unit PMO will work best at the ABH given the need to collaborate with human resources, governance, and operational functions.	Management's lack of knowledge or interest in PM tools and techniques besides lack of urgency in exploring the value of a PMO.
• To establish the functions that the PMO should have on the hospital to progress toward upgradation from a Type B to a Type A facility.	The addition of a PMO at ABH will increase the likelihood of a facility upgradation from a Type B to a Type A Hospital.	Scope: The function of the chosen PMO will have to be coordinated with specific requirements for the hospital upgradation. Time: The hospital's management runs on a busy schedule.

		Increased scope means increased time demands. Cost: Limited financial resources are allocated for the PMO development project as the budget is often planned a year in advance and the FGP started after that period.
• To create an implementation plan for the PMO to manage all projects executed at ABH.	The key stakeholders will be on-board for the implementation of a PMO at the hospital.	Management's lack of knowledge or interest in the value of a PMO to the facility.

3.5. Deliverables

A unique and authenticated product result or capability to perform a service that is required to be produced to complete a phase, process or project (Project Management Institute, 2017, p 123).

The deliverables of the FGP are:

- A report on the level of maturity of PM activities at ABH.

- Report outlining roles and functions of the chosen PMO and its staffing detail.

- Report outlining how the chosen PMO framework will facilitate upgradation from a Type B to a Type A Hospital.

- Implementation plan of the suitable PMO for ABH.

Chart 5. Deliverables (Source: own elaboration)

Objectives	Deliverables
• To perform a maturity analysis to determine the organisational needs in project management.	A report on the level of maturity of PM activities at ABH.
• To identify the role and function of the PMO and its specific staffing needs.	Report outlining roles and functions of the chosen PMO and its staffing details.
• To establish the functions that the PMO should have in the Hospital to progress toward upgradation from a Type B to a Type A facility.	Report outlining how the chosen PMO framework will facilitate upgradation from a Type B to a Type A Hospital.
• To create an implementation plan for the PMO to manage all projects executed at ABH.	Implementation plan of the suitable PMO for ABH.

4. RESULTS

4.1 ABH Project Management Practices

For the research study, a questionnaire modelled on the P3M3 was used to identify the areas to be assessed for the determination of the maturity level of ABH.

The P3M3 model also known as the Portfolio, Programme, and Project Management Maturity Model, was created by the British Government as a model framework for managing projects in an organisation. The components of the framework that are integrated include Portfolio Management Maturity Model (PfM3), Programme Management Maturity Model (PgM3), and Project Management Maturity Model (PM3).

Nine questions were used by the model to evaluate each component. Each question had responses varying on a scale of 1-5 depicted in letter form as A-E. 'A' represented the least favourable and 'E' the optimum option maturity level.

-Level A response shows the awareness by the organisation regarding the existence of projects, portfolios, and programmes by the distinct difference in treatment of its operations.

-Level B response demonstrates a repeatable process where projects and programmes are autonomously run.

-Level C response shows process definition throughout the organisation in the execution of projects, portfolios, and programmes.

-Level D response shows management processes that use data for improvement of processes throughout the organisation.

-Level E response demonstrates optimisation processes where there is continuous improvement of the organisation-wide processes.

The questionnaires were issued to eleven randomly selected workers. This amount included senior management. There were two meeting dates with the respondents to clarify intent of the research. The meetings were held with each employee individually bearing in mind their schedule. Based on their responses from the questionnaires in conjunction with review and analysis of these responses, the following maturity analysis assessment results were obtained:

In the category of "our organisation can be best characterised as having", the results of the maturity assessment indicated that management and technical processes were documented, standardised, and integrated to some extent with the responsibility for maintaining consistency and delivering process improvement across the organisation. Senior management was engaged consistently, and it provided active and informed support. This - as depicted in figure 4 below -revealed that ABH project management maturity was at fifty-five percent; a little bit over half of the optimal maturity level (e), where the organisation is focused on optimisation of its quantitatively managed processes to consider challenging businesses needs and external factors, among others. (see appendix 5: P3M3 Answers).
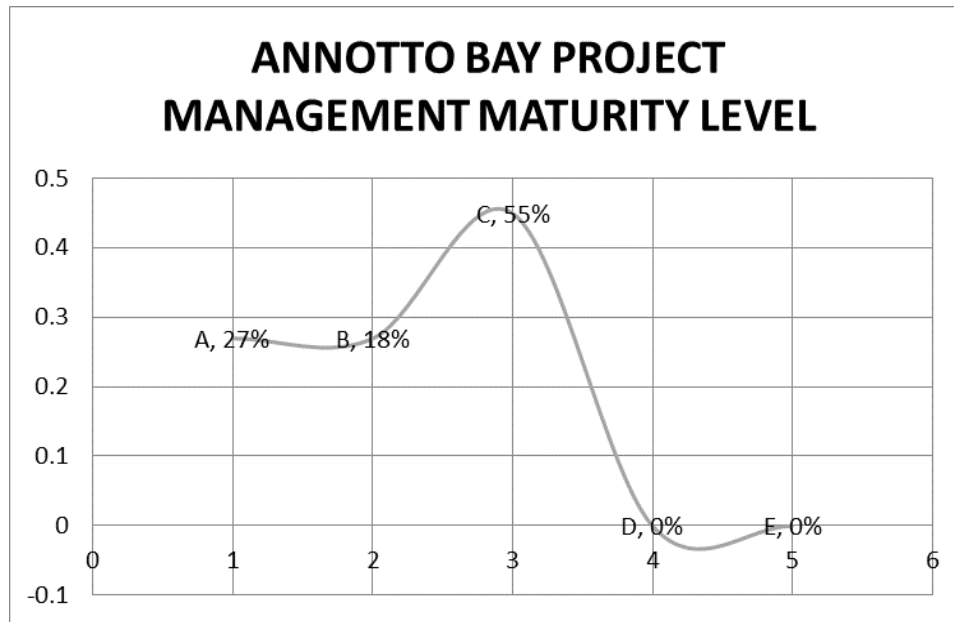
Figure 4. ABH Project Management Maturity Level

(Source: own elaboration, 2018)

In regard to the category of project management control, the results indicated that scanty documentation is taking place with very little process description. The practice of project management is based on current happenings and personal preferences.

In the category of project benefits management, there was a tie between results. There is evidence of very basic project management practices and signs of development. However, there is a dedicated group for maintaining consistency and improving benefits management across the organisation.

Regarding the category of project financial management, the results showed that mature behaviour is demonstrated in the organisation through defined processes that are managed using quantitative techniques.

The next category is project stakeholder management. The results indicated that some projects are normally communicated to stakeholders, but this is based on the project managers rather than the organisation.

In regard to project risk management, the results indicated that initiatives are documented and performed according to plan. Normally, on reaching major milestones, the project's status is made visible to the management.

For the category organisational governance with regard to projects, the results indicated that senior management is consistently engaged and is an active source of support.

In the category project resource management, the results indicated that there may be training for individuals to develop skills and to readily perform their designated roles.

Finally, in the general category of project management, results indicated that processes are handled more proactively than less mature organisations. The standard processes are also modified to suit specific guidelines. The research revealed that ABH had achieved thirty-seven percent of project management control where it had its own centrally controlled project processes and individual projects could flex within these processes to suit the project. This is depicted in the figure below.
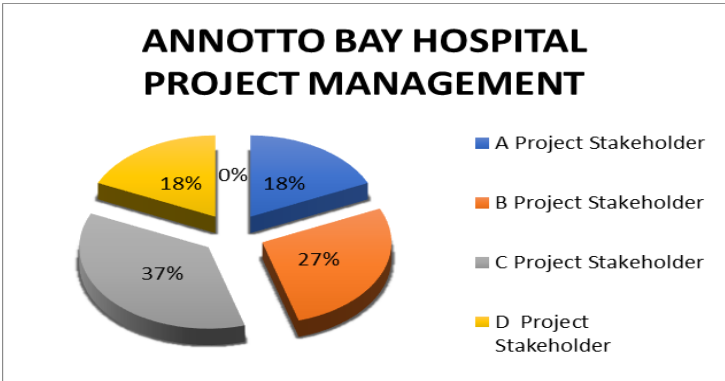
Figure 5. ABH Project Management

(Source: own elaboration, 2018)

At the end of the assessment, the strengths, weaknesses, and the improvement opportunities for the Annotto Bay Hospital were better highlighted. It further strengthened the need for a PMO to be established at the Annotto Bay Hospital.

Having assessed the project management practices of ABH in the light of objective number one, ABH project management strenght was shown in its financial management. Therefore, the organisation was able to prioritise investment opportunities effectively in relation to the availability of funds and other resources. Project budgets were managed effectively and project performance against cost was monitored and compared.

Weaknesses were revealed in the following areas:

- Project management control
- Benefits management
- Stakeholder management
- Risk management

Areas for improvement opportunities included:

- ABH Project Management Maturity
- Organisational governance
- Resource management
- Project management processes and procedures

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4.2. The most suitable PMO type for ABH with the roles and responsibilities to be assigned
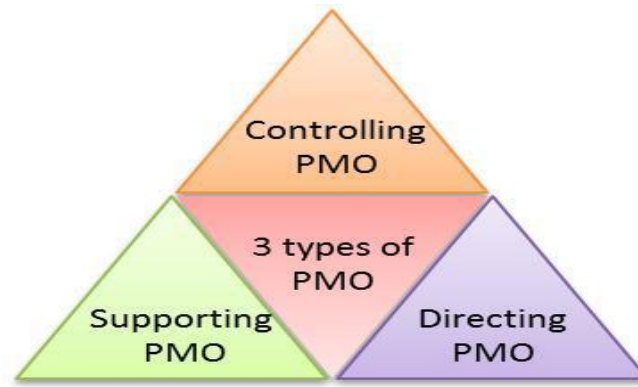
Figure 6. Three PMO Types
(Source: PMI, Google Images)

For a PMO to be selected as per the second FGP objective, an analysis of the types of PMO is required. There are three basic PMO types as depicted in figure 6; Supporting, Controlling, and Directive type of PMOs. Each will be analysed subsequently.

The criteria employed here to choose a PMO for ABH was based on two main defining aspects of a PMO. These aspects are PMO's responsibility as a governance and standardisation resource body and the range of PMO authority or control it possesses.

Supportive PMO

This PMO generally provides support in the form of on-demand expertise, templates, best practices, access to information, and expertise on other projects, among others.

This may be best suited for an organisation where projects are accomplished successfully in a loosely controlled manner and where additional control is deemed unnecessary. Also, if the objective is to have a sort of "clearing-house" of project management information across the enterprise to be used freely by project managers, then the supportive PMO is the right type (Reiling, 2014).

Controlling PMO

In organisations where there is a desire to rein in the activities, processes, procedures, documentation among others, a controlling PMO can accomplish that. This PMO not only provides support, but it also requires that the support be used. Requirements might include adoption of specific methodologies, templates, forms, conformance to governance, and application of other PMO controlled sets of rules. In addition, project offices might need to carry out regular reviews by the controlling PMO and this may represent a risk factor on the project. This works if a) there is a clear case that compliance with project management organisation offerings that will bring improvements in the organisation and how it executes projects and b) the PMO has enough executive support to stand behind the controls the PMO puts in place (Reiling, 2014).

Directive PMO

This type goes beyond control. It actually takes over the projects by providing the project management experience and resources to manage the project. As organisations undertake projects, professional project managers from the PMO are assigned to the projects. This injects a great deal of professionalism into the projects.

Since each of the project managers originates and reports back to the directive PMO, it guarantees a high level of consistency of practice across all projects. This is effective in larger organisations that often matrix out support in various areas and where this setup would fit the culture (Reiling, 2014).

According to the results of the research study, as seen in appendix 5, the overall project management score was forty-six percent,which is below average project management maturity. A contributing factor may be that the senior management of ABH is too consumed with other management areas to give adequate attention to project management.Therefore, several mishasps and inefficiencies occur sometimes. Against this background, a directive PMO may be ideal for ABH.

The directive PMO will directly manage projects and the degree of authority afforded to this PMO is high. With this PMO incorporated in ABH management structure, it will release senior management of this extra burden to manage projects while allowing to focus on their core management operations. This type will also provide high professionalism in managing projects where it provides periodic reports for the office and will guarantee a high level of consistency in work on projects.

The roles and responsibilities to be assigned to the PMO

Based on the maturity assessment and the recommended PMO type, these series of roles and responsibilities are proposed for the directive PMO for ABH. These roles and responsibilities come from the needs assessment and improvement potentials envisaged for ABH. Often, the simpler and more realistic these roles and responsibilities are, the easier and better they are carried out. Moreover, considering the human resource limitations at ABH at this moment, its development, roles, and

responsibilities should be assigned in limited capacity with bigger responsibilities assigned as it matures into the use and management of its project management processes. The basic responsibilities according to research into PMOs are as follows:

Establishing Project Methodologies

Establishing the methodology to execute a project successfully is a key role of a PMO. This is the foundation of the processes and procedures upon which the organisation is to rely on most, with expected and constant reviews and updates of its processes to attain the desired goal.

The review of ABH's status reveals that it would be best to start with a non-complex methodology for its operation bearing in mind that the organisation has never had any structured methodology of doing things. Project management methodologies can be rather complex, demand sophisticated set up, and are often very costly. Hence, the recommended methodology comprises of a non-complex, basic project management process of developing or creating, which includes:

Project Charter: Besides articulating the objectives and goals of the project to all its stakeholders, it would outline very clearly the overall vision of the project in question.

Work Plan: It would set out detailed schedules of activities, resources, time frames, and the deliverables of the project to the project team.

Governance Plan: This outlines the roles and responsibilities to be assigned to each member of the project team.

WBS: This would define the specific deliverables due of each team member at each stage of the project.

Risk Analysis identification: Besides listing their possible solution or mitigation, it would allow the team to list as many potential problems or deviances as possible that could have a probability of occurrence as well as create impact.

Communication Plan: It establishes the protocol, procedure and the methods to communicate project information and issues among members of the team.

Forms and Templates: This would establish the list of simplified tools (forms and templates) that the project team would use to effectively communicate, report, and record keeping as per the industry best practices. Templates include project scheduling (Gant Timeline), project budget, simple project tracking template, daily task manager, and assumptions and risk management templates.

Project Tracking

The responsibility of project tracking in a PMO is paramount. This is one of the roles of the project manager. The lack of any progress or delays and their possible impact on the deliverables of a project can be traced to its tracking. This is very critical for every project. Based on researched cases, a PMO of the size anticipated for ABH normally should track its project in three steps:

- Collecting project status information: This would entail the routine gathering of updated work plans, issues, change orders, and any other relevant and recorded project data from all project team leaders.

- Consolidation and analysis of the data collected: This mechanism would allow all data collected to be analysed and the results will be compared with a benchmark set using the six-sigma guidelines and then communicated to the management team for their review and possible action.

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- Corrective Action: This process allows an official endorsement of the corrective decisions made by the management team through a process of change management.

The PMO has the responsibility of gathering and archiving project experience and reusable data for future projects. This would form part of its methodology to close the project. The project manager is assigned this responsibility.

Project Support

One of the responsibilities of a PMO is to serve as project support. This is a huge and widely encompassing responsibility that often requires multiplicity of inputs and efforts from both internal and external resources. Hence, it is coordinated by the PMO project executive. Research into the status of ABH clearly indicates that ABH needs to be provided a support mechanism to maximise its full potential with regard to delivery of projects. When a PMO serves as a project support, it embodies the following responsibilities:

- Provides a centralised location for planning.
- Analysing, negotiating, and re-orienting project direction and concerns in line with the project baseline to the client and stakeholders.

One important support system a PMO provides is the training to team members of relevant project management tools and techniques applied to the project in question. The PMO in its support role would formulate some in-house consultancy services geared at specific project issues that would be administered by the project team from time to time. The PMO also supports the organisation by developing a cadre of

competent project managers through its continuous training sessions. These project

managers would then ensure that the implementation of a project is done effectively

following the established methodologies set out by the PMO through consultation

with its stakeholders.

Chart 6. PMO Roles and Responsibilities

No	Responsibility	Role/SME	Owner	Creator	Approver
1	Establishing Project Methodologies ☐ Create Project Charter	Project Executive and Project Manager	PMO	Project Executive (PE)	Project sponsor
	☐ Create Work Plan	Project Manager	PMO	Project Manager	Project Executive
	☐ Governance Plan	Project Manager	PMO	Project Manager	Project Executive
	☐ **Work Break Down Structure**	Project Manager	PMO	Project Manager	Project Executive
	☐ Create Communication Plan	Project Manager	PMO	Project Manager	Project Executive
	☐ Create Forms and Templates	Project Manager	PMO	Project Manager	Project Executive
	☐ Prepare Risk Analysis	Project Manager	PMO	Project Manager	Project Executive
2	Project tracking ☐ Collecting project status information ☐Consolidation and Analysing the data collected. ☐ Implementation of corrective action if required	Project Manager	Project Manager	PMO	Project Manager
3	Project Support ☐ Provide a centralised location for all project data, for sharing, and analysing project development ☐ Develop competent project managers through training and mentoring	PMO-Project Executive	PMO-Project Executive	PMO	Project Executive

(Source: Author-Adapted from PMMajik)

4.3 Mission, Vision and Objectives of the Directive PMO for Annotto Bay Hospital

Based on the maturity assessment through the P3M3 tool the strategic purpose of Directive PMO for ABH may be summed up as follows:

Mission: ABH PMO drives efficient and effective project management through continuous improvement of our human resources and services

Vision: To be the most innovative, dedicated and productive Project Management Office

Objectives:

- To implement policy and project management procedures that account for project management efficiency and effectiveness including proper documentation of project progression

- To formalize standard communication between PMO and all stakeholders

- To actively stimulate staff project management improvement through training which allow designated roles to be readily fulfilled

4.4. The location of the proposed PMO within the existing management structure of ABH

Based on all the maturity assessment results as well as the analysis and selection of a suitable PMO, ABH could begin solving its maturity problems by locating the PMO in a strategic position on its management structure. This will allow speedy implementation of processes and procedures and the PMO can harness considerable momentum to deal with the most urgent project related matters. Based on what has been determined thus far with this research, ABH stakeholders' input into the location of its PMO is apparent. The questionnaire did not directly deal with

location of the PMO on its current organisational structure; however, during stakeholders' meetings, the subject can be given due consideration. The awareness generated owing to low rated maturity level also serves to strategically look at the merits of placing ABH's PMO very high on its management structure. For best results, PMO placement directly under the mandate of a CEO or company director is recommended, which would bestow the control characteristics it deserves to be functional and it will allow for the alignment of project and program work to corporate strategy, establishing and ensuring appropriate enterprise governance (PMI, 2013, p. 13).

Annotto Bay Hospital Organisational Structure with a PMO
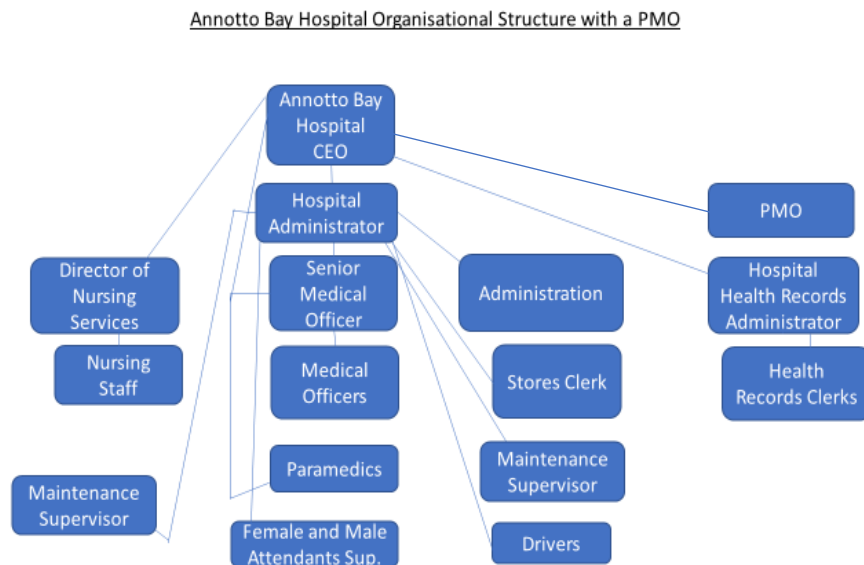
Figure 7 ABH Organisational Structure with a PMO

(Source: Author, 2018)

4.5. The implementation plan for ABH in establishing the PMO

The analysis of the maturity assessment results permitted the determination of the most fitting PMO for ABH. Now that the roles and responsibilities have been determined, it is the right time to outline the implementation plan for ABH new organisational structure. This plan should be implemented in a timely manner.

The implementation plan is directly linked to the results of the assessment in that the lack of consensus through the organisation and the result of not enough employees'

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involvement in decision-making, amongst other results' analysis, help the researcher to determine the structure of this implementation plan.

The first requirement is to consult all stakeholders about the introduction of the PMO into the organisational structure. This process can be carried out through training and consultation with all team members as well as top management.

Secondly, a review of the skills levels available to carry forward the new structure must be ascertained. The history of the organisation's performance is analysed to establish what the new PMO must prioritise and target for the immediate or long-time improvement. All these are to be measured with the organisation's strategic plans and baselines.

Once the skills have been successfully identified and the need assessment is approved, the processes and procedures that are required to implement the methodologies set out for this PMO can be established. These processes and procedures are carried out using the processes' templates developed specifically for the organisation. Communication templates as well as reporting templates are very important tools that all team leaders should be trained to use and understand.

Finally, a check and balance system, through a constant review of the performance and adherence to methodologies set out for the effective operations of this PMO, is to be implemented. This would allow growth inherent changes to the PMO to be reviewed by the executives of the organisation as required, in order to make the PMO current and relevant to the organisation.

Chart 7 PMO Implementation Plan Template-Phase one (1)

PHASE	STEP	TASK	DETAILS	OUTCOMES
One	1	Project planning and Initiation		Project plan and schedule
	2	Assess current environment	Resources (Staff, skills set), Funding and Project Tools Organisational Readiness (Culture, Organisational support) Governance and Escalation mode	Strengths, Weaknesses, Opportunities, Threat Analysis
	3	Establish Vision & Mission	PMO mandates PMO Policy & Direction Critical Success Factors, PMO Models	Consensus, PMO Vision & Mission
	4	Establish Goals & Objectives		Consensus, PMO Goals & Objectives
	5	Develop Business case	High Level PMO Requirements Implementation Strategies & Schedule, Cost Estimates	Business Case Document

(Source: Author-Adapted from PMMajik)

Chart 8 PMO Implementation template - Phase two (2)

PHASE	STEP	TASK	DETAILS	OUTCOMES
Two	1	Define Organisational Structure, Staffing Requirement	Roles and Responsibilities Identify PMO Life Cycle Framework Identify PMO Process Domains	Organisational Structure & Staffing Requirements
	2	Facilitate Supporting Governance & Escalation Structure	Integrate PMO with current Governance Processes if any Facilitate Buy-in Consensus	Updated Governance and Escalation Structure
	3	Define Project Management Methodology Framework	Define PMO Lifecycle	Project Management Methodology Framework
	4	Establish Goals and Objectives		PMO Processes and Supporting Documentation
	5	Establish Review Processes and Performance Metrics	Balance Scorecard, # of feedback, among others.	PMO Review Metrics
	6	Develop Training Requirements	Project Management Training or Certification Coaching or Mentoring Skills Development Sourcing & Relationship Management Skills	Training Requirements

(Source: Author-Adapted from PMMajik)

Chart 9 PMO Implementation template - Phase three (3)

PHASE	STEP	TASK	DETAILS	OUTCOMES
Three	1	Develop Deployment Plan	Schedule Resources Costs	PMO deployment Plan
	2	Deploy PMO	Acquire/ Develop PM Methodology Add PMO Staff Pilot	PMO Programme Assessments Semi-Annual PMO Review

(Source: Author-Adapted from PMMajik)

4.6. Risk Management plan for ABH PMO

Risk is defined as an event that has a probability of occurring, and could have either a positive or negative impact to a project should that risk occur (www.phe.gov. 2018. p.2). A risk can be mitigated or prevented with proper project management plan. This plan will help the ABH PMO to achieve its objectives for managing projects. This plan documents the processes, tools and procedures that will be used to manage and control those events that could have a negative impact on the projects. It's the controlling document for managing and controlling all project risks.

The plan adddresses the following:

• Risk Identification

• Risk Assessment

• Risk Mitigation

• Risk Contingency Planning

• Risk Tracking and Reporting

Risk Identification

Risk identification involves the project team and appropriate stakeholders. It includes evaluating environmental factors such as proposed location of the PMO, the culture of the ABH and the PM plan including the project scope. Keen attention is given to the project deliverables, assumptions, constraints and other key documents.

Risk Assessment

Having identified the risks, assessment will be done next to identify the range of possible outcomes. They will be rated from the highest risks to those that can be overlooked.

Risk Mitigation

Each team member will be asssigned a major risk to ensure they are not overlooked. Mitigation of those risks involves the identification of ways to reduce the probability or severity of those risks.

Risk Contigency Planning

Contingency planning is the act of preparing a plan, or a series of activities in the event an adverse risk occur. Having a contingency plan in place forces the project team to think in advance as to a course of action if a risk event takes place (www.phe.gov. 2018. p.7-8) .

Risk Tracking and Reporting

The level of risk on a project will be tracked , monitored and reported throughout the project lifecycle (www2a.cdc.gov. 2018. p. 2). Any updates on the higher level risks will be reported as a component of the project status reporting process. Change requests will be analyzed for their possibe impact to project risks.Any change to risk status will be brough to the attention of management.

Chart 10 Example of Risk Assessment Matrix

Probability of Occurrences		
Definition	Meaning	Value
Frequent	• Occurs frequently • Will be continuously experienced unless action is taken to change events	5
Likely	• Occur less frequently if process is corrected • Issues identified with minimal audit activity • Process performance failures evident to trained auditors or regulators	4
Occasional	•Occurs sporadically • Potential issues discovered during focused review	3
Seldom	•Unlikely to occur • Minimal issue identification during focused review	2
Improbable	•Highly unlikely to occur	1

Source(Author: www.phe.gov, 2018)

5. CONCLUSIONS

The maturity assessment was conducted using a questionnaire modelled after P3M3 methodology. The aim of the maturity assessment was to determine the strengths, weaknesses, and opportunities as well as the needs of ABH. The results of the assessment are to guide the selection of a suitable PMO for ABH. Based on the results obtained from the maturity assessment, the following aspects are concluded:

1. ABH project management strength was shown in its fiscal management. As such, the organisation was able to prioritise investment opportunities effectively in relation to the availability of funds and other resources. Project budgets were managed effectively and project performance against cost was monitored and compared. However, it was unclear whether this strength really represented projects or general financial management since it was not consistent with the findings in the other eight areas which reflected ABH overall project management maturity below average. Weaknesses were revealed in the following areas: project management control, benefits management, stakeholder management, and risk management. Also, the areas for improvement opportunities included ABH project management maturity, organisational governance, resource management, project management processes, and procedures.

2. The maturity level assessment exercise concluded a rating of (c) on a five-point scale (a-e). The rating of c corresponds with an overall project management score of forty-six percent , which is below average project management maturity.

3. The overall maturity average of c – on a scale of 5 (a-e) - led to conclude that there are many project management improvement opportunities to be tapped into by ABH. The lowest rated categories showed that they are the most urgent categories to be given due

consideration. This means that work must be started promptly to get these processes and procedures standardised so that by the next evaluation, the company can aspire to the next higher level. The best way to tap into the project management processes is using a PMO.

4. Based on the analysis of the maturity assessment, it was concluded that ABH needs a directive PMO. This is a further confirmation of one of the assumptions established at the very beginning of this project. The chosen PMO should fit within the current structure of the company and should use its structured organisational strengths to support the strength of ABH project management practices, improve on its weaknesses, and maximise areas for improvement.

5. As per the results of the maturity assessment, three basic types of PMO were analysed. The analysis of the capabilities and levels of control in an organisation of each of the three PMOs helped the investigator to conclude that the most suitable PMO type at this stage of ABH's development should be a directive type of PMO.

6. The roles assigned to the chosen PMO should start with the three basic and widely accepted project management responsibilities: establishing project methodologies, project tracking, and project support for ABH's projects. These are the main responsibilities identified as critical for ABH at this stage. Based on all the maturity assessment results as well as the analysis and selection of a suitable PMO, ABH could commence solving its maturity problems by locating the PMO in a strategic position on its management structure. This will allow an expeditious implementation of processes and procedures and the PMO can harness considerable momentum to deal with the most urgent project related matters. For best results, PMO's placement directly under the mandate of a CEO or company director is recommended, which would bestow the control characteristics it deserves to be functional and apt

for the intended purpose of its development. In this way, the project manager can be directly in control to formulate and implement the tools and templates required to get the company onto the path of project management best practices. Other roles, as may become necessary, would then fall under these main roles and responsibilities herein identified.

7. Proposing a PMO is of little relevance if there is no implementation of it. Therefore, an implementation plan must be introduced very carefully so as not to incite scepticism from some stakeholders and team members about the introduction of a new structure, which many consider a waste of time and money. ABH maturity is in its infancy. Therefore, any implementation proposals for its PMO should be carefully and strategically weaved into the existing fabric of the company. This would help galvanise support for its PMO. Stakeholders' input into the implementation plan of ABH's PMO is suggested, outlining various stages of implementation of the PMO, from consultation with stakeholders, through training and determining the priorities areas for target by the PMO in the immediate and long term. Finally, a check and balance system to monitor its relevance and growth is also suggested.

8. Finally, the relevance of this research as proven is to ascertain that ABH does need a PMO to help it maximise its potential and to remain efficient in the care of the its patients and sustainable in the realisation of its projects.

6. RECOMMENDATIONS

Based on the research and assessment conducted of the status of ABH maturity and the potential for growth, the following aspects are recommended:

1. A maturity assessment should be conducted by the PMO through the project executive and project manager at least every two years to update the status of ABH and to further determine the project management strengths and needs. The PMO shall be responsible for this assessment.

2. Whenever a new PMO is set up, a routine review programme should be established by the project leadership preferably every six months to analyse the relevance of its existence to advise management and stakeholders when ABH would be better served with another PMO type based on the projects it undertakes.

3. To streamline the roles and responsibilities of the PMO and to establish clarity of responsibilities and their relevance to the projects, a review panel within the management and staff structure should be set up. It will be assigned the task of reviewing the existing role of the PMO and determining its adequacy or lack thereof.

4. A very systematic implementation plan of the PMO should be introduced early enough to all stakeholders by the project manager through various consultations and group meetings. This would allow consensus building to agree on a smooth transition to the successful implementation of the PMO. The process should be carried out by senior management.

5. It is highly recommended that ABH adopts the use of a PMO on its organisational structure to optimise the results of its future projects.

Without a PMO, it will be very difficult for ABH to standardise its project management processes and procedures.

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Appendix 1. FGP Charter

PROJECT CHARTER	
Date	**Project Name:**
Issue date: November 13,2017	**Establishment of Project Management Office at the Annotto Bay Hospital (ABH)**
Knowledge Areas / Processes	**Application Area (Sector / Activity)**
Knowledge areas: Project Integration Management, Project Scope Management, Project Time Management, Project Cost Management Project Quality Management, Project Human Resource Management, Project Communication Management, Risk Management, Procurement Management, Stakeholder Management **Process groups: Initiating, Planning, Executing, Monitoring & Controlling and Closing**	Healthcare Services

Start date	Finish date
November 13, 2017	May 11, 2018

Project Objectives (general and specific)

General objective: To develop a project management office proposal for the Annotto Bay Hospital to facilitate local approval and management of all the projects undertaken at the facility.

Specific objectives:

- To perform a maturity analysis to determine the organisational needs in project management.
- To identify the role and function of the PMO and its specific staffing needs
- To establish the functions that the PMO should have on the Hospital to progress toward upgradation from a Type B to a Type A facility.
- To create Mission, Vision and Objectives for the PMO of choice generated from the P3M3 Assessment results
- To create an implementation plan for the PMO at ABH in order to manage all projects executed locally.
- To formulate a risk managemenplan for ABH PMO

Project purpose or justification (merit and expected results)

The Annotto Bay Hospital is the more advanced hospital in the parish of St. Mary. The North East Health Authority governs four hospitals along with over thirty health centres. There is one project management unit based at regional office. It can be deduced that all facilities are vying for the attention of this one unit with the few project staff members. Projects of importance may not be undertaken in the prescribed time based on the number of projects submitted from all the facilities.

The ABH hospital caters for patients from Port Antonio and Port Maria hospitals based on specialised services offered and the bed count.

The projects undertaken by the Annotto Bay Hospital are vast, therefore its own PMO is required to undertake and manage all projects directly. The expected outcome is to determine the most suitable PMO type for the faclity and upgrade the facility from Type B to Type A.

Description of Product or Service to be generated by the Project – Project final deliverables
-PMO application documents for managing all projects at the Annotto Bay Hospital. -PMO design based on the suitability within the specified facility including staffing requirements. -Project Management Plan for establishing PMO at ABH. - Templates and other measures to indicate effectiveness of the project deliverables.

Assumptions
It is assumed that the project will be developed using data and information from the CE. , maintenance, and procurement team as well as the regional project office.
Constraints
Due to time constriants, the scope of the project may not be fully unraveled. The most suitable PMO will be chosen.
Preliminary risks
If the primary stakeholders are unable to come onboard at the project onset, it might limit the scope of the project significantly.
Budget

The total project cost has not been determined yet.This information will be forthcoming as the project develops.

Milestones and dates		
Milestone	Start date	End date
Project Charter	November 13, 2017	November 19, 2017
WBS	November 13,2017	November 19, 2017
Introduction Chapter	November 20, 2017	November 26,2017
Theoretical Framework	November 27, 2017	December 3,2017
Methodological Framework	December 4, 2017	December 10, 2017
Executive summary, Bibliography	December 11,2017	December 17,2017

Relevant historical information

The Annotto Bay Hospital is one of four hospitals within the North East Regional Health Authority.The region also comprises of seventy-three health centres and two community hospitals with one project unit. The projects for the Annotto Bay Hospital are approved by the project unit at the North East Regional Health Authority. There are at least two main projects that have been undertaken at the hospital ranging from expansion of the operating theatre to rehabilitation of the damaged infrastrucutre due to hurricane paassage in 2012; the latter being an exemplary dispay of public and private partnership in modern Jamaican history. The hospital is poised for great development. However, some project deadlines are ambiguous due to the limited staffing within the project unit.

Stakeholders

Direct stakeholders:

Facility Manager (CEO)
Regional Project Manager

Indirect stakeholders:	
Regional Board Chairman	
Stores Manager	
Senior Medical Officer	
Regional Project Team	
Hospital Administrator	
Hospital Medical & Administrative Staff	
Patients	
Project Manager: Sheree Angell	Signature: Sheree Angell
Authorised by:	Signature:

Appendix 2: FGP WBS

APPENDIX 3: FGP Schedule

ID	Task Name	Duration	Start	Finish
1	Final Graduation Project	130 days	Mon 13/11/17	Fri 11/5/18
2	FGP Start	0 days	Mon 13/11/17	Mon 13/11/17
3	1.Graduation Seminar	25 days	Mon 13/11/17	Fri 15/12/17
4	1.1.FGP Deliverables	20 days	Mon 13/11/17	Fri 8/12/17
5	1.1.1.Charter	5 days	Mon 13/11/17	Fri 17/11/17
6	1.1.2.WBS	5 days	Mon 13/11/17	Fri 17/11/17
7	1.1.3.Chapter I. Intro	5 days	Mon 20/11/17	Fri 24/11/17
8	1.1.4.Chapter II. Theoretical	5 days	Mon 27/11/17	Fri 1/12/17
9	1.1.5.Chapter III. Methodological	5 days	Mon 4/12/17	Fri 8/12/17
10	1.1.6.Annexes	15 days	Mon 20/11/17	Fri 8/12/17
11	1.1.6.1.Bibliograph	5 days	Mon 4/12/17	Fri 8/12/17
12	1.1.6.2.Schedule	5 days	Mon 20/11/17	Fri 24/11/17
13	1.2.Graduation Semin	5 days	Mon 11/12/17	Fri 15/12/17
14	2.Tutoring process	65 days	Mon 18/12/17	Fri 16/3/18
15	2.1.Tutor	3 days	Mon 18/12/17	Wed 20/12/17
16	2.1.1.Tutor assigme	1 day	Mon 18/12/17	Mon 18/12/17
17	2.1.2.Communicatio	2 days	Tue 19/12/17	Wed 20/12/17
18	2.2.Adjustments of previous chapters (if	5 days	Thu 21/12/17	Wed 27/12/17
19	2.3.Charter IV. Development	47 days	Thu 28/12/17	Fri 2/3/18
20	2.4.Chapter V. Conclu	5 days	Mon 5/3/18	Fri 9/3/18
21	2.5.Chapter VI. Recor	5 days	Mon 12/3/18	Fri 16/3/18
22	Tutor approval	0 days	Fri 16/3/18	Fri 16/3/18
23	3.Reading by reviewers	15 days	Mon 19/3/18	Fri 6/4/18
24	3.1.Reviewers assign	5 days	Mon 19/3/18	Fri 23/3/18
25	3.1.1.Assigment of two reviewers	2 days	Mon 19/3/18	Tue 20/3/18
26	3.1.2.Communicatio	2 days	Wed 21/3/18	Thu 22/3/18
27	3.1.3.FGP submission to	1 day	Fri 23/3/18	Fri 23/3/18
28	3.2.Reviewers work	10 days	Mon 26/3/18	Fri 6/4/18
29	3.2.1.Reviewer	10 days	Mon 26/3/18	Fri 6/4/18
30	3.2.1.1.FGP readin	9 days	Mon 26/3/18	Thu 5/4/18
31	3.2.1.2.Reader 1 re	1 day	Fri 6/4/18	Fri 6/4/18
32	3.2.2.Reviewer	10 days	Mon 26/3/18	Fri 6/4/18
33	3.2.2.1.FGP readin	9 days	Mon 26/3/18	Thu 5/4/18
34	3.2.2.2.Reader 2 re	1 day	Fri 6/4/18	Fri 6/4/18
35	4.Adjustments	20 days	Mon 9/4/18	Fri 4/5/18
36	4.1.Report for review	9 days	Mon 9/4/18	Thu 19/4/18
37	4.2.FGP update	1 day	Fri 20/4/18	Fri 20/4/18
38	4.3.Second review by	10 days	Mon 23/4/18	Fri 4/5/18
39	5.Presentation to Boar	5 days	Mon 7/5/18	Fri 11/5/18
40	5.1.Final review by bo	2 days	Mon 7/5/18	Tue 8/5/18
41	5.2.FGP grade report	3 days	Wed 9/5/18	Fri 11/5/18
42	FGP End	0 days	Fri 11/5/18	Fri 11/5/18

Appendix 4: P3M3 Sample Questionnaire

	QUESTION	FOCUS RESULTING LEVEL	A	B	C	D	E
1	Our organization can be best characterized as having:	Maturity	3	2	0	6	0	D
2	Our management control is best described by:	Project	5	1	3	2	0	A
3	Our benefits management is best described by:	Project	0	4	4	0	3	B/C
4	Our financial management is best described by:	Project	0	3	2	4	3	D
5	Our approach to stakeholder management is best described by:	Project	0	8	2	0	1	B
6	Our risk management is best described by:	Project	0	5	4	1	1	B
7	We deliver organizational governance by:	Project	0	4	6	1	0	C
8	Our resource management is best described by:	Project	2	2	4	2	1	C
9	Does the organization?	Project	2	3	4	2	0	C

Average Project Management Maturity Score
46%

APPENDIX 5: P3M3 ASSESSMENT ANSWERS

P3M3® – Project Management Self-Assessment

Please **circle** the best answer.

Question 1: Our organisation can be best characterised as having:

a. Processes are not usually documented; there are no, or only a few, process descriptions. Actual practice is determined by events or individual preferences, and performance is variable. Successful initiatives are often based on key individuals' competencies rather than organisation wide knowledge and capability and the organisation is unable to repeat past successes consistently. Such "successes" are often achieved with budget and/or schedule overruns. Processes are undeveloped or incomplete. There is little, if any, guidance or supporting documentation and even terminology may not be standardised across the organisation – e.g. business case, risk, issues, etc. may not be interpreted in the same way by all managers and team members.

b. The organisation can demonstrate that basic management practices have been established – e.g. tracking expenditure and scheduling resources – and that processes are developing. There are key individuals who have had suitable training and who can demonstrate a successful track record and through them, the organisation is capable of repeating earlier successes in the future. Initiatives are performed and managed according to their documented plans; project status and delivery is visible to management at defined points, such as on reaching major milestones. The organisation may still have inadequate measures of success, unclear responsibilities for achievement, ambiguity and inconsistency in business objectives, lack of fully integrated risk management, limited experience in change management, and inadequacies in communications strategy.

c. Management and technical processes are documented, standardised, and integrated to some extent with other business processes. There is likely to be process ownership and an established process group with responsibility for maintaining consistency and delivering process improvements across the organisation. Senior management is engaged consistently and provides active and informed support. There is likely to be an established training programme to develop the skills and knowledge of individuals, so they can more readily perform their designated roles. A key aspect of quality management will be the widespread use of peer reviews of identified products, to better understand how processes can be improved and thereby eliminate possible weaknesses. A key distinction between this and the previous level description is the scope of standards, process descriptions, and procedures. Processes will be managed more proactively, and the standard processes can be tailored to suit specific circumstances, in accordance with explicit guidelines.

d. The organisation demonstrates mature behaviour through defined processes that are quantitatively managed – i.e. controlled using metrics and quantitative techniques. There is good evidence of quantitative objectives for quality and process performance, and these are being used as criteria in managing processes. The measurement data collected is contributing towards the organisation's overall performance measurement framework and facilitates

portfolio analysis and ascertaining the current capacity and capability constraints. Top management is proactively seeking out innovative ways to achieve goals. By using metrics, management can effectively control processes and identify ways to adjust and adapt them to initiatives without loss of quality.

e. The organisation is focused on optimisation of its quantitatively managed processes to consider changing business needs and external factors. It can anticipate future capacity demands and capability requirements to meet delivery challenges – e.g. through portfolio analysis. Top managers are exemplars, reinforcing the need and potential for capability and performance improvement. The knowledge gained by the organisation from its process and product metrics will enable it to understand causes of variation and therefore optimize its performance. The organisation will be able to show that continuous process improvement is being enabled by quantitative feedback from its embedded processes and from validating innovative ideas and technologies. The organisation will be able to demonstrate strong alignment of organisational objectives with business plans, and this will be cascaded down through scoping, sponsorship, commitment, planning, resource allocation, risk management, and benefits realization.

Question 2: Our management control is best described by:

a. Project management terminology is used by some members of the organisation but not consistently and possibly not understood by all stakeholders. Projects are conducted and managed according to individual preferences.

b. The concepts of project management will have been grasped by the organisation, and there may be local experts, such as experienced project managers, working on key projects.

c. There is a centrally defined and documented approach to a project management life cycle and controls and it is applied in all projects by capable staffs that support project teams.

d. Project management is seen as a key tool for the delivery mechanism of change. Within the project environment the focus is on improvement of delivery through measurement and analysis of performance.

e. Management controls ensure that the project approach delivers the change objectives of the organisation. Acceptance of project management as the optimal approach to change delivery is organisation-wide. There is evidence of continual improvement.

Question 3: Our benefits management is best described by:

e. There is some recognition that the concept of benefits can be differentiated from project outputs.

b. Benefits are recognised as an element within project business cases. There may be some documentation regarding who is responsible for benefits and their realisation, but this is unlikely to be followed through or consistent.

c. There is a centrally managed and consistent framework for defining and tracking the realisation of benefits arising from project outputs.

d. Benefits management is embedded within the project management approach and there is a focus on delivery of business performance from project outputs. Project performance metrics are collected and analysed.

e. Benefits management is embedded within the organisational approach to change and is assessed as part of the development of organisational strategy. Business performance metrics are linked to, and underpin, the recognition of benefits realisation. There is evidence of continual improvement

Question 4: Our financial management is best described by:

a. There is little or no financial control at project level. There is a lack of accountability and monitoring of project expenditure.

b. Project business cases are produced in various forms and the better and more formal cases will present the rationale on which to obtain organisational commitment to the project. Overall cost of the project is not monitored or fully accounted for.

c. There are centrally established standards for the preparation of business cases and processes for their management throughout the project life cycle. Project managers monitor costs and expenditure in accordance with organisational guidelines and procedures, with defined interfaces with other financial functions within the organisation.

d. The organisation can prioritise investment opportunities effectively in relation to the availability of funds and other resources. Project budgets are managed effectively and project performance against cost is monitored and compared.

e. Project financial controls are fully integrated with those of the organisation. Cost estimation techniques used at the project level are continually reviewed in terms of actual versus estimate comparisons to improve estimation throughout the organisation. There is evidence of continual improvement.

Question 5: Our approach to stakeholder engagement is best described by:

a. Stakeholder engagement and communication is rarely used by projects as an element of the delivery toolkit.

b. Some projects will be communicated to stakeholders, but this is linked more to the personal initiative of project managers than to a structured approach being deployed by the organisation.

c. There is a centrally managed and consistent approach to stakeholder engagement and communications used by all projects.

d. Sophisticated techniques are used to analyse and engage the project stakeholder environment effectively and quantitative information is used to underpin the assessment of effectiveness.

e. Communications are being optimised from extensive knowledge of the stakeholder environment, to enable the projects to achieve their objectives. There is evidence of continual improvement.

Question 6: Our risk management is best described by:

a. There is minimal evidence of risk management being used to any beneficial effect on projects. There may be evidence of risks being documented but little evidence of active management.

b. Risk management is recognised and used on projects, but there are inconsistent approaches which result in different levels of commitment and effectiveness.

c. Project risk management is based on a centrally defined process that is cognisant of the organisation's policy for the management of risks and is used consistently.

d. Project risk management is working effectively, is embedded, and the value of risk management can be demonstrated. There is evidence of opportunity management and management of risk aggregation.

e. Risk management is embedded in the organisational culture and underpins all decision-making within projects. There is evidence of continual improvement.

Question 7: We deliver organisational governance by:

a. Some informal governance of projects exists but has undefined links to broader organisational controls. Roles are unlikely to be formally defined.

b. Project management from an organisational perspective is beginning to take shape but with ad hoc controls and no clear strategic control. Roles and responsibilities will be inconsistent, as will reporting lines.

c. Centrally defined organisational controls are applied consistently to all projects, with decision-making structures in place and linked to organisational governance.

d. There will be clearly aligned project decision-making processes that adopt and integrate with broader organisational governance and which are transparent to those involved. Project management responsibilities are embedded within broader role descriptions.

e. The governance arrangements for projects are a core aspect of organisational control, with demonstrable reporting lines to Executive Board level and with clear ownership and control responsibilities embedded within the organisation. There is evidence of continual improvement.

Question 8: Our resource management is best described by:

a. There is some recognition within the organisation of the need to manage resources effectively to enable successful delivery of projects, but little evidence of resource acquisition, planning or management.

b. Resources are being deployed across the organisation and individual projects have an approach to resource acquisition, planning, or management. However, there is little evidence of consistency of approach.

c. The organisation has a centrally defined and adopted set of procedures and management processes for acquiring, planning, and managing project resources.

d. Resource management for projects is considered at a strategic level within the organisation. There is evidence of resource capacity management, through capacity planning, to meet project delivery needs.

e. Resources are deployed optimally. There is clear evidence of load balancing and the effective use of both internal and external resources across all projects. There is evidence of continual improvement.

Question 9: Does the organisation:

a. Recognise projects and run them differently from its ongoing business. (Projects may be run informally with no standard process or tracking system).

b. Ensure that each project is run with its own processes and procedures to a minimum specified standard. (There may be limited consistency or coordination between projects).

c. Have its own centrally controlled project processes and individual projects can flex within these processes to suit the project.

d. Obtain and retain specific measurements on its project management performance and run a quality management organisation to better predict future performance.

e. Undertake continuous process improvement with proactive problem and technology management for projects to improve its ability to depict performance over time and optimise processes.

Appendix 6 Example of Risk Assessment Matrix

Probability of Occurrences			Catastrophic	Critical	Moderate	Minimal	Negligible
Definition	Meaning	Value	(A)	(B)	(C)	(D)	(E)
Frequent	• Occurs frequently • Will be continuously experienced unless action is taken to change events	5	5A	5B	5C	5D	5E
Likely	• Occur less frequently if process is corrected • Issues identified with minimal audit activity • Process performance failures evident to trained auditors or regulators	4	4A	4B	4C	4D	4E
Occasional	•Occurs sporadically • Potential issues discovered during focused review	3	3A	3B	3C	3D	3E
Seldom	•Unlikely to occur • Minimal issue identification during focused review	2	2A	2B	2C	2D	2E
Improbable	•Highly unlikely to occur	1	1A	1B	1C	1D	1E

Appendix 7 Example of Risk Register

			Risk Register for "Generic Vaccine"				
Gantt	WSB	Risk	Overall Impact	Mitigation	Contingency	CPS Impact	Timing/Option
30	1.3.2.4	FDA does not agree with the characterization results (non-clinical and clinical studies planned, example if FDA requires NHP instead of used animal model)	Occasional + Moderate = 3C	Early and frequent meetings with the FDA prior to study execution.	Update program design with FDA input, modify SOW, obtain BARDA CO, PO, and Management Approval of new SOW, and provide budget request	Additional $400,000 For NHP Model Study Addition of 9Months	Q3, FY11 - BASE
		Lab unable to produce an adequate amount of product to conduct all studies that are currently scheduled		Subcontract negotiations with CMO to produce product for use in non-clinical studies	1. Slow the pace of the studies to accommodate the production availability 2. Use available lab product until CRO cGMP product is available		
		Contract negotiations failure		Subcontract negotiations with CMO to produce non-GMP product for use in non-clinical studies	1. Use available lab product and schedule studies based on available product 2. Transition financial resources from subcontract to expansion of lab 3. Transition from financial resources to expedite the execution of the cGMP		
		Manufacturing failure		Complete technical package and assistance available from lab	1. Second manufacturing attempt 2. Discontinue contract and use lab product 3. Discontinue contract and expedite the cGMP manufacturing contract		
		Tech Transfer failure (lack of detailed information)		Early RFP for evaluation of multiple CMO facilities	Alternate facility RFP		
		Contract negotiations failure with cGMP facility		Completion of detailed manufacturing technical transfer package and SME provisions during pilot lot preparations	Manufacturing process development, testing, optimization and validation requirement		
		Study Task 2 (subtask studies, lines 37 and 38) could yield negative results, If success criteria not met		Preliminary studies conducted with positive results	Alternate study design and potential product redesign		
		Study Task 1 (subtask studies, lines 45 and 46) could yield negative results, if success criteria not met		Preliminary studies conducted with positive results	Alternate study design and potential product redesign		
		Study Task 3 (subtask studies, lines 52, 53, 54, and 55) could yield negative results, if success criteria not met		Preliminary studies conducted with positive results	Alternate study design and potential product redesign		

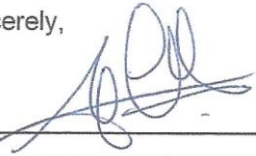**APPENDIX 8: Credentials and Certification of Philologist**

Cartago, November 02nd, 2018 Universidad para la Cooperaciån Internacional (UCI)

To whom it may concern

Cristina Maria Solano, identification number 304470513, Bachelor and Licenciada in English Teaching as a Second Language and part of the Colegio de Licenciados y Profesores en Letras, Filosofia, Ciencias y Artes de Costa Rica under the code 64964, hereby states that the Project "Proposal to create a PMO at the Annotto Bay Hospital -(ABH)" carried out by the student Sheree Angell has been checked.

The project was done to obtain the Master in Project Management (MPM) degree. Aspects such as paragraph form, language quirks in written language, orthography, punctuation, and other aspects related to syntax and grammar were checked and proofread. Therefore, taking into account the changes made, the project is ready to be presented.

Sincerely,

Cristina Solano Solano

Colegio de Licenciados y Profesores. Cédigo 64964 cristina.solano@filologos.cr

UNIVERSIDAD DE COSTA RICA

Por haber cumplido con los requisitos reglamentarios
confiere a

Cristina María Solano Solano

el grado de *Licenciatura en la Enseñanza del
Inglés como Lengua Extranjera,*

con todos los derechos y deberes
inherentes.

Dado en la Ciudad Universitaria Rodrigo Facio
el 22 de junio del 2018.
En fe de lo cual firmamos junto al sello de la Universidad.

Decana
Facultad de Educación

Decano
Facultad de Letras

Rector

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Céd. 3 0447 0513

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