UNIVERSIDAD PARA LA COOPERACION INTERNACIONAL
(UCI)

PROJECT MANAGEMENT PLAN FOR THE INVESTMENT CLIMATE SURVEY IN SAINT LUCIA

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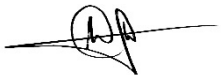

SIGNATURE

DEDICATION

I would like to dedicate this research project to my loving family, Susan and Delaney, for their selfless patience and support over the last eighteen months. Your endless support and encouragement gave me the motivation to persevere beyond measure to meet the demands of this Master in Project Management (MPM) Degree. It is because of your unwavering support that my aspirations have finally become a reality. Thank You!

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INDEX OF CONTENTS

INDEX OF FIGURES

INDEX OF CHARTS

ABBREVIATIONS AND ACRONYMS

- Caribbean Community (CARICOM)
- Contracting Authority (CA)
- Department of Commerce (DOC)
- Department of Statistics
- Eastern Caribbean Currency Union (ECCU)
- Easter Caribbean Dollars (ECD)
- European Union (EU)
- International Standard Industrial Classification (ISIC) Revision 4
- Investment Climate Survey (ICS)
- Investment Climate Survey Questionnaire (ICSQ)
- Final Graduation Project (FGP)
- Government of Saint Lucia (GOSL)
- Gross Domestic Product (GDP)
- Masters in Project Management (MPM)
- Micro, Small and Medium Sized Enterprises (MSME)
- Office of Investment Coordination (OIC)
- Office of Private Sector Relations (OPSR)
- Permanent Secretary (PS)
- Precedence Diagramming Model (PDM)
- Private Sector Companies (PSC)
- Project Manager (PM)
- Project Management Institute (PMI)
- Project Management Office (PMO)
- Risk Breakdown Structure (RBS)
- Terms of Reference (TOR)
- Work Breakdown Structure (WBS)
- University for International Cooperation (UCI)

EXECUTIVE SUMMARY (ABSTRACT)

Saint Lucia is a small island developing state located approximately midway down the Eastern Caribbean archipelago. The island became an independent state on February 22, 1979 and eventually became a member of the Commonwealth, the CARICOM, the OECS and the ECCU. Saint Lucia has a small, open, tourism based economy that is very vulnerable to exogenous shocks. The island once enjoyed the fruits of a vibrant banana industry that took a sharp downturn because of a shift in international trade, particularly in light of the EU import preference regime and an increase in competition from the Latin American banana industry. In spite of those external factors, Saint Lucia was able to diversify to offshore banking and the tourism industry.

From a macro-economic standpoint, Saint Lucia has done well, for example, when compared to other developing and developed states. The island continues to rank high in the World Bank's Ease of Doing Business indicators; it has an excellent record of macroeconomic management, modest inflation and moderate rapid growth. Despite the islands' seemingly attractive macroeconomic and investment climate, firms in the private sector are not very competitive. When compared to other middle-income economies, Saint Lucia was found to be lagging behind in terms of its competitiveness, although the macroeconomic indices were favorable. It was suggested that this issue stemed from structural problems such as the remoteness and small size of the economy. The purpose of the study, therefore, was to evaluate the investment business climate in order to formulate strategies and policies by taking a closer look at the regulatory, institutional, policy and administrative environment, for doing business in Saint Lucia, all in an effort to improve, enhance and encourage competitiveness in the private sector.

The general objective of the study was to develop a project management plan according to the Project Management Institute (PMI) standard by the end of 2018, in order to evaluate the operational dimensions of the investment business climate in Saint Lucia. The specific objectives were: to develop a scope management plan to ensure that all the work required was included to ensure that the FGP was executed within its scope; to develop the schedule management plan to ensure the project stayed within its timeframe; to create a cost management plan to ensure the project was planned within the approved budget; to develop a quality management plan to ensure that the relevant requirements were met within the required standard; to create a human resource management plan to ensure that all the human resources were identified and managed efficiently in an effort to successfully complete the project within its time, cost and scope constraints; to develop a communication management plan to ensure the efficient and effective flow of information among project stakeholders; to create a risk management plan to identify and examine the probability or impact of risks on the project; to develop a procurement management plan to determine the external services that may be required to complete the project; to develop a stakeholder management plan to identify all the stakeholders that could impact or be impacted by the project, and to foster stakeholder engagement; to

develop the project integration management to ensure all the processes and activities of the project were integrated and executed as planned.

The methodology for this research was twofold. First, it was analytical, in that, some of the available facts and information had to be analyzed and evaluated as reference to assist in the development of the FGP. Second, it was descriptive in that a sample had to be drawn and surveyed in order to compile, develop and evaluate the characteristics that impeded competitiveness in the private sector.

The development of this plan resulted in three major outcomes. One, the general objective to elaborate and develop a project management plan according to the PMI standard within the scheduled time was achieved. Two, the analysis from the final report would have met the second part of the general objective which was to evaluate the operational dimensions of the investment business climate in Saint Lucia. Three, this project management plan highlights the importance of effective project management as indicated in section 2.2.2 below in ensuring project success.

In general, I recommend that moving forward the DOC conduct a review of this project management plan to determine the value and merit in adopting the plan for future ICS or similar projects. Additionally, the DOC should take a more methodological approach not only in future projects but also in meeting its business objectives. This approach will surely enable the DOC to, among other things, meet business objectives.

1. INTRODUCTION

1.1 Background

The ICS project is not the first of its kind in Saint Lucia. The Ministry of Commerce, Business Development, Investment and Consumer Affairs, commonly referred to as the Department of Commerce (DOC) is one of the main public sector drivers for international trade, Investment and commerce in Saint Lucia. One of the over-arching pillars of the DOC is that it works closely with the Private Sector to actively promote and facilitate the establishment of a dynamic investment and trading environment in Saint Lucia. In so doing, many initiatives are being pursued in an effort to meet its mandate. For example, the ease of doing business – which is an on-going initiative by the MOC that seeks to implement procedures that would make transacting business hassle free and more modernized. The DOC also endeavors to focus on and develop micro, small and medium sized enterprises (MSME).

This current flagship project undertaken by this department is the Investment Climate Survey (ICS) that seeks to evaluate the investment climate in Saint Lucia. The ICS project is geared towards evaluating all the operational dimensions of the investment business climate with a view to promote policies that will strengthen the private sector and in the short term to improve the operational environment for doing business. The long-term outcome will be to foster private sector development that would contribute to sustained reduction in poverty.

1.2 Statement of the Problem

The investment climate comprises the economic and financial conditions in a country that determines whether individuals, banks and institutions are willing to lend money and acquire a stake in the businesses operating in a country. Many location-specific variables shape the investment climate, for example, regulatory policies, taxes, the rule of law, crime, government transparency and accountability, public and private sector driven ability to support local institutions and infrastructure. These are some of the macroeconomic factors that would most likely determine the economic and investment climate in a country.

Saint Lucia's macroeconomic performance for the period under review (2004 to 2008) has been solid but not spectacular. While the average GDP growth for the period was 2.6%, the GDP had not exceeded 4.7% in any given year since 1998. An analysis of the preceding statistics indicates that Saint Lucia seems to have been in a path of sustained but moderate growth. It must be noted, though, that Saint Lucia is a small Island developing state and, as such, the island's small economy is open to external pressure, for example, the increase in petroleum prices and that the economy is heavily dependent on foreign trade. Tourism and agriculture were the two main economic activities. Agriculture contributed 4% to GDP and 25% to employment. More recently, tourism has surpassed the agricultural sector as the main contributor to GDP as the visitor arrivals into the island has continued to grow exponentially.

Economic activity intensified in 2008 was driven by an increase in the performance of the construction, hotel/restaurants, banking/insurance, communications, and the distributive trade sectors. In spite of the external pressures, the island recorded a real GDP growth of 5.4%. Tourism continued on a path of sustained growth and accounted for 11.7% of GDP in 2008. Real GDP in the tourism sector expanded by 6.3% due to value added in the hotel and restaurant sub-sectors. Economic activity in the agricultural sector grew also, accounting for an increase in real GDP of 3.9%. The manufacturing sector did not fare so well in 2008. The sector contracted by 5.4%. As a result, GDP in that sector moved from 6.3% in 2007 to 5.9% in 2008.

The preceding statistics indicate that Saint Lucia has been able to attract foreign business and investment, particularly, in the offshore banking and tourism sectors. Tourism has been Saint Lucia's main source of jobs and income; and it continues to be the country's main revenue earner since the collapse of the banana industry. Tourism accounts for 65% of the Saint Lucia's GDP. More recently, the manufacturing sector has been the most diverse in the OECS. The sector continues to produce award-winning products ranging from food, beverages and condiments to name a few.

Despite having a relatively modest investment climate, firms are not highly competitive. Consequently, the island continues to grapple with low levels of

productivity and competitiveness in the private sector. Both labor and total factor productivity are low in comparison to the best middle-income economies. In light of the current situation, an investment climate survey (ICS) will be undertaken to evaluate the investment climate in all its operational dimensions to promote policies that will strengthen the private sector.

1.3 Purpose

The investment climate survey wass the brainchild of the Department of Commerce (DOC) in Saint Lucia. The macroeconomic performance suggests that the economy had been solid but not spectacular. As a result, it appeared that the island was locked in a path of sustained but moderate growth. This situation lent itself to the presence of systemic impedements that needed to be revamped in order to improve competitiveness in the business environment in an effort to reduce poverty.

Therefore, the purpose of this project was to develop a comprehensive project management plan to evaluate the investment business climate in order to formulate strategies and policies by taking a closer look at the regulatory, institutional, policy and administrative environment, for doing business in Saint Lucia, all in an effort to improve, enhance and encourage competitiveness in the private sector. The project manager and his team will ensure that the required subsidiary plans are coordinated and integrated into the project management plan. This plan will be used to effectively and succesfully manage the project from beginning to end.

1.3.1 Proposed Solution

The student proposes the development of a project management plan for the Investment Climate Survey Project. A project management plan developed in keeping with the Project Management Institute (PMI) standard and methodology would result in the successful delivery of the project. The outcome of the project management plan would be achieved when the student applies the knowledge gained during the initiating, planning, monitoring, controlling and closing processes of the project.

1.3.2 What needs to be resolved?

The lack of competitiveness in the private sector needs to be resolved.

1.3.3 What is the opportunity to be seized?

The opportunity to be seized is that the researcher seeks to remedy the lack of competitiveness in the private sector in Saint Lucia. This will be accomplished by conducting a survey that will evaluate all the operational dimensions of the investment climate in Saint Lucia. The deliverables of the survey will be managed using the project management Institute (PMI) methodology in an effort to effectively manage the project and to ensure a successful outcome. Final Graduation Project.

1.3.4 Justification:

The project must be done in order to gather and evaluate the data from the survey to adequately analyze that data to effect policy formulation. The benefits to be derived from this project are to formulate the necessary strategies and policies to improve the lack of competitiveness in Saint Lucia's business environment and to reduce poverty in the medium to long-term. The development of the project management plan with all its subsidiary plans will ensure the project meets all its objectives.

1.4 General Objective

To elaborate and develop a project management plan according to the Project Management Institute (PMI) standard by the end of 2018, to evaluate the operational dimensions of the investment business climate in Saint Lucia.

1.5 Specific Objectives

- To develop a scope management plan to ensure that all the work required will be included to ensure the FGP is executed within its scope
- To develop a schedule management plan to ensure the project stays within its time frame
- To create a cost management plan to ensure the project will be planned within the approved budget
- To develop a quality management plan to ensure that the relevant requirements will be met within the required standard
- To create a human resource management plan to ensure that all the human resources will be identified and managed efficiently in an effort to successfully complete the project within its time, cost and scope constraints

- To develop a communication management plan to ensure the efficient and effective flow of information among project stakeholders
- To create a risk management plan to identify and examine the probability or impact of risks on the project
- To develop a procurement management plan to determine the external services that may be required to complete the project
- To develop a stakeholder management plan to identify all the stakeholders that could impact or be impacted by the project and to foster stakeholder engagement
- To develop the project integration management to ensure all the processes and activities of the project are integrated and executed as planned

2. THEORETICAL FRAMEWORK

2.1 Company/Enterprise Framework

2.1.1 Company Enterprise background

The ICS is the brainchild of the Ministry of Commerce (MOC)[1]. However, due to the business and investment nature of the project, it fell under the aegis of the Office of Investment Coordination (OIC), which is a subsidiary unit of the MOC, as depicted in the organizational structure in section 2.1.3 below. The OIC was created in 2004 and became functional the following year (2005). The unit was created out of the need to create linkages with the private sector in order to formulate and initiate interventions directed at improving and enhancing the business environment in Saint Lucia. It was, also, the responsibility of the unit to create linkages within the public sector. Generally, the OIC is directly and specifically responsible for the approval and administrative processes that negatively affect investment and private sector (firm) competitiveness.

Moreover, the core responsibility of the OIC is the management of the Business Environment Enhancing Program (BEEP). The BEEP seeks to identify and eliminate the factors that deter or hamper the operational environment in which businesses operate. The objective, therefore, is to create the enabling environment that would attract private sector investment and competitiveness.

The OIC is engaged in various activities such as the following:

- Fiscal Incentive Reform
- Ease of Doing Business Reform
- Policy Framework Development for Investment
- Establishment of the Trade Export Promotion Agency (TEPA)
- Development of the Private Sector Development Strategy
- Development of the Services Sector
- Competitiveness and Productivity

[1] MOC (2018). Private Sector Baseline Study. Investment Climate Survey. Ministry of Commerce (2009)

2.1.2 Mission and Vision Statements

"A business is not defined by its name, statutes or articles of incorporation. It is defined by the business mission. Only a clear definition of the mission and purpose of the organization makes possible clear and realistic business objectives[2]." A mission statement answers the question, "What is our business," and the vision statement answers the question, "What do we want to become?[3]" The MOC does not have a vison statement, however the mission of the MOC is as follows:

"*To actively promote and facilitate, in close collaboration with the Private Sector, the establishment of a dynamic investment and trading environment, which anticipate changes in global circumstances, whilst strengthening and enhancing the productive capacities and competitiveness of Industry and Commerce, encouraging good business practices and promoting consumer interest*[4]."

The iterative development of the project is geared towards helping the MOC reach the desired goals and objectives laid out in its mission.

2.1.3 Organizational Structure

The MOC is a very large department of government as indicated by Figure 1 below. A Minister, is responsible for the policy direction of the MOC. The Permanent Secretary (PS) falls under the direction of the Minister and is responsible for oversight and management of the various units or sections of the ministry. The OIC is the unit responsible for the ICS Project; the Director is the head of the unit and answers to the PS and is responsible for the management of the OIC.

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[2] Drucker (n.d) as cited in David of Strategic Management Concepts and Cases. The Business Vision and Mission. (2005, pp 49)

[3] David, F. R. (2005). Strategic Management Concepts and Cases. Vision versus Mission. Upper Saddle River, New Jersey: Pearson Prentice Hall

[4] Ministry of Commerce (2018). Welcome to Commerce Online. Retrieved from http://www.commerce.gov.lc/

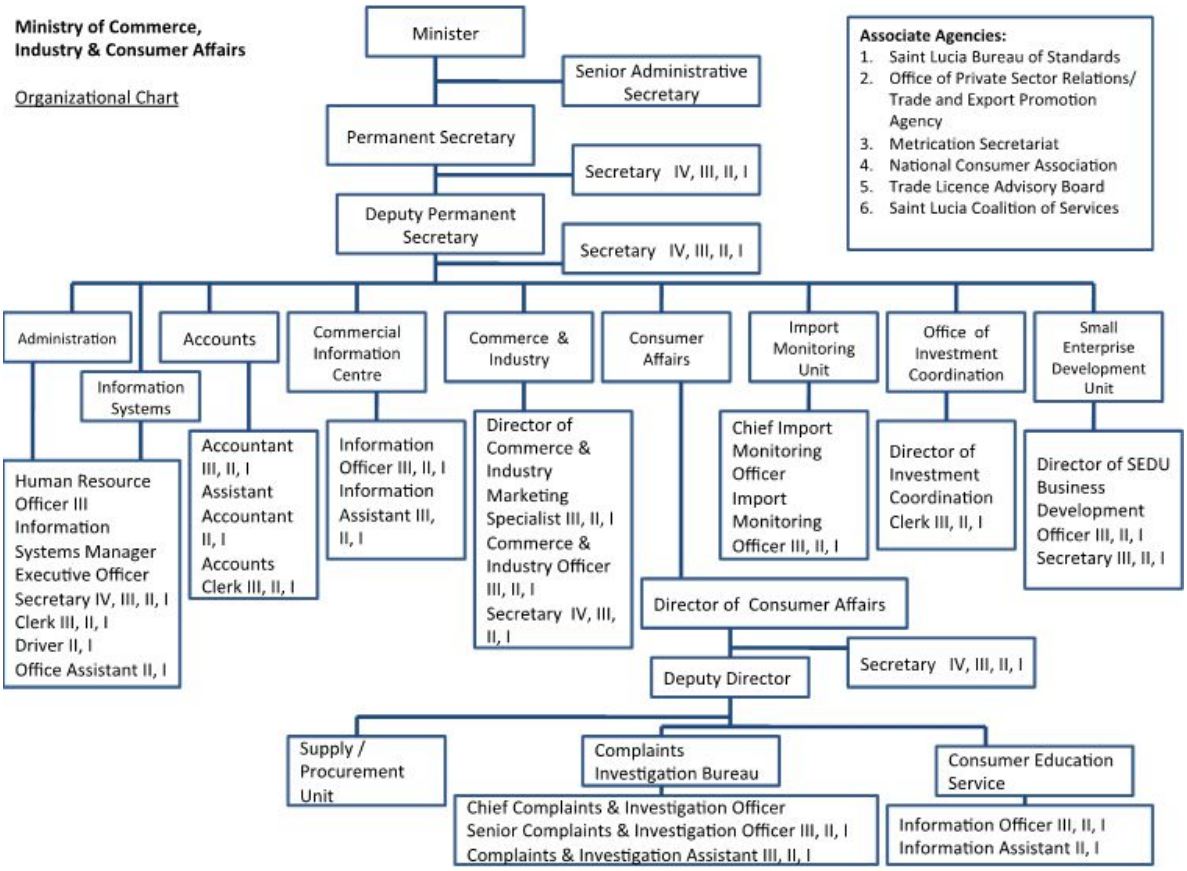

Figure 1. Organizational Structure (Source: DOC. 2018)

The table in Chart 1 below illustrates the responsibilities of the two main stakeholders who represent the contracting authority - the DOC as follows:

Chart 1. DOC Stakeholder Responsibilities (Source: Compiled by the Author)

Role:	Responsibilities:
Permanent Secretary (PS)	- Reports to the Minister (DOC) on the progress of the project - Overseas the work of the Director (DOS) - Assists the Minister in policy formulation to support the recommendations after the completion of the project
Director (OIC)	- Ensures the project is going according to plan - Constantly dialogues with the PM - Provide progress updates to the PS - Support the PM wherever necessary to ensure the project succeeds

2.1.4 Products Offered

The overall product offered by the OIC is rendered in the form of services. The various services offered by the MOC are as follows[5]:

- Conduct research in an effort to provide research data to assist management in formulating policy and implementation
- Conduct periodic assessments of the business environment to ensure compliance with legislation and regulations and to recommend strategies to improve efficiency
- Engage in continuous stakeholder dialogue and engagement in relation to doing business
- Coordinates investment applications that are submitted to the MOC
- Engage in public stakeholder consultation in relation to approval for local and foreign investment
- Collaborate with Invest Saint Lucia in relation to investment opportunities
- Collaborate with all internal units within the MOC

2.2 Project Management Concepts

2.2.1 Project

A project is a temporary endeavor undertaken to create a unique product, service or result[6]. According to this definition, a project has two attributes. The first attribute is that a project is a temporary endeavor. The term temporary does not necessarily mean that the project has a short duration. It simply means that the project, unlike an operation which is work done on a continuous basis, has a date to start and a date to end. A project can reach its end in several ways, for example, when the project meets its objectives. When the objectives cannot be met that is also an indication that the project has ended. The second attribute is that a project produces something unique which can be classified as a product (something tangible like a

[5] MOC (2018). Internal documentation on the Investment Coordination Unit.
[6] PMI (2017). Project Management Body of Knowledge (PMBOK). Definition: Project. Newtown Square, Pennsylvania: Project Management Institute Inc.

building), a service (something intangible like providing a service) and a result (for example a document or an outcome)[7].

PMI states, “Projects are undertaken to fulfill objectives by producing deliverables.” What is an objective and a deliverable? According to PMI, “An objective is defined as an outcome toward which work is to be directed, a strategic position to be attained, a purpose to be achieved, a result to be obtained, a product to be produced, or a service to be performed. A deliverable is defined as 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[8].”
The objective of the Final Graduation Project (FGP) was to complete all the activities within the scope, quality and schedule and to be able to deliver the project management plan.

Projects are accomplished objectives and deliverables within a set period of time. However, the objectives and deliverables done in accordance with the PMI standards, required the activities to be done in an iterative manner. PMI explains an iteration as the development of a product through a series of repeated cycles, while increments successfully add to the functionality of the product[9]. In essence, the definition is saying that as more information becomes available, changes are made accordingly. As a result, this process draws the product closer to being accomplished. This process is called progressive elaboration which is defined as the iterative process of increasing the level of detail in a project management plan as greater amounts of information and more accurate estimates become available[10]. For the purpose of the FGP, the objective is to develop the project management plan for the Investment Business Climate. The FGP will be progressively elaborated until

[7] Hall (2018). Project Risk Coach. Project: Creating Products, Services, and Results. Retrieved from http://projectriskcoach.com/projects-creating-products-services-and-results/
[8] PMI (2017). PMBOK. Definitions. Deliverable. Newtown Square, Pennsylvania: Project Management Institute Inc.
[9] PMI (2017). PMBOK. Definitions. Iteration. Newtown Square, Pennsylvania: Project Management Institute Inc.
[10] PMI (2017). PMBOK. Definitions. Progressive Elaboration. Newtown Square, Pennsylvania: Project Management Institute Inc.

all the objectives and deliverables are accomplished within the scheduled time, cost, quality and scope.

As indicated above projects can meet several objectives. In particular, projects can serve as a means to drive change and to transform organizations. The following figure depicts what obtains in an organization in its current state as compared to when it is driven by projects to be transformed to its future desired state. The organization would have achieved its objective or reached a successful completion when it reaches its future state, thereby adding value to the business. PMI (2017) states, projects are a sure way to create value and benefits in organizations.

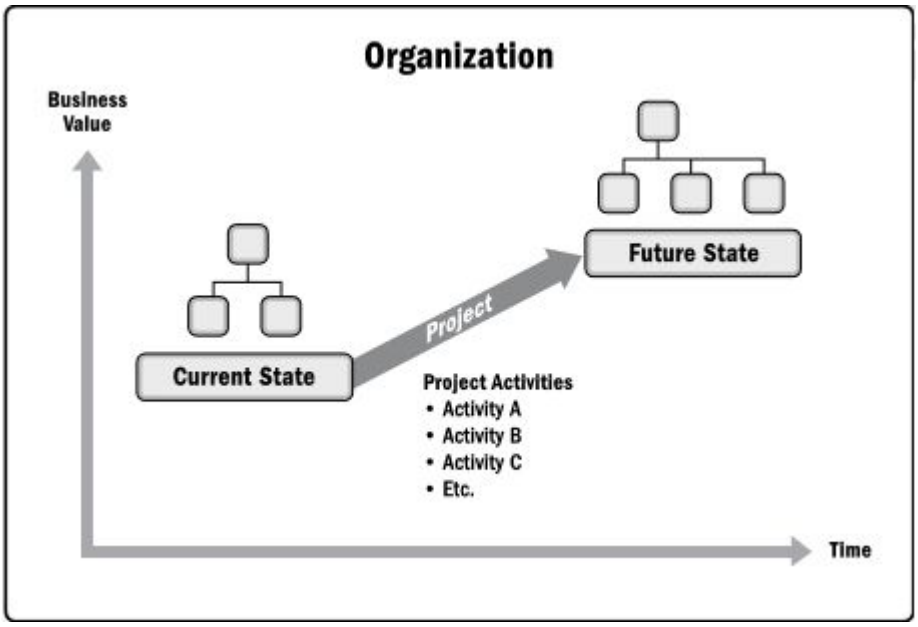

Figure 2. Organizational Transition to a Project. (Adapted from PMI. 2017)

2.2.2 Project Management

The term project management emerged as a title and a discipline in the twentieth century. Verzuh explains further that, modern day project management began in the 1950s as a defense strategy during the cold war[11]. As time elapsed, the use of project management evolved from its traditional boundaries of large-scale construction and aerospace projects, to projects that would grossly impact all sectors

[11] Verzuh (1999). The Fast Forward MBA in Project Management. Project Management in a Changing World. Third Avenue, New York: John Wiley and Sons

of society, for example, the service, manufacturing, health, education, information technology and construction sectors to name a few.

PMI defines project management as the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements[12]. Wysocki defines it this way, "Project management is a method and a set of techniques based on the accepted principles of management used for planning, estimating, and controlling work activities to reach a desired end result on time – within budget and according to specification[13]."

Chart 2. The Importance of Project Management (Adapted from: PMI, 2017)

Effective Project Management Enables:	Poor Project Management Results In:
▪ Business objectives to be met	▪ Missed deadlines
▪ Stakeholder expectations to be satisfied	▪ Cost overruns
▪ The chance for success to increase	▪ Poor quality
▪ The right products to be delivered at the right time	▪ Rework
▪ The management of constraints	▪ Uncontrolled scope
▪ The management of change	▪ Loss of reputation
▪ The timely response to risks	▪ Unsatisfied stakeholders

The requirements mentioned in the PMI definition mentioned in the preceding paragraph will be accomplished by the integration of the five (5) process groups as follows: Initiating, Planning, Executing, Monitoring and Control and Closing Process Groups. These process groups will be elaborated further in section 2.2.4 below.

[12] PMI (2017). PMBOK. Definitions. Project Management. Newtown Square, Pennsylvania: Project Management Institute Inc.
[13] Wysocki (2003). Effective Project Management. What is Traditional Project Management? Crosspoint Blvd, Indianapolis: Wiley Publishing Inc

2.2.3 Project Life Cycle

Kerzner is of the view that "Every program, project or product has certain phases of development known as life-cycle phases[14]." Furthermore, PMI states, "The project life cycle is defined as the series of phases that a project passes through from its start to its completion[15]."

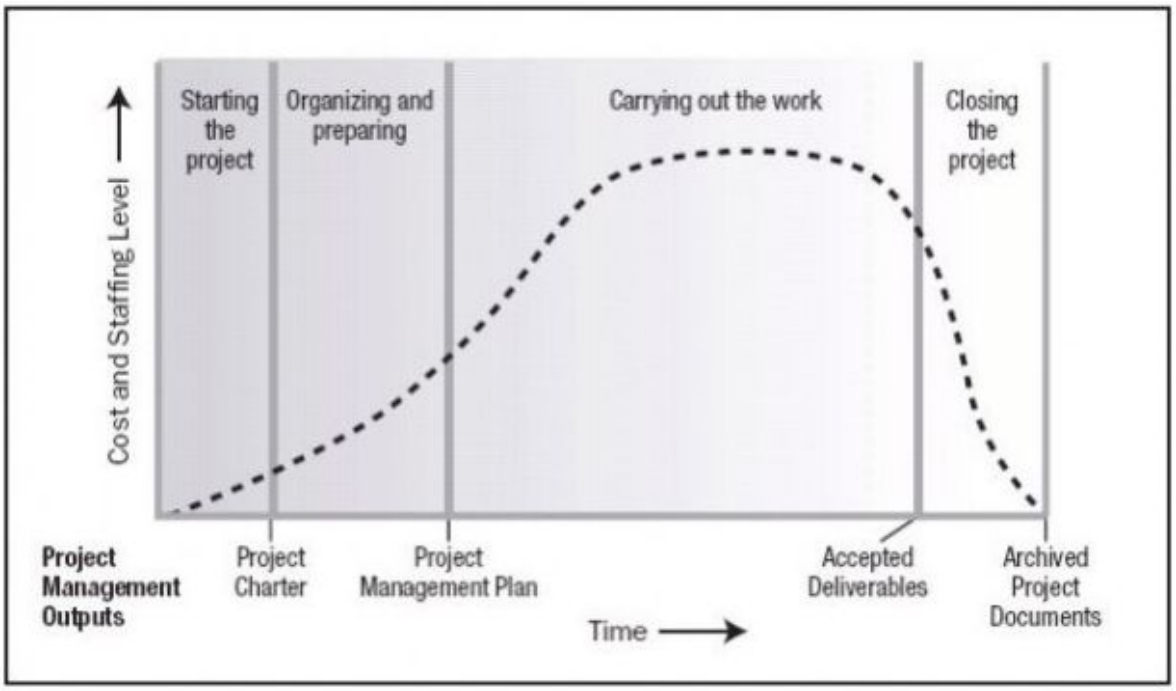

Figure 3. Project Life Cycle (Adapted from PMI. 2017)

2.2.4 Project Management Processes

According to PMI, a process is a set of interrelated actions and activities performed to create a pre-specified product, service or result[16]. The requirements mentioned in the preceding definition will be accomplished by integrating the five (5) process groups listed below:

1. **Initiating Process Group** – this entails all the processes done to define a new project or phase of an existing project.

[14] Kerzner (2003). Project Management A Systems Approach to Planning, Scheduling and Controlling. Hoboken, New Jersey: John Riley and Sons
[15] PMI (2017). PMBOK. Definitions. Project Life Cycle. Newtown Square, Pennsylvania: Project Management Institute Inc.
[16] PMI (2013). PMBOK. Project Management Processes. Newtown Square, Pennsylvania: Project Management Institute Inc.

2. **Planning Process Group** – the processes required to define the scope of the project, to refine the objectives and define the course of action required to attain the objectives that the project was intended to achieve
3. **Executing Process Group** – all the processes that are to be performed to complete the work defined by the project management plan and to satisfy the project requirements
4. **Monitoring & Control Process Group** – entails all the processes required to track, review, and regulate the progress and performance of the project; identify the necessary changes to be made to the plan and to initiate those changes
5. **Closing Process Group** - the processes performed to formalize the completion and close of the project

For the purpose of the FGP, three process groups will be utilized to meet the required objectives in a coordinated manner. As indicated by the project charter, the three process groups required to meet the objectives of the FGP are:

- Project Initiating process group
- Project planning process group and
- Project monitoring and control process group

Chart 3. Project Management Process Group and Knowledge Area Mapping (Adapted from: PMI. 2017)

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 Manage Project Knowledge	4.5 Monitor and Control Project Work 4.6 Perform Integrated Change Control	4.7 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 Schedule Management		6.1 Plan Schedule Management 6.2 Define Activities 6.3 Sequence Activities 6.4 Estimate Activity Durations 6.5 Develop Schedule		6.6 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 Manage Quality	8.3 Control Quality	
9. Project Resource Management		9.1 Plan Resource Management 9.2 Estimate Activity Resources	9.3 Acquire Resources 9.4 Develop Team 9.5 Manage Team	9.6 Control Resources	
10. Project Communications Management		10.1 Plan Communications Management	10.2 Manage Communications	10.3 Monitor 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 Implement Risk Responses	11.7 Monitor Risks	
12. Project Procurement Management		12.1 Plan Procurement Management	12.2 Conduct Procurements	12.3 Control Procurements	
13. Project Stakeholder Management	13.1 Identify Stakeholders	13.2 Plan Stakeholder Engagement	13.3 Manage Stakeholder Engagement	13.4 Monitor Stakeholder Engagement	

2.2.5 Project Management Knowledge Areas

Chart 2 above displays the interaction between the ten (10) knowledge areas and five (5) process groups. Firstly, what is a knowledge area? According to PMI,[17] "A Knowledge Area represents a complete set of concepts, terms, and activities that make up a professional field, project management field, or area of specialization." PMI declares that these knowledge areas are used most of the time, however, that would depend on the specific nature of the project. For the purpose of the FGP ten (10) knowledge areas will be utilized. These knowledge areas are as follows:

Project Scope Management – includes all the processes necessary to ensure that all the work required for the successful completion of the project is taken into accounted.

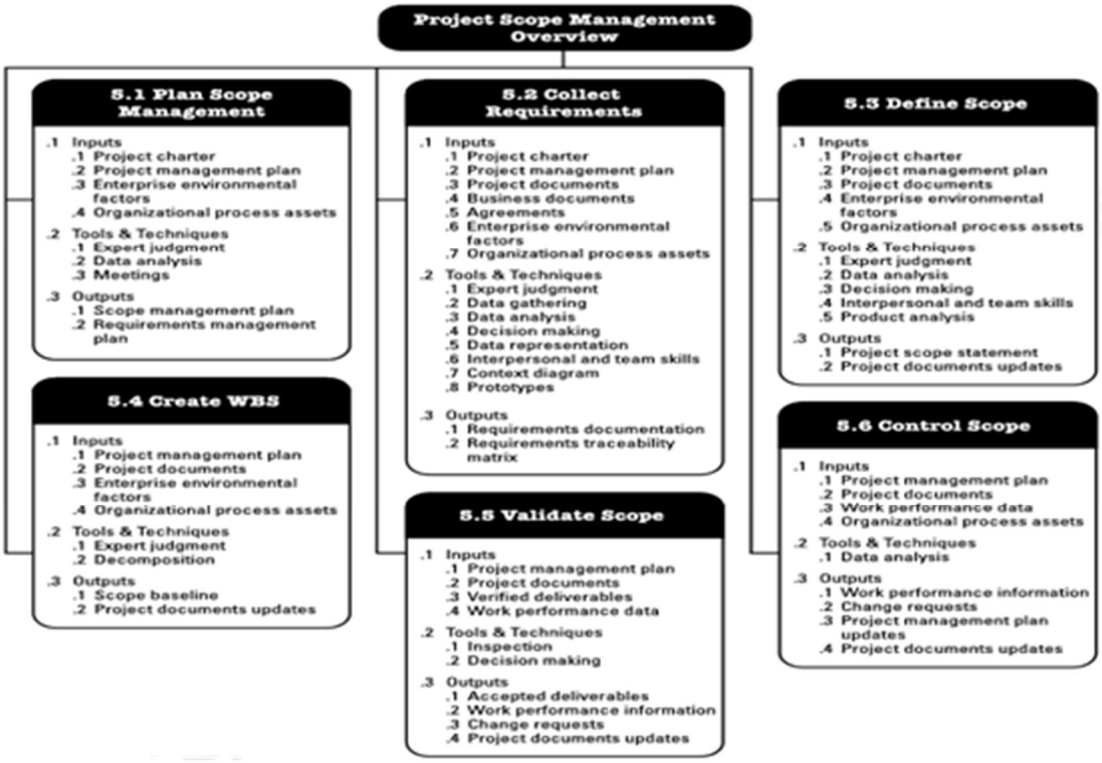

Figure 4. Develop Project Scope Management Overview (Adapted from PMI. 2017)

[17] PMI (2013). PMBOK. Project Management Processes. Role of the Knowledge Areas. Newtown Square, Pennsylvania: Project Management Institute Inc.

Project Schedule Management – includes all what is required to complete the project in a timely manner.

Figure 5. Project Schedule Management Overview (Adapted from PMI. 2017)

Project Cost Management – includes all the processes to ensure the project is completed within its budgeted cost.

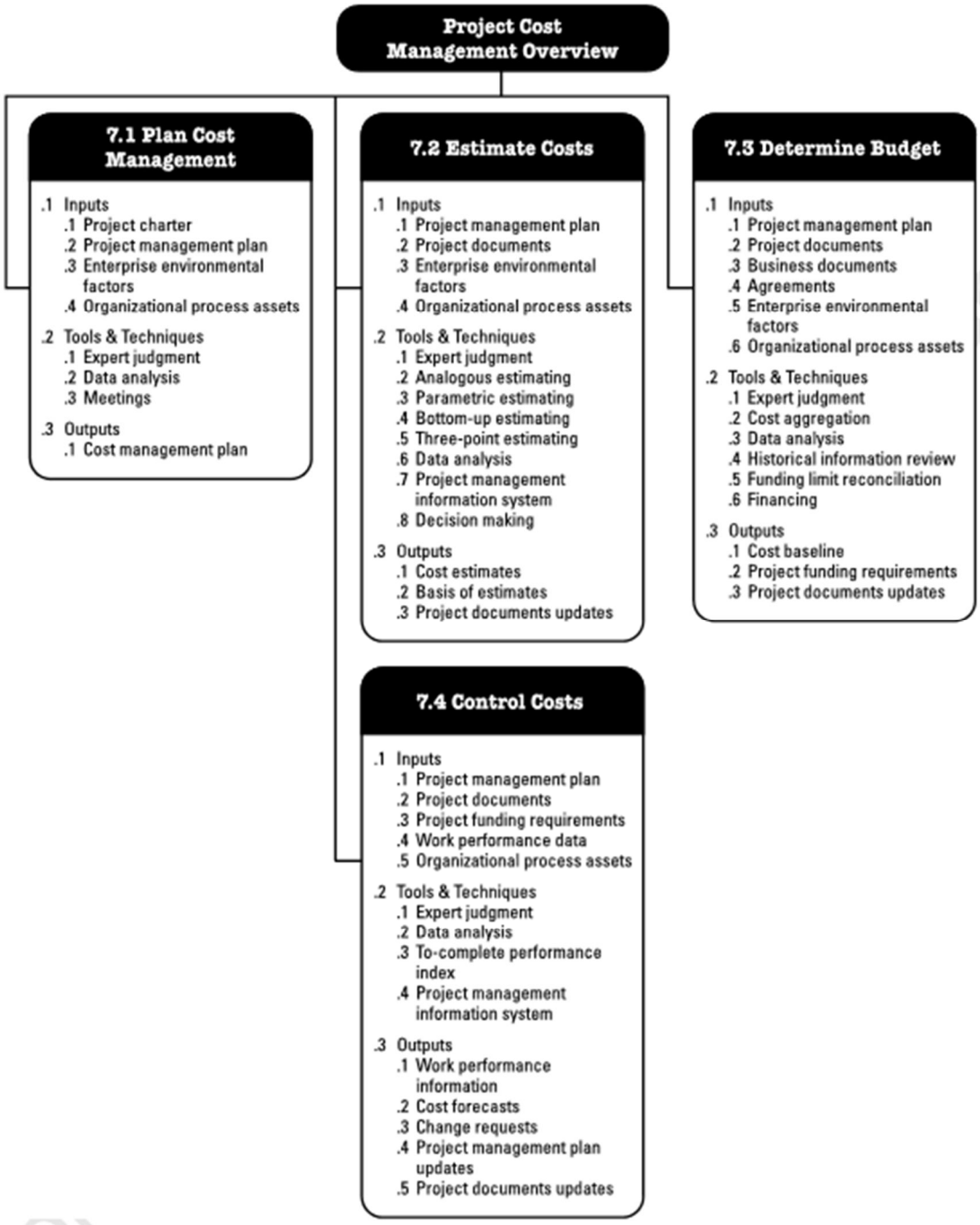

Figure 6. Project Cost Management Overview (Adapted from PMI. 2017)

Project Quality Management – includes all the inputs to ensure the project meets the quality requirements in order to satisfy the stakeholders.

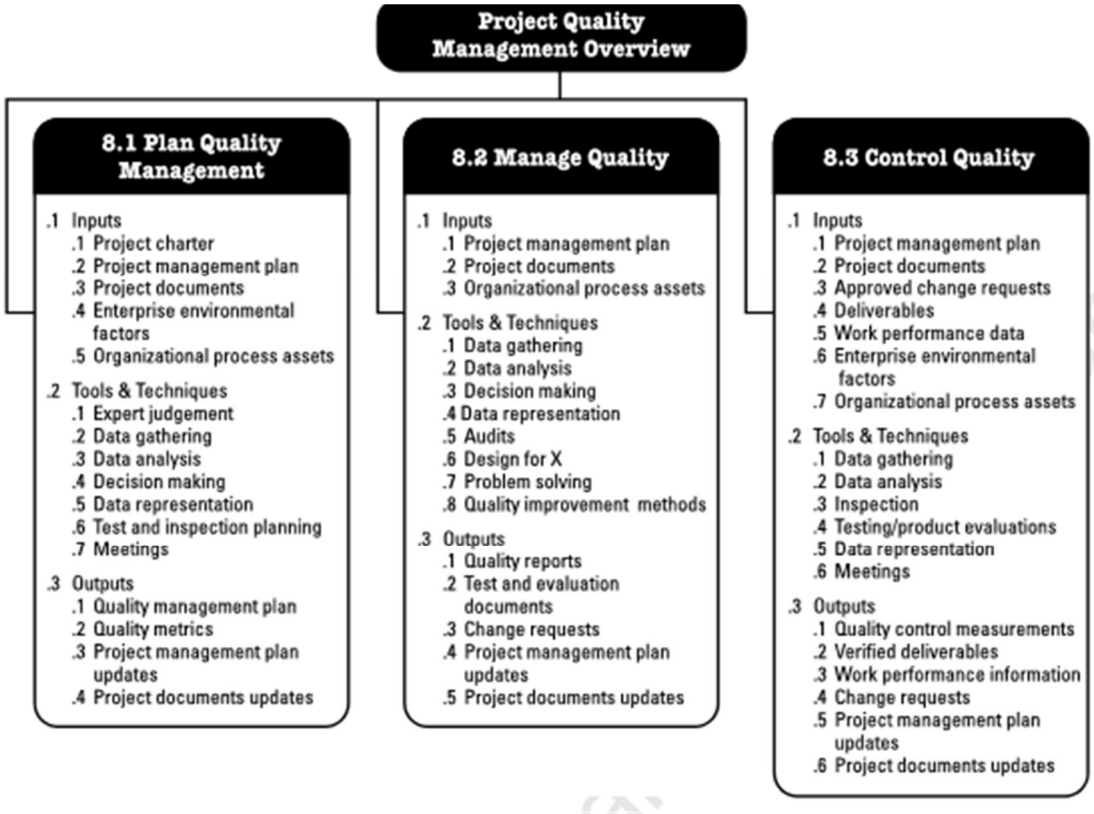

Figure 7. Project Quality Management Overview (Adapted from PMI.2017)

Project Resource Management – includes all the human resources necessary to ensure the project is completed successfully. The emphasis is to make the right resources available to the project manager at the right time.

Figure 8. Project Resource Management Overview (Adapted from PMI. 2017)

Project Communication Management – includes all the processes necessary to ensure that the information needs of the Project and its stakeholders are met.

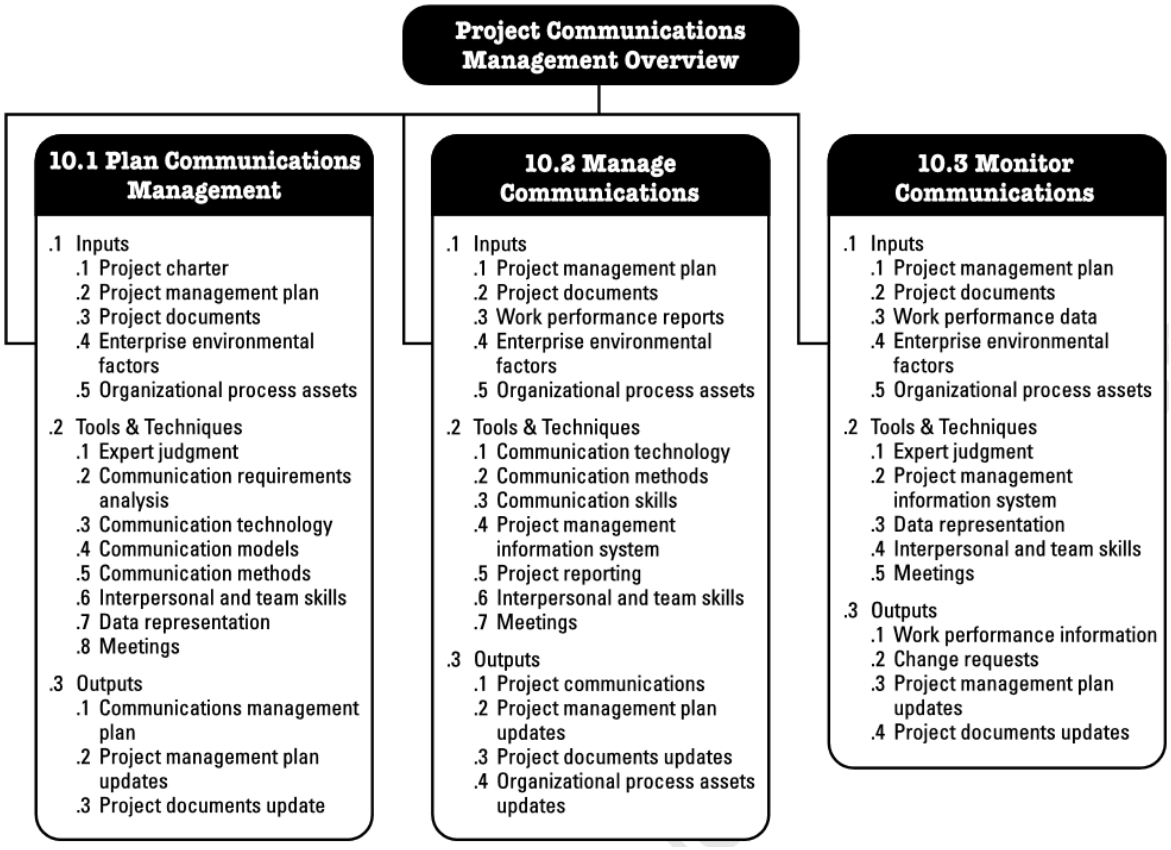

Figure 9. Project Communications Management Overview (Adapted from PMI. 2017)

Project Risk Management – includes the processes of conducting risk management planning, identification, analysis, response planning, response implementation, and monitoring risk on a Project.

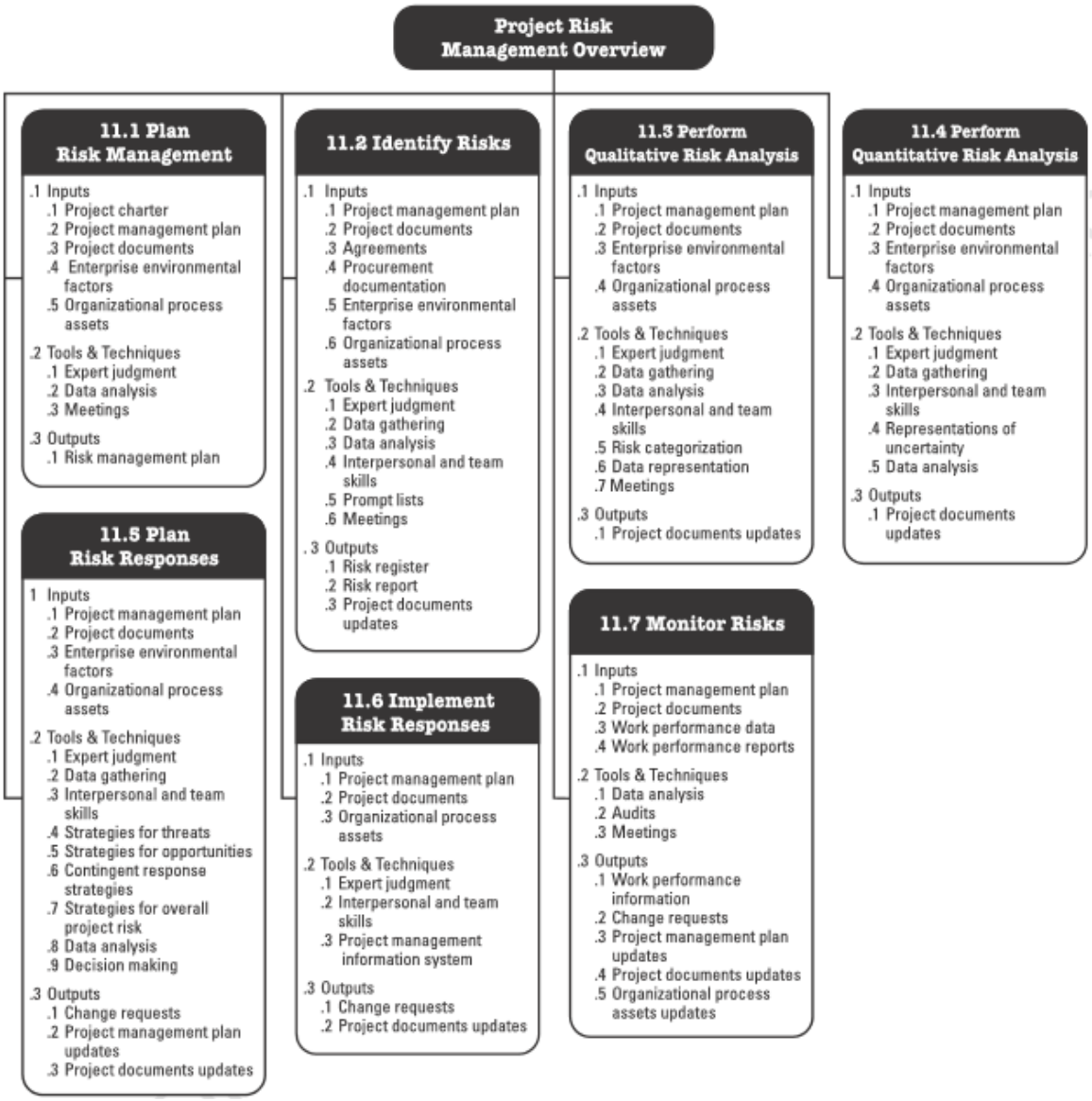

Figure 10. Project Risk Management Overview (Adapted from PMI. 2017)

Project Procurement Management – includes the processes necessary to purchase or acquire products, services or results needed from outside the Project team.

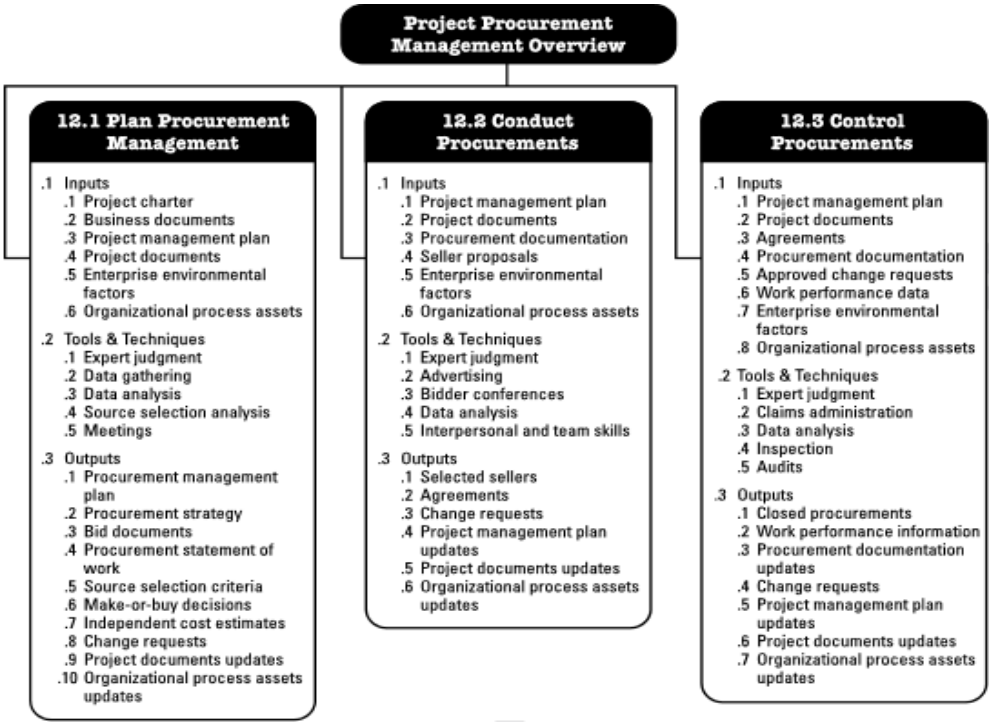

Figure 11. Project Procurement Management Overview (Adapted from PMI. 2017)

Project Stakeholder Management – includes the general processes required to include the people, groups, or organizations that could impact or be impacted by the Project.

Figure 12. Project Stakeholder Management Overview (Adapted from PMI. 2017)

Project Integration Management – involves all the processes and activities to ensure the project is properly coordinated to achieve its goals and objectives. The FGP charter will be developed from this knowledge area as indicated by Figure 13 below.

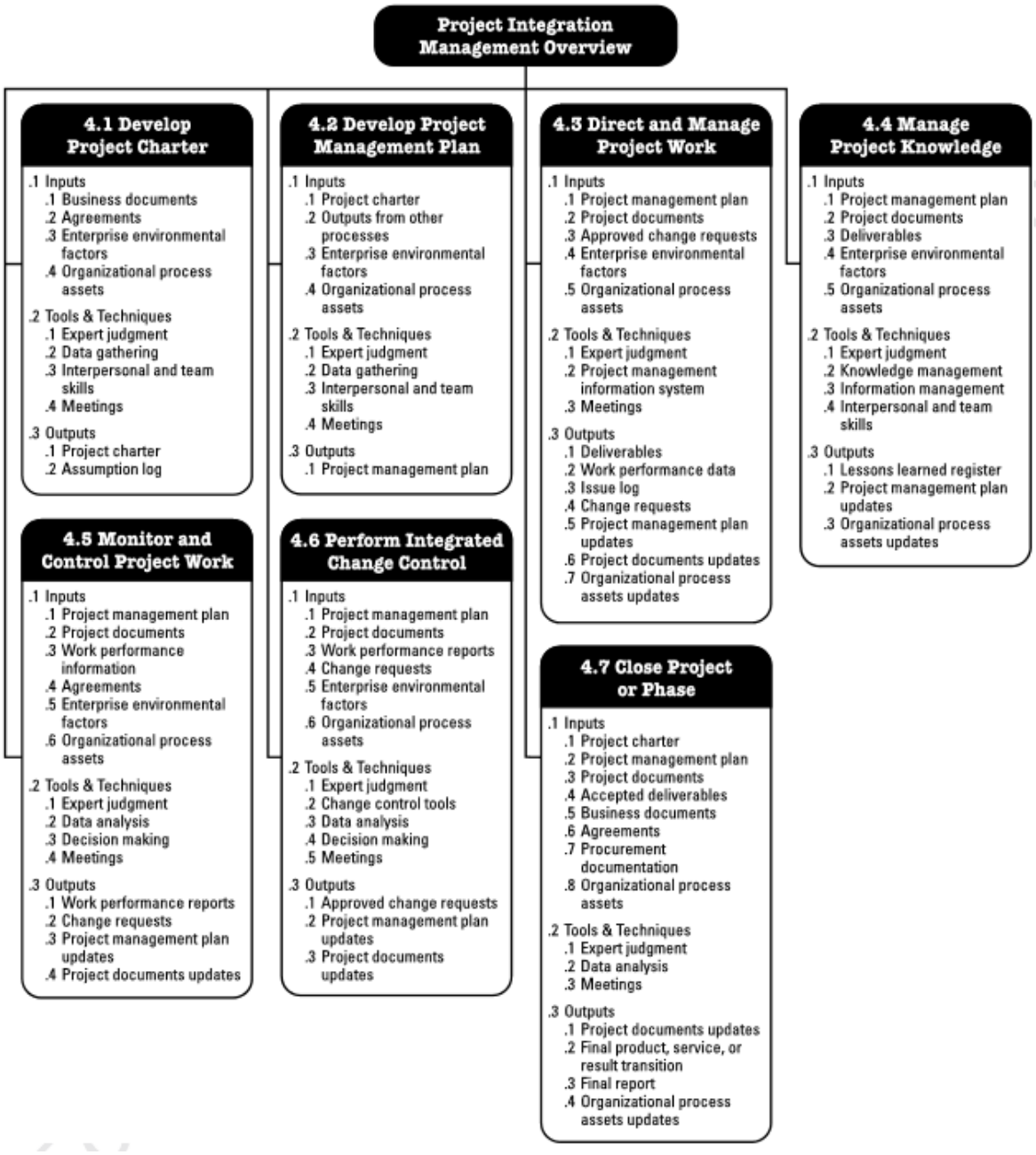

Figure 13. Project Integration Management Overview (Adapted from PMI. 2017)

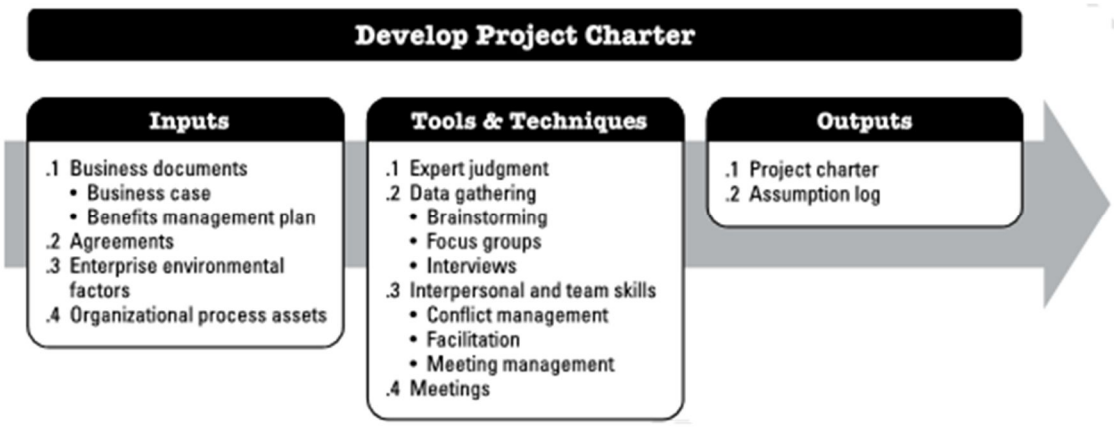

Figure 14. Develop Project Charter (Adapted from PMI. 2017)

2.2.6 Other Applicable Theory/Concepts Related to the Project Topic and Context

2.2.6.1 Project Management: Art Informed by Science

Verzuh (1999)[18] states, "Project management has been called both an art and a science." He is of the view that mastering the science of project management provides a foundation for the art of leadership. He stated further that the skills necessary to be a good project manager and leader are common in both fields, for example, they both have good vision, can motivate the people around them, are effective communicators and, therefore, they can bring people together and can accomplish great things. The factors mentioned above are relevant and important in the development and execution of any project.

2.2.6.2 The Importance of Project Management:

As explained briefly in section 2.2, subsection 2.2.1, project management has been in existence for centuries and today more than ever before, it continues to play a very pivotal role in today's global society. Two key benefits to sound project management practices are:

[18] Verzuh (1999). The Fast Forward MBA in Project Management. Project Management: Art Informed by Science. Third Avenue, New York: John Wiley and Sons

- Projects drive change: project management helps a business transition from one state to the next in an effort to achieve its objectives. (Refer to figure 2 above)
- Projects enable business value creation: business value in this context, according to PMI[19] is the benefit the project stakeholder receives from the result of a specific project.

2.2.6.3 Develop the Project Management Plan:

This subject is very relevant to my FGP topic. As a result, I will briefly elaborate as per the PMBOK (2017)[20]. The development of the project management plan is a process that involves defining, preparing, and coordinating all plan components and consolidating them into an integrated project management plan. The key benefit to be derived from this process is the production of a comprehensive document that underscores the basis of all the project work and how it will be performed. Figure 12 below provides a graphical view of the processes involved in developing a project management plan.

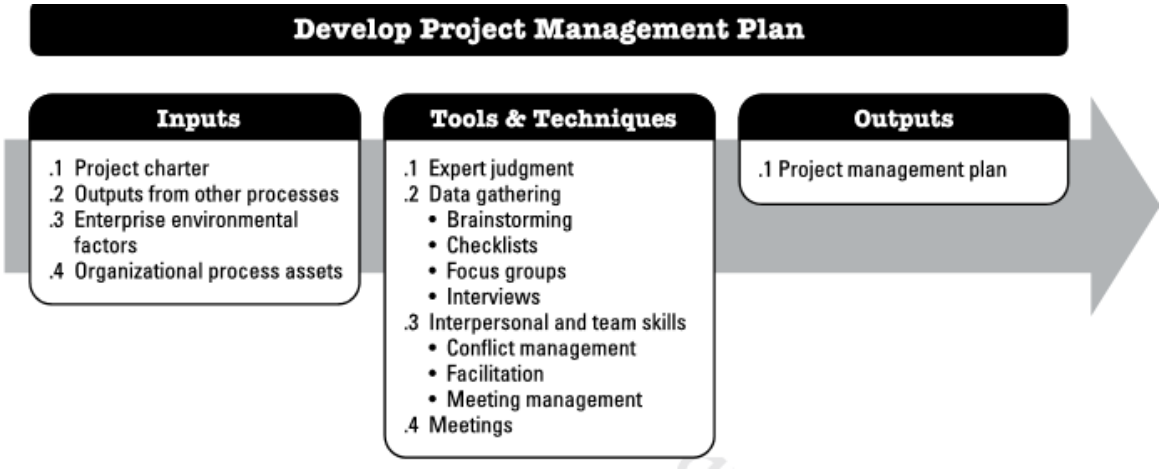

Figure 15. Develop Project Management Plan (Adapted from PMI. 2017)

[19] PMI (2017). PMBOK. Overview and Purpose of this Guide: Foundational Elements. Newtown Square, Pennsylvania: Project Management Institute Inc.
[20] PMI (2017). PMBOK. Develop Project Management Plan. Newtown Square, Pennsylvania: Project Management Institute Inc.

Figure 16 below, shows the data flow interaction between the inputs, tools and techniques and the outputs of the project management plan process.

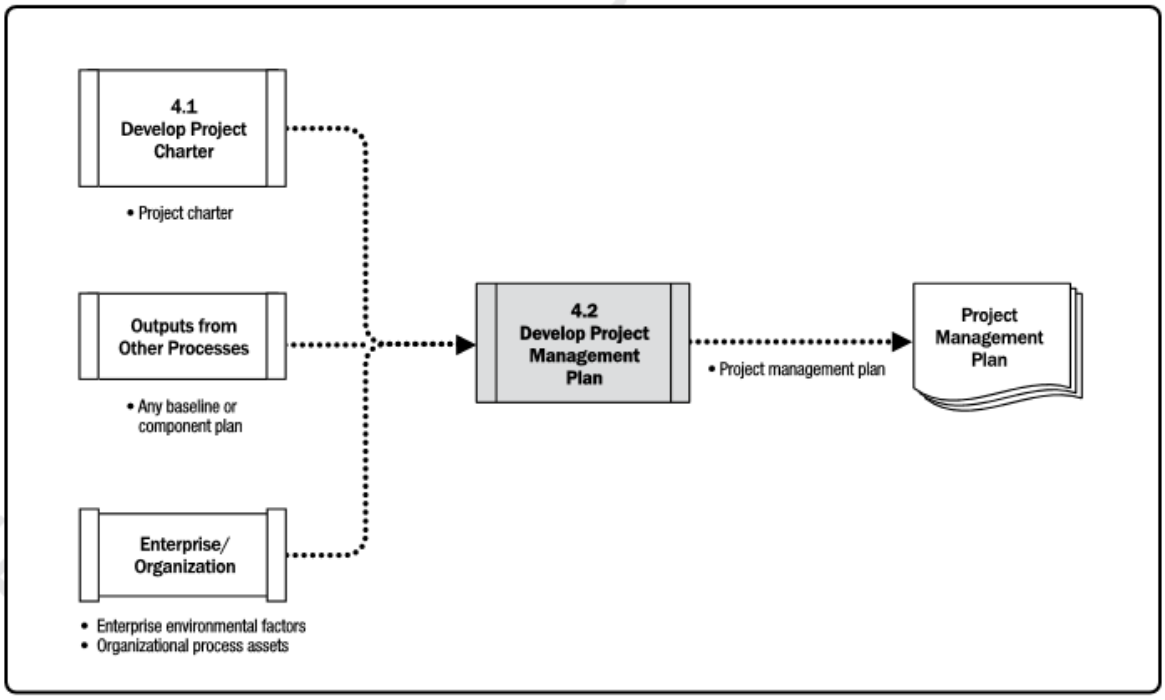

Figure 16. Develop Project Management Plan: Data Flow Diagram (Adapted from PMI. 2017)

Chart 4 below, shows the interrelationship between the project management plan and other relevant documents that are necessary to effectively manage the project.

Chart 4. Project Management Plan and Project Documents (Adapted from PMI.2017)

Project Management Plan	Project Documents	
1. Scope management plan	1. Activity attributes	19. Quality control measurements
2. Requirements management plan	2. Activity list	20. Quality metrics
3. Schedule management plan	3. Assumption log	21. Quality report
4. Cost management plan	4. Basis of estimates	22. Requirements documentation
5. Quality management plan	5. Change log	23. Requirements traceability matrix
6. Resource management plan	6. Cost estimates	24. Resource breakdown structure
7. Communications management plan	7. Cost forecasts	25. Resource calendars
8. Risk management plan	8. Duration estimates	26. Resource requirements
9. Procurement management plan	9. Issue log	27. Risk register
10. Stakeholder engagement plan	10. Lessons learned register	28. Risk report
11. Change management plan	11. Milestone list	29. Schedule data
12. Configuration management plan	12. Physical resource assignments	30. Schedule forecasts
13. Scope baseline	13. Project calendars	31. Stakeholder register
14. Schedule baseline	14. Project communications	32. Team charter
15. Cost baseline	15. Project schedule	33. Test and evaluation documents
16. Performance measurement baseline	16. Project schedule network diagram	
17. Project life cycle description	17. Project scope statement	
18. Development approach	18. Project team assignments	

3. METHODOLOGICAL FRAMEWORK

3.1 Information Sources

An information source is "a person, thing, or place from which information comes, arises, or is obtained. That source might then inform a person about something or provide knowledge about it. Information sources are divided into separate distinct categories: primary, secondary, tertiary, and so on."[21] The types or categories of information sources will be explained in detail in sections 3.1.1 and 3.1.2 below.

In order for there to have an information source, however, information must be present. It is important that the term "information" be clarified at this juncture. Wikipedia[22] defines information as, "any entity or form that provides the answer to a question of some kind or resolves uncertainty."

The various sources of information will be highlighted, documented and summarized below. As indicated above, there are three main sources of information. However, for the purpose of the FGP, the details for only the primary and secondary sources of information will be provided as follows:

3.1.1 Primary Sources

According to McQuade Library[23], "Primary sources of information are original materials on which other research is based, including:

- Original written works – poems, diaries, court records, interviews, surveys and original research/fieldwork
- Research published in scholarly/academic journals
- Previous ICS project documents – information relating to the 2009 investment climate survey
- Source information from the MOC – includes information about the MOC which is the Contracting Authority for the project

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[21] Wikipedia (2018). Wikipedia: Information Source. The Free Encyclopedia. Retrieved from https://en.wikipedia.org/wiki/Information_source

[22] Wikipedia (2018). Wikipedia: Information. The Free Encyclopedia. Retrieved from https://en.wikipedia.org/wiki/Information

[23] Woodley (2018). McQuade Library. Research Help. Three Types of Primary Resources. Retrieved from http://libguides.merrimack.edu/research_help/Sources#s-lg-box-7038334

- Interviews – includes telephone conversations with the Director (OIC) about the project

The primary sources of information used for the development of the project are the MOC source documents, previous ICS Project documents and interviews with the director (OIC) as indicated in Chart 5 below.

3.1.2 Secondary Sources

According to McQuade Library[24], "Secondary sources of information are those that describe or analyze primary resources, including:

- Reference materials – dictionaries, encyclopedias, textbooks
- Books and articles that interpret, review or synthesize original research /fieldwork."
- PMI (2017) – reference to the Project Management Knowledge Areas
- PMI (2017) – reference to the updated Project Management Knowledge Areas
- Information retrieved online

The secondary sources of information used for the development of the project are mainly PMI (2017), other project management text books, websites, reports and other online reference materials. Refer to Chart 5 below.

[24] Woodley (2018). McQuade Library. Research Help. Three Types of Secondary Resources. Retrieved from http://libguides.merrimack.edu/research_help/Sources#s-lg-box-7038334

Chart 5. Information Sources (Source: Compiled by the Author)

Objectives	Information Sources	
	Primary	Secondary
To develop a scope management plan to ensure that all the work required is included to ensure the FGP is executed within its scope	Interview with the Director (OIC) and previous project documents	PMI (2017)
To develop a schedule management plan to ensure the project stays within its timeframe	Previous project documents & the TOR	Project Management articles online
To create a cost management plan to ensure the project is planned within the approved budget	DOC source documents (TOR)	Project Management textbooks
To develop a quality management plan to ensure that the relevant requirements are met within the required standard	DOC source documents, previous project documents	Project Management articles online, PMI (2017)
To develop a human resource management plan to ensure that all the human resources are identified and managed efficiently in an effort to successfully complete the project within its time, cost and scope constraints	DOC source documents & the TOR	PMI (2017)

Objectives	Information Sources	
	Primary	Secondary
To develop a communication management plan to ensure the efficient and effective flow of information among project stakeholders	DOC source documents	PMI (2017)
To create a risk management plan to identify and examine the probability or impact of risks on the project	Previous project documents	PMI (2017)
To develop a procurement management plan to determine the external services that may be required to complete the project	DOC source documents (TOR)	PMI (2017), & online sources
To develop a stakeholder management plan to identify all the stakeholders that can impact or be impacted by the project and to foster stakeholder engagement	DOC source documents & interview with the Director (OIC)	PMI (2017)
To develop and collate all the subsidiary management plans to ensure the project is executed as planned	Interview with the Director (OIC)	PMI (2017)

3.2 Research Methods

Research methods is a very broad subject. Research methods can be employed in various disciplines, for example, it can be utilized in the Social Sciences to investigate a particular social problem. It is necessary that the term "Research methods" be clarified. First, according to Walliman (2011)[25], "Research is a very general term for an activity that involves, finding out more or less in a systematic way, things you did not know." However, (Walliman, 2011[26]) defines research methods as, the techniques used to do research. In other words, research is the act of actually conducting the research, for example, to investigate something you did not know about and, the research method is the technique or design used to conduct the research.

The following research methods (refer to 3.2.1 below) will be used to develop the FGP:

3.2.1 Analytical Research Method

Analytical research[27] is the type of research in which the researcher has to use facts or information that is already available and analyze them to make a critical evaluation of the material. It also involves, the in-depth study and evaluation of available information in an attempt to explain complex phenomenon.

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[25] Walliman, N. (2011a). Research Methods The Basics: Research Basics. Routledge. Milton Park: Abingdon. Retrieved from https://edisciplinas.usp.br/pluginfile.php/2317618/mod_resource/content/1/BLOCO%202_Research%20Methods%20The%20Basics.pdf

[26] Walliman, N. (2011b). Research Methods The Basics: Research Basics. Routledge. Milton Park: Abingdon. Retrieved from https://edisciplinas.usp.br/pluginfile.php/2317618/mod_resource/content/1/BLOCO%202_Research%20Methods%20The%20Basics.pdf

[27] Analytical Research (2018). Definition of Analytical Research. Retrieved from https://www.google.com/search?ei=yPcbW8GbGY26zwLdhI74BQ&q=definition+of+analytical+research&oq=definition+of+analytical+research&gs_l=psy-ab.3..0j0i30k1l2j0i5i30k1.8513.12147.0.13327.14.14.0.0.0.0.147.1741.0j14.14.0....0...1c.1.64.psy-ab..0.14.1734...0i7i30k1j0i13k1j0i8i7i30k1j0i7i5i30k1j0i8i30k1.0.8k9pr4CP39g

3.2.2 Descriptive Research Method

According to Wikipedia,[28] "Descriptive research is used to describe characteristics of a population or phenomenon being studied. It does not answer questions about how/when/why the characteristics occurred. Rather it addresses the "what" question (what are the characteristics of the population or situation being studied?)."

3.2.3 Qualitative Research Method

Dovetail Research Pty.Ltd[29] defines a qualitative research method as, research that is often used for exploring. It states further that a qualitative research helps researchers gain an understanding of underlying reasons, opinions, and motivations. It also provides insight into the problems or help to develop ideas or hypothesis for potential quantitative research.

3.2.4 Quantitative Research method

According to the Dovetail Research Pty.Ltd,[30] a quantitative research method is research that is used to quantify the problem by way of generating numerical data that can be translated into useable statistics. It can be used further to quantify attitudes, opinions, behaviors and other defined variables; it can be used to generalize results from a larger sample population. Quantitative research uses measurable data to formulate facts and uncover patterns in research.

Chart 6. Research Methods (Source: Compiled by the Author)

Objectives	Research methods			
	Analytical Method	**Descriptive Method**	**Qualitative Research Method**	**Quantitative Research Method**
To develop a scope management	This method can be used to analyze the	This method would assist to describe the		

[28] Shields, (2013) as cited in Wikipedia (Descriptive research), 2018. Retrieved from https://en.wikipedia.org/wiki/Descriptive_research

[29] Dovetail Research Pty.Ltd (2018). Definition of Qualitative Research. Retrieved from https://dovetailapp.com/guides/qual-quant

[30] Dovetail Research Pty.Ltd (2018). Definition of Quantitative Research. Retrieved from https://dovetailapp.com/guides/qual-quant

Objectives	Research methods			
	Analytical Method	**Descriptive Method**	**Qualitative Research Method**	**Quantitative Research Method**
plan to ensure that all the work required is included to execute the project	requirements to determine the resources required	characteristics of the requirements to effectively create the scope		
To develop a schedule management plan to ensure the project stays within its timeframe		This method would be used to describe the best approach to manage the project time		
To create a cost management plan to ensure the project is planned within the approved budget	This method allows the costs to be analyzed for a cost effective outcome			This method allows for quantifying the resource requirements for planning the project cost
To develop a quality management plan to ensure that the relevant requirements are met within		This method allows one to describe what are the quality requirements for the project	The qualitative method will allow for exploring possible quality standards for improving future ICS projects	

Objectives	Research methods			
	Analytical Method	**Descriptive Method**	**Qualitative Research Method**	**Quantitative Research Method**
the required standard				
To develop a human resource management plan to ensure that all the human resources are identified and managed efficiently			This method will seek to understand the team dynamics to help improve the outcome of the project	
To develop a communication management plan to ensure the efficient and effective flow of information among project stakeholders	This method will be used to evaluate the communication needs of the project	This method will help to describe the benefits of good communication management		To help get a better understanding of the needs of the stakeholders
To create a risk management plan to identify and examine the probability or impact of risks on the project	This method will be employed to evaluate the risks associated with the project	This method will be used to describe the impact of risk on the project	This method will explore the underlying causes of risk and how to mitigate them	To quantify the risks that may be associated with this project

Objectives	Research methods			
	Analytical Method	**Descriptive Method**	**Qualitative Research Method**	**Quantitative Research Method**
To develop a procurement management plan to determine the products, services or results needed to complete the project	This method will seek to evaluate the extent to which resources should be sourced	It will describe the unique characteristics that will help the project meet its procurement objectives		
To develop a stakeholder management plan to identify all the stakeholders that can impact or be impacted by the project and to foster stakeholder engagement	This method will be used to analyze the impact each stakeholder will have on the project	This method will be utilized to describe the characteristics of each stakeholder to determine their power/interest in the project	To get an understanding of the needs of the stakeholders	
To develop and collate all the subsidiary management plans to ensure the project is executed as planned	This method will allow for all the plans to be analyzed for better control of the project	This method will be utilized to determine how the plans will be integrated		

3.3 Tools

According to PMI (2017),[31] a tool is “Something tangible, such as a template or software program , used in performing an activity to produce a product or result.” The various tools to be employed in the development of the FGP are highlighted in Chart 7 below:

Chart 7. Tools (Source: Compiled by the Author)

[31] PMI (2017). PMBOK. Definitions. Tool. Newtown Square, Pennsylvania: Project Management Institute Inc.

Objectives	Tools
To develop a scope management plan to ensure that all the work required is included to execute the project within its defined boundaries	- **Expert Judgement:** will be provided by the knowledgeable persons such as the PM, ICS Expert and the Director (DOS) to get their input to develop the scope - **Meetings**: this technique will be used with the team members or stakeholders with responsibility for any of the scope processes during the development of the scope
To develop a schedule management plan to ensure the project stays within its timeframe	- **Expert judgement:** will be used to get the input from persons with specialized skills to assist in creating the schedule management plan - **Analytical techniques:** this technique will be used by the team in an effort to determine the best method to estimate and schedule the project - **Meetings:** this avenue will be used to discuss the schedule plans of the project
To create a cost management plan to ensure the project is planned within the approved budget	- **Expert judgement:** this technique will be used to get the input from the persons who are knowledgeable and skilled in creating the cost management plans - **Meetings:** planning meetings will be held with the relevant persons involved creating the cost management plan
To develop a quality management plan to ensure that the relevant requirements are met within the required standard	- **Benchmarking:** this technique will be used mainly by the Director (DOS) to compare and analyze the quality attributes of previous projects to improve quality and performance measurement - **Statistical sampling:** will be the methodology employed to arrive at the sample population for the project

	- **Meetings:** meetings will be used to discuss the development of the quality plan with the relevant persons
To develop a resource management plan to ensure that all the human resources are identified and managed efficiently in an effort to successfully complete the project within its time, cost and scope constraints	- **Organizational charts:** will be the tools used to document and illustrate the organizational structure of the project team; it also highlights the authority, relationships, roles & responsibilities of the team - **Meetings:** meeting will be used to discuss the processes relating to human resource planning - **Expert judgement:** this technique will form part of the process to provide guidance on establishing the requirements for the HR plan
To develop a communication management plan to ensure the efficient and effective flow of information among project stakeholders	- **Analysis of the communication needs:** will be the technique used to determine all the communication needs of the project. Such as the number of communication channels, the mode and method of communication - **Meetings:** will be used to discuss the communication plan with the relevant persons to ensure all the necessary communication processes are integrated into the plan
To create a risk management plan to identify and examine the probability or impact of risks on the project	- **Expert judgement:** this technique will be used to provide guidance on all the risk components of the project and how to develop the strategies to manage risks - **Meetings**: used to discuss and develop an adequate risk plan
To develop a procurement management plan to determine the external services that may be required to complete the project	- **Make-or-buy analysis:** this technique will be used to make a determination regarding sourcing (externally) the services of an ICS Expert for the project - **Meetings:** will be used to discuss and formulate the planning and management of the procurement plan

To develop a stakeholder management plan to identify all the stakeholders that can impact or be impacted by the project and to foster stakeholder engagement	- **Stakeholder analysis:** this technique will be used to analyze the possible stakeholders and to determine their interest, expectations and influence on the project - **Meetings:** is the forum that will be used by the relevant individuals to discuss and develop the stakeholder management plan
To develop and collate all the subsidiary management plans to ensure the project is executed as planned	- **Expert judgement:** will be used to provide guidance on the integration of all the project management plans - **Meeting:** will be used to review to ensure that all the processes required for the successful integration of the project management plan are included in the plan

3.4 Assumptions and Constraints

3.4.1 Assumptions

PMI (2017)[32] provides the definitions of an assumption and a constraint as follows:
An assumption is "A factor in the planning process that is considered to be true, real, or certain, without proof or demonstration."

3.4.2 Constraints

A constraint is "A limiting factor that affects the execution of a project, program, portfolio or process."

Chart 8. Assumptions and Constraints (Source: Compiled by the Author)

Objectives	Assumptions	Constraints
To develop a scope management plan to ensure that all the work required is included to execute the project within its defined boundaries	The scope of works presented in the TOR contains all the work required for the project	The project must be executed within the boundaries of its scope defined by the CA

[32] PMI (2017). PMBOK. Definitions. Assumption and constraints. Newtown Square, Pennsylvania: Project Management Institute Inc.

Objectives	Assumptions	Constraints
To develop a schedule management plan to ensure the project is managed within its stipulated time	The approved duration of the project will be sufficient enough to complete all its deliverables	The project must be completed within four months
To create a cost management plan to ensure the project is planned within the approved budget	Funds provided by the GOSL will be sufficient to sustain the project from start to finish	The project must be executed within the established cost
To develop a quality management plan to ensure that the relevant requirements are met within the required standard	The quality management plan will identify all the quality requirements for the project	The project must satisfy the ISIC Rev 4 quality standard
To develop a resource management plan to ensure that all the human resources are identified and managed efficiently in an effort to successfully complete the project within its constraints	The team has the relevant expertise to effectively manage the project	The available expertise may not be adequate to sufficiently execute the project
To develop a communication management plan to ensure the efficient and effective flow of information among project stakeholders	All stakeholders will be adequately engaged as per the stakeholder register	Limitation in communications technology may hinder the ability to effectively communicate with stakeholders
To create a risk management plan to identify and examine the probability or impact of risks on the project	The scope plan will provide sufficient detail to determine the overall risk of the project	Insufficient detail was provided during planning to identify all the risks
To develop a procurement management plan to determine the external services that may be required to complete the project	All the resources needed to implement the project will be sourced locally	The services of an ICS Expert could not be sourced locally. Procuring the expertise

Objectives	Assumptions	Constraints
		externally can delay the project
To develop a stakeholder management plan to identify all the stakeholders that can impact or be impacted by the project and to foster stakeholder engagement	The stakeholder register will identify all stakeholders and their level of interest and power over the project	Stakeholder interest/power may change as the project progresses
To develop and collate all the subsidiary management plans to ensure the project is executed as planned	All the plans will be integrated to effectively management the project	The PM does not have the requisite skill to manage the project effectively

3.5 Deliverables

PMI[33] declares, "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." Verzuh[34] elaborates further that deliverables are what the project supposed to produce. For example, a new design, a new product or to fix a defective product. Deliverables help to define the project boundaries and enables the project team to concentrate on obtaining the final outcome.

Chart 9. Deliverables (Source: Compiled by the Author)

[33] PMI (2017). PMBOK. Direct And Manage Project Work: Outputs: Deliverables. Newtown Square, Pennsylvania: Project Management Institute Inc.
[34] Verzuh (1999). The Fast Forward MBA in Project Management. Making the Rules: Deliverables. Third Avenue, New York: John Wiley and Sons

Objectives	Deliverables
To develop a scope management plan to ensure that all the work required is included to execute the project within its defined boundaries	▪ **Project Charter** ▪ **Requirements Document** These documents will provide the basis on which the scope of the project will be defined, validated and controlled throughout the lifecycle to ensure the project stays within its baseline
To develop a schedule management plan to ensure the project stays within its timeframe	▪ **Schedule Management Plan** ▪ **Activity List** ▪ **Schedule Network Diagram** ▪ **Resource Assignments** These documents describe how the project schedule will be planned, developed, managed, executed and controlled to ensure the project stays on schedule
To create a cost management plan to ensure the project is planned within the approved budget	▪ **Cost Management Plan** ▪ **Cost Baseline** ▪ **Project Budget** These documents will define and describe how the cost will be planned, estimated, budgeted, managed and controlled to ensure the project is completed within its approved budget
To develop a quality management plan to ensure that the relevant requirements are met within the required standard	▪ **Quality Management Plan** ▪ **Quality Requirements** ▪ **Previous Project Documents** These documents will describe how the project quality needs will be satisfied in order to meet the purpose for which the project was undertaken
To develop a resource management plan to ensure that all the human resources are identified and managed efficiently in an effort to successfully complete the project	▪ **Resource Management Plan** ▪ **Activity Resource Requirements** These documents will be used to describe how the human resource will be planned, acquired, developed and managed

within its time, cost and scope constraints	
To develop a communication management plan to ensure the efficient and effective flow of information among project stakeholders	▪ **Communication Management Plan** ▪ **Stakeholder Register** These documents will describe how the project communication will be approached to ensure effective communication throughout the lifecycle of the project
To create a risk management plan to identify and examine the probability or impact of risks on the project	▪ **Risk Management Plan** ▪ **Project Charter** ▪ **Stakeholder Register** These documents will be used to describe how risks will be managed throughout the project and to initiate strategies to mitigate the risks
To develop a procurement management plan to determine the external services that may be required to complete the project	▪ **Procurement Management Plan** ▪ **Requirements Documentation** ▪ **Risk Register** ▪ **Stakeholder Register** ▪ **Project Schedule** These documents describe how the procurement decisions will be made for the project
To develop a stakeholder management plan to identify all the stakeholders that can impact or be impacted by the project and to foster stakeholder engagement	▪ **Stakeholder Management Plan** ▪ **Project Charter** ▪ **Procurement Documentation** These documents will describe how the project stakeholders will be identified and managed in an effort to understand and meet their needs
To develop and collate all the subsidiary management plans to ensure the project is executed as planned	▪ **Project Statement of Works** ▪ **Business Case** These are two pertinent documents that will be used to describe how all the project plans will be integrated in order to effectively manage the project

4. RESULTS

4.1 PROJECT SCOPE MANAGEMENT PLAN

Contents of the Scope Management Plan:

Introduction
Requirements Document
Charter
Scope Management Approach
Roles and Responsibility
Scope Definition
Project Scope Statement
Product Scope Description
Scope Verification
Work Breakdown Structure
Work Breakdown Structure (WBS) Dictionary
Scope Control

4.1.1 Introduction

This project will involve conducting a survey of the investment climate in Saint Lucia to determine the lack of growth and competitiveness among firms in the private sector. The scope management plan will include all the work required to conduct the survey and it will encompass only the work required, to ensure that the project will be completed within its constraints of time, cost and scope. The scope management plan will provide a high level description as to how the scope will be defined and controlled and it will include all the processes unique to the ICS project. The planning and development of the scope management plan was conducted after the PM received the Terms of Reference (TOR) in Appendix 4, from the Contracting Authority (DOC). The TOR was the document which contained some elements of a project charter for the initiation of the project.

However, there was no established project management approach to deliver the project. Recognizing the need to establish an official project charter in accordance with the PMI standard, the PM met with the direct stakeholder representatives that

included the Director (OIC) and the Director (DOS) first, to collect the requirements in Chart 10 below to execute the project; second, to develop the project charter; third, to develop the stakeholder register and forth, to commence the process for developing the scope of the project.

Chart 10. Requirements Document (Source: Compiled by the Author)

2018 ICS Requirements Document
A. Methodology:
- Survey to include enterprises in the manufacturing & tourism sectors only
- Enterprise (respondent) employment size is more than 20 personnel
- Survey to follow the ISIC Revision 4 standard
B. Organization of the Survey:
- Select 102 enterprises from a universo of 356 registered companies
- A stratified random sampling methodology will be employed for the survey
- Conduct a successful pilot survey test prior to the actual survey
C. Questionnaire:
- PM to review the previous survey questionnaire instrument - Director (DOS) to verify for correctness
- Core instrument to capture eight (8) sections (Broad indicator descriptions): ▪ Section 1 – Control information ▪ Section 2 – General information: ownership/start-up ▪ Scetion 3 – Investment climate constraints: evaluation of general obstacles ▪ Section 4 – Infrastructure and services: power, wáter, transport & communication technologies ▪ Section 5 – Business government relations: quality of public servies, consistency of policy, regulatory compliance costs (bribes) ▪ Section 6 – Crime: extent and losses due to crime ▪ Section 7 – Labor: worker skills training, skill availability, employment, education levels of workers ▪ Section 8 – Finance: sources of finance, terms of finance, financial services
D. Publicity:

- Establish public announcements in an effort to increase the chances of getting accurate and reliable information. The main objectives are to allay any fear or anxiety regarding the purpose of the survey and to explain the reasons for asking the proposed questions
- The publicity campaign will be broadcast on radio, television, the press and social media
E. Training:
- thirteen (13) survey staff members will receive training for one day
- training to be organized by the DOS and includes: ▪ Classroom instructions and field practice ▪ Familiarization with the revised survey instrument ▪ Enumerators to conduct mock interviews and will be observed by a supervised & the ICS Expert
F. Data Collection Activities:
- Enumerators to be provided with a list of the enterprises, Identification document (ID), and an introduction letter explaining the purpose of the survey
- Interviews to be done face-to-face only with the Managing Directors, HR Managers, Accountants or other relevant Enterprise staff
- On completion of the interviews, the supervisor will be required to review the questionnaires in accordance with the questionnaire note
G. Quality Control Activities:
- Supervisors are required to monitor field operations daily to ensure reliability and efficiency
- Enumerators are to report any problems encountered to the designated supervisor
- Supervisors are to sign off on completed questionnaires
- Unsatisfactory survey instruments are to be returned to the enumerator for corrections
- Supervisors are to keep a log of the number of forms expected to receive, date and number of forms actually received
- All the survey instruments are to be registered at the DOS for accountability
- Further verification of the instrument to be done by trained verifiers then sent to the data entry personnel to be entered in the database for processing
H. Data processing tool/software:

- A data table will be designed to capture all the fields of the questionnaire and uploaded on the existing data processing tools
- Statistical Package for the Social Sciences (SPSS) and Excel will be used to conduct the data analysis
I. Staffing & Recruitment:
- Fourteen (14) survey personnel, inclusive of the Director (DOS) will be coopted from the DOS to conduct the survey (Refer to HR management plan for additional information on staffing) - The services of one subject matter expert (ICS Expert) would be required from outside of the project team to provide expertise and guidance from January 2018 to the end of the project
- The project office's administrative staff will be coopted from the DOC and they will assist the survey staff where necessary to accomplish the goals and objectives of the project
Requirements Document Approval
Approved by the Contracting Authority (Sponsor) …… Date:…….. Name: Title:

4.1.2 ICS Project Charter

The project charter was the first project document established by the PM in consultation with the stakeholders in an effort to formally authorize and initiate the project. The charter was approved by the contracting authority, indicating the commencement of the project and thereby giving the PM the authority to dispense the relevant resources to execute the project. The following inputs – previous project documents; tools/techniques – consultation meetings, to achieve the project charter, which was the final output of this process, is displayed in Figure 14 above. The project charter for the ICS Project 2018 is illustrated below in Figure 17.

PROJECT CHARTER	
Date	**Project Name:**
December 3, 2018	Saint Lucia Investment Climate Survey (ICS) 2018
Knowledge Areas / Processes	**Applicacion Area (Sector / Activity)**
Knowledge areas: 1. Project Scope Management 2. Project Time Management 3. Project Cost Management 4. Project Quality management 5. Project Human Resource Management 6. Project Communication Management 7. Project Risk Management 8. Project Procurement Management 9. Project Stakeholder Engagement 10. Definition of the plan **Process groups:** 1. Project Initiating 2. Project Planning 3. Project Monitoring & Control 4. Project Closing	Public Sector – A survey to evaluate the investment business climate in Saint Lucia
Start date	**Finish date**
December 3, 2018	March 29, 2019
Executive Summary	
The investment climate consists of many location-specific factors that shape the opportunities and incentives for firms to invest productively, create jobs, and expand. These factors include macroeconomic and regulatory policies; the security of property rights and the rule of law; and the quality of supporting institutions such as physical and financial infrastructure. The main source of information for the project is a survey of 102 formal private enterprises out of a universe of 356 firms. Approximately 43% (44) of the sample frame were in the manufacturing sector and the remaining 57% (58) were in the tourism sector. The Firms were randomly selected from the two sectors stated above and the list of firms were taken from the Enterprise Register, maintained and supplied by the DOS.	

Project Description

The ICS will provide a standardized way of measuring and comparing investment climate conditions in Saint Lucia. It is envisaged as a systematic approach that will allow for better identification of the features of the investment climate that adversely affect productivity and, hence, income growth for the poor and indigent. The project is intended to be better able to track changes in the investment climate and to be able to conduct comparisons with other countries.

Project Objectives (general and specific)

General objective:

1. To undertake a comprehensive review of the investment business climate within the framework of the approved ISIC standard
2. To conduct research based on the methodology and sample size approved by the DOS
3. To prepare an analytical and evidenced-based Final Report

Specific objectives:

1. To provide statistically significant investment climate indicators that are comparable to other economies across the world
2. To assess the constraints to public/private performance and growth
3. To build a panel of data that would make it possible to track changes in the business environment. Access to that data would then allow for the ease of conducting needs and impact assessments, reforms and policy formulation
4. To stimulate policy dialogue on the business environment and to help shape the agenda for reform

Project purpose or justification:

The investment climate survey is the brainchild of the Ministry of Commerce (DOC) in Saint Lucia. The macroeconomic performance suggests that the economy has been solid but not spectacular. As a result, it appears that the island is locked in a path of sustained but moderate growth. This situation lends itself to the presence of systemic impedements that need to be revamped in order to improve competitiveness in the business environment in an effort to reduce poverty.

Therefore, the purpose of this project will be to develop a comprehensive project management plan to evaluate the investment business climate. The project manager and his team will ensure that the required subsidiary plans are coordinated and integrated into the project management plan. This plan will be used to effectively and succesfully manage the project from beginning to end.

The project must be done in order to gather and evaluate the data from the survey to adequately analyze that data to effect policy formulation. The benefits to be derived from this project are to formulate the necessary strategies and policies to improve the lack of competitiveness in Saint Lucia's business environment and to reduce poverty in the medium to long-term.

Broad Requirements

- The project must be conducted within the approved European Union Framework issued by the DOC
- The survey must be conducted within the methodology and sample size approved by the DOS
- The project will have a duration of four months as required by the CA, reference the start and end dates indicated on page one (1) of the TOR
- A total of eighteen persons will be acquired to make up the project team to assist the PM in executing the project.
- One subject matter expert (ICS Expert) will be required from outside of the project team. The PM will be responsible for outsourcing this individual (refer to the procurement management plan for additional details)
- Two surveys are required: a pilot and the actual survey

Assumptions

The assumptions for the project are as follows:

1. The project will be executed within its constraints of time, cost and quality
2. All stakeholders will actively participate in the project
3. The project will be completed within its budget
4. The final report will not be ready for submission as planned

Constraints

The following constraints below, should be closely monitored by the PM:

1. Scope – the project has to be executed within its defined scope
2. Schedule – all the deliverables must be completed within four months
3. Cost – all the deliverables must be executed within a budget of $90,000 EC

Risks Associated with the Project

1. Planning – inadequate planning of the scope will impact the schedule, cost, resources and quality of the project
2. Resource – technical ability and skill of the project staff can have a significant impact on the project

3. Regulatory – changes in the Contracting Authority's regulatory framework can affect the project
4. Regulatory – current regulatory arrangements can constrain the scope of requirements
5. Cost – any changes in the scope or schedule will have an impact on cost
6. Stakeholders – lack of participation/interest among the stakeholders will impact the product
7. Time – the project may not be executed within the approved time
8. Confidentiality – respondents are exposed to the breach of confidentiality
9. Data Errors – errors in the data can lead to poor quality
10. Interviewers – the inability to communicate effectively will affect the response of the survey respondents

Description of deliverables & product to be generated by the ICS Project – project final deliverables

The project deliverables are all the activities that were determined during the consultation meetings by the PM and project stakeholders that must be accomplished in order to execute the project as follows:

- Selection of the companies to be surveyed
- Survey questionnaire instrument
- Recruit 5 Enumerators, 2 Supervisors, 2 Verifiers and 4 Data entry staff including the Director (DOS) will form the survey team. Three administrative staff will be required to assist the PM in the project office and one ICS Expert (sourced externally) will form the project team
- Training for survey staff only, to build their competence in preparation for the survey
- Review pilot survey findings
- Engage in public awareness
- Conduct the survey
- Compile results
- Establish database
- Develop project reports:

1. Report # 1 – Inception report – present an initial assessments of the proposed works
2. Report # 2 – Findings of the key areas of the project
3. Report # 3 – First draft of the final report
4. Report # 4 – Final report

Summary Milestone (♦) Schedule

Below is the project summary milestone table. Changes may be made to the schedule as the project is being progressively elaborated. Any changes to this schedule must be approved and communicated to the stakeholders by the PM.

Milestones	Description of work	Target date
1. Review, Consult, Design, and Formulate Survey Instrument	Review the existing survey instrument. This marks the beginning of the project	December 3, 2018
2. Report # 1	Prepare inception report in accordance with the reporting requirements	December 4, 2018
3. Pilot Test Survey	Undertake a pilot using a convenience sample out of the 102 firms to test the survey and its outcome	December 11, 2018
4. Stakeholder Consultation Meeting	Conduct a meeting with the stakeholders to give an appraisal of the status and initial findings of the project	February 19, 2019
5. Final Report	Prepare final report in accordance with the reporting requirements	February 19, 2019

Summary Budget

Details	Contract Value (%)	Cost ($ECD)
First payment	20%	16,587.00
Second payment	25%	20,733.75
Third payment	25%	20,733.75
Final payment	30%	24,880.50
Contingency Reserve	5%	4,500.00
Management Reserve	3%	2,565.00
TOTAL	100%	90,000.00

Project Approval Requirements
Success of the project will be achieved when all the established requirements and deliverables in the charter have been met. Success will be determined by the Contracting Authority – Permanent Secretary (DOC). The Permanent Secretary will authorize the completion of the project.
Project Manager
Darin A. Solomon is the assigned Project Manager (PM) for the duration of the 2018 ICS Project. Mr. Solomon will manage all the project management plans for the project. He will provide project progress updates to the Director (OIC) and will be responsible for all the project resources. Any changes to the scope or budget must be approved by the sponsor.
Authorization
Approved by the Contracting Authority (Sponsor) …… Date:…….. Name: Title:

Figure 17. 2018 Project Charter. (Source: Compiled by the Author)

4.1.3 Scope Management Approach:

- The scope of the project is defined by a complete requirements collection process which includes inputs from the project charter (Figure 17 above), previous project documents, the scope baseline (scope statement, WBS & WBS Dictionary) and the project scope deliverables and results (Chart 12 below). Expert judgement and meetings were some of the tools and techniques used during the definition of the scope. The project entails conducting a survey to evaluate the investment climate in Saint Lucia to determine the cause of the lack of competitiveness among firms. Therefore, the scope will encapsulate all the work to achieve this objective.
- The scope will be measured by defining all what needs to be done to enable the project to deliver what it was created to deliver, for example, collecting requirements, defining the objectives, establish a project description, allocate roles and responsibilities, and defining the scope statement are all part and parcel of the process to measure the project. Therefore, only the planned activities and deliverables (work) defined in the requirements should be

undertaken. Anything outside of the scope would mean that the project would be at variance with its scope baseline.

- The project manager (PM) will assume the authority and responsibility over the management of the scope.
- The PM, sponsor and stakeholders will develop and approve the relevant documentation for measuring the scope of the project that will include the scope baseline.
- All change requests must be approved by the PM to evaluate the impact the change or changes will have on the scope. However, all change approvals will be channeled to the project sponsor for acceptance. Upon acceptance, the PM will update all project documents and will communicate those scope changes to all the stakeholders in the manner approved in the stakeholder register.

4.1.4 Roles and Responsibility:

The project will be managed by a team consisting of nineteen members. The PM, project sponsor, project team members, the Director (OIC) and other stakeholders must all be aware of their roles and responsibilities. This is important and needs to be clearly stated, especially to avoid repetition of work and conflict that can result in scope creep. Most importantly, all roles and responsibilities must be established to ensure that the work performed or to be performed on the project is done within the established scope. Hence, the Director OIC, the PM and the project team are the stakeholders who are mostly responsible for managing the scope of the project.

Therefore, it is incumbent on all parties to have a clear understanding of their roles and responsibilities. Chart 11 below defines the roles and responsibilities of those persons who played a key role in developing the scope management process for this project.

Chart 11. Scope Management - Roles and Responsibilities (Source: Compiled by the Author)

Nos.	ROLE:	NAME:	RESPONSIBILITIES:
1	Project Manager (PM)	Darin A. Solomon	- Execute the various project deliverables

Nos.	ROLE:	NAME:	RESPONSIBILITIES:
			- Manage the scope of the project - Efficiently manage all the resources of the project - Monitor and control the progress of the project - Measure and verify project scope - Update the project plans where necessary - Provide performance updates to the Director (OIC) - Facilitates change control requests - Assess impact of scope change
3	Director (OIC) -Ms. Francis is the designate to act on behalf of the project sponsor	Nancy Francis	- Approve change request submitted by the PM - Receives status updates from the PM - Provides performance updates to the Permanent Secretary - Provide expert judgement and guidance to the PM
4	Director (DOS)	Edwin St. Catherine	-Provide direction in establishing the survey methodology and sample size - Provide direction and guidance on all aspects of the survey to the PM - Directs the survey staff - Assist the PM in managing the scope

4.1.5 Scope Definition:

The scope for this project was defined based on the information gathered from the collection of requirements process. First, the PM gathered information from reviewing previous project documents obtained from the project sponsor (DOC). Second, the approved project charter was a source of input for the scope definition, to get a sum total view of the scope of works in order to accomplish the project. Third, two stakeholder engagement meetings were conducted to ensure that all inputs and concerns were given consideration. After the collect requirements

process was completed the PM, project team and ICS expert developed and compiled the requirements documentation.

The project scope (deliverables) were generated from the information contained in the requirements documentation. This process also involved the invaluable input of the Director (DOS) who was the subject matter expert from the DOS. The input of all the stakeholders, especially the extensive experience of the Director (DOS) and the ICS Expert in conducting similar surveys, provided guidance in the development of a cost effective and efficient approach to conduct the survey within the allotted time of four months.

The deliverables will be further decomposed into work packages in the WBS, however, Chart 12 below, depicts a high-level view of the deliverables that make up the scope of the ICS Project as follows:

Chart 12. Project Scope Deliverables and Results (Source: Compiled by Author)

PROJECT DELIVERABLES:	**RESULTS:**
▪ *Selection of the companies to be surveyed*	*- Review the previous project documents to update the instrument to meet current needs*
▪ *Designing of the appropriate survey instrument*	*- The Director (DOS) and the Expert to provide guidance to develop the new survey instrument*
▪ *Recruit five (5) Enumerators, two (2) Supervisors, two (2) Verifiers and Four (4) Data entry staff*	*- Co-opt thirteen (13) survey staff members from the DOS for the project*
▪ *Recruit three (3) administrative staff*	*- Co-opt three (3) staff members from the MOC to assist in managing the project office and to provide support to the survey team*
▪ *Source one (1) ICS Expert externally*	*- The services of an ICS Expert will be required to provide expert judgement, support and guidance to the project team during the execution of the project*
▪ *Training for survey preparation/competence*	*- The DOS will organize a one day workshop for only the survey team in preparation for the survey*

	- To build on the competence of the survey team in the use of the particular survey instrument, interview and field operations techniques
▪ *Review pilot survey findings*	*- Select a convenience sample from the approved sample size of registered firms for the pilot test* *- To verify the applicability of the survey instrument* *- To determine lessons learnt to assist in making adjustments for the actual survey*
▪ *Engage in public awareness*	*- To develop an awareness campaign* *- To embark on campaign via the media (radio, television & press) to sensitize the public of the specific nature of the survey*
▪ *Conduct the survey*	*- To conduct a survey on 102 registered firms to evaluate the investment climate*
▪ *Compile results*	*- To collect all survey questionnaire instruments* *- To compile and assess the information provided*
▪ *Establish database*	*- To design an appropriate database using existing data processing tools* *- To analyze the collected data*
▪ *Develop project reports* ➢ *Report # 1 – Inception Report* ➢ *Report # 2 – Scope of the findings* ➢ *Report # 3 – First draft of the final report* ➢ *Report # 4 – Final report*	*- To produce the required reports at varying times during the lifecycle of the project* *- The presentation of the final report will mark the end of the project*

4.1.6 Project Scope Statement:

The scope of this project will include conducting an Investment Climate Survey (ICS), to evaluate the operational dimensions (**See Appendix 5 below**) and impediments of the investment business climate with a view to identifying the key impediments that affect the investment business climate, effect policy formulation and to make

structural adjustments that would improve the investment climate in Saint Lucia. The deliverable for this project will be to produce a Final Report at the completion of the survey. The project manager (PM) will manage this project. Only one external ICS expert will be sourced by the PM; the internal resources will include thirteen (13) survey staff and the Director (DOS) who will be recruited from the statistics department (DOS) to conduct the survey. Three employees from the DOC will be recruited to assist the PM in managing the project office and to assist the project management team where necessary during the execution of the project. The project sponsor has given the PM a duration of four (4) months in which to complete all the deliverables of the project. It is not expected to go beyond the four (4) month period, neither is it expected to go beyond the cost of $90, 000 EC.

4.1.7 Product Scope Description:

The product to be derived from this project is specifically a report (the Final Report) that will provide an analysis of the information to be garnered during the ICS. Statistical software will be used to process the data. The processed data will be analyzed by the subject matter experts which will include the ICS Expert, the Director (DOS) and the PM. The result of the analysis will be prepared by the experts mentioned above and the findings will be delivered as a presentation during the validation workshop. The product scope can be described by the following:

- To establish the sampling methodology/design
- Designing of the appropriate survey instrument
- Recruitment of the enumerators and other survey personnel
- Training of selected survey staff
- Conduct a pilot survey
- Establish a public awareness campaign
- Conduct the survey
- Determine the method to compile/store the data
- Analyze the data

The analyzed data would, in the final outcome, be presented in the project management plan.

4.1.8 Project Deliverables

The following project deliverables will be achieved:

- Selection of the companies to be surveyed
- Survey questionnaire instrument
- Recruit 5 Enumerators,
- Training for survey preparation/competence
- Review pilot survey findings
- Engage in public awareness
- Conduct the survey
- Compile results
- Establish database
- Develop project reports
    - Report # 1 – Inception Report
    - Report # 2 – Scope of the findings
    - Report # 3 – First draft of the final report
    - Report # 4 – Final report

4.1.9 Project Exclusions

The project will cover all aspects as indicated in the project scope description. However, the project sample (companies to be surveyed) will only be taken from the manufacturing and tourism sectors. The Director (DOS) on consultation with the sponsor and the PM was satisfied based on experience, that the two sectors together would represent a large enough universe to derive a reasonable statistical sample for purpose of the ICS. Therefore, the scope of the project would not extend beyond the boundaries of the manufacturing and tourism sectors.

4.1.10 Project Constraints & Assumptions

As established in the Methodological Framework, Part 3. Section 3.4.1 and 3.4.2 above.

4.1.11 Scope Verification:

Scope verification is the process of evaluating the work of the project to determine whether it meets the established requirements. As the project progresses, the PM will review the project work against the scope baseline (scope statement, WBS and WBS Dictionary) to verify that the work is being executed according to the plan. The

PM will employ techniques such as field inspections and meetings to evaluate and verify that the deliverables are being accomplished as planned. This is an iterative process so that as the project progresses, the PM will continue to repeat this process to ensure there is no deviation from the plan. If there are any deviations, the PM would refer the matter to the relevant project team member to adjust. The PM will formally accept the scope once he is satisfied that it meets the requirements. Once verification is achieved, the PM will meet with the project sponsor who will formally accept each deliverable using the established deliverable acceptance form. (**See Appendix 6 below**).

4.1.12 Work Breakdown Structure (WBS):

The WBS for the ICS Project will be developed by the PM in conjunction with the project team and other stakeholders who have developed an expertise due to their involvement in similar projects. The WBS is characterized by a hierarchical decomposition technique in which all the work to be completed are included in order to accomplish all the project's objectives and deliverables successfully. Figure 18 below illustrates the WBS for the project.

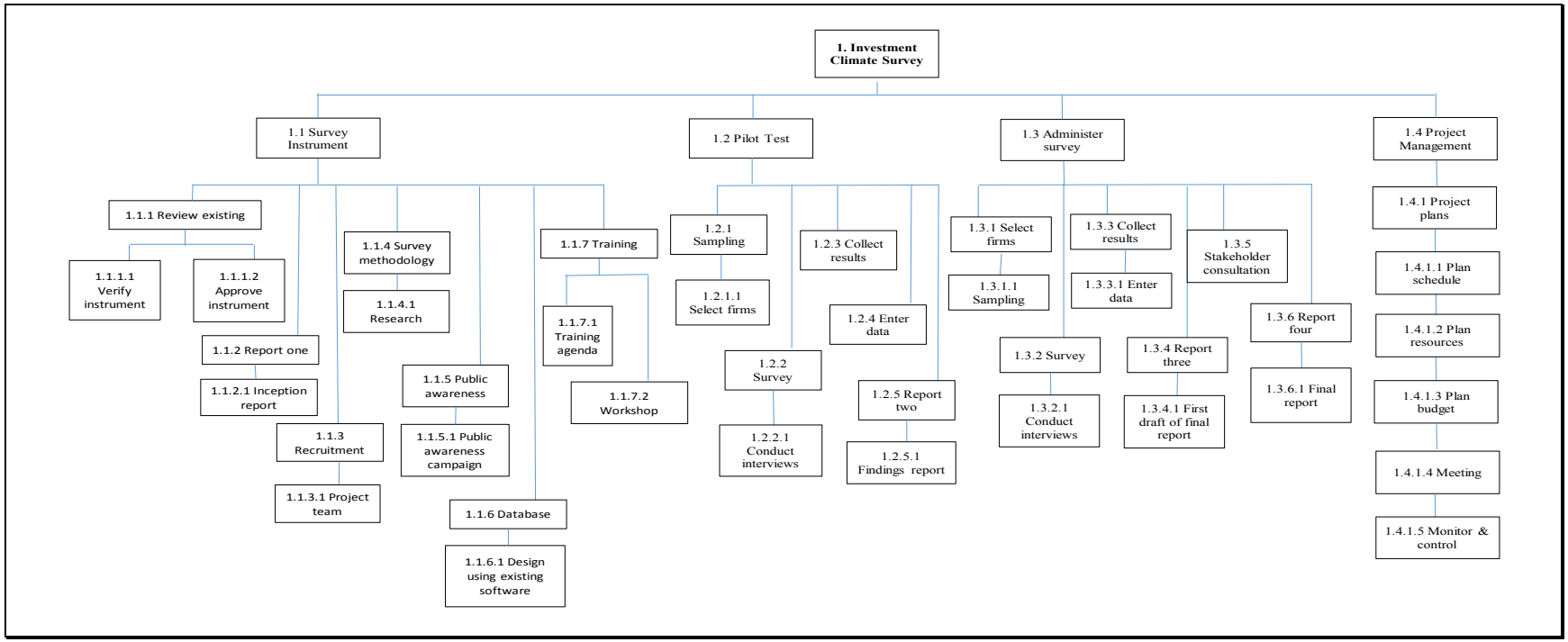


Figure 18. Work Breakdown Structure (Source: Compiled by the Author)

4.1.13 Work Breakdown Structure (WBS) Dictionary:

The project manager will develop a Workbreakdown Structure (WBS) Dictionary to be used in conjunction with the established WBS. The WBS Dictionary will seek to capture all the components/elements of the WBS which, according to (PMI, 2017 pg. 162), will seek to provide more detailed information about the various deliverables and work packages. This document will also be used as a baseline to assist the protect team in the preparation of the work to be accomplished during the development of the other project management plans.

Chart 13. Work breakdown Structure (WBS) Dictionary (Source: Compiled by the Author)

Level	WBS Code	Element Name	Description of work	Deliverables
2	1.1	Survey instrument	Review, consult and formulate attributes for the survey	Milestone, marks the commencement of the project
3	1.1.1	Review existing instrument	▪ Review previous survey instrument by the PM	▪ Review design approach for survey instrument
4	1.1.1.1	Verify instrument	▪ Selection & invitation of experts to sit on committee ▪ Convene a round of consultation meetings from Feb 1-Feb 6, 2018 at the DOC to discuss the design of the survey instrument ▪ To conduct a preliminary review of the survey instrument from a previous project ▪ To evaluate & agree on changes	▪ Confirmed list of committee members involved in the review ▪ Reviewed draft survey instrument by the Director (DOS)
5	1.1.1.2	Approve instrument	▪ Acceptance & approval of the reviewed draft by the sponsor	▪ Approved survey instrument
3	1.1.2	Report one	▪ Preparation of the first report	▪ Assessment of project & work plan
4	1.1.2.1	Inception report	▪ Prepare the first report as a means of reporting to the CA about the work plan for the project	▪ Acceptance of the Inception report by the CA
3	1.1.3	Recruitment	▪ Determine approach to recruit the project team ▪ Determine composition of team	▪ Acquiring of the project team
4	1.1.3.1	Project team	▪ Co-opt the survey staff from the DOS	▪ Approval of the Project team

Level	WBS Code	Element Name	Description of work	Deliverables
			▪ Co-opt the administrative staff from the DOC ▪ Procure the services of an ICS Expert	
3	1.1.4	Survey methodology	▪ Determination of methodology to be employed	▪ Approved methodology
4	1.1.4.1	Research	▪ Research was done to determine survey attributes & approach ▪ Identification & selection of techniques	▪ Research results ▪ Document defining survey techniques
4	1.1.5	Public awareness	▪ Plan public awareness	▪ Public awareness plan
4	1.1.5.1	Public awareness campaign	▪ Plan public awareness campaign	▪ Public awareness campaign plan
3	1.1.6	Database	▪ Determine approach to design data form for ease of entering and retrieving data	▪ Database requirements document
4	1.1.6.1	Design database using existing software	▪ Selection of expert to créate database ▪ Review proposed database by stakeholders	▪ Approved database methodology
3	1.1.7	Training	▪ Determine training needs for staff	▪ Training manual
4	1.1.7.1	Training agenda	▪ Establish agenda ítems for the training	▪ Confirmed date & venue
4	1.1.7.2	Workshop	▪ Conduct training workshop to develop competence in preparation for the survey	▪ Workshop register
2	1.2	Pilot test	Conduct pilot test survey	Milestone, commencement of pilot test phase
3	1.2.1	Sampling	▪ Develop sample attributes for the pilot survey ▪ Selection of businesses for pilot survey	▪ Approved pilot sample attributes document

Level	WBS Code	Element Name	Description of work	Deliverables
				▪ Approved list of random companies for the pilot survey
4	1.2.1.1	Select firms	▪ Develop a convenience sample for the pilot survey	▪ Approved list of firms for the pilot test survey
3	1.2.2	Survey	▪ Develop plan for survey	▪ Survey plan
3	1.2.2.1	Conduct interviews	▪ Interview respondents ▪ Complete questionnaire ▪ Document problems related to veracity & applicability of questionnaire	▪ Completed questionnairs ▪ Documentation of lessons learnt and applicability of instrument
3	1.2.3	Collect results	▪ Collect & compile results	▪ Compilation of survey results
4	1.2.4	Enter data	▪ Enter data in database	▪ Populate database
3	1.2.5	Report two	▪ Preparation of the second report	▪ Document lessons learnt from the pilot test
4	1.2.5.1	Findings report	▪ Prepare the second report to inform the CA about the findings of the project	▪ Acceptance of the second report by the CA
2	1.3	Administer survey	Conduct survey	Milestone, commencement of actual survey process
3	1.3.1	Select firms type	▪ Determine sectors to be targeted ▪ Identify registered businesses from the sectors selected	▪ Document defining sectors to be surveyed ▪ List of potential businesses to be sampled

Level	WBS Code	Element Name	Description of work	Deliverables
3	1.3.1.1	Sampling	▪ Research on sampling ▪ Select sampling method ▪ Sampling	▪ Approved list of companies to be surveyed
3	1.3.2	Survey	▪ Develop plan for survey	▪ Survey plan
3	1.3.2.1	Conduct interviews	▪ Interview respondents ▪ Complete questionnaires	▪ Completed questionnaires
2	1.3.3	Collect results	Collect & compile survey results	Marks the end of the survey & the beginning of compiling the results
3	1.3.3.1	Enter data	▪ Enter survey data in database	▪ Database populated
3	1.3.4	Report three	▪ Preparation of the third report	▪ Develop the initial draft of the final report indicating all the relevant information garnered from the analysis of the survey results in accordance with ISIC Rev 4
3	1.3.4.1	First draft of final report	▪ Prepare the third report to inform the CA about the findings of the project	▪ Acceptance of the first draft of the final report by the CA
2	1.3.5	Stakeholder consultation	The MOC will manage all the preparatory work to host the the stakeholder consultation	Stakeholder consultation
3	1.3.6	Report four	▪ Preparation of the final report	▪ To capture all the relevant details
3	1.3.6.1	Final report	▪ Prepare the final report in accordance with ISIC Rev 4	▪ Preparation of report four according to the ISIC Rev 4 standard

Level	WBS Code	Element Name	Description of work	Deliverables
2	1.4	Project management	Manage the Project management plans & processes outlined in 1.6.1 to 1.6.1.5	Manage all the processes developed in the Project management plan to ensure that the project is successful
3	1.4.1	Project planning	▪ Plan all the various activities of the project according plan and to determine how it will be executed, monitored & controlled	▪ Project management plan
4	1.4.1.1	Plan Schedule	▪ Establish all the plans to effectively manage the Schedule	▪ Schedule plan
4	1.4.1.2	Plan human resource	▪ Ensure all plans are in order to effectively manage human resources	▪ Human resource plan
4	1.4.1.3	Plan Budget	▪ Plan cost management to ensure Project stays within Budget	▪ Cost plan
4	1.4.1.4	Meeting	▪ Conduct planned meeting & other meetings when necessary	▪ Meetings
4	1.4.1.5	Monitoring & control	▪ Actively monitor the deliverable of the Project against the scope baseline to ensure the Project stays within its scope, Schedule, human resource & budget	▪ Reviewed & updated plans when necessary

4.1.14 Scope Control:

Scope control is the process of monitoring the status of the project scope. The PM and the project team will work together to ensure that the scope of the ICS Project is kept under control. The project team will use the scope baseline (WBS and WBS Dictionary) to monitor and verify that the various WBS elements and work packages are conducted as planned. The team will ensure that they perform only the work described in the WBS Dictionary to bring about the desired deliverables. The objective will be to keep the project and product scope under control to give the project a greater measure of success.

If there are any requests for changes or recommended corrective/preventive actions, especially those that may negatively impact the scope baseline, the PM must proceed to perform the integrated change control process. This involves the process of evaluating the changes by the PM to determine whether they should be accepted or rejected. Those changes must be under constant scrutiny by the PM and his team to ensure the project stays within its scope. Accepted changes must be approved by the PM with the approved change control form. (See Change Control Form in Appendix 7 below),

In essence, any approved change to the scope will require that the PM evaluate and assess the effect of such a change on the scope of the project. If the change or changes have an impact on the scope, the PM will request with the approval of the CA that the scope be updated to reflect the changes. Chart 14 below is an example of a change control form:

Chart 14. Change Control Form (Source: Created by the Author)

Change Control Form
Date of Request:
Change Request Initiator (name, location, phone):
Description of Change:
Reason for Change:
How does the proposed change affect the project scope considerations?

Resulting Changes includes:
Project Manager Approval (name and date):
Director (OIC) Approval (name and date):

4.2 PROJECT SCHEDULE MANAGEMENT PLAN

Contents of the Schedule Management Plan:

Introduction
Schedule Management Approach
Establish Scheduling Methodology
Define Activities
Activity Durations/Sequencing
Develop Schedule
Control Schedule
Scope Change

4.2.1 Introduction

The schedule management plan is the document that includes all the processes, along with their corresponding inputs, tools & techniques, and outputs that are required to manage the timely completion of the project. This project involves the survey of a sample population of one hundred and two (102) respondent firms. According to the TOR in Appendix 4, the contract was awarded to the PM on the basis of completing the project within a time frame of four (4) months.

Acceptance of the contract was based on the initial arrangements found in the TOR. There was no official project charter to initiate the project. To ensure the project was managed efficiently and in accordance with the PMI standard, the PM developed a charter which was approved by the Contracting Authority (CA) and was used to initiate the project. The scope management plan was subsequently developed almost simultaneously with the stakeholder register. Developing the stakeholder register was done by the initial team members namely, the PM and the Director (DOS) who automatically became a team member by virtue of his expertise and involvement in conducting surveys at the DOS. The Director (OIC) was also involved in the process of developing the stakeholder register due to her active involvement at the MOC level and in previous ICS Projects.

Subject to the constraint of time, the stakeholder register was developed very early in the process in an effort to ensure those persons who would be affected or perceived to be affected by the project (stakeholders) would be engaged early in the process. The charter

(summary milestone schedule) and the scope management plan (scope baseline) were used as inputs for the initial development of the schedule management plan. Expert judgment and meetings were used to determine the best approach to develop the schedule management plan.

The purpose of the schedule management plan is to define the approach the project team will use to create the project schedule, how the team will monitor and manage changes after the schedule baseline is approved. For the purpose of the ICS Project a schedule management plan will be adopted from an online source (Project Management Docs. 2018) as a guide to develop the schedule management plan. The processes of the proposed schedule management plan will be used in its simplest form (guided by the PMI methodology) to demonstrate how the schedule management plan will be controlled in an effort to efficiently manage the project as follows:

4.2.2 Schedule Management Approach

The management strategy used to manage the project's schedule entails the following:

1. Establish scheduling methodology
2. Establish the schedule milestones
3. Establish the schedule development roles and responsibilities

4.2.3 Establish Scheduling Methodology

Microsoft (MS) Project 2016 will be the platform utilized to develop the project schedules. Several group meetings were held with the project team to determine the schedule methodology. During the meetings the following occurred:

- Several tools and techniques such as expert judgment and brainstorming were used to analyze the work defined in the scope baseline and the project charter to determine the way forward for establishing the schedule methodology
- Based on the analysis mentioned above, it was decided that the activities, deliverables and milestones which can be identified in the WBS (Figure 18), be developed. The WBS and the WBS Dictionary illustrate all the various activities and work packages necessary to complete each deliverable for the project.

4.2.4 Define Activities

Defining the activities is the specific process that deals with decomposing the work in a hierarchical manner to arrive at the various groups of related tasks or work packages in

an effort to arrive at a particular result or deliverable. The project activities are decomposed and defined in Chart 15 below. Additionally, the PM recognizes that the scheduling tool of choice, MS Project 2016, is capable of producing various types of reports which will enhance not only the reporting capabilities but, also, the manner in which the data or information can be presented to provide updates to the stakeholders or the CA.

4.2.5 Activity Durations/Sequencing

The activity durations and sequencing are both critical to the scheduling process. The activity durations for this project were established based on historical information (analogous estimating) derived from previous project documents and expert judgement. Other methods such as the three-point estimating technique and brainstorming sessions were explored to get a holistic approach to estimating the activity durations for the project. The activity durations were updated to suit the current project situation and were used to update the schedule in the MS scheduling software. Activity sequencing was based on the precedence diagramming model (PDM). PDM is a technique used for constructing a schedule model in which activities are represented by nodes and are graphically linked by one or more logical relationships to show the sequence in which activities are to be performed.

According to the PMI methodology, there are four types of dependencies or logical relationships, namely:

- Finish-to-start (FS)
- Finish-to-Finish (FF)
- Start-to-Start (SS)
- Start-to-Finish (SF)

The most commonly used precedence relationship is the Finish-to-Start. The precedence relationships will be used accordingly to get the best schedule model for the project.

Chart 15. Activity Durations, Dependencies & Responsibility Matrix (Source: Compiled by the Author)

Activity Durations, Dependencies & Responsibility Matrix						
Level	**WBS Code**	**Activity Name**	**Description of Work**	**Activity Duration (days)**	**Dependences**	**Responsibility**
1	**1.0**	**2018 ICS Project**		**77**		**PM**
2	**1.1**	**Survey Instrument**	**Collect all previous project documents from the DOC for review**	**41**		MOC
3	**1.1.1**	**Review Existing Instrument**	**- Review the previous survey instruments - Recommend changes to suit the current ICS needs - Forward to the Director (DOS) for verification**	**1**		PM & Director (DOS)
4	1.1.1.1	Verify Instrument	- Review changes & recommendations - Make the necessary changes - Forward to the PM for review and approval	0		Director (DOS)
5	1.1.1.2	Approve Instrument	- The Director (OIC) will review the changes & recommendations	1	4	Director (OIC)

Activity Durations, Dependencies & Responsibility Matrix						
Level	**WBS Code**	**Activity Name**	**Description of Work**	**Activity Duration (days)**	**Dependences**	**Responsibility**
			- Report to the PS MOC - Approve the revised survey instrument			
3	**1.1.2**	**Report # 1**	**Prepare Report # 1**	**1**		PM2
4	1.1.2.1	Inception Report	- Prepare the inception report - Provide an initial assessment of the proposed project to the Director (OIC) - Prepare a work plan	1	5	PM
3	**1.1.3**	**Recruitment**	**Acquire project team**	**10**		PM
4	1.1.3.1	Project Team	- Thirteen persons will be co-opted from the DOS to make up the survey team - Three persons will be co-opted from the MOC to form the administrative staff to help manage the project office - One ICS Expert will be outsourced to provide guidance	10	7	PM, Director (DOS) & (OIC)

Activity Durations, Dependencies & Responsibility Matrix						
Level	**WBS Code**	**Activity Name**	**Description of Work**	**Activity Duration (days)**	**Dependences**	**Responsibility**
			throughout the project			
3	**1.1.4**	**Survey Methodology**	**The Director (DOS) will apply the methodology as stipulated by the CA**	**5**		Director (DOS)
4	1.1.4.1	Research	- The survey staff will do research on the previous ICS projects - Research will also be done on similar projects done regionally & international - All the research will be done under the guidance of the Director (DOS)	5	9SS	Director (DOS), survey team
3	1.1.5	**Public Awareness**	**- Plan the awareness initiative** **- Consult with the local government broadcasting agencies (NTN, GIS & RSL) for free air time**	**10**		PM, Director (DOS), Survey team, ICS Expert & project office staff

Activity Durations, Dependencies & Responsibility Matrix						
Level	**WBS Code**	**Activity Name**	**Description of Work**	**Activity Duration (days)**	**Dependences**	**Responsibility**
4	1.1.5.1	Public Awareness Campaign	- Broadcast the approved message via radio, television and online platforms - To notify the relevant sectors of the public, to notify them of the purpose & reason for the survey	10	9	Survey team & project office staff
3	**1.1.6**	**Database**	**- Acquire the services of an internal database expert**	**40**		Director (DOS)
4	1.1.6.1	Design Database Using Existing Software	- The database expert will consult with the Director (DOS) to develop the database for the project -The design will include the survey instrument as the interface for the database - The database platform will be enabled on existing DOS statistical tools	40	5	Director (DOS)

Activity Durations, Dependencies & Responsibility Matrix						
Level	**WBS Code**	**Activity Name**	**Description of Work**	**Activity Duration (days)**	**Dependences**	**Responsibility**
3	**1.1.7**	**Training**	**- Develop training modules** **- Prepare & print survey instruments for the participants** **- Prepare training room** **- Prepare training equipment**	**2**		Director (DOS), Department of Statistics staff
4	1.1.7.1	Training Agenda	- Prepare training agenda - Inform all participants of the date and time for the training	1	9	Director (DOS), Department of Statistics staff
4	1.1.7.2	Workshop	- Training will be for one day at the DOS - Only the survey staff will be trained - Training will include theory & practical sessions - Training will be conducted to develop the competence of the survey staff	1	17	Director (DOS), Department of Statistics staff
4	**1.2**	**Pilot Test**	**- For the purpose of the pilot a smaller sample**	**38**		Director (DOS), survey team,

Activity Durations, Dependencies & Responsibility Matrix						
Level	**WBS Code**	**Activity Name**	**Description of Work**	**Activity Duration (days)**	**Dependences**	**Responsibility**
			size (convenience sample) will be employed			ICS Expert & the PM
3	**1.2.1**	**Sampling**	**- The Director (DOS) will determine the convenience sample size**	**0**		Director (DOS), survey team
3	1.2.1.1	Select firms	- The Director (DOS) will select the relevant firms to conduct the pilot survey - Firms will be formally notified in advance of the scheduled date of the pilot	0	11	Director (DOS), survey team
3	**1.2.2**	**Survey**	**The survey will be initiated and conducted by the Director (DOS)**	**3**		Director (DOS), survey team, other team members, ICS Expert & the PM
3	1.2.2.1	Conduct Interviews	- Interviews will be done by the survey team - Interviewers are to ensure all the relevant details are	3	21,18,13	Survey team

Activity Durations, Dependencies & Responsibility Matrix						
Level	**WBS Code**	**Activity Name**	**Description of Work**	**Activity Duration (days)**	**Dependences**	**Responsibility**
			accounted for on the instrument			
3	1.2.3	Collect Results	- The survey team will collect the survey instruments - Each team member will ensure the instrument has all the relevant information - The supervisors in the field will verify the status of the instruments received from each interviewer - Incomplete forms must be returned to the interviewer to complete the form - All the collected instruments will be accounted for & recorded at the DOS	2	23	Director (DOS), Survey team
3	1.2.4	Enter Data	-The data must be coded - The data must be verified	2	24	Data entry clerks

Activity Durations, Dependencies & Responsibility Matrix						
Level	**WBS Code**	**Activity Name**	**Description of Work**	**Activity Duration (days)**	**Dependences**	**Responsibility**
			- The data must be entered on the established tools - The data must be processed and analyzed			
2	**1.2.5**	**Report # 2**	**Prepare Report # 2**	**2**		PM
3	1.2.5.1	Findings Report	- Prepare the findings report - Provide an overview of the essential areas of the project - Input lessons learnt from the pilot test - Present the report to the Director (OIC)	2	25	PM
3	**1.3**	**Administer Survey**	**- Ensure all instruments are printed and ready** **- Ensure all survey staff are appraised of their zones and tasks** **- Ensure the survey is done in accordance with the ISIC Rev 4 Standard**	**26**		Director (DOS), survey team, ICS Expert & the PM

Activity Durations, Dependencies & Responsibility Matrix						
Level	**WBS Code**	**Activity Name**	**Description of Work**	**Activity Duration (days)**	**Dependences**	**Responsibility**
3	**1.3.1**	**Select Firm Type**	**Firms will be selected from the tourism and manufacturing sectors only**	**2**		Director (DOS), survey team
3	1.3.1.1	Sampling	A stratified random sampling design will be used for the survey	2	27	Director (DOS), survey team
4	**1.3.2**	**Survey**	**The survey will be initiated and conducted by the Director (DOS)**	**20**		Director (DOS), survey team, other team members, ICS Expert & the PM
3	1.3.2.1	Conduct Interviews	- Interviews will be done by the survey team - Interviewers are to ensure all the relevant details are accounted for on the survey instrument	20	30	Survey team
3	**1.3.3**	**Collect Results**	**- The survey team will collect the survey instruments** **- Each team member will ensure the instrument has all**	**3**		Survey team

Activity Durations, Dependencies & Responsibility Matrix						
Level	**WBS Code**	**Activity Name**	**Description of Work**	**Activity Duration (days)**	**Dependences**	**Responsibility**
			the relevant information **- The supervisors in the field will verify the status of the instruments received from each interviewer** **- Incomplete forms must be returned to the interviewer to complete the form** **- All the collected instruments will be accounted for at the DOS and recorded**			
3	1.3.3.1	Enter Data	-The data must be coded - The data must be verified - The data must be entered on the established tools - The data must be processed and analyzed	3	32	Data entry clerks
4	**1.3.4**	**Report # 3**	**Prepare Report # 3**	**1**		PM & ICS Expert

Activity Durations, Dependencies & Responsibility Matrix						
Level	**WBS Code**	**Activity Name**	**Description of Work**	**Activity Duration (days)**	**Dependences**	**Responsibility**
3	1.3.4.1	First Draft of Final Report	- Prepare the first draft of the final report - Ensure the report is done to suit the ISIC Rev 4 standard - Provide an overview of the initial assessment of prevailing issues in the investment climate - Present the report to the Director (OIC)	1	34	PM & ICS Expert
3	1.3.5	Stakeholder Consultation	- Convene a stakeholder consultation meeting - All logistics and costs will be borne by the MOC - Liaise with the MOC leading up to the meeting	0	36	PM
4	**1.3.6**	**Report # 4**	**Prepare Final Report**	**0**		PM & ICS Expert
2	1.3.6.1	Final Report	- Prepare the final report - Ensure the report is done to suit the ISIC Rev 4 standard	0	37	PM & ICS Expert

Activity Durations, Dependencies & Responsibility Matrix						
Level	**WBS Code**	**Activity Name**	**Description of Work**	**Activity Duration (days)**	**Dependences**	**Responsibility**
			- Provide details on the findings - Provide the details of the analysis - Make recommendations to improve the investment climate - Present the report to the Director (OIC)			
3	1.4	**Project Management**	The management of all the various plans and closure of the project			PM, project team
3	1.4.1	Project Plan	Planning and updating project activities and documents throughout the lifecycle of the project			PM, project team
3	1.4.1.1	Plan Schedule	Planning the management of the schedule in order to control the duration of the project			PM, project team
3	1.4.1.2	Plan Resource	Planning and managing all the human resource in order to effectively			PM, project team

Activity Durations, Dependencies & Responsibility Matrix						
Level	**WBS Code**	**Activity Name**	**Description of Work**	**Activity Duration (days)**	**Dependences**	**Responsibility**
			execute the project from beginning to end			
3	1.4.1.3	Plan Budget	Planning and managing to ensure the project did not go beyond its budget			PM, project team
3	1.4.1.4	Meeting	Planning meetings to ensure adequate control and management of the project			PM
2	1.4.1.5	Monitoring & Control	To monitor all the project activities to ensure control over the scope of the project			PM, project team

The activity durations presented in Chart 15 were determined by group decision-making techniques and were based on preliminary information. Duration estimates are progressively elaborated, therefore, the duration estimates will be updated as the project progresses and as information becomes available.

4.2.6 Develop Schedule

All the schedule management processes mentioned above were integrated into the MS Project scheduling software and the result is the project schedule model. This schedule model is the basis on which the project will be baselined in order to keep track and monitor the progress of the project.

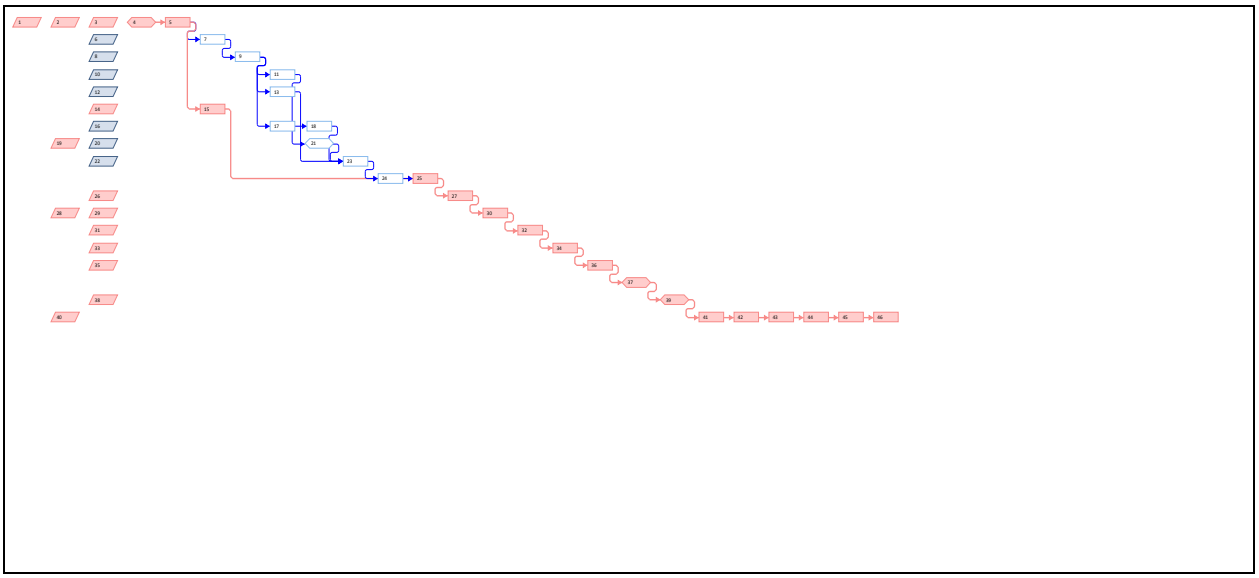


Figure 19. Network Diagram. (Source: Compiled by the Author)

The activity nodes (4, 5, 15, 25, 27, 30, 32, 34, 36, 37, 39, 41, 42, 43, 44, 45 and 46) highlighted in red represent the critical path of the project, which is the longest path through the project. If any activity on the critical path is delayed, the entire project will be delayed. In order to control the critical path and by extension the project, the PM and his team will closely monitor the start and finish dates of those activities. Also, the percentage completion of activities will be constantly under review to ensure activities are completed on time and if needs be to make the necessary changes to keep the schedule as planned. On the contrary, the activities highlighted blue (7, 9, 11, 13, 17, 18, 21, 23, and 24) are those activities which have some degree of flexibility, referred to as slack or free float and can be delayed without delaying the project. Each of the numbers found on the activity nodes in the network diagram above corresponds to each activity numbered in the WBS (Figure 19 above).

4.2.7 Control Schedule

Effectively managing the project schedule is a critical component that could determine the success or failure of the project. Therefore, it is the PM's responsibility to ensure that the project is managed effectively. The schedule will be constantly monitored by using the various reports that can be generated by the software. It will also be updated periodically (weekly) to reflect any changes or new information that may be added to the schedule. Also, keeping a track of the activity dates is another useful means of controlling

the various activities that are completed or partially completed and those that need to be completed. Any deviation from the schedule would have to be corrected by the PM to ensure the project remains on schedule. Other techniques such as earned value analysis methodology will be employed where necessary to ensure the schedule remains as planned. The PM along with his team will ensure that the relevant features of the software will be explored to enhance the reporting and controlling of the schedule.

4.2.8 Scope Change

Any approved change to the scope will require that the PM evaluate and assess the effect of such a change on the schedule. If the change or changes have an impact on the schedule, the PM will have to request that the schedule be re-baselined to reflect the changes.

Finally, the initial project duration as stipulated by the CA in the TOR was seventy nine (79) days. This time frame was used considering the team was not required to work on weekends and holidays. However, having developed the schedule model, the duration of the project was reduced to fifty six (56) days. Although the schedule model may be subject to change, nonetheless this scheduling technique illustrates that as long as projects are adequately planned and managed, they can meet their due date within reasonable time. The ICS project was reduced by twenty three (23) days.

4.3 PROJECT COST MANAGEMENT PLAN

Contents of the Cost Management Plan

Introduction

Plan Cost management

Estimate Cost

Determine Budget

Control Costs

4.3.1 Introduction

PMI (2017) found that project cost management includes the processes involved in planning, estimating, budgeting, financing, funding, managing, and controlling cost so that the project can be completed within the approved budget.

The cost management plan for this project identifies all the mechanisms necessary to manage and control cost. The PM has the responsibility to ensure that the project is executed within its approved budget. Perfromance will be measured using earned value analysis and only the CA has the authority to make the necessary changes to keep the project within its budget. The contract for this project was awarded based on a competitive bidding process. The budget for the ICS Project was negotiated and agreed upon by the Contracting Authority (CA) for the sum of $90,000 EC. A payment schedule provided in clause 13 of the TOR found in (Appendix 4) was the only cost information provided for this project. Figure 20 below, is an extract from the TOR illustrating the payment schedule for the project.

13. **PAYMENT SCHEDULE**

The total cost of the consultancy will not exceed the contract sum submitted by the Consultant. The Consultant will be paid in the following manner, after submission of the required deliverables in original and accompanied by original invoices to the Department of Commerce:

- First payment - a maximum of 20% of the contract value, after submission and approval of an Inception Report, Report 1;
- Second payment - 25% of the contract value after submission and approval of Report 2, the Findings Report;
- Third payment - 25% of the contract value after submission and approval of Report 3, First Draft of the Final Report;
- Final payment - 30% of the contact value after submission and approval of Report 4, The Final Report.

Figure 20. Payment Schedule (Source: Extract from the TOR – Appendix 4)

There was no cost management plan for the project, however to illustrate the prudent management of the approved budget of $90,000 EC, the PM will follow the PMI standard to plan and control the cost of the project. As can be seen in the payment schedule above, the cost for this project is not resource based but deliverable oriented, which means the funds will be released only after the deliverables indicated in the project charter (Figure 17 above) has been achieved.

The ICS Project is a public sector driven project. Therefore, considering the small size of this project; the estimate cost and determine budget are closely linked and can be viewed as a single process; the two processes mentioned above have already been determined as per the payment schedule above. Hence, only the plan cost management and control costs processes will be initiated for this project.

4.3.2 Plan Cost Management

Planning the cost management for the project, depended heavily on the information provided in the scope baseline, project chárter, and the schedule baseline. For the purpose of this project, the organizational process assets, were also included as inputs to the development of the cost management plan. The latter organizational process

assets derived from the DOC had a major impact on determining the cost of the project as indicated by the schedule payment above.

Meetings will be used as a technique to plan and develop the cost management plan to ensure that the project cost will be efficiently and effectively managed and controlled. This cost management plan will document how the project cost will be planned, managed, and controlled. This process will ensure the cost determined in the budget will be disbursed as the products, namely, four reports: the inception, findings, first draft of the final and the final reports are delivered to meet the quality and standard established by the CA.

The cost management attributes table sourced from the PMBOK Guide 2013 located in Chart 16 below, is the basis on which the project cost will be managed and controlled.

4.3.2.1 Cost Management Attributes

Chart 16. Cost Management Attributes (Source: PMI. 2013)

1	**Units of Measure:**
	Currency unit of measure is the Eastern Caribbean Dollar ($EC)
2	**Level of Accuracy:**
	Acceptance range for this project is ±10%. ▪ The contingency for this project will be at 5% of the total project cost ▪ The management reserve will be at 3% of the total project cost
3	**Organizational Procedures Links:**
	▪ The WBS is the tool that provides the convention for effective and efficient cost planning ▪ The WBS control accounts can be linked to the PM's accounting or project monitoring system to allow for consistency with estimates, budgets and control of costs ▪ Each control account has a unique code or number for ease of documentation, recording or referencing for each activity
4	**Control Thresholds:**
	The control threshold will be the cost performance index (CPI) = 0, 1 or >1
5	**Rules of Performance Management:**
	▪ Performance will be measured using earned value management (EVM)

	▪ Planned value (PV), earned value (EV) & actual cost (AC) are the three metrics against which cost performance will be measured ▪ Cost performance index will be used to measure cost efficiency of completed work If the CPI is > 1.0, the cost is under planned If the CPI is < 1.0, the cost is over planned If CPI = 1.0, the cost is as planned

4.3.3 Estimate Costs and Develop Budget

As mentioned in previous sections in this paper, the ICS Project is a small initiative considering its duration, cost and the proposed level of resources to be utilized. The only available financial information for this project was (a) the contracted sum for the execution of the project (*$90,000 EC*) was communicated via telephone conversation by the Dircetor (OIC) and, (b) the breakdown of the cost as can be seen in the TOR (Figure 20 above). The arrangement was such that the contracted sum would be paid in increments as per the TOR. Four payments will be made after each deliverable is successfully executed. All other anciliary costs for items such as paper, stationary, transportation for the survey staff, consultancy airfare and fees, development of a database, use of printers, and other office equipment will be absorbed by the accounting units of the two government departments, the DOC (which is the Contracting Authority) and the DOS. Since these costs will not be charged to the project, they will not form part of the estimates for this project.

The scope baseline will be the primary input document used to estimate costs. The tools and techniques used are expert judgement, analogous estimating and three-point estimating. For the purpose of this project and considering the size of this project, estimate costs and determine budget will be conducted as one process. In order to demonstrate how the costs will be estimated, the contracted sum will be used to develop the cost estimates and the budget for the project.

Chart 17, below, illustrates the estimated costs, contingency reserve and the aggregated total budget for the project. The estimated costs and expert judgement were the basis for developing the project budget. Upon approval by the CA, the budget will be used as the baseline cost for the project.

Chart 17. Project Estimates and Budget (Source: Created by the Author)

Cost Estimates						
Activity Code	**Activity**	**Brief Details**	**Quantity**	**Unit Cost (EC)**	**Total Cost (EC)**	**Justification**
1.1.2.1	Inception Report (20%)	Prepare the first report as a means of reporting to the CA about the work plan for the project	1	$ 16,587.00	$ 16,587.00	To provide the approved high level details about the initiative
1.2.5.1	Findings Report (25%)	Prepare the second report to inform the CA about the findings of the project	1	$ 20,733.75	$ 20,733.75	To highlight the approved findings in sufficient detail about the key areas to be considered under the survey
1.3.4.1	First Draft of the Findings Report (25%)	Prepare the third report to inform the CA about the findings of the project	1	$ 20,733.75	$ 20,733.75	To deliver the approved first draft report which should include a preliminary analysis of the collected data. The report should be completed in accordance with the ISIC Rev 4 standard
1.3.6.1	Final Report (30%)	Prepare the final report accordance with ISIC Rev 4	1	$ 24,880.50	$ 24,880.50	To provide the CA with the approved final report which should include all the operational factors and analysis. The report shall be completed in accordance with the ISIC Rev 4 standard
1.4.1	Contingency Reserve 5%			$ 4,500.00	$ 4,500.00	
1.4.1	Management Reserve 3%			$ 2,565.00	$ 2,565.00	
	TOTAL COST:				**$ 90,000.00**	

4.3.4 Control Costs

Control cost is the process of monitoring the status of the project to update and manage changes to the cost baseline. Considering the project funds will be disbursed only upon completion of the objectives, controlling costs will be monitored at the point when the deliverables are successfully completed and approved by the CA. At the point of

completion, the Director (OIC) will determine the timeliness of the deliverable, and whether the delivery meets the satisfaction of the stakeholders. It must be reiterated that the budget for this project only entails the costs for the successful execution of the deliverables. The deliverables which will impact costs are the inception report, the findings report, the first draft of the final report and the final report as indicated by the project charter and the scope baseline. All other costs associated with the project will not be accounted for under the budget of this project. Those other costs will be accounted for by the accounting divisions of both the DOC and the DOS as arranged.

It is the responsibility of the PM, regardless of the contractual arrangement, to ensure that all means of controlling costs is explored in an effort to keep the project within its cost baseline. Costs can be controlled by using the budget, schedule, cost baseline and earned value methods (EVM). As the project progresses as inferred by the schedule, any costs incurred should match the schedule costs according to the baseline. If there is any sign of the project moving away from its cost baseline, corrective action must be taken in an effort to mitigate the threat of further risks to the overall cost of the project. Actions, such as, ensuring there are clear cut lines of communication with those involved in managing costs, which will also mean that weekly cost review sessions will be employed to keep track of costs and cost related risks. Cost control also includes determining why a positive or particularly, a negative variance has occurred. These actions must be integrated into the other control processes such as (scope change control, schedule control and quality control). These changes must be documented as per the approved change control process and must be communicated to the relevant stakeholders. The PM would make a determination based on his expert judgement and the degree of impact as to whether the contingency reserve would be used or take some other form of corrective action. Figure 21 below will illustrate the correlation between cost, risk and impact. Risk can be both positive and negative, therefore it can fall into anyone of the categories below. However, the top right quadrant will be a major source of concern for the PM. As cost increases, the impact increases also thereby putting the project at greater risk. This is a reminder that managing cost should be second nature to a PM and should always be one step ahead in terms of being prepared for the “known unknown” but, most importantly, the “unknown unknown.” Some cost curtailing measures are

already mentioned above, however below are additional measures than can be implemented to avert the high impact and high cost from occurring:

- One of the first and most important cost mitigating measures is to ensure that cost planning is done efficiently
- Develop a time-phased schedule so that both the activities on the schedule and their associated costs can be monitored and tracked
- Use among others, an EVM forecasting technique, such as estimate at completion (EAC) that would provide early warning signals if cost goes outside of the acceptable tolerances
- Generally, the relevant swift action should be taken to keep costs at a minimum.

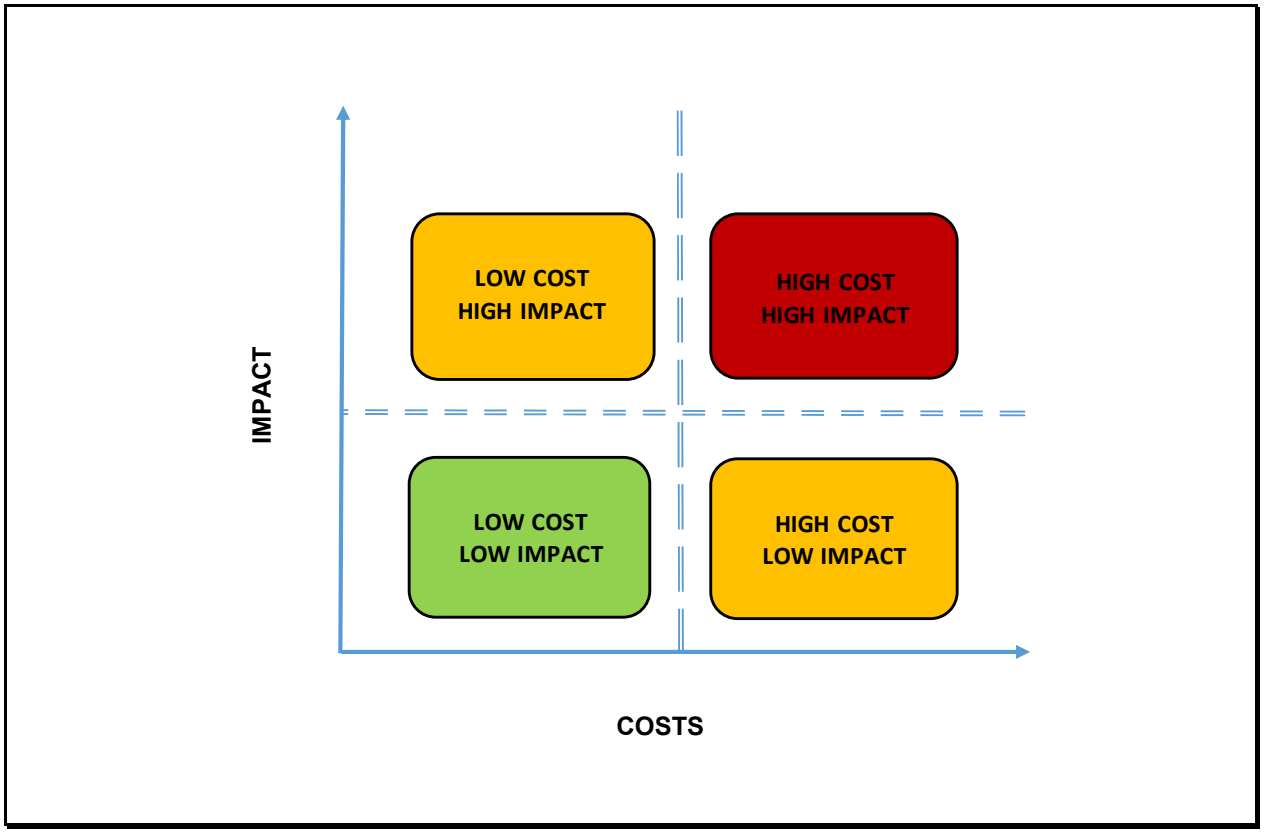


Figure 21. Cost, Risk and Impact Matrix (Source: Created by the Author)

4.4 PROJECT QUALITY MANAGEMENT

Contents of the Quality Management Plan:

Introduction

Quality Management Approach

Quality Requirements/Standard

Quality Acceptance Criteria

Quality Checklists

Quality Standards

Quality Control

4.4.1 Introduction

The quality management plan for the ICS Project will establish the activities, processes and procedures for ensuring a quality product upon conclusion of the project. The purpose of this plan is to:

- Ensure quality is planned in
- Define how quality will be managed
- Define quality assurance activities
- Define quality control activities
- Define acceptable quality standards

In light of the time, cost and quality constraints, the contracting authority did not cater for a complete quality management plan for the ICS Project. Therefore, only the plan quality management process will be utilized.

Failure to meet the quality requirements can have a negative impact on the project. Therefore, the PM will seek to inculcate a culture of quality into the project team, in an effort to recognize and practice the following quality attributes:

- **Customer satisfaction** – To ensure conformance with customer requirements to ensure the project produces what it is intended to produce
- **Prevention over inspection** – To ensure quality is planned into the project, not inspected in. The cost of conformance is far less than the cost of correcting errors

- **Continuous improvement** – The plan-do-check-act (PDCA) is a good model to follow for continuous improvement. However, this can be planned into future ICS projects
- **Management responsibility** – To achieve success on the project, all parties must do their part. However, the PM assumes responsibility quality direction of the project
- **Cost of quality (COQ)** – This is an important quality component. However, it comes at a cost which was not given consideration in this project.

In light of the above, an online template from project management documents will be used to develop the quality management plan. The inputs for the development of the plan will be the previous project documents, requirements document and the stakeholder register. The tools and techniques to be used will be meetings, benchmarking and a statistical sampling methodology. The outputs will include the quality metrics and the quality management plan. This plan will be used as a guide to ensure the project produces what it was created to produce as follows:

4.4.2 Quality Management Approach

The quality management approach for this project will ensure quality is planned for both the product and the processes. In order to achieve success, this project will meet its quality objectives by utilizing an integrated quality approach to define quality standards, measure quality and continuously improve quality.

Product quality for this project will be defined by the standard set by the contracting authority. The focus here is on using the established standard and criteria to ensure that the product is delivered according to that standard. Process quality will focus on the processes by which the project deliverables will be created. Establishing process quality standards will ensure that all the activities conform to an organizational standard which would result in the successful delivery of the product. The PM, ICS Expert and the Director (DoS) in consultation with the Director (OIC) will define and document all the organizational and project specific product and process quality standards.

The PM, ICS Expert and the Director (DoS) will work with the project team to define the metrics for the project. The metrics will be used to measure quality throughout the project lifecycle for the product and processes. They will also be used as a means to conduct

measurements and to analyze results. The product and process measurements will be used as a criterion to determine project success. This process must be reviewed by the Director (OIC). Metrics for the ICS Project will include:

- International Standard Industrial Classification (ISIC) Rev 4
- Sampling methodology
- Training
- Pilot/test
- Reviews
- Data processing
- Report presentation
- Customer satisfaction

Any member of the project team can identify and recommend the need for quality improvement. However, each recommendation will be reviewed by the project manager to determine the benefit against the cost. Additionally, the PM will determine the impact on the scope of the project. If any recommendations are accepted, the PM will update all the project documents to reflect the improvements made.

4.4.3 Quality Requirements/Standards

4.4.3.1 Product Quality

The product quality standards and requirements will be determined by the PM, the ICS Expert and the Director (DOS). The standards will primarily be based on the contracting authority's documented standards for all ICS projects. Any newly identified product-specific standards will be documented by the project team and will be incorporated into the organizational documentation if approved. The project team will also record any newly identified quality standard into the project plan and ensure that information is disseminated to all stakeholders.

The product metrics will be measured and analyzed upon completion of the first draft report to determine the quality of the product. Product compliance will be achieved, once (a) the first draft report is delivered on time, (b) it captures all the relevant investment climate data collected during the survey, (c) the data are processed and analyzed using

the approved statistical data processing software/tool and (d) conforms to the quality standard set and all the product metrics fall within acceptable quality assurance margins.

4.4.3.2 Process Quality

The process quality standards and requirements will be determined by the PM and the project team. The quality standards established will be documented by the project team in the organizational process documents and the project plan. These standards will be communicated to all project stakeholders.

The process metrics will be measured and analyzed during the pilot test survey to determine the quality of the process. Process compliance will be achieved, once the ICS conforms to the quality standard set and all the process metrics fall within acceptable quality assurance margins.

4.4.3.3 Quality Assurance

The quality assurance of this project focusses on the processes used to develop the product. In order to ensure quality, an iterative quality process will be used throughout the project life cycle. This process includes measuring process metrics, analyzing process data and continuously improving the processes. The PM and team will perform assessments at planned intervals throughout the project to ensure all processes are being correctly implemented and executed.

A key performance metric (KPM) is a measurement of an activity to determine how the activity is performing against the approved goals. The following table provides the key performance metrics for the project. The ICS Expert is responsible for the key performance metrics and to ensure that the various activities or actions are in fact completed according to the plan. The KPMs set will be measured against the planned outcomes by conducting quality audits to determine the actual performance of the activity against the planned performance.

Chart 18. Key Perfromance Metrics (Source: Compiled by the Author)

Process/Action	Quality Standards	Metric	Measurement
Survey Instrument	Benchmark against previous ICS Projects	Design	▪ **Frequency**: Once ▪ **Responsibility**: Director (DOS) ▪ **Formula**: Design criteria score (10) x Information criteria score (10) ▪ **Target**: 100% Quality Design
Survey Methodology	Industry standard	Reliability	▪ **Frequency**: Once ▪ **Responsibility**: Director (DOS) ▪ **Formula**: # of responses / # of respondents ▪ **Target**: 100% Reliability
Training	Department of Statistics (Best practice)	Number of Staff Trained	▪ **Frequency**: Once ▪ **Responsibility**: Director (DOS) ▪ **Formula**: # of staff trained / # of staff to be trained ▪ **Target**: 100% Staff Trained
Develop Database	SPSS & Excel capability	Dependability	▪ **Frequency**: Once ▪ **Responsibility**: Director (DOS) ▪ **Formula**: Reliability range score (10) x Validity range score (10) ▪ **Target**: 100% Dependability
Pilot/test	Department of Statistics (Best Practice)	Test Coverage	▪ **Frequency**: Once ▪ **Responsibility**: Survey staff ▪ **Formula**: # of respondents x # of completed instruments ▪ **Target**: 100% rate of coverage
Data Collection	Department of Statistics (Best practice)	Reliability	▪ **Frequency**: Twice ▪ **Responsibility**: Survey staff ▪ **Formula**: # of collected instruments / # of survey staff ▪ **Target**: 100% Reliability
Final Report	ISIC Rev 4 classification	ISIC Quality Standard	▪ **Frequency**: Twice ▪ **Responsibility**: PM

			▪ **Formula**: Quality required / Quality to be achieved ▪ **Target**: 100% International Quality Standard

The PM will be responsible for providing the day-to-day quality management for the project. He will also conduct weekly audits, monitor process performance metrics and to ensure all processes comply with the established standards. Any discrepancies will be reviewed by the PM and updated as required. The PM will schedule regular project, document and management reviews to determine whether process improvement initiatives would be required to further enhance the quality of the project.

Process improvement is a component of quality assurance. Therefore, quality assurance reviews, findings and assessments should result in a form of process improvement which will lead to product improvement. The ICS Expert will be responsible for ensuring that all the process improvement efforts will be documented (as in the example template below), and communicated to all stakeholders as changes are implemented.

Continuous Process Improvement Plan Template 2018-2019						
ID Code	Issue Identified	Improvement/Action Required	Person Responsible	Date Received	Planned Completion Date	Actual Completion Date

4.4.4 Quality Acceptance Criteria

Quality acceptance criteria are minimum standards or requirements that a project or product must meet before the deliverables are accepted. The acceptance criteria for this project was established from inception by the CA. The International Standard Industrial

Classification (ISIC) Rev. 4 is an international standard for economic data reporting. The product (Final Report) must be prepared according to this standard in order to be accepted by the CA. The PM, ICS Expert and the Director (DOS) are responsible for this process. This will be done twice: first, when the first draft of the final report is being prepared and second, when the final report is being prepared. This will be forwarded to the CA for subsequent review and approval.

Chart 19. Quality Acceptance Criteria Matrix (Source: Created by the Author)

Criteria:	**Methodology/Source:**	**Measurement:**	**Acceptance:**
Project Quality	The ISIC Rev. 4 Standard will be used to develop the Draft Final Report and the Final Report	**Frequency**: Twice **Responsibility**: Director (DOS) **Formula**: Desired quality/quality achieved **Target**: 100% Project Quality	▪ By the relevant stakeholders ▪ Final approval & acceptance will be detemined by the CA
Quality Controls	- The main element of quality control will be undertaken by the survey supervisors in the field to ensure all the survey quality attributes are adhered to. - This will be conducted twice. The first will be done during the pilot test and the second, during the actual survey	**Frequency**: Twice **Responsibility**: Survey Supervisors **Formula**: Desired quality controls/quality control achieved **Target**: 100% Project Quality Control	▪ By the relevant stakeholders ▪ Final approval & acceptance will be detemined by the CA
Public Awareness	Information regarding the project will be broadcasted via radio, television, press and social media in an effort to inform the general public of the need and importance of the project	**Frequency**: Over a period of 10 days **Responsibility**: Project Team **Formula**: # of broadcasts / 10 day period **Target**: 100% Public Awareness	▪ By the relevant stakeholders ▪ Final approval & acceptance will be detemined by the CA

Survey Methodology	-The survey methodology will be determined by the experts with the approval of the CA - A survey methodology will be used for the pilot test and for the actual survey	**Frequency**: Twice **Responsibility**: Director (DOS) **Formula**: Desired methodology / actual methodology **Target**: 100% Survey Methodology Achieved	▪ By the relevant stakeholders ▪ Final approval & acceptance will be detemined by the CA
Pilot Test	Conduct a successful pilot test prior to the actual survey to determine: - integrity of the survey instrument - lessons learned to better manage the survey - determine the veracity of the methodology used - determine the performance of the survey staff - determine the reliability & dependability of the database	**Frequency**: Twice **Responsibility**: Director (DOS) **Formula**: Desired quality/quality achieved **Target**: 100% Project Quality	▪ By the relevant stakeholders ▪ Final approval & acceptance will be detemined by the CA

4.4.5 Quality Checklists

A quality checklist is a simple or complex tool used to assist the project manager or team to verify that the required steps of a process have been performed. The use of checklists can help improve quality by ensuring that the required steps or procedures are completed or followed. It also allows for consistency in the manner in which a particular procedure or process is done. The use of checklists generally help to ensure that quality is planned into the project by making sure the processes required to execute the project are performed. For example, a checklist can be used to ensure all the steps to ascertain all the relevant KPIs and their attributes are factored into the project. Some of the steps involved in using a checklist are as follows:

- **Define checklist** - a description of what needs to be collected and the boundaries on which the data will be collected has to be clearly articulated.
- **Methodology** - who needs to collect the data, when, where, how and why needs to be determined
- **Design** – the design should be clear and easy to use. It should capture all the relevant process or product data
- **Collect data** – collection of data should be easy and free from ambiguity

Additionally, the use of checklists will help to facilitate the improvement of quality processes by constantly verifying what is required on the checklist against what is done. The inputs for this process are the continous improvement plans and quality merics, the techniques used are quality audits and process analysis.

4.4.6 Quality Control

The quality control of this project focuses primarily on the acceptable standards and performance of the ICS product. The quality standards for the project are in accordance with the organizational standards set by the CA and the DoS for such projects.

Quality control requires the scheduling and conducting of regular project, management and document reviews. The PM will ensure that all discrepancies and or reviews will be documented by the project team. It is imperative to the success of the project that all the established physical and performance standards are met. Once that is achieved, the project team will ensure the product achieves a high level of customer satisfaction and that future ICS projects will stay within its budgetary and resource allocations. One of the quality tools & techniques employed during this project was the use of a pilot test survey. Several benefits were noted

- The PM was able to determine the integrity of the survey instrument
- Lessons were learnt from the shortcomings of the survey
- The survey team was better prepared for the actual survey

Additionally, the PM used inspections throughout the lifecycle of the project to determine whether the project was in conformity with the approved quality standards.

4.4.7 Quality Measurements

All ICS Project products and processes must be measured and must conform to the established standards and tolerances. The ICS Expert will be responsible along with the designated team members for the logs below. They will be used by the relevant team members to conduct measurements and will be maintained for use as supporting documentation for the project's acceptance.

Quality Assurance Log							
Task Code	**Date**	**Process Measured**	**Required Value**	**Actual Measured**	**Acceptable? (Y/N)**	**Recommendation**	**Date Resolved**
Quality Control Log							
Task Code	**Date**	**Process Measured**	**Required Value**	**Actual Measured**	**Acceptable? (Y/N)**	**Recommendation**	**Date Resolved**

Quality Management Plan Acceptance Form	
Project Manager (PM)	
Signature:	Date:
Contracting Authority (Project Sponsor)	
Signature:	Date:

Figure 22. Quality Management Plan. (Source: Project management docs. 2018) Retrieved from https://www.projectmanagementdocs.com/template/project-planning/quality-management-plan/#axzz5T72nkoVJ

4.5 PROJECT RESOURCE MANAGEMENT PLAN

Contents of the Resource Management Plan:

Introduction & Management Approach

Plan Resource Management

Define the Team

Define Roles & Responsibilities

Acquire the Team

Develop Project Team

Manage Project Team

4.5.1 Introduction & Management Approach:

The key to the success of a project is its human resource. The resource management plan is a tool that will help to manage the human resources from the beginning to the end of the project. Project resource management includes the processes that organize, manage and lead the project team. The project team members will be the ones charged with the roles and responsibilities to execute and complete the day-to-day activities and deliverables of the project. The peculiar nature of this project is such that it requires the PM to manage the human resources in an efficient manner. This requires the project staff to synchronize their expertise with the benefit of the project.

According to PMI, there are four project resource management processes, as follows:

- Plan resource management
- Acquire project team
- Develop project team
- Manage project team

The 2018 ICS Project will only require the plan resource management, acquire project team and develop project team processes to meet the resource needs of the project.

4.5.2 Plan Resource Management:

The purpose for this plan is to determine and identify human resources with the necessary skill set to aid in the success of the project. The resource management plan for this project includes:

- Project team roles & responsibilities
- Project organization charts
- Staffing management plan to include:
    a. How resources will be acquired
    b. Time line for resources/skill sets
    c. Training required to develop skills
    d. How performance reviews will be conducted
    e. Recognition & reward system

4.5.3 Define the Team

The roles and responsibility matrix depicted below in Chart 20 highlights the various roles and responsibilities of the project team. This chart will be an important tool to be employed during the development of the resource plan. It will be used to clearly show the position that each individual assumes and the various responsibilities that come with each position. The objective of this chart is to ensure that all members of the project team are clear of their positions and roles to avoid ambiguity, duplication of work and also to minimize conflict.

This will not be a very large and complex project involving cross-functional assignments. Therefore, the PM will expect every member to be cognizant of his/her roles and responsibilities. The roles and responsibilities will be directly related to the product scope developed (work packages) in the scope management plan namely:

- To establish the sampling methodology/design
- Designing of the appropriate survey instrument
- Recruitment of the enumerators and other survey personnel
- Training of selected survey staff
- Conduct a pilot survey
- Establish a public awareness campaign
- Conduct the survey
- Determine the method to compile/store the data
- Analyze the data

4.5.4 Define Roles & Responsibilities

Chart 20. Project Team – Roles & Responsibilities (Source: Created by Author)

ICS PROJECT TEAM – ROLES AND RESPONSIBILITIES:					
Role:	**Positions**	**Responsibilities:**	**Reporting Relationships:**	**Competency:**	**Deliverables:**
PM – project team leader and project coordinator	1	- Project leadership - Project coordination - Reporting - Stakeholder engagement - Deploy project resources - Monitor & control scope - Review & control change requests - Update project plans & documents - Preparation of final deliverable - Celebrate milestones	- Reports to the Director (OIC)	- Knowledgeable in development studies, statistics & economics - Knowledgeable in investment policies - Proficient in project management - Posses analytical & interpretational skills - Excellent communication skills	- Initiate project phase - Review survey instrument design - Approval of project documents - Final report - Commence test pilot phase - Commence actual survey - End survey, collect results - Preliminary results, final report - Project management - Report presentation

ICS PROJECT TEAM – ROLES AND RESPONSIBILITIES:					
Role:	**Positions**	**Responsibilities:**	**Reporting Relationships:**	**Competency:**	**Deliverables:**
ICS Expert	1	- Assist the PM in project direction - Provide guidance on: - instrument design - database development - training - data collection - analysis of data - Preparation of final report - final report presentation	- Reports to the PM	- Graduate degree in development economics - Survey design & implementation - Survey project implementation - use of SPSS software	- Assist the PM in the execution of all deliverables
Administrator (Project Office)	1	- Assist the PM in all administrative functions including: - help develop project plans - synchronize all project activities - attend & record minutes of meetings - produce progress reports - facilitate stakeholder engagement - monitor schedule & project progress	- Reports to the PM	- PMP certified - previous project experience - project management administration - Microsoft office user specialist - excellent communication skills	- Assist the PM in the execution of all deliverables

ICS PROJECT TEAM – ROLES AND RESPONSIBILITIES:					
Role:	**Positions**	**Responsibilities:**	**Reporting Relationships:**	**Competency:**	**Deliverables:**
Secretary (Project Office)	1	- Organize project documents - process correspondence - organize meeting - coordination of project documents	- Reports to the PM	- PMP certified - previous project experience - secretarial duties - Microsoft office user specialist - excellent communication skills	- Assist the PM in the execution of all deliverables
Clerk (Project Office)	1	- Document filing - manage office equipment - assists the administrator & secretary in organizing project documents	- Reports to the PM	- PMP certified - Project experience - Excellent communication skills	- Assist the PM in the execution of all deliverables
Director (DOS) (Survey staff team leader)	1	- Survey staff team leader - Ensure resources are mobilized for: - selection of staff - training - database design - survey implementation - data collection - data review - data analysis	- Reports to the PM	- Graduate degree in economics & politics - Proficient in delivery of national censuses, labor force and socio-economic surveys - Adept in computing poverty & FGT statistics - SPSS expert - Proficient in managing the department of statistics	- Assist the PM in the execution of all deliverables

ICS PROJECT TEAM – ROLES AND RESPONSIBILITIES:					
Role:	**Positions**	**Responsibilities:**	**Reporting Relationships:**	**Competency:**	**Deliverables:**
Supervisor	2	- supervise/manage all survey operations	- Reports to the Director (DOS)	- Proficient in survey operations - Team leadership qualities - Supervisory experience - Excellent communication skills	- Supervise all aspects of the survey
Enumerator	5	- Conduct interviews - collect survey data	- Reports to the Director (DOS)	- Proficient in survey operations - Data collection - Conduct interviews - Excellent communication skills	- Conduct & collect survey data
Verifier/coder	2	- Code and verify survey data	- Reports to the Director (DOS)	- Proficient in survey operations - Previous experience - Excellent communication skills	- Code & verify data
Data entry supervisor/ Manager	2	- Supervise/manage all data entry operations	- Reports to the Director (DOS)	- Proficient in survey operations - Team leadership qualities - Supervisory experience - Excellent communicator	- Assist the PM in the execution of all deliverables
Data entry clerk	2	- Enter all collected survey data	- Reports to the Director (DOS)	- Proficient in survey data entry - Excellent communication skills	- Enter survey data

4.5.4.1 Project Organizational Chart

The organizational structure of the project depicted in Figure 23 below, will highlight all the players found within the ambit of the project. Some of the attributes highlighted are the scope of authority, positions held and the reporting relationship of each project member.

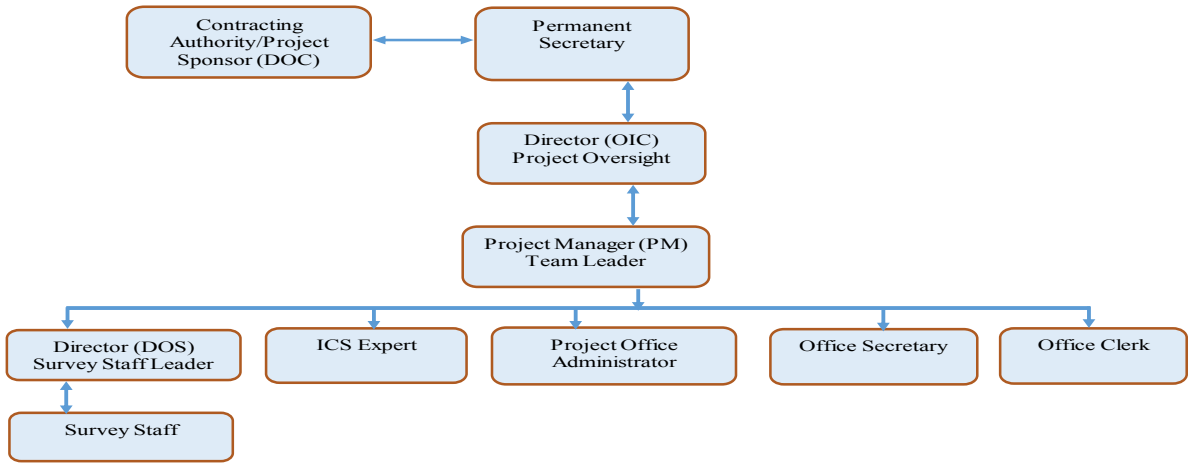


Figure 23. Project Organizational Chart (Source. Created by Author)

4.5.4.2 RACSI Chart

For this project, the PM will use a variation to the RACI matrix referred to as the RASCI indicated in Chart 21 below. This variation will be used to highlight the relationship between the roles of the project team viz-a-viz the project activities assigned and also to indicate the supporting role of the administrative staff throughout the different stages of the project. RASCI is the acronym for *R – responsible, A – accountable, S – support, C – consult and I – inform*. Although the project team will comprise mainly internal members, the RASCI chart will provide clear guidelines as it relates to the assignment of roles and responsibilities and general project support provided by the administrative staff.

Chart 21. RACSI Chart (Source: Created by Author)

ICS RASCI Chart					
Roles / **Activities**	**PM**	**Director (DOS)**	**Expert**	**Survey staff**	**Administrative staff**
Design survey instrument	A	R	C	S	I
Review existing survey instrument	A	R	C	S	S
Public campaign	C	A	C	R	S
Design/create database	C	R	A	S	I
Sample design	C	R	A	S	I
Select respondent firms	A	R	C	I	I
Administer test pilot	C	A	C	R	S
Collect results	C	A	C	R	I
Commence survey process	A	R	C	S	I
Select personnel	A	R	C		I
Training	A	R	C		S
Conduct survey	C	A	C	R	S
Collect results	C	A	C	R	I
Data entry	C	A	C	R	I
Data analysis & report	R	A	C	S	S
ICS RASCI LEGEND					
R	**Responsible**				
A	**Accountable**				
S	**Support**				
C	**Consult**				
I	**Inform**				

4.5.5 Acquire Project Team

The staffing management plan (Chart 22 below) is a subsidiary of the resource management plan. It provides a moderate description of the human resource requirements to meet the needs of the project. The staffing management plan will be updated iteratively as the project develops.

Chart 22. Staff Acquisition Plan (Source: Created by the Author)

ICS Staff Acquisition Plan
1. **Staff Acquisition:** All project team members will be retained for a period of three (3) months
▪ Only one (1) ICS Expert consultant will be outsourced to provide expert judgement and direction in an effort to successfully execute the goals and objectives of the project within schedule, cost and time. He will be accommodated at the project office ▪ All the other project team members will be sourced internally as follows: ☞ Fourteen (14) persons, including the Director (DOS), will be coopted or sourced internally from the DOS as survey experts. They will be accommodated in a designated office at the DOS. The expertise of the Director (DOS) will be required from the start of the project to assist the PM in reviewing the survey instrument and survey design ☞ Four (4) persons will be coopted or sourced internally from the DOC to assist in managing the project office and to assist the PM in the delivery of project management activities. They will also be required to provide support to the survey staff as the project is being elaborated
2. **Termination of Tenure:** The project will be due to end on March 29, 2019. Therefore, the termination of tenure for all staff will take effect on March 29, 2019
3. **Resource Calendar:** The project team members will be expected to be available for eight hours daily from Monday to Friday. Public holidays and illness are the only exceptions
4. **Training Needs:** Due to resource limitations, a one day training workshop will be required for the survey staff only. The training will be conducted by the DOC to familiarize the staff with the survey instrument and to build on the competence of the survey staff in interviewing techniques in an effort to get the required information from the respondents
5. **Recognition & Rewards:** The achievement of all milestones will be recognized by the PM and will be used as a means to celebrate with the staff as the project progresses
6. **Standard:** The project will be executed within the framework of the ISIC standard
7. **Regulations & Policies:** All project staff will be expected to adhere to the regulations & policies of their respective departments.
8. **Safety:** All staff are expected to safeguard their life first and property second
9. **Reporting:** All reporting will be in accordance with the project organizational chart (Figure 21).

ICS Staff Acquisition Plan
10. **Conflict Resolution:** The project staff are expected to use all available techniques to resolve conflict when or if it arises
11. **Team-Building:** The PM will initiate field or office/site visits where necessary. The use of technology such as skype will also be used as a means to enhance team building & team dynamics
12. **Resource Needs**: All physical resources will be supplied by the Government of Saint Lucia (GOSL) through the contracting authority (the DOC). As a result, there will be no acquisition of physical resources
13. **Public Holidays:** The following public holidays will be observed as follows - December 25 & 26, 2018 (Christmas day & Christmas holiday respectively) - January 1 & 2, 2019 (New Year's day & New Year's holiday respectively) - February 22, 2019 (Independence day)

4.5.5.1 Resource Calendars

It is anticipated that the ICS Project will last for a duration of four (4) months which is approximately sixteen (16) weeks or seventy nine (79) days. The first month of the project will be initiated and coordinated by the PM and the Director (DOS). They will begin the work of the project. The ICS Expert (outsourced position) and the rest of the project team will commence from the second month (January 2019). They are required to perform forty (40) hours per week except in the case of vacation, public holidays or illness. The resource histogram presented below in Figure 24 illustrates the allocation of the project team for the duration of the project.

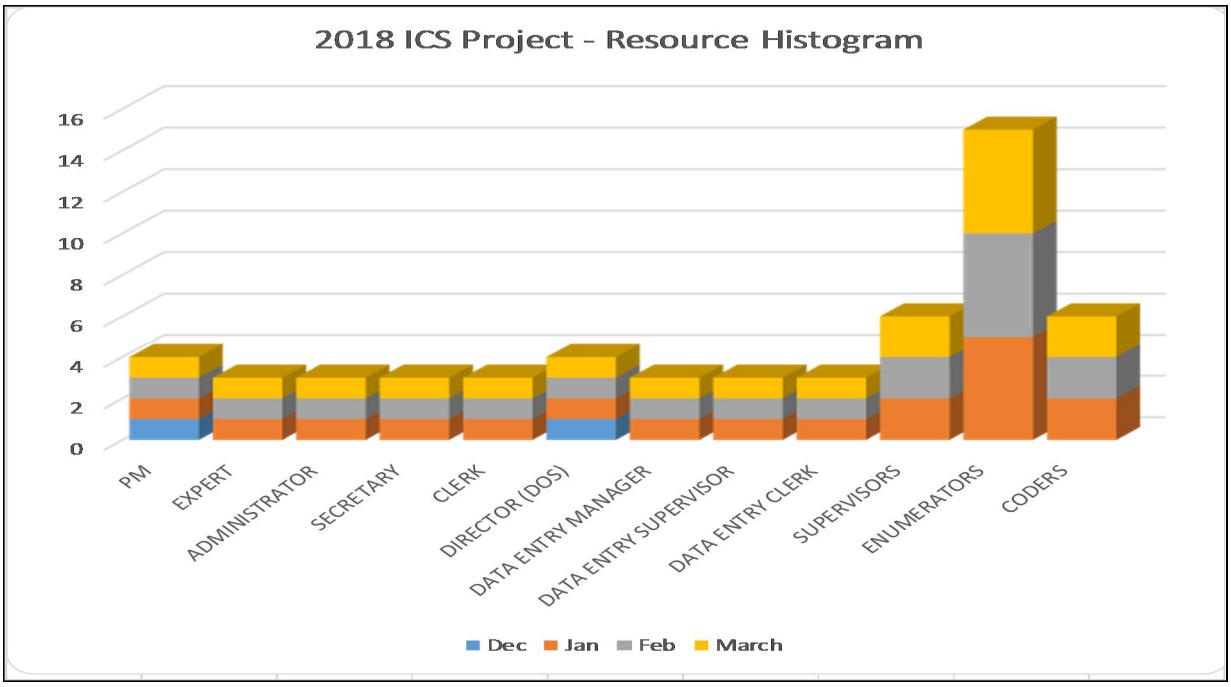


Figure 24. Resource Histogram. (Source: Compiled by the Author)

The resource histogram provides a visual overview of the resources allocated to the project. This is a very useful tool for the PM as it can provide information such as, the amount of time a resource is scheduled to work over a certain period of time. It may be designed to provide more information depending on the needs of the project.

4.5.6 Develop Project Team

It is the responsibility of the PM to ensure that the interpersonal skills, professional skills and competencies of each team member are utilized effectively and efficiently for the benefit of the project.

The inputs to develop the project team are the resource management plan which provides guidance on how the project human resource should be defined, staffed, managed, controlled and released. The resource calendar will document the availability of staff throughout the duration of the project. Factors such as vacation, public holidays and work hours will be factored into that document for future reference. The tools and techniques used are the interpersonal skills, training and team building activities.

The PM will harness the interpersonal skills of each team member. Those skills will assist the PM whereby much time will not be spent on managing the team. The team is

expected to display a high level of interpersonal skills since they are all experienced public officials with previous project experience. Team-building is also an important success factor for the project. The PM is expecting the team to engage in team-building from inception of the project (forming) to the end of the project (adjourning). The team will be collocated to make the best use of their expertise and team work. The survey staff will be accommodated at the DOS and the administrative staff will be accommodated at the project office. Developing the project team in the most efficient manner will be beneficial to the project in the following ways:

- To foster trust among fellow team members. This will enhance the team's morale, lower conflict and increase the team's level of productivity
- The team's knowledge and skills development is essential. It will avert future cost as the team would have been trained to handle various aspects of the project
- Creating a cordial atmosphere will go a long way in relieving the stress that may be associated with the project. Therefore, a cordial atmosphere will also enhance productivity on the project.

4.5.7 Manage Project Team

Managing the project team involves the processes of keeping track of team member performance, managing team changes, creating the avenue to provide feedback, and resolving conflict. It is the duty of the PM to ensure that new team members are sufficiently oriented to add value and optimize the performance of the team and the project as well.

Some of the tools & techniques used to effectively manage the team are project performance appraisals, conflict management and interpersonal skills. It is the responsibility of the PM to effectively manage the project team. Therefore, the PM must possess a combination of interpersonal, communication and leadership skills in order to effectively manage the project team. Team performance assessments and issue log records were used as inputs during this process. Additionally, observation, conversation and interpersonal skills were three of the techniques used to effectively manage the project team. Managing the project team is the responsibility of the PM and is done to optimize team member efficiency and, by extension, project performance.

4.6 PROJECT COMMUNICATIONS MANAGEMENT PLAN

Contents of the Communications Management Plan

Introduction

Plan Communications Management

Manage Communications

Control Communications

4.6.1 Introduction

Project management communications, according to PMI, includes the processes that are required to ensure timely and appropriate planning, collection, creation, distribution, storage retrieval, management, control, monitoring and the ultimate disposition of project information. The ability to effectively communicate with all the stakeholders involved in this project and in this case certain sectors of the public, is absolutely critical to the success of the project. It is said that approximately 80% of the project manager's time is spent on communicating with his/her team members, the sponsor/s and stakeholders. Therefore, it is important to emphasize the need to effectively communicate and, the importance of managing communication efficiently. Communication management will help to bridge the divide that may exist between the project and the various stakeholders. Effective communication will significantly reduce the potential negative impact on the project.

The communications management plan will document, outline and serve as a guide to the most appropriate approach to how communications for the ICS Project will be managed, coordinated and controlled. The PM will have a key role and responsibility for ensuring effective communications throughout the lifecycle of the project. The Communication management plan for the ICS Project will be adopted from the PMI methodology as indicated in the PMBOK Guide 2013. The three communication process groups namely: plan communications management, manage communications and control communications will be utilized at varying degrees throughout the project.

4.6.2 Plan Communications Management

The communication process of the ICS Project started very early in the project. One of the first documents to be created by the PM was the stakeholder register which is a list of all the stakeholders for the project. The information derived from the stakeholder register will be used as the main input in creating the communications plan for the project. If there were any changes or updates to the stakeholder register, then the updated register will be used so that all, including the new stakeholders, if any, would be adequately engaged so that their information needs are provided in the right format, at the right time, to the right audience and with the right impact.

4.6.3 Communications Methodology

The communication methodology will include all the relevant tools and techniques that will establish the manner in which communication will be managed. The methodology will include the following:

4.6.3.1 Approved List of Stakeholder

The following chart is an extract from the stakeholder register found in Chart 23 beow. This chart identifies who the stakeholders for the ICS project are, where their influence, impact, power and interest lie. It also illustrates the mode and level of engagement for each stakeholder. This list is the key to the development of the communication matrix which will be established and developed further in section 4.6.3.2.

Chart 23. Stakeholder List (Source: Extracted from the Stakeholder Register in Chart 32 below)

No.	Stakeholder	Influence: H/L	Impact: H/L	Power: H/L	Interest: H/L	Mode of Engagement:	Engagement Level:
1	Government of Saint Lucia (GOSL)	H	H	H	H	Meetings	Manage closely
2	Department of Commerce (DOC)	H	H	H	H	Meetings	Manage closely

No.	Stakeholder	Influence: H/L	Impact: H/L	Power: H/L	Interest: H/L	Mode of Engagement:	Engagement Level:
3	Department of Statistics (DOS)	H	H	H	H	Meetings, emails, telephone, etc	Manage closely
4	Office of Private Sector Relations (OPSR)	L	L	L	H	Meetings, emails, telephone, etc	Keep informed
5	Chamber of Commerce	H	H	H	H	Meetings, emails, telephone, etc	Manage closely
6	Director (DOS)	H	H	H	H	Meetings, emails, telephone, etc	Manage closely
7	Director (OIC)	H	H	H	H	Meetings, emails, telephone, etc	Manage closely
8	European Union (EU)	L	L	L	H	Emails	Keep informed
9	Respondent Companies	H	H	L	H	Meetings	Manage closely
10	Potential local Investors	L	L	L	L	Media	Monitor
11	External Investors	L	L	L	H	Media, government (DOC) website	Keep informed
12	Citizens of Saint Lucia	L	L	L	L	Media	Monitor
13	Permanent Secretary (PS - DOC)	H	H	H	H	Meetings, emails, telephone, etc	Manage closely
14	Business community	H	H	L	H	Media, meetings, workshops	Keep informed

4.6.3.2 Communications Requirements Matrix

The communications requirement matrix below will define the type and format of the information required and it will provide a brief analysis of the value of that information. This matrix will be used to disseminate information that will contribute or add value to the project and also to disseminate information when it is believed that the lack of information can harm the progress of the project.

Chart 24. Communications Requirements Matrix (Source: Compiled by the Author)

Communication Type	Objective	Method	Frequency	Audience	Owner	Deliverables
Kickstart meeting	- To discuss the high details of the project - Discuss the work plan	Face to face	Once	- PM - Director (OIC) - Director (DOS)	- Director (OIC) - PM	- Project work plan - Inception report
Planning meetings	Discuss project plans	Face to face	Weekly	- PM - Director (OIC) - Director (DOS)	PM	- Agenda - Meeting Minutes - Project plans
Project team meetings	- Discuss approach to project - Discuss project plans	- Face to face - Skype	Weekly	- PM - Project team	PM	Project plan updates
Stakeholder consultation meetings	- Appraise the stakeholders about the project - To discuss requirements	Face to face	As required	- PM - Project team	PM	- Agenda - Recording of minutes
Training workshop	- To familiarize survey team with instrument - Review interview techniques - Build confidence & competence	Face to face	Once	- Director (DOS) - PM	Director (DOS)	One day training for survey team
Personal communication	- To communicate with all relevant	- Telephone - face to	Everyday	- CA - Project	PM	Project updates

Communication Type	Objective	Method	Frequency	Audience	Owner	Deliverables
	stakeholders	Face - Email - WhatsApp		Team - Stakeholders		
Reports	- Project status reports - Schedule reports - Quality reports - Performance reports	- Email - Face to Face	As required	- CA - Director (OIC)	PM	- Project Review/updates
Presentations	- Disseminate Information - Update project documents	Meetings	Monthly	- PM - CA - Project team	PM	Project reviews
Review sessions	- Acquire update/feedback - Status updates - Progress updates	Face to face	As required	- PM - ICS Expert - Director (DOS)	- PM - ICS Expert	Project progress
Press communication	To disseminate information about the project to the public	- Radio - Television - Social Media	Once	- CA - Stakeholders - Project team	PM	Media broadcasts

4.6.3.3 Communication Channels

The movement or flow of communication throughout the project is referred to as the channels of communication. The channels of the ICS Project will be calculated using the formula n (n-1)/2 where n represents the number of project stakeholders. The number of channels for the ICS Project are 14 (14-1)/2 = 91. This can be interpreted to mean that there are 91 different means of communication flow in this project. Therefore, the PM has the responsibility to ensure that the flows of information is adequately managed. The PM will determine who will communicate with whom and who will receive what information.

4.6.3.4 Communications Technology

The everyday use of technology has impacted every facet of civilization. It has enhanced the manner in which information can be transferred, as a result, technology has

significantly reduced on the amount of time it takes to communicate. As such, the technology used on this project is very basic. This is a small project with only fourteen (14) stakeholders and ninety one (91) communication channels. Chart 25 below illustrates the type of technology used for each stakeholder as follows:

Chart 25. Communication & Technology Matrix (Source: Compiled by the Author)

Communication and Technology Matrix	
Stakeholder	**Type of Technology Used**
Government of Saint Lucia (GOSL)	Telephone & Email
Department of Commerce (DOC)	Telephone & Email
Department of Statistics (DOS)	Telephone & Email
Office of Private Sector Relations (OPSR)	Telephone
Chamber of Commerce	Telephone
Director (DOS)	Skype, Video Conferencing, Telephone & Email
Director (OIC)	Skype, Video Conferencing, Telephone & Email
European Union (EU)	Email
Respondent Companies	Email, Radio, Television, Social Media
Potential local Investors	Radio, Television, Social Media
External Investors	Radio, Television, Social Media
Citizens of Saint Lucia	Radio, Television, Social Media
Permanent Secretary (PS - DOC)	Telephone, Email
Business community	Radio, Television, Social Media

4.6.3.5 Communication Models

Communication for this project will be facilitated by using a basic communication model adopted from PMI. This model is indicated in Figure 25 below:

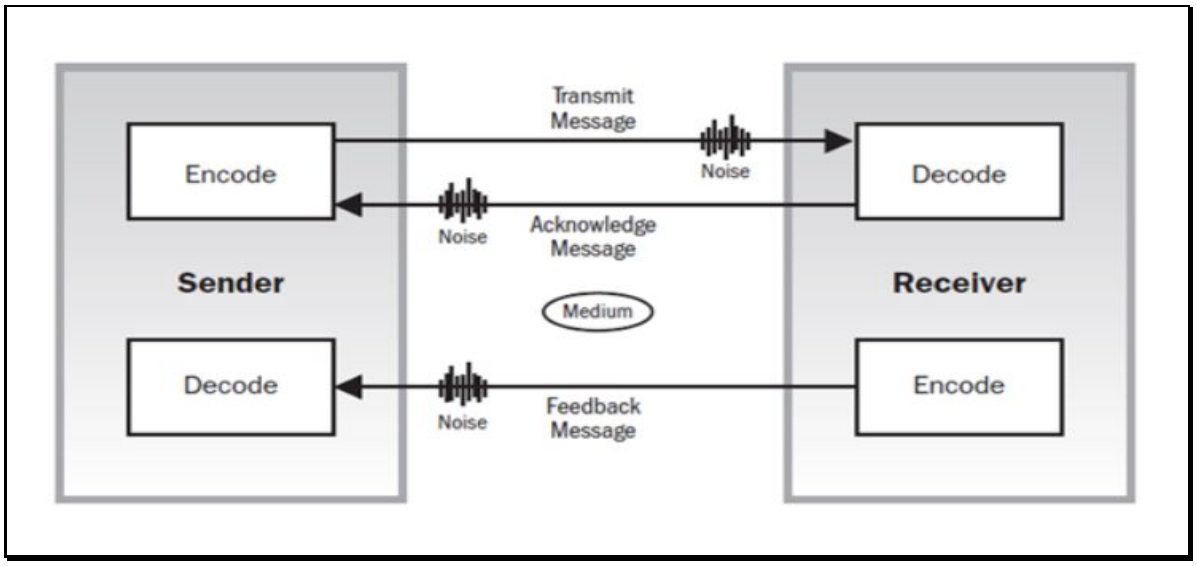


Figure 25. Basic Communication Model (Source: PMI. 2013 pg 294)

4.6.3.6 Communication Methods

The communication methods employed for this project are the interactive and push communications. The choice of communication method is essential for this project as communication is often interrupted by barriers and challenges.

Interactive communication refers to the method in which two or more persons are involved in the exchange of information. This method includes the use of meetings, phone calls and video conferencing to name a few.

Push communication refers to information distributed via letters, fax, reports, memos and emails and is usually sent to specific individuals who are in need of the information. The downside to this method is that the information will be distributed but it does not ensure that it reached the recipient or was understood.

4.6.3.7 Meetings

Meetings will be the preferred method of communication in order to discuss and dialogue with the project team and stakeholders during the plan communication management process. These meetings will mostly be conducted face to face and depending on the need and the type of information that has to be disseminated, skype will also be utilized.

4.6.4 Manage Communications

Manage communications is the process of creating, collecting, distributing, storing, retrieving and the ultimate disposition of project information in accordance with the communications management plan. Managing communications for the ICS Project will follow the communications management plan as outlined above. The PM will ensure that communication is managed efficiently by ensuring the relevant information is appropriately generated, received and understood. Managing communication effectively will result in the efficient flow of communication between stakeholders, which is critical to the success of the project.

4.6.5 Control Communications

Control communications is the process of monitoring and controling communications throughout the entire Project lifecycle to ensure the information needs of the Project stakeholders are met. An adequate information management system will be used by the PM in order to control the communications of the project. Expert judgement and meetings will also be utilzed where necessary.

Information should be shared with the relevant stakeholders or team member. Project information can be sensitive which would require a degree of confidentiality. Therefore, it is essentially important that communications will be controlled by ensuring the right message is delivered to the right audience and at the right time.

4.7 PROJECT RISK MANAGEMENT PLAN

Contents of the Risk Management Plan

Introduction

Tailoring Considerations

Plan Risk Management

Identify Risks

Perform Qualitative Risk Analysis

Perform Quantitative Risk Analysis

Plan Risk Responses

Monitor Risks

4.7.1 Introduction

PMI. (2017 pg. 309) found that, project risk management includes the processes of conducting risk management planning, identification, analysis, response planning, response implementation, and monitoring risk on a project. The objectives, PMI further postulates, are to increase the probability and/or the impact of positive risks and to decrease the probability and/or impact of negative risks, in order to optimize the chances of project success.

All projects no matter the size, complexity and importance are subject to risks because they are unique endeavors created to deliver a result within varying degrees of uncertainty. Project risks are contextualized within the project's assumptions, constraints and stakeholder expectations. This very dynamic project environment requires an approach that is proactive and consistent, in an effort to add value to the project while, at the same time, trying to balance the effects of overall project risks.

Risk will emerge throughout the lifecycle of the project, therefore, the risk management plan for the ICS Project will seek to provide the framework to ensure that all individual and overall project risks are adequately managed in an effort to give the project a high probability of success.

4.7.2 Tailoring Considerations

Each project is a unique endeavor which requires the application of its processes to be tailored to suit the project. Each project may be tailored according to its size, complexity, importance and development approach. The ICS is a small project by virtue of its size in terms of its budget, duration and scope. The tailoring considerations for the ICS project are as follows:

- The risk management plan will be tailored in accordance with its size and will be developed in its simplest form
- The plan will be developed with considerations being given to emergent risks. This will be accomplished by a project team that is empowered, given clear goals and objectives. This also requires the PM in particular, to be able to detect and review the early warning signs with the team.

The risk management plan will be developed according to the PMI standard. This approach will significantly improve the resilience of the project. Perform quantitative risk analysis and implement risk responses will not be applied to this project because there is insufficient time and a limited budget to complete the project. Additionally, there is insufficient data to develop the appropriate models.

4.7.3 Plan Risk Management

This plan will define how the risk management activities for the ICS Project will be managed. This process will be performed once. However, it may require changes and updates in light of new or emergent risks. The approved project charter is the initial document that identified all the risks associated with the project. As a result, the charter will be the main input or source of information to be used during this process. Additionally, the stakeholder register, previous project documents and organizational process assets will provide a broad perspective on the risk exposure of the project and would help in building a simple but resilient risk management plan.

The tools and techniques to be employed during this process will include:

- Expert judgement – the ICS Expert will provide considerable guidance on this issue. The Director (DOS) by virtue of his expertise in conducting numerous surveys will also provide guidance on how risks should be managed during the

lifecycle of the project. The expertise of the Director (OIC) in relation to the organizational process assets will provide guidance in that regard

- Meetings - risk is everyone's business, therefore the project team shall be present where necessary to express their observations and to provide feedback where necessary and to generally be a part of the risk management process.

The following chart below will provide an overview of the risk management plan approach and the activities that will result in the prudent management of the overall risks associated with the project:

Chart 26. Risk Management Approach (Source: Compiled by the Author)

Risk Management Approach
1. Risk Strategy: Objective: To enable the project team to identify, assess, treat, monitor and report on overall project risks. Strategies to be employed are: a. To develop a framework that is designed to manage the identified risks and to ensure that project's objectives are successfully accomplished b. To incorporate the ability to mitigate against emergent risks through a resilient team and risks processes
2. Roles & Responsibility: The PM will be responsible for the efficient management of project risks
3. Risk Budget: The project does not cater for a separate risk budget due to budgetary constraints
4. Timing: The PM will be required to review the risk management plan every week. The plan may also be reviewed in the event of an escalation of an existing risk or in the event of a new risk or opportunity
5. Risks Categories: The risks for this project are grouped into the following categories and will be documented in the RBS as follows: 1. Project Management Risks 2. Organizational Risks 3. External Risks 4. Technical Risks
6. Risk Response Strategy (Negative/Positive) Risks: The risk response strategy will be defined by using the appropriate risk response strategy for the risks encountered. The risk response strategies will include the following:

Risk Management Approach
▪ **Negative Risks Strategies**: Avoid, transfer, mitigate or accept ▪ **Positive Risks Strategies**: Exploit, enhance, share, accept
7. Risk Probability & Impact: Risk scores = product of (*impact score and the probability score*) Probability scores will be based on a scale of 1-5: 1. Very low = <10% 2. Low = 10 to <30% 3. Moderate = 30 to <50% 4. High = 50 to <70% 5. Very high = >70% Impact scores will be based on a scale of 1-5: 1. Very low = 0.05 2. Low = 0.1 3. Moderate = 0.20 4. High = 0.40 5. Very high = 0.80
5. Risk Identification: ▪ All the project risks will be outlined according to their classification in the project risk breakdown structure (RBS) ▪ Qualitative risk analysis will be used to determine the severity and priority of risks ▪ Risk responses will also be identified for each risk in the risk register
6. Reporting Format: ▪ All reports, updates and changes relating to risks are required to be formally reported in a word document to the PM ▪ Reporting will be followed by meetings, reviews and document updates by the PM ▪ The PM will provide periodic risk updates to the Director (OIC) and the relevant stakeholders where necessary
7. Risk Monitoring & Control: ▪ Generally, strict adherence to the risk management convention will serve as a means of monitoring and controlling project risks ▪ Weekly review meetings, risk register updates and risk document updates will be the conventional means of control

4.7.4 Identify Risks

The process of identifying the risks associated with this project started early in the initiation stage when the project charter was being developed. The project charter, stakeholder register and previous project documents are some of the input documents used to identify the risks for this project. The identify risks process was undertaken by the PM and the team using the above mentioned inputs. Expert judgement, documentation reviews and analysis of the projects' assumptions were the techniques used during this process.

According to section 5 of the risk management approach in Chart 26 above, the risks associated with the ICS Project were documented in Chart 27 below according to their risk classification. The risk breakdown structure (RBS) is a hierarchical representation of the potential sources of risks to the project. The RBS will be updated throughout the lifecycle of the project, as the project is being progressively elaborated and it will serve as reference for further risks analysis based on the desired category of the risk.

The output of the identify risks process is the risk register. This document will be created by the project manager and the team to document the results of risk analysis and the appropriate risk responses for each risk. The risk register will be updated as more risk information becomes available.

Chart 27. Risk Breakdown Structure (RBS) (Source: Compiled by the Author)

RBS Level 0	RBS Level 1	RBS Level 2	RBS Level 3
0. Overall Project Risks	1. Project Management Risks	1.1 Planning	1.1.1 Scope creep
			1.1.2 The PM has no control over project scope
		1.2 Changes	1.2.1 Impact of scope changes
			1.2.2 Changes/project updates not recorded

RBS Level 0	RBS Level 1	RBS Level 2	RBS Level 3
		1.3 Schedule	1.3.1 Limited time
			1.3.2 The project has out grown its scope
	2. Organizational Risks	2.1 Human resource	2.1.1 Limited skills & ability
		2.2 Data errors	2.2.1 data errors lead to poor quality
		2.3 Communications	2.3.1 Limited interview skills
	3. External Risks	3.1 Regulatory	3.1.1 Changes in the CA's regulatory framework
			3.1.2 Regulatory constrain on project scope
		3.2 Stakeholders	3.2.1 Limited participation
		3.3 Confidentiality	3.3.1 Exposure to breach of confidentiality
	4. Technical	4.1 Survey sample	4.1.1 Sample not able to meet the desired outcome
		4.2 Survey instrument	4.2.1 Instrument may not capture relevant data
		4.3 Pilot test	4.3.1 Prolong the project schedule

4.7.5 Perform Qualitative Risk Analysis

After completing the risk identification process, the PM and his team will commence the qualitative risk analysis process. This is the process of prioritizing risks for further analysis

or action. This will be done by finding the product of the probability or likelihood of occurrence of each risk and their potential impact on the project. The risk management plan and risk register are the input documents utilized by the PM during this process. The identified risks from the RBS will be documented in the risk register and prioritized based on the relative probability that each risk will occur and their corresponding impact on the project. The outcome will result in assigning each risk with a probability and impact (P*I) score. The scores will be derived from the probability and impact scales which will be defined below in Charts 28 and 29 below. The tools and techniques employed during this process are expert judgement, risk probability and impact assessments, risk categorization and team meetings. Use of the probability and impact matrix usually minimizes subjectivity of identifying and ranking risks and promotes a common understanding among team members when ranking risks.

Chart 28. Risk Probability Scale (Source: Compiled by the Author)

Rating	Metric	Description
5	Very High	>70%
4	High	50 to <70%
3	Moderate	30 to <50%
2	Low	10 to <30%
1	Very Low	<10%

Chart 29. Risk Impact Scale (Source: Adopted from PMI)

Defined Conditions: Impact Scales of a Risk on Major Project Deliverables					
Project objective	Very low 0.05	Low 0.10	Moderate 0.20	High 0.40	Very High 0.80
Time	Insignificant time increase	<5% time increase	5-10% time increase	10-20% time increase	>20% time increase
Cost	Insignificant cost increase	<10% cost increase	10-20% cost increase	20-40% cost increase	>40% cost increase

Scope	Scope decrease barely noticeable	Minor areas of scope affected	Major areas of scope affected	Scope reduction unacceptable to sponsor	Project end product is effectively useless

Chart 30. Probability and Impact (P*I) Matrix. (Source: Compiled by the Author)

Probability and Impact matrix							
		1	2	3	4	5	
	5	5	10	15	20	25	
	4	4	8	12	16	20	
Probability	3	3	6	9	12	15	
	2	2	4	6	8	10	
	1	1	2	3	4	5	
			Impact				

The above probability and impact (P*I) matrix in Chart 30 above can be interpreted as follows:

- The threats located in the area shaded red have a high chance of impacting the objectives of the project and, therefore, those risks should not be left unattended. The appropriate urgent and priority and aggressive risk response strategies should be employed to mitigate those risks
- Those threats found in the area shaded green are low risk and pose no significant threat to the project objectives. As a result, no urgent or aggressive action would be required except to keep it documented in the risk register as part of a watch list

- Those risks in the yellow zone may not pose any immediate risk to the objectives. Therefore, they can be closely monitored by the project team for action to be taken when or if the need arises

4.7.6 Perform Quantitative Risk Analysis

This process is the next step after performing the qualitative risk analysis process. Perform qualitative risk analysis is the process of numerical analyzing the effect of identified risks on the overall project objectives and is applied only after risks are prioritized during the qualitative analysis process. The risk register provides rich insight to developing the quantitative risk analysis. Interviewing and expert judgement are the techniques considered for this process.

During this process, the previously prioritized risks, for example, those risks that threaten the outcome of the project, would analyze the effect of those threats on the project. The PM would have been responsable for this process. For the purpose of this project however, the quantitative risk analysis process will not be performed because of the lack of sufficient data to develop the model.

4.7.7 Plan Risk Responses

Plan risk responses is the process of defining appropriate actions to eliminate or mitigate risks at an early stage with the intention to reduce the overall risk of the project. Taking these early steps will help to reduce the probabability and impact of risks and may increase the probability and impact of opportunities.

The PM is not the only one responsable for risks, it is the responsibility of all the participants involved in the project. The most ideal risk response strategy for any project would be to avoid risks. However, the reality is, risks vary in probability and impact. As a result, risks will require different approaches in which to mitigate or eliminate them. The PM and his delegate team members will determine, based on the risk assumption and constraints, the appropriate risk strategy that will be employed for each risk. Planning is absolutely essential to ensure all the “known unknowns” and the “unknown unknowns” are adequately articulated. The contingeny reserve as articulated in the project chárter

(Figure 17) would serve as a backup for those risks referred to as the “unknown unknowns.” These are risks that are unforeseen with no defined risk response.

During this process the PM and his team will use the risk management plan and the risk register as the input documents to plan the risk responses. The tools and techniques used were expert judgement and contingent response strategies. The various risk responses will be recorded for each risk and documented in the risk register.

4.7.8 Control Risks

Risks will be controlled by the PM and his team by conducting weekly reviews, implementing risk response plans as the project progresses, keeping track of identified risk, monitoring residual risk, identifying news risks and evaluating risk process effectiveness.

The PM will use the risk register as the main source of information in order to control risks. Various tools and techniques, for example conducting risk assessments, risk audits, meetings, variance and trend analysis will be employed to control project risks. The risk register and all the other project documents will be updated where necessary.

Chart 31. Project Risk Register (Source: Compiled by the Author)

RSB Code	Risk	Cause	Consequence	Probability	Impact	P*I	Trigger	Owner	Risk Response Strategy
1.1.1	Scope Creep	▪ Scope was ill defined ▪ Limited project information ▪ Limited input by stakeholders	▪ An ill defined scope can lead to scope creep. ▪ Scope creep can lead to cost overruns ▪ It can also impact the quality of the project	5	Very high (5)	25 Red	Delays in accomplishing project activities	Project Manager (PM)	**Avoid:** ▪ Review or change the scope to eliminate the risk ▪ Seek deeper involvement and information from the CA ▪ Communicate & engage all the stakeholders to solicit their active participation
1.3.1	The project cannot be completed within the	▪ Insufficient time to complete activities	▪ Quality will be affected	5	Very high (5)	25 Red	Project activities extending beyond their deadline dates	PM	**Mitigate:** ▪ Ensure the most skilled persons in

RSB Code	Risk	Cause	Consequence	Probability	Impact	P*I	Trigger	Owner	Risk Response Strategy
	time set by the CA	▪ Respondents delaying their responses to the survey instrument	▪ Project may run beyond its allotted time ▪ Cost will be impacted						estimating activities are assigned to undertake that process ▪ Ensure that the respondent firms are sufficiently engagaed and informed and to get their commitment during the project
2.1.1	Limited skills & ability	None of the organizations involved in the project are equiped with the internal expertise required for the	▪ A key area of the project can be delayed ▪ Quality may be affected	3	Medium (3)	9 Yellow	▪ High demand for ICS Experts makes it difficult to	Director (DOS)	**Mitigate:** ▪ Eficient recruitment to get the best candidtaes for the project

RSB Code	Risk	Cause	Consequence	Probability	Impact	P*I	Trigger	Owner	Risk Response Strategy
		investment climate survey (ICS)	▪ Project may be delayed				source one close to the implementing organization ▪ The expert was not available in time for start of project		▪ Early contractual arrangements to enhance the project success
2.2.1	Errors made by the Clerk during the input of the data into the database	▪ Ineffective data entry Clerk ▪ Insufficiently trained data entry Clerk	▪ Distortion in the data will dilute the integrity of the analysis ▪ The quality of the analysis	3	Medium (3)	9 Yellow	The data Clerk was under pressure to input the data within a certain timeframe	Director (DOS)	**Mitigate:** ▪ Review the survey instrument for errors or omissions

RSB Code	Risk	Cause	Consequence	Probability	Impact	P*I	Trigger	Owner	Risk Response Strategy
			will be compromised						▪ Provide guidance and training
2.3.1	Limited interviewing skills	Insufficient training	May result in the interviewer not being able to solicit the relevant information from the respondents	2	High (4)	8 Yellow	Limited financial resources to adequately train the interviewers	Director (DOS)	**Mitigate:** ▪ Field supervisors to provide prompt support in the field when a problem arises
3.1.1	Changes in the CA's regulatory framework	Changes in government policy	▪ The project can be discontinued ▪ Changes can be made to the scope which would further prolong the project	2	High (4)	8 Yellow	End of government's term in office	Project team designate	**Accept Actively:** No action will be taken for this risk. It will be documented and monitored by the designated team member to ensure it does not escalate into a greater threat to the project

RSB Code	Risk	Cause	Consequence	Probability	Impact	P*I	Trigger	Owner	Risk Response Strategy
3.2.1	Limited participation by stakeholders	Limited consultation & not enough air time to broadcast messages in the media	▪ Poor quality survey ▪ Poor quality analysis	1	High (4)	4 Green	The majority of the participants do not see the need for the survey	Project Team	**Accept Passively:** No action will be required for this risk except to periodically review to ensure its status does not change
4.1.1	Survey sample not able to meet the desired outcome	The wrong methodology was chosen	The survey would not meet its intended outcome	3	Moderate (3)	9 Yellow	Inadequate survey research	Director (DOS)	**Mitigate:** Ensure expert advice is solicted from all available sources to determine the correct methodology and sample size to meet the needs of the project
4.3.1	Pilot test took more time than expected, thereby prolonging the project	Unexpected delays	Increase in cost and time, thereby putting the whole project at risk	5	Very High (5)	25 Red	▪ Weather conditions ▪ Unforeseen setbacks	Director (DOS)	**Avoid:** ▪ Discuss the impact of this risk with the CA, request an extensión of the

RSB Code	Risk	Cause	Consequence	Probability	Impact	P*I	Trigger	Owner	Risk Response Strategy
	beyond its expected date								project schedule ▪ Downsize the scope of the pilot test to reduce on the impact of time

4.8 PROJECT PROCUREMENT MANAGEMENT PLAN

Contents of the Procurement Management Plan

Introduction

Plan Procurement Management

Conduct Procurements

Control Procurements

Close Procurements

4.8.1 Introduction

The PMI standard on procurement management dictates that project procurement management is the process that includes purchasing or acquiring products, services or results, particularly, if those products, services or results will be procured from outside of the project team. This process includes and will document how contracts will be managed and the change control processes required to develop and administer all procurement activities.

The ICS Project did not cater for a procurement management plan particularly in light of the unique arrangement with the two government agencies, namely, the Department of Commerce (DOC - the Contracting Authority) and Statistics that will be directly involved in the project.

Sufficient information was not forthcoming with regards to the actual contractual arrangements with regards to this project due to confidentiality constraints. However, based on the interviews with the Director (OIC) and the documents relating to the project, it can be deduced that the contract awarded to the PM was a fixed-price contract. Further to that, based on the information derived from the TOR in Appendix 4, this contract does not cater for the purchasing of equipment or office supplies. The use of office supplies such as paper and printing equipment were absorbed by the DOC and the DOS. Only the services of an investment climate survey expert (ICS Expert) was sourced outside of the project team; more details will be provided in the planning process below.

Considering the above, the PMI standard will be adopted to document and illustrate how procurement will be managed and controlled for this project as follows:

4.8.2 Plan Procurement Management

The procurement management plan will document all the procurement decisions and approaches to be used during this process. It will outline what to acquire (if any), how to acquire it, how much is required and when to acquire it. The PM will have a lead role in this process with the involvement of the project team when the need arises. The inputs for this planning process are the project management plan, the requirements document, and stakeholder register. The tools and techniques employed will be make-or-buy analysis, expert judgement and planning meetings.

For the purpose of this project, only one external expert (ICS Expert) would be required to help guide and fulfill the goals and objectives of the project. The PM in consultation with the Director (OIC) will establish the terms and conditions of the subject matter expert. The impetus to improve the world's economies are growing astronomically and one of the ways to investigate the root cause of economic stagnation is through an investment climate assessment. Having recognized his limitation in that area and the need to ensure the initiative is executed effectively, the PM through the make-or-buy analysis technique decided that it would be in the best interest of the project to outsource an expert in the field of investment climate surveys.

Chart 32 below will outline the methodology and procurement approach for the external services required as follows:

Chart 32. Procurement Definition (Source: Adopted from Project Management Docs) Retrieved from https://www.projectmanagementdocs.com/template/project-planning/procurement-management-plan/#axzz5UljBL5rT

Procurement Definition & Management Approach
1. Service:
The CA has granted approval to the PM to procure the services of an Investment climate survey (ICS) Expert. It was determined from inception and included in the project charter, scope and requirements document that in order to successfully execute the project, a subject matter consultant would be required to provide expert judgement and guidance as stipulated by the contract.

2. Justification:

An extract of section 1.3.4 of the executive summary provides the justification for the project as follows: *The project must be done in order to gather and evaluate the data from the survey to adequately analyze that data to effect policy formulation. The benefits to be derived from this project are to formulate the necessary strategies and policies to improve the lack of competitiveness in Saint Lucia's business environment and to reduce poverty in the medium to long-term.*

3. Needed by:

The services of this expert will be needed for three (3) months, from January 2019 until the project is terminated in March, 2019

4. Procurement Authorization:

The PM will have the authorization to procure the services of the expert for the project. Upon approval by the Director (OIC), the PM will perform the vendor selection, purchasing and contractual arrangements in accordance with the DOC procurement guidelines for the previous ICS projects. All the arrangements will be done by the PM and vetted and sanctioned by the Director (OIC).

5. Type of Contract:

The services to be procured will be solicited under a fixed-price contract. Previous project documents and organizational process assets can be a source of help to make all the necessary arrangements for the issuing and monitoring of responses from interested vendors.

6. Procurement Constraints:

Procurement constraints are an integral part of the procurement management plan. It is necessary to include the constraints in the RFP so that the vendors would have a fair knowledge of what those constraints are and to help in the decision-making process. The PM and the team have given consideration to the following constraints:

- Schedule – the project's schedule is very rigid, therefore, all procurement activities must be done within the established schedule
- Cost - the project's budget is not flexible. Therefore management reserve will only be used in the event of an approved change in the project scope
- Scope – the procurement activities must be in sync with the scope statement. Any procurement activities outside of the scope will not be approved
- Resources – no additional staff will be hired to perform procurement activities. They must be performed and managed by current project staff

7. Procurement Risks:

- ☞ The late arrival of the expert may delay the schedule
- ☞ The expert may not perform as expected
- ☞ The presence of a non-resident team member may affect team building
- ☞ The cultural differences may hamper communication and cohesiveness
- ☞ Team members may not want to follow the instructions of a non-resident expert team member

8. Risk Management:

Project risks will be managed by the project risk management plan. However, the risks mentioned in section 7 above will be monitored closely by the PM to ensure the expert will meet his/her objectives as agreed by the contract

9. Cost Determination:

Costs will be determined after the PM makes the request for proposal (RFP) to the vendor. The vendor will make a determination on cost depending on the expectations, duration and type of services required and in keeping with previous contractual arrangements

10. Decision/Criteria for Selection:

Criteria for selection of the expert will include the following attributes which will be used to shortlist the interested vendors:

- ☞ Adequately qualified
- ☞ Experience in similar projects ≥ 5 years
- ☞ Excellent research & analytical skills
- ☞ Microsoft office user specialist (MOUS) & Microsoft Projects
- ☞ Excellent communication skills
- ☞ Ability to work under pressure to meet deadlines in a multi-cultural setting

11. Contract Approval Process:

- The PM and the team will review all proposals received to determine the best fit according to the selection criteria set
- The PM will set the parameters for the cost, considering the unique contractual arrangement between the PM and the CA. The following are provided as examples:
  - ➢ Purchase < $x, xxx will require approval from the PM
  - ➢ Purchase > $x, xxx will require approval from the CA

12. Standardized Procurement Documentation:

- The objective of standardization would be to make the procurement process as simple as possible.
- The purpose is to allow for ease of archiving, retrieving and tracking procurement documents.
- Standardization would also help improve future project procurement efforts
- Other attributes would include:
  - ☞ Allows for easier comparison of proposals
  - ☞ More accurate pricing
  - ☞ More detailed responses
  - ☞ More effective management of contracts and vendors

13. Procurement Metrics

The following metrics are established and rated below. The metrics will be used for vendor performance during procurement activities.

Procurement Metrics Rating Scale	
1	Unacceptable
2	Acceptable
3	Exceptional

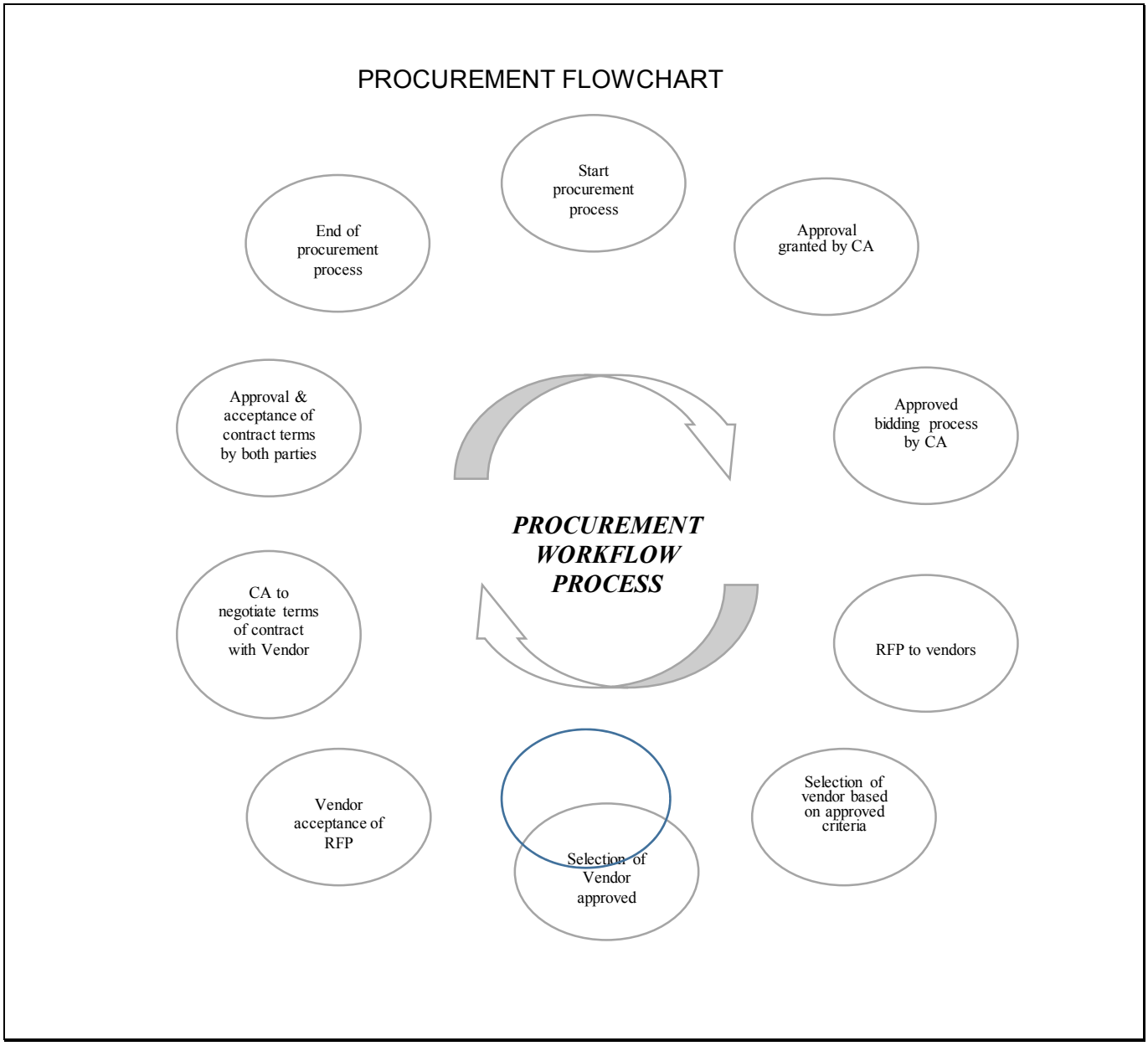
14. Vendor Management:

The vendors will be managed by the PM and the project team. They will work closely with the Director (OIC) and other officers from the DOC who were involved in rendering procurement functions for previous ICS projects. All matters relating to the vendors and their contractual arrangements, such as changes to the contract, will be dealt with during this process. The PM or his designee will meet regularly to ensure the procurement meets the desired standard and within time.

4.8.2.1 Procurement Flowchart

The flowchart in Figure 26, below, illustrates the steps involved procuring the ICS Expert for the project. This was the only procurement procedure undertaken for the project.

Figure 26. Procurement Flowchart (Source: Created by the Author)



4.8.3 Conduct Procurements

This process of obtaining seller responses, selecting seller and awarding the contract will be shared between the PM and the designated team members. The inputs used for this process are the organizational process assets and the procurement management plan. The procurement plan above provides the framework through which this process will be

performed. Bidder conferences and expert judgement are two of the techniques used during this process. The output of this process is the selecting of a seller, arriving at an agreement and awarding a contract.

This process was conducted to procure the services of the ICS Expert. The PM requested and received all the necessary approvals from the CA, and the procurement process was done in collaboration with the DOC procurement unit. Organizational process assets from previous ICS projects were used to make the necessary arrangements such as, sending the RFP to various vendors and to negotiate for the best offer based on the established acceptance criteria. The PM followed the established procurement procedures as illustrated in Figure 26 above.

4.8.4 Control Procurements

Controlling procurement is the process of managing procurement relationships, monitoring contract performance and where necessary to make changes to the procurement contract. The project procurement plan was the main input document used in this process. Several tools and techniques including procurement performance reviews, inspections and audits were employed to control procurement. This process will also include monitoring of payments to vendors to ensure that payments will commensurate with the work done. The seller performance will also be monitored during this process to ensure that the performance is in keeping with the agreement. Any procurement related changes, such as changes to the agreement, will be required to formally document those changes in writing and to be approved by the established change control document.

The procurement process was contolled collaboratively between the PM and the Procurement Unit of the DOC. As articulated in the preceding paragraph, the organizational process assets from previous ICS projects made the process easier as the DOC had already developed a relationship with previous vendors. As a result, both previous and prospective vendor information were easily available for scrutiny by the contracting parties. A contract is a legally binding document which makes both the buyer and seller legally obligated to abide by the arrangements in the contract. The financial arrangement was also conducted and negotiated collaboratively by the PM and the DOC

Procurement Unit to ensure the process was done efficiently. The performance of the Expert was kept under scrutiny by the PM to ensure the work performed on the project matched what was agreed as per the contract. Any deviation from the agreed work performance would require the necessary corrective measures by the PM.

Any changes to be made in the contract would need to be processed in writing via the agreed change control procedure before approval is granted by the CA. Generally, all the arragements regarding the ICS Expert will be done under the stewardship of the DOC and the Director (OIC) with the input of the PM.

4.8.5 Close Procurements

This is where the procurement process ends. It is the process that manages the completion of each procurement. It also includes updating records to reflect final outcome. The PM or his designee will be responsible for this process, to ensure that the contract has been fulfilled and all the procurement documents are updated and closed. After closure, all documents and records will be filed.

The procurement process for the ICS Expert was completed and closed at the end of the project as agreed in the contract. The Procurement Unit and the PM conducted the procurement closure process which entailed ensuring the above mentioned procedures such as making sure all the contractual arrangements were completed and all documentation were updated. After all the closing processes were done, the buyer was officially informed in writing of the closure of the contract.

4.9 PROJECT STAKEHOLDER MANAGEMENT PLAN

Contents of the Stakeholder Management Plan

Introduction

Identify Stakeholders

Plan Stakeholder Management

Manage Stakeholder Engagement

Control Stakeholder Engagement

4.9.1 Introduction:

The stakeholder management plan is the last of the knowledge areas established by the Project Management Institute (PMI). The PM in his wisdom, started the stakeholder register process very early - after the approval of the project charter. That was done by the PM and his team in an effort to determine who would be affected or perceived to be affected by the project.

The strategy of the stakeholder management plan is to identify the specific processes required to identify the people, groups or organizations that could impact or be impacted by the project; to analyze stakeholder expectations and their impact on the project, and to develop appropriate strategies to effectively engage stakeholders. The stakeholder management plan will also seek to foster continuous communication with stakeholders, to understand their needs and expectations, to address their issues in real time and to manage the conflicting interest that may exist. A key success factor is to ensure all stakeholders are engaged according to their level of power/interest throughout the life cycle of the project.

The constraints associated with this project (time, cost and resources) will not provide the PM the latitude to fully execute all the processes contained in the stakeholder management plan. For the purpose of the ICS Project, only the identified stakeholders and plan stakeholder management plan processes were activated. Details of the inputs, tools/techniques and outputs of the two processes mentioned will be elaborated further as follows:

4.9.2 Identify Stakeholders:

As indicated in the introduction, the stakeholder register was initially developed by the PM and his team. The project charter and previous ICS Project documents were inputs for the project team to develop the stakeholder register. The stakeholder register (See Chart 33 below) will be developed by the PM and his team during a brainstorming session.

Chart 33. Stakeholder Register (Source: Compiled by the Author)

Project Name	**: Investment Climate Survey Project (ICS)**									
Prepared by	**: Darin A. Solomon - Project Manager**									
Project Sponsor	**: Department of Commerce (DOC)**									
ID No:	**Name:**	**Requirements:**	**Expectations:**	**Classification: internal/external supporter/neutral/resistor**	**Influence: H/L**	**Impact: H/L**	**Power: H/L**	**Interest: H/L**	**Mode of Engagement:**	**Engagement Level:**
1	Government of Saint Lucia (GOSL)	To provide all the necessary internal resources to successfully execute the project	To be able to implement the recommended structural changes to improve the investment Climate in Saint Lucia	Internal/supporter	H	H	H	H	Meetings	Manage closely
2	Department of Commerce (DOC)	To provide the organizational process assets & other resources needed to help the project succeed	All stakeholders would fully support the project; The PM will be able to execute the project within its time, cost & schedule;	Internal/supporter	H	H	H	H	Meetings	Manage closely

Project Name	**: Investment Climate Survey Project (ICS)**									
Prepared by	**: Darin A. Solomon - Project Manager**									
Project Sponsor	**: Department of Commerce (DOC)**									
ID No:	**Name:**	**Requirements:**	**Expectations:**	**Classification: internal/external supporter/neutral/resistor**	**Influence: H/L**	**Impact: H/L**	**Power: H/L**	**Interest: H/L**	**Mode of Engagement:**	**Engagement Level:**
			The project would be a success							
3	Department of Statistics (DOS)	To provide statistical information, technical support & staff in order to conduct the survey	To see that the survey is conducted and completed successfully; The investment indicators would improve after implementation	Internal/supporter	H	H	H	H	Meetings, emails, telephone, etc	Manage closely
4	Office of Private Sector Relations (OPSR)	To provide technical & organizational support to the DOC	The overall success of the project that would lead to growth in investment	Internal/supporter	L	L	L	H	Meetings, emails, telephone, etc	Keep informed
5	Chamber of Commerce	To provide technical & organizational	To see a sustained increase in competitiveness &	External/supporter	H	H	H	H	Meetings, emails,	Manage closely

Project Name	: Investment Climate Survey Project (ICS)									
Prepared by	: Darin A. Solomon - Project Manager									
Project Sponsor	: Department of Commerce (DOC)									
ID No:	**Name:**	**Requirements:**	**Expectations:**	**Classification: internal/external supporter/neutral/resistor**	**Influence: H/L**	**Impact: H/L**	**Power: H/L**	**Interest: H/L**	**Mode of Engagement:**	**Engagement Level:**
		support to the DOC	growth in investment; Its members would benefit from this exercise; Continue to forge a deep partnership with the DOC & to lend support for future initiatives						telephone, etc	
6	Director (DOS)	Provide & mobilize resources to ensure deliverables are completed as planned	Total support from the DOS & the staff involved in the survey; Training would adequately prepare staff to conduct the survey;	Internal/supporter	H	H	H	H	Meetings, emails, telephone, etc	Manage closely

Project Name	: Investment Climate Survey Project (ICS)									
Prepared by	: Darin A. Solomon - Project Manager									
Project Sponsor	: Department of Commerce (DOC)									
ID No:	**Name:**	**Requirements:**	**Expectations:**	**Classification: internal/external supporter/neutral/resistor**	**Influence: H/L**	**Impact: H/L**	**Power: H/L**	**Interest: H/L**	**Mode of Engagement:**	**Engagement Level:**
			The respondents would provide factual information; Staff would conduct the survey with a high degree of quality							
7	Director (OIC)	Provide project oversight on behalf of the DOC; Constantly dialogue with the PM as the project progresses; Provide progress	Deliverables will be completed as planned; All direct stakeholders will actively participate where necessary; The PM will be able to deliver the Final Report as planned		H	H	H	H	Meetings, emails, telephone, etc	Manage closely

Project Name	: Investment Climate Survey Project (ICS)									
Prepared by	: Darin A. Solomon - Project Manager									
Project Sponsor	: Department of Commerce (DOC)									
ID No:	**Name:**	**Requirements:**	**Expectations:**	**Classification: internal/external supporter/neutral/resistor**	**Influence: H/L**	**Impact: H/L**	**Power: H/L**	**Interest: H/L**	**Mode of Engagement:**	**Engagement Level:**
		reports to the PS								
8	European Union (EU)	Provide support in relation to the International Standard Industrial Classification (ISIC) Revision 4	Execute the survey according to the required standard	External/supporter	L	L	L	H	Emails	Keep informed
9	Respondent Companies	Actively participate in the survey; Provide factual responses to the questions imposed during the survey	Sustained growth & improvement in the investment/business sector	External/supporter	H	H	L	H	Meetings	Manage closely

Project Name	**: Investment Climate Survey Project (ICS)**									
Prepared by	**: Darin A. Solomon - Project Manager**									
Project Sponsor	**: Department of Commerce (DOC)**									
ID No:	**Name:**	**Requirements:**	**Expectations:**	**Classification: internal/external supporter/neutral/resistor**	**Influence: H/L**	**Impact: H/L**	**Power: H/L**	**Interest: H/L**	**Mode of Engagement:**	**Engagement Level:**
10	Potential local Investors	Pay close attention to the outcome of the project; Take advantage of the intended benefits	An improved investment business climate	External/neutral	L	L	L	L	Media	Monitor
11	External Investors	Take advantage of potential investment	Investment can be undertaken with ease	External/neutral	L	L	L	H	Media, government (DOC) website	Keep informed
12	Citizens of Saint Lucia	To support a government that will work in the best interest of all citizens	A competitive economy with sustained growth that would gradually result in poverty reduction;	External/neutral/ unaware	L	L	L	L	Media	Monitor

Project Name	: Investment Climate Survey Project (ICS)									
Prepared by	: Darin A. Solomon - Project Manager									
Project Sponsor	: Department of Commerce (DOC)									
ID No:	**Name:**	**Requirements:**	**Expectations:**	**Classification: internal/external supporter/neutral/resistor**	**Influence: H/L**	**Impact: H/L**	**Power: H/L**	**Interest: H/L**	**Mode of Engagement:**	**Engagement Level:**
			Government to continue to embark upon initiatives that would grow the economy & improve their economic status							
13	Permanent Secretary (PS - DOC)	Commit to providing the relevant resources & support at the DOC level; Receive project status updates from the Director OIC	The DOC to provide unwavering support for the success of the project; Release of all the needed resources in a timely manner; The delivery of the Final Report - recommendations	Internal/supporter	H	H	H	H	Meetings, emails, telephone, etc	Manage closely

Project Name	: Investment Climate Survey Project (ICS)									
Prepared by	: Darin A. Solomon - Project Manager									
Project Sponsor	: Department of Commerce (DOC)									
ID No:	**Name:**	**Requirements:**	**Expectations:**	**Classification: internal/external supporter/neutral/resistor**	**Influence: H/L**	**Impact: H/L**	**Power: H/L**	**Interest: H/L**	**Mode of Engagement:**	**Engagement Level:**
			for onward implementation							
14	Business community	Capitalize on the possible opportunities	Removal of structural impediments; More avenues to conducting business; Improved business environment	External/supporter	H	H	L	H	Media, meetings, workshops	Keep informed

The power/interest grid in Figure 27 below will be developed and utilized by the project team as a graphical analytical tool to conduct further analysis of all the stakeholders, based on their level of power and interest in the project. The grid will be used to illustrate the classification model of the stakeholders for the ICS Project as it relates to the interest and power that each stakeholder wields in relation to the project.

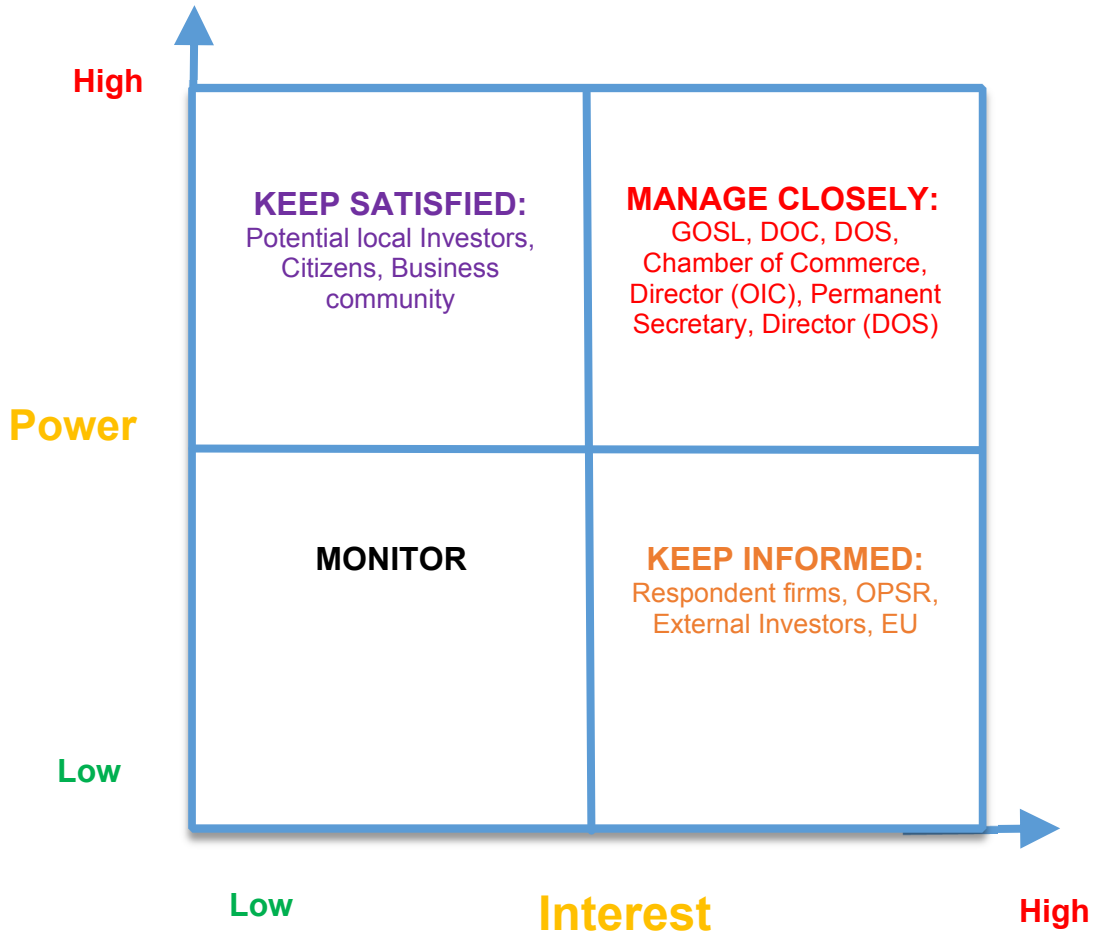


Figure 27. Power/Interest Grid (Source: Compiled by the Author)

The table in Chart 34 below, is also a useful tool for the PM and his team as it easily identifies and explains the engagement strategy for each group of stakeholders displayed in Figure 27 above. It will be used by the PM and team to document and analyze all stakeholders throughout the lifecycle of the project in an effort to determine the interest, expectations, importance and influence of each stakeholder. Additionally, it will be used

to determine the most appropriate form (or forms) of engagement that best suits each of the stakeholders.

Chart 34. Stakeholder (Power/Interest) Action Matrix. (Source: Mind Tools Ltd [2018]) Retrieved from https://www.mindtools.com/pages/article/newPPM_07.htm

Stakeholder Action Matrix	
Stakeholder grid position:	**Action:**
▪ High power, highly interested people (Manage closely) ☞ The stakeholders include the DOS, DOC, Director (OIC) & (DOS) and the Permanent Secretary	▪ These are the key stakeholders ▪ They ought to be fully engaged with full communication and consultation ▪ They are to be managed closely by the project team ▪ Every effort must be made to keep them satisfied
▪ High power, less interested people (Keep satisfied) ☞ These stakeholders include potential local investors, citizens & the business community	▪ This group of stakeholders have high power but little interest in the project ▪ They must be kept informed & satisfied ▪ This group is powerful enogh to cause problems on the project
▪ Low power, highly interested people (Keep informed) ☞ These stakeholders include respondent firms, OPSR, external investors & the EU	▪ This group has low power and high interest ▪ They can be useful supporters of the project ▪ They must be adequately informed and consulted. ▪ They must be engaged to ensure there are no outstanding issues ▪ This group can be useful in low risk areas of the project
▪ Low power, less interested people (Monitor) ☞ No stakeholder fell within this category	▪ These people have no power and are less interested in the project ▪ They are the least important group of stakeholders ▪ They are not very powerful ▪ They have no interest in the project

Chart 35 below, illustrates the power rating of each stakeholder. The information derived from this table will help to determine the classification of each stakeholder when creating the power/interest grid. The stakeholders will be rated on a scale between Low (L) and High (H) according to the legend in the chart. In addition to the classification models presented in the stakeholder register, the mode of engagement and the type of engagement is captured for each stakeholder for ease of reference.

Chart 35. Power/Interest Rating Scale. (Source. Compiled by the Author)

ID Code	Stakeholder	SCALE					
		Influence	Impact		Power	Interest	Action
1	Government of Saint Lucia (GOSL)	H	H		H	H	Manage closely
2	Department of Commerce (DOC)	H	H		H	H	Manage closely
3	Department of Statistics (DOS)	H	H		H	H	Manage closely
4	Office of Private Sector Relations (OPSR)	L	L		L	H	Keep informed
5	Chamber of Commerce	H	H		H	H	Manage closely
6	Director (DOS)	H	H		H	H	Manage closely
7	Director (OIC)	H	H		H	H	Manage closely
8	European Union (EU)	L	L		L	H	Keep informed
9	Respondent firms	H	H		L	H	Keep informed
10	Potential local Investors	L	L		L	L	Monitor
11	External Investors	L	L		L	H	Keep informed
12	Citizens of Saint Lucia	L	L		L	L	Monitor
13	Permanent Secretary (PS - DOC)	H	H		H	H	Manage closely
14	Business community	H	H		L	H	Keep informed
Legend: L = Low & H = High							

The output of the identify stakeholders is the stakeholder register. The analysis of the stakeholder register is critical to the success of the project. The benefit to be derived from the stakeholder analysis register will be to forge relationships with all stakeholders based on their influence, impact, power and interest in the project and to develop an engagement strategy relating to each stakeholder.

The PM will continue to update the stakeholder register whenever necessary as the project progresses. The updates will be communicated to the stakeholders as required by the associated engagement strategy.

4.9.3 Plan Stakeholder Management

The plan stakeholder management strategy for the 2018 ICS Project is to utilize all the information established in the stakeholder register to actively communicate and engage all the stakeholders as the project progresses. The PM recognizes the importance of forging relationships with stakeholders and to engage in meaningful dialogue throughout the lifecycle of the project in an effort to satisfy their respective needs, expectations and requirements.

Expert judgement will be used to determine the level of engagement that would be required for each stage of the project. Direct stakeholders will be actively engaged in the beginning of the project to deal with major issues. Once these issues and concerns are adequately dealt with, those direct stakeholders will change their engagement from leading to a more supportive role. Once that is accomplished, the indirect stakeholders will be engaged more actively to ensure project success.

A stakeholder engagement assessment matrix, Chart 36, below will be used to compare and analyze the current and planned engagement levels of the stakeholders. The PMI classification of stakeholder engagement level is as follows:

- ***Unaware*** *– unaware of project and potential impacts*
- ***Resistant*** *- Aware of project and potential impacts and resistant to change*
- ***Neutral*** *– Aware of project yet neither supportive nor resistant*
- ***Supportive*** *- Aware of project and potential impacts and supportive to change*
- ***Leading*** *- Aware of project and potential impacts and actively engaged in ensuring the project is a success*

Chart 36. Stakeholder Engagement Assessment Matrix (Source: [PMI. 2017])

Stakeholder	Unaware	Resistant	Neutral	Supportive	Leading
Government of Saint Lucia (GOSL)					C,D
Department of Commerce (DOC)					C,D
Department of Statistics (DOS)					C,D
Office of Private Sector Relations (OPSR)				C,D	
Chamber of Commerce				C	D
Director (DOS)					C,D
Director (OIC)					C,D
European Union (EU)				C,D	
Respondent firms			C	D	
Potential local Investors			C	D	
External Investors	C			D	
Citizens of Saint Lucia	C			D	
Permanent Secretary (PS - DOC)					C,D
Business community			C	D	
Legend: C – Current, D - Desired					

The output for the plan stakeholder management process is the stakeholder management plan. The stakeholder management plan is a subsidiary of the project management plan that identifies the specific project management strategies required to effectively engage stakeholders. Due to the constraints of time, cost and limited resources, the 2018 ICS Project will only require the identify stakeholders and plan stakeholder management processes in order to meet the needs of the project.

The stakeholders who may not have reached the desired engagement level at any point in the lifecycle of the project, will be actively engaged by the designated team member, to ensure their status changes to the desired level. This effort should be actively pursued to ensure all stakeholders are at their desired level in an effort to keep them infomed and satisfied.

4.9.4 Manage Stakeholder Engagement

This process commenced very early in the planning stages of the project by developing the stakeholder register. Stakeholder engagement is a very crucial aspect in the project environment because it involves communicating with all the stakeholders to ensure all their needs, expectations and issues are addressed. This process will enable the PM to garner as much support as necessary for the survival of the project. The stakeholder and communications management plans were used as inputs for this process. Communication methods, interpersonal skills and management skills were the essential techniques employed for this process. Issue logs, change requests, project management plans, project documents and organizational process asset updates were all vital outputs during this process.

The various inputs, tools and techniques mentioned above were employed by the PM and the team to ensure the stakeholders are engaged as per the strategies set out in the stakeholder register for each stakeholder. By so doing, the team will ensure the stakeholders will be engaged in a concise and timely manner so that they get a clear understanding of the objective of the project.

4.9.5 Control Stakeholder Engagement

This process involves monitoring all the project stakeholder relationships and adjusting the stakeholder register where necessary to capture the changes made throughout the lifecycle of the project. Some of the inputs used during this process were issue logs, the project management plan and project documents. Expert judgement, an information management system and meetings were the tools and techniques explored.

The project team will perform this function to ensure stakeholder relationships are controlled from inception to completion of the project. This is an interactive process, so that as information regarding issues and changes become available, the relevant documents will be updated. All change request must be channeled through the change control process for review and approval. All the relevant data will be stored and maintained on approved management information system. The team will ensure

that the actions taken during this process will contribute to the effective and efficient controlling of all stakeholder activities.

4.10 PROJECT INTEGRATION MANAGEMENT

Contents of the Integration Management Plan

Introduction
Develop Project Charter
Develop Project Management Plan
Direct and Manage Project Work
Monitor and Control Project Work
Perform Integrated Change Control
Close Project or Phase

4.10.1 Introduction

As the name implies, integration management is the process that involves integrating all the preceding project management plans in an effort to realize the successful completion of the project. As has been articulated (PMI, 2017), 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. According to the text, integration lends to the idea of unification, consolidation, communication and interrelationship which must be applied to the projects' processes and activities from the start to the end of the project.

The PM will play an integral role in this process to ensure that all the various activities namely, to develop the project charter, develop the project management plan, direct and manage project work, monitor and control project work, perform integrated change control and close project or phase are carried out according to the plan.

4.10.2 Develop Project Charter

Develop project charter is the first activity in the integration management process. The terms of reference TOR in Appendix 4, received from the CA and other organizational process assets will be used as the primary inputs for developing the project charter. The charter was created by the PM, see Figure 17 above, and was

approved by the CA. The approved charter was then used to initiate the project and to give the PM the authority to apply organizational resources to project activities. Expert judgement was one of the techniques used during the creation of the charter. The output for this process is the project charter which will outline, among other things, the high level requirements, assumptions and constraints, project risks, summary milestones and summary budget.

4.10.3 Develop Project Management Plan

Developing the project management plan is the second activity in the project integration management knowledge area. The project charter was the primary input document and expert judgement was the technique used to develop the project management plan which is a compendium of all the subsidiary management plans for the ten knowledge areas. Refer to Chart 3 above. This comprehensive and integrated project management plan will be the central document that will define the basis of all the project work contained in this dissertation.

4.10.4 Direct and Manage Project Work

The project management plan will be the central document used by the PM to lead and perform all the required work for the project. The implementation of all approved changes will be conducted by using the established change control mechanisms. The impact of all changes and implemented changes will also be monitored and reviewed by using the following:

- Corrective action – to realign performance of project work with the project management plan
- Preventive action – to ensure future performance of project work is aligned with the project management plan
- Defect repair – to modify a nonconforming product or product component

The tools and techniques used during this process are expert judgement, meetings and a project management information system. The outputs are the project deliverables, work performance data, project management plan/document updates and change requests.

4.10.5 Monitor and Control Project Work

The process of tracking, reviewing and reporting progress to meet performance objectives will be conducted by the PM and the project team. The inputs used during this process are the project management plan and work performance information. Expert judgement, meetings and the project management information system are the tools and techniques used to monitor and control project work. The information garnered from the various outputs to this process: work performance reports, project management plan and document updates, will be used to inform the stakeholders and the CA of the current status of the project.

4.10.6 Perform Integrated Change Control

During this process, all change requests will be reviewed by the PM and his team. This is critical to the success of the project and, therefore, an approved change control process must be strictly followed to ensure that all request for changes or modifications in any shape or form must be documented (using the approved change control document) and if approved, the changes or modifications must be updated in the project management plan.

The project management plan, work performance reports and change requests are some of the inputs used during this process. Expert judgement, meetings and change control tools are the tools and techniques used. The objective for performing integrated change control is to exercise a high degree of control over all the desired and performed changes/modifications in an integrated manner to mitigate risks and overall project risk.

4.10.7 Close Project or Phase

In order to formally complete or close the project, the PM will ensure that all the activities to be accomplished throughout the various process groups are finalized. The PM will review the project information from previously closed phases to ensure that all the work is completed and all objectives have been met. The PM will also

review the scope baseline (project scope document, the WBS and WBS Dictionary) to ensure the project was executed in accordance with its baseline.

The PM will ensure that all procurement activities have been finalized, get final acceptance of the project results, ensure that all reports and documents are closed, conduct a lessons learned session with his team and finally to prepare a handover report informing the Contracting Authority of the formal closure of the project.

5. CONCLUSIONS

This Project Management Plan was developed in keeping with the general objective of the Final Graduation Project. The subsidiary management plans covered all the Knowledge Areas in accordance with the PMI Sixth Edition (PMBOK Guide), which were directly related to the specific objectives for developing the methodology for an Investment Climate Survey. These plans are as follows:

A. The Scope Management Plan allowed for the establishment of all the work needed to successfully execute the Investment Climate Survey Project. The information needed for the development of the Scope Management Plan was extracted from the Project Charter. Key project stakeholders were consulted and engaged during this process to ensure all their concerns and expectations about the project were addressed. This process resulted in a comprehensive collection of details that was needed to ensure the project captured all the work required to successfully complete the project. The Requirements Document, Scope Statement, Work Breakdown Structure (WBS) and WBS Dictionary were developed and will be used as a guide to ensure that the project will be executed within its scope.

B. The Schedule Management Plan, the output from specific objective number two, was created to effectively and efficiently manage the scheduled activities of the project. The list of activities and their durations, the Project Gantt Chart and the Project Schedule Network Diagram were developed during this process to ensure the completion of the project within its scheduled timeframe. The CA decided on a period of four (4) months for the execution of the project from December 3, 2018 to March 29, 2019. Considering a five (5) day work week, not including holidays during the said period, the project will be scheduled for a period of seventy nine (79) days. If all the project activities on the critical path, as indicated on the network diagram, are executed as planned, the project will be completed within the established time frame.

C. The Cost Management Plan was developed on the basis of the cost estimates and the resultant project budget. The project costs were monitored using

EVM techniques to analyze the budget at completion (BAC) and to track costs against work performed. This Cost Management Plan provides the methodology to effectively manage cost performance, how to control cost using techniques, such as, forecasting, to mitigate against any overruns in the costs associated with the project and to take the relevant corrective action in the event discrepancies are discovered. This Cost Management Plan will be used to provide guidance to the efficient and effective execution of the project within its approved budget of $90,000 EC.

D. The Quality Management Plan provided the approach required by the Contracting Authority and key stakeholders to ensure quality was planned into the project's processes and product. Key performance metrics (KPIs) were used to ensure quality assurance. Quality checklists were utilized to ensure all steps in the quality processes were accomplished. Quality acceptance criteria, controls and quality measurements were established to ensure the project was executed according to the required quality standard.

E. The Human Resource Management (HRM) Plan was created to identify the human resource needs of the project. A total project management team of nineteen (19) members, inclusive of the project manager, will be required to execute this project. The HRM Plan establishes the roles, competencies and responsibilities of the team. It also displays the organizational structure of the team and their relationships. The plan also provides detail on how the team was acquired, developed and managed. A RASCI chart was used to show the work packages assigned to each project resource. Additionally, the RASCI Chart shows the supporting role of the Administrative staff of the project. This plan was used to ensure all the human resources were identified and managed efficiently to successfully complete the project.

F. The Communication Management Plan was created to ensure the efficient and effective flow of information among all project stakeholders. This plan entailed the establishment of an approved list of stakeholders who articulated the level of engagement, their influence, impact, power and interest in the project. A list of communication requirements was also developed to

determine the type of communication and the frequency of each type. This plan established what information needed to be communicated, how often it needed to be communicated, the means and the type of technology used. Most importantly, this plan will provide guidance on how the project communications should be managed and controlled in an effort to effectively communicate with all stakeholders.

G. The Risk Management Plan was created to identify and assess the probability and impact of overall risk on the project. Overall risks were identified and recorded in the risk breakdown structure (RBS). A Qualitative Risk Analysis was conducted, and all identified risks were then classified according to their probability and impact. Also, the appropriate risk strategy for each risk was determined and recorded in the risk register. The risk register provides the response determined for each identified risk that may impact the project. This plan will be the guide on how to conduct risk management activities in an effort to mitigate or eliminate the probability and or impact of risks on the project.

H. The Procurement Management Plan was created to effectively and efficiently manage the procurement services to be rendered by a source outside of the project team. This project required the services of only one outside source – the ICS Expert. The process entailed getting all the necessary approvals from the Contracting Authority and working closely with the DOC Procurement Unit to conduct, control and close the procurement process. This Procurement Management Plan involves the complete process needed to manage the external services of an ICS Expert for this project. This model process can be used for future similar projects.

I. The Stakeholder Management Plan was created to identify all the stakeholders that could impact or be impacted by the project and to foster stakeholder engagement throughout the lifecycle of the project. The preceding was accomplished by identifying and recording the key stakeholders in the established stakeholder register. The Stakeholder Register matrix contains the strategy on how to engage and manage each

stakeholder. The level of engagement was determined according to the type of influence, impact, power and interest each stakeholder levied on the project. It will determine which group of stakeholders that must be managed closely and to actively engage in an effort to clearly articulate the project's goals and objectives, and to garner their support in favor of the project.

J. Project Integration Management, the output of specific objective number ten, was used to ensure that all the processes and activities of the project were properly integrated and executed as planned.

6. RECOMMENDATIONS

The application of the acquired project management knowledge and skills resulted in developing a grasp of the theoretical and practical components of this project. These recommendations highlighted below, are directly related to the Project Management Plan for the Investment Climate Survey as follows:

1. The DOC should revamp its current organizational strategy (vision and mission statements) to incorporate the significance, importance and use of project management tools and techniques to help streamline or change business processes, to satisfy the needs of their stakeholders and to improve the departments' viability and business value.
2. Further to recommendation one and assuming the Permanent Secretary's acceptance of the need for a high level approach to project governance, a recommendation can be made to the Minister for establishing a central PMO. This central PMO would help to significantly reduce the cost of operating project management offices across the public service as it is currently obtained, and would significantly reduce the inherent cost overruns experienced on an annual basis.
3. The DOC should consider the establishment of a supportive or controlling type of Project Management Office (PMO) to standardize and deliver all projects in the organization to be better aligned to meeting all its objectives.
4. The DOC should adopt and review this Project Management Plan to identify the deficiencies in the ICS Project which resulted in delays. This plan is in concert with PMI standards and the adoption thereof would help improve the success factor of future ICS or similar projects.
5. The lessons learnt from recommendation four should be documented and recorded as an addendum to existing project management documents and the organizational process assets. This information would serve as additional support to help deliver successful ICS or similar projects in the future.

6. The project management team of the ICS Project should be adequately trained and compensated to be better positioned to lead and manage current and future projects. A central PMO may not be a subject of discussion and priority in the foreseeable future. As a result, the team can be used to provide support and to share expertise in other projects across the public service.
7. The DOC should invest in an efficient Earned Value Management System (EVMS) to assist in simplifying the analysis of project scope, schedule and cost performance. This system would assist in tracking and monitoring project progress to ensure project success.
8. The DOC should develop a standard methodology for developing Project Charters. The Project Charter would seek to formally initiate and authorize the existence of a project and would give the project manager the authority needed to apply resources. More importantly, it would render organizational support to the project.

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8. APPENDICES

Appendix 1: FGP Charter

PROJECT CHARTER	
Date	**Project Name:**
May 14, 2018	Project Management plan for the Investment Business Climate Survey
Knowledge Areas / Processes	**Applicacion Area (Sector / Activity)**
Knowledge areas: 1. Project Scope Management 2. Project Time Management 3. Project Cost Management 4. Project Quality Management 5. Project Human Resource Management 6. Project Communication Management 7. Project Risk Management	Public Sector - General assessment and survey of the investment and business climate in Saint Lucia

8. Project Procurement Management 9. 9. Project Stakeholder Engagement 10. Definition of the Plan **Process groups:** 1. Project Initiating 2. Project Planning 3. Project Monitoring & Control	
Start date	**Finish date**
May 14, 2018	November 9, 2018
Project Objectives (general and specific)	
General objective: To elaborate and develop a project management plan according to the Project Management Institute (PMI) standard by the end of 2018, to evaluate the operational dimensions of the invest business climate in Saint Lucia **Specific objectives:** Having presented the project charter for approval, the following specific objectives will provide the blueprint by which the project will be developed: ➢ To develop a scope management plan to ensure that all the work required is included to ensure the FGP is executed within its scope To develop the schedule management plan to ensure the project stays within its timeframe ➢ To create a cost management plan to ensure the project is planned within the approved budget	

- To develop a quality management plan to ensure that the relevant requirements are the schedule management plan to the project stays within its time frame
- To create a cost management plan to ensure the project is planned within the approved budget
- To develop a quality management plan to identify the quality requirements of the are met and are within the standard
- To create a human resourcemanagement plan to ensure that all the human resources are identified and managed efficiently in an effort to succesfully complete the project within its time, cost and scope constraints
- To develop a communication management plan to ensure the efficient and effective flow of information among project stakeholders
- To create a risk management plan to identify and examine the probability or impact of risks on the project
- To develop a procurement management plan to determine the external services that may be required to complete the project
- To develop a stakeholder management plan to identify all the stakeholders that can impact or be impacted by the project and to foster stakeholder engagement
- To develop the project integration management to ensure all the processes and activities of the project are integrated and executed as planned

Project purpose or justification (merit and expected results)

The investment climate survey is the brainchild of the Department of Commerce (DOC) in Saint Lucia. The macroeconomic performance suggests that the economy has been solid but not spectacular. As a result, it appears the island is locked in a path of sustained but moderate growth. This situation lends itself to the presence of systemic impedements that need to be revamped in order to improve competitiveness in the business environment in an effort to reduce poverty.

Therefore, the purpose of the project is to develop a comprehensive project management plan to evaluate the investment business climate. The objective of the project manager and his project team is to ensure that the required subsidiary plans are coordinated and integrated into the project management plan. This plan will be used to effectively and successfully manage the project from beginning to end.

Description of Product or Service to be generated by the Project – Project final deliverables

The final deliverable of the project will be recommendations drawn from the information garnered from the assessment. The deliverables are as follows:

A framework for the development of a project management plan that seeks to evaluate the Investment Business Climate in all its operational dimensions. This plan will include all the subsidiary project management plans, namely: thescope, time, cost, quality, human resource, communication, risk, procurement, stakeholder and definition of the Plan.

Assumptions

1. Scope - It is assumed that the project will be managed within its established scope
2. Time – it is assumed that the will be executed and managed within schedule for a timely and successful completion
3. Cost – it is assumed that the assigned cost will be utilized by the relevant human resources in preparation for the project report
4. Stakeholders – it is assumed that the stakeholders will participate and provide feedback in a timely manner
5. Project Manager – it is assumed that the project manager and his team will be available for the duration of the project
6. Government – it is assumed that the government will consider the recommendations derived from the project report
7. Competitiveness – it is assumed that the revamping of structural impediments will significantly improve competitiveness in the business community
8. Poverty Reduction - It is assumed that the implementation of the recommendations will reduce the level of poverty in the short to medium term
9. Project Approval - It is assumed that the project will be accepted and approved for implementation by management

10. Project management maturity – it is assumed that the project would increase the organizational project management maturity level of the MOC

Constraints

1. Scope – inability of stakeholders to meet their obligations may result in scope creep
2. Time – limited time may result in not being able to complete the project within schedule
3. Cost – scope and time constraints may affect the cost and final outcome of the project
4. Work and personal commitments may affect the quality and outcome of the project

Preliminary risks

1. Planning - inadequate planning of the scope of the project will impact its schedule
2. Regulations – a change in the implementing organization's regulations can affect the quality of the project
3. Resources – technical knowledge and ability of staff can affect the quality of the project
4. Requirements – current regulations can constrain the scope of requirements
5. Cost – any change in the scope or schedule will impact the cost

Budget

The preliminary cost estimate of the project with all its components and deliverables is $90,000 Eastern Caribbean Dollars (ECD). Further details as to how this budget will be managed and controlled will be provided in the cost management.

Milestones and dates

Milestone	Start date	End date
1. Graduation Seminar	May 14, 2018	November 9, 2018
1.1 FGP Deliverables	May 14, 2018	June 15, 2018
1.1.1 Charter	May 14, 2018	June 8, 2018
1.1.2 WBS	May 14, 2018	May 18, 2018
1.1.3 Chapter I – Introduction	May 21, 2018	May 18, 2018
1.1.4 Chapter II – Theoretical Framework	May 28, 2018	May 25, 2018
1.1.5 Chapter III – Methodological Framework	June 4, 2018	June 1, 2018

1.1.6 Annexes	May 21, 2018	June 8, 2018
1.1.6.1 Bibliography	June 4, 2018	June 8, 2018
1.1.6.2 Schedule	May 21, 2018	June 8, 2018
1.2 Graduation Seminar Approval	June 11, 2018	June 15, 2018
2. Tutoring Process	June 18, 2018	September 14, 2018
2.1 Tutor	June 18, 2018	June 20, 2018
2.1.1 Tutor Assignment	June 18, 2018	June 18, 2018
2.1.2 Communication	June 19, 2018	June 20, 2018
2.2 Adjustments of Previous Chapters	June 21, 2018	June 27, 2018
2.3 Chapter IV. Developm (Results)	June 28, 2018	August 31, 2018
2.4 Chapter V. Conclusions	September 3, 2018	September 7, 2018
2.5 Chapter VI. Recommendations	September 10, 2018	September 14, 2018
3. Reading by Reviewers	September 17, 2018	October 5, 2018
3.1 Reviewers Assignment Request	September 17, 2018	September 21, 2018
3.1.1 Assignment of two Reviewers	September 17, 2018	September 18, 2018
3.1.2 Communication	September 19, 2018	September 20, 2018
3.1.3 FGP Submission to Reviewers	September 21, 2018	September 21, 2018
3.2 Reviewers Work	September 24, 2018	October 5, 2018
3.2.1 Reviewer 1	October 24, 2018	October 5, 2018
3.2.1.1 FGP Reading	September 24, 2018	October 4, 2018
3.2.1.2 Reader 1 Report	October 5, 2018	October 5, 2018
3.2.2 Reviewer 2	September 24, 2018	October 5, 2018
3.2.2.1 FGP Reading	September 24, 2018	October 4, 2018
3.2.2.2 Reader 2 Report	October 5, 2018	October 5, 2018
4. Adjustments	October 8, 2018	November 2, 2018
4.1 Report for Reviewers	October 8, 2018	October 18, 2018
4.2 FGP Update	October 19, 2018	October 19, 2018
4.3 Second Review by Reviewers	October 22, 2018	November 2, 2018
5. Presentation to Board of Examiners	November 5, 2018	November 9, 2018

5.1 Final Review by Board	November 5, 2018	November 6, 2018
5.2 FGP Grade Report	November 7, 2018	November 9, 2018

Relevant historical information

The Ministry of Commerce is the government agency formally referred to as the Department of Commerce, International Trade, Investment, Enterprise Development and Consumer Affairs mainly responsible for policy formulation and action as it relates to trade, investment and commerce in Saint Lucia.

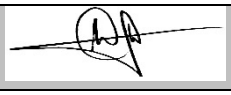
The mission of the DOC is to actively promote and facilitate, in collaboration with the Private Sector, the establishment of a dynamic investment and trading environment, which anticipates changes in global circumstances whilst stragnthening and enhancing the productive capacities and competitiveness of Industry and Commerce, encouraging good business practices and promoting consumer interest in Saint Lucia.

This project is not the first of its kind. The DOC has initiated several other similar projects.

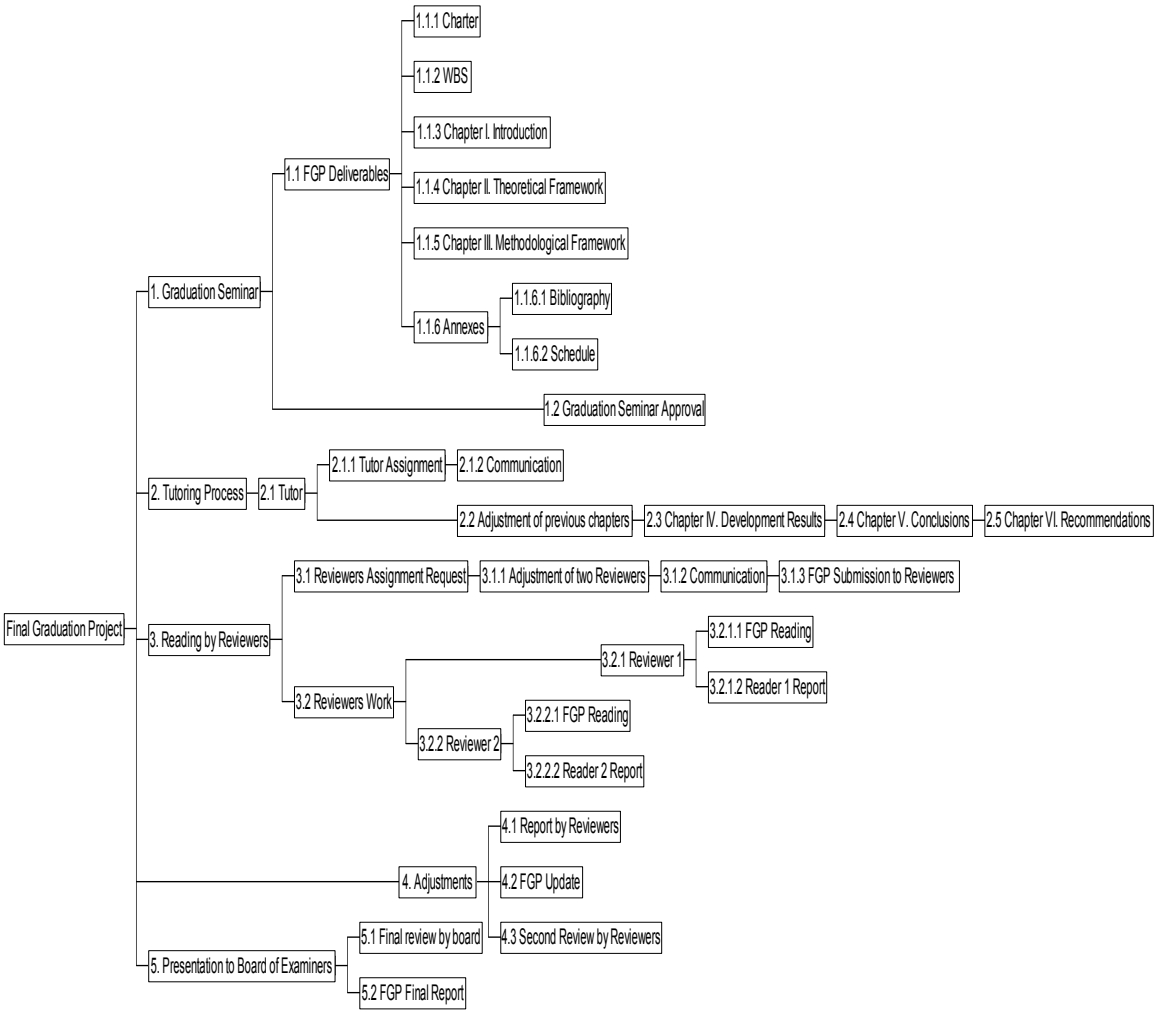
Stakeholders

Direct stakeholders:

1. Department of Commerce (DOC) – Project Sponsor
2. Director (Office of Investment Coordination)
3. Permanent Secretary (DOC)
4. Office of Private Sector Relations (OPSR)
5. Private Sector Companies (PSC)
6. European Union
7. Department of Statistics (DOS)
8. Director (DOS)
9. Chamber of Commerce

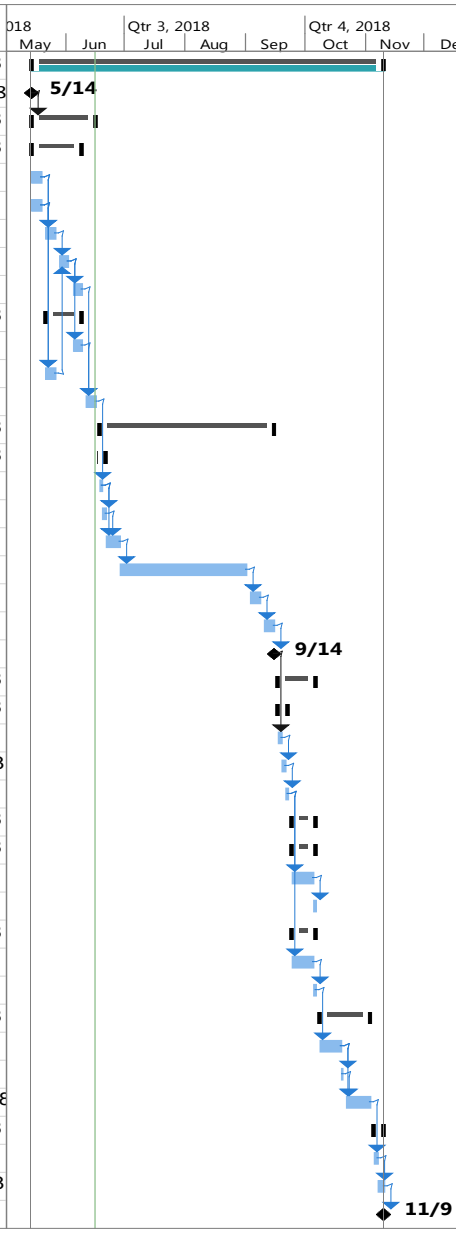
Indirect stakeholders: 1. Project Manager 2. Project Team	
Project Manager: Darin A. Solomon	**Signature:** Darin A. Solomon
Authorized by:	**Signature:** 

Appendix 2: FGP WBS



Appendix 3. FGP Schedule

ID	Task Mode	Task Name	Duration	Start
1		**Final Graduation Project**	**130 days**	**Mon 5/14/18**
2		FGP Start	0 days	Mon 5/14/18
3		**1. Graduation Seminar**	**25 days**	**Mon 5/14/18**
4		**1.1 FGP Deliverables**	**20 days**	**Mon 5/14/18**
5		1.1.1 Charter	5 days	Mon 5/14/18
6		1.1.2 WBS	5 days	Mon 5/14/18
7		1.1.3 Chapter I. Introduction	5 days	Mon 5/21/18
8		1.1.4 Chapter II. Theoretical Framework	5 days	Mon 5/28/18
9		1.1.5 Chapter III. Methodological Framework	5 days	Mon 6/4/18
10		**1.1.6 Annexes**	**15 days**	**Mon 5/21/18**
11		1.1.6.1 Bibliography	5 days	Mon 6/4/18
12		1.1.6.2 Schedule	5 days	Mon 5/21/18
13		1.2 Graduation Seminar Approval	5 days	Mon 6/11/18
14		**2. Tutoring Process**	**65 days**	**Mon 6/18/18**
15		**2.1 Tutor**	**3 days**	**Mon 6/18/18**
16		2.1.1 Tutor Assignment	1 day	Mon 6/18/18
17		2.1.2 Communication	2 days	Tue 6/19/18
18		2.2 Adjustment of Previous Chapters	5 days	Thu 6/21/18
19		2.3 Chapter IV. Development Results	47 days	Thu 6/28/18
20		2.4 Chapter V. Conclusions	5 days	Mon 9/3/18
21		2.5 Chapter VI. Recommendations	5 days	Mon 9/10/18
22		Tutor Approval	0 days	Fri 9/14/18
23		**3. Reading by Reviews**	**15 days**	**Mon 9/17/18**
24		**3.1 Reviewers Assignment Request**	**5 days**	**Mon 9/17/18**
25		3.1.1 Adjustment of two Reviewers	2 days	Mon 9/17/18
26		3.1.2 Communication	2 days	Wed 9/19/18
27		3.1.3 FGP Submission to Reviewers	1 day	Fri 9/21/18
28		**3.2 Reviewers Work**	**10 days**	**Mon 9/24/18**
29		**3.2.1 Reviewer 1**	**10 days**	**Mon 9/24/18**
30		3.2.1.1 FGP Reading	9 days	Mon 9/24/18
31		3.2.1.2 Reader 1 Report	1 day	Fri 10/5/18
32		**3.2.2 Reviewer 2**	**10 days**	**Mon 9/24/18**
33		3.2.2.1 FGP Reading	9 days	Mon 9/24/18
34		3.2.2.2 Reader 2 Report	1 day	Fri 10/5/18
35		**4. Adjustments**	**20 days**	**Mon 10/8/18**
36		4.1 Report by Reviewers	9 days	Mon 10/8/18
37		4.2 FGP Upgrade	1 day	Fri 10/19/18
38		4.3 Second Review by Reviewers	10 days	Mon 10/22/18
39		**5. Presentation to Board of Examiners**	**5 days**	**Mon 11/5/18**
40		5.1 Final Review by Board	2 days	Mon 11/5/18
41		5.2 FGP Final Report	3 days	Wed 11/7/18
42		FGP End	0 days	Fri 11/9/18



Appendix 4: Terms of Reference - Investment Climate Survey

TERMS OF REFERENCE - INVESTMENT/BUSINESS CLIMATE SURVEY

TERMS OF REFERENCE

PROJECT TITLE:	2018 Investment Business Climate Assessment Survey
BRIEF DESCRIPTION:	The MOC is requesting proposals for the 2018 Investment/Business Climate with experience and expertise in conducting analyzing and reporting on such scientific research. The 2018 Investment/Business Climate Assessment Survey is expected to provide scientific findings that will assist public, private and statutory organizations in crafting polices and reforms to improve the investment environment in Saint Lucia.
CONTRACTING AUTHORITY:	Ministry of Commerce, International Trade, Investment, Enterprise Development and Consumer Affairs
STARTING DATE:	December 3, 2018
END DATE:	March 29, 2019
FINANCED BY:	Government of Saint Lucia

1. BACKGROUND

Investment, both domestic and foreign direct investments are important elements of a country's growth and development. Given the global economic and financial crisis of 2008/2009 and other exogenous shocks, the level of net investment flows in Saint Lucia has significantly reduced. In an effort to reverse this trend, Saint Lucia is aggressively pursuing a series of strategies and policies to attract scarce investment flows. Already, there are some signs that the new approaches being used are beginning to bear fruit.

While there are exogenous factors which affect investment flows, it is incumbent on countries to conduct periodic assessments of the factors which have the potential to negatively affect the investment environment. Research has concluded that a stable, transparent and predictable business environment is one of the main conduits that drives investment and ultimately economic growth and development. Moreover, research and lived experience of investors have revealed that investors want to be assured that the business facilitation process is unambiguous and seamless.

It is against this background that in 2009, an Investment Climate Assessment Survey (ICAS) which looks at inter alia, the regulatory, institutional, policy and administrative environment for doing business was first conducted in Saint Lucia based on a questionnaire issued by the European Union. The recommended best practice is that this survey should be conducted every three years. However, in 2013 an ICAS was conducted, but never released.

Given the global race to attract investment flows, this Investment Climate Assessment Survey is being undertaken as a scientific input into the development of investment/business environment reforms. These reforms are aimed at making Saint Lucia the best that it can be in attracting, encouraging and facilitating investments from both the foreign and domestic sectors.

2. OBJECTIVE

The main objective of this assignment is to conduct a comprehensive review of the Regulatory, Institutional, Policy and Administrative environment for doing business in Saint Lucia based on the framework recommended by the European Union.

3. PURPOSE

The specific purpose of this contract is to evaluate the investment/business climate in Saint Lucia utilizing international best practices with a view of developing evidenced based policies and strategies to enhance the investment/business climate in Saint Lucia over the next three (3) years

4. KEY ACTIVITIES TO BE UNDERTAKEN BY THE CONSULTANT

The consultant is expected to deliver the following results:

1. Undertake a comprehensive review of the investment/business environment in Saint Lucia based on the approved European Union Framework issued by the Department of Commerce;

2. Conduct research based on the methodology and sample size approved by the Department of Statistics;

3. Prepare an analytical and evidenced based investment/business climate assessment report based on the approved template.

5. ASSUMPTIONS & RISKS

The underlying assumptions are that:

- the required information is readily available to the consultant;
- the consultant is competent;
- the consultant is available for the duration of the project.

The risk is that the above-mentioned assumptions are not fulfilled and as a consequence the anticipated results and objectives of the project are not realized.

6. SCOPE OF WORKS

In order to realize the objectives and results, the Consultant will specifically be required to undertake the following tasks:

- Review the 2009 Investment Climate Assessment Survey Report and the 2013 Draft Report to get an understanding of the analytical and graphical contents of the report as well as the critical areas of focus;
- Produce three (3) Draft Reports for review and comments by the Department of Commerce as outlined in Section 10;
- Host a stakeholder workshop to validate the findings that will involve high-level civil servants, representatives of statutory agencies, the private sector and civil society;
- Produce a Final Report based on the approved format, highlighting recommendations and comments from the stakeholder workshop.

7. PROJECT MANAGEMENT

The Office of Investment Coordination will be responsible for the management and coordination of this project. The Director, Office of Investment Coordination will retain overall responsibility for the project and will report the performance of the project to the Permanent Secretary. The day-to-day supervision of the activities of the project is the responsibility of the Director.

8. REQUIREMENTS

The Consultant should have the following:

a. Qualifications & Skills

1. Graduate degree in business, economics, statistics, fiscal policy or related field;

2. Understanding the issues related to the role investment plays in the economy, particularly in a developing country context;

3. Knowledge of investment policies and investment climate in the Caribbean, as well as, best practice economies;

4. Proficient in the use of statistical software such as SPSS and Eviews;

5. Excellent analytical and interpretation skills;

6. Excellent oral and written communications skills with fluency in written

and spoken English.

b. **General Professional Experience**

1. Ten (10) years' experience in conducting surveys and administering structured interviews;

2. Minimum ten (10) years' experience working with development issues;

3. Functional knowledge and experience with data collection;

4. Experience working with national policy-makers and investment promotion agencies within the CARICOM Region would be an asset.

Only one key expert will be required for this contract. The Consultant however, shall ensure that additional experts, if required, are adequately supported and equipped. In particular, the Consultant shall ensure that there is sufficient administrative, secretarial and general support for each additional expert to enable the Consultant to concentrate on his/her primary responsibilities.

9. **OFFICE ACCOMMODATION**

No office accommodation at the Department of Commerce, International Trade, Investment, Enterprise Development and Consumer Affairs will be provided.

10. **REPORTING REQUIREMENTS**

The Consultant will submit the following deliverables:

- Report 1: **An Inception Report** detailing an initial assessment of the assignment and proposed work plan for undertaking the consultancy within 5 working days of signing the contract;

- Report 2: A Findings Report highlighting the findings of the key areas under survey to be delivered by February 20, 2018;

- Report 3: A First Draft of the Final Report based on the approved European Union methodology to be delivered by March 15, 2018;

- Hold a Stakeholder Consultation on March 20, 2017. The Department of Commerce will be responsible for the logistics and financial arrangements for the consultation. The Department will not pay any additional support staff for the Consultant for this activity.

- Report 4: A Final Report based on the approved European Union methodology. This report should be delivered by March 30, 2018.

11. MEETINGS & CONSULTATIONS

The Consultant will be required to work closely with the Department of Commerce, International Trade, Investment, Enterprise Development and Consumer Affairs and the Department of Statistics. A kick-off meeting will be held with the Consultant prior to commencement of the Contract to ensure that the Consultant understands the approved research methodology and sample.

12. **SUBMISSION, APPROVAL & TERMINATION OF REPORTS**

The deliverables referred to above must be submitted to the Director, Office of Investment Coordination. All deliverables must be submitted in English. The Permanent Secretary of the Department of Commerce, International Trade,

Investment, Enterprise Development and Consumer Affairs is responsible for approving the deliverables. The Department of Commerce will provide feedback to the Consultant within five (5) business days of receipt of the final deliverable.

The Contract shall be terminated in accordance with the terms and conditions outlined in the Contractual arrangements with the Consultant and the Department of Commerce, International Trade, Investment, Enterprise Development and Consumer Affairs.

All work must be completed to the satisfaction of the Department of Commerce, International Trade, Investment, Enterprise Development and Consumer Affairs.

13. **PAYMENT SCHEDULE**

The total cost of the consultancy will not exceed the contract sum submitted by the Consultant. The Consultant will be paid in the following manner, after submission of the required deliverables in original and accompanied by original invoices to the Department of Commerce:

- First payment - a maximum of 20% of the contract value, after submission and approval of an Inception Report, Report 1;

- Second payment - 25% of the contract value after submission and approval of Report 2, the Findings Report;

- Third payment - 25% of the contract value after submission and approval of Report 3, First Draft of the Final Report;

- Final payment - 30% of the contact value after submission and approval of Report 4, The Final Report.

14. MONITORING AND EVALUATION

Performance on the project will be measured by timely submission of the deliverables outlined in clause 10 and as outlined in the work plan submitted in the Inception Report. Feedback on each submitted deliverable is not a requirement for the continuation of the project. The Contracting Authority will provide feedback to the Consultant within five (5) working days of receipt of the final deliverable.

15. SUBMISSION OF EXPRESSIONS OF INTEREST

Expressions of interest and supporting documents should be sent to the address below no later than Friday December 15, 2017 by 4:30 PM.

Appendix 5: List of Operational Dimensions (Extract from survey Instrument)

Section:	Name:	Description:
Section 3	**Investment climate constraints**	**General obstacles**
	▪ Telecommunications	
	▪ Transportation	
	▪ Access to land	
	▪ Tax rates	
	▪ Tax administration	
	▪ Customs & trade regulations	
	▪ Labor regulations	
	▪ Skills & education of available workers	
	▪ Business licensing & operating permits	
	▪ Access to financing	
	▪ Cost of financing	
	▪ Economic & regulatory policy uncertainty	
	▪ Macroeconomic instability	
	▪ Corruption	
	▪ Crime, theft & disorder	
	▪ Anti-competitive or informal practices	
	▪ Legal system/conflict resolution	
	▪ Tax refunds & time taken to respond	
	▪ Cost of bandwidth	

Section 4	**Infrastructure & services**	**Utilities & communication technology**
	▪ Power outages/surges from the public grid	
	▪ Insufficient water supply	
	▪ Unavailable mainline telephone service	
	▪ Transport failure	
	▪ Public postal service	
	▪ Internet connectivity	
	▪ Speed of internet	
	▪ Cost to expand bandwidth	
Section 5	**Business-Government Relations**	**Quality of public services, consistency of policy**
	▪ Ownership Regulations	
	▪ Skilled Labor Shortage	
	▪ Foreign Currency Regulations	
	▪ Inadequate Supply of Infrastructure	
	▪ Inadequate Access to Credit	
	▪ High Collateral Requirements	
	▪ Insufficient Demand for my Products	
	▪ Crime and Theft	
	▪ Regulations for starting a New Business, New Operation	

	▪ Tax Regulations and/or High Taxes	
	▪ Obtaining Land and Buildings	
	▪ Lack of Business Support Services	
	▪ Utility Prices	
	▪ Import Regime	
	▪ High Interest Rates	
	▪ Competition from Imports	
	▪ Corruption (eg. kickbacks)	
	▪ Bureaucratic Burden	
	▪ Traffic Congestion in Castries	
Section 6	Crime	Extent & losses due to crime
Section 7	Capacity building (labor)	Worker skills training, skill availability, employment, education levels of workers
Section 8	Finance	Sources of finance, terms of finance, financial services

Appendix 6: Deliverable Acceptance Form

Deliverable Acceptance Form

Date: …

Project Sponsor: …

Project Manager: …

Deliverable Information:

Project Phase	
Deliverable Name	
Author	
Acceptance Criteria	

Attachments:

Deliverable Approval:

Comments:

Project Sponsor Signature: _____ Date: _____

Appendix 7: Revision Dictum

P.O. Box 3602
La Clery
Castries
Saint Lucia
West Indies

November 15, 2018.

Academic Advisor
Master's Degree in Project Management (MPM)
Universidad Para La Cooperacion Internacional (UCI)

Dear Sir/Madam,

Re: Philological Review of Final Graduation Project submitted by Darin A. Solomon in partial fulfillment of the requirements for the Master's in Project Management (MPM) Degree

I hereby confirm that Darin A. Solomon has made all the corrections to the Final Graduation Project document, as I have advised. In my opinion, the document now meets the linguistic and literary standards of writing expected of a student reading for a degree at the Master's level.

Sincerely,

Claudia J. Fevrier (Ph.D.)

Appendix 8: Linguistic Credentials

THE UNIVERSITY OF THE WEST INDIES

Claudia Jean Fevrier

having completed the Course of Study approved by the University and having satisfied the Examiners has this day been admitted by the Senate to the Degree of

BACHELOR OF ARTS

with
Second Class Honours (Lower Division)

CERTIFIED TRUE COPY
25/10/2019
Head of Centre
UWI Open Campus, St. Lucia

1 July 1996
DATE

VICE-CHANCELLOR

UNIVERSITY REGISTRAR

The Document is not valid unless it bears the University's seal

THE UNIVERSITY OF THE WEST INDIES

Claudia Fevrier

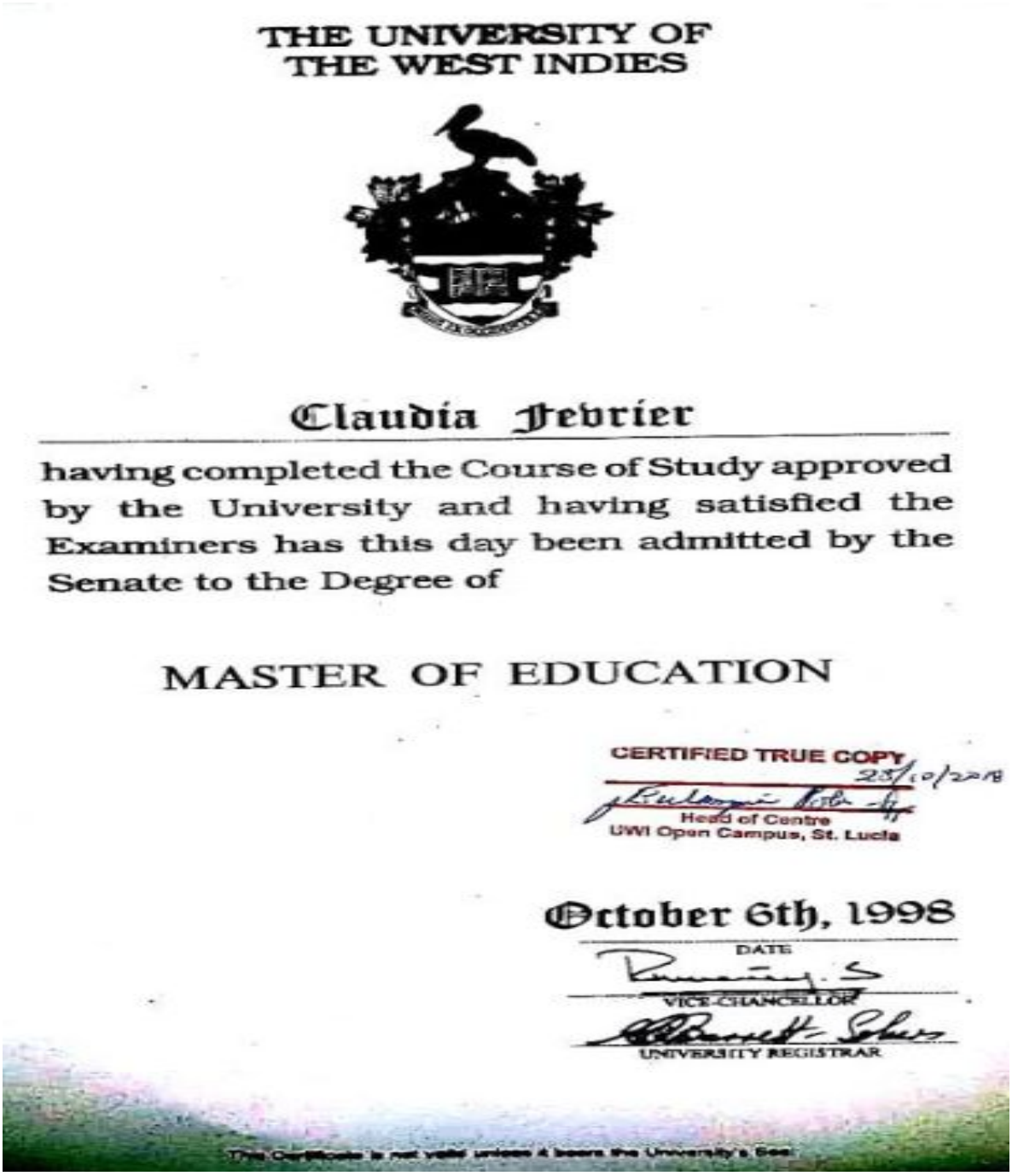
having completed the Course of Study approved by the University and having satisfied the Examiners has this day been admitted by the Senate to the Degree of

MASTER OF PHILOSOPHY
IN EDUCATION

CERTIFIED TRUE COPY
25/10/2018
Head of Centre
UWI Open Campus, St. Lucia

October 5th, 2004
DATE

VICE-CHANCELLOR



THE UNIVERSITY OF
THE WEST INDIES

Claudia Fevrier

having completed the Course of Study approved by the University and having satisfied the Examiners has this day been admitted by the Senate to the Degree of

MASTER OF EDUCATION

CERTIFIED TRUE COPY
23/10/2018
Head of Centre
UWI Open Campus, St. Lucia

October 6th, 1998
DATE

VICE-CHANCELLOR

UNIVERSITY REGISTRAR

This Certificate is not valid unless it bears the University's Seal

UNIVERSITY OF ALBERTA

Certifies by this document to all whom it may concern that

CLAUDIA JEAN FEVRIER

having completed all the statutory requirements
has been granted the degree of

CERTIFIED TRUE COPY
25/10/2018
Head of Centre
UWI Open Campus, St. Lucia

DOCTOR OF PHILOSOPHY

in Elementary Education

and awarded all the rights and privileges pertaining to this degree.

Given at this university on the fifth day of June, two thousand and eight
in the one hundred and first year of the University of Alberta.

CHANCELLOR

PRESIDENT

Brian Heidecker
CHAIR OF THE BOARD

REGISTRAR