UNIVERSIDAD PARA LA COOPERACION INTERNACIONAL
(UCI)

A PROJECT MANAGEMENT OFFICE PROPOSAL AT THE UNIVERSITY OF GUYANA TO IMPROVE ITS IMPLEMENTATION PERFORMANCE RATE IN THE PUBLIC SECTOR INVESTMENT PROGRAMME (PSIP)

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DEDICATION

This research project is dedicated to my family members especially my mother, Violet, father, Clinton, and sister, Trudy, who have been sources of encouragement and support throughout my life and this programme.

This project is also especially dedicated to my nephew, Ethan Mekhi Fraser. I pray that my studies serve as an inspiration for him to reach even higher and greater heights. The world is your oyster, Ethan.

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This research project would not come to fruition without the collective efforts of a few people whom I would like to publicly acknowledge.

Firstly, I would thank God for his grace, sustenance, and strength in allowing me to embark on such a journey and to see it through to fruition. Your love for me continues to amaze me, Lord.

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Finally, I would like to give a very special thanks to all my classmates from whom I have learnt much and have grown because of it.

ABSTRACT

The objective of the project is to conduct research on a proposal for the creation of a project management office (PMO) at the University of Guyana. The implementation of the PMO aims to both improve the project management maturity level of the University of Guyana and its performance implementation rate in the Public Sector Improvement Programme (PSIP) currently at 30%. Thus, it would allow the University to continue to benefit from greater rehabilitation and new construction projects.

The outcome of the project will be the maturity analysis, characteristics, structure, and functions of the Project Management Organisation, its governance procedures as well as an implementation plan of PMO in accordance with the Guide to the Project Management Body of Knowledge, (PMBOK® Guide) - Seventh Edition. Thus, to accomplish this, the research process will follow a mixed-methodology approach and the guide presented by the Project Management Institute (PMI).

Consequently, the results of the project indicate that there was a demand for the implementation of the PMO. The PMO would provide the structure, procedures, processes, and templates for project implementation to improve the PSIP performance rate.

INDEX OF CONTENTS

INDEX OF FIGURES

INDEX OF CHARTS

ABBREVIATIONS AND ACRONYMS

CSR	Corporate Social Responsibility
FMD	Facilities Maintenance Division
HSE	Health and Safety
OOHAS	Office of Occupational Health and Safety
PMBOK® Guide	Project Management Body of Knowledge
PMI	Project Management Institute
PMO	Project Management Office
PSIP	Public Sector Investment Programme
PPPMMU	Projects Planning, Procurement, Monitoring and Management Unit
ORMP	Office for Resource Mobilization and Planning
TOR	Terms of Reference
TOS	Tactical Online Services Unit
UG	University of Guyana
UGWU	University of Guyana Workers Union
UGSSA	University of Guyana Senior Staff Association

EXECUTIVE SUMMARY

The University of Guyana (UG), established in April 1963, is located in the Republic of Guyana and is the nation's sole national higher-education institution. The University of Guyana offers certificate, diploma, associate degree, undergraduate degree, graduate (post-graduate) degree, and professional degree programmes.

UG as a parastatal institution receives 60% of its operational cost through the Government of Guyana subvention. The other 40% of the cost is raised through students' tuition and ancillary fees, gifts and grants from regional and multilateral institutions.

To improve its outdated infrastructure to international standards, in an era of severe resource shortages and economic challenges, the University of Guyana received an injection of funds through government capital subvention in 2021, the Public Sector Investment Programme (PSIP).

UG's current performance implementation rate in the PSIP is 30%. This dismal rating stemmed from its poor implementation, which is execution of projects (rehabilitation/construction). The PSIP rates projects according to the rubric of time and cost, meaning that the projects take the time stipulated in the contract and expend the funds outlined for certain deliverables. This is integral since if the implementation rate is not improved, the University will lose funding through the PSIP, which will affect the University's strategic goal to become a world-class teaching and learning institution.

The general objective of the project was to create a proposal which outlines the need for a Project Management Office at the University of Guyana to improve its implementation performance rate in the Public Sector Investment Programme (PSIP). The specific objectives were to conduct a maturity analysis to determine the project management maturity level of the organisation and organizational needs, to determine the characteristics and functions of the PMO in order to improve the PSIP performance, to create the structure of the PMO in order to propose the level of authority position within UG organizational structure, and to recommend an implementation plan to provide policies on recruitment, emoluments, benefits and training.

The research method used for the project was a mixed method which integrated both qualitative and quantitative research and utilized interviews, expert judgment, document analysis and risk impact and probability charts. This PMO proposal is a first step in improving the PSIP implementation rate since with the PMO as a repository for all projects; lessons learnt will be captured in order to improve PSIP project performance.

In conclusion, it was established that the implementation of a PMO would improve the project management maturity level at UG to allow for greater consistency, efficiency, and coherence across all capital projects. The University's maturity level currently stands at Level 2 which would ultimately mean that if projects are implemented in a similar fashion, they will be unsuccessful. Therefore, there needs to be a targeted improvement plan on the project management maturity in knowledge areas with scoring levels below 4. This will not be a one-off process as the Project Manager will have to conduct an annual analysis to identify areas for improvement. Added to that, it is proposed that the PMO be Directive to allow for greater

control in terms of implementing all capital projects and that it reports to the Vice-Chancellor to remove any unnecessary bureaucracy and closer to the center of power to allow for faster decision making. The Directive PMO was chosen because the University has had previous Offices established to improve the PSIP implementation rate, but failed to improve the PSIP implementation rate. There was the Office for Resource Mobilization and Planning (ORMP) that operated under a Deputy Vice-Chancellor in a traditionally functional structure with little to no authority. The bureaucracy in making decisions also affected how ORMP functioned. Whilst the Office for Strategic Initiatives (OSI) fell directly under the Vice-Chancellor's Office and operated in a functional structure and had little buy-in from stakeholders. Even further, that the PMO be operationalized in a phased approach over a period of five years with the relevant technical staff that have project management training and experience. This is necessary as the University is operating under severe financial resources constraints and it will be impractical and imprudent to hire 32 staff at once. Even further, it was underscored that there is a need for training of all staff in the PMO in project management good practices as identified by the Project Management Institute. This will have a unique impact of allowing all projects to be implemented in a similar manner as well as establishing the structures needed for improvement of project implementation by all staff implementing projects at the University of Guyana. Finally, the implementation plan of the PMO will be operationalized by an Implementation Committee appointed by the University's Council so that the PMO has the authority, staff, and tools to allow it to function. This is necessary since without the buy-in of the University Council that consists of all education stakeholders – politicians, labour organisation, opposition, academic staff and students, the PMO will not be able to achieve its' objectives.

Consequently, it was recommended that the maturity analysis should not be a one-off process and must be conducted annually to allow for greater and consistent improvement. Growth and improvement is not a one off, it must be a process that is done so as to garner improvement. Integrally linked to the annual maturity analysis is what will be done with the data. It would be necessary to not just collect the data, but have it informed how the PMO would function and improve. Therefore, robust organizational procedures need to be developed to in line with PMI best practices so as to ensure that the PMO functions in an efficiently and effectively manner and the requisite policies and procedures be developed to direct and inform the operations of the PMO. Furthermore, the Project management discipline is constantly evolving with new and cutting-edge information and better ways of doing things being developed every day. It is there important that training modules be developed so that the staff continuously improve and update their knowledge bank. Finally, there is need to the execution of the implementation plan so that the necessary templates, methodologies, processes, procedures, and tools, which would guide the operations of the PMO from the outset.

1 INTRODUCTION

1.1. Background

The University of Guyana (UG), established in April 1963, is located in the Republic of Guyana and is the nation's sole national higher-education institution. The University of Guyana offers certificate, diploma, associate degree, undergraduate degree, graduate (post-graduate) degree, and professional degree programmes. These programmes are delivered through the following eight organizational units: six Faculties, one College and one School: Agriculture and Forestry; Earth and Environmental Studies; Education and Humanities; Engineering and Technology, Natural Sciences, Social Sciences, a College of Medical Sciences, with a School of Entrepreneurship and Business Innovation.

UG is a parastatal institution which receives at least 60% of its operational cost through the Government of Guyana subvention. The other 40% of the cost is raised through students' tuition and ancillary fees as well as gifts and grants from regional and multilateral institutions, as well as through research grants from multinational companies and collaboration with other research and academic institutions. Currently, the University has two main campuses, one at Turkeyen in Greater Georgetown and one in Berbice with two locations at Tain and Johns.

1.2. Statement of the problem

The University of Guyana's current performance implementation rating in the Public Sector Investment Programme (PSIP) stands at around 30%. This dismal rating stems from its poor implementation, that is, execution of projects (rehabilitation/construction). The PSIP

usually rates projects according to the rubric of time and cost, meaning that projects take the time stipulated in the contract and expends the funds outlined for certain deliverables.

Despite years of experience, the University seems to not be as well structured as expected from a project management perspective. The way the University implements projects prevents the organization from systemizing the management experiences to be able to reap benefits from similar projects by the implementation of the lessons learned and the definition of methodologies for specific groups of projects outlined in the PMBOK® Guide. This is essential if the University wants to continue to benefit from financing of its major capital infrastructural projects, either rehabilitations or new structures.

As with any institution that has aged buildings and outdated infrastructure, it has been a challenge to maintain accreditation for many of its programmes. Aged buildings are usually not up to standard in terms of their physical infrastructure and the necessary facilities that it should have for both students and staff. There is a greater need for the University to not only expand its physical footprint but to improve its outdated infrastructure to international standards. The improved physical infrastructure can only be done by an injection of funds through government capital subvention, the Public Sector Investment Programme (PSIP).

Moreover, the way projects are managed needs to be improved as The University will not be given additional projects if it continues to underperform since these projects take up fiscal space. The absence of new projects mean that the University will not to be able to fulfill its mandate and its strategic objective since its facilities will continue to not be a highly ranked world-class tertiary institution and therefore its delivery of academic content will

suffer. This in turn may lead to a reduction in students requesting admittance to the University. As a result, the University will be in a dire financial and physical situation.

Consequently, this underscores the need for this PMO proposal at UG to aid in the improvement of the University's PSIP implementation rate. This is integral since if the implementation rate is not improved, the University will lose funding through the PSIP, which in turn can affect the University's strategic goal to become a world-class teaching and learning institution.

1.3. Purpose

As mentioned above, there is a need for UG to implement institutional changes to improve project management practices. This Project Management Office (PMO) proposal will see the creation of suitable guidelines, procedures, templates, and the use of project management tools and techniques to initiate, plan, execute and close projects at the University.

The key benefit of this process, regardless of the type of PMO developed, is for University of Guyana (UG) to become more competitive in terms of project management, being able to take advantage of traditional funding. This is a first step in improving the Public Sector Investment Programme (PSIP) implementation rate since with the PMO it will be a repository for all projects executed by UG and lessons learnt can be captured to improve PSIP project performance, at the right time and cost.

1.4. General objective

To create a Project Management Office proposal at the University of Guyana (UG) to improve its implementation performance rate in the Public Sector Investment Programme (PSIP).

1.5. Specific objectives

1. To conduct a maturity analysis to determine the project management maturity level of the organisation and organizational needs.
2. To determine the characteristics and functions of the PMO in order to improve the PSIP performance.
3. To create the structure of the PMO to propose the level of authority position within UG organizational structure.
4. To recommend an implementation plan to provide policies on recruitment, emoluments, benefits, and training.

2 THEORETICAL FRAMEWORK

2.1 Company/Enterprise framework

2.1.1 Company/Enterprise background

The University of Guyana is Guyana's sole national higher-education institution. It was established in April 1963. It began its operations on October 1 of the same year at Queens College compound, the nation's premier secondary school, before moving to the Turkeyen Campus in 1970.

The University of Guyana's main source of funding is the Government of Guyana which accounts for approximately more than 60 percent of total funding, while income from services referred to as internal funds in the second position with 39 percent of total funds and the one percent is from gifts and grants.

Additionally, The University of Guyana is listed in the annual Appropriation Act as a subvention agency receiving a subvention for its Turkeyen and Berbice campuses to cover recurrent costs and a capital contribution to ensure access to tertiary education in Guyana. The allocation as prescribed in the Appropriation Act is public funds, hence the University shall manage the funds in a manner that promotes efficient, effective and ethical actions in accordance with the Fiscal Management and Accountability Act, Procurement Act and regulations specifying accepted financial management practices.

2.1.2 Mission and vision statements

The aims of the University of Guyana are to provide a place of education, learning, and research of a standard required and expected of a university of the highest standard, and

to secure the advancement of knowledge and the diffusion and extension of arts, sciences, and learning throughout Guyana (University of Guyana, 2019).

The mission of the University of Guyana is to discover, generate, disseminate, and apply knowledge of the highest standard for the service of the community, the nation, and of all mankind within an atmosphere of academic freedom that allows for free and critical inquiry (University of Guyana, 2019).

Therefore, for the University to provide these world-class campuses that facilitate the discovery and generation of knowledge, it is important that the attending facilities be present. This can only happen with the creation of the PMO that will implement these projects efficiently, thereby not only improving the PSIP implementation rate, but also, having high quality facilities for students, faculty and staff.

2.1.3 Organizational structure

The University of Guyana's structure is a functional one whereby the departments are organized according to their roles and skills. Currently, the three main departments that deal with projects are the Facilities Maintenance Department (FMD), Tactical Online Services Unit (TOS) and the Projects Planning, Procurement, Monitoring and Management Unity (PPPMMU).

- FMD currently looks at all internally funded projects that seek to either upgrade the current or maintain University edifice. In addition, to that the department oversees the capital-funded projects. However, with a 122-acre campus and over

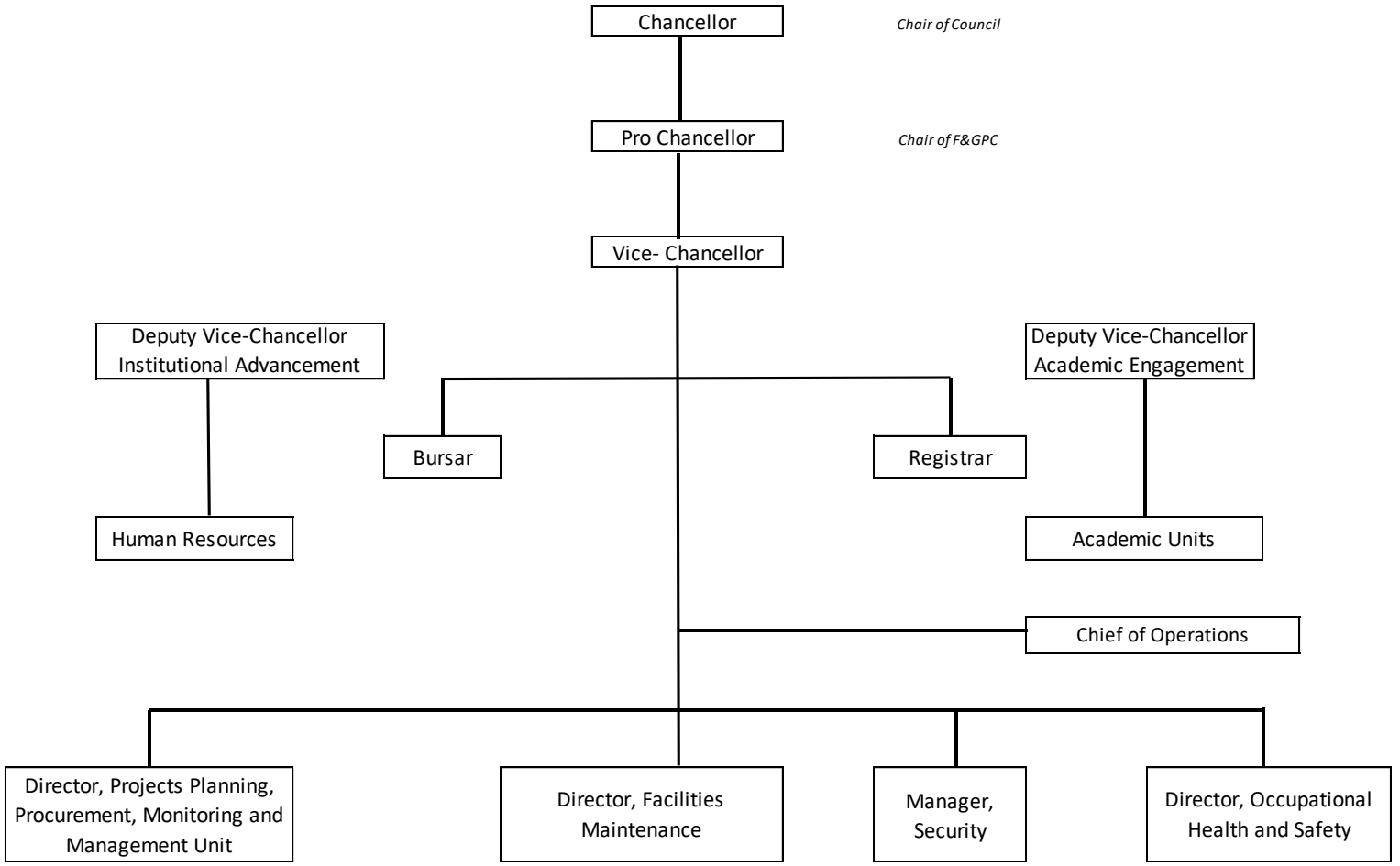
50 buildings to maintain, enough effort is not placed on capital-funded projects hence the low PSIP implementation rating.

- In the case of major Information Technology upgrades, the Tactical Online Services Unit (TOS) usually takes the lead as that is the department that looks after the University's IT infrastructure.
- On the other hand, the PPPMMU is tasked with developing and the implementation of projects from the private sector. This has seen a tremendous increase because of the burgeoning oil and gas sector in Guyana, many companies through their corporate social responsibility (CSR) are doing projects that benefit the education sector.

Critical to the functioning of the works of the above three departments are the Occupational Health and Safety (OOHAS) Department that ensures that the contractors adhere to national and international standards. Also, when a new building is in conception and design stage, the OOHAS department is critical so that the building caters for emergency exits and fire extinguishers and alarms.

Finally, the Security Department assists with securing the worksite so that there are minimum losses due to pilferage. The following figure highlights the organizational structure of UG.

Figure 1 Organizational structure. Source: (Adapted from "University's Procurement and Procedural Manual document", copyright University of Guyana, 2019).



Given the work that will be done by the PMO, there will be greater synergies with the Office of the Vice-Chancellor, Facilities Maintenance Division, the Occupational Health and Safety (OHAS) and the Projects Planning, Procurement, Monitoring and Management Unit (PPPMMU). This will ensure that all the projects that will be done not only fits into the overall strategic vision of the organisation, but that the University has the necessary skills and competency to adequately maintain look after such facilities and that they are built in a safe manner with international safety standards. The Office as envisioned will fall directly under the Office of the Vice-Chancellor to allow for greater autonomy and decisiveness. With the PMO being so close to the centre of authority, it will eliminate the bureaucracy of having decisions made.

2.1.4 Products offered.

The University of Guyana offers certificate, diploma, associate degree, undergraduate degree, graduate (post-graduate) degree, and professional degree programmes. These programmes are delivered through the following eight organizational units: six Faculties, one College and one School: Agriculture and Forestry; Earth and Environmental Studies; Education and Humanities; Engineering and Technology, Natural Sciences, Social Sciences, a College of Medical Sciences, and School of Entrepreneurship and Business Innovation.

2.2 Project Management concepts

2.2.1 Project

According to Project Management Institute (PMI), 2021 a project is a “temporary endeavor undertaken to create a unique product, service, or result” (p. 13). The temporary nature of projects indicates a beginning and an end to the project work or a phase of the project work. Projects can stand alone or be part of a program or portfolio.

2.2.2 Project Life Cycle

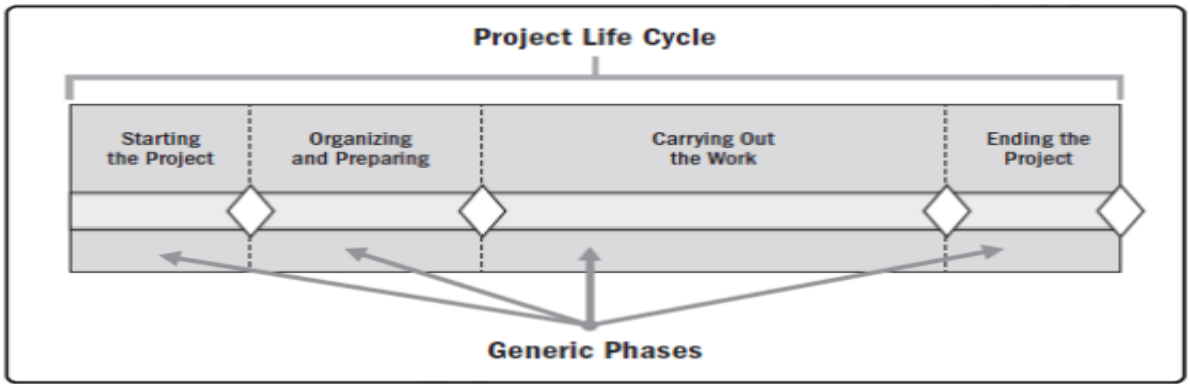
According to the PMBOK® Guide, sixth edition, “a project life cycle is the series of phases that a project passes through from its start to its completion. It provides the basic framework for managing the project. This basic framework applies regardless of the specific project work involved. The phases may be sequential, iterative, or overlapping” (PMI, 2017, p 19).

The generic phases in the project life cycle are:

i. Starting the project
ii. Organizing and preparing
iii. Execution
iv. Ending the project.

The following figure 2 is a generic depiction of the Project Life Cycle.

Figure 2. Generic Depiction of a Project Life Cycle. Source: (PMBOK® Guide Sixth Edition, p. 548).



2.2.3 Project management principles

Project management principles "provide guidance for the behavior of people involved in projects as they influence and shape the performance domains to produce the intended outcomes" (PMI, 2021, p. 21). The twelve principles of Project Management are detailed below.

Chart 1 Principles of Project Management. Source: (PMBOK® Guide Seventh Edition, p. 5)

Principles of Project Management			
Be a diligent, respectful, and caring steward	Create a Collaborative team environment	Effectively engage with stakeholders	Focus on value
Recognise, evaluate and respond to system interactions	Demonstrate leadership behaviors	Tailor based on context	Build quality into processes and deliverables
Navigate complexity	Optimize risk responses	Embrace adaptability and resiliency	Enable change to achieve the envisioned future state

For this project, the following principles will be considered:

- **Create a collaborative team environment**: all projects no matter where they are performed are delivered through project teams. It is important that the team can work effectively together by giving them the necessary resources, coaching and guidance.
- **Recognize, evaluate, and respond to system interactions, effectively engage with stakeholders**: all projects have stakeholders, someone or an organization, who are interested in or impacted by the project. Each stakeholder expects something from the project, and it is important to fully understand their needs so that the project team can tailor the engagement to be most effective.
- **Tailor-based on context:** every organisation has its own context and culture in which it operates, with the utilization of the tailoring principles it will allow for the means choosing of the right delivery approach based on organizational context, team culture, and maturity, and what you are delivering.
- **Embrace adaptability and resilience**: thinking systematically will be important in this project as the change or the work of the PMO will affect how other departments in the University function. By utilizing systems thinking, the team will look at the entire system, the individual parts, behavior of the system, and relationships over time. which can help understand the dynamics within the system,
- **Focus on value**: creating value is another important principle as it looks at the balance between benefits gained and resources spent. This is important to the University as resources are scarce.
- **Build quality into processes and deliverables**: intrinsically linked with creating value is the concept of quality, which means that the product or service meets the

customer's needs: not more and not less. Without quality, the University's effort is wasted, and no value is created.

These principles provide a framework for teams to operate within and allow them to focus not on the processes alone, but how the team functions. The principles can function as a guide so that the project can be steered in the right direction and make sure decisions made are beneficial to the University.

2.2.4 Project management

According to PMI, "project management is the application of knowledge, skills, tools, and techniques to project activities in order to meet project requirements" (PMI, 2017, p.10). Project management refers to guiding the project work to deliver the intended outcomes. (PMI, 2017, p.10).

2.2.5 Predictive, adaptative and hybrid projects

A predictive project "is a development approach in which the project scope, time and cost are determined in the early phases of the life cycle. An adaptive project is a development approach in which the requirements are subject to an elevated level of uncertainty and volatility and are likely to change throughout the project. The Hybrid projects are a combination of two or more agile and nonagile elements, having nonagile end results" (PMI,2021, p.35).

For this project, the predictive approach will be used as the scope will be adumbrated and then the attendant cost and schedule will be developed.

2.2.6 Project management domains

A project performance domain is "a group of related activities that are critical for the effective delivery of project outcomes" (PMI, 2021, p.7). Project performance domains are interactive, interrelated, and interdependent areas of focus that work in unison to achieve desired project outcomes. According to PMI (2021), there are eight project performance domains:

1. Stakeholders – addresses activities and functions associated with stakeholders.
2. Team – addresses activities and functions associated with the people who are responsible for producing project deliverables that realise business outcomes.
3. Development Approach and Life Cycle – addresses activities and functions associated with the development approach, cadence, and life cycle phases of the project.
4. Planning - addresses activities and functions associated with the initail, ongoing evolving organization and coordination necessary for the delivering project deliverables and outcomes.
5. Project Work - addresses activities and functions associated with establishing project processes, managing physical resources, and fostering and learning environment.
6. Delivery - addresses activities and functions associated with delivering the scope and quality the project was undertaken to achieve.
7. Measurement - addresses activities and functions associated with assessing project performance and taking appropriate actions to maintain acceptable performance, and

8. Uncertainity - addresses activities and functions associated with risk and uncertainity (p.7).

The following figure 3 depicts the Project Management Performance Domains.

Figure 3. Principles of Project Management Performance Domains. Source: (PMBOK® Guide Seventh Edition p. 5).

The performance domain should be considered through all phases of the project in order define the University's organizational needs, identify and validate requirements and decision-making, identify inefficient processes, and implement the required improvements. The performance domains will provide the best practices to adopt for the highest value generation by generating the intended project outcomes.

2.2.7 Project management knowledge areas and processes

2.2.7.1 Project Management Knowledge Areas

A knowledge area is "an identified area of project management defined by its knowledge requirements and described in terms of its component processes, practices, inputs, outputs, tools and techniques" (PMI, 2017, p. 23). There are ten knowledge areas, which are listed and defined below:

1. **Project Integration Management** – includes the processes and activities to identify, define, combine, unify and coordinate the various processes and project management activities within the project management process groups (PMI, 2017, p. 23).
2. **Project Scope Management** – includes the processes require to ensure the project includes all the work required, and only the work required, to complete the project successfully (PMI, 2017, p. 23).
3. **Project Schedule Management** – includes the processes required to manage the timely completion of the project (PMI, 2017, p. 24).
4. **Project Cost Management** – includes the processes involved in planning, estimating, budgeting, financing, funding, managing, and controlling project costs so the project can be completed within the approved Budget (PMI, 2017, p. 24).
5. **Project Quality Management** – includes the processes for incorporating the organization's quality policy regarding planning, managing and controlling project and product quality requirements, in order to meet stakeholders' expectations (PMI, 2017, p. 24).

6. **Project Resource Management** – includes the processes to identify, acquire, and manage the resources needed for the successful completion of the project (PMI, 2017, p. 24).
7. **Project Communications Management** – includes the processes required to ensure timely and appropriate planning, collection, creation, distribution, storage, retrieval, management, control, monitoring and ultimate disposition of project information (PMI, 2017, p. 24).
8. **Project Risk Management** – includes the processes of conducting risk management planning, identification, analysis, response planning, response implementation, and monitoring risk on a project (PMI, 2017, p. 24).
9. **Project Procurement Management** – includes the processes necessary to purchase or acquire products, services, or results needed from outside the project team (PMI, 2017, p. 24).
10. **Project Stakeholder Management** – includes the processes required to identify the people, groups, or organisations that could impact or be impacted by the project, to analyze stakeholder expectations and their impact on the project, and to develop appropriate management strategies for effectively engaging stakeholders in project decisions and execution (PMI, 2017, p. 24).

2.2.7.2 Project Management Process Group

A project management process group "is a logical grouping of project management processes to achieve specific objectives" (PMI, 2017, p. 23). Process Groups are independent of project phases and are grouped into the following five project management process groups:

- **Initiating Process Group** – those processes performed to define a new project or a new phase of an existing project by obtaining authorization to start the project or phase (PMI, 2017, p. 23).
- **Planning Process Group** – those processes required to establish the scope of the project, refine the objectives, and define the course of action required to attain the objectives that the project was undertaken to achieve (PMI, 2017, p. 23).
- **Executing Process Group** – Those processes performed to complete the work defined in the project management plan to satisfy the project requirements (PMI, 2017, p. 23).
- **Monitoring and Controlling Process Group** – those processes 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 (PMI, 2017, p. 23).
- **Closing Process Group** – those processes performed to formally complete or close the project, phase, or contract (PMI, 2017, p. 23).

The following figure depicts the Project Management Process Groups and Knowledge Areas.

Figure 4. Project Management Process Groups and Knowledge Area Mapping. Source: (PMBOK® Guide Sixth Edition, Part 2. p. 556)

Knowledge Areas	Project Management Process Groups				
	Initiating Process Group	Planning Process Group	Executing Process Group	Monitoring and Controlling Process Group	Closing Process Group
4. Project Integration Management	4.1 Develop Project Charter	4.2 Develop Project Management Plan	4.3 Direct and Manage Project Work	4.4 Monitor and Control Project Work 4.5 Perform Integrated Change Control	4.6 Close Project or Phase
5. Project Scope Management		5.1 Plan Scope Management 5.2 Collect Requirements 5.3 Define Scope 5.4 Create WBS		5.5 Validate Scope 5.6 Control Scope	
6. Project Time Management		6.1 Plan Schedule Management 6.2 Define Activities 6.3 Sequence Activities 6.4 Estimate Activity Resources 6.5 Estimate Activity Durations 6.6 Develop Schedule		6.7 Control Schedule	
7. Project Cost Management		7.1 Plan Cost Management 7.2 Estimate Costs 7.3 Determine Budget		7.4 Control Costs	
8. Project Quality Management		8.1 Plan Quality Management	8.2 Perform Quality Assurance	8.3 Control Quality	
9. Project Human Resource Management		9.1 Plan Human Resource Management	9.2 Acquire Project Team 9.3 Develop Project Team 9.4 Manage Project Team		
10. Project Communications Management		10.1 Plan Communications Management	10.2 Manage Communications	10.3 Control Communications	
11. Project Risk Management		11.1 Plan Risk Management 11.2 Identify Risks 11.3 Perform Qualitative Risk Analysis 11.4 Perform Quantitative Risk Analysis 11.5 Plan Risk Responses		11.6 Control Risks	
12. Project Procurement Management		12.1 Plan Procurement Management	12.2 Conduct Procurements	12.3 Control Procurements	12.4 Close Procurements
13. Project Stakeholder Management	13.1 Identify Stakeholders	13.2 Plan Stakeholder Management	13.3 Manage Stakeholder Engagement	13.4 Control Stakeholder Engagement	

2.2.8 Project life cycle

According to the PMBOK® Guide, sixth edition, a project life cycle is “the series of phases that a project passes through from its start to its completion” (PMI, 2017, p.19). It provides the basic framework for managing the project, which applies regardless of the specific project work involved. The phases may be sequential, iterative, or overlapping.

Project life cycles can be the following:

- In a predictive life cycle, the project scope, time, and cost are determined in the early phases of the life cycle. Any changes to the scope are carefully managed. Predictive life cycles may also be referred to as waterfall life cycles (PMI, 2017, p.19).
- In an iterative life cycle, the project scope is generally determined early in the project life cycle, but time and cost estimates are routinely modified as the project team’s understanding of the product increases. Iteration develops the product through a series of repeated cycles, while increments successively add to the functionality of the product (PMI, 2017, p.19).
- In an incremental life cycle, the deliverable is produced through a series of iterations that successively as functionally within a predetermined time frame. The deliverable contains the necessary and sufficient capability to be considered complete only after the final iterations (PMI, 2017, p.19).
- An adaptive lifecycle is agile, or incremental. The detailed scope of the project is defined and approved before the start of an iteration. Adaptive life cycles are also referred to as agile or change-driven life cycles (PMI, 2017, p.19).

- A hybrid life cycle is a combination of a predictive and an adaptive life cycle. These elements of the project that are well known or have fixed requirements follow a predictive development life cycle, and those elements that are still evolving follow an adaptive development life cycle (PMI, 2017, p.19).

This proposed project will follow a predictive life cycle as the scope, schedule and cost of the project must be known beforehand to be approved by the various governance bodies of the University before the start of the project. If any changes to scope needs to be made, it can be facilitated through the change control process.

2.2.9 Company strategy, portfolios, programs, and projects

According to S. Joubert (2021), a project is a temporary endeavour undertaken by a company or organization such as the creation of a new product, service, or result. On the other hand, a program is "a group of projects that are similar or related to one another, and which are often managed and coordinated as a group instead of independently" (PMI, 2017, 13). Finally, a portfolio is "a group of different programs and/or projects within the same organization, which may be related or unrelated to one another" (PMI, 2017, 13). Essentially, projects fit within larger programs, which themselves fit within portfolios.

M. Jeubel (2022) notes that a business strategy outlines the plan of action to achieve the vision and set objectives of an organization and guides the decision-making processes to improve the company's financial stability in a competing market. Essentially, it is a high-level plan that helps the company achieve its goals.

Moreover, business strategy is about business success, and it is not just a plan. There is need for the linking strategy since project management is a two-way and interdependent process: strategy influences the project, program or portfolio, and the execution of the project portfolio influences the strategy. This PMO proposal will be done at a project level.

2.2.10 Project Management Organization

The PMBOK® Guide sixth edition defines a PMO as "an organizational structure that standardizes the project-related governance processes and facilitates the sharing of resources, methodologies, tools, and techniques (PMI, 2017, p. 716). The responsibilities of a PMO can range from providing project management support functions to direct management of one or more projects" (PMI, 2017, p.716).

The PMBOK® Guide seventh edition, articulates a clearer and expansive definition of a PMO as one that can refer to a portfolio, program, or project management office. It represents a management structure that standardizes project-related governance processes and facilitates the sharing of resources, tools, methodologies and techniques (PMI, 2017, p.212).

2.2.11 Types of Project Management Organizations

For the purposes of this research, the different configurations/types of PMOs are defined according to that stipulated by the PMBOK® Guide seventh edition as follows (2021, p.212):

- Some PMOs provide project management guidance that supports consistency in how projects are delivered. These PMOs may provide guidelines, templates, and examples of good practices along with training and coaching. Standardized approaches and tools promote a common business picture across projects and facilitate decisions that transcend individual project concerns. This type of PMO often exists in organisations that are just starting to improve their project management capabilities.
- A PMO may offer project support services for planning activities, risk management, project performance tracking and similar activities. This shared services model of a PMO often exists in organisations with independent or diverse business units that want support with delivery while maintaining more direct control over their projects.
- PMOs can be part of a department or business unit and oversee a portfolio of projects. Oversight can include activities such as requiring a business case to initiate a project, allocating financial and other resources to deliver the project, approving requests to change project scope or activities, and similar functions. This type of PMO provides centralized management of projects. This structure exists in organisations that have departments with multiple projects and that deliver strategically important results, such as IT capabilities or new product development.
- An organisation may have an enterprise-level PMO (EPMO) that links implementation of organizational strategy with portfolio level investments in programs and projects that deliver specific results, changes, or products. This structure exists in organisations with well-established project management

capabilities that are directly linked to achieving organizational strategy and broad business objectives.

- Finally, organisations with flatter structures, customer-centered initiatives and more adaptive delivery approaches may adopt an Agile Center of Excellence (ACoE) or Value Delivery Office (VDO) structure. The ACoE/VDO serves as an enabling role, rather than a management or oversight function. It focuses on coaching teams, building agile skills capabilities throughout the organisation and mentoring sponsors and product owners to be more effective in their roles. This type of structure is emerging within organizations adapting more decentralized structures where teams need to respond quickly to changing customer needs.

2.3 Other applicable theory/concepts related to the project topic and context.

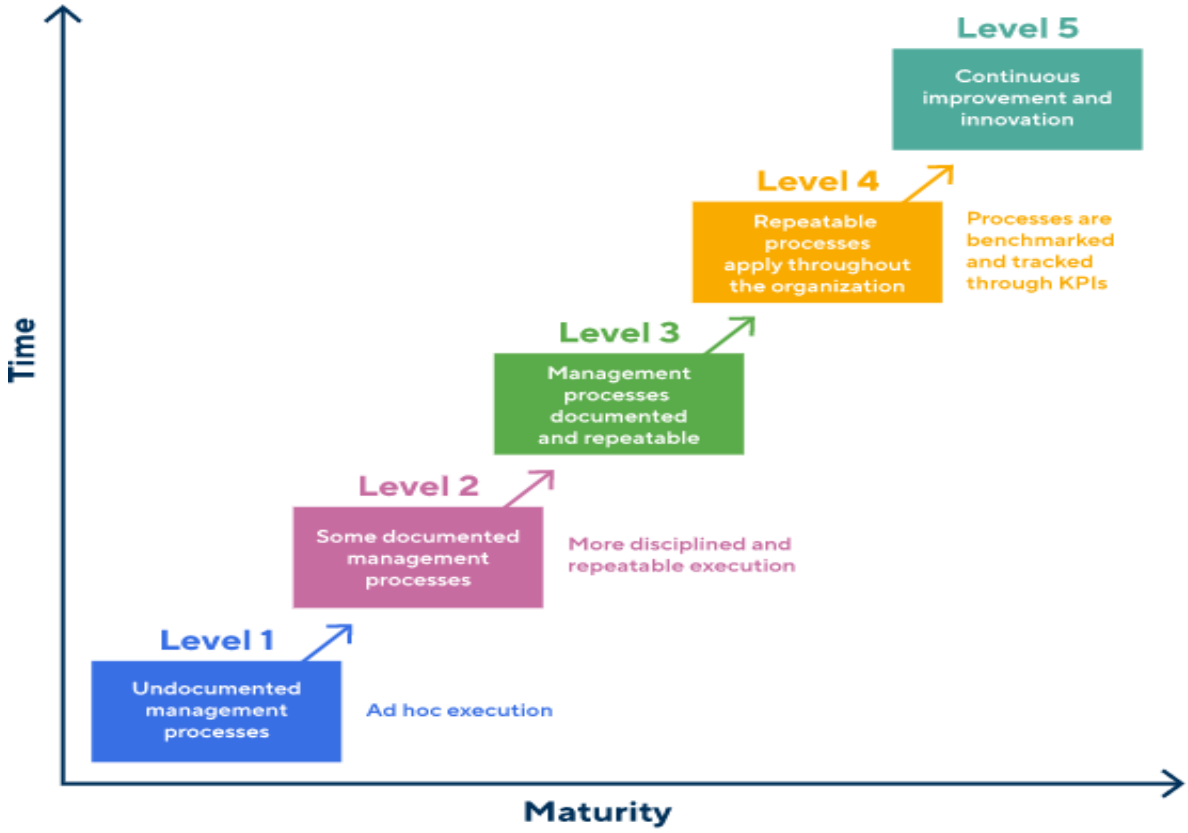
2.3.1 Organizational Maturity Models

Organizations conduct project management maturity assessments to determine their readiness or ability to implement projects successfully. The type of model used depends on factors such as the organization's culture and the project management maturity goals, in alignment with the organization's vision, mission and strategic goals (Smartsheet, 2022).

Additionally, project management maturity reflects an organization's ability to spearhead successful projects. If a company has high maturity, its projects are more likely to meet objectives. Whilst on the other hand, organizations with weak maturity may not finish projects on time and/or within budget (Smartsheet, 2022).

Finally, it can be concluded that having high project management maturity means planning, executing, and completing projects well through teams following defined, repeatable project management processes to minimize project risks and achieve strategic goals (Smartsheet, 2022). The following figure depicts the levels project management maturity model.

Figure 5. Project Management Maturity Models. Source: (Smartsheet, 2022)



Some maturity models are the following:

i. **Project Management Maturity Model (PMMMSM)**: PM Solutions' Project Management Maturity Model is another model that uses the PMBOK® Guide 10 knowledge areas to create a standardized method for maturity assessment. When

using this model, the project manager assigns one of five maturity levels to each knowledge area. These levels are the following: initial process, structured process and standards, organization standards and institutionalized process, managed process, and optimizing the process (Smartsheet, 2022).

ii. **Berkeley Project Management Process Maturity Model**: Applicable to any industry, the "Berkeley project management process maturity model" takes an incremental approach to improving a company's maturity level. When using this model, project managers assess the maturity level of key project management processes and organizational characteristics and rank them on a five-stage maturity scale: the ad-hoc, defined, managed, integrated, and sustained stages (Smartsheet, 2022).

iii. **Kerzner's Project Management Maturity Model**: Kerzner's project management maturity model is another incremental method for improving a company's maturity. The Kerzner model defines each of its five maturity levels by the primary focus of that stage: common language, common process, singular methodology, benchmarking, and continuous improvement (Smartsheet, 2022).

iv. **Portfolio, Programme, and Project Management Maturity Model (P3M3®):** Designed by Axelos, the Portfolio, Programme, and Project Management Maturity Model (P3M3®) takes a wide-angle view of the entirety of a company's interdependent processes to make an accurate maturity assessment. This model ranks maturity on a five-stage scale and gauges maturity based on seven core processes: organizational governance, management control, benefits management, risk

management, financial management, resource management, and stakeholder management. In addition to improving organizational processes, this model is also useful for assessing and improving project portfolio management (PPM) (Smartsheet, 2022).

2.3.2 Project Management Maturity Model (PMMMSM)

The project management maturity valuation tool that will be used for this project is the Project Management Maturity Model as developed by Miller (2004). The model uses the PMBOK® Guide 10 knowledge areas to create a standardized method for organizational maturity assessment. This model assigns the below maturity levels to each knowledge area:

- **Level 1 - Initial process** - sometimes called the *ad hoc* or *initial level*, the initial process level represents the stage where a company has not yet implemented standardized project management processes. Project management is chaotic and there is little to no consistency between projects (Smartsheet, 2022).
- **Level 2 - Structured process and standards -** an organization attempts to implement standardized, repeatable processes. Project managers track costs, timings, and functionality. Teams now plan projects and create reports to provide high-level overviews of project metrics and progress (Smartsheet,2022).
- **Level 3 - Organization standards and institutionalized process** - a company documents processes and integrates them into all parts of the organization. Employees are aware of processes and can reliably implement them. Most projects are completed on time and within budget (Smartsheet, 2022).

- **Level 4 - Measurement or Management -** companies implement clear metrics to track the success of processes and qualitatively control them. Team members and management have a good sense of project status and requirements (Smartsheet, 2022).
- **Level 5 - Optimizing process** - organizations adjust their established processes. This level is the highest maturity level that organizations can reach. It pursues continuous improvement efforts and innovation. Some approaches to improvement include efforts to reduce and prevent defects and incorporate automation (Smartsheet, 2022).

2.3.3 Current situation of the problem or opportunity in study

The implementation of the project as against time, scope, schedule, and quality are measured through the Public Sector Investment Programme (PSIP). If the University wants to benefit from these vital government subventions, it needs to improve its implementation rate. This needs to improve as the University will not be given additional projects.

As of now, the execution of these projects all under the auspices of the Facilities and Maintenance Division (FMD) who are tasked with maintaining the physical plant of the University as well as producing the engineer's estimates, bills of quantities (BOQs) for new projects and monitoring, execution and reporting of these projects as well. The FMD is already stretched for both financial and human resources to maintain the buildings and grounds of the campus. Therefore, sufficient time and resources are not geared towards the proper execution of these projects which has led to the poor implementation rate of 30%. This means that the projects are poorly implemented in terms of schedule and cost. Added to

that when it comes to scope, it has been found that the projects are generally not scoped properly from the inception which has led to major dissatisfaction by stakeholders at its completion and because of poor and sporadic monitoring, quality has also suffered.

In terms of improving performance, various methods have been proffered and implemented. For instance, additional technical staff have been recruited and put into the FMD. However, with the modus operandi, this has proven difficult. Additionally, staff were expected to function without the necessary training being provided.

2.3.3 Previous research done for the topic in study.

The proposal for the creation of a PMO to improve the implementation rate of the University's PSIP implementation rate performance. As adumbrated by Hatchett (2021), a PMO offers direction to project managers and forms valuable project management metrics. Another critical facet of the role is to ensure that the delivered projects align with the organizational strategy and culture.

Miller, 2017 notes that the best place to start when considering whether or not a PMO is needed, look at how a company operates and see if different segments of it are already working together across systems and groups in harmony, or if they operate as silos with different systems and do not often talk to each other. Then, a PMO is needed. The University is a classic case of departments, schools, and faculties whether academic or administrative operating in silos. Because of academic freedom and the nature of pursuing research, these units execute projects at different scales. However, there is not one Unit that coordinates all projects University wide.

The University of Guyana has a more functional organizational structure so the PMO will be needed to do, inter alia:

- Prioritizes and/or terminates projects.
- Manages the interdependencies among projects and programs.
- Request and contribute financial, human, and other resources.
- Ensure projects align with organizational culture and strategy.
- Provides templates, guidance and project governance.
- Collect Lessons Learned and offer them to other similar projects:
- Coordinates communication across every project; and
- Be represented on the change control board as well as is a stakeholder in all projects. (Hatchett, 2021)

The PMO has been chosen as the method to improve this performance since as noted by PMO Global Institute, 2022 the University can expect the following benefits:

1. **Creative reports -** the standardizing of procedures and practices that facilitate the coordination of the organization's project management strategy. The standardized report ensures a proper structure for the report, which is helpful to the client and project team members in understanding the status of the project. As a result, management can evaluate the performance of different projects.
2. **Cost reductions -** any project should strive to reduce costs as much as possible. The project may be affected if the cost of the project increases. However, reducing project expenses may be a side effect of increased accuracy. Continually, the project

management team monitors the project expenses and informs the team about real-time monitoring.

3. **Completing projects efficiently -** A project manager is responsible for implementing the plan, producing deliverables, and achieving the objective. At the same time, the project management team handles the back-end tasks such as paper reporting, communication, and analysis. Additionally, the analysis may assist in the realization of improved procedures that can boost productivity.
4. **Objectives of the organizations -** a PMO determines whether a project is consistent with the organization's long-term goals and may terminate a project if it decides its completion will not assist the organizational strategy thereby, devoting time, money, and resources to other initiatives aligned with those objectives. The PMO ensures that the company's operations can continuously create value.
5. **Organizing data –** a PMO serves as a repository for all project data. The centralization of data may make it easier for teams to find the data they need. In addition, it ensures that all stakeholders are aware of project specifics, such as dependencies and the causes of halted development. With this transparency, project teams and management may be able to communicate problems and collaborate on developing solutions based on factual data.
6. **Assurance of quality -** a PMO can contribute to quality assurance by providing a distinct perspective on project performance. It is often the case that improvement opportunities are not readily apparent to people who are more intimately involved with the project. A member of the PMO may be able to identify ways in which the

project team could more effectively utilize its resources. As a result, the team may be able to complete the project and meet its quality goals.

7. **Ability to make better decisions -** PMOs serve as a point of convergence for upper management, team management, and project teams. In addition, to providing a wealth of reference data, it also provides practical insights. It may be helpful if a project is disrupted or encounters a roadblock. To overcome the problem, the project manager may speak with the PMO to brainstorm potential solutions based on previous project outcomes.
8. **Improved business agility -** by establishing a PMO, a business can be better able to select a project that aligns with the company's business plan to provide value. To achieve more with fewer resources, the PMO can select projects carefully. As a result, limited resources are directed toward those projects and initiatives that are considered to be the most important and beneficial to the company.

Karoline Holicky (2020) in her blog, 'What Is a PMO and Why Do I Need It?' (PMO Part 1), further adumbrates that the PMO is beneficial since it is:

- A team dedicated to multi-project management and keeping track of all the processes, changes, conflicts, risks, and decisions.
- A successful project portfolio that focuses on resource availability and corporate strategy.
- The ability to adapt and offer planned alternatives when disruptions occur.
- Freeing up time and energy, so project managers and project teams can concentrate on executing and delivering more projects.

- Increased project efficiency and quality while reducing project risk.
- Improved communication across projects and across the entire organization; and
- Effective transfer of knowledge, applying best practices and minimizing errors.

It would be naïve to assume that with the creation of the PMO that the University will not face any challenges. The author does not believe that PMOs are one solution to all project-related problems but, it is a start towards improved implementation.

J. Perugino (2019) notes that the average lifespan of a PMO is under two years because they fail to anticipate and proactively plan for common problems that creep up along the way. Therefore, it is important to identify all the challenges that can potentially arise and mitigate them.

- Lack of executive leadership in implementation - must have executive leadership support that communicates the importance of the PMO and its value to the company (J. Perugino, 2019).
- Poorly trained Project Managers (PM) - PMs require specific skills and competencies, some of which can be learned from theory and others only with experience (B. N. F González, 2022); and
- Failing to evolve the project methodology and practices using one single method which is applied to all projects. PMOs need to be aware of new approaches and adapt them where appropriate (B. N. F González, 2022).

B. N. F González (2022) postulates in the article the problem with PMOS that there can be numerous problems with PMOs today, including that they tend to over-manage and get in the way of good-enough processes trying to impose structure where none is needed. This González (2022) notes sometimes, slows things down, encouraging paralysis through perfectionism, which doesn't produce better results at all.

Additionally, some PMOs are staffed with people who have never experienced real-life project management or historically been unable to get their needs met or have any voice in project decisions. Because of this, institutional biases tend to become baked into the processes and procedures that come out of the PMO. The result is documentation for documentation's sake, policies for policies' sake, rigid lines of command and control and more processes than the really needed.

From the above research, it can be surmised that the PMO is an effective way for the University to manage all its projects. This will ensure that all projects are managed by a central department bringing to bear one standard for reporting, compilation of lessons learnt, how we deal with stakeholders, and so on. This will greatly bring benefit to the University in improving its implementation performance rate, which will not only bring tremendous benefit to the University.

2.3.4 Public Sector Investment Programme (PSIP)

The Public Sector Investment Programme (PSIP) is the instrument used by the Government to effect its vision and policies. It is a budgeting and strategic planning tool made up of projects and programmes which are designed to realise the goals set out in the

Government's overarching policy. The Public Sector Investment Programme (PSIP) is a budgeting and strategic planning tool employed to translate its vision and policies into tangible projects and programmes. These projects and programmes are designed to realise the goals set out in the Government's overarching Draft National Development Strategy which is ultimately geared towards improving the quality of life for the citizens (Ministry of Finance & Sfadmin, 2022).

2.3.5 Regenerative Development

According to Müller (2017), "humankind has taken a dangerous path with its current global development trends. Humanity is in a time of rapid population growth coupled with overconsumption and massive destruction of Nature" (Müller, 2017). Regenerative Development is an approach that encourages communities to support and create positive relationships that will benefit society and our environments by allowing the system to evolve and adapt to changing circumstances (Müller, 2017).

2.3.6 Sustainable Development

Sustainable development is development that meets the needs of the present, without compromising the ability of future generations to meet their own needs (International Institute for Sustainable Development, 2023). The concept of sustainable development can be interpreted in many ways, but at its core is an approach to development that looks to balance different, and often competing, needs against an awareness of the environmental, social and economic limitations we face as a society.

Sustainable Development globally are enshrined in the Sustainable Development Goals (SDGs), also known as the Global Goals which were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity (International Institute for Sustainable Development, 2023).

The 17 SDGs are integrated and recognize that action in one area will affect outcomes in others, and that development must balance social, economic, and environmental sustainability. The SDGs are no poverty; zero hunger; good health and well-being; quality education; gender equality; clean water and sanitation; affordable and clean energy; decent work and economic growth; industry, innovation and infrastructure; reduced inequalities; sustainable cities and communities; responsible consumption and production; climate action; life below water; life on land; peace, justice, and strong institutions; and partnerships for the goals (International Institute for Sustainable Development, 2023).

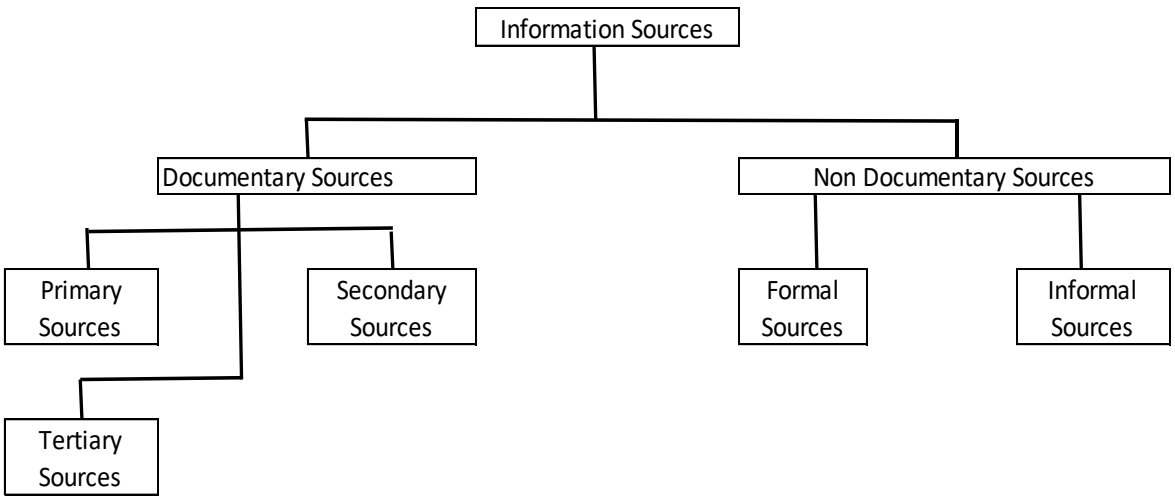
3 METHODOLOGICAL FRAMEWORK

This framework provides a guide for the research, so that it can be conducted in a systematic and efficient manner. The section is composed of research methods and tools that will be used for the specific deliverables.

3.1 Information sources

An information source is a source of information for somebody, that is, anything that might inform a person about something or provide knowledge to somebody. Information sources may be observations, peoples' speeches, documents, pictures, organizations, and so on. (Library & Information Science Network, 2018). According to IGI Global (2020), an information source is a person, thing, or place from which information comes, arises, or is obtained. Information sources can be known as primary or secondary. The following figure shows the types of information.

Figure 6. Types of Information. Source: (Reprinted from Sanjana A. (2020)



Types of Information sources:

1- **Documentary sources** – these are generally published or recorded documents of knowledge and can be under Primary, Secondary, and Tertiary.

2- **Non-Documentary sources** –are those which are either compiled from or refer to primary sources of information. The original information has been casually modified, selected, or reorganized so as to serve a definite purpose for a group of users. Such sources contain information arranged and organized based on some definite plan. The types of secondary information sources are:

   i. Index type – index, bibliography, indexing periodicals.

   ii. Survey type – review, treatise, monographs

   iii. Reference type – encyclopedia, dictionary, handbook, manual. (Library & Information Science Network, 2018)

3.1.1 Primary Sources

These sources involve the oral or written testimony of eyewitnesses. They are original documents and items related to the direct outcome of an event or an experience. They may include documents, photographs, recordings, diaries, journals, life histories, drawings, mementos, or other relics. These items are social artifacts of the periods in question, produced in a particular time and place which therefore contain glimpses into that world (Creswell & Creswell, 2018). For this Final Graduation Project, the primary sources of information that will be used are:

- **Interviews** - will be conducted with the main stakeholders to understand the requirements of the project to scope the project according to the needs of the stakeholders.
- **Websites** - will be used to better understand the type of organisation, its benefits, some drawbacks to consider and how to implement the proposal: offered, the mission, vision, function, and type of organization.
- **Research** - will be used to better understand the quality of the results as well as the mission, vision and aim of the organization.

3.1.2 Secondary Sources

Secondary sources involve the oral or written testimony of people not immediately present at the time of a given event. They are documents written or objects created by others that relate to a specific research question or area of research interest. These elements represent secondhand or hearsay accounts of someone, some event, or some development (Creswell & Creswell, 2018).

Secondary sources may include textbooks, encyclopedias, oral histories of individuals or a group put together by others, journal articles, newspaper stories, and even obituary notices. They may also include information that refers not to a specific subject but to a class of people. These may involve court records of juveniles, lab information about asthmatic patients, reading scores of an entire grade level at an elementary school, and other aggregated information about some group (Creswell & Creswell, 2018). The secondary sources that will be used for the project are the following:

- Reference books, including dictionaries and encyclopedias.
- Literature reviews and review articles (e.g., book reviews)
- Textbooks

The following chart 2 describes the Information Sources that will be used in this project.

Chart 2 Information Sources (Source: Nikki Cole, the author, February 2023)

Objectives	Information Sources	
	Primary	**Secondary**
1. To conduct a maturity analysis to determine the project management maturity level of the organisation and organizational needs.	▪ Meeting minutes ▪ Interviews will be conducted with the project stakeholders especially the Chancellor, Vice-Chancellor and Senior Management Team of the University, Ministry of Education and consulting the University's strategic plans.	▪ The PMBOK® Guide, Sixth and Seventh Editions ▪ Project Management Textbooks ▪ Previous research, comparative analysis of similar PMO implementations, ▪ Dictionaries/encyclopedias.
2. To determine the characteristics and functions of the PMO in order to improve the PSIP performance.	▪ Meeting of project team, project stakeholders, available PSIP implementation report and governance update reports/strategies.	▪ The PMBOK® Guide, Sixth and Seventh Editions. ▪ Project Management Textbooks and articles.

Objectives	Information Sources	
	Primary	**Secondary**
3. To create the structure of the PMO in order to propose the level of authority, position within UG organizational structure.	▪ Meetings/Interviews with project team and project stakeholders especially all Heads of Department/Chairs of Governance bodies. In addition, the Ministry of Education and Finance.	▪ The PMBOK® Guide, Sixth and Seventh Editions ▪ PMI website ▪ The University's human resources policies, and procedures capacity development framework.
4. To recommend an implementation plan to provide policies on recruitment, emoluments, benefits, and training.	▪ Meetings/Interviews with project team and project stakeholders including the Chairs/Heads of all the University's Governance Bodies.	▪ The PMBOK® Guide, Sixth and Seventh Editions. ▪ PMI website ▪ The University's human resources policies, and procedures capacity development framework. ▪ Reports on previous PMO implementation. ▪ UG's governance rules.

3.2 Research methods

Research methods are the strategies, processes or techniques utilized in the collection of data or evidence for analysis in order to uncover new information or create better understanding of a topic (Newcastle University Library, 2023). Research methods involve

the forms of data collection, analysis, and interpretation that researchers propose for their studies (Creswell & Creswell, 2018).

3.2.1 Qualitative Method

Qualitative research gathers data about lived experiences, emotions or behaviors, and the meanings individuals attach to them. It assists in enabling researchers to gain a better understanding of complex concepts, social interactions, or cultural phenomena. This type of research is useful in the exploration of how or why things have occurred, interpreting events, and describing actions (Newcastle University Library, 2023).

3.2.2 Quantitative method

Quantitative research gathers numerical data which can be ranked, measured, or categorized through statistical analysis. It assists with uncovering patterns or relationships and ascertaining generalizations. This type of research is useful for finding out how many, how much, how often, or to what extent (Newcastle University Library, 2023).

3.2.3 Mixed Methods

Mixed Methods research integrates both qualitative and quantitative research. It provides a holistic approach combining and analyzing the statistical data with deeper contextualized insights. Using mixed methods also enables triangulation, or verification, of the data from two or more sources (Newcastle University Library, 2023).

The following chart describes the Research Methods that will be used for this project.

Chart 3 Research Methods (Source: Nikki Cole, the author, February 2023)

Objectives	Research methods		
	Qualitative	**Quantitative**	**Mixed Method**
1. To conduct a maturity analysis to determine the project management maturity level of the organisation and organizational needs.	Information will be obtained from interviews with key stakeholders.	Information will be obtained from the PSIP implementation report, Ministry of Finance mid-year and end-of-year financial reports.	Data from interviews with stakeholders will be combined with data from existing similar projects to define the scope management plan of the project.
2. To determine the characteristics and functions of the PMO in order to improve the PSIP performance.	Interviews and a stakeholder survey will be implemented. Also, research and qualitative analysis will assist in the identification of stakeholder requirements.	Analysis of similar types of projects and stakeholder survey. Also, quantitative analysis will assist in the prioritization/ranking of stakeholder requirements.	This research method is related to schedule and cost estimates will be applied to activities.

Objectives	Research methods		
	Qualitative	**Quantitative**	**Mixed Method**
3. To create the structure of the PMO to propose the level of authority, position within UG organizational structure.	It will be applied to the activities related to the WBS, project deliverables, collecting requirements, and defining the scope.	Analysis from similar types of projects	This will be applied to the related activities to identify and prioritize
4. To recommend an implementation plan to provide policies on recruitment, emoluments, benefits, and training.	Information will be obtained from interviews with key stakeholders. Also, this will be applied to develop a relevant implementation plan.	Analysis from similar types of projects.	This will be applied to the related activities to identify and prioritize requirements. In addition, to activities related to estimating and acquiring resources.

3.3 Tools

A tool is something tangible, such as a template or software programme, used in performing an activity to produce a product or result (PMI, 2017, p.725). These tools support the collection of relevant data and information for the successful implementation of the

project and assist the project team in effectively organizing and managing project activities. The following chart describes the Tools of the project.

Chart 4 Tools (Source: Nikki Cole, the author, February 2023)

Objectives	Tools
1. To conduct a maturity analysis to determine the project management maturity level of the organisation and organizational needs.	▪ Expert judgement ▪ Brainstorming ▪ Meetings ▪ Analytical techniques ▪ Organizational theory
2. To determine the characteristics and functions of the PMO in order to improve the PSIP performance.	▪ Stakeholder management matrix ▪ Stakeholders register matrix. ▪ Stakeholder power/interest grid ▪ Risk Impact/Probability Chart
3. To create the structure of the PMO in order to propose the level of authority, position within UG organizational structure.	▪ Interviews ▪ Document analysis ▪ Expert judgement ▪ Organizational charts and position descriptions ▪ Roles and responsibilities chart ▪ Organizational theory
4. To recommend an implementation plan to provide policies on recruitment, emoluments, benefits, and training.	▪ Interviews ▪ Document analysis ▪ Expert judgement ▪ Organizational charts and position descriptions ▪ Roles and responsibilities chart ▪ Organizational theory ▪ Training

3.4 Assumptions and constraints

An assumption is "a factor in the planning process that is considered to be true, real, or certain, without proof or demonstration" (PMI, 2017, p.699). A constraint is "a limiting factor that affects the execution of a project, program, or portfolio, or process" (PMI,2017, p.701).

The following chart describes the Assumptions and Constraints of the project.

Chart 5 Assumptions and Constraints (Source: Nikki Cole, the author, February 2023)

Objectives	Assumptions	Constraints
1. To conduct a maturity analysis to determine the project management maturity level of the organisation and organizational needs.	The stakeholder management list will contain the main stakeholders involved and plan how to properly manage the requirements.	▪ The main stakeholders are not correctly identified at the start of the project. ▪ The stakeholders' requirements and level of interest may vary during the project.
2. To determine the characteristics and functions of the PMO in order to improve the PSIP performance.	All information/reports are readily available and accessible.	All requirements must be approved by the stakeholders.
3. To create the structure of the PMO to propose the level of authority, position within UG organizational structure.	All foreseeable risks will be identified, prioritized, and analyzed.	Stakeholders' requirements may change as the project progresses. Requirements not specified correctly.

Objectives	Assumptions	Constraints
4. To recommend an implementation plan to provide policies on recruitment, emoluments, benefits, and training.	Project team has the knowledge and skills to develop the implementation plan based on stakeholder requirements.	The total time for composing should not exceed the period of six months.

3.5 Deliverables

A deliverable is "any unique and verifiable product, result, or capability to perform a service that is required to be produced to complete a process, phase, or project" (PMI, 2017, p 704.). For the competition of the FGP, all deliverables should be identified and stated since they are the general objective the project is trying to achieve. The following chart describes the deliverables of the project.

Chart 6 Deliverables (Source: Nikki Cole, the author, February 2023)

Objectives	Deliverables
1. To conduct a maturity analysis to determine the project management maturity level of the organisation and organizational needs.	▪ Organizational Maturity Analysis ▪ Needs Assessment
2. To determine the characteristics and functions of the PMO to improve the PSIP performance.	▪ Characteristics and Functions of the PMO
3. To create the structure of the PMO to propose the level of authority, position within UG organizational structure.	▪ PMO Structure and Authority Level

Objectives	Deliverables
4. To recommend an implementation plan to provide policies on recruitment, emoluments, benefits, and training.	▪ Implementation Plan for the PMO

4 RESULTS

4.1 Maturity Analysis

4.1.1 Project Maturity Assessment

The conducting of project maturity assessment by many organizations is used primarily to determine the organization's readiness to implement projects successfully. The project management maturity valuation tool that was used for this project is the Project Management Maturity Model (PMMM) as developed by Miller (2004).

The PMMM model considers the analysis of the inputs, tools, and techniques of the ten knowledge areas. In this model, the project manager assigns from a scale of one (1) to five (5) maturity levels for each knowledge area (Appendix 4 details the description of the five maturity levels for the ten knowledge areas).

The following process was conducted for the analysis:

a. Design of survey for determining the Project Management Maturity of the University of Guyana (UG).

A survey, developed by the researcher in Appendix 5, was used to determine the Maturity Level of the University of Guyana. The survey included the main Inputs, Tools and Techniques and Outputs (ITTOs) of the knowledge areas.

- **Project Integration Management**: this section evaluates the organization's maturity regarding the process conducted for the identification of the deliverables, the

development of a project management plan, of change control and the closure of the project.

- **Project Scope Management**: this section evaluates the organization's maturity regarding the process conducted for the defining of requirements, scope, and the development of the work breakdown structure of the project.
- **Project Schedule Management**: this section evaluates the organization's maturity regarding the process conducted for the definition of project activities, the sequence of those activities, estimation of the time to complete the activities and the development of the schedule of the project.
- **Project Cost Management:** this section evaluates the organization's maturity regarding the process conducted for the estimation of cost for activities, determination of the project budget and the elucidation of cost control measures of the project.
- **Project Quality Management:** this section evaluates the organization's maturity regarding the process conducted for the planning of quality measures, management of all quality and quality control of the project.
- **Project Resource Management**: this section evaluates the organization's maturity regarding the process conducted for the acquisition of the human resources, development, and management of the team of the project.
- **Project Communication Management:** this section evaluates the organization's maturity regarding the process conducted for the planning, managing, and monitoring of communications of the project.

- **Project Risk Management:** this section evaluates the organization's maturity regarding the process conducted for the identification of risks, qualitative and quantitative risk analysis, development and implementation of the appropriate risk responses and the monitoring of the risk responses of the project.
- **Project Procurement Management:** this section evaluates the organization's maturity regarding the process conducted for the planning, management and monitoring of procurement of the project.
- **Project Stakeholder Management:** this section evaluates the organization's maturity regarding the process conducted for the identification of stakeholders, the development of a stakeholder engagement plan and the management and monitoring of stakeholder engagement of the project.

b. Survey Application

Key personnel from the departments that currently implement projects were given the survey to determine the level of maturity. These departments correspond to the Facilities Maintenance Division (FMD) and the Projects Planning, Monitoring and Evaluation Unit (PPPMMU), since these two departments are largely responsible for project implementation at the University. A total of fifteen (15) employees completed the survey, including the Director and Deputy Director of FMD, PPPMMU, Procurement Officer, Civil Engineers and Electrical Engineer and Clerk of Works.

The respondents were required to identify the level, with 1 being the minimum and 5 representing the maximum at which UGs project management falls. The survey was sent via email to all respondents, and they had seven (7) working days to respond.

c. Analysis of the results

The results were then complied, and the level ranking was calculated through finding the average of the responses in the Project Management Survey. Once the maturity levels were determined for the knowledge areas, these were totalled and then divided to determine the overall project maturity level of the University of Guyana.

In order to determine the level rankings of the 10 knowledge areas, the Project Management Maturity Survey was administered to the fifteen respondents. Then the analysis was conducted in the following way:

1. Once respondents indicated the level they felt the organisation was operating at for each criterion, this was totaled for each rating scale (1 to 5).
2. The number of criteria were multiplied by 15 to get the total. For example, Project Communications Management has 3 criteria – Communications Planning, Manage Communications and Monitor Communications. Thus, the total is 45.
3. The responses for each rating scale were totaled. In the example, rating scale 1 total = 13, rating 2 = 25 and so on.
4. The percentage for each rating scale was calculated.
5. The rating scale with the highest percentage was deemed to be the level ranking.

The analysis of the 10 knowledge areas is presented in Appendix 6. The following chart presents the ranking levels of the University of Guyana for the ten knowledge areas.

Chart 7 The University of Guyana Project Management Maturity Assessment (Source: Nikki Cole, the author, April 2023)

Knowledge areas	Level Ranking	Level Description
1. Project Integration Management	Level 2	Initial process, no established practices, standards, or project office. Work performed in an ad-hoc fashion.
2. Project Scope Management	Level 3	Organizational standards and institutionalized processes are present, full project management processes are documented and utilized by most projects. Stakeholders actively participate in scope decisions.
3. Project Time Management	Level 2	Structured processes and standards, basic processes exist but are not used for planning and scheduling. Standard scheduling approaches are utilized for large, visible projects.
4. Project Cost Management	Level 2	Processes exist for cost estimating, reporting and performance measurement. Cost management processes are used for large, visible projects.
5. Project Quality Management	Level 1	Initial process, no established project quality practices or standards Management is considering how they should define “quality”.

Knowledge areas	Level Ranking	Level Description
6. Project Resource Management	Level 2	Initial process, no repeatable process applied to planning and staffing projects. Project teams are ad hoc. Human resource time and cost are not measured.
7. Project Communications Management	Level 2	Initial process, there is an ad hoc communications process in place whereby projects are expected to provide informal status reports to management.
8. Project Risk Management	Level 1	Initial process, no established practices, or standards. Documentation is minimal and results are not shared. Risk response is reactive.
9. Project Procurement Management	Level 3	Process an organizational standard and used by most projects. Project team and purchasing department integrated in the procurement process.
10. Project Stakeholder Management	Level 3	Process an organizational standard and used by most projects. Project team and purchasing department integrated in the procurement process.

Finally, the averages were used to determine the overall maturity level of UG for the knowledge areas (2+3+2+2+1+2+2+1+3+3 =21/10= 2). Therefore, the University's overall rating is classified as Level 2, which means that UG has some standardized, repeatable processes with Project managers tracking costs, timings, and functionality (Smartsheet, 2022).

The responses indicate that the University of Guyana's PSIP low implementation rate stems from poor project management policies and procedures as outlined in the PMBOK®

Guide. Currently, there are no formal documented procedures, no department that has a repository on the performance of the projects, lessons learnt from previous projects and no training provided to staff.

In terms of the scope, this is at Level 3 and is an iterative process between the main beneficiaries of the project and the project staff assigned to it with sign off at the end before it is tendered for. Additionally, a Project Steering Committee is usually formed so as to ensure that the project meets the satisfaction of stakeholders. Similarly, to a lesser extent, once the scope is determined, the requisite costing of the projects is completed since an engineer's estimate needs to be provided before the projects are tendered for, hence the level two rating. The Procurement function is deemed to be Level 3 because this function has a department that deals specifically with all UG Procurement matters. Added to that, all capital-funded procurement is handled at the Ministry of Education level at it has to follow certain codified procedures as stipulated in the laws of Guyana. These procedures are robust, and all public sector organisations must follow them. However, for the other five knowledge areas, the University is operating at a Level 1.

4.1.2 Organizational Needs

To determine the organizational needs of the PMO, a document analysis was done based on what the PSIP aims to do and the critical skills that are needed in any construction and rehabilitation projects. The PSIP is largely measured by the injection of government resources for rehabilitation and construction projects that will lead to development in Guyana. In any rehabilitation or construction projects, there are certain technical skills sets

needed to undertake these jobs such as engineers and quantity surveyors. Additionally, a huge component of projects is the development of projects and the management and reporting which will be done by the project and evaluation officers. Finally, there will be a need for office support in terms of the compiling and storing of information in a way that the data is easily retrievable.

The analysis of documents was done on University of Guyana Council press releases and decisions. These decisions are confidential and cannot be shared publicly. However, the releases and decisions adumbrated that the need for specific staff of the unit that is keeping with the project management skills required for the development of projects, monitoring, and managing as well as reporting. The specific staff required are below. The PMO will begin with, as indicated in section 4.2, the PMO should be implemented in a phased manner owing to the limited budgetary considerations:

- Engineers for the development of Bills of Quantities/Engineers Estimates as well as the management and monitoring of rehabilitation and new construction projects.
- Quantity Surveyors for the development of costs to perform the rehabilitation or complete the new construction projects,
- Monitoring and Evaluation Officers who will oversee the reporting aspect of the projects in keeping with the government of Guyana standards.
- Project Officers and Assistants to monitor, evaluate and report on project performance inclusive of the development of KPIs.

- Finally, the necessary administrative support that will be required for the development of templates and guides and making a repository of lessons learnt and best practices.

4.2 Characteristics and functions of the PMO

4.2.1 Selection of the PMO

In the process of selection of a type of PMO that fits UG's organizational needs, a brainstorming session took place with Officers of PPPMMU and FMD. Based on the responses of participants, it was decided that a **Directive PMO** is the best suited for University of Guyana given the intricacies and culture of the organization since it is part of the public sector.

Additionally, the Directive PMO was chosen because participants felt that the University had two Offices that previously tried to address the PSIP implementation rate, and they did not succeed. The first Office was the Office for Resource Mobilization and Planning (ORMP) that was situated under a Deputy Vice-Chancellor for Planning. This Office had a functional structure with little to no authority in terms of managing the projects and making decisions since decisions would have to be channeled to the Deputy Vice-Chancellor and then the Vice-Chancellor. This bureaucracy eventually led to the failure of the Office to achieve any improvement in PSIP implementation and University stakeholders were disgruntled and ORMP disbanded. Moreover, to address this issue, another Office, Office for Strategic Initiatives (OSI) was established that functioned directly under the Office of the Vice-Chancellor. The Office of Strategic Initiatives as well was determined to be a failure

since even though the bureaucracy was removed so that timely decisions were made, the Office had little to no authority in the execution of projects. Too, the Office did not develop the different templates, guidelines, and processes. In the end, the implementation rate did not improve.

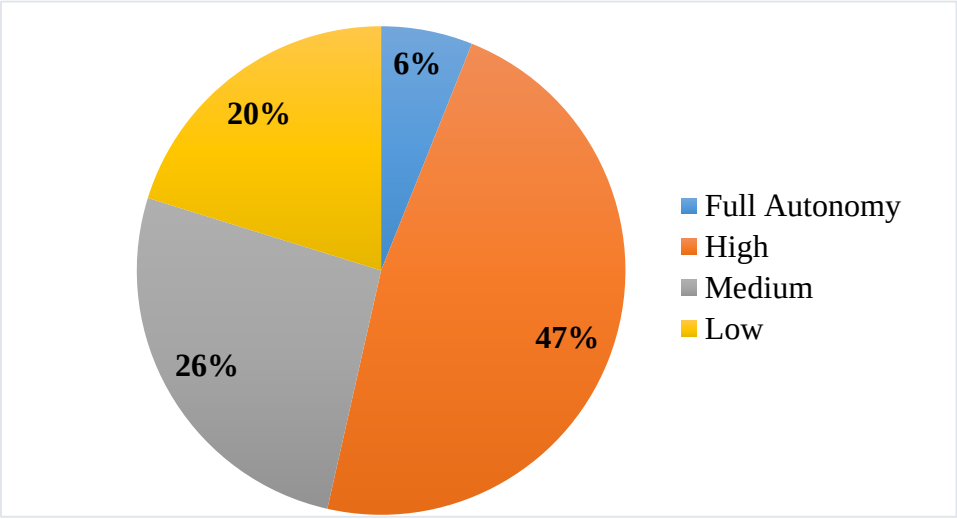
Therefore, a Directive PMO with the authority and responsibility for the management and monitoring of all infrastructural projects is key for the UG due to the following reasons:

- The University needs a centralized authority with the power to implement and execute all projects, thereby providing the standards, templates and procedures that should be followed.
- The Directive PMO will bring order and structure to projects by having a common methodology across projects and using standard terminology. This will help ensure consistency across all projects, keep projects well organized and stop confusion in such a large organisation as UG.
- The Directive PMO will wield more control over the management of projects through expertise and hands-on supervision.
- Finally, a Directive PMO will be able to improve the University's PSIP performance since not only will it fully direct the projects by exercising a high level of control. It will also be able to assign trained and experienced project managers, receive reports from PMs who will ultimately be accountable for the results of the project.

The following figure 7 shows respondents views on the level of authority that the PMO should have. This information is important since it highlights, based on their

experience, the level that officials who currently work in project implementation believe that the PMO should be in order to be successful.

Figure 7. Respondents View on Level of Authority Level of PMO (Source: Nikki Cole, the author, April 2023)



The Supportive PMO was not chosen because it lacked the level of authority to adequately manage, monitor, and report on the projects. For instance, the PMO would develop the necessary templates and guidelines, but the staff would not have to follow or use them. The Controlling PMO, on the other hand, puts in some measure of control of the projects by giving the company templates, procedures, and reporting, thereby enforcing some standards that must be followed. However, that type of PMO is not in charge of everything. If the PMO is to achieve its objective of improved PSIP implementation rate at UG, it needs to be totally in charge of all its processes, procedures, and decisions.

4.2.2 Characteristics and functions of the PMO

Interview Questions were proposed to guide the discussion about the characteristics and functions of the PMO (see Appendix 6 for further details).

An analysis of the responses from the interviewees indicated that most respondents felt that a PMO with delegated authority and direct reporting responsibility to the Vice-Chancellor will remove the bureaucracy in terms of decision making. The interview question was developed by the researchers and was administered to the 15 staff who are integrally involved in the delivery of these projects namely the Director and Deputy Director of FMD, PPPMMU, the Civil Engineers (3), Electrical Engineer, Procurement Officer, and Clerk of Works. The questions were administered through interviews and developed to get an understanding of some of the challenges that are presently faced in project implementation, what needs to be done to improve project execution as well as PSIP implementation, will a PMO assist with improving PSIP implementation, staff requirements of the PMO, and so on.

Therefore, the PMO, headed by a Project Manager will have direct reporting responsibilities to the Vice-Chancellor so that decisions can be made decisively without undue bureaucratic delays. The level of authority is significantly high within the organisation so as to give the PMO the autonomy to execute the projects.

The main functions of the Project Management Office (PMO) at the University of Guyana to improve PSIP performance are:

1. Implementing the use of Project Management Methodologies - define and implement methodologies to standardize project management activities and processes. The PMO will issue guidelines governing how a project should be managed throughout its cycle. Through the best practices, standard metrics and repeatable processes implemented by the PMO, it will drive increased consistency across project teams, make different projects in different areas comparable, and improve overall project performance. Therefore, the area of responsibility will be the selection and provision of methods, the definition and specification of processes, the creation of a PM guide and the selection and operation of suitable PM tools.
2. Monitoring and Control of Project Execution Performance - to deliver results in execution performance, the PMO will oversee the project lifecycle to make ensure that projects stay on time, within budget, within scope and with the desired quality. The PMO's controlling action over project activity also involves ensuring stakeholders' satisfaction and meeting any other requirement that is tied to the project.
3. Training/Coaching/Mentoring for Institutional Improvement - provide training services to project managers and project teams in order to ensure that their skills are and remain up to date. The PMO will ultimately be responsible for coaching in daily project work, training for project managers and others who will support project implementation work and organizing meetings for project managers to share knowledge.

Chart 8 Top Six Responses on what the PMO should do. (Source: Nikki Cole, the author, April 2023)

No.	What should function the PMO should do at UG?
1	Monitoring and managing projects
2	Reporting on project status
3	Developing and scoping new projects
4	Developing templates
5	Developing project management policies and procedures
6	Project management training

The Chart 8 above details responses of the fifteen staff currently engaged in project execution on what thematic areas the PMO should focus on. The top 6 responses were compiled and are presented below.

It is worth nothing that 86% of the interview respondents consider that the PMO should receive Project Management Training so as to have a common standard in executing the projects.

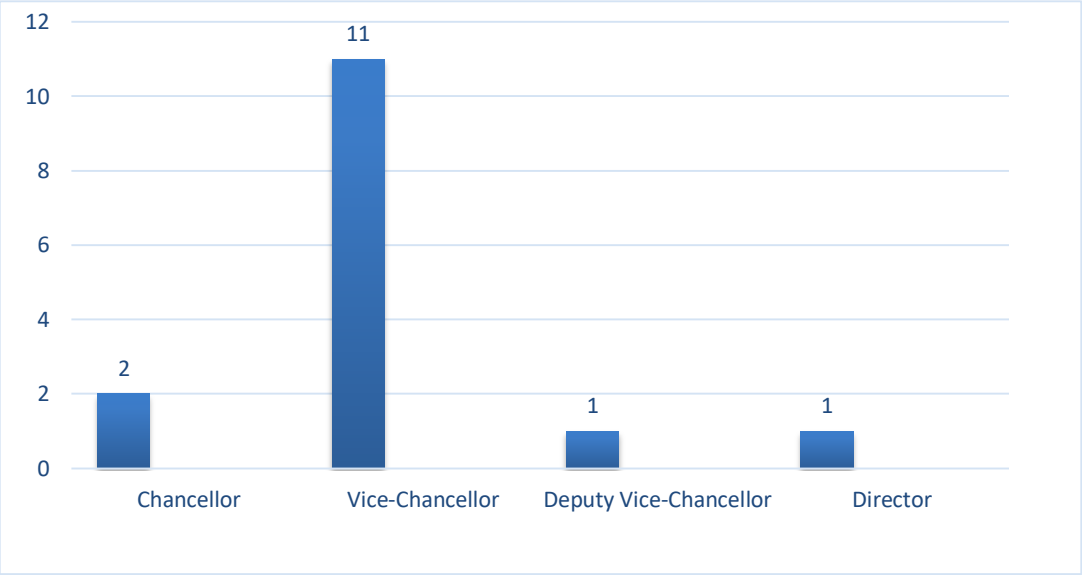
4.3 Structure of the PMO

The PMO structure will be a hierarchical one that is in line with the University of Guyana's overall departmental structures. This PMO will ultimately have to report to another functional manager, the Vice-Chancellor, since she/he is the Chief Executive of the University and therefore responsible for all its day-to-day affairs.

According to the interviews of the fifteen staff currently engaged in project execution. The following Figure 8 presents information on which Office the respondents felt the PMO

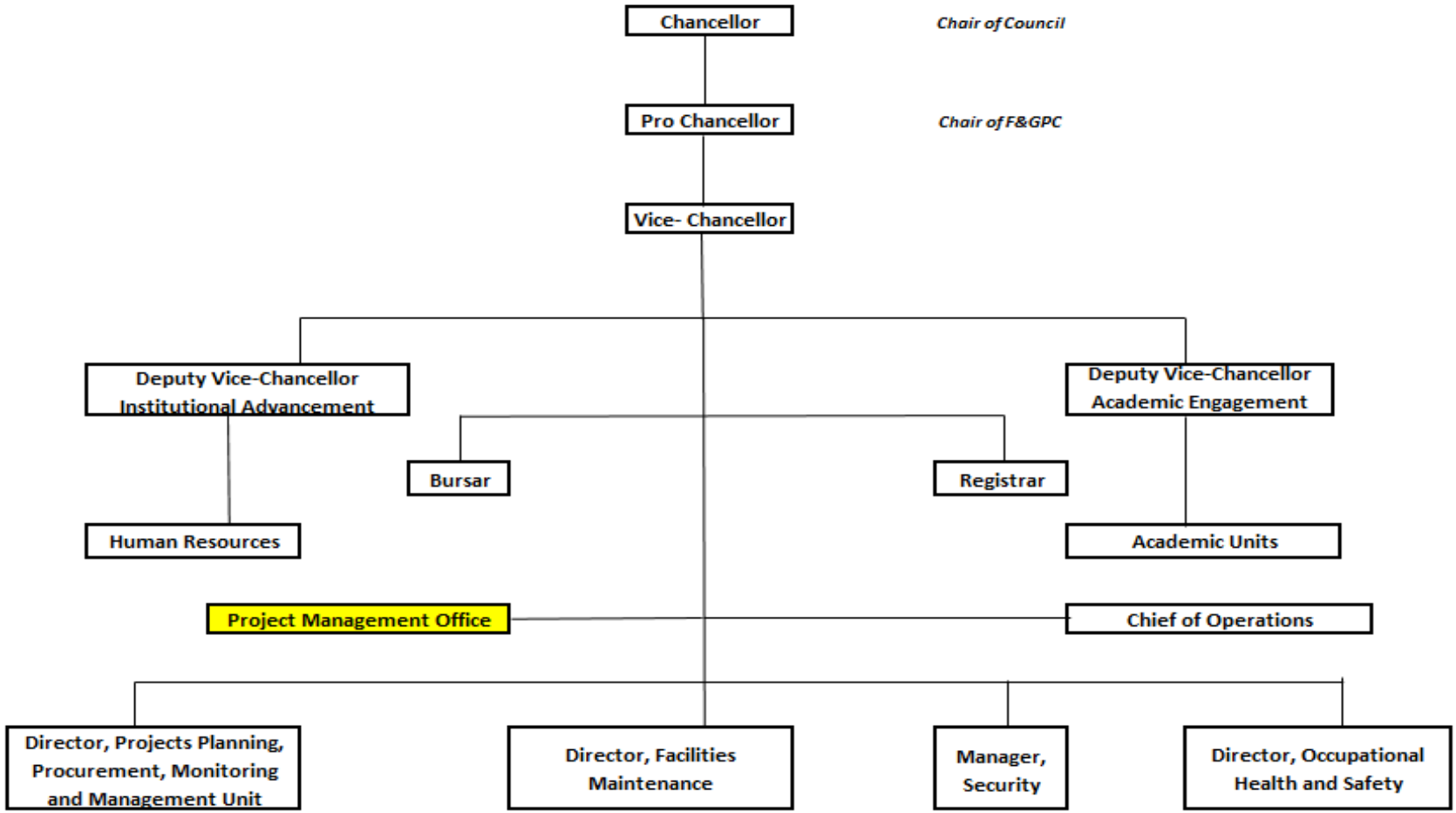
should report to. This is data is important since it was used as the method in proposing the location of the PMO at UG that is highlighted in Figure 9.

Figure 8 Respondents view on which Office the PMO should report to (Source: Nikki Cole, the author, April 2023).



The proposed level within the UG organisation is shown below.

Figure 9 Proposed Location of the Project Management Office at the University of Guyana (Source: Nikki Cole, the author, April 2023)



A critical part of the structure is the new staff that will need to be acquired by UG for the PMO to achieve the objective set out for it in terms of improving PSIP implementation performance, the following staff will be needed.

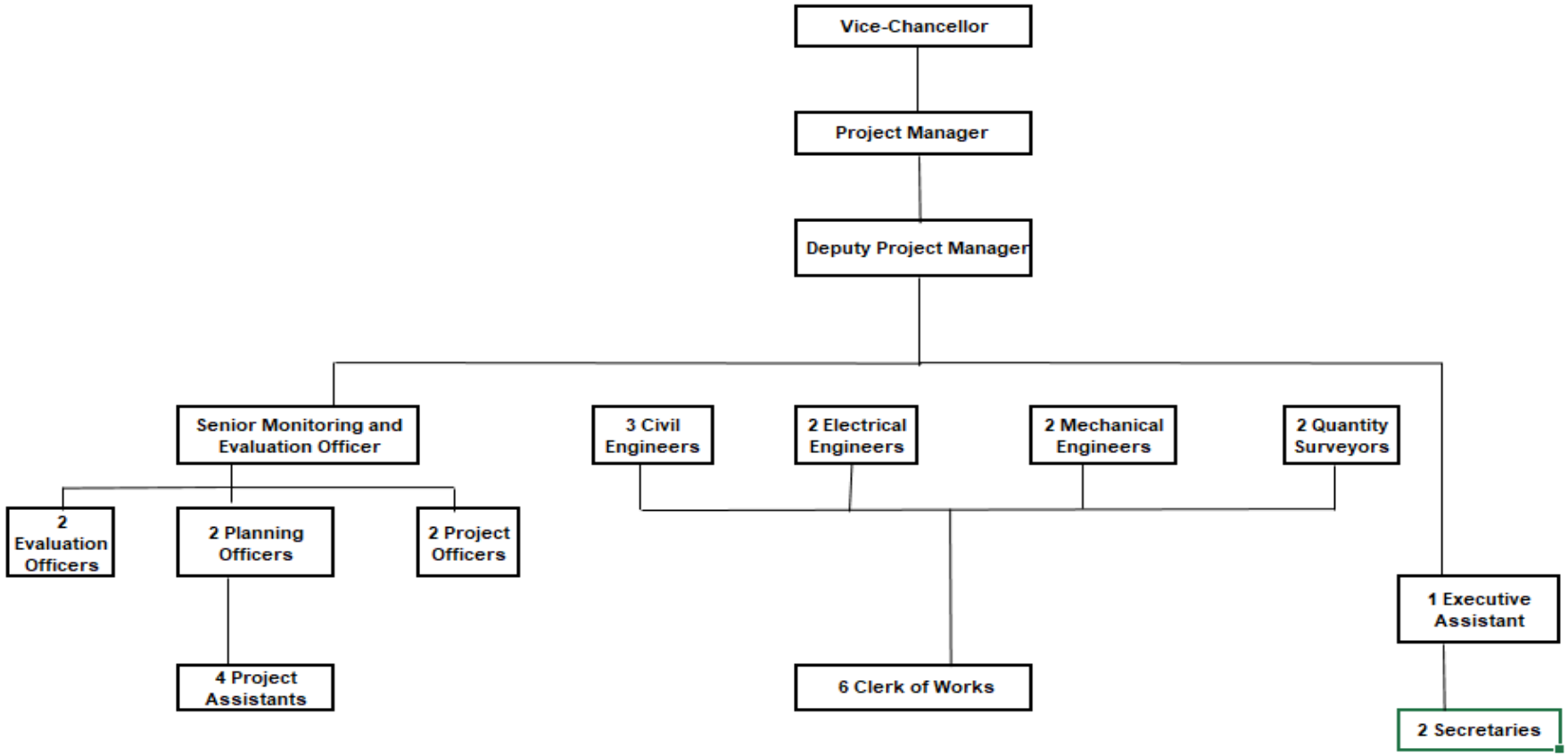
Chart 9 Staff required. (Source: Nikki Cole, the author, April 2023)

Staff	Description
Project Manager	Organizes, plans, and executes projects while working within restraints like budgets, scope and schedules. The PM also leads in the development of project goals and communicating with project stakeholders. The full and detailed responsibilities of the PM, developed by the researcher are in Appendix 8.
Deputy Project Manager	Leads and directs the technical and administrative project team and manages changes to scope, cost and schedule of project work.
Civil, Electrical and Mechanical Engineers	Adequately define the scope, features of the rehabilitation and new constructions that will be detailed in bills of quantities/engineer's estimates. Depending on the scope of the project, these engineers will be needed to determine functionality and incorporate international standards.
Quantity surveyor	Estimating quantities, costs and time scales for material and reparing tender and contract documents.
Monitoring and Evaluation Officers	Preparing standards, guidelines templates and procedures, preparing reports and key performance indicators.
Evaluation Officers	Assists with the reporting of projects as against time, cost, scope and quality.
Planning Officers	Leads on the training and coaching of staff.

Staff	Description
Project Officers	Oversee the data management system – reports, payments, contracts.
Project Assistants	Keeps tracks of Key Performance Indicators (KPIs) and ensures timely collection and storage of reports;
Clerks of Works	Inspect the workmanship, quality and safety of work on construction sites and reports back to the relevant engineers.
Executive Assistant	Provides support to the project manager in the execution of his/her duties – hosting of meetings, and so on.
Secretaries	Stores collection of reports and stores in data management system.

The proposed structure of the PMO is shown below. The figure below shows the number of staff both Technical and Administrative who will be responsible for leading the execution of projects in the PMO.

Figure 10 Proposed Structure of the Project Management Office at the University of Guyana (Source: Nikki Cole, the author, April 2023)



4.4 Implementation Plan

4.4.1 Project Charter

This Project Charter focuses on the implementation plan of a Project Management Organisation at the University of Guyana. It outlines the purpose, scope, intended audience, procurement pre-assigned resources, project objectives and constraints and project stakeholders.

Chart 10 Project Charter (Source: Nikki Cole, the author, July 2023)

PROJECT CHARTER	
Date	**Project Name:**
July 1, 2023	Implementation Plan for the operationalization for a Project Management Organisation at the University of Guyana.
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 Risk Management, Project Procurement Management, Project Communications Management, Stakeholder Management **Process groups:** Initiating, Planning, Monitoring, Controlling, and Closing	Strategy, Human Resources, Planning
Start date	**Finish date**

July 31, 2023	October 31, 2023

Project Objectives

General objective:

To develop an implementation plan at the University of Guyana (UG) in order to establish a Project Management Office (PMO) within the organisation.

Specific objectives:

1. To establish an Implementation Committee to elaborate a project charter and define roles and responsibilities in order to obtain Council approval for the operationalization of the PMO.
2. To elaborate and identify the key processes, procedures and templates of the PMO in order to maintain coherence and consistency.
3. To recruit qualified staff of the PMO who can function effectively.
4. To train PPMO staff to in project management to ensure coherence and consistency.

Project purpose or justification (merit and expected results)

In order for the University of Guyana to benefit from financing of its capital infrastructural projects, either rehabilitations or new structures, there is need for an improvement in its PSIP implementation rate. Therefore, it is proposed that a Project Management Organisation (PMO) be implemented at the UG in order to improve its dire PSIP performance which currently stands at 30%. The PMO will be instrumental in developing reporting templates, procedures and processes as well as providing the necessary training to staff according to PMI best practices so as to ensure coherence and consistency across all projects. The project involves defining, designing, and developing an implementation plan that the solar will be completed by October, 2023.

Project deliverables
▪ Approval to establish the PMO ▪ Development of key process, procedures and templates of the PMO. ▪ Staff Recruited for PMO ▪ Training Modules ▪ Training conducted for all PMO staff.

Assumptions
▪ The project scope will not change. ▪ The project can be completed in 3 months. ▪ Feedback and reviews from stakeholders will be made in a timely manner. ▪ The main stakeholders for the project will remain in their current position. ▪ There will not be significant changes to project scope which may adversely affect project cost and completion time.
Constraints
▪ All requirements must be approved by the stakeholders. ▪ 100% of scope must be completed by the end of project. ▪ Project must be completed within the agreed Budget. ▪ University of Guyana Council must approve the plan.
Preliminary risks
▪ If the milestones are not met according to schedule, the PMO will not be operational on time. ▪ If the implementation plan is not approved by the University Council, then the PMO will not be established. ▪ If stakeholders continue to increase project deliverables, scope creep may affect project which can increase project time.
Budget
The overall budget is US $534,207

Milestones and dates

Milestone	Start date	End date
Project Charter	7/31/2023	8/4/2023
Implementation Committee	8/7/2023	8/18/2023
Approval of Council of PMO operationalization by Council	8/21/2023	8/25/2023
Determination of compensation and benefits of PMO staff	8/28/2023	9/1/2023
PMO staff recruited	9/4/2023	9/8/2023
Process of PMO developed	9/11/2023	9/15/2023
Procedures of PMO developed	9/18/2023	9/27/2023
Templates of PMO developed	9/27/2023	10/3/2023
Project Management Training Module developed	10/4/2023	10/16/2023
Project Management training for staff held.	10/17/2023	10/31/2023

Key Success Indicators

1. The University Council will approve the operationalization of the PMO.
2. The PMO will begin operations in 3 months.
3. All PMO staff are trained according to PMI Project Management principles.
4. All project templates, processes and procedures are developed to ensure coherence and consistency across all projects.
5. PMO to begin executing all infrastructural projects in November 2023.

Stakeholders

• **Direct stakeholders:**	**Indirect Stakeholders:** • Ministry of Education

• University of Guyana Council members • University of Guyana Senior Management Team • University of Guyana Staff • Staff of the PMO • University of Guyana Unions	• Ministry of Finance • University of Guyana students
Project Manager: Ethan Fraser	**Signature:** *E. Fraser*
Authorized by: H.D. Hoyte	**Signature:** *H.D. Hoyte*

4.4.2 Scope of the project

4.4.2.1 Project Scope Statement

The project scope statement was developed to provide a detailed description of the work that should be performed. It included all the elements of the project including the objectives, planned deliverables as well as exclusions, constraints, and assumptions.

Chart 11 Project Scope Statement (Source: Nikki Cole, the author, July 2023)

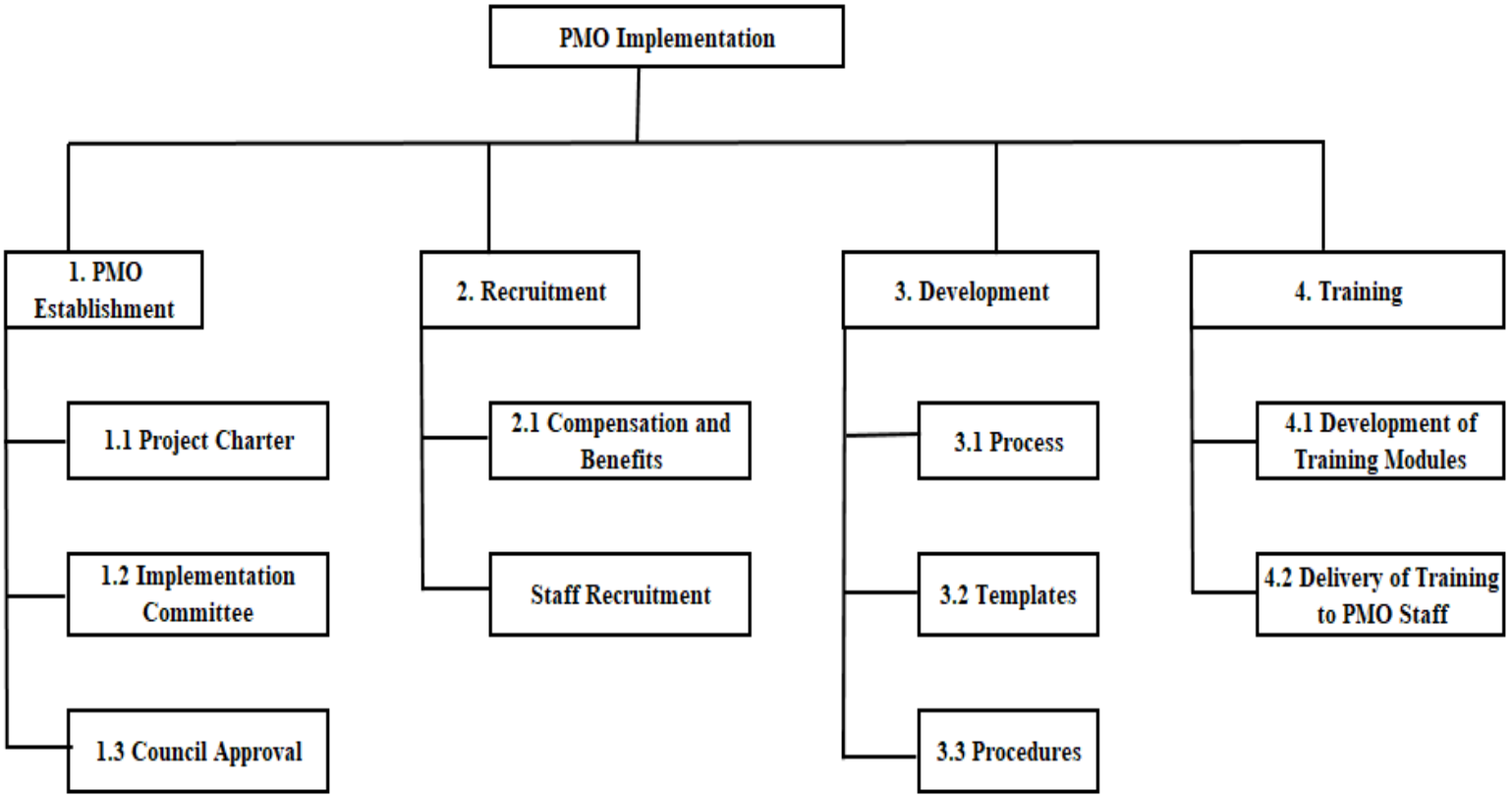
<table>
<tr><td colspan="2">Project Name</td></tr>
<tr><td colspan="2">Implementation Plan for the operationalization for a Project Management Organisation at the University of Guyana.</td></tr>
<tr><td colspan="2">Project Scope Description</td></tr>
<tr><td colspan="2">The implementation plan will be used to guide the operationalization of the Project Management Organisation at the University of Guyana. The Plan is adumbrated to provide the necessary resources, roles and responsibilities as well as process, procedure and templates to guide all staff in the PMO.</td></tr>
<tr><td>Project Deliverables</td><td>Acceptance Criteria</td></tr>
<tr><td>1. Approval to establish the PMO</td><td>The approval of the feasibility study by the University Council</td></tr>
<tr><td>2. Development of key process, procedures and templates of the PMO.</td><td>All processes, procedures and templates of the PMO developed and documented for use.</td></tr>
<tr><td>3. Staff Recruited for PMO</td><td>Job descriptions for all roles completed and jobs advertised.</td></tr>
<tr><td>4. Training Modules</td><td>Training modules developed according to PM standard and pedagogy.</td></tr>
<tr><td>5. Training conducted for all PMO staff.</td><td>All PMO staff trained in project management principles.</td></tr>
<tr><td colspan="2">Project Exclusions</td></tr>
<tr><td colspan="2">The following activities are not included in the scope of the project:
Determining the funding source for the PMO Implementation.
Identifying an office space for the PMO.</td></tr>
</table>

Project Constraints
The following are key constraints for the current project: ▪ All requirements must be approved by the stakeholders. ▪ 100% of scope must be completed by the end of project. ▪ Project must be completed within the agreed Budget. • University of Guyana Council must approve the plan.
Assumptions
For the current project, the following reasonable assumptions have been made: • The project scope will not change. • The project can be completed in 3 months. • Feedback and reviews from stakeholders will be made in a timely manner. • The main stakeholders for the project will remain in their current position. • There will not be significant changes to project scope which may adversely affect project cost and completion time.

4.4.2.2 Work Breakdown Structure (WBS)

The work breakdown structure (WBS) was developed in order to organize the work required and provided a way to visualize the entire scope of the project. In addition, it was used to estimate the cost of the implementation plan and ensuring no important deliverable is forgotten.

Figure 11 WBS (Source: Nikki Cole, the author, July 2023)



4.4.3 Quality Management

The quality of all deliverables from this project will be assessed through a thorough review firstly by the Implementation Committee then by the University's Council. This review will largely focus on identifying errors and gaps in the implementation plan. The Project Manager will be responsible for controlling and maintaining the quality of all deliverables to ensure it meets the University Council's expectations.

4.4.4 Implementation schedule

The implementation plan was developed based on the results of interviews and document analysis of University of Guyana Council outcome documents such as press releases and meetings notes.

The PMO will be implemented in a phased approach. 86% of the respondents confirmed this is key for the successful implementation of the project. Moreover, budgetary considerations must be adhered to as garnered from the sample interview questions in Appendix 6. The following process is proposed.

1. **Implementation Committee:** It is proposed that the implementation of the PMO should be done through a Committee of Council. This is necessary since all additions to the University administrative structure must be approved by Council. This Committee will be established in order to develop a feasibility study with clear terms of reference (TORs) for the PMO Office. The Committee of Council will provide a report to the Council for approval of the establishment of the PMO on August 21,

2023. This report includes the terms of reference (TORs), roles and responsibilities for the PMO Office and the Project Charter to outline the key aims and benefits as well as the main stakeholders of the project.

2. **Council Approval:** The report from the Committee of Council is presented for approval to the full University Council.

1. **Determine Compensation - remuneration, benefits of staff:** The Compensation benefits of the PMO are determined in keeping with the University's HR policies.
2. **Recruitment of staff:** The Staff of the PMO will be recruited by the University.
3. **Development of Process, Procedures and Templates:** The process and procedures and templates that will guide how the PMO will function will be developed with a view to standardizing the work of the PMO.
4. **Project Management Training Module developed:** For the PMO to function from the beginning of its operationalization, all its staff must have some project management training and certification as well as experience. Therefore, a training module for all staff involved in project implementation will be developed incorporating PMI standards as well as Government of Guyana requirements.
5. **Project Management training for staff:** Training on the processes, procedures and principles of Project Management will be provided to all staff involved in project implementation.

The following chart details the implementation timeline of the PMO.

Chart 12 Implementation Detailed Timeline (Source: Nikki Cole, the author, April 2023)

Phase Tasks	Start Date	End Date	Responsible Role
1. Establish Implementation Committee	July 31	July 31	University Council/Vice-Chancellor
2. Council Approval	August 21	August 25	Vice-Chancellor/Chair, Implementation Committee
3. Determine Compensation - remuneration, benefits, of staff	August 28	September 1	HR Manager Project Manager
4. Recruitment of staff	September 4	September 8	HR Manager Project Manager
5. Development of Process, Procedures and Templates	September 11	September 15	Project Manager
6. Development of Procedures	September 18	September 27	Project Manager
7. Development of Templates	September 27	October 3	Project Manager
8. Project Management Training Modules developed	October 4	October 16	Project Manager
9. Project Management training for staff	October 17	October 31	HR Manager Project Manager

The following figure displays all project phases documented on a Gantt chart that shows the phases of project implementation for the PMO at the University of Guyana.

Figure 12 Implementation Schedule of the PMO (Source: Nikki Cole, the author, April 2023)

Task Name	Duration	Start	Finish	Predecessors
PMO Implementation	**67 days**	**Mon 7/31/23**	**Tue 10/31/23**	
PMO Establishment	**20 days**	**Mon 7/31/23**	**Fri 8/25/23**	
Project Charter	5 days	Mon 7/31/23	Fri 8/4/23	
Implementation Committee	10 days	Mon 8/7/23	Fri 8/18/23	3
Council Approval	5 days	Mon 8/21/23	Fri 8/25/23	4
Recruitment	**10 days**	**Mon 8/28/23**	**Fri 9/8/23**	
Compensation and Benefits	5 days	Mon 8/28/23	Fri 9/1/23	5
Staff Recruitment	5 days	Mon 9/4/23	Fri 9/8/23	7
Development	**17 days**	**Mon 9/11/23**	**Tue 10/3/23**	
Process	5 days	Mon 9/11/23	Fri 9/15/23	8
Procedures	8 days	Mon 9/18/23	Wed 9/27/23	8
Templates	5 days	Wed 9/27/23	Tue 10/3/23	10,11
Training	**20 days**	**Wed 10/4/23**	**Tue 10/31/23**	
Development of Training Modules	10 days	Wed 10/4/23	Tue 10/17/23	12
Delivery of Training to PMO Staff	12 days	Mon 10/16/23	Tue 10/31/23	14

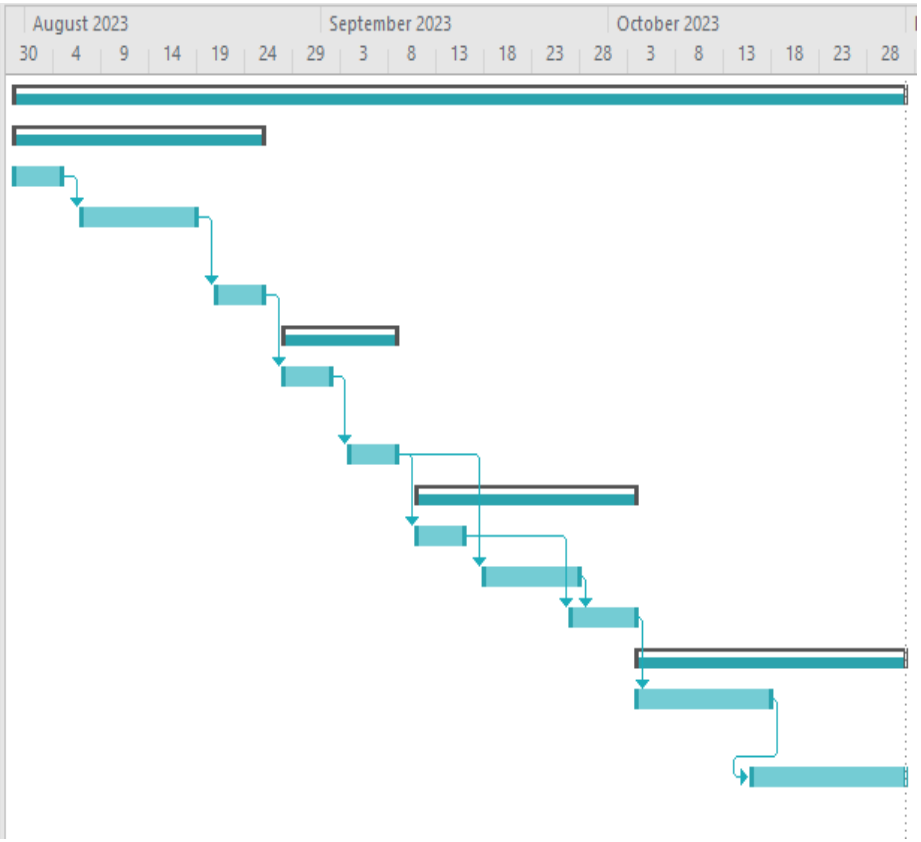
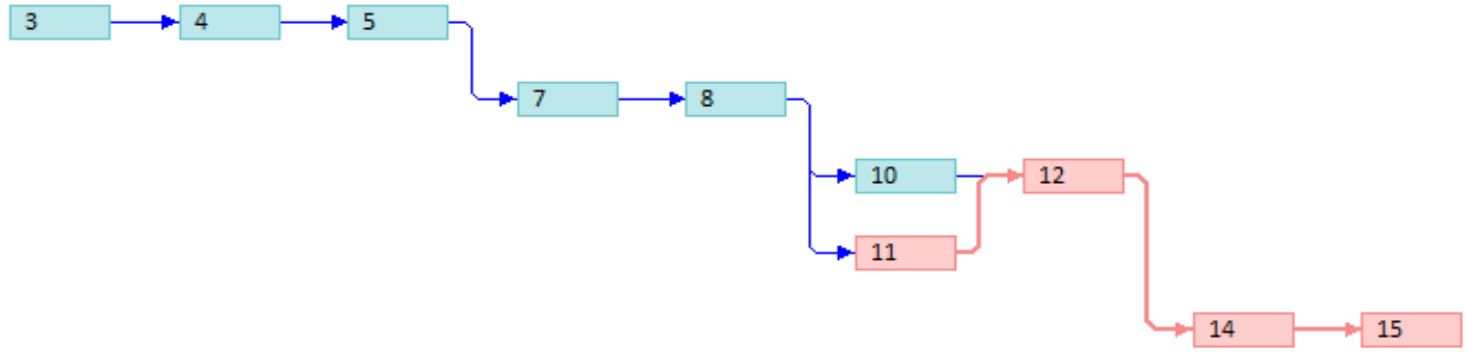


Figure 13 Network Diagram of the Critical Path of the Implementation Plan (Source: Nikki Cole, the author, July 2023)



The critical path of the Plan as provided in Figure 13 is:

3- Report of Council Committee

4- Approval Process

5- Council Approval

7 – Compensation and Benefits

8 – Staff Recruitment

11 – Development of Training Modules

12 - Templates

14 – Delivery of Training

15 – Project Design and Estimation

- **Monitoring of the Critical Path of the Implementation Schedule**

The monitoring of the critical path for the Implementation will assist the Project Manager and team with providing with the sequence of events that must happen in order for the project to move through its various phases. This is especially necessary for this project where most of the activities are on the critical path. Therefore, it is important to monitor keenly the project progress since a delay in any activity will cause overall project delay. This monitoring will be done by having weekly progress updates on the individual objectives and any risks to completion or opportunities that can be exploited so that the project deliverables may be able to be completed on time or before. For those risks that may threaten the completion of the project, mitigation strategies will be devised.

Finally, identifying and calculating the critical path will be necessary for the project manager to do as so that the effect of task delays can be evaluated effectively, and remedial action taken to mitigate those effects, such as crashing or fast tracking of activities.

4.4.5 Resources for the PMO

This section includes human and physical resources involved in the project for lined-up activities. All the activities performed by the team for the project are controlled by the project manager. The project team consists of the Chancellor, Vice-Chancellor, The HR Manager, the Bursar, a Union Representative and the Registrar.

The RACI chart shows the relationship between project tasks and team members. Any proposed changes to project responsibilities must be reviewed and approved by the project manager.

´ Chart 13 RACI Matrix (Source: Nikki Cole, the author, April 2023)

Deliverables	Chancellor	Vice-Chancellor	HR Manager	Bursar	Union Rep.	Project Manager	Registrar
Approval to establish the PMO	R	C	I	I	I	A	I
Development of key process, procedures and templates of the PMO.	C	C	A	I	I	R	I
Staff Recruited for PMO	C	C	A	C	I	R	C
Training Modules	I	C	R	I	I	A	C
Training conducted for all PMO staff.	I	C	R	C	I	A	C

Key:
R: Responsible for completing the work
A: Accountable for ensuring task completion
C: Consulted before any decisions are made
I: Informed when a decision has been made.

The University of Guyana as stated earlier is has severe financial limitations since the Government's subvention has remained the same or sometimes decreased, not keeping up with inflation. Therefore, the PMO should function with the following complement of staff and be fully operational over a period of five years. Hence, to achieve this, the following thirty-two (32) staff are proposed to be hired in the first five years of operation.

Chart 14 Phased Implementation of Staff of the PMO at UG. (Source: Nikki Cole, the author, April 2023)

Roles	Year 1	Year 2	Year 3	Year 4	Year 5
Project Manager	*				
Deputy Project Manager	*				
Senior Monitoring and Evaluation Officer	*				
Civil Engineers	*		*		*
Electrical Engineers	*				
Quantity Surveyors	*		*		
Mechanical Engineer	*		*		
Project Officers	*	*	*	*	
Evaluation Officer	*		*		
Planning Officer		*	*		
Executive Assistant	*				
Project Assistants	**		*		*
Clerk of Works	**	*	*	*	*
Secretary	*	*			

Moreover, the physical resources needed to implement the PMO $10,600 and the relevant costs allotted for furniture, hardware and software are highlighted below.

Chart 15 Estimated physical resources. (Source: Nikki Cole, the author, July 2023)

Physical resources	Frequency	Cost (USD)
Furniture	One off	$ 5,000
Computer Hardware	One off	$ 5,600

4.4.6 Operationalization Cost of PMO

As stated in the project charter, the budget for the implementation plan is $. The following chart shows how the budget is distributed for each deliverable.

Chart 16 Project Budget. (Source: Nikki Cole, the author, July 2023)

	Description	Budget (USD)
1	**Approval to establish the PMO**	500
2	**Development of key process, procedures and templates of the PMO.**	5,000
3	**Staff Recruited for PMO**	481,000
4	**Training Modules**	5,500
5	**Training conducted for all PMO staff.**	1,950
Budget		**493,950**
5% Management Reserve		**24698**
3% Contingency Reserve		**15,559**
TOTAL		**534,207**

Moreover, the following chart represents the monthly emoluments and allowances that will be paid to the staff of the Project Management Office at the University of Guyana. A

desk review of the salary scale of the UG was done for this purpose and based on that the following remuneration package is proposed:

Chart 17 Proposed Emoluments Package of the PMO Staff. (Source: Nikki Cole, the author, April 2023)

Roles	Gross Salary Monthly (USD)	Allowances
Project Manager	$ 4,000	$ 1,000
Deputy Project Manager	$ 3,500	$ 800
Senior Monitoring and Evaluation Officer	$ 2,700	$ 600
Civil Engineer	$ 2,700	$ 600
Electrical Engineer	$ 2,700	$ 600
Quantity Surveyor	$ 2,700	$ 600
Mechanical Engineer	$ 2,700	$ 600
Project Officer	$ 2,000	$ 400
Evaluation Officer	$ 2,000	$ 400
Planning Officer	$ 2,000	$ 400
Executive Assistant	$ 1,000	$ 200
Project Assistant	$ 800	$ 200
Clerk of Works	$ 800	$ 200
Secretary	$ 800	$ 200
Total	**$ 30,400**	**$ 6,800**

In addition, the following chart represents the other costs, monthly and yearly, that will be needed to operationalize the Project Management Office at the University of Guyana. The PMO will need to have a fully furnished office and access to basic services for the staff to operate. The list below is not exhaustive but represents a start on what other costs and emoluments would be needed.

Chart 18 Other Costs of PMO Implementation (Source: Nikki Cole, the author, April 2023)

Other Costs	Frequency	Cost (USD)
Subscriptions	Yearly	$ 280
Software and Licenses	Yearly	$ 600
Office Supplies	Monthly	$ 320
Janitorial Supplies	Monthly	$ 135
Water	Monthly	$ 50
Electricity	Monthly	$ 200
Telephone and Internet	Monthly	$ 200

The total cost forecasted for the implementation of the PMO for emoluments in the first year of operations for the 15 staff is USD 470,400 whilst the other costs are USD 11,740 and furniture and computer hardware is $10,600.

4.4.7 Procurement Approach

The Project Manager will provide oversight and management of all procurement activities in keeping with the University's Procurement Guidelines and Procedural Manual. The PM will work closely with the Procurement Unit and Bursary regarding all financial matters such as timely invoicing, verification of charges and payments to suppliers.

4.4.8 Stakeholders Management

The following stakeholders are the Direct and Indirect Stakeholders of the Implementation Phase of the PMO:

A. Direct Stakeholders

- University of Guyana Council members
- University of Guyana Senior Management Team
- University of Guyana Staff
- Staff of the PMO
- University of Guyana Unions

B. Indirect Stakeholders

- Ministry of Education
- Ministry of Finance
- University of Guyana students

Moreover, the Power Interest analysis was used to understand the relationships between stakeholders and identify which stakeholders have the most power and interest in the project, and which ones have less.

Chart 19 Stakeholder Analysis (Source: Nikki Cole, the author, April 2023)

Stakeholders	Power	Interest	Action
Ministry of Education	High	High	Manage Closely
Ministry of Finance	High	High	Manage Closely
University of Guyana Council members	High	High	Manage Closely
Chancellor	High	High	Manage Closely
Pro-Chancellor	Medium	High	Keep Informed
Implementation Committee	Medium	High	Keep Informed

Stakeholders	Power	Interest	Action
Vice-Chancellor	High	High	Manage Closely
Registrar	Medium	Medium	Keep Informed
Bursar	Medium	Medium	Keep Informed
Director, PPPMMU	Low	Medium	Monitor with minimum effort
Director, FMD	Low	Medium	Monitor with minimum effort
Director, OOHAS	Low	Medium	Monitor with minimum effort
University of Guyana Unions	Medium	Medium	Keep Informed
University of Guyana Staff	Medium	Medium	Keep Informed
University of Guyana Students Society	Low	Medium	Monitor with minimum effort
Project Team of the PMO	Medium	High	Manage Closely

4.4.9 Communication Management

The Project Manager will be solely responsible for communicating with the Implementation Committee. The Implementation Committee will meet weekly to discuss the progress of individual deliverables, risks as well as opportunities and any other issue/s.

The Project Manager will submit bi-weekly progress report by the third Wednesday via email. The report will detail progress on tasks during the reporting period, anticipated tasks for next reporting and project issues awaiting resolution. There are also regularly monthly scheduled meetings to review all open change requests to ensure all requests are dealt with in an expeditious manner.

Finally, a google drive will be set up to share deliverables, meeting minutes, agendas, and all other relevant documents with the Implementation Committee.

The next chart shows the project communication matrix, considering the identified stakeholders.

Chart 20 Communication Matrix (Source: Nikki Cole, the author, July 2023)

Communication	Goal	Medium/ channel	Frequency	Audience
Kickoff meeting	Introduce project. Review objectives and goals	In-person	Once	Project Team Project Sponsor Project Stakeholders
Bi-weekly meetings/reports	Review of status reports on project	In-person	Every 2 weeks	Project Team
Technical meetings	Discuss, review and approve change requests, etc.	In-person/Conference Call	Monthly	Project Team Project Stakeholders
Monthly Project Status Meetings	Update leadership on project status	In-person/Conference Call	Monthly	Project Manager Project Sponsor
Project Status Reports	Detailed report on project status including progress, costs and problems.	Email	Monthly	Project Manger Project Stakeholders

4.4.10 Risk Management

Risks will be reviewed and updated on a regular basis to reflect the current understanding of risks and uncertainties as actual events occur. Individual risk items will be tracked by The Project Manager will be responsible for maintaining this document.

The following Chart details the risks in the implementation plan, the likelihood of it occurring, its impact and risk response.

Chart 21 Risk Matrix (Source: Nikki Cole, the author, July 2023)

#	Risk	Likelihood of the Risk Occurrence	Impact of the Risk	Severity of the Risk	Risk Response
1	If stakeholders continue to increase project deliverables, scope creep may affect project which can increase project time.	High	High	Moderate	Avoid
2	If the milestones are not met according to schedule, the PMO will not be operational on time.	Moderate	Moderate	Moderate	Mitigate

#	Risk	Likelihood of the Risk Occurrence	Impact of the Risk	Severity of the Risk	Risk Response
3	If the implementation plan is not approved by the University Council, then the PMO will not be established.	Moderate	High	High	Avoid

5 CONCLUSIONS

1. A Project Management Office (PMO) can play a vital role in any organizations aim to implement and execute projects successfully, the University of Guyana is no different. UG with an overall project maturity level average of 2 on a scale of 1 to 5, has many project management improvement opportunities such as in integration, time, risk, communication, and quality management. Some of the major weak areas for which specific activities are required for ensuring the successful implementation of the PMO is the application of project management policies and procedures as outlined in the PMBOK® Guide so that there are formally documented procedures and training provided to staff. Without any improvement in the maturity of the organisation, the consequence could be that the PSIP implementation rate will continue to be at 30% or potentially lower. The risk of this is that the University will not be able to benefit from future rehabilitation and construction projects, which will impede upon not only the aesthetics of the campus, but also the upgrading of the teaching and learning facilities.

2. The findings from the organizational needs analysis provides credence to the view that the implementation of a PMO at the University of Guyana would improve PSIP project implementation performance with a cadre of trained and experienced staff in critical technical areas, such as civil, electrical, mechanical engineering and quantity surveying. Added to that, these technical officers would need to have project management certification/training in order to begin work immediately upon the

operationalization of the PMO to ensure compliance, coherence and consistency. Further, the results from the needs analysis provides the basis for the implementation of the PMO to allow for greater efficiencies since the entire staff complement of required staff would be in the PMO to execute, manage, and monitor and importantly report on the status of the projects. However, these staff need to be trained on a consistent basis as to allow for strict adherence to process and procedure as well as project management good practices. Without this, staff will not be operating strategically and coherently. Added to that, without determining the organizational needs, the PMO may become bloated with unnecessary staff for the work, which will increase the operational cost for an already cash-strapped University.

3. Importantly, the establishment of a PMO will have the characteristics of a Directive PMO that will play a major role in the process since it will be a central authority with the power to implement and execute all projects by providing the standards, templates and procedures that must be followed. Also, the Directive PMO will build capacity within by providing trained and experienced project managers who use a common methodology across all projects. This will help ensure consistency across all projects, keep them well organized and halt any potential mix-ups. Of course, the Directive PMO that is chosen may undergo some challenges to its authority by those staff who are in the system and may not be comfortable with the authority given to a relatively new unit to implement all University capital projects. Additionally, the workings of the PMO with such power and how it is expected to function is something that is new

to the University and the public sector in Guyana. Therefore, there may be some issues in its initial operationalization period. The proposed location of the PMO directly reporting to the Vice-Chancellor will hopefully remove much of the bureaucracy and ensure that decisions are made in a timely manner. Additionally, for those times where there are any resistance and bottlenecks, the Vice-Chancellor as the CEO for UG can use his/her power and authority to guide the process through.

4. The execution of the implementation plan within the prescribed time frame would facilitate major progress in the establishment of the PMO. To achieve this, an Implementation Committee, established by the Council, will be tasked with developing activities to provide support to the PMO, this new unit with all the personnel and tools to fully operationalize. Added to that, the plan will identify and recruit twenty-two staff over a five-year phased period as well as identify other costs for PMO operationalization. The reason for having the PMO established by the highest decision-making body of the University will ensure that it hits the ground running with the necessary authority and resources. Of course, in the medium to short term, there will need to be a communications plan developed so that the relevant stakeholders can buy into the process, and there is little to no resistance.

5. The development of a PMO at UG will allow for efficiency and effectiveness in the organization's ability to execute the PSIP. The project charter for the Implementation Plan will serve as the roadmap in determining how this implementation will be executed. The Project Charter defined the purpose, the general and specific

objectives, as well as identified the stakeholders, key success factors, assumptions, constraints, and risk. Without this Charter the Project Manager would invariably not be able to track and report on the progress of deliverables.

6. Finally, the proposed implementation plan would allow UG to operationalize the PMO by providing a structured set of guidelines for all project activities, thereby improving efficiency and effectiveness, higher consistency, and better communication. Without these variables integrated across all projects, it will be difficult to track and report on progress. The risk involved with not having an implementation plan for the PMO is that the necessary steps for its establishment may be missed and the PMO will not have all the tools necessary for when it starts operations.

6 RECOMMENDATIONS

This project has presented germane information highlighting the level of project management maturity of UG, organizational needs, the characteristics, and functions of the PMO, placement of the PMO within UG and the implementation plan for the establishment of the PMO. The following recommendations are therefore being provided to facilitate enhancement beyond the scope of what is presented in this project report so that the University continually improves its PSIP performance:

1. Organizations conduct project management maturity assessments to determine their readiness or ability to implement projects successfully Thus, undertaking project management maturity analysis is integral to continually improve the University's project performance in the PSIP. Therefore, conducting project management maturity assessment should not be a one-off process. The assessment is about improvement and improvement can be carried out over time. In light of this, the Project Manager must do a maturity assessment to be carried out annually. After which maturity improvement plans can be developed and implemented. This can be used as an important metric to track progress and development of key performance indicators to improve the functioning of the PMO and PSIP performance.

2. The Project Manager should execute the implementation plan for operationalizing the PMO, which includes the creation of the structure for the PMO, developing the

project management standards, templates, methodologies, processes, procedures, and tools, which would guide the operations of the PMO.

3. The Vice-Chancellor should establish the PMO at a high level within the UG organizational structure, so that it can work independently, reporting directly to the Vice-Chancellor to not only ensure alignment with the University's strategic goals but also reduce bureaucracy.

4. The Project Manager should develop robust organizational procedures so that its operations are in line with PMI best practices.

5. The Project Charter for the Implementation plan must be strictly followed by the Project Manager since it serves as a roadmap for project execution and will allow for it to be completed within time and scope.

6. The Project Manager along with the Project Officer should develop training modules and the execution of project management training for staff in the PMO should be a function of the PMO as part of the continuous improvement process of the PMO. A component of the training should cover the principles of project management and the performance domains. Training of the current management and staff participating in project implementation should commence before the operationalization of the PMO.

7 VALIDATION OF THE FGP IN THE FIELD OF REGENERATIVE AND SUSTAINABLE DEVELOPMENT

This chapter will look at the validation of the regenerative and sustainable development concepts.

7.1.1 Relationship between the FGP and the Sustainable Development Goals (SDGs)

The following chart provides information on the SDGs, what they are trying to achieve and then the relationship, if any, to the FGP.

This project that looks at the implementation of a PMO at the University of Guyana that seeks to ultimately improve the University's PSIP implementation rate. There is no doubt that the implementation of this PMO will have an impact on sustainability. Therefore, listed below are three goals and the indicators for the project:

1. Quality education

    20% of facilities upgraded in to cater for technology and people with disability.

2. Industry, innovation, and infrastructure

    - Infrastructure upgraded according to LEED (Leadership in Energy and Environmental Designs) standards.

3. Responsible consumption and production

    - The University has a 20% reduction in its electric consumption.

Chart 22 Relationship between the FGP Topic and the Sustainable Development Goals. (Source: Nikki Cole, the author, May 2023)

No.	Sustainable Development Goals (SDG)	SDG Explained	Relationship to FGP
1	No poverty	End poverty in all its forms everywhere	This SDG is related since with increased access to quality education, citizens of Guyana be able to break the cycle of poverty. The PMO creation will assist the University with not only improving its PSIP implementation rate but will see the University benefiting once the scores increase with increased number of projects.
2	Zero hunger	End hunger, achieve food security and improved nutrition and promote sustainable agriculture	Sustainable agriculture is one of the focuses of the University of Guyana. With the establishment of a PMO and the antecedent improved PSIP performance with more access to financial resources to build its agriculture programmes, the University can assist with fostering research and development to improve yields, make crops resistant to pests and climate change. This can assist with increased food and possible end hunger.

No.	Sustainable Development Goals (SDG)	SDG Explained	Relationship to FGP
3	Good health and well-being.	Ensure healthy lives and promote well-being for all at all ages	The University of Guyana as the main tertiary institution that trains the doctors and other medical professionals in Guyana can have a huge impact on this goal. As the space where these professionals are trained in would lead to them being better equipped to deal with all the challenges in medicine as well as assist with the promotion of good health of all citizens.
4	Quality education	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	An upgraded campus using the PMO to improve the PSIP rating will lead to improved quality and access to education for the citizens of Guyana.
5	Gender equality	Achieve gender equality and empower all women and girls	As UG is a government institution, where the government finances the fees as well, an upgraded campus with all the necessary online, distance research and teaching and learning facilities, UG can provide education to girls and women who cannot leave home.

No.	Sustainable Development Goals (SDG)	SDG Explained	Relationship to FGP
6	Clean water and sanitation	Ensure availability and sustainable management of water and sanitation for all	Not applicable
7	Affordable and clean energy	Ensure access to affordable, reliable, sustainable, and modern energy for all	Not applicable
8	Decent work and economic growth	Promote sustained, inclusive, and sustainable economic growth, full and productive employment and decent work for all	Not applicable
9	Industry, innovation, and infrastructure	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	With increased access to financing from Central Government, UG can rehabilitate or construct facilities that are more climate resilient and promotes the inclusion of persons with all forms of disability.
10	Reduced inequalities	Reduce inequality within and among countries.	Not applicable
11	Sustainable cities and communities	Make cities and human settlements inclusive,	Not applicable

No.	Sustainable Development Goals (SDG)	SDG Explained	Relationship to FGP
		safe, resilient, and sustainable	
12	Responsible consumption and production	Ensure sustainable consumption and production patterns	As indicated before, many of the buildings of the University are over 50 years old. This means that many of them are not up to code and utilize excessive amounts of energy to be in operation. To abate this problem, more environmentally friendly and sustainable materials can be used in rehabilitation and construction projects leading to improved consumption patterns.
13	Climate action	Take urgent action to combat climate change and its impacts	Not applicable
14	Life below water	Conserve and sustainably use the oceans, seas, and marine resources for sustainable development	Not applicable

No.	Sustainable Development Goals (SDG)	SDG Explained	Relationship to FGP
15	Life on land	Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	Not applicable
16	Peace, justice, and strong institutions	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable, and inclusive institutions at all levels.	Not applicable
17	Partnerships for the goals	Strengthen the means of implementation and revitalize the global partnership for sustainable development.	Not applicable

From the above analysis, it can be deduced that the FGP is related to only four SDGs topics since it relates to the quality education, no poverty, gender equality and responsible consumption. This indicates that the topic that is being pursued is worthwhile and that is one that will ultimately lead to not only benefits to UG in terms of its improved implementation rate of the PSIP. Added to that, the antecedent benefits are that it will help Guyana achieve its overall SDG goals.

7.1.2 Relationship between the FGP and Regenerative Development

The following chart provides information on the Regenerative Development and the relationship with the FGP.

Chart 23 Relationship between the FGP Topic and Regenerative Development. Source: Nikki Cole, the author, May 2023)

Processes of Regenerative Development	Relationship to FGP
Functional regeneration of ecosystems and their services, supporting biodiversity and allowing life to continue thriving throughout the planet. (Müller, 2017).	The University has as one of its main arms the protection of the earth's natural biodiversity and ecosystem. These two pillars are concentrated in a Centre for Biological Diversity and a Faculty for Earth and Environmental Sciences. With improved facilities, this work can be bolstered and promoted.

Processes of Regenerative Development	Relationship to FGP
Social strengthening fosters community organization and development to be able to cope with adaptation to climate change and reduce sumptuous consumption patterns. (Müller, 2017).	This relates to the construction and rehabilitation works that will be undertaken that will seek to not only stem the tide or the harmful effects of Climate Change but, it will also provide infrastructure/facilities that can withstand the impact of Climate change. With the improved infrastructure, it will no doubt reduce the consumption of electricity and reduce C02 emissions.
A new paradigm for economic development where people matter more than markets and money, where entrepreneurship for youth is more important than employment, where economic development is promoted at all levels of society allowing for more opportunities to achieve better living standards. (Müller, 2017).	A national University where education is free to all citizens promotes this principle. One of the core creations of UG within the last five years has been the School for Entrepreneurship and Business Innovation that pushes students to be disruptive and create their own employment rather than depend on the government to provide it. Added to that, with improved buildings, incubators can be established to facilitate training of the youth. With this stance, economic development will be promoted between and among these students.

Processes of Regenerative Development	Relationship to FGP
Conservation and valuation of living culture which is the necessary bond for community life, where local knowledge, values and traditions are shared within family, friends, and the community as a whole, giving meaning to these terms. (Müller, 2017).	Not Applicable
Rethinking and redesigning current political structures so they can reflect true participatory democracy without the influence of money and power and especially fostering long term vision and actions that seek increased livelihoods and happiness and not only gross income. (Müller, 2017).	Not Applicable
Fostering a deep spiritual and value structures based on ethics, transparency, and global well-being to allow humanity to live in peace with itself and Mother Earth. (Müller, 2017).	Not Applicable

8 BIBLIOGRAPHY

Liw. (2022, July 29). A practical guide to organizational governance. Thought Logic Consulting. Retrieved April 24, 2023, from *https://thought-logic.com/2020/03/24/organizational-governance/*

About University of Guyana. University of Guyana. (2018, September 30). Retrieved February 5, 2023, from https://www.uog.edu.gy/about.

Anyosa Soca, V. (2010). Linking portfolio, program, and projects to business strategy: a way to gain competitive advantage in these turbulent times. Paper presented at PMI® Global Congress 2010—Asia Pacific, Melbourne, Victoria, Australia. Newtown Square, PA: Project Management Institute.

Dietrich, P., Artto, K. A., & Kujala, J. (2010). Strategic priorities and PMO functions in project-based firms. Paper presented at PMI® Research Conference: Defining the Future of Project Management, Washington, DC. Newtown Square, PA: Project Management Institute.

East, M. (2020). The transition from sustainable to regenerative development. Ecocycles, 6(1), 106–109. https://doi.org/10.19040/ecocycles.v6i1.168.

González, B. N. F. (2022, March 27). *The problem with PMOS*. LinkedIn. Retrieved January 14, 2023, from https://www.linkedin.com/pulse/problem-pmos-betsua-nohem%C3%AD-francisco-gonz%C3%A1lez/.

Gutches, P., & Manga, M. (2016, January 25). Regenerative development: Going beyond sustainability. Kosmos Journal. Retrieved November 9, 2022, from https://www.kosmosjournal.org/article/regenerative-development-going-beyond-sustainability/

Hatchett, J. (2021, October 6). What is a Project Management Office (PMO) ? [web log]. Retrieved January 12, 2023, from https://www.hatchettproject.com/blog/what-is-a-project-management-office-pmo.

Heubel, M. (2022, December 28). *What is strategy? definition, components & examples explained*. Consulterce. Retrieved February 5, 2023, from https://consulterce.com/business-strategy/

Joubert, S. (2021, March 30). *What's the difference between project, portfolio, and program management?* Northeastern University Graduate Programs. Retrieved February 5, 2023, from https://www.northeastern.edu/graduate/blog/project-management-vs-portfolio-management-vs-program-management/.

Libguides: Research Methods: What are research methods? What are research methods? - Research Methods - LibGuides at University of Newcastle Library. (n.d.). Retrieved February 9, 2023, from https://libguides.newcastle.edu.au/researchmethods.

Lisbdnetwork. (2022, February 10). *Sources of information*. Library & Information Science Education Network. Retrieved February 9, 2023, from https://www.lisedunetwork.com/sources-of-information/

Marks. Karen M.. (2017). Experiences in Building and Leading a PMO: Best Practices in a Centralized Program Management Office. Peak Method Consulting.

Ministry of Finance, & Sfadmin. (2022, September 26). Ministry of Finance. Retrieved February 5, 2023, from https://www.finance.gov.tt/tag/public-sector-investment-programme/#:~:text=The%20Public%20Sector%20Investment%20Programme%20(PSIP)%20is%20the%20instrument%20used,Vision%202030

Miller. Jen A. (2017, October 19). What is a project management office (PMO) and do you need one?.CIO. https://www.cio.com/article/267012/what-is-a-project-management-office- pmo-and-do-you needone.html#:~:text=A%20PMO%20makes%20sure%20company,and%20programs%2 C%E2%80%9D%20said%20Weiss

Miller, B. (2004). The pathway to OPM3: a busy project manager's guide to advancing organizational maturity. Paper presented at PMI® Global Congress 2004—North America, Anaheim, CA. Newtown Square, PA: Project Management Institute.

Müller, D. E. (2017). Regenerative development, the way forward to saving our civilization.

Nir, Michael & Nir, Chen.2017. Agile Project Management: The Agile PMO: Leading the Effective, Value Driven and Agile Project Management Office. CreateSpace Independent Publishing Platform.

Perugino, J. (2019, March 28). *Five major challenges of PMO implementation in 2019*. LinkedIn. Retrieved January 14, 2023, from https://www.linkedin.com/pulse/five-major-challenges-pmo-implementation-2019-joey-perugino-/.

PMO Global Institute. (2022, September 10). Benefits of project management office [web log]. Retrieved January 11, 2023, from https://pmoglobalinstitute.org/benefits-of-project-management-office/.

Project Management Institute. (2017). *A guide to the Project Management Body of Knowledge (PMBOK guide)* (6th ed.). Project Management Institute.

Project Management Institute. (2021). *A guide to the Project Management Body of Knowledge (PMBOK guide)* (7th ed.). Project Management Institute.

Regenerative development in a Nutshell. Melbourne School of Design. (n.d.). Retrieved November 9, 2022, from https://msd.unimelb.edu.au/thrive/news/regenerative-development-in-a-nutshell#:~:text=Regenerative%20Development%20is%20an%20approach,by%20embracing%20uncertainty%20and%20change.

Research methods. Research. (n.d.). Retrieved February 7, 2023, from https://research-methodology.net/research-methods/

Rincon, I. (2014). Building a PMO from the ground up: Three stories, one result. Paper presented at PMI® Global Congress 2014—North America, Phoenix, AZ. Newtown Square, PA: Project Management Institute.

Sharma, K. (2022, September 4). *Project performance domains*. LinkedIn. Retrieved February 5, 2023, from https://www.linkedin.com/pulse/project-performance-domains-kumud-sharma/.

Project Management Maturity Models. Smartsheet. (2022, April 26). Retrieved April 2, 2023, from https://www.smartsheet.com/content/project-management-maturity

Spivak, Eugen. (2019). PMO Governance: Practical Strategies to Govern Portfolio, Program, and Project Delivery. FriesenPress.

Sustainable development goals: United Nations Development Programme. UNDP. (n.d.). Retrieved February 18, 2023, from https://www.undp.org/sustainable-development-goals.

Taylor, Peter. (2011). Leading Successful PMOs: How to Build the Best Project Management Office for Your Business. Routledge.

Taylor, Peter & Mead, Ray. (2016). Delivering Successful PMOs: How to Design and Deliver the Best Project Management Office for your Business. Routledge.

Koteva, V. (2022, June 9). *Does your organization need a project management office (PMO)*. Consultport. Retrieved January 14, 2023, from https://consultport.com/for-companies/does-your-organization-need-a-project-management-office/

Retrieved February 9, 2023, from https://www.igi-global.com/dictionary/information-sources/14512

What is a PMO and do you need it? Nulab. (n.d.). Retrieved January 13, 2023, from https://nulab.com/learn/project-management/what-is-pmo-and-do-you-need-it/

What Is a PMO and Why Do I Need It? (PMO Part 1). (2020, October 14). [web log]. Retrieved January 13, 2023, from https://meisterplan.com/blog/what-is-a-project-management-office/.

What is sustainable development. What is sustainable development · Sustainable Development Commission. (n.d.). Retrieved November 9, 2022, from https://www.sd-commission.org.uk/pages/what-is-sustainable-development.html.

9 APPENDICES

Appendix 1: FGP Charter

CHARTER OF THE PROPOSED
FINAL GRADUATION PROJECT (FGP)

1. Student name

Nikki Taundrea Cole

2. FGP name

A Project Management Office proposal at the University of Guyana to improve its implementation performance rate in the Public Sector Investment Programme (PSIP)

3. Application Area (Sector or activity)

Construction / Education/Services/Finance

4. Student signature

Nikki T. Cole

5. Name of the Graduation Seminar facilitator

Carlos Brenes Mena

6. Signature of the facilitator

7. Date of charter approval

February 26th, 2023

8. Project start and finish date

9 January 2023	9 June 2023

9. Research question

What structure/format should the University's PMO have to allow for an improved implementation rate of projects under the PSIP?

10. Research hypothesis

Is it likely that the creation of the PMO at the University of Guyana might allow for its improved implementation rate under the PSIP?

11. General objective

To create a Project Management Office proposal at the University of Guyana to improve its implementation performance rate in the Public Sector Investment Programme (PSIP)

12. Specific objectives

1. To conduct a maturity analysis to determine the project management maturity level of the organisation and organizational needs.
2. To determine the characteristics and functions of the PMO to improve the PSIP performance.
3. To create the structure of the PMO to propose the level of authority and position within UG organizational structure.
4. To recommend an implementation plan to provide policies on recruitment, emoluments, benefits, and training.

13. FGP purpose or justification

The University of Guyana is a parastatal institution that gets its financing primarily through the Government of Guyana subvention, PSIP. The University's execution and implementation rate of the PSIP is currently pegged at 30%. Therefore, there is a dire need for PSIP performance improvement. This is essential if the University wants to continue to benefit from financing for major capital infrastructural projects, either rehabilitations or new structures. This needs to improve as the University will not be given additional projects if it continues to underperform since these projects take up fiscal space. And when a project is rolled over, the University will not get any new projects.

14. Work Breakdown Structure (WBS).

1. Graduation Seminar
    - 1.1 FGP Deliverables
        - 1.1.1 Charter
        - 1.1.2 WBS
        - 1.1.3 Chapter I. Introduction
        - 1.1.4 Chapter II. Theoretical Framework
        - 1.1.5 Chapter III. Methodical Framework
        - 1.1.6 Annexes (Bibliography and Schedule)
    - 1.2 Graduation Seminar Approval

2. Tutoring Process
    - 2.1 Tutor (Tutor Assignment and Communication)
    - 2.2 Adjustments Previous Chapter (If needed)
    - 2.3 Chapter IV. Development (Results)
        - 2.3.1 Organizational Maturity Analysis and Needs Assessment
        - 2.3.2 Characteristics and Functions of the PMO
        - 2.3.3 PMO Structure and Authority Level
        - 2.3.4 Organizational Maturity Improvements
        - 2.3.5 Implementation Plan
        - 2.3.6 Integration Management Plan
        - 2.3.7 Scope Management Plan
        - 2.3.8 Stakeholder Management Plan
        - 2.3.9 Schedule Management Plan
        - 2.3.10 Cost Management Plan
        - 2.3.11 Quality Management Plan
        - 2.3.12 Resource Management Plan
        - 2.3.13 Communication Management Plan
        - 2.3.14 Risk Management Plan
        - 2.3.15 Procurement Management Plan
    - 2.4 Chapter V. Conclusions
    - 2.5 Chapter VI. Recommendations

3. Reading by Reviewers
    - 3.1 Reviewers Assignment Requests
        - 3.1.1 Assignments of two Reviewers
        - 3.1.2 Communication
        - 3.1.3 FGP Submission to Reviewers
    - 3.2 Reviewers Work
        - 3.2.1 Reviewer 1

3.2.1.1 FGP Reading
3.2.1.2 Reader 1 Report
3.2.2 Reviewer 2
3.2.2.1 FGP Reading
3.2.2.2 Reader 2 Report

4. Adjustments
   - 4.1 Report for Reviewers
   - 4.2 FGP Update
   - 4.3 Second Review by Reviewers

5. Presentation to the Board of Examiners
   - 5.1 Final Review by Board
   - 5.2 FGP Grade Final Report

15. FGP budget

The cost for the project will be **USD 405** (USD1 – GYD 210)

Upgraded internet package	$15,000 GYD
Black and white Printer	$40,000 GYD
MS Office 2016	$30,000 GYD
Total	**$85,000 GYD**

16. FGP planning and development assumptions.

I. The project scope will not change.
II. The project can be completed in 5 months.
III. Feedback and reviews from stakeholders will be made in a timely manner.
IV. The main stakeholders for the project will remain in their current position.
V. It is assumed there will be expert judgment provided by the tutor to guide the development of the FGP.
VI. There will not be significant changes to project scope which may adversely affect project cost and completion time.

17. FGP constraints

I. The Final Graduation Project must be developed within the time frame provided by the university.

II. Balancing work commitments and time requirements for the project.
III. Home internet connectivity issues – not reliable and speed fluctuates.
IV. Irregular electricity supply.
V. All requirements must be approved by the stakeholders.
VI. Project must be completed within the agreed Budget.
VII. 100% of scope must be completed by the end of project.

18. FGP development risks

I. Project may experience approval delays which may increase completion time resulting in increased project cost.
II. Scope creep may affect project which can increase project time as well as cost.
III. Lack of financial and other resources may negatively affect the project resulting in project failure.
IV. If the student misses the scheduled deliverables, the FGP will not be graded, and the student will not be eligible for graduation.
V. Poor and infrequent communication with the tutor will result in the PMO proposal not being completed on schedule, according to quality, scope and cost.
VI. Not receiving the required 70% to pass the FGP Course.

19. FGP main milestones

Deliverable	**Finish Estimated Date**
Project Start	9/01/2023
Annexes: Project Charter & WBS	29/01/2023
Chapter I: Introduction Chapter	12/02/2023
FGP schedule Completion	12/02/2022
Chapter II: Theoretical Framework	19/02/2023
Chapter III: Methodological Framework	19/02/2023
Annexes: Bibliography & FGP Schedule	26/02/2023
Adjustment of Previous Chapters	26/02.2023
Graduation Seminar Approval	29/02/2023
Tutor Assigned	6/03/2023
Organizational Maturity Analysis and Needs Assessment	12/03/2023
Characteristics and Functions of the PMO	12/03/2023
PMO Structure and Authority Level	12/03/2023
Organizational Maturity Improvements	19/03/2023
Implementation Plan	19/04/2023
Chapter V: Conclusions	4/06/2023

Deliverable	Finish Estimated Date
Chapter VI: Recommendations	4/06/2023
Approval by tutor	11/06/2023
Assignment of Two Reviewers	11/06/2023
Submission of FGP to Reviewers	11/06/2023
FGP Reading Reports	18/06/2023
Adjustment Report for Reviewers	25/06/2023
FGP Update	2/07/2023
Second Review of FGP by Reviewers	2/07/2023
Final review of FGP by Board of Examiners	9/07/2023
FGP Grade Report	16/07/2023
FGP Completion	16/07/2023

20. Theoretical framework

20.1 Estate of the "matter"

The implementation of projects against time, scope, schedule, and quality are measured through the Public Sector Investment Programme (PSIP). If the University wants to benefit from these vital government subventions, it needs to improve its implementation rate. This needs to improve as the University will not be given additional projects.

Initially, it presents background information on the current state of project implementation and management at the University, how the project is managed and what has been done to improve the PSIP performance implementation rate.
The Chapter also identifies the Organizational structure of the University and how the PMO is envisioned can first streamline its project implementation.

Additionally, research has been presented to bolster the need for why a PMO could possibly solve the dilemma and providing concrete ways in which it can assist with improving the rate of performance such has having a team dedicated to multi-project management and keeping track of all of the processes, changes, conflicts, risks and decisions, ensuring that all projects align with organizational culture and strategy, providing templates, guidance and project governance, collects Lessons Learned and offer them to other similar projects; and coordinates communication across every project.

Finally, PMOs are not a one size fit all approach that can assist with everything and therefore it highlights ways in which a PMO can possibly become ineffective so as for the University to avoid those pitfalls such as not having trained project manager and team, rigidity in not evolving project methodology and ineffective project management organisation leadership.

20.2 Basic conceptual framework

Project management Office, project, project lifecycle, project management knowledge areas and processes, project management principles, project management domains, predictive, adaptive and hybrid and project sector investment programme (PSIP).

21. Methodological framework

Objective	Name of deliverable	Information sources	Research method	Tools	Restrictions
To conduct a maturity analysis to determine the project management maturity level of the organisation and organizational needs.	▪ Organizational Maturity Analysis ▪ Needs Assessment	Primary: Meeting minutes/ Interviews. Secondary: The PMBOK® Guide, Sixth and Seventh Editions	Qualitative, Quantitative and Mixed Methods	▪ Expert judgment ▪ Brainstorming ▪ Meetings ▪ Analytical techniques ▪ Organizational theory	Lack of previous research studies on the topic.
To determine the characteristics and functions of the PMO to improve the PSIP performance.	▪ Characteristics and Functions of the PMO	Primary: Meeting of project team, project stakeholders, available PSIP implementation report and governance update reports/strategies. Secondary: The PMBOK® Guide, Sixth and Seventh Editions	Qualitative, Quantitative and Mixed Methods	▪ Stakeholder management matrix ▪ Stakeholders register matrix. ▪ Stakeholder power/interest grid ▪ Risk Impact/Probability Chart	Limited access to relevant and extensive data.
To create the structure of the PMO to propose the level of authority, position within UG organizational structure.	▪ PMO Structure and Authority Level	Primary: Meetings/Interviews with project team and project stakeholders. Secondary: The PMBOK® Guide, Sixth and Seventh Editions, PMI website, the University's human resources policies, and procedures, capacity development framework.	Qualitative, Quantitative and Mixed Methods	▪ Interviews ▪ Document analysis ▪ Expert judgment ▪ Organizational charts and position descriptions ▪ Roles and responsibilities chart ▪ Organizational theory	Time Constraints.

Objective	Name of deliverable	Information sources	Research method	Tools	Restrictions
To recommend an implementation plan to provide policies on recruitment, emoluments, benefits, and training.	▪ Implementation Plan	Primary: Meetings/Interviews with project team and project stakeholders (Chairs/Heads of all the University's Governance Bodies). Secondary: The PMBOK® Guide, Sixth and Seventh Editions, PMI website, the University's human resources policies, and procedures capacity development framework, capacity development framework. standardized guidelines for information and communication, available reports on previous PMO implementation and UG's governance rules.	Qualitative, Quantitative and Mixed Methods	▪ Interviews ▪ Document analysis ▪ Expert judgement ▪ Organizational charts and position descriptions ▪ Roles and responsibilities chart ▪ Organizational theory ▪ Training	100% of project scope must be completed by the end of the project.

22. Validation of the work in the field of regenerative and sustainable development.

According to Müller (2017), "humankind has taken a dangerous path with its current global development trends. Humanity is in a time of rapid population growth coupled with overconsumption and massive destruction of Nature"

On the other hand, sustainable development is development that meets the needs of the present, without compromising the ability of future generations to meet their own needs.

Sustainable Development globally are enshrined in the Sustainable Development Goals (SDGs), also known as the Global Goals which were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity.

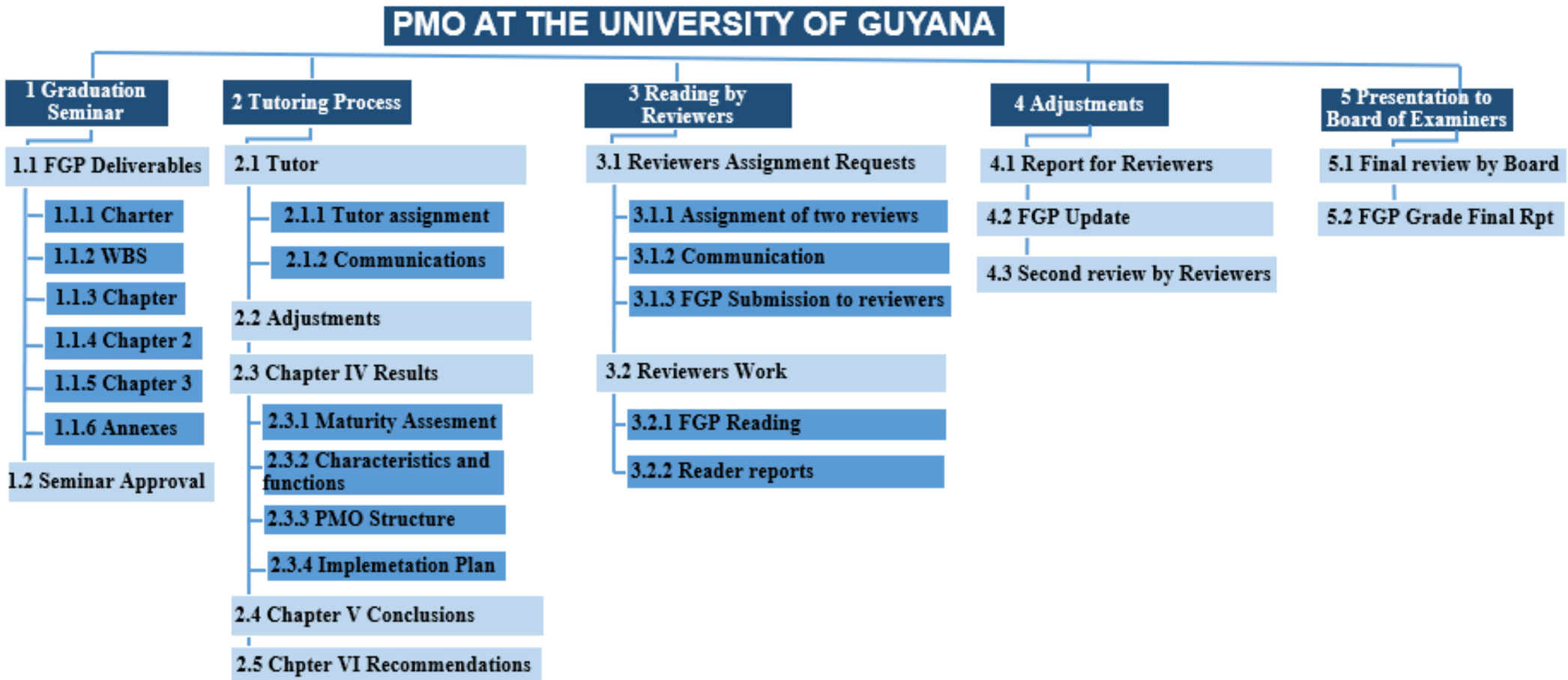
In terms of this PMO proposal, Regenerative development will be integral in terms of having consultations with key stakeholders in all projects especially during the planning and execution phase. Added to that, transparency will be the hallmark of this PMO office in how decisions are made with all information about the projects undertaken by the PMO being publicized including budget, scope, and duration.

Regenerative and sustainable practices will be employed as well in design considerations that seeks to support the minimization of damage to the environment and human health, and using resources more efficiently, in effect, slowing down the degradation of earth's natural systems. Sustainably, this can be linked to the innovation and infrastructure since the facilities that will be constructed or rehabilitated under the PMO office will take into consideration climate change and how to mitigate.

Additionally, regenerative and sustainable practices will be built into the core functions, aims and objectives of the PMO. This will allow for every action of the PMO will have to have these two concepts as a central tenet in its operations.

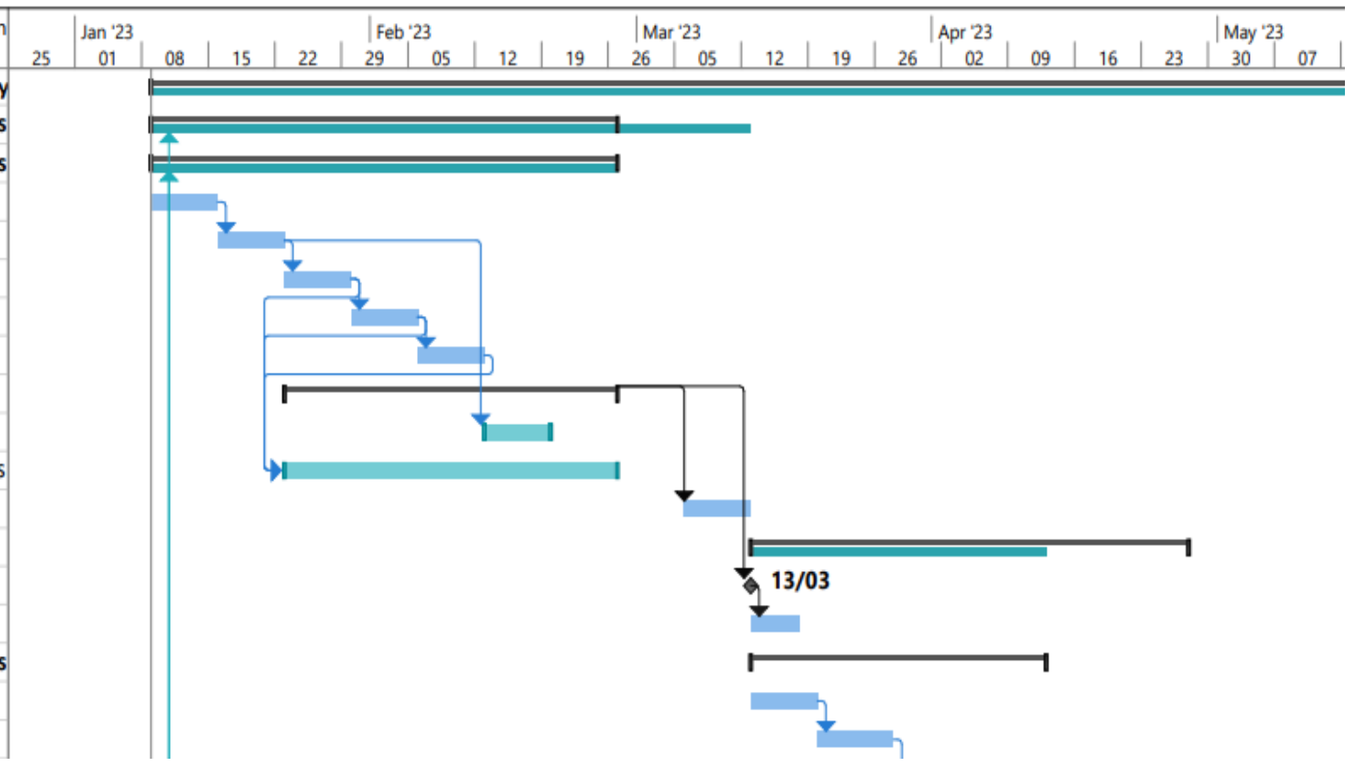
With the PMO Office proposal at the University of Guyana, it will assist with the realization of many of the SDG goals quality education; gender equality; innovation and infrastructure; reduced inequalities since with the improvement in the facilities at UG it will allow for persons from every stratum of society to be included and involved in getting an education.

Appendix 2: FGP WBS

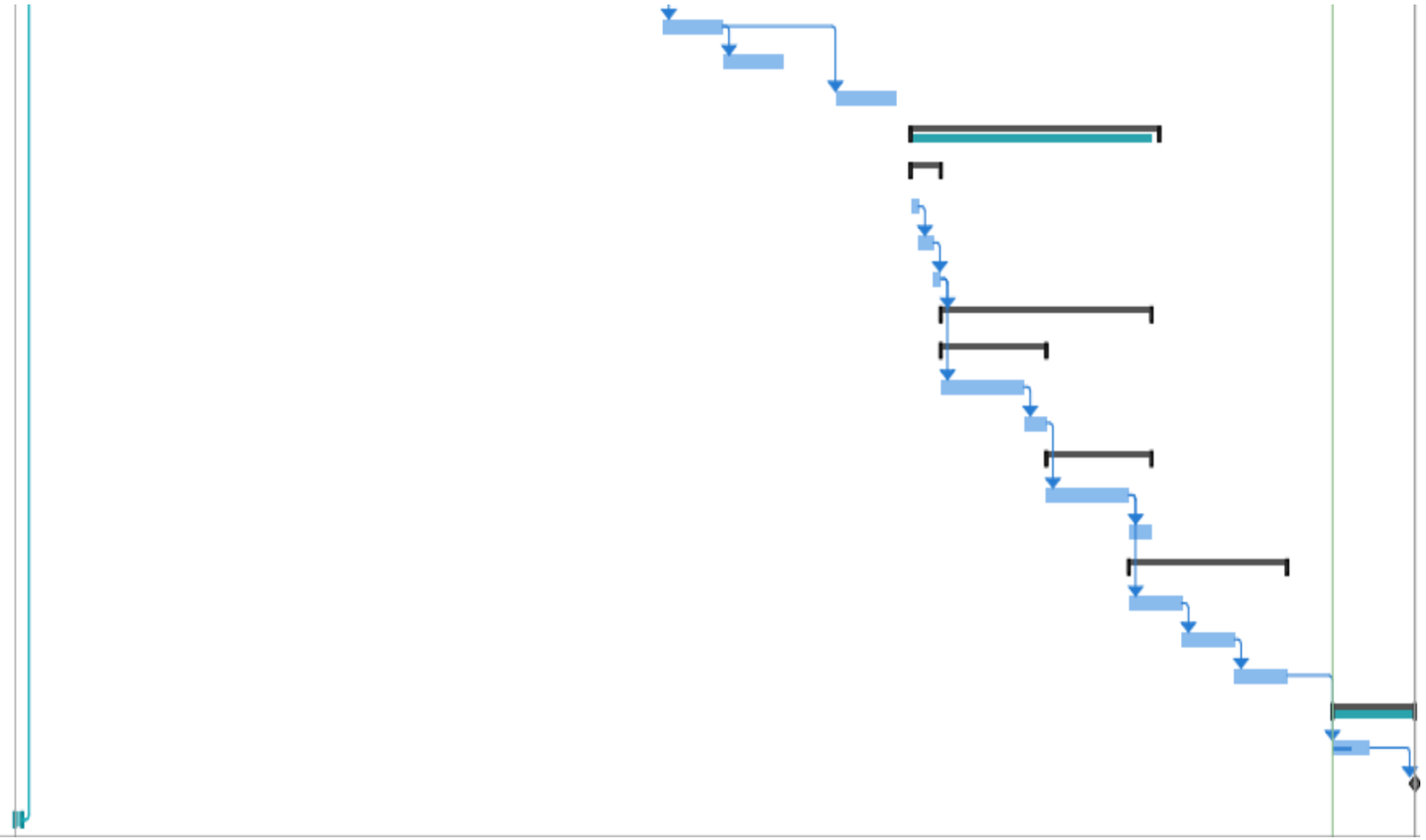


Appendix 3: FGP Schedule

ID	Task Name	Duration
1	**Final Graduation Project**	**142 day**
3	**1. Graduation Seminar**	**41 days**
4	**1.1FGP Deliverables**	**41 days**
5	1.1.1 Charter	6 days
6	1.1.2 WBS	6 days
7	1.1.3 Chapter I. Introduction	6 days
8	1.1.4 Chapter II. Theoretical Framework	6 days
9	1.1.5 Chapter III. Methodological Framework	6 days
10	**1.1.6 Annexes (Bibliography and Schedule)**	**29**
12	1.1.6.2 Schedule	6 days
11	1.1.6.1 Bibliography	29 days
13	1.2 Graduation Seminar Approval	6 days
14	**2. Tutoring Process**	**35**
15	2.1Tutor (Tutor Assignment and Communication)	0 days
16	2.2 Adjustments (If Needed)	5 days
17	**2.3 Chapter IV. Development (Results)**	**24 days**
18	2.3.1 Characteristics and Functions of the PMO	6 days
19	2.3.2 PMO Structure and Authority Level	6 days



21	2.3.4 Implementation Plan	6 days
22	2.4 Chapter V. Conclusions	6 days
23	2.5 Chapter VI. Recommendations	6 days
24	**3. Reading by Reviewers**	**25 days**
25	**3.1Reviewers Assignment Requests**	**4 days**
26	3.1.1 Assignments of two Reviewers	1 day
27	3.1.2 Communication	2 days
28	3.1.3 FGP Submission to Reviewers	1 day
29	**3.2Reviewers Work**	**20 days**
30	**3.2.1 Reviewer 1**	**10 days**
31	3.2.1.1 FGP Reading	7 days
32	3.2.1.2 Reader 1 Report	3 days
33	**3.2.2 Reviewer 2**	**10 days**
34	3.2.2.1 FGP Reading	7 days
35	3.2.2.2 Reader 2 Report	3 days
36	**4. Adjustments**	**15 days**
37	4.1Report for Reviewers	5 days
38	4.2FGP Update	5 days
39	4.3Second Review by Reviewers	5 days
40	**5. Presentation to the Board of Examiners**	**9 days**
41	5.1Final Review by Board	5 days
42	5.2FGP Grade Final Report	0 days
2	FGP Start	1 day



Appendix 4: Project Management Maturity Model by Miller (2004)

Levels of Project Management Maturity	Level 1 Initial Process	Level 2 Structured Process and Standards	Level 3 Organizational Standards and Institutional Process	Level 4 Managed Process	Level 5 Optimized Process
Project Integration Management	No established practices, standards, or Project Office. Work performed in ad hoc fashion	Basic documented processes for project planning and reporting. Management only involved on high-visibility projects.	Project integration efforts institutionalized with procedures and standards. Project Office beginning to integrate project data.	Processes/standards utilized by all projects and integrated with other corporate processes/systems. Decisions based on performance metrics.	Project integration improvement procedures utilized. Lessons learned regularly examined and used to improve documented processes.
Project Scope Management	General statement of business requirements. Little/no scope management or documentation. Management aware of key milestones only.	Basic scope management processes in place. Scope management techniques regularly applied on larger, more visible projects.	Full project management processes documented and utilized by most projects. Stakeholders actively participating in scope decisions.	Project management processes used on all projects. Projects managed and evaluated in light of other projects.	Effectiveness and efficiency metrics drive project scope decisions by appropriate levels of management. Focus on high utilization of value.
Project Time Management	No established planning or scheduling standards. Lack of documentation makes it difficult to achieve repeatable project success	Basic procedures exist but are not required for planning and scheduling. Standard scheduling approaches utilized for large, visible projects.	Time management processes documented and utilized by most projects. Organization wide integration included inter-project dependencies.	Time management utilizes historical data to forecast future performance. Management decisions based on efficiency and effectiveness metrics	Improvement procedures utilized for time management processes. Lessons learned are examined and used to improve documented processes.

Levels of Project Management Maturity	Level 1 Initial Process	Level 2 Structured Process and Standards	Level 3 Organizational Standards and Institutional Process	Level 4 Managed Process	Level 5 Optimized Process
Project Cost Management	No established practices or standards. Cost process documentation is ad hoc and individual project teams follow informal practices.	Processes exist for cost estimating, reporting and performance measurement. Cost management processes are used for large, visible projects.	Cost processes are organizational standard and utilized by most projects. Cost is fully integrated into project office library.	Cost planning and tracking integrated with Project Office with Project Office, financial, and human resources systems. Standards tied to corporate processes.	Lessons learned improve documented processes. Management actively uses efficiency and effectiveness metrics for decision-making.
Project Quality Management	No established project quality practices and standards. Management is considering how they should define "quality."	Basic organizational project quality policy has been adopted. Management encourages quality policy application on large, visible projects.	The quality process is well documented and an organizational standard. Management involved in quality oversight for most projects.	All projects are required to use quality planning standard processes. The Project Office coordinates quality standards and assurance.	The quality process includes guidelines for feeding improvements back into the process. Metrics are key to product quality decisions.
Project Human Resources Management	No repeatable process applied to planning and staffing projects. Project teams are ad hoc. Human resource time and cost is not measured.	Repeatable process in place that defines how to plan and manage human resources. Resource tracking for highly visible projects only.	Most projects follow established resource management processes. Professional development program establishes project management career path	Resource forecasts used for project planning and prioritization. Project team performance measured and integrated with career development.	Process engages teams to document project lessons learned. Improvements are incorporated into human resources management process.

Levels of Project Management Maturity	Level 1 Initial Process	Level 2 Structured Process and Standards	Level 3 Organizational Standards and Institutional Process	Level 4 Managed Process	Level 5 Optimized Process
Project Communications Management	The is an ad hoc communications process in place whereby projects are expected to provide informal status to management.	Basic process is established. Large, highly visible projects follow the process and provide progress reporting for triple constraints	Active involvement by management for project performance reviews. Most projects re executing a formal project communication plan.	A communications management plan is required for all projects. Communications plans are integrated into corporate communications structure.	An improvement process is in place to continuously improve project communications management. Lessons learned are captured and incorporated.
Project Risk Management	No established practices or standards in place. Documentation is minimal and results are not shared. Risk response is negative.	Processes are documented and utilized for large projects. Management consistently involved with risks on large, visible projects.	Risk management processes are utilized for most projects. Metrics are used to support risk decisions at the project and the program level.	Management is actively engaged in organization-wide risk management. Risk systems are fully integrated with time, cost, and resource systems.	Improvement processes are utilized to ensure projects are continually measured and managed against value-based performance metrics.
Project Procurement Management	No project procurement process in place. Methods are ad hoc. Contracts managed at a final delivery level.	Basic process documented for procurement of goods and services. Procurement process mostly utilized by large or highly visible projects.	Process an organizational standard and used by most projects. Project team and purchasing department integrated in the procurement process.	Make/buy decisions are made with an organizational perspective. Vendor is integrated into the organization’s project management mechanisms.	Procurement process reviewed periodically. On-going process improvements focus on procurement efficiency and effective metrics.

Appendix 5: Project Management Maturity Survey

University of Guyana Project Management Maturity Assessment Survey

	Project Management Maturity Levels				
Please indicate for the following processes the level at which the University is at using the scale of 1 representing the minimum and 5 representing the maximum.	**1**	**2**	**3**	**4**	**5**
Project Integration Management					
Identification of Deliverables	☐	☐	☐	☐	☐
Definition of Scope	☐	☐	☐	☐	☐
Project Management Plan	☐	☐	☐	☐	☐
Change Control	☐	☐	☐	☐	☐
Project Closure	☐	☐	☐	☐	☐
Please indicate for the following processes the level at which the University is at using the scale of 1 representing the minimum and 5 representing the maximum.	**1**	**2**	**3**	**4**	**5**
Project Scope Management					
Requirements definition	☐	☐	☐	☐	☐
Definition of Scope	☐	☐	☐	☐	☐
Workbreakdown structure	☐	☐	☐	☐	☐
Please indicate for the following processes the level at which the University is at using the scale of 1 representing the minimum and 5 representing the maximum.	**1**	**2**	**3**	**4**	**5**
Project Schedule Management					
Definition of Activities	☐	☐	☐	☐	☐
Sequencing of Activities	☐	☐	☐	☐	☐
Estimation of Activities	☐	☐	☐	☐	☐
Development of Schedule	☐	☐	☐	☐	☐

Please indicate for the following processes the level at which the University is at using the scale of 1 representing the minimum and 5 representing the maximum.	**1**	**2**	**3**	**4**	**5**
Project Cost Management					
Estimation of Cost	☐	☐	☐	☐	☐
Determination of the Budget	☐	☐	☐	☐	☐
Cost Control	☐	☐	☐	☐	☐

Please indicate for the following processes the level at which the University is at using the scale of 1 representing the minimum and 5 representing the maximum.	**1**	**2**	**3**	**4**	**5**
Project Quality Management					
Quality Planning	☐	☐	☐	☐	☐
Management of Quality	☐	☐	☐	☐	☐
Quality Control	☐	☐	☐	☐	☐

Please indicate for the following processes the level at which the University is at using the scale of 1 representing the minimum and 5 representing the maximum.	**1**	**2**	**3**	**4**	**5**
Project Resource Management					
Acquisition of Human Resources	☐	☐	☐	☐	☐
Development of Team	☐	☐	☐	☐	☐
Management of Team	☐	☐	☐	☐	☐

Please indicate for the following processes the level at which the University is at using the scale of 1 representing the minimum and 5 representing the maximum.	**1**	**2**	**3**	**4**	**5**
Project Communications Management					
Communications Planning	☐	☐	☐	☐	☐
Manage Communications	☐	☐	☐	☐	☐
Monitor Communications	☐	☐	☐	☐	☐

Please indicate for the following processes the level at which the University is at using the scale of 1 representing the minimum and 5 representing the maximum.	**1**	**2**	**3**	**4**	**5**
Project Risk Management					
Identification of Risks	☐	☐	☐	☐	☐
Qualitative Risk Analysis	☐	☐	☐	☐	☐
Quantitative Risk Analysis	☐	☐	☐	☐	☐
Risk Response Development	☐	☐	☐	☐	☐
Implementation of Risk Responses	☐	☐	☐	☐	☐
Monitor Risk Responses	☐	☐	☐	☐	☐

Please indicate for the following processes the level at which the University is at using the scale of 1 representing the minimum and 5 representing the maximum.	**1**	**2**	**3**	**4**	**5**
Project Procurement Management					
Procurement Planning	☐	☐	☐	☐	☐
Management of Procurement	☐	☐	☐	☐	☐
Monitoring of Procurement	☐	☐	☐	☐	☐

Please indicate for the following processes the level at which the University is at using the scale of 1 representing the minimum and 5 representing the maximum.	**1**	**2**	**3**	**4**	**5**
Project Stakeholder Management					
Identification of Stakeholders	☐	☐	☐	☐	☐
Stakeholder Engagement Plan	☐	☐	☐	☐	☐
Management of Stakeholder Engagement	☐	☐	☐	☐	☐
Monitoring of Stakeholder Engagement	☐	☐	☐	☐	☐

Appendix 6: Project Maturity Analysis

University of Guyana Project Management Maturity Assessment Survey

Please indicate for the following processes the level at which the University is at using the scale of 1 representing the minimum and 5 representing the maximum.	Project Management Maturity Levels				
	1	**2**	**3**	**4**	**5**
Project Integration Management					
Identification of Deliverables	5	7	3	0	0
Definition of Scope	5	8	2	0	0
Project Management Plan	8	7	0	0	0
Change Control	6	9	0	0	0
Project Closure	6	9	0	0	0
Total - 75 (15 x5)	**30**	**40**	**5**	**0**	**0**
Percentage	**40%**	**53%**	**6.60%**	**0%**	**0%**
Project Scope Management					
Requirements definition	1	6	8	0	0
Definition of Scope	1	5	9	0	0
Workbreakdown structure	3	4	5	0	0
Total - 45 (15 x 3)	**5**	**15**	**22**	**0**	**0**
Percentage	**18%**	**33%**	**48%**	**0%**	**0%**
Project Schedule Management					
Definition of Activities	6	6	2	1	0
Sequencing of Activities	6	7	2	0	0
Estimation of Activities	6	7	2	0	0
Development of Schedule	5	8	2	0	0
Total 60 (15 x 5)	**23**	**28**	**8**	**1**	**0**
Percentage	**38%**	**47%**	**13%**	**1.70%**	**0%**

Please indicate for the following processes the level at which the University is at using the scale of 1 representing the minimum and 5 representing the maximum.	Project Management Maturity Levels				
	1	**2**	**3**	**4**	**5**
Project Cost Management					
Estimation of Cost	4	6	5	0	0
Determination of the Budget	3	7	5	0	0
Cost Control	8	6	1	0	0
Total - 45 (15 x 3)	**15**	**19**	**11**	**0**	**0**
Percentage	**33%**	**42%**	**24%**	**0%**	**0%**
Project Quality Management					
Quality Planning	10	5	0	0	0
Management of Quality	11	4	0	0	0
Quality Control	12	3	0	0	0
Total - 45 (15 x 3)	**33**	**12**	**0**	**0**	**0**
Percentage	**73%**	**26%**	**0%**	**0%**	**0%**
Project Resource Management					
Acquisition of Human Resources	5	9	1	0	0
Development of Team	8	6	1	0	0
Management of Team	11	4	0	0	0
Total - 45 (15 x 3)	**24**	**19**	**2**	**0**	**0**
Percentage	**53%**	**42%**	**4.40%**	**0%**	**0%**
Project Communications Management					
Communications Planning	3	10	2	0	0
Manage Communications	4	7	4	0	0
Monitor Communications	6	8	1	0	0
Total - 45 (15 x 3)	**13**	**25**	**7**	**0**	**0**
Percentage	**29%**	**55%**	**15%**	**0%**	**0%**

Please indicate for the following processes the level at which the University is at using the scale of 1 representing the minimum and 5 representing the maximum.	Project Management Maturity Levels				
	1	**2**	**3**	**4**	**5**
Project Risk Management					
Identification of Risks	10	4	1	0	0
Qualitative Risk Analysis	10	4	1	0	0
Quantitative Risk Analysis	10	4	0	0	0
Risk Response Development	10	5	0	0	0
Implementation of Risk Responses	10	5	0	0	0
Monitor Risk Responses	10	5	0	0	0
Total - 90 (15 x 6)	**60**	**27**	**2**	**0**	**0**
Percentage	**67%**	**30%**	**2.20%**	**0%**	**0%**
Project Procurement Management					
Procurement Planning	3	5	7	0	0
Management of Procurement	3	5	7	0	0
Monitoring of Procurement	3	5	7	0	0
Total 45 (15 x 5)	**9**	**15**	**21**	**0**	**0**
Percentage	**20%**	**33%**	**47%**	**0%**	**0%**
Project Stakeholder Management					
Identification of Stakeholders	3	4	8	0	0
Stakeholder Engagement Plan	3	3	8	1	0
Management of Stakeholder Engagement	3	5	6	1	0
Monitoring of Stakeholder Engagement	3	4	8	0	0
Total 45 (15 x 5)	**12**	**16**	**30**	**2**	**0**
Percentage	**20%**	**25%**	**52%**	**3%**	**0%**

Appendix 7: Interview Questions

1. What are some of the challenges experienced in the implementation of the PSIP?
2. How can these challenges be resolved?
3. Do you think that a PMO can solve this challenge at UG? If yes/no, why?
4. What functions do you think the PMO should perform at UG?
5. What type of project management office model/structure do you think would best for UG and why?
6. Where do you think that the PMO could be best placed in the organizational structure and why?
7. What should be the PMOs level of authority and why?
8. What staff do you think is needed for the PMO to efficiently and effectively function and achieve the goal of improved PSIP performance?
9. What should be the remuneration package of these staff, should they be full-time/part-time? Should they have similar emoluments as other staff? Should they be contract workers of public servants?
10. Should the PMO be implemented in a phased manner? If yes/no, why?
11. How long (years) should the PMO take to be fully operational?
12. If yes, which staff and amount should the PMO begin operations with?
13. Should all PMO staff have project management training and certification?
14. Should all PMO staff have project management experience?

Appendix 8: Project Manager Responsibilities

A. General Responsibilities of the Project Manager.

1. Establish and implement procedures for processing and approving shop drawings.
2. The PM is required to manage and provide responses to contractors' RFIs in a timely manner.
3. Conduct bi-monthly project status meetings.
4. Submit to the project team relevant reports at a minimum of three (3) days before the project's bi-monthly meetings.
5. Prepare and distribute meeting minutes.
6. Monitor project risks.
7. Prepare punch list items.
8. All communication between the PM and contractor **must** be documented in writing.

B. Project Manager's Responsibility with regards to time

Submission of Documents:

1. The project manager is required to provide the contractor with a **written** commencement order and to ensure that all relevant documents as per the contract are submitted prior to commencement. These documents include bonds, insurance, and a work program.
2. The Project Manager is required to review the work program to ensure that the timeline is in keeping with the duration as outlined in the contract documents. The

PM also holds the responsibility to evaluate the feasibility of the proposed work program and make suggestions to the contractor.

3. The PM is required to review the contractor's staffing schedule and evaluate its feasibility for the timely completion of the project.
4. The PM is required to submit to the contractor any amendments that were made to the drawing after the tendering process but before the award of the contract.

Reports

1. The PM is responsible for ensuring that the contractor submits their reports at a frequency outlined in the contract document. Reports shall include a work program that clearly indicates the status of work in comparison to the initial program. It should further highlight areas where the project is behind schedule.
2. The PM shall keep records of all changes to the scope of works (SOW) or quantity of work performed and make comments on how they will affect the project's duration.
3. All communication between the PM and contractor **must** be documented in writing.

Time overruns

1. The PM is required to keep personal records on the status of the project and indicate to the contractor by way of **writing** when he is behind schedule for critical path items.
2. The PM is required, through the clerk of works, to keep records of the number of staff on-site, the area where work is being done, and the quantity of work completed.
3. The PM is required to keep records of non-working time due to inclement weather or otherwise.

4. The contractor, through the PM, is required to notify the client in **writing** all risks that will negatively impact the project's timeline as early as possible. e.g., potential delays due to supply chain issues.
5. The PM is required to provide a projected progress report per milestone activity when submitting their weekly/fortnightly/monthly reports.
6. When the project is behind schedule the PM must request in **writing** from the contractor a project recovery plan.
7. It is the responsibility of the PM to evaluate the recovery plan and make suggestions for improvement to the contractor.
8. The PM may request the contractor to perform the work outside of the usual working hours should the project fall behind schedule.

C. Payment for Works – Additional requirements are as per clause 29 (Certificate of Performed Works) of the contract document.

1. The PM is required to verify payment certificates submitted by the contractor at a frequency as outlined in the contract; valuation shall be prepared on **performed** works only and shall not include materials on site nor projections on works to be completed.
2. Payments for specific BOQ line items shall **only** be issued on verification of relevant tests as outlined in the contract document. If testing was not done for a particular item of work in the BOQ, the PM shall be guided by the relevant sections in the technical specifications.
3. All works shall be measured net unless otherwise noted (UON) in the contract.

4. Payment certificates shall be prepared as outlined in the sample payment valuation in the appendix. Further, the following steps should be followed for the preparation of payment certificates:
5. The final payment certificate shall be accompanied by a practical completion certificate that is signed by the PM and the relevant director.
6. The PM shall issue a final completion certificate at the end of the defect's liability period.
7. The contractor shall request retention payment at the end of the defect's liability period on account that all defects are corrected. If defects are not corrected, the PM shall be guided by the conditions of the contract.

Variation Works

1. Variation works shall only be acknowledged for payment if the PM provides in **writing** clear instructions to the contractor to perform said variation works.
2. The PM is required to evaluate the extent of variation works that may be required in relation to the project budget prior to issuing a proceed with works order to the contractor. Proceed with works order **must** be in writing.
3. Provide in writing the scope of the variation works required, justification for the variation works, the relevant rates, and the total cost.
4. The PM should consult with the Procurement Director/ Bursar for the approval of variation works that would bring the contract sum above its initial value.
5. In consultation with the project steering committee, the PM should confirm all variation works prior to issuance of the proceed with works order.

Reporting

1. The PM shall include in their weekly/fortnightly/monthly reports the up-to-date financial status of the project in relation to the project budget.
2. The PM shall make comments on all changes to the scope and/or quantity of works performed and their bearing on the project's budget.
3. The PM should identify and/or report on:
    a. How the project's costs would be continuously tracked until its completion?
    b. How the costs are spread out across multiple project phases and milestones?
    c. What tools would be used to store and report cost data?
    d. What the plan is for situations in which the project is either under or over budget?
4. All communication between the PM and contractor **must** be documented in writing.

D. Project Manager's Responsibility with regards to Quality

1. The PM is required to prepare, keep records of, and submit to the contractor an inspection and testing plan outlining all the required tests for the project. The inspection and testing plan shall include, inter alia, the sections of works to be tested and the method of testing to be employed, an outline of what constitutes a successful test, and the proposed testing laboratory.
2. The PM is required to inspect and approve all sections of work before the contractor moves on to the next stage.
3. The PM is required to instruct the contractor to carry out all tests that may be required; if tests are required but permanent works were done that were not approved by the

PM, the PM is to instruct the contractor to remove a section of the works to allow for testing.

4. Approve construction materials.
5. Coordinate both on-site and off-site inspection
6. The PM, in consultation with the project steering committee, should decide on the colour, style and type of any material to be used on the project.
7. All communication between the PM and contractor **must** be documented in writing.

E. Project Manager's Responsibility with regards to Health and Safety

In collaboration with the University's Health and Safety department, the contractor is required to:

1. Ensure that the contractors go through HSE training with the university's HSE department.
2. Review the contractor's HSE plan, including but not limited to, proposed PPE, emergency measures, accident and reporting procedures, lifting plan (as applicable), and proposed welfare zones.
3. Ensure that the contractors go through an HSE induction with the university's HSE department.
4. Ensure that workers on site are equipped with the relevant PPE.
5. Ensure that work is performed in a safe manner.
6. Ensure that adequate site signage is erected.
7. Request from the contractor an updated HSE plan as may be required.

8. Provide a weekly/fortnightly/monthly report on the state of HSE on the job site. Including but not limited to, accidents and injuries, near misses, and non-compliance with HSE requirements.
9. Enforce HSE requirements.
10. All communication between the PM and contractor **must** be documented in writing.

Appendix 9: Philologist 's Credentials

Scott Ting-A-Kee

CSEC and CAPE Literature Teacher

Scott Leon Ting-A-Kee
352 Cummings Street,
North Cummingsburg,
Georgetown,
Guyana.

+5926426070
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Experience

The Bishops' High School / Teacher
September 2019-Present

Grade 10 CSEC English Literature

Grade 11 CSEC English Literature

Grade 12 CAPE Literatures in English Units 1 and 2

Caribbean Examinations Council / Subject Panel Member
May 2021 to Present
Assisted in deciding the texts, learning activities and content that must be placed on the 2025 CAPE Literatures in English syllabus

EyeWear Optical / Secretary
March 2018- August 2019

Typed necessary business documents and correspondences, filed and retrieved the medical records and files of patients

Private tutor / Teacher
October 2016- Present
Taught CAPE Literatures in English Units One and Two to students as extra classes

St. Joseph's High School / Teacher
September 2016- August 2017

Grade 10 English Language and Literature

Grade 8 English Language and Literature

Grade 12 CAPE Literature in English

Grade 7 Spanish (Basic level)

Caribbean Examinations Council / Assistant Examiner
July 2017 to Present

Marker of CAPE Literatures in English Paper Two Questions for both units and all sections (Drama, Poetry and Prose)

Education

University of the West Indies (Open Campus) / Postgraduate Diploma

September 2021- August 2022

Postgraduate Diploma in Teaching and Learning with Emerging Technologies (PGDTLET)

University of Guyana (UG) / Postgraduate Diploma

November 2020- October 2021

Postgraduate Diploma of Education (Secondary English)

University of Guyana (UG) / Degree

August 2012-June 2016

Bachelor's of Arts in English - Literature (Distinction)

Academic Experience/Research

2022- **Participant in English Graduate Organization Conference/ University of Massachusetts Amherst** and presented the paper, Indentureship, Migration and the Chinese Identity: A Comparison of the Chinese Guyanese and Chinese American Experience in Shinebourne's The Last Ship and Yang's American Born Chinese

2021- **Participant in the NNMHR Congress/Durham University and** presented the paper - The (In)Visibility of Disability in Greek Mythology

Participant in the Emerging Writers Panel during the CSA 45th Annual Conference/University of Guyana

- **Participant in the 39th Annual West Indian Literature conference (UWI, Cave Hill)** and presented a paper on The Value of Popular Knowledge in Literature Classes

2020- **Participant in a forum to mark the abolition of indentureship (UG)** and presented a paper on Chineseness in Shinebourne's The Last Ship

2019- **Participant in the 38th Annual West Indian Literature conference (UG)** and presented a paper on Indentureship and WuXia in Chan's Song

2018- **Panel member for the Crime in Anglophone Literature Discussion at University of Guyana** and presented a paper on the Masculinity of Crime in Asantewa's Elijah

Appendix 10: Revision Dictum

Scott Ting-A-Kee,
The Bishops' High School
84 Carmichael St
Georgetown
Guyana
26 June 2023

Academic Advisor
Master's Degree in Project Management (MPM)
Universidad para la Cooperación Internacional (UCI)

Dear Academic Advisor:

Re: **Thorough Review and Proofreading of Final Graduation Project submitted by Nikki Taundrea Cole in partial fulfilment of the requirements for the Master's in Project Management (MPM) Degree**

I hereby confirm that Nikki Taundrea Cole has made all of the corrections in the Final Graduation Project document as I have advised. In my opinion, the document meets the literary and linguistic standard expected of a student at the Master's degree level.

Yours sincerely,

S Ting-A-Kee

Scott Ting-A-Kee,
Trained Graduate Master