UNIVERSIDAD PARA LA COOPERACION INTERNACIONAL
(UCI)

# PROJECT MANAGEMENT PLAN FOR THE IMPLEMENTATION OF ELECTRONIC INVOICING FOR THE BELIZE TAX SERVICE

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## DEDICATION

This dissertation is dedicated to my circle of family and friends, whose unwavering encouragement and support have been a source of strength throughout my academic journey.

To my partner, Olivia Cab, for her patience, understanding, and for selflessly taking on most of the responsibilities for our daughter, born during my studies.

To my son, Cristian, whose inspiration has motivated me to strive for excellence, and to my daughter, Gabriellee, for whom I sacrificed many nights during her early months.

To my parents, who instilled in me the values of hard work and a lifelong passion for learning, encouraging me to pursue educational goals they were never privileged to achieve.

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**ABSTRACT**

This project addresses the need to modernize the Belize Tax Service Department (from now on, BTSD) by implementing an electronic invoicing system to overcome inefficiencies and challenges associated with traditional paper-based and unstructured electronic invoicing. The context of the project was driven by the growing complexity of managing and monitoring tax compliance, particularly in the collection of General Sales Tax (GST), where current practices led to increased administrative burdens, under-reporting, and tax evasion.

The task associated with this project was to develop a comprehensive project management plan that would guide the successful implementation of the e-invoicing system at the BTSD. The methodology involved thoroughly investigating best practices from countries that have successfully implemented similar systems, analysing the technical, operational, and strategic requirements for BTSD, and consulting with industry experts. The project management plan was designed following the standards of the Project Management Institute (PMI) to ensure that all aspects of the implementation, including project charter, scope, stakeholders, procurement, communication, risk, schedule, cost, resource, and quality, were effectively addressed.

The project resulted in a detailed roadmap for BTSD to transition to an efficient, transparent, and standardized electronic invoicing system to enhance tax compliance, reduce the GST gap, improve revenue collection, and position Belize as a leader in modern tax administration within the Caribbean region.

**INDEX OF CONTENTS**

## INDEX OF FIGURES

## INDEX OF CHARTS

## ABBREVIATIONS AND ACRONYMS

- B2B - Business to Business
- B2C - Business to Consumer
- BTSD - Belize Tax Service Department
- CIAT - Inter-American Center of Tax Administrations
- DG - Director General
- DDG - Deputy Director General
- DGST - Department of General Sales Tax
- E-Invoicing - Electronic Invoicing
- ERP - Enterprise Resource Planning
- FGP - Final Graduation Project
- GOB - Government of Belize
- GST - General Sales Tax
- IBTD - Income and Business Tax Department
- IDB - Inter-American Development Bank
- IMF - International Monetary Fund
- IRISBelize - Integrated Revenue Information System
- ITAS - Integrated Tax Administration System
- MIS - Management Information System
- OECD - Organisation for Economic Co-operation and Development
- PMI - Project Management Institute
- RACI – Responsible Accountable Consulted Informed
- RMS - Revenue Management System
- SDG - Sustainable Development Goals
- SWOT – Strengths Weaknesses Opportunities Threats
- WBS – Work Breakdown Structure
- API – Application Programming Interface
- EOI – Expression of Interest

## EXECUTIVE SUMMARY

The Belize Tax Service Department (BTSD) is one of the largest revenue earners for the Government of Belize, accounting for over 65% of revenue collection. Therefore, to further enhance and streamline its process, the BTSD undertook the modernization of its tax administration processes as part of its broader mission to improve Belizeans' social and economic well-being. Recognizing the inefficiencies and challenges associated with traditional paper-based invoicing, under-reporting, and tax evasion. BTSD initially explored an invoice control system in 2021 that would require taxpayers to register and authorize their tax documents through the department. While this approach had potential benefits, it also imposed significant burdens on taxpayers, including frequent visits to BTSD offices and the need to retain physical invoices for extended periods. These challenges highlighted the need for a more advanced and efficient solution. In late 2023, BTSD shifted its focus to electronic invoicing (e-invoicing), a solution successfully implemented in several Latin American countries and gaining rapid adoption globally. The shift to e-invoicing was expected to significantly reduce paper consumption, streamline tax processes, and improve the overall efficiency of tax administration in Belize whilst aligning with global best practices.

The problem addressed by this project was the significant challenges faced in managing and monitoring tax compliance, particularly in the collection of GST. The reliance on traditional invoicing reporting, whether paper-based or unstructured electronic formats, or using purchase and sales templates led to inefficiencies, increased administrative burdens, and more significant opportunities for tax evasion. The absence of a structured electronic invoicing (e-invoicing) system prevented BTSD from fully capitalizing on the benefits of digital transformation, such as enhanced data accuracy, faster processing times, and greater transparency in tax reporting. With standardized and automated e-invoicing, BTSD could streamline its operations, effectively manage and monitor tax compliance, and optimize revenue collection. The need for an e-invoicing system was critical to overcoming these challenges, modernizing BTSD’s tax administration processes, increasing revenue collection, and better serving the taxpayers of Belize.
The project was justified by the need to modernize BTSD’s tax administration processes to enhance operational efficiency, reduce administrative burdens on businesses, and increase revenue collection. Implementing e-invoicing would not only align BTSD with international best practices but also contribute to the broader goals of sustainable development by promoting economic growth.

The project's general objective was to develop a comprehensive project management plan to implement an electronic invoicing system at BTSD successfully. The specific objectives included developing a Project Charter that outlined the project’s purpose and objectives, developing a Project Scope Management Plan that defined and documented the project scope, developing a Project Schedule Management Plan that detailed the project’s timeline, including milestones and deadlines, developing a Project Cost Management Plan that defined the budget allocation required, developing a Project Quality Management Plan that

established quality standards and procedures, developing a Project Resource Management Plan that identified and allocated necessary resources, developing a Project Communication Management Plan that defined communication methods, developing a Project Risk Management Plan that identified potential risks and mitigation strategies, developing a Project Procurement Management Plan that defined procurement processes, developing a Project Stakeholder Management Plan that identified and engaged stakeholders, and evaluating the impact of the electronic invoicing system on efficiency, compliance, revenue collection, and tax evasion through key performance indicators.

The methodology followed in this project included a comprehensive literature review, document analysis, and consultations with industry experts to gather relevant information and best practices for implementing e-invoicing systems. The project management plan was developed using the Project Management Institute's (PMI) standards, which guided the planning and incorporation of the 10 knowledge areas. The research also involved using both qualitative and quantitative methods to assess the potential impact of the e-invoicing system on BTSD's operations and to identify the key success factors for the project. The plan was designed to ensure that the implementation process was aligned with BTSD's strategic goals, supported by a robust governance framework, and capable of delivering the intended benefits of efficiency, compliance, and revenue growth. The final project management plan provided BTSD with a detailed roadmap for successfully implementing the e-invoicing system, ensuring that the department could achieve its modernization goals while contributing to the sustainable development of Belize.

# 1 INTRODUCTION

Invoicing, a critical component of business operations, has traditionally relied on paper-based systems where businesses manually issue bills, receipts, and other financial documents. Though effective for centuries, these paper-based systems have become increasingly inefficient in today's digital age. The evolution of technology has introduced electronic invoicing (e-invoicing), which has revolutionized the invoicing process by generating, transmitting, receiving, and processing invoices in an electronic format, eliminating the need for physical paper and manual data entry. The implementation of e-invoicing is seen as a significant disruption in traditional invoicing practices, as it replaces cumbersome and error-prone paper invoices with streamlined electronic counterparts.

In today's rapidly evolving digital landscape, tax administrations worldwide increasingly turn to technology to enhance operational efficiency, improve compliance, and optimize revenue collection. The traditional paper-based invoicing systems, once the backbone of tax reporting and compliance, are outdated, prone to errors, and inefficient. From the taxpayers' standpoint, these systems hinder the improvement of efficiency and customer service quality, creating significant barriers to fully integrating into the electronic commerce environment and maintaining the competitiveness required in today's market. For tax departments, these outdated systems limit their ability to enhance operational efficiency, enforce compliance, and maximize revenue collection.

E-invoicing is not only a game-changer for buyers and sellers but also for tax administrations seeking to modernize their operations. It has become the main driver for

electronic invoicing adoption. By transitioning to e-invoicing, tax administrations can streamline processes, reduce human errors, and improve data accuracy, leading to better compliance and increased revenue collection. This Final Graduation Project (FGP) focuses on developing a comprehensive project management plan for implementing an electronic invoicing system at the Belize Tax Service Department (BTSD). Through this project, BTSD aims to overcome the limitations of traditional invoicing systems, enhance operational efficiency, and position itself at the forefront of modern tax administration practices.

## 1.1. Background

The modernization of the Belize Tax Service Department is an essential component of the country's broader efforts to enhance its tax administration system. Recognizing the inefficiencies and challenges associated with traditional paper-based invoicing, under-reporting and tax evasion, BTSD has embarked on a journey to streamline its processes and improve the overall efficiency of tax collection. In 2021, BTSD initially explored the possibility of implementing an invoice control system that would require taxpayers to register and authorize their tax documents through the department. This system, while beneficial in minimizing invoice forgery and facilitating audits, would have imposed significant burdens on taxpayers, requiring frequent visits to BTSD offices for document stamping. Additionally, the requirement for taxpayers to retain physical invoices and other tax documents for six years further exacerbated the financial and logistical challenges of printing and storage.

Considering these challenges, BTSD shifted its focus in late 2023 to a more advanced and efficient solution referred to as electronic invoicing (e-invoicing). E-invoicing has been successfully implemented and is in the advanced stages in several Latin American countries, including Chile, Argentina, Brazil, Ecuador, Uruguay, Mexico, and Peru. Projects are underway in several other Latin American countries, including Costa Rica, Colombia, Guatemala, Panama, and Paraguay, and are gaining rapid adoption across Europe and Asian Countries. These regions have demonstrated that e-invoicing can significantly enhance the efficiency of tax administration while reducing the burden on taxpayers. The move towards e-invoicing in Belize is expected to bring similar benefits, streamlining operations for both the tax administration and the businesses it serves.

An electronic invoice (e-invoice) is well described by the Inter-American Development Bank (IDB) and the Inter-American Center of Tax Administrations (CIAT), as: “an invoice that exists in electronic form and that, in all situations and for all actors, has the same purposes as a paper invoice, for issuers, recipients, and interested third parties. Put another way, it is a document that records an entity’s commercial transactions in electronic form, fulfilling the principles of authenticity, integrity, and legibility in all applicable situations and for all the actors in the process, in the commercial, civil, financial, logistical and, undoubtedly, tax spheres”. (CIAT and IDB, 2018). The global growth of e-invoicing is evident, with over 400 service providers active in Europe alone and transactions worth 3.3 billion Euros being processed globally in 2017. Adopting e-invoicing in Belize represents a significant step forward in aligning with global best practices and enhancing the country’s tax administration.

Transitioning from labour-intensive paper-based invoicing to electronic invoicing offers substantial benefits, including greater accuracy, shorter processing times, enhanced transparency, and reduced costs for buyers and sellers. The implementation of e-invoicing is not only a cost-effective solution that reduces expenses associated with manual data entry, printing, mailing, and document storage, but it also contributes to broader sustainable development goals. By adopting this technology, BTSD aims to position Belize as a leader in modern tax administration within the Caribbean. This Final Graduation Project will develop a comprehensive project management plan for the implementation of an electronic invoicing system at BTSD, leveraging best practices to improve operational efficiency, ensure compliance, and increase revenue collection.

## 1.2. Statement of the problem

Like many other tax administrations, the Belize Tax Service Department faces significant challenges in effectively managing and monitoring tax compliance, particularly in collecting General Sales Tax (GST). The current reliance on traditional invoicing methods, whether paper-based or unstructured electronic formats, leads to inefficiencies, increased administrative burdens, and heightened opportunities for tax evasion. These issues are further compounded by a lack of standardization across jurisdictions, resulting in fragmented systems that hinder cross-border business operations and complicate compliance efforts within Belize.

To address these challenges, there is a need for the implementation of a structured electronic invoicing (e-invoicing) system. Such a system would integrate seamlessly with

businesses' existing processes, ensuring real-time or near-real-time data reporting and significantly enhancing the effectiveness of tax compliance management. This solution is expected to reduce the GST gap, improve the accuracy and efficiency of audits, and lay a strong foundation for future tax administration modernization and digitization efforts.

The absence of an e-invoicing system prevents BTSD from fully capitalizing on the advantages of digital transformation, such as enhanced data accuracy, faster processing times, and greater transparency in tax reporting. Without this system, BTSD is missing a crucial opportunity to streamline its operations, effectively manage and monitor tax compliance, and improve revenue collection. Moreover, the lack of real-time data collection and analysis capabilities severely limits the department's ability to make informed decisions and implement effective tax policies. Implementing a structured e-invoicing system is therefore essential for BTSD to overcome these challenges, modernize its tax administration processes, increase revenue collection, and better serve the taxpayers of Belize.

### 1.3. Purpose

The purpose of this FGP is to thoroughly investigate and develop a comprehensive project management plan for the implementation of an electronic invoicing system at the BTSD. The FGP will delve into the challenges currently faced by BTSD, particularly in managing and monitoring GST tax compliance. It will also explore how adopting a structured e-invoicing system can address these challenges by enhancing operational efficiency, reducing administrative burdens, and minimizing tax evasion.

This project will modernize BTSD's tax administration processes by integrating a system that ensures real-time or near-real-time data reporting, ultimately improving the effectiveness of tax compliance management. The scope, stakeholders, procurement, communication, risk, schedule, cost, resource, quality plans, technical, operational, and strategic requirements will be developed, and the aim is to implement the e-invoicing system successfully. It will also examine best practices from other countries that have successfully implemented similar systems, adapting these insights to the Belizean context.

The project seeks to achieve several important objectives that align with BTSD's strategic goals of improving tax compliance and revenue collection. The expected benefits of implementing the e-invoicing system include:

**Enhanced Operational Efficiency**: The e-invoicing system will streamline the invoicing process, reducing manual data entry, processing times, and the need for physical document storage, thereby lowering operational costs and improving overall efficiency on both tax department and taxpayers.

**Improved Tax Compliance:** By providing real-time transaction data, the system will enable more accurate and timely tax reporting, reducing the likelihood of under-reporting and increasing compliance among taxpayers.

**Reduced GST Gap**: The e-invoicing system will help identify discrepancies between reported and actual sales, thereby reducing the GST gap and ensuring that the government collects the appropriate amount of tax revenue.

**Strengthened Audit Capabilities**: With access to structured and accurate data, BTSD will be able to conduct more effective audits, quickly identifying and addressing instances of tax evasion or fraud.

**Increased Revenue Collection**: By improving compliance and reducing tax evasion, the system will directly contribute to increased revenue collection for the government, supporting public services and development initiatives.

**Enhanced Transparency and Trust**: The system will provide greater transparency in tax reporting, which will help build trust between taxpayers and the government, fostering a culture of voluntary compliance.

**Foundation for Future Modernization**: The implementation of the e-invoicing system will serve as a foundational step towards broader digitization and modernization efforts within BTSD, paving the way for further innovations in tax administration.

## 1.4. General objective

1. To develop a comprehensive Project Management Plan for implementing electronic invoicing for the BTSD with the aim of improving operational efficiency, increasing compliance and revenue collection.

## 1.5. Specific objectives

1. To develop a Project Charter that will outline the project's purpose, and objectives, ensuring a clear and shared understanding of the project's intentions.

2. To develop a Project Scope Management Plan that defines and documents the project scope, ensuring that all the work required and only the work required is included.
3. To develop a Project Schedule Management Plan that details the project's timeline, including milestones and deadlines, ensuring that the project's activities are achieved on time
4. To develop a Project Cost Management Plan that defines the budget allocation required to complete the implementation of electronic invoicing.
5. To develop a Project Quality Management Plan establishing quality standards and procedures, ensuring that the deliverables meet the required quality criteria.
6. To develop a Project Resource Management Plan that defines, identifies and allocates necessary project resources and ensuring that they are used efficiently.
7. To develop a Project Communication Management Plan that defines the communications methods facilitating adequate information flow among all stakeholders.
8. To develop a Project Risk Management Plan that identifies potential risks, outlines mitigation strategies, and ensures that risks are appropriately managed throughout the project's lifetime.

9. To develop a Project Procurement Management Plan that defines the procurement processes, ensuring timely and cost-effective acquisition of project resources.
10. To develop a Project Stakeholder Management Plan that identifies and engages stakeholders, ensuring that their needs and expectations are managed throughout the project lifecycle.

# 2 THEORETICAL FRAMEWORK

## 2.1 Company/Enterprise framework

### 2.1.1 Company/Enterprise background

For years, tax administrations globally have been modernizing their systems and processes to increase tax revenues while reducing operational costs. In alignment with these efforts, the Government of Belize (GOB) embarked on a modernization journey, focusing on fostering voluntary compliance, administering tax laws effectively and transparently, and modernizing the BTSD through improvements in people, processes, and technology (BTSD, 2020, p. 9).

In 2019, this modernization process began with the amalgamation of the Income Tax Department (ITD) and the Department of General Sales Tax (DGST), forming the new Belize Tax Service Department (BTSD). The merger of these two departments is expected to result in more efficient service to taxpayers, improved internal processes, and a significant boost in revenue collection. Belize, previously one of the few countries in the region without consolidated administration of domestic taxes, now has a foundation for a more cohesive strategy in delivering quality service, improving compliance, equitably administering simplified laws, and reducing overall administrative costs.

The transformation involves re-engineering business processes, implementing a modernized tax information system, and training human resources, leading to a more modern, taxpayer-centric administration. The BTSD plans to introduce significant changes in organizational, operational, and technological frameworks for tax administration in Belize. The BTSD aims to be a taxpayer-centric, service-oriented tax administration with

excellent multi-channel, technology-driven services and simplified, automated, primarily paperless processes, integrated with the systems of other government agencies.

The BTSD intends to utilize risk-based compliance management and data-driven decision-making with appropriately skilled staff, efficient management, and modern technological support. Despite advancements made over three years with the Revenue Management System (RMS) implementation, further efforts are needed to address tax evasion and continue increasing revenue collection. The implementation of an Electronic Invoicing system is the next significant project that the department will undertake over the next three years, and it plans to implement it in two phases.

### 2.1.2 Mission and vision statements

**Vision**

To establish an electronic invoicing system that transforms the Belize Tax Service Department into a leader in efficient, and taxpayer-friendly revenue collection, that will gain public confidence and contribute to the growth of the Belizean Economy.

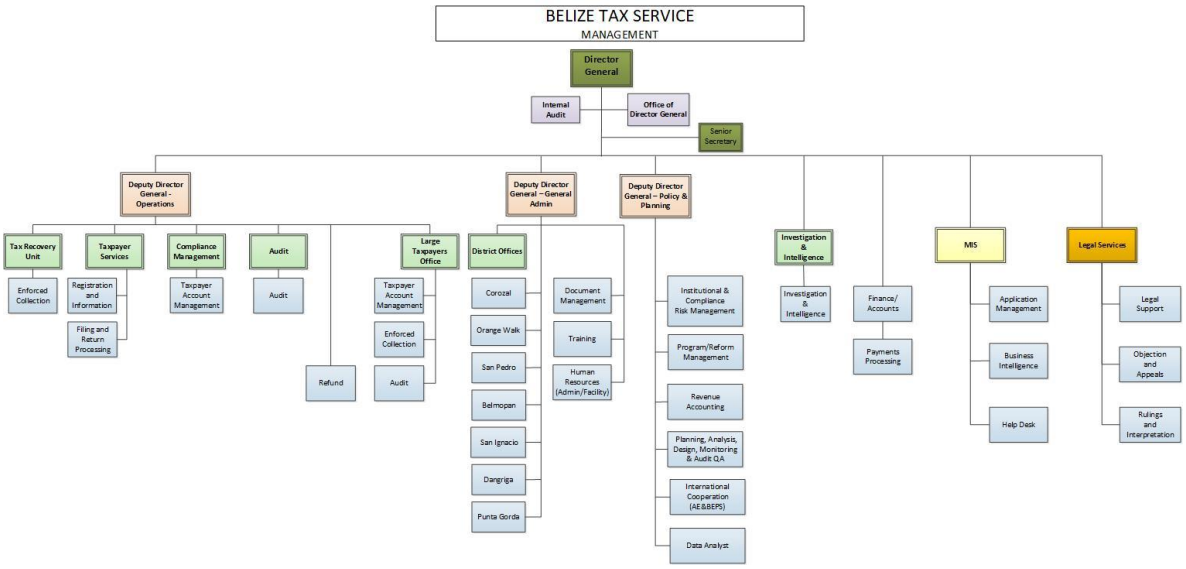
**Mission**

To develop and implement a comprehensive electronic invoicing system that enhances operational efficiency, ensures compliance and improves revenue collection through innovative technology and adherence to international best practices, ultimately fostering a fair and transparent tax environment in Belize.

### 2.1.3 Organizational structure

The BTSD operates under the Ministry of Finance, with its portfolio managed by the Prime Minister. The BTSD is headed by a Director General (DG), who is directly assisted by three Deputy Director Generals (DDGs). The organization is divided into three main areas: Operations, General Services, and Policy and Programs. The Management Information System (MIS) and Legal Services fall under the direct responsibility of the DG. The implementation of the Electronic Invoicing system will be led by the MIS unit, with other functional areas participating as stakeholders in the process.

**Figure 1 Organizational structure of the Belize Tax Service Department. (Organizational Chart, BTSD, pg.2)**




Note: Adapted from the *Organizational Chart* (p.2), Belize Tax Service Department, 2022, with authorization from the Director General. Own creation.

### 2.1.4 Products offered

The BTSD is the primary revenue-collecting agency for the Government of Belize, contributing approximately 60% to the government's annual budget. The BTSD operates from one main headquarters and seven branch offices, where it offers a variety of taxpayer services, including over-the-counter payment facilities at each location.

As of September 2021, the BTSD has launched an online taxpayer portal known as IRISBelize. Taxpayers can register for an IRISBelize account and link their Tax Identification Number(s) to access a range of services. These services include:

- Filing of returns for any tax type
- Providing payment instructions for third-party bank payments
- Making payments with a debit or credit card
- Viewing transaction history
- Filing taxpayer inquiries
- Requesting filing extensions
- Requesting payment extensions
- Online registration (available by the end of the year)
- Additionally, the portal is supported by a helpdesk staffed to assist taxpayers via phone calls, SMS, and email.

The BTSD administers five core tax types: General Sales Tax (GST), Business Tax, Contract Tax, Pay as You Earn, and Employee Income Tax. These taxes are managed in an equitable, fair, and transparent manner and contribute significantly to the department's

revenue collection. The implementation of IRISBelize is part of BTSD's ongoing efforts to modernize its services, improve efficiency, and enhance taxpayer experience.

## 2.2 Project Management concepts

As per Project Management standard (PMI, 2021), the definition of project management principles, project management domains, project development approaches, project management process areas, project management knowledge areas, and project life cycles will be explained. Moreover, a brief explanation of how they will be applied in the FGP will follow.

### 2.2.1 Project management principles

- **Be diligent, respectful and caring steward** – This ensures responsible management of the resources, respecting all stakeholders involved and includes integrity, care, trustworthiness and compliance.
- **Create a collaborative project team environment** – Foster a collaborative environment where team members of different skills, knowledge and experience will be able to work together towards a common goal.
- **Effectively engage with stakeholders** – identify and engage all internal and external stakeholders. And develop a solid stakeholder management plan to communicate with the stakeholders the necessary requirements and benefits which will lead to customer satisfaction and project success.
- **Focus on Value**—A key goal for both the taxpayer and the Tax administration is that the electronic system's value is realized and is beneficial to both parties by

improving efficiency and compliance and laying out a more fair and transparent foundation for tax payments. This is the ultimate indicator of project success.

- **Recognize, evaluate and respond to system interactions** – fully understanding how the electronic invoicing system will interact with the existing core tax system and the ERP system for taxpayers.
- **Demonstrate Leadership behaviors** – project team leadership should demonstrate strong leadership skills by guiding the team and making informed decisions as needed
- **Tailor based on concepts**—The project management approach will be customized based on the funding agency's requirements and the requirements for electronic invoicing implementations.
- **Build quality into processes and deliverables** – quality management practices will be adopted to ensure that the electronic invoicing system meets the needs of the BTSD and the taxpayers.
- **Navigate complexity** – Implementing an electronic invoicing system is a complex endeavor, especially being one of the first countries in the Caribbean to undertake this task. However, best practices from Latin American countries will guide the approach, and the complexities will be managed by breaking down the project into phases.
- **Optimize risk responses -** Identify potential risks associated with the electronic invoicing implementation, such as technical issues, resistance to change, or data

security concerns. Develop and implement risk mitigation strategies to address these risks proactively.

- **Embrace adaptability and resilience -** The team needs to be prepared to adapt to changes and unexpected challenges during the project. Develop contingency plans into the project management approach to handle disruptions effectively.
- **Enable change to achieve the envisioned future state -** Facilitate the transition from the current invoicing system to the new electronic system. This includes managing change by providing training, support, and clear communication to key stakeholders to ensure a smooth and successful implementation.

### 2.2.2 Project management domains

The project performance domain is a group of related activities that are crucial for the effective delivery of project outcomes (PMBOK® Guide, 2021, p.102). These performance domains provide a structured approach to project management and help ensure successful project outcomes. These performance domains will be relevant to the implementation of the electronic invoicing system. As defined by the PMBOK® Guide, 7$^{th}$ edition, the performance domain consists of eight domains, namely:

A. **Stakeholders** – focus on stakeholder engagement and management in other to foster a good working relationship and to ensure that their needs and expectations are met. This strategy is aligned with the development of the stakeholder management plan where stakeholders will be identified and managed. This is important so that the project gets the support and buy-in from key stakeholders, which will be crucial for the successful roll-out of the electronic invoicing system

B. **Team** – place emphasize on building and leading a high-performance project team. This domain will establish the project team management, will develop a team culture, and will tailor the requisite leaderships skill needed. This team is aligned to the resource management plan where the resources need to be identified, defined, and allocated, ensuring that it is used effectively. This important implementation process requires coordination with the various units and skill sets available, which are paramount to a well-organized team.

C. **Development Approach and Life cycle** – This domain is concerned with choosing the appropriate approach to manage the project lifecycle effectively. This approach is aligned with the Project Schedule Management that details the project's timeline, milestones and deadlines to ensure that the activities are completed on-time. This step will assist with the consideration needed in selecting the most appropriate approach for the implementation of the electronic invoicing, considering the culture, organization structure, capability and the project size, whilst ensuring a timely delivery and the ability to adapt to changes.

D. **Planning** – this domain covers all the aspects required to properly and successfully manage and deliver the project. This domain is aligned to the scope management and the project charter as these define the purpose and objectives of the project and the budget management plan to ensure the necessary budget allocation. A comprehensive plan is critical for the project scope, budget and objective for a project of this magnitude that will affect the business environment of a country's economic ecosystem.

E. **Project Work** – This domain is aligned with the execution of the actual project activities that need to be performed and is closely associated with the quality management plan. It ensures that the established quality standards and procedures for the activities are up to par for a successful deployment of the electronic invoicing system.

F. **Delivery** – The domain is aligned with meeting the requirements, scope, quality and ensuring that the benefits and outcomes are met. This activity is closely aligned with the communication management plan that ensures effective information flow amongst all stakeholders. Communication is important for the coordination of efforts and delivering project outcomes.

G. **Measurement** - This domain is closely linked to the measurement of the project performance and progress so that it may be aligned with the project plan, by establishing effective measures in the form of Key performance Indicators.

H. **Uncertainty** – This domain focuses on identifying, managing project uncertainties, ambiguity, complexity, volatility and risk. Uncertainty is not knowing but an understanding of the environment within which the project will operate is important. Certain factors that contribute to uncertainty are economic factors, technical considerations, legal constraints and political influence. This domain is also closely linked to the risk management plan which ensures that potential issues are identified and treated. Figure 2 illustrates the Project Performance Domain:

**Figure 2 Project Performance Domain (Source: PMI, 2021)**

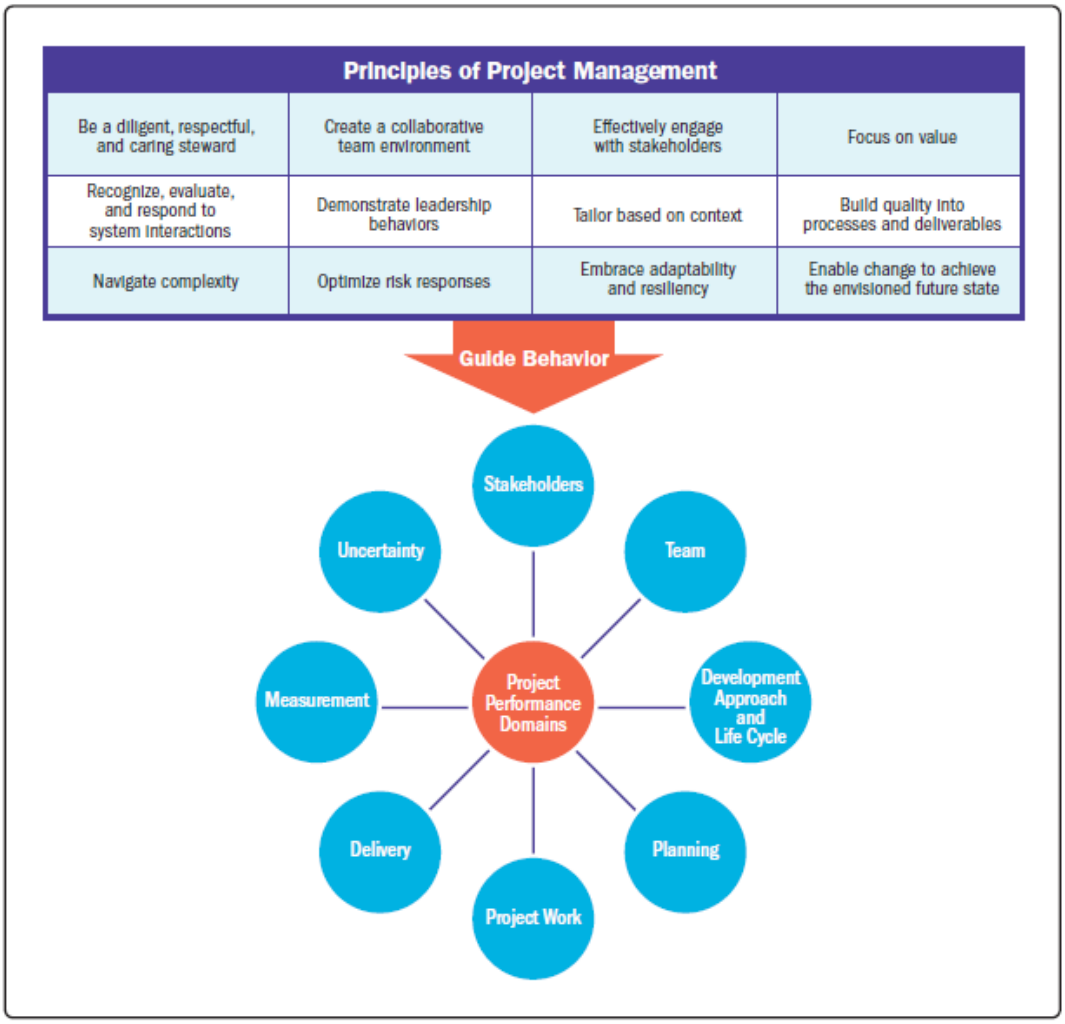



Figure 1-1. Relationship between Project Management Principles and Project Performance Domains

### 2.2.3 Predictive, adaptative and hybrid projects

Projects can utilize different development approaches depending on the project's nature or the organization's policy. The three most common development approaches are predictive, hybrid, and adaptive.

- **Predictive Approach** – A predictive approach is useful when the project and product requirements can be defined, collected and analysed at the start of the project. (PMI, 2021, pg.130) This is commonly referred to as the waterfall approach. This type of approach involves detailed planning, sequential phases, fixed scope, places a lot of emphasis on documentation, is less flexible and has defined milestones.
- **Adaptive Approach** – Adaptive approaches are useful when requirements are subject to a high level of uncertainty and volatility and are likely to change throughout the project (PMI, 2021, pg. 133). Adaptive approach is commonly known as Agile methodology, which is a more flexible and iterative project management method and delivers value incrementally.
- **Hybrid Approach** – hybrid approach is a combination of the adaptive and predictive approach. This approach involves flexible planning, a balanced approach and the methodology can be tailored to the specific needs of the project.

The most suitable approach for implementing the electronic invoicing project is a hybrid management approach, as the project encompasses both well-defined and evolving elements. This method provides the flexibility to adapt to changes and incorporate feedback during the system rollout. The implementation will be iterative, with an initial rollout for B2B, followed by a subsequent phase for B2C. Even within the first phase, the rollout may be segmented by economic sector, and then move to the large taxpayers. By adopting a hybrid approach, the BTSD can effectively manage the complexities of the electronic

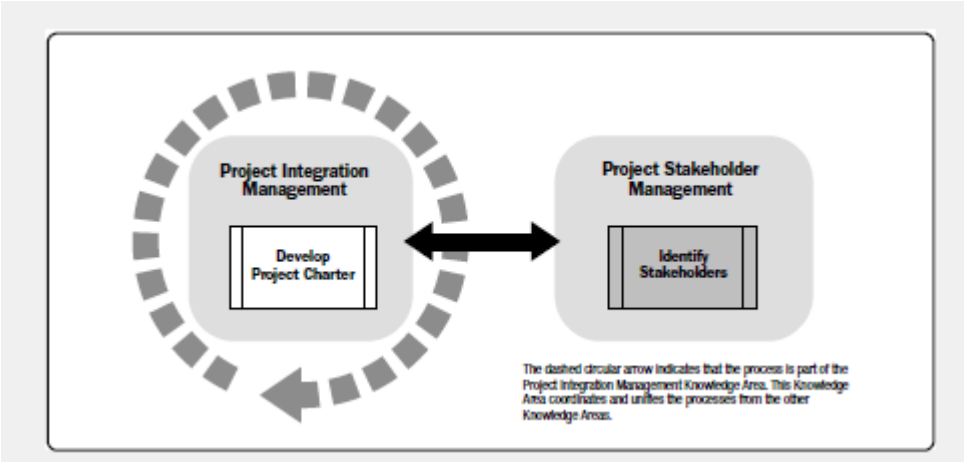
invoicing system implementation, ensuring both structured planning and the necessary flexibility to achieve project success.

### 2.2.4 Project management processes

Project management processes are grouped into five management process groups.

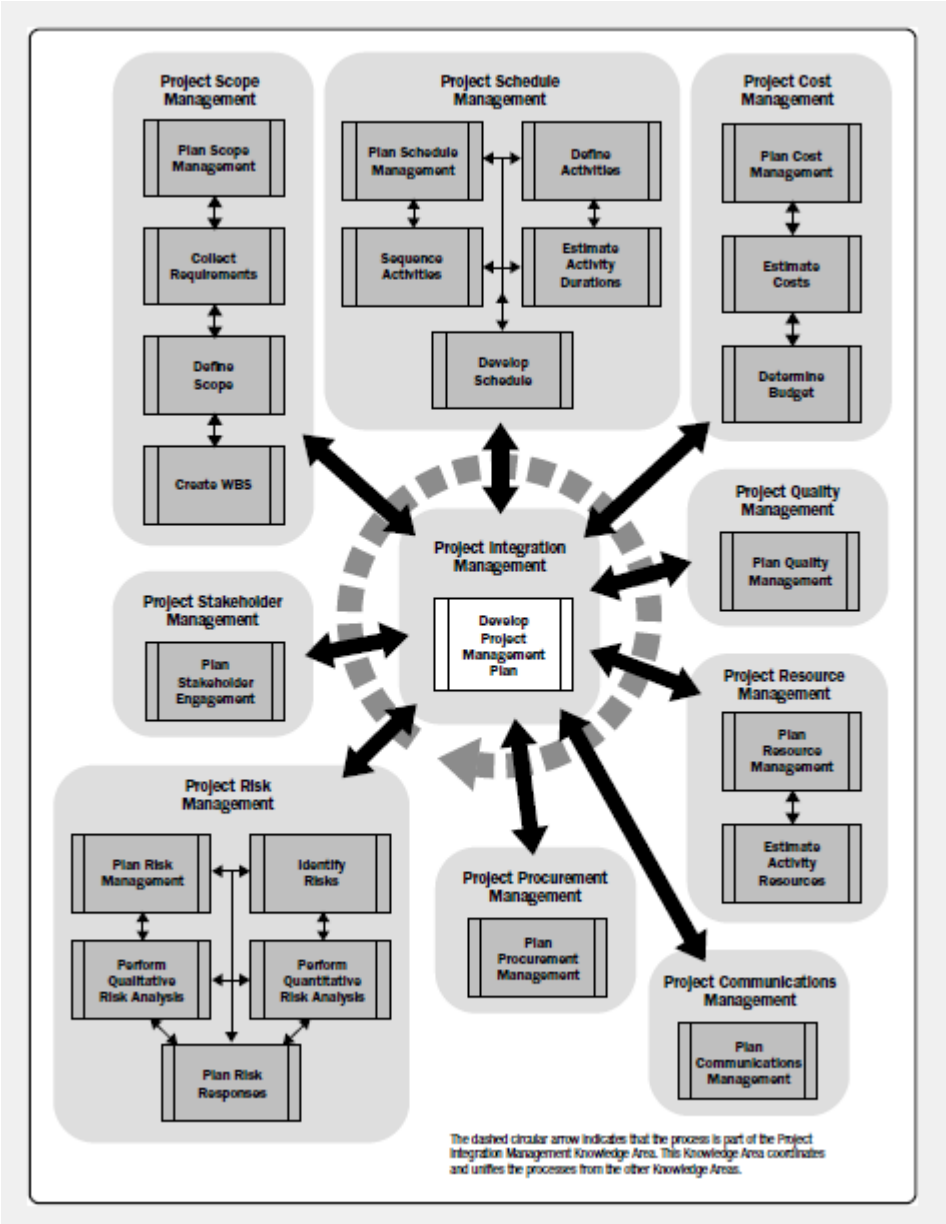
- **Initiating Process Group** – This group establishes and authorizes the project. Within this phase, the project charter is created, outlining the project's purpose, scope, objectives, stakeholders, and high-level requirements. The project charter sets the foundation for all future planning and execution efforts.

**Figure 3 Initiating Process Group (PMI, 2017, pg.563)**




- **Planning Process Group** - Establishes the project's total scope, defines objectives, and develops course of action. The processes in the planning group develop detailed management plans for the project, scope, schedule, cost, quality, resources, communications, risk, procurement, and stakeholder engagement. Figure 4 illustrates the Planning Process Group.

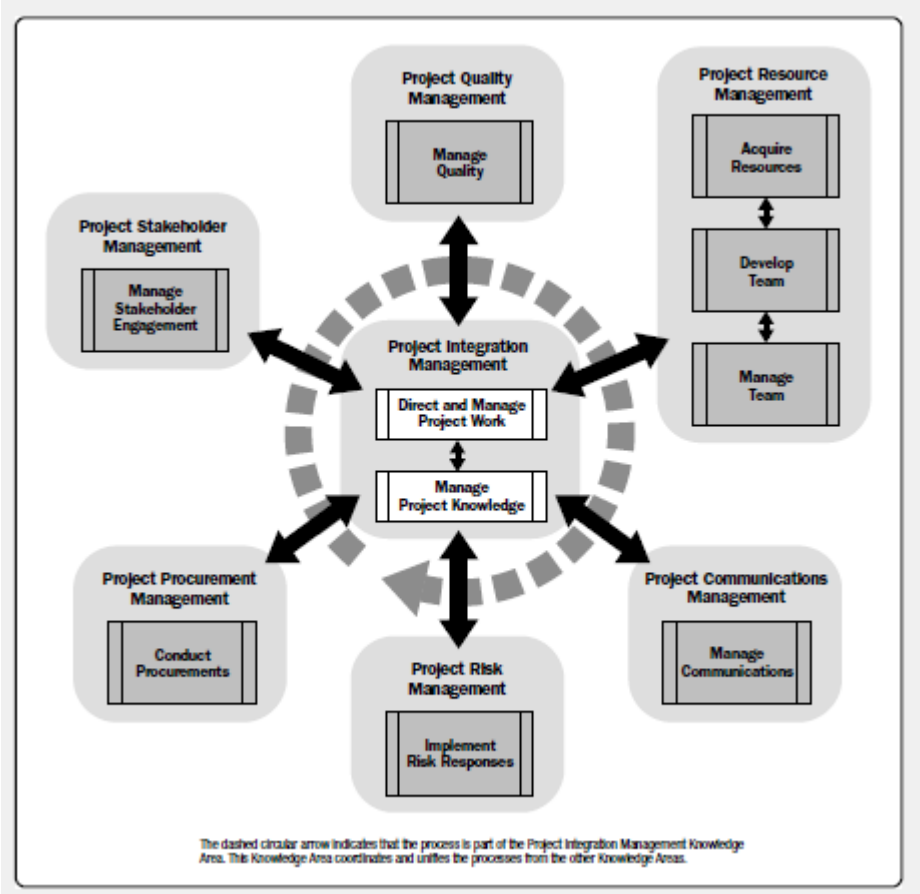
**Figure 4 Planning Process Group (PMI, 2017, pg.566)**




- **Executing Process Group** - Completes the work defined in the project management plan to meet project objectives. It Involves coordinating resources,

managing stakeholder engagement, conducting procurement, managing the communication plan, implementing risk response and managing quality, all together integrating and performing the project activities as seen in Figure 5.

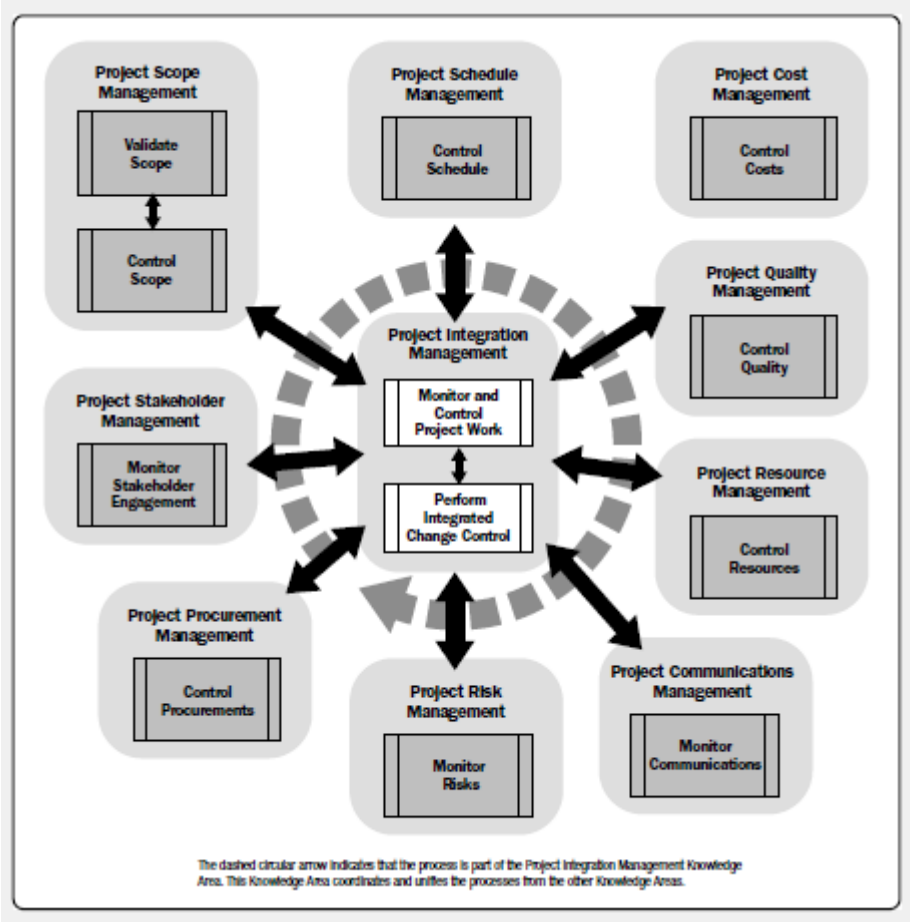
**Figure 5 Executing Process Group (PMI, 2017, pg. 596)**




- **Monitoring Process Group** – consists of those processes required to track, review and regulate the progress and performance of the project. It identifies areas where changes to the plan are required and then initiates the corresponding changes. It includes activities such as validating and controlling the scope, controlling the schedule, control cost, control quality, control resources, manage communication,

monitor risks, control procurement, and monitor stakeholder engagement. Refer to Figure 6.

**Figure 6 Monitoring Process Group (PMI, 2017, pg.596)**




- Closing Process Group – comprises processes that finalize all activities and close the project. It ensures that all project work is completed, that deliverables are accepted and signed-off, and that project documentation is finalized.

### 2.2.5 Project management knowledge areas

The project management areas are fields or areas of specialization that are commonly employed when managing projects. (PMI, 2017, pg.553). The PMBOK® Guide identifies 10 project management knowledge areas as the core subjects of project management, each associated with one of the five process groups. There are 49 processes distributed across these 10 knowledge areas, with each process defined by its inputs, tools and techniques, and outputs. The 10 knowledge areas are outlined below. These knowledge areas will be fully developed to achieve the specific goals.

- **Project Integration Management** - Involves coordinating all aspects of the project to ensure it functions as a cohesive whole. The PMBOK® Guide identifies seven key processes that must be included in the project integration as seen on Table 1.

**Table 1**: Project integration management processes and process group mapping

| Process | Process Group |
|---|---|
| 1. Develop project Charter | Initiating |
| 2. Develop Project Management Plan | Planning |
| 3. Direct and Manage Project Work | Executing |
| 4. Manage Project Knowledge | Executing |
| 5. Monitor and Control Project Work | Monitoring and Control |
| 6. Perform Integrated Change Control | Monitoring and Control |
| 7. Close Project or Phase | Closing |

- **Project Scope Management** - As part of the planning process group, project scope management entails the required processes to ensure that the project include all the work required, and only the work required, to complete the project successfully (PMI, 2017 p.129). This document will clearly outline the project scope, develop a Work Breakdown Structure (WBS) to divide the project scope into manageable tasks, and

also to monitor and control scope changes to avoid scope creep. This ensures that all essential work for the electronic invoicing system is included. The PMBOK® Guide identifies six key processes that must be included in the project scope management as shown on Table 2.

**Table 2**: Project scope management processes and process group mapping

| Process | Process Group |
|---|---|
| 1. Plan Scope Management | Planning |
| 2. Collect Requirements | Planning |
| 3. Define Scope | Planning |
| 4. Create WBS | Planning |
| 5. Validate Scope | Monitoring and Control |
| 6. Control Scope | Monitoring and Control |

- **Project Schedule Management** - A Project Schedule Management includes the processes required to manage the timely completion of the project (PMI, 2017, p.173). A comprehensive project schedule will be created, featuring specific milestones and deadlines for the implementation of the Electronic Invoicing system. This schedule will facilitate effective time management to keep activities on track. Additionally, regular monitoring and updating of the project schedule are crucial to reflect any changes. This process is shown on Table 3.

**Table 3**: Project schedule management processes and process group mapping

| Process | Process Group |
|---|---|
| 1. Plan Schedule Management | Planning |
| 2. Define Activities | Planning |
| 3. Sequence Activities | Planning |
| 4. Estimate Activity Duration | Planning |
| 5. Develop Schedule | Planning |
| 6. Control Schedule | Monitoring and Control |

- **Project Cost Management** – The Project Cost Management includes the processes involved in planning, estimating, budgeting, financing, funding, managing, and controlling costs so that the project may be completed within the approved budget (PMI, 2017, p.231). Estimating the costs and developing a budget associated with electronic invoicing from software procurement to implementation activities will be critical. It will also ensure that the expenditures do not deviate from the budget, as shown on Table 4.

**Table 4**: Project cost management processes and process group mapping

| Process | Process Group |
|---|---|
| 1. Plan Cost Management | Planning |
| 2. Estimate Costs | Planning |
| 3. Determine Budget | Planning |
| 4. Control Cost | Monitoring and Control |

- **Project Quality Management** – The Project Quality Management includes the processes for incorporating the organization's quality policy regarding planning, managing, and controlling project and product quality requirements to meet stakeholders' expectations" (PMI, 2017, p.271). The plan will assist with defining the quality standards and procedures and describe how regularly inspection and testing of deliverables will be done to ensure the required quality criteria is met for the proper rollout of the electronic invoicing system. Please see Table 5.

**Table 5**: Project Quality management processes and process group mapping

| Process | Process Group |
|---|---|
| 1. Plan Quality Management | Planning |
| 2. Manage Quality | Executing |
| 3. Control Quality | Monitoring and Control |

- **Project Resource Management** - Project Resource Management includes the processes to identify, acquire, and manage the resources needed for the successful completion of the project. (PMI, 2017, p.307). Identify and allocate the necessary human and physical resources for the electronic invoicing system implementation, as can be seen on Table 6.

**Table 6**: Project Resources Management processes and process group mapping

| Process | Process Group |
|---|---|
| 1. Plan Resource Management | Planning |
| 2. Estimate Activity Resources | Planning |
| 3. Acquire Resources | Executing |

| | |
|---|---|
| 4. Develop Team | Executing |
| 5. Manage Team | Executing |
| 6. Control Resource | Monitoring and Control |

- **Project Communications Management** - Project Communications Management includes the processes required to ensure timely and appropriate planning, collection, creation, distribution, storage, retrieval, management, control, monitoring, and ultimate disposition of project information (PMI, 2017, p.359). A comprehensive communication plan will be crafted for the widespread implementation of electronic invoicing, encompassing all taxpayers. Effective information flow among stakeholders is essential to keep them updated on progress and any arising issues. Kindly refer to Table 7.

**Table 7**: Project Communication Management processes and process group mapping

| Process | Process Group |
|---|---|
| 1. Plan Communications Management | Planning |
| 2. Manage Communications | Executing |
| 3. Monitor Communications | Monitoring and Control |

- **Project Risk Management** - Project Risk Management includes the processes of conducting risk management planning, identification, analysis, response planning, response implementation, and monitoring risk on a project (PMI, 2017, p.395). All potential risks need to be identified and analyzed, with strategies developed to

mitigate and manage them, ensuring that they do not adversely affect the implementation of electronic invoicing. Kindly refer to Table 8.

**Table 8**: Project Risk Management processes and process group mapping

| Process | Process Group |
|---|---|
| 1. Plan Risk Management | Planning |
| 2. Identify Risks | Planning |
| 3. Perform Qualitative Risk Analysis | Planning |
| 4. Perform Quantitative Risk Analysis | Planning |
| 5. Plan Risk Responses | Planning |
| 6. Implement Risk Responses | Executing |
| 7. Monitor Risks | Monitoring and Control |

- **Project Procurement Management** – Project Procurement Management includes the processes necessary to purchase or acquire products, services, or results needed from outside the project team (PMI, 2017, p.459). The plan should cover the procurement processes and requirements and be flexible enough to align with the procurement strategies of funding agencies. It is crucial to document the selection and management of solution providers for the electronic invoicing system. Additionally, the plan must include the monitoring and management of contracts to ensure all deliverables are met. The relevant process groups can be seen on Table 9.

**Table 9**: Project Procurement Management processes and process group mapping

| Process | Process Group |
|---|---|
| 1. Plan Procurement Management | Planning |
| 2. Conduct Procurements | Executing |

| | |
|---|---|
| 3. Control Procurements | Monitoring and Control |
| 4. Create WBS | Planning |

- Project Stakeholder Management - comprises the 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 management strategies for effectively engaging stakeholders in project decisions and execution (PMI, 2017, p.503). It is essential to identify and engage all stakeholders involved, as failure to manage this properly could lead to delays or even the project's failure. It is crucial to address their requirements and expectations effectively, so that the electronic invoicing can be adapted and ensure a successful outcome. Please refer to Table 10.

**Table 10**: Project Stakeholder Management processes and process group mapping

| Process | Process Group |
|---|---|
| 1. Identify Stakeholders | Initiating |
| 2. Plan Stakeholder Management | Planning |
| 3. Manage Stakeholder Engagement | Executing |
| 4. Monitor Stakeholder Engagement | Monitoring and Control |

### 2.2.6 Project life cycle

Project Life cycle is defined as “The series of phases that a project passes through from its start to its completion. (PMI, 2017, pg.55). Kindly refer to Figure 7.

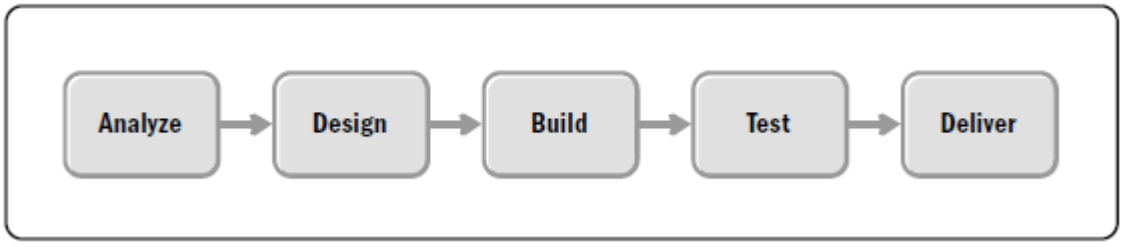
**Figure 7 Characteristics of Project Life Cycles (PMI, 2017, pg. 789)**

| Characteristics | | | | |
|---|---|---|---|---|
| **Approach** | **Requirements** | **Activities** | **Delivery** | **Goal** |
| **Predictive** | Fixed | Performed once for the entire project | Single delivery | Manage cost |
| **Iterative** | Dynamic | Repeated until correct | Single delivery | Correctness of solution |
| **Incremental** | Dynamic | Performed once for a given Increment | Frequent smaller deliveries | Speed |
| **Agile** | Dynamic | Repeated until correct | Frequent small deliveries | Customer value via frequent deliveries and feedback |

There are 5 different types of project life cycle and no one life cycle is a perfect fit for all projects. They are:

- **Predictive Life Cycle** – the requirements such as the project scope, time and cost are defined at the beginning of the project. A phase must complete before another one starts. This cycle is primarily used in construction projects.

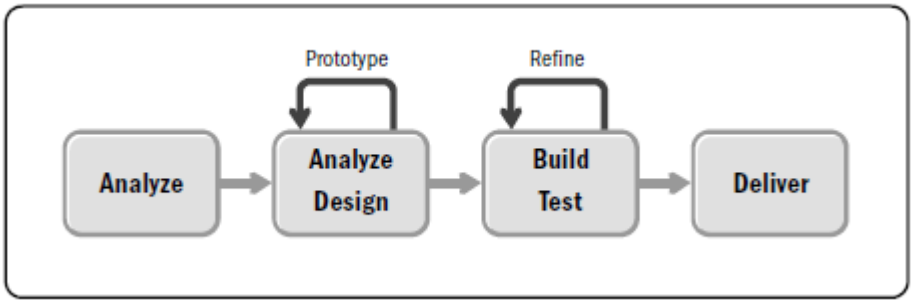
  **Figure 8 Predictive Life Cycles (PMI, 2017, pg. 792)**




- **Iterative Life Cycle** – A project life cycle where the project scope is generally determined early in the project life cycle, but time and cost estimates are routinely modified as the project's understanding of the product increase. (PMI, 2017,

pg.709). Each iteration builds upon the previous ones, and it incorporates the feedback. This type of project life cycle is commonly used in software development projects.

**Figure 9 Iterative Life Cycles (PMI, 2017, pg. 792)**

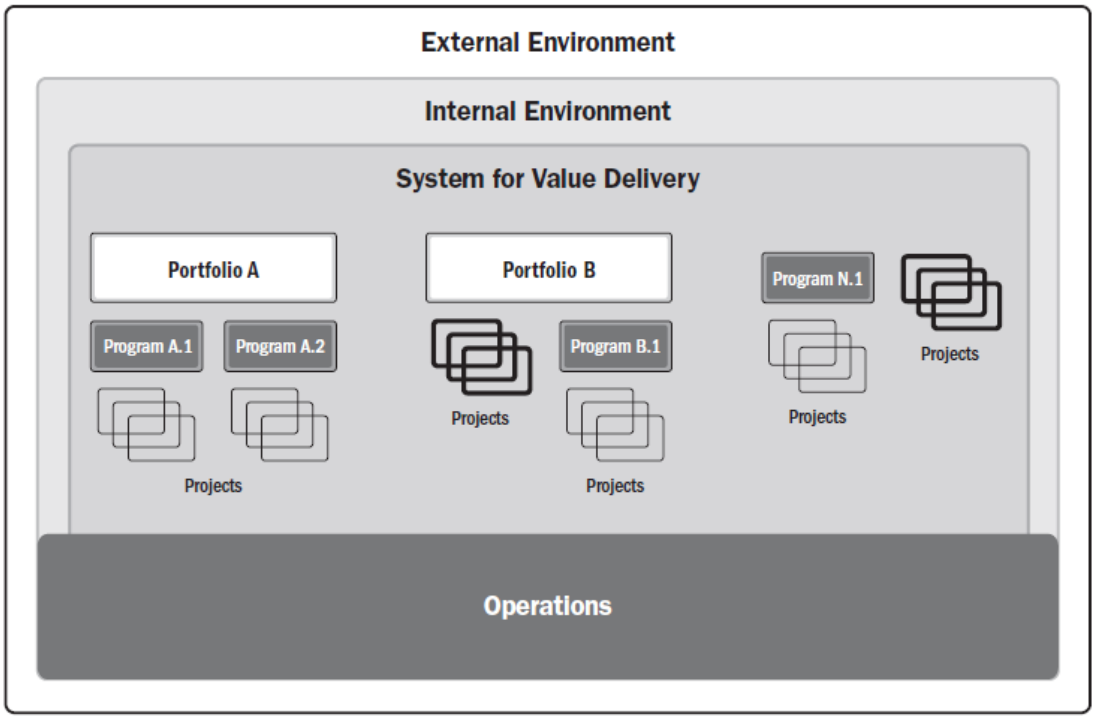



- **Incremental Life Cycle** – In this life cycle the finished deliverable can be used immediately by the customer as the increments add functionality progressively until the entire product is completed. These can be used for feature-driven software development.
- **Adaptive Life Cycle** – In this life cycle, the project scope is defined and refined iteratively, based on continuous stakeholder feedback. Work is performed in short cycles called sprints. This cycle is also referred to as being agile.
- **Hybrid Life Cycle** – This project life cycle is a combination of predictive, iterative, incremental, and/or adaptive life cycles as it tailors the project management approach to the specific needs of the project.

### 2.2.7 Company strategy, portfolios, programs and projects

Project Managers are expected to deliver projects that create value for the organization and stakeholders within the Organizations system for value delivery. (PMI, 2021, pg.31). Various components such as portfolios, programs, projects, products, and operations can be used both individually and collectively to create value. Figure 10 shows how these components form a system that delivers value aligned with the organization's strategy.

**Figure 10: Components of a sample system for delivery (PMI, 2021, pg. 37)**




The BTSD has a comprehensive framework to modernize tax administration in Belize. The document focuses on its strategy, portfolios, programs, and projects to achieve its goals. Here is a summary of the key elements:

1. **Strategy:**

- **Vision and Mission**: BTS aims to be a leading tax administration that significantly contributes to Belize's social and economic well-being through equitable and fair administration of tax laws, promoting voluntary compliance.
- **Core Values**: The core values, encapsulated in the acronym "PRIDE," emphasize professionalism, respect, integrity, dedication, and excellence.
- **Strategic Goals**:
  - ✓ Foster voluntary tax compliance.
  - ✓ Administer tax laws efficiently, fairly, and transparently.
  - ✓ Modernize BTS through people, processes, and technology.
  - ✓ Optimize revenue collection.

2. **Portfolios:**

- **Taxpayer Services**: Enhancing customer service options, including e-services, and improving taxpayer education and outreach.
- **Compliance Management**: Implementing risk-based compliance programs to assess taxpayers based on their risk levels and ensure accurate tax declarations.
- **Audit**: Conducting risk-based field and desk audits to enhance compliance.
- **Large Taxpayers Office**: Providing specialized services to large taxpayers, who contribute significantly to domestic tax revenues.
- **Policy and Programs**: Focusing on strategic planning, operational business planning, and policy development to support BTS' core functions.

- **Information Technology** – Focus on implementation of system maintenance and support of the Tax System Infrastructure.

3. **Programs:**

- **Integrated Tax Administration System (ITAS)**: Implementing a robust IT system to improve services to taxpayers, increase operational efficiency, and boost revenue collection.
- **Human Resource Development**: Conducting skills gap analysis, offering training programs, and developing a comprehensive HR strategy to enhance staff competence and satisfaction.
- **Outreach Programs**: Conducting risk-based outreach programs to educate taxpayers and encourage voluntary compliance.
- **Strategic Management Framework (SMF)**: Developing a framework to guide the implementation of strategic and operational plans, performance measurement, and monitoring and evaluation processes.

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

- **Electronic Invoice (e-invoice)** - An electronic invoice (e-invoice), is well described by the Inter-American Development Bank (IDB) and the Inter-American Center of Tax Administrations (CIAT), as:

  "an invoice that exists in electronic form and that, in all situations and for all actors, has the same purposes as a paper invoice, for issuers, recipients, and interested third parties. Put another way, it is a document that records an

> entity's commercial transactions in electronic form, fulfilling the principles of authenticity, integrity, and legibility in all applicable situations and for all the actors in the process, in the commercial, civil, financial, logistical and, undoubtedly, tax spheres". (CIAT and IDB, 2018).

### 2.3.1 Current situation of the problem or opportunity under study

The BTSD currently faces several challenges and opportunities in its tax administration processes. The existing invoicing ecosystem is primarily paper-based, leading to inefficiencies, errors, and increased administrative burdens. According to the Inter-American Development Bank and Inter-American Center of Tax Administrations (2018), baseline data from Latin American experience shows that the average time to process a manual invoice is approximately 15 to 20 minutes, with an estimated error rate of 10% to 15%. Additionally, there is significant under-reporting of GST revenue, often due to the manipulation of cash registers to under-report sales, contributing to a compliance rate of only 60% in some regions. This situation has resulted in a considerable tax gap, with actual GST revenue falling short of expectations by 10% to 20% or approximately $2 to $5 billion annually. Moreover, the manual handling of invoices makes it difficult to detect and prevent tax evasion and fraud effectively. As a result, compliance levels are not optimal, and there is a significant tax gap that needs to be addressed.

On the other hand, the implementation of an electronic invoicing (e-invoicing) system presents a substantial opportunity for the BTSD to modernize its operations and enhance

overall efficiency. The introduction of e-invoicing is expected to reduce the average invoice processing time by 50%, to lower the error rate to less than 5%, and to increase compliance rates to 95% within three years of implementation. This shift will also allow BTSD to close the GST revenue gap by at least 20%, as the system will enable more accurate and real-time data collection, making it easier to track and verify transactions. Moreover, the ability to identify discrepancies, errors, and fraud early will strengthen audit capabilities and enhance overall compliance. The introduction of an e-invoicing system aligns with global trends and best practices, positioning Belize as a progressive and efficient tax administration. The BTSD stands to benefit from increased revenue collection, better data management, and a more transparent and fair tax system. Additionally, this technological shift will allow BTSD to access GST data more easily and accurately, enhancing its ability to identify discrepancies, errors, and fraud early. Consequently, the BTSD will gain the visibility and power needed to maximize tax revenues and close the VAT gap, thereby improving overall compliance and efficiency in tax administration.

### 2.3.2 Previous research done for the topic under study

The document "Tax Administration 3.0 and Electronic Invoicing" by the OECD offers valuable insights into the implementation and benefits of electronic invoicing (e-invoicing) across various tax administrations. It defines an e-invoice as an electronic form of an invoice that ensures authenticity, integrity, and legibility, similar to a paper invoice. E-invoices can be either unstructured data, like PDFs and scanned images, or structured data sets that facilitate automated processing. The document highlights that e-invoicing supports

sustainable e-business ecosystems by optimizing cash flow and reducing payment times and is often implemented to comply with domestic regulatory frameworks and to enhance compliance risk management. Additionally, e-invoicing improves tax fraud detection, audit effectiveness, and revenue collection.

The OECD report also discusses the strategies and challenges associated with e-invoicing implementation. Many countries, such as Chile and Italy, have adopted a phased approach, starting with large businesses and gradually including smaller enterprises. However, the diversity of e-invoicing standards can create challenges for cross-border transactions and inter-operability. Initial implementation may also increase administrative burdens on businesses due to system upgrades, staff training, and new regulatory compliance requirements. Despite these challenges, the benefits of e-invoicing are substantial, including improved efficiency through automation, increased revenue collection by closing the tax gap, reduced environmental impact by minimizing paper usage, and enhanced data management with real-time or near-real-time information for better decision-making and compliance monitoring.

These insights are particularly relevant to the BTSD as it considers implementing an electronic invoicing system. By adopting a phased approach, starting with larger taxpayers and gradually including smaller ones, the BTSD can manage the transition more smoothly. By understanding the core elements, benefits, and potential challenges of e-invoicing, the BTSD can develop a strategic approach to enhance its tax administration capabilities, improve compliance, and increase revenue collection while supporting sustainable business practices.

METHODOLOGICAL FRAMEWORK

The methodological framework outlines the approach and methods that will be employed to achieve the objectives of the FGP. This framework includes the information sources, the research method, tools, assumptions, constraints and deliverables that will be used to implement and evaluate the electronic invoicing system.

## 2.4 Information sources

Information sources refer to the origins or channels from which individuals obtain data, facts, knowledge, or insights. These sources can be diverse and encompass various mediums and formats. (Ashikuzzaman & Ashikuzzaman, 2023)

### 2.4.1 Primary sources

According to the University of Wisconsin- Steven Point, Primary sources of information are first-hand accounts of research or an event including original scholarly research results, raw data, testimony, speeches, historic objects or other evidence that provides unique and original information about a person or an event. (Information Sources in The Sciences, n.d.). For the purpose of the FGP, several first-hand information will be used to develop the implementation plan for electronic invoicing.

Primary Sources for the development of this FGP include the following:

- Technical Reports
- Interviews
- Government Documents
- Original Journal Research Articles.
- Surveys

- Questionnaires
- Focus Groups

### 2.4.2 Secondary sources

Secondary sources analyse, synthesize, evaluate, and interpret primary sources (or other secondary sources). Secondary sources are created after an event has occurred and are written by someone who did not experience or observe the event first-hand (Information Sources in The Sciences, n.d.).

Secondary Sources for the development of this FGP include the following:

- Publications
- Academic Journals
- Books
- Documentaries

Please see Chart 1.

**Chart 1 Information Source**

| **Objectives** | **Information sources** | |
|---|---|---|
| | **Primary** | **Secondary** |
| To develop a Project Charter that will outline the project's purpose and objectives, ensuring a clear and shared | • Interview<br>• Workshop<br>• Technical Reports | • PMBOK® Guide (2017)<br>• Publications<br>• |

| | | |
|---|---|---|
| understanding of the project's intentions. | | |
| To develop a Project Scope Management Plan that defines and documents the project scope, ensuring all the work required and only the work required is included. | • Workshop with BTS Management<br>• Interview with CIAT consultants<br>• Technical Reports | • PMBOK® Guide (2017)<br>• Publications<br>• |
| To develop a Project Schedule Management Plan that details the project's timeline, including milestones and deadline ensuring that the project's activities are achieved on time | • Workshop with BTS Management<br>• Interview with CIAT consultants<br>• Technical Reports | • PMBOK® Guide (2017)<br>• Publications<br>• Online research |
| To develop a Project Cost Management Plan that defines the budget allocation required to complete the implementation of electronic invoicing. | • Workshop with BTS Management<br>• Interview with CIAT consultants<br>• Technical Reports | • PMBOK® Guide (2017)<br>• Publications<br>• |
| To develop a Project Quality Management Plan that establishes quality | • Workshop with BTS Management<br>• Technical Reports | • PMBOK® Guide (2017)<br>• Publications |

| | | |
|---|---|---|
| standards and procedures, ensuring the deliverables meet the required quality criteria. | | • |
| To develop a Project Resource Management Plan that defines, identifies, and allocates necessary project resources and ensures that they are used efficiently. | • Workshop with BTS Management<br>• Interview with CIAT consultants<br>• Technical Reports | • PMBOK® Guide (2017)<br>• Publications<br>• Online Research |
| To develop a Project Communication Management Plan that defines the communications methods ensuring the effective information flow among all stakeholders. | • Workshop with BTS Management<br>• Interview with CIAT consultants<br>• Technical Reports | • PMBOK® Guide (2017)<br>• Publications<br>• Online research |
| To develop a Project Risk Management Plan that identifies potential risks outlines mitigation strategies, and ensures that risks are managed properly throughout the project's lifetime. | • Workshop with BTS Management<br>• Technical Reports | • PMBOK® Guide (2017)<br>• Publications<br>• Online Research |
| To develop a Project Procurement Management | • Workshop with BTS Management | • PMBOK® Guide (2017) |

| | | |
|---|---|---|
| Plan that defines the procurement processes, ensuring timely and cost-effective acquisition of project resources. | • Technical Reports | • Publications |
| To develop a Project Stakeholder Management Plan that identifies and engages stakeholders, ensuring that their needs and expectations are managed throughout the project lifecycle. | • Workshop with BTS Management<br>• Interview with CIAT consultants<br>• Technical Reports | • PMBOK® Guide (2017)<br>• Publications |

*(Source: Process Groups: A Practice Guide (2022))*

## 2.5 Research methods

A research method refers to the specific techniques and procedures used to identify, select, process, and analyse information about a topic. Research methods are fundamental to conducting academic, scientific, and practical investigations, providing the tools necessary to gather and evaluate data effectively.

Example:

3.2.1 Qualitative method

Qualitative Research deals with understanding human beliefs, behaviour, values, and perceptions of certain social or non-social issues within their own environmental contexts. Qualitative research methodology uses open-ended

questions and motivates participants to express their thoughts and views openly with no limitations. (VOXCO, 2021)

3.2.2 Analytical method

Analytical techniques are methods that analyse problems, facts, or status in order to forecast potential outcomes while factoring-in project variables accurately. (Writer, 2019)

3.2.3 Quantitative method

Quantitative research seeks to establish knowledge using numbers and measurement. Within the overarching area of quantitative research, there are various methodologies. The most used methodologies are experiments, surveys, content analysis, and meta-analysis. (Malik, 2019)

**Chart 2 Research Methods**

| **Objectives** | **Research methods** | | |
|---|---|---|---|
| | Qualitative | Quantitative | Analytical |
| To develop a Project Charter that will outline the project's purpose and objectives, ensuring a clear and shared understanding of its intentions. | -Document Review and Expert Consultation<br>-Review project charters from similar projects and consult with the project execution unit on experiences to gather best practices. This will | | |

| | | | |
|---|---|---|---|
| | assist in creating a solid and comprehensive project charter that is aligned with BTSD's strategic goals. | | |
| To develop a Project Scope Management Plan that defines and documents the project scope, ensuring all the work required and only the work required is included. | Workshops Focus Groups. Execute workshops with BTS Management to define and document the project scope that will assist in identifying the required work and ensure that only the necessary tasks are included. | | |
| To develop a Project Schedule Management Plan that details the | | | Use Gantt charts to map out the project timeline and analyse |

| | | | |
|---|---|---|---|
| project's timeline, including milestones and deadlines ensuring that the project's activities are achieved on time | | | historical data from similar projects to estimate task durations and identify potential scheduling risks. This method helps to create a realistic and achievable project schedule |
| To develop a Project Cost Management Plan that defines the budget allocation required to complete the implementation of electronic invoicing. | | **Cost Estimation Techniques (Analogous and Parametric Estimating);** Apply these techniques to develop the project budget as there are several implementations of E-invoicing in Latin America | |
| To develop a Project Quality Management Plan that establishes quality | **Benchmarking:** benchmarking the quality standards | | |

| | | | |
|---|---|---|---|
| standards and procedures, ensuring that the deliverables meet the required quality criteria. | with similar successful projects and define the criteria that the electronic invoicing system must meet. This method will ensure that the quality management plan aligns with industry standards. | | |
| To develop a Project Resource Management Plan that defines, identifies and allocates necessary project resources and ensures that they are used efficiently. | **Resource Allocation Models:** this will assist in efficiently allocating resources in a way that maximizes productivity or minimizes costs across the different | | |

| | | | |
|---|---|---|---|
| | phases of the project.<br>**Expert judgment**: will be used to estimate costs, determine risk factors, or validate the project plan for the e-invoicing system, based on the experience of professionals in tax administration or IT systems. | | |
| To develop a Project Communication Management Plan that defines the communications methods ensuring the effective | Conduct in-depth interviews with key stakeholders to understand their communication preferences, expectations, and | Distribute surveys to stakeholders to quantitatively assess their communication preferences, satisfaction levels, and the effectiveness of | SWOT Analysis: use the analysis to develop strategies that leverage strengths, mitigate weaknesses, capitalize on opportunities, |

| | | | |
|---|---|---|---|
| information flow among all stakeholders. | concerns. Utilize the feedback to develop communication methods that address the collective needs of stakeholder groups. | existing communication channels. Survey results to make data-driven decisions about which communication methods and tools to prioritize in the plan. | and address threats. |
| To develop a Project Risk Management Plan that identifies potential risks, outlines mitigation strategies and ensures that risks are managed properly throughout the project's lifetime. | Conduct workshops with project stakeholders and team members to brainstorm and identify potential risks which will result in the creation of a comprehensive risk register | Probability and Impact Matrix: Use a matrix to quantify the likelihood of risks occurring and the potential impact of those risks. | SWOT Analysis: Analyse the internal and external factors that could pose risks or provide opportunities for the project. |
| To develop a Project Procurement Management Plan that defines the | Expert Judgement: Engage procurement experts | Develop evaluation criteria with scoring system to | Evaluate whether it is more cost-effective and |

| | | | |
|---|---|---|---|
| procurement processes, ensuring timely and cost-effective acquisition of project resources. | to provide their insights and recommendations based on their experience in similar projects. | quantitatively evaluate vendors based on predefined criteria such as cost, quality, delivery time, and experience | efficient to create internally or to procure from external vendors. |
| To develop a Project Stakeholder Management Plan that identifies and engages stakeholders, ensuring that their needs and expectations are manged throughout the project lifecycle. | Interview: Conduct in-depth interviews with key stakeholders to understand their expectations, concerns, and communication preferences.<br>Focus Group: Organize focus group discussions with representatives from different stakeholder groups | Survey: Use survey results to make decisions about how to engage with different stakeholders | Use Influence and Impact matrix to analyse the potential impact of stakeholders on the project and their ability to influence its outcomes. |

| | | | |
|---|---|---|---|
| | to explore their views of the project. | | |

*(Source: Compiled by the Author)*

## 2.6 Tools

The PMBOK® Guide define tools as "something tangible, such as a template of a software program used in performing an activity to produce a product or result" (Project Management Institute, 2017, p. 725). These tools are practical implements or techniques used to achieve specific objectives, to solve problems, to make decisions, and to streamline processes. Each tool in PMBOK® guide is associated with specific processes and aims to facilitate better project outcomes by providing systematic approaches to common project management challenges. These tools are important for enhancing efficiency, improving communication, mitigating risks, and ensuring that projects are completed on time, within budget, and to the satisfaction of all stakeholders. Please refer to Chart 3 for the breakdown of tools.

### Chart 3 Tools

| Objectives | Tools |
|---|---|
| To develop a Project Charter that will outline the project's purpose and objectives to ensure a clear and shared understanding of the project's intentions. | • Interviews<br>• Surveys<br>• Focus Group |
| To develop a Project Scope Management Plan that defines and documents the project scope, ensuring that all the work required and only the work required is included. | • Interviews<br>• Workshop<br>• Data Analysis<br>• Mind Mapping<br>• Cmap<br>• WBS |
| To develop a Project Schedule Management Plan that details the project's timeline, including milestones and deadlines ensuring that the project's activities are achieved on time. | • Workshop<br>• Expert Judgement<br>• Microsoft Projects<br>• Analogous estimating<br>• Parametric estimating<br>• Critical Path Method |
| To develop a Project Cost Management Plan that defines the budget allocation required to complete the implementation of electronic invoicing. | • Workshop<br>• Expert Judgement<br>• Analogous estimating<br>• Parametric estimating<br>• Earned value estimating<br>• Microsoft projects<br>• Historical information review |

| **Objectives** | **Tools** |
|---|---|
| To develop a Project Quality Management Plan that establishes quality standards and procedures, ensuring that the deliverables meet the required quality criteria. | • Interviews<br>• Mind Mapping<br>• Brainstorming<br>• Root Cause Analysis<br>• Meeting |
| To develop a Project Resource Management Plan that defines, identifies and allocates necessary project resources and ensuring they are used efficiently. | • Expert Judgement<br>• RACI Matrix<br>• Multicriteria decision making<br>• Communication Technology<br>• Interpersonal and team skill<br>• Microsoft Projects<br>• Workshop |
| To develop a Project Communication Management Plan that defines the communications methods to ensure that effective information flows among all stakeholders. | • Surveys<br>• Communication technology and methods<br>• Stakeholder engagement matrix<br>• Workshop |
| To develop a Project Risk Management Plan that identifies potential risks, outlines mitigation strategies, and ensures that risks are managed properly throughout the project's lifetime. | • Workshop<br>• Expert Judgement<br>• Root Cause Analysis<br>• SWOT analysis<br>• Risk Probability and Impact assessment |

| Objectives | Tools |
|---|---|
| | • Strategy for threats and opportunities |
| To develop a Project Procurement Management Plan that defines the procurement processes, ensuring timely and cost-effective acquisition of project resources. | • Workshop<br>• Source selection analysis<br>• Make or Buy analysis<br>• Advertising<br>• Bidder conference<br>• Proposal Evaluation<br>• Performance Reviews |
| To develop a Project Stakeholder Management Plan that identifies and engages stakeholders, ensuring that their needs and expectations are managed throughout the project lifecycle. | • Workshop<br>• Questionnaire and surveys<br>• Stakeholder analysis<br>• Mind mapping<br>• Stakeholder Analysis and Mapping |

*(Source: Compiled by the Author)*

## 2.7 Assumptions and constraints

The PMBOK® Guide 6th edition defines an assumption as, “A factor in the planning process that is considered to be true, real or certain, without proof or demonstration.” It further defines constraint as, “a limiting factor that affects the execution of a project, program, portfolio or process.” (Project Management Institute, 2017). Kindly refer to Chart 4 which expounds on assumptions and constraints.

### Chart 4 Assumptions and Constraints

| Objectives | Assumptions | Constraints |
|---|---|---|
| To develop a Project Charter that will outline the project's purpose and objectives, ensuring a clear and shared understanding of its intentions. | The project charter developed in the FGP course is satisfactory and can be built on. | |
| To develop a Project Scope Management Plan that defines and documents the project scope, ensuring that all the work required and only the work required is included. | Stakeholders have a clear understanding of the project's requirements and can agree to a decent scope of work. | Scope management will need to avoid scope creep, especially with the potential inclusion of B2C transactions. Project will be designed for B2B implementation |
| To develop a Project Schedule Management Plan that details the project's timeline, including milestones and deadline ensuring that the project's activities are achieved on time | Accurate estimation of task duration and dependencies and the required resources and stakeholders will be made available | The overall project must be completed in 18 months, leaving little flexibility in the schedule. |

| Objectives | Assumptions | Constraints |
|---|---|---|
| To develop a Project Cost Management Plan that defines the budget allocation required to complete the implementation of electronic invoicing. | Cost estimates will be based on reliable data from similar projects and country of similar size. | Electronic invoicing has not yet been implemented in the Caribbean region. Most implementations have occurred in Latin American countries. |
| To develop a Project Quality Management Plan that establishes quality standards and procedures, ensuring that the deliverables meet the required quality criteria. | Quality standards will be agreed upon by stakeholders and aligned with international best practices including compliance with relevant ISO standards for information security and data management, structured semantics and syntax for | Limited availability of English-language documentation on e-invoicing systems may impact the quality of deliverables. |

| Objectives | Assumptions | Constraints |
|---|---|---|
| | invoicing Data Exchange. | |
| To develop a Project Resource Management Plan that defines, identifies and allocates necessary project resources and ensuring that they are used efficiently. | All required resources including human, technological, financial will be available when needed. | Resource availability may be constrained by other ongoing projects within BTSD and the limited knowledge of Electronic Invoicing. |
| To develop a Project Communication Management Plan that defines the communications methods ensuring the effective information flow among all stakeholders. | Stakeholders will engage actively and respond promptly to communication efforts and agree to suitable communication channels. | Potential language barriers and translation issues may impact communication clarity to all stakeholders in the business community. |
| To develop a Project Risk Management Plan that identifies potential risks, outlines mitigation strategies, and ensures that risks are managed properly throughout the project's lifetime. | Major risks will be identified early, and mitigation strategies will be effective. | The ability to conduct comprehensive risk assessments may not be met due to time constraints. And |

| Objectives | Assumptions | Constraints |
|---|---|---|
| | | certain risks, such as hurricanes, are beyond control. |
| To develop a Project Procurement Management Plan that defines the procurement processes, ensuring timely and cost-effective acquisition of project resources. | Procurement processes will be efficient, and suppliers will deliver on time and necessary approvals made without any delays. | Procurement options may be limited by budget constraints and available vendors for Belize's economy size. |
| To develop a Project Stakeholder Management Plan that identifies and engages stakeholders, ensuring that their needs and expectations are managed throughout the project lifecycle. | Stakeholders will be cooperative and responsive to engagement efforts. | Stakeholder engagement may be limited because of willingness to participate. |

*(Source: Compiled by the Author)*

## 2.8 Deliverables

As defined by PMBOK® 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” (Project Management Institute, 2017). Deliverables may be tangible or intangible. Kindly see Chart 5.

**Chart 5 Deliverables**

| **Objectives** | **Deliverables** |
|---|---|
| To develop a Project Charter that will outline the project’s purpose, objectives ensuring a clear and shared understanding of the project’s intentions. | • Project Charter<br>• Assumption Log |
| To develop a Project Scope Management Plan that defines and documents the project scope, ensuring that all the work required and only the work required is included. | • Scope Management Plan<br>• Scope Verification Matrix<br>• Work Breakdown Structure<br>• WBS Dictionary |
| To develop a Project Schedule Management Plan that details the project’s timeline, including milestones and deadline ensuring that the project’s activities are achieved on time | • Schedule Management Plan<br>• Project Schedule<br>• Activity List and Attributes |
| To develop a Project Cost Management Plan that defines the budget allocation | • Cost Management Plan<br>• Cost Estimates |

| | |
|---|---|
| required to complete the implementation of electronic invoicing. | • Project Budget |
| To develop a Project Quality Management Plan that establishes quality standards and procedures, ensuring that the deliverables meet the required quality criteria. | • Quality Management Plan<br>• Quality Metrics<br>• User Acceptance Test template |
| To develop a Project Resource Management Plan that defines, identifies and allocates necessary project resources and ensuring that they are used efficiently. | • Resource Management Plan<br>• Resource Breakdown Structure<br>• RACI Chart |
| To develop a Project Communication Management Plan that defines the communications methods ensuring that effective information flow among all stakeholders. | • Communication Management Plan<br>• Communication Requirements Matrix |
| To develop a Project Risk Management Plan that identifies potential risks, outlines mitigation strategies and ensure that risks are managed properly throughout the project's lifetime. | • Risk Management Plan<br>• Risk Breakdown Structure<br>• Risk Register<br>• Risk Response Plan |

| | |
|---|---|
| To develop a Project Procurement Management Plan that defines the procurement processes, ensuring timely and cost-effective acquisition of project resources. | • Procurement Management Plan<br>• Procurement Documents<br>• Vendor Evaluation Criteria |
| To develop a Project Stakeholder Management Plan that identifies and engages stakeholders, ensuring that their needs and expectations are manged throughout the project lifecycle. | • Stakeholder Management Plan<br>• Stakeholder Register<br>• Stakeholder Management Matrix |

*(Source: Compiled by the Author)*

# 3 RESULTS

## 4.1 Project Integration Plan

**The Project Integration Plan is portrayed as follows:**

### Chart 6 Project Charter

| | |
|---|---|
| | |
| **DATE** | **PROJECT NAME** |
| July 01, 2024 | Electronic Invoice Implementation |
| **PROJECT LIFE CYCLE** | Hybrid (Predictive and Adaptive) |
| **KNOWLEDGE AREA / PROCESS GROUP** | **Application area (Sector/Activity)** |

<table>
<tr><td>Process Group:<br>Initiation, Planning, Executing, Controlling and Monitoring<br><br>Knowledge Areas:<br>Project Integration Management,<br>Project Scope Management,<br>Project Schedule Management,<br>Project Cost Management,<br>Project Quality Management,<br>Project Procurement Management,<br>Project Stakeholder Management,<br>Project Communication Management,<br>Project Resource Management,<br>Project Risk Management</td><td colspan="2">Financial Sector: Electronic Invoicing Implementation in the B2B, B2G and B2C environment</td></tr>
<tr><td>Tentative start date</td><td>Tentative completion date</td><td>Duration (months)</td></tr>
<tr><td>January 6, 2024</td><td>June 30th, 2025</td><td>18 months</td></tr>
<tr><td colspan="3">Project Objective (general and specific)</td></tr>
<tr><td colspan="3">General Objective<br>To implement a structured electronic invoicing system for the BTSD that improves data accuracy and compliance, reduces the tax gap, and facilitates a smooth transition for taxpayers by incorporating best practices from successful implementations, thereby</td></tr>
</table>

enhancing both the efficiency of tax administration and the ease of compliance for businesses in Belize.

**Specific Objectives**

1. Develop a structured electronic invoicing system for the BTSD that enables seamless electronic submission and validation of tax documents.
2. Implement best practices from successful e-invoicing systems in other countries (Latin America) to facilitate smooth transition and adoption by businesses in Belize
3. Reduce the tax gap by improving data collection and monitoring capabilities and accessibility and ease of use for businesses, tax administration, and auditors.
4. Utilize the collected invoicing data for risk-based auditing and to ensure compliance.

**Justification or Purpose of the Project (Contribution and expected results)**

Based on the International Monetary Fund (IMF) recommendation, the Government of Belize (GOB) embarked on a major initiative to modernize the country's tax administration. In 2019, this effort began with amalgamating the Income and Business Tax Department (IBTD) and the General Sales Tax (GST) Department into a single entity known as BTSD. The primary goal of this initiative is to create a tax environment in Belize that aligns with best practices in organization, personnel, processes, and technology. This

modernization aims to enhance the efficiency and effectiveness of tax administration while providing improved services to taxpayers and other stakeholders.

Over the past four years, the BTSD has undertaken several key initiatives aligned with its mandate to modernize the tax administration. These activities include establishing a new business model, implementing a modern tax information system, digitizing documents, deploying a learning management system, and enhancing the technical skills of its human resources.

To complement its modernization efforts, the BTSD has proposed implementing an Electronic Invoicing System. This initiative aims to enhance efficiency and compliance, minimize tax evasion and fraud, and improve revenue collection. The BTSD has recognized that many businesses have under-reported their tax revenue or deliberately evaded taxes. This realization has been confirmed through recent sting operations and comprehensive data analysis of taxpayer behaviour.

Electronic invoicing is anticipated to benefit taxpayers, the department, and the country significantly. These benefits include:

1. Automating Invoice Processing: The system will automate the processing of invoices between sellers and buyers, streamlining transactions and reducing the manual workload.

2. Reducing Human Errors: Digitizing the invoicing process will significantly reduce human errors that are common in manual data entry and processing.
3. Improving Compliance: Electronic invoicing will enhance compliance by ensuring that all transactions are accurately recorded and reported, making it harder for businesses to evade taxes.
4. Environmental Impact: The shift to a paperless system will indirectly benefit the environment by reducing the need for paper, thereby lowering the carbon footprint associated with paper production and waste.
5. Increasing Revenue Collection: The BTSD anticipates a significant increase in revenue collection, with estimates suggesting an improvement of at least 30%. This increase will be driven by better compliance and more accurate reporting.
6. Reducing Time and Cost: Automating invoicing processes will lead to time and cost savings for both the tax department and businesses, as it will expedite transaction processing and reduce administrative burdens.

**Description of the product or service that the project will generate- Final Deliverables of the project**

The ultimate deliverable of this project is an Electronic Invoicing System for the BTSD and Taxpayers. This system will replace traditional paper-based and unstructured electronic invoicing methods with a streamlined, automated solution designed to improve tax compliance, data accuracy, and operational efficiency. It will enable businesses to issue, receive, and store invoices electronically, ensuring real-time data transmission to BTSD

for better monitoring and control of tax-related activities. The system will also facilitate risk-based auditing and enhance overall transparency and trust in the tax administration process.

The main deliverable for this project will be

- Project Plan and Implementation Roadmap
- Legal and Regulatory Framework
- Technical Specifications Documentation
- Electronic Invoicing System for BTSD
- Taxpayers invoicing Platform
- Data Storage Infrastructure
- System Integration
- User Manuals and Training Materials
- Training and Capacity Building
- Data Analysis and Reporting Tool
- Change Management and Communication Strategy
- Monitoring and Evaluation Framework

**Assumptions**

- Funding and resources will be allocated to support the project
- Key stakeholders will be cooperative and engaged throughout the project duration
- Stakeholders will be willing to participate in the piloting phase

- The required legal and regulatory framework will be established to facilitate the implementation of the e-invoicing system.
- CIAT will be providing technical expertise throughout the life of the project
- A suitable COTS-based solution will be procured to support the e-invoicing
- Have political support from the central government.

**Restrictions**

- Short timeline for implementation (18 months)
- Potential stakeholder resistance to change.
- Integration challenges with the existing IRISBelize system.
- Limited human resource capacity
- Absence of a Public Key Infrastructure (PKI) authority
- Limited access to reliable internet in remote areas may hinder business compliance.

**Preliminary Risk Identification**

- Resistance to change from businesses
- Technical challenges in system integration.
- Insufficient training resulting in improper system usage.
- Risk of regulatory non-compliance

- Dependence on external vendors
- Business non-compliant due to cultural attitudes towards technology.

**General resources and budget**

| **Resources** | **Effort** | **Total Cost (USD)** |
|---|---|---|
| Project Manager | | |
| CIAT Consultants | Four technical persons | $99,000 |
| Project Support Officer | Three persons | $27,000 |
| Workshop | 20 | $20,000 |
| Communication Consultancy | One company | $40,000 |
| E-invoice Software | One vendor | $250,000 |
| Taxpayer Invoicing Platform | One vendor | $60,000 |
| Infrastructure (servers and Storage) | Two servers | $80,000 |
| Reporting Tool | 1 Tool | $40,000 |
| API Development | | $39,000 |
| Training | 12 sessions | $15,000 |
| | **Subtotal** | **$670,000** |
| Contingency | 10% | $67,000 |
| | **Total** | **$737,000** |

| **Milestone Schedule** | |
|---|---|
| **Milestones** | **End Date** |
| Legal Framework | June 2025 |
| Operative Model | April 2025 |
| Syntax and Semantics | June 2025 |
| Validation Rules | July 2025 |
| Orientation Manual | January 2026 |
| E-invoicing RFP | August 2025 |
| Vendor Selection | September 2025 |
| Infrastructure Readiness | January 2026 |
| Orientation Manual | January 2026 |
| Communication Plan | June 2026 |
| Requirement and Technical Documentation | November 2025 |
| Core Invoicing System Developed | February 2026 |
| Taxpayer Interface Developed | March 2026 |
| System Integration (API) | April 2026 |
| Training | March 2026 |
| Successful Pilot | May 2026 |
| System Deployment | May 2026 |

| | |
|---|---|
| Data Analysis Tool | June 2026 |

| **Relevant Historical Information** |
|---|
| The BTSD has embarked on a modernization initiative to address inefficiencies in its traditional paper-based invoicing system, which has been prone to under-reporting and tax evasion. In 2021, BTSD considered an invoice control system that would require taxpayers to register and authorize tax documents, but the logistical and financial burdens of frequent office visits and physical document retention led to a shift in focus. In late 2023, BTSD turned its attention to electronic invoicing (e-invoicing), a system already successfully adopted in several Latin American and global regions. E-invoicing reduces fraud, streamlines tax administration, and eases the burden on taxpayers, providing benefits like improved accuracy, faster processing times, and cost reductions. With global growth in e-invoicing, the adoption of this system in Belize aims to align the country with international best practices and enhance its tax administration. The current project will develop a comprehensive plan for BTSD's e-invoicing implementation, focusing on efficiency, compliance, and revenue improvement. |

| **Identification of interest groups (involved)** |
|---|
| Direct Involved:<br>• Project Sponsor<br>• Belize Tax Service |

- Ministry of Finance
- CIAT
- Procurement Unit
- CITO
- Attorney General
- Business
- Software Vendors

Indirect stakeholders:

- Belize Chamber of Commerce
- E-governance Unit
- Public Service Union of Belize
- City and Town Councils
- Taxpayers
- Citizens
- Media houses
- BELTRAIDE
- Accounting Association
- Customs Department

| | |
|---|---|
| **Name of Student: Gabriel Bol** | Signature: |
| **Name and position of the person authorizing (facilitator):** | Signature: |

## 4.2. Scope Management

The scope management plan provides the scope framework for implementing the E-invoicing for the BTSD. It documents the scope management approach, roles, and responsibilities pertaining to the project scope, scope definition, scope baseline, verification, scope control, and changes.

The E-invoicing implementation aims to improve data accuracy and compliance, reduce the tax gap, and facilitate a smooth transition for taxpayers, which will enhance the efficiency of tax administration and the ease of compliance for businesses in Belize. The objective of the project is in line with the overall modernization of the Tax Administration of Belize.

**Scope Management Approach**

The scope management plan will outline all the activities and deliverables needed to successfully implement the BTSD's e-invoicing system. The scope Statement, WBS, and WBS Dictionary will define the project's scope. In line with the Scope Management Approach, the project will establish a Project Steering Committee (PSC) consisting of representatives from the funding institution, the Director of the Belize Tax Service, the Financial Secretary, the Project Manager from the Project Execution Unit (PEU), and the E-Invoicing Team Lead.

Scope change proposals may originate from any PSC or project team member. All proposed changes will be formally submitted to the Project Manager, who will assess each request and evaluate the potential impacts on project cost and timelines. Following this evaluation, if the Project Manager finds the change feasible, the scope change request will

be forwarded to the PSC, which serves as the Change Control Board, for review and approval.

Once the Change Control Board approves a scope change, the Project Manager will ensure that all project documentation is updated to reflect the change and communicate these adjustments to all relevant stakeholders. The PSC, incorporating feedback from the Project Manager and stakeholders, will maintain responsibility for accepting the final project deliverables and scope.

**Roles and responsibilities**

The Project Manager is responsible for incorporating requirements into the project management plan and ensuring that they are completed on time, within budget, and deliver recognized value. It is important for key stakeholders to be actively involved in defining the scope and understanding their specific duties. Clearly defined roles and responsibilities contribute to the smooth execution of scope-related tasks and facilitate organized management of any changes. The likelihood of project success increases when the team thoroughly understands each other's roles and responsibilities, enabling them to achieve project objectives collaboratively. Please see Chart 7 for details.

**Chart 7 Scope Roles and Responsibility**

| ID | Role | Responsibility |
|---|---|---|
| 1 | Sponsor | • Provide high-level oversight and review and approve major scope changes<br>• Provide the financial resources |

| | | |
|---|---|---|
| 2 | Project Manager | • Oversees the entire project, including the scope management process<br>• Organize and manage the work of the PSC<br>• Develop terms of reference and contracts for vendors and consultants<br>• Monitor the project activities and ensure they are within the defined scope and identify potential scope creep<br>• Regularly report and communicate with all stakeholders, including project status and changes.<br>• Lead validation sessions to obtain approval for the deliverables |
| 3 | Core Project Team | • Inform the project manager of any issues or potential changes needed in the scope, especially if they impact task completion or quality.<br>• Participate in scope validation by preparing deliverables for review and addressing feedback from stakeholders and the project manager |

| | | |
|---|---|---|
| | | • Assist in assessing the impacts of any proposed changes to the project scope.<br>• Work on tasks and activities as outlined in the WBS and scope statement. |
| 4 | Project Steering Committee | • Acts as the change control board<br>• Approve and sign off on project deliverables and defined scope.<br>• Provide management-level decisions when the Project Manager seeks guidance.<br>• Holds final authority on matters needing official review and approval, including the annual work plan and critical staffing decisions.<br>• Oversees scope management, establishing and approving documentation to measure and validate project scope. |
| 5 | Stakeholders | • Provide input and feedback to define and validate the project scope<br>• Review and provide feedback on the scope statement, WBS, and other key scope-related documents |

| | | |
|---|---|---|
| | | • Submit any requested changes to the project scope using the designated change request process.<br>• Engage in project reviews and status meetings to stay informed on the project's progress and any scope changes |

*(Source: Compiled by the Author)*

### 4.2.1. Requirements Collection

Requirement collection is a critical process that involves gathering, documenting, and validating the needs and expectations of stakeholders. In the e- invoicing implementation for the BTSD, this process ensures that all functional, technical, and business requirements are clearly identified and aligned with project goals. The requirement collection process includes conducting workshops, interviews, surveys, and focus group discussions with relevant stakeholders such as tax administrators, IT personnel, vendors, and business representatives. This approach ensures a comprehensive understanding of project expectations, reduces ambiguity, and helps define the project's scope accurately.

To ensure traceability and alignment with project deliverables, the collected requirements are documented in Chart 8: Requirement Traceability Matrix. This matrix serves as a key reference tool, mapping each identified requirement to specific project deliverables, ensuring that all needs are addressed throughout the project lifecycle. By maintaining this traceability, BTSD can ensure accountability, manage changes effectively, and maintain focus on the project's intended outcomes.

### Chart 8 Requirement Traceability Matrix

| ID | Requirement Description | Requirement Type | Priority | Acceptable Criteria | Project Deliverable | Test case |
|---|---|---|---|---|---|---|
| 1 | Review, Establish, and document legal framework compliance standards to allow for E-invoicing. | Regulatory | High | All components/changes align with national legal requirements. | Legal Framework approved by cabinet | Legal Framework Audit |
| 2 | Establish and document syntax and semantics for EI, ensuring the use of structured, | Non-functional | High | All EI data elements are structured and machine-readable according to national syntax and semantics standards. | Syntax and Semantics Guide | Syntax and semantics validation |

| | | | | | | |
|---|---|---|---|---|---|---|
| | machine-readable elements. | | | | | |
| 3 | The system must support real-time invoice submission and validation | Functional | High | Invoices are processed and validated within 10 seconds of submission. | Real-time Processing Module | Validate real-time processing |
| 4 | The system should be accessible via desktop and mobile devices. | User | Medium | Accessible on multiple devices without performance issues. | Online Portal | User Interface accessibility testing |
| 5 | Digital signature support to guarantee the authenticity of submitted invoices. | Functional | High | Digital signatures are applied and verified on all invoices. | Digital Signature functionality | Digital Signature validation |

| | | | | | | |
|---|---|---|---|---|---|---|
| 6 | Integration with existing ERP and accounting systems. | Functional | High | Data is successfully exchanged between e-invoicing and ERP systems. | Integration Module | Integration Testing |
| 7 | Develop an Orientation Manual for Issuers of Electronic Tax Documents. | Operational | Medium | The manual provides step-by-step guidance for issuers on creating, submitting, and validating electronic tax documents. | Orientation Manual for Issuers | Manual usability review |
| 8 | The system must maintain a 99.9% uptime to support | Non-Functional | High | The system remains operational for at least 99.9% of uptime. | Infrastructure Upkeep | Uptime monitoring |

| | | | | | | |
|---|---|---|---|---|---|---|
| | continuous operation. | | | | | |
| 9 | The system must allow multi-format document submissions (e.g., XML, PDF). | Functional | Medium | Documents are accepted in multiple formats without errors. | Document Processing Module | Multi-format testing |
| 10 | Real-time monitoring dashboard for administrators. | Functional | Medium | Administrators can view and track submissions in real-time. | Monitoring Dashboard | Dashboard functionality test |
| 11 | Provide user support and training materials. | Operational | Medium | Training materials and help documentation are accessible. | Training and Support Resources | Training materials review |

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 | The system should handle peak loads of up to 1,000 invoices per minute. | Non-Functional | | The system does not exceed 3-second latency under load. | Performance and Load Handling | Load testing simulation |

*(Source: Compiled by the Author)*

### 4.2.2. Scope Definition

The scope definition is an essential section of the scope management plan, as it seeks to provide a clear and detailed outline of the project's intended objectives.

**Project Scope Statement**

The project statement for the e-invoicing project consists of the major deliverables, constraints, exclusions, assumptions, and acceptance criteria.

## Project Objectives

The primary objective of the E-Invoicing Implementation Project is to develop and implement a structured e-invoicing platform for the BTSD. This system will streamline invoicing processes, enhance data accuracy, improve tax compliance, and increase revenue collection by providing real-time transaction data. The project aims to support BTSD's strategic goals of modernization, transparency, and operational efficiency in tax administration.

## Product Scope Description

- **Development and Implementation of the E-Invoicing Platform:** Design and deploy a centralized e-invoicing system for BTSD that enables businesses to submit invoices directly to BTSD electronically. The system will integrate with existing systems like IRISBelize for seamless data exchange.
- **Taxpayer Interface Development:** Create an accessible, user-friendly taxpayer interface for submitting electronic invoices. This interface will be accessible via both web and mobile platforms to cater to various types of users, mainly focusing on B2B (business-to-business) transactions.
- **Data Storage and Security Infrastructure:** Develop and deploy a secure data storage infrastructure for the real-time storage, processing, and archival of electronic invoices, with encryption and backup capabilities to ensure data integrity and compliance with data protection laws.
- **Training and Capacity Building:** Conduct training sessions for BTSD staff, including tax auditors and customer service teams, to ensure effective use of the

e-invoicing system. Additionally, it provides training resources for taxpayers to facilitate system adoption and compliance.

- **Monitoring and Analytical Reporting Tools:** Implement real-time tracking and compliance monitoring tools to detect discrepancies, reduce tax evasion, and provide BTSD with actionable insights for data-driven audits.
- **Change Management and Communication**: Develop a change management plan and communication strategy to guide stakeholders through the transition from manual or unstructured electronic invoicing to the new e-invoicing system.

**Project Deliverables**

- **E-Invoicing Platform:** A centralized platform for creating, submitting, validating, and storing electronic invoices in compliance with Belize tax laws.
- **Taxpayer Interface:** A secure, intuitive, and responsive online portal for desktop and mobile devices where taxpayers can submit invoices electronically.
- **Integration Modules:** Integration with third-party accounting systems using APIs to support seamless data exchange.
- **Real-Time Monitoring Dashboard:** A dashboard enabling BTSD to monitor e-invoicing submissions, compliance levels, and system performance.
- **Orientation Manual for Issuers:** This is a comprehensive guide for businesses to create and to submit electronic tax documents through the new system.
- **Syntax and Semantics Guide:** Detailed documentation that defines structured syntax and semantics standards for electronic tax documents to ensure consistency and compatibility.

- **Training Materials and Workshop**: Comprehensive training resources, workshops, and user manuals for both BTSD staff and taxpayers to ensure smooth system adoption.

**Acceptable Criteria**

The project will be deemed successful upon meeting the following criteria:

- **Functionality:** The e-invoicing platform and taxpayer interface must meet all defined technical specifications and function as intended, facilitating smooth invoicing transactions and reporting.
- **User Acceptance Testing (UAT):** Successful completion of UAT by BTSD staff and selected taxpayer groups, with no unresolved critical issues.
- **Stakeholder Satisfaction:** Positive feedback from a pilot group of users, particularly among large taxpayers, ensuring the system is user-friendly and compliant with BTSD's requirements.
- **Compliance and Adoption**: User high compliance rate with e-invoicing regulations indicates successful adoption.
- **Performance and Reliability:** The system must demonstrate high reliability, maintaining uptime and data security by meeting established KPIs such as 99.9% uptime, processing time with 3 seconds

**Project Exclusions**

The following items are excluded from the project scope to prevent scope creep:

- **Integration with Third-Party Accounting Software:** The project will not provide direct integration with specific third-party accounting software

solutions. Instead, it will provide the facility in the form of APIs for taxpayers or third-party vendors to create integration solutions.

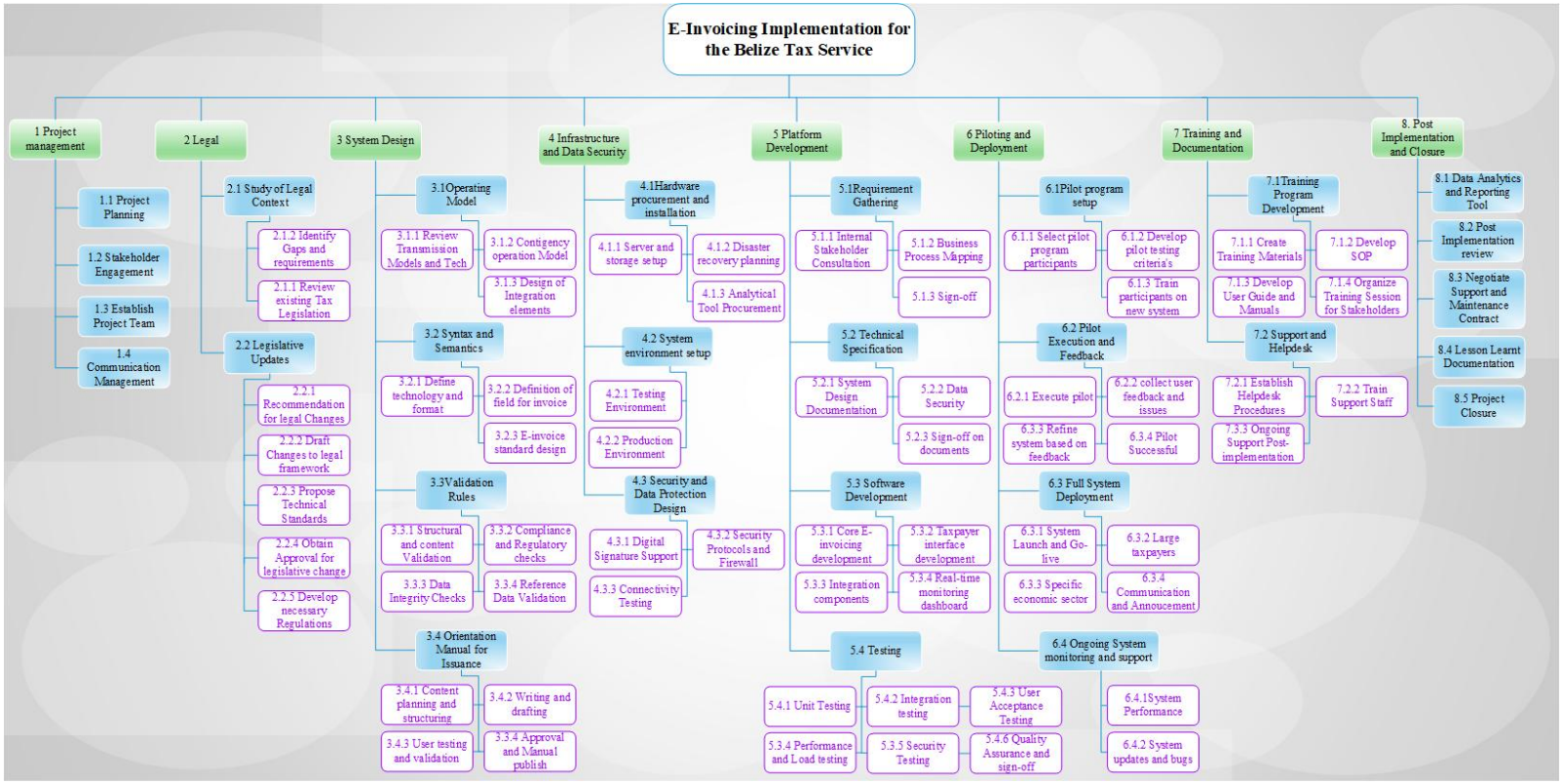
- **Invoicing for Non-GST Tax Types:** This project focuses solely on GST-related transactions and excludes other tax types unless deemed essential by BTSD's strategic priorities.
- **Development of Additional Non-Core Features:** Any functionalities not directly related to e-invoicing, such as payroll or payroll tax integrations, are outside the project's scope.
- **Tax Calculation and Filing**: The E-Invoicing system will not be designed to handle tax calculations or complete tax filings; it is limited to invoicing and reporting functionalities.
- **B2C Transactions**: Business-to-consumer (B2C) interactions are excluded from the current project and will not be part of this implementation.

### 4.2.3. Work Breakdown Structure

The WBS is a hierarchical framework used to organize and define the complete scope of the e-invoicing project. It decomposes the project into components, beginning with the overall project management and then breaking it into smaller, specific deliverables, tasks, and sub-tasks. Each level of the WBS provides a progressively detailed definition of the project work, ensuring clarity and focus throughout the lifecycle.

The WBS is a foundational tool for project planning, scheduling, resource allocation, and progress monitoring. It identifies all necessary activities and deliverables, ensuring nothing is overlooked while avoiding unnecessary tasks. Please see Chart 9.

## Chart 9 WBS Dictionary




*(Source: Compiled by the Author)*

### 4.2.4. WBS Dictionary

To provide a comprehensive breakdown of the WBS, a WBS Dictionary has been created to capture detailed information about each task. This includes levels, WBS Code, WBS name, WBS Description. The WBS Dictionary serves as a critical tool for ensuring that all tasks are clearly defined and understood, providing the necessary details to guide project execution.

By outlining these task characteristics, the WBS Dictionary (see Chart 10) supports the Project Manager in developing a precise and reliable schedule baseline. It ensures alignment between project tasks, resources, and timelines, facilitating effective planning, monitoring, and control throughout the project life cycle.

**Chart 10 WBS Dictionary**

| Level | WBS Code | WBS Name | WBS Description |
|---|---|---|---|
| 1 | 1 | Project Management | Oversee the project's planning, execution, monitoring and closure to ensure it meets its objectives. |
| 2 | 1.1 | Project Planning | Establish the groundwork and strategy for executing the project effectively. |
| 3 | 1.1.1 | Define Project Scope and Objectives | Identify the project's scope, deliverables, and specific goals. |
| 3 | 1.1.2 | Define Program Structure | Outline the program structure for the team that will be involved in the project. |
| 3 | 1.1.3 | Establish Governance and Roles | Assign project governance and define roles and responsibilities for team members and stakeholders. |

| Level | WBS Code | WBS Name | WBS Description |
|---|---|---|---|
| 2 | 1.2 | Stakeholder Engagement | Engage with key stakeholders to ensure alignment and support throughout the project. |
| 3 | 1.2.1 | Identify and Conduct Stakeholder Meetings | Identify stakeholders and conduct meetings to understand their needs and expectations. |
| 3 | 1.2.2 | Identify Project Steering Committee | Form the committee responsible for providing strategic oversight and decision-making. |
| 2 | 1.3 | Establish Project Team | Assemble and manage the team responsible for the tasks to be carried out. |
| 3 | 1.3.1 | Assign Project Leaders | Designate project leaders to oversee major aspects of the project. |
| 3 | 1.3.2 | Define Resource Requirements | Identify and allocate necessary resources for project tasks. |
| 3 | 1.3.3 | Assign Team Members | Assign specific roles and responsibilities to team members. |
| 3 | 1.3.4 | Schedule Project Milestones | Plan project milestones to track progress and key deliverables. |
| 2 | 1.4 | Communication Management | Develop and implement a communication plan to keep stakeholders informed. |
| 3 | 1.4.1 | Develop TOR for external consultancy | Manage the consultant for the project and ensure that the activities are planned and executed. |

| Level | WBS Code | WBS Name | WBS Description |
|---|---|---|---|
| 1 | 2 | Legal | Address all legal aspects relevant to the project to ensure compliance. |
| 2 | 2.1 | Study of the Legal Context | Review existing legal frameworks related to e-invoicing. |
| 3 | 2.1.1 | Reviewing Existing Tax Legislation | Assess current tax laws to identify relevant requirements. |
| 3 | 2.1.2 | Identify Gaps and Requirements | Determine gaps in legislation and requirements for compliance for legal use of e-invoicing or electronic tax documents. |
| 2 | 2.2 | Legislative Updates | Propose changes to laws to support the e-invoicing implementation. |
| 3 | 2.2.1 | Develop Recommendations for Legal Changes | Draft suggested changes to existing laws for compliance. |
| 3 | 2.2.2 | Draft Changes of Existing Legal Framework | Create draft revisions to current legal legislations, primarily the Income and Business Tax Act, General Sales Tax Act and Tax Administration Procedure Act. |
| 3 | 2.2.3 | Propose Technical Standards | Recommend technical standards for compliance. |

| Level | WBS Code | WBS Name | WBS Description |
|---|---|---|---|
| 3 | 2.2.4 | Obtain Approval for Legislative Changes | Secure necessary approvals for proposed legislative changes from Cabinet. |
| 3 | 2.2.5 | Develop Necessary Regulations | Draft and finalize regulations to support e-invoicing. |
| 1 | 3 | System Design | Design the e-invoicing system to meet project requirements. |
| 2 | 3.1 | Operating Model | Create the operational framework for the system. |
| 3 | 3.1.1 | Review Transmission Models and Technologies | Assess and choose appropriate transmission models and technologies. |
| 3 | 3.1.2 | Contingency Operation Modalities | Develop contingency plans for system failures or downtimes. |
| 3 | 3.1.3 | Design of Integration Elements | Plan for the integration of the e-invoicing system with existing ERPs mainly using API. |
| 2 | 3.2 | Syntax and Semantics | Define data structure and format standards. |
| 3 | 3.2.1 | Define Technology and Format | Choose the appropriate technologies and data formats for e-invoicing. |
| 3 | 3.2.2 | Detailed Definition of Field for Invoice | Specify the fields required in an electronic invoice. |
| 3 | 3.2.3 | E-Invoice Standard Design | Develop the standard format and content of the e-invoice. |

| Level | WBS Code | WBS Name | WBS Description |
|---|---|---|---|
| 2 | 3.3 | Validation Rules | Establish rules for validating e-invoicing or electronic tax documents. |
| 3 | 3.3.1 | Development of Validation Rules | Create the set of rules to validate data accuracy and compliance. |
| 3 | 3.3.2 | Approval of Document | Secure approval for the validation rules and procedures. |
| 2 | 3.4 | Orientation Manual for the Issuer of Electronic Tax Document | Develop user documentation for issuers. |
| 3 | 3.4.1 | Content Planning and Structure | Plan and organize the content of the manual. |
| 3 | 3.4.2 | Writing and Drafting | Write and draft the manuals. |
| 3 | 3.4.3 | User Testing and Validation | Test the manual with users for clarity and effectiveness. |
| 3 | 3.4.4 | Approval and Publishing | Finalize and publish the manual. |
| 1 | 4 | Software Procurement | It involves planning, defining requirements, engaging with potential vendors, selecting the most suitable software required for the e-invoicing implementation |

| Level | WBS Code | WBS Name | WBS Description |
|---|---|---|---|
| 2 | 4.1 | Procurement Planning | Prepare activities required to ensure a smooth procurement process by defining the project's needs, comprehensive documentation |
| 3 | 4.1.1 | Develop Terms of Reference | Identity software requirements for the e-invoicing and taxpayer interface, specifying functional, technical and compliance criteria |
| 3 | 4.1.2 | Draft Request for Proposal | Develop detailed RFP documentation, including project scope, submission guidelines, timelines and compliance with legal, security and technical standards |
| 3 | 4.1.3 | Publish Tender | Publish tenders on local and international platforms |
| 2 | 4.2 | Procurement | Activities involved in the execution of the procurement process, from receiving bids to finalizing the vendor. |
| 3 | 4.2.1 | Open Bids | Organize and document bid opening sessions with representatives from vendors that made submissions |
| 3 | 4.2.2 | Evaluate Bids | Form evaluation committee to access bids against evaluation criteria |

| Level | WBS Code | WBS Name | WBS Description |
|---|---|---|---|
| 3 | 4.2.3 | Select Vendor | Shortlist vendors and rank vendors based on evaluation scores ad recommendation from evaluation committee. |
| 3 | 4.2.4 | Contract Negotiations | Negotiate terms for payment schedules, SLAs, warranty and maintenance term |
| 3 | 4.2.5 | Signed Contract | Prepare final contract document and obtain signatures from both parties |
| 1 | 5 | Infrastructure and Data Security | Set up the technical infrastructure and security measures. |
| 2 | 5.1 | Hardware Procurement and Installation & Analytical Tool procurement | Acquire and install necessary hardware and analytical Tool to support the e-invoicing system. |
| 3 | 5.1.1 | Server and Storage Setup | Set up servers and storage systems for the ETD's that will be received. |
| 3 | 5.1.2 | Backup and Disaster Recovery Planning | Data backup plan and disaster recovery solutions, specifically for redundancy. |
| 3 | 5.1.3 | Analytical Tool Procurement | Procure tools for Analysing the invoice information that will be received. |

| Level | WBS Code | WBS Name | WBS Description |
|---|---|---|---|
| 2 | 5.2 | System Environment Setup | Establish the environments needed for system operations. |
| 3 | 5.2.1 | Testing Environment | Set up testing environment |
| 3 | 5.2.2 | Production Environment | Set up the production environment that will be used for live system operations. |
| 2 | 5.3 | Security and Data Protection Design | Implement data security measures. |
| 3 | 5.3.1 | Digital Signature Support | Integrate support for digital signatures in the system. |
| 3 | 5.3.2 | Security Protocols and Firewall | Implement necessary security protocols and firewall protection. |
| 3 | 5.3.3 | Connectivity Testing | Test connectivity to ensure secure data transfer between systems. |
| 1 | 6 | Platform Development | Develop and configure the e-invoicing platform. |
| 2 | 6.1 | Requirement Gathering and Analysis | Collect and analyse project requirements. |
| 3 | 6.1.1 | Internal Stakeholder Consultation | Meet with internal stakeholders to understand needs and how it will affect tax operations. |
| 3 | 6.1.2 | Business Process Mapping | Map existing business processes and develop to be business processes. |
| 3 | 6.1.3 | Sign-off | Get approval on the requirements gathered. |

| Level | WBS Code | WBS Name | WBS Description |
|---|---|---|---|
| 2 | 6.2 | Technical Specifications | Develop technical documentation for the project based on the requirements gathered. |
| 3 | 6.2.1 | System Design Documentation | Create detailed system design documents. |
| 3 | 6.2.2 | Data Security | Document data security protocols and measures. |
| 3 | 6.2.3 | Sign-off on Documents | Secure approval for technical documents. |
| 2 | 6.3 | Software Development | Develop the software components of the system. |
| 3 | 6.3.1 | Core E-Invoicing Development | Build the core functionality of the e-invoicing system. |
| 3 | 6.3.2 | Taxpayer Interface Development | Develop the interface for taxpayer interactions including the submission of e-invoices for small and medium taxpayers. |
| 3 | 6.3.3 | Integration Components | Build APIs for system integration with tax payers ERP platforms. |
| 3 | 6.3.4 | Realtime Monitoring Dashboard | Develop a dashboard for real-time monitoring. |
| 2 | 6.4 | Testing | Test the system to ensure it meets requirements. |
| 3 | 6.4.1 | Unit Testing | Conduct unit tests for individual components. |
| 3 | 6.4.2 | Integration Testing | Test interactions between integrated components. |

| Level | WBS Code | WBS Name | WBS Description |
|---|---|---|---|
| 3 | 6.4.3 | User Acceptance Testing | Perform user acceptance tests with stakeholders. |
| 3 | 6.4.4 | Performance and Load Testing | Perform stress testing on the system and network infrastructure |
| 3 | 6.4.5 | Security Testing | Test security measures and identify vulnerabilities. |
| 3 | 6.4.6 | Quality Assurance and Sign-off | Complete quality checks and sign-off on the testing phase. |
| 1 | 7 | Piloting and Deployment | Implement the system in a controlled and full-scale manner. |
| 2 | 7.1 | Pilot Program Setup | Prepare for pilot testing with selected participants. |
| 3 | 7.1.1 | Select Pilot Participants | Identify participants for pilot testing. |
| 3 | 7.1.2 | Develop Pilot Testing Criteria | Define criteria for evaluating the applications as provide template to testers which will ensure pilot success. |
| 3 | 7.1.3 | Train Participants on New System | Provide training for participants of the pilot project |
| 2 | 7.2 | Pilot Execution and Feedback | Run the pilot and gather feedback. |
| 3 | 7.2.1 | Execute Pilot | Conduct the pilot test with a limit number of participants |

| Level | WBS Code | WBS Name | WBS Description |
|---|---|---|---|
| 3 | 7.2.2 | Collect User Feedback and Issues | Gather feedback and identify issues. |
| 3 | 7.2.3 | Refine System Based on Feedback | Make improvements based on feedback and refine or fix where necessary. |
| 3 | 7.2.4 | Pilot Successful | Successful pilot completion if at least 75% of participants are able to exchange information |
| 2 | 7.3 | Full System Deployment | Launch the E-invoicing System and it's supporting systems |
| 3 | 7.3.1 | System Launch and Go-Live | Officially launch the system in production and encourage taxpayers to voluntarily sign-up to the platform |
| 3 | 7.3.2 | Large Taxpayers | Mandate the large taxpayers to fully adopt the system for all invoicing activities |
| 3 | 7.3.3 | Specific Economic Sector | Mandate specific industries/sectors to fully adopt the system for all invoicing activities |
| 3 | 7.3.4 | Communication and Announcement | publicize the launch to the e-invoicing system to all stakeholders. |
| 2 | 7.4 | Ongoing System Monitoring and Support | Monitor and maintain the system post-launch. |
| 3 | 7.4.1 | System Performance | Track system performance metrics. |

| Level | WBS Code | WBS Name | WBS Description |
|---|---|---|---|
| 3 | 7.4.2 | System Updates and Bugs | Address bugs and deploy updates as needed. |
| 1 | 8 | Training and Documentation | Develop training programs and support documentation. |
| 2 | 8.1 | Training Program Development | Create and implement a comprehensive training plan. |
| 3 | 8.1.1 | Create Training Materials | Develop materials for user training. |
| 3 | 8.1.2 | Develop SOP | Create standard operating procedures. |
| 3 | 8.1.3 | Develop User Guides and Manuals | Write user guides and manuals for the system. |
| 3 | 8.1.4 | Organize Training Sessions for Stakeholders | Plan and conduct training sessions for BTSD Staff and taxpayers. |
| 2 | 8.2 | Support and Helpdesk | Establish ongoing user support mechanisms. |
| 3 | 8.2.1 | Establish Helpdesk Procedures | Set up helpdesk support processes. |
| 3 | 8.2.2 | Train Support Staff | Train staff to provide technical assistance. |
| 3 | 8.2.3 | Provide Ongoing Support Post-Implementation | Ensure continuous support and issue resolution. |
| 1 | 9 | Post-Implementation and Closure | Complete post-implementation activities and close the project. |

| Level | WBS Code | WBS Name | WBS Description |
|---|---|---|---|
| 2 | 9.1 | Data Analytics and Reporting Tool | Implement tools for data analytics and reporting. |
| 3 | 9.1.1 | Deploy Analytical Tool | Finalize and roll out the tool for analysing transaction data from the e-invoicing system |
| 3 | 9.1.2 | Develop and Configure Environment | Configure and build reports |
| 3 | 9.1.3 | Test Integration with E-invoicing System | Ensure the analytics tool is seamlessly integrated with the e-invoicing platform |
| 3 | 9.1.4 | Training of Users | Provide training sessions for BTSD Staff on how to use the analytics tool |
| 3 | 9.1.5 | Generate Initial Report | Produce baseline reports to showcase the system's capabilities such as transaction volumes, and revenue trends |
| 2 | 9.2 | Post Implementation Review | Conduct a review to assess project outcomes. |
| 3 | 9.2.1 | Stakeholder Feedback Collection | Conduct interviews with businesses, and BTSD Staff to assess their experiences with the system |
| 3 | 9.2.2 | System Assessment | Review the system's stability, security, and scalability post-launch. |

| Level | WBS Code | WBS Name | WBS Description |
|---|---|---|---|
| 2 | 9.3 | Negotiate Support and Maintenance Agreement | Finalize maintenance and support agreements for ongoing support. |
| 3 | 9.3.1 | Draft Agreement | Prepare a detailed support and maintenance agreement to include service levels, response times, and costing |
| 3 | 9.3.2 | Negotiate with Vendor | Engage with vendor to finalize the agreement, ensuring it meets operational and budgetary needs. |
| 3 | 9.3.3 | Signed Support and Maintenance Agreement | Formalize the Agreement |
| 2 | 9.4 | Lessons Learned Documentation | Document key lessons from the project for future use. |
| 3 | 9.4.1 | Document Challenges and Solutions | Document all issues encountered during implementation and how they were resolved and areas of improvement |
| 2 | 9.5 | Project Closure | Officially close the project with final reporting and approvals. |
| 3 | 9.5.1 | Project Closing Meeting | Organize a wrap-up meeting |
| 3 | 9.5.5 | Project Closure | Project Ends |

*(Source: Compiled by the Author)*

### 4.2.5. Scope Verification

This Scope Verification process ensures that each project deliverable is reviewed, validated, and accepted, maintaining alignment with the project's scope, quality standards, and stakeholder expectations. For the e-invoicing project, scope verification will be carried out by the Project Manager at key project milestones and on a regular basis to align with project goals and ensure that deliverables adhere to quality standards and acceptance criteria. The project manager will verify each deliverable against scope documents, prepare monthly status reports, organize verification meetings, and facilitate formal acceptance by the Project Steering Committee.

Below are key validations done during the life of the project.

- **Deliverable review:** The Project Manager will verify each project deliverable against the original scope as defined in the project scope statement, WBS, and WBS Dictionary. This verification includes checking that deliverables meet all specified requirements and acceptance criteria; some of the activities include reviewing User Acceptance Testing (UAT) results, functionality tests, and usability assessments
- **Monthly Status Updates**: The Project Manager will provide a monthly status update report to the project core team and Project Steering Committee, informing them of the project's progress, and completed deliverables. The report should be based on any changes, adjustments, verification, feedback on deliverables, risks, so that the relevant stakeholders are aware of the project status.

- **Approvals and Sign-off:** Once the Project Manager has completed verification for a deliverable, he/she will meet with the Project Steering Committee to present findings and obtain formal acceptance of the deliverable, by having each member sign the documents.
- **Stakeholder Feedback:** The project manager will collect feedback from stakeholders throughout the scoping and review with project steering committee

### 4.2.6. Scope Change

The Scope Change Management Process ensures that all requested changes to the project are carefully evaluated, documented, and approved before implementation. Each change is assessed for its impact on the project's scope, quality, schedule, and budget to ensure alignment with the project's objectives and to avoid scope creep. Changes that significantly impact the scope, budget, or schedule must be reviewed and signed off by the Project Sponsor before proceeding.

This process provides a structured approach to managing scope changes throughout the life cycle of the e-invoicing project. It ensures that all changes are thoroughly documented, their impacts analysed, and decisions made transparently by the appropriate stakeholders. Following this approach, the project maintains control over its deliverables, timeline, and resources, while remaining adaptable to necessary adjustments.

## 4.3. Schedule Management Plan

### 4.3.1. Plan Schedule Management

Every project operates within a defined start and end date. Developing a project schedule is essential for effectively monitoring and controlling the timely completion of the e-invoicing project. To create a robust schedule for execution, monitoring, and control, it is crucial to analyse activity sequences, estimate durations, determine resource requirements, and account for any constraints.

The Schedule Management Plan outlines the methodology the project team will adopt to develop, manage, and monitor the project schedule. It also details the process for tracking progress and implementing changes to the schedule after the baseline has been approved.

The project schedule for the e-invoicing initiative provides a comprehensive breakdown of all required activities, deliverables, and milestones. It simplifies the project timeline by clearly defining task durations, resource assignments, and start and end dates, ensuring a streamlined and efficient project cycle.

### 4.3.2. Schedule Management Approach

The Schedule Management Approach for the e-invoicing project leverages Microsoft Project 2019 to develop a comprehensive schedule that outlines all project activities, deliverables, and milestones. The schedule is built using a structured process that includes defining activities, sequencing tasks to establish logical dependencies, estimating durations, and assigning resources to ensure tasks are completed efficiently. The finalized schedule is reviewed by the project team and presented to the Project Steering Committee

for approval. Once approved, the schedule is baselined and becomes the benchmark for tracking progress and managing changes.

To monitor and control the schedule, progress is tracked regularly, and updates are made to reflect task completion and milestones achieved. Variances from the baseline schedule will be analysed, and corrective actions proposed to address delays or resource challenges. Status reports are generated to keep stakeholders informed about progress, potential risks, and any necessary adjustments. This approach ensures that the project stays on track, resources are utilized effectively, and any deviations are addressed promptly, supporting the successful and timely completion of the e-invoicing project.

### 4.3.3. Define, Sequence and Estimate Duration for Activities

The activity list for the e-invoicing implementation project was defined by decomposing the project scope into smaller, manageable components, starting with the WBS. Using the tools and techniques outlined in the PMBOK 6th Edition, each deliverable was broken down into activities required to achieve it. Expert judgment from stakeholders, including procurement officers, IT specialists, and managers, was leveraged to identify tasks specific to project management, system design, software procurement, infrastructure and security, training, and post-implementation activities. Facilitated workshops ensured that no critical steps were overlooked, while lessons learned from similar projects in Latin America helped refine the activity list. Each activity was documented with attributes such as descriptions, dependencies and duration to provide a clear understanding of what needs to be done.

Once the activities were defined, they were logically sequenced. Predecessor and successor relationships were identified, ensuring tasks were ordered to avoid bottlenecks and delays. Duration estimates were developed using a combination of expert judgment, analogous estimation (drawing on experiences from similar projects), and three-point estimating for tasks with higher uncertainty. The critical path was identified to focus on tasks that directly impact the project timeline. These efforts resulted in a clear, well-structured activity list (see Chart 11) that serves as the foundation for scheduling and resource allocation in the e-invoicing project.

**Chart 11 Activity List**

| No | WBS code | Task Name | Du-ration | Start Date | Finish Date | Prede-cessors | Mile-stone |
|---|---|---|---|---|---|---|---|
| 1 | 1 | Project Management | | | | | |
| 2 | 1.1 | Project Planning | 15 days | 06-Jan-25 | 24-Jan-25 | | |
| 3 | 1.1.1 | Define Project Scope and Objectives | 10 days | 06-Jan-25 | 17-Jan-25 | | |
| 4 | 1.1.2 | Define Program Structure | 4 days | 16-Jan-25 | 21-Jan-25 | 3FS-2d | |
| 5 | 1.1.3 | Establish Governance and Roles | 5 days | 20-Jan-25 | 24-Jan-25 | 4FS-2d | |
| 6 | 1.2 | Stakeholder Engagement | 10 days | 27-Jan-25 | 07-Feb-25 | | |
| 7 | 1.2.1 | Identify and Conduct Stakeholder Meetings | 8 days | 27-Jan-25 | 05-Feb-25 | | |
| 8 | 1.2.1.1 | Identify and contact stakeholders | 7 days | 27-Jan-25 | 04-Feb-25 | 5 | |
| 9 | 1.2.1.2 | Stakeholders' session | 1 day | 05-Feb-25 | 05-Feb-25 | 8 | |
| 10 | 1.2.2 | Identify Project Steering Committee | 2 days | 06-Feb-25 | 07-Feb-25 | 9 | |
| 11 | 1.3 | Establish Project Team | 13 days | 27-Jan-25 | 12-Feb-25 | | |

| No | WBS code | Task Name | Du-ration | Start Date | Finish Date | Prede-cessors | Mile-stone |
|---|---|---|---|---|---|---|---|
| 12 | 1.3.1 | Assign Project Leaders | 2 days | 27-Jan-25 | 28-Jan-25 | 5 | |
| 13 | 1.3.2 | Define Resource Requirements | 5 days | 29-Jan-25 | 04-Feb-25 | 12 | |
| 14 | 1.3.3 | Assign Team Members | 5 days | 03-Feb-25 | 07-Feb-25 | 13FS-2d | |
| 15 | 1.3.4 | Schedule Project Milestones | 3 days | 10-Feb-25 | 12-Feb-25 | 14 | |
| 16 | 1.4 | Communication Management | 339 days | 13-Feb-25 | 02-Jun-26 | | |
| 17 | 1.4.1 | Develop TOR for external consultancy | 14 days | 13-Feb-25 | 04-Mar-25 | 15 | |
| 18 | 1.4.2 | Internal Review and Approval | 5 days | 27-Feb-25 | 05-Mar-25 | 17FS-4d | |
| 19 | 1.4.3 | Publish TOR and Proposal Submission | 21 days | 06-Mar-25 | 03-Apr-25 | 18 | |
| 20 | 1.4.4 | Evaluate Proposals | 9 days | 04-Apr-25 | 16-Apr-25 | 19 | |
| 21 | 1.4.5 | Selection and Contract Negotiations | 14 days | 17-Apr-25 | 06-May-25 | 20 | Yes |
| 22 | 1.4.6 | Contract Execution | 280 days | 07-May-25 | 02-Jun-26 | 21 | |
| 23 | 2 | Legal | | | | | |
| 24 | 2.1 | Study of the Legal Context | 19 days | 06-Mar-25 | 01-Apr-25 | | |
| 25 | 2.1.1 | Reviewing Existing Tax Legislation | 14 days | 06-Mar-25 | 25-Mar-25 | 18 | |
| 26 | 2.1.2 | Identify Gaps and Requirements | 5 days | 26-Mar-25 | 01-Apr-25 | 25 | |
| 27 | 2.2 | Legislative Updates | 63 days | 02-Apr-25 | 27-Jun-25 | | |
| 28 | 2.2.1 | Develop Recommendations for Legal Changes | 14 days | 02-Apr-25 | 21-Apr-25 | 26 | |
| 29 | 2.2.2 | Draft Changes of Existing Legal Framework | 5 days | 22-Apr-25 | 28-Apr-25 | 28 | |
| 30 | 2.2.3 | Propose Technical Standards | 14 days | 29-Apr-25 | 16-May-25 | 29 | |

| No | WBS code | Task Name | Du-ration | Start Date | Finish Date | Prede-cessors | Mile-stone |
|---|---|---|---|---|---|---|---|
| 31 | 2.2.4 | Obtain Approval for Legislative Changes | 20 days | 19-May-25 | 13-Jun-25 | 30 | Yes |
| 32 | 2.2.5 | Develop Necessary Regulations | 10 days | 16-Jun-25 | 27-Jun-25 | 31 | |
| 33 | 3 | System Design | | | | | |
| 34 | 3.1 | Operating Model | 20 days | 02-Apr-25 | 29-Apr-25 | | |
| 35 | 3.1.1 | Review Transmission Models and Technologies | 14 days | 02-Apr-25 | 21-Apr-25 | 26 | |
| 36 | 3.1.2 | Contingency Operation Modalities | 5 days | 17-Apr-25 | 23-Apr-25 | 35FS-3d | |
| 37 | 3.1.3 | Design of Integration Elements | 6 days | 22-Apr-25 | 29-Apr-25 | 36FS-2d | |
| 38 | 3.1.4 | Approval/Sign-off of Operating Model | 0 days | 29-Apr-25 | 29-Apr-25 | 37 | Yes |
| 39 | 3.2 | Syntax and Semantics | 33 days | 24-Apr-25 | 09-Jun-25 | | |
| 40 | 3.2.1 | Define Technology and Format | 21 days | 24-Apr-25 | 22-May-25 | 37FS-4d | |
| 41 | 3.2.2 | Detailed Definition of Field for Invoice | 7 days | 21-May-25 | 29-May-25 | 40FS-2d | |
| 42 | 3.2.3 | E-Invoice Standard Design | 10 days | 27-May-25 | 09-Jun-25 | 41FS-3d | |
| 43 | 3.2.4 | Approval/Sign-off of Syntax and Semantic Documentation | 0 days | 09-Jun-25 | 09-Jun-25 | 42 | Yes |
| 44 | 3.3 | Validation Rules | 21 days | 03-Jun-25 | 01-Jul-25 | | |
| 45 | 3.3.1 | Development of Validation Rules | 21 days | 03-Jun-25 | 01-Jul-25 | 42FS-5d | |
| 46 | 3.3.2 | Approval of Document | 0 days | 01-Jul-25 | 01-Jul-25 | 45 | Yes |
| 47 | 3.4 | Orientation Manual for the Issuer of Electronic Tax Document | 172 days | 02-Jul-25 | 26-Feb-26 | | |
| 48 | 3.4.1 | Content Planning and Structure | 4 days | 02-Jul-25 | 07-Jul-25 | 46 | |

| No | WBS code | Task Name | Du-ration | Start Date | Finish Date | Prede-cessors | Mile-stone |
|---|---|---|---|---|---|---|---|
| 49 | 3.4.2 | Writing and Drafting | 21 days | 08-Jul-25 | 05-Aug-25 | 48 | |
| 50 | 3.4.3 | User Testing and Validation | 35 days | 09-Jan-26 | 26-Feb-26 | 88FS-25d | |
| 51 | 3.4.4 | Approval and Publishing | 0 days | 26-Feb-26 | 26-Feb-26 | 50 | Yes |
| 52 | 4 | Software Procurement | 62 days | 02-Jul-25 | 25-Sep-25 | | |
| 53 | 4.1 | Procurement Planning | 40 days | 02-Jul-25 | 26-Aug-25 | | |
| 54 | 4.1.1 | Develop Terms of Reference | 15 days | 02-Jul-25 | 22-Jul-25 | 46 | |
| 55 | 4.1.2 | Draft Request for Proposal | 15 days | 16-Jul-25 | 05-Aug-25 | 54FS-5d | |
| 56 | 4.1.3 | Publish Tender | 15 days | 06-Aug-25 | 26-Aug-25 | 55 | |
| 57 | 4.2 | Procurement | 22 days | 27-Aug-25 | 25-Sep-25 | | |
| 58 | 4.2.1 | Open Bids | 1 day | 27-Aug-25 | 27-Aug-25 | 56 | |
| 59 | 4.2.2 | Evaluate Bids | 10 days | 28-Aug-25 | 10-Sep-25 | 58 | |
| 60 | 4.2.3 | Select Vendor | 1 day | 11-Sep-25 | 11-Sep-25 | 59 | |
| 61 | 4.2.4 | Contract Negotiations | 10 days | 12-Sep-25 | 25-Sep-25 | 60 | |
| 62 | 4.2.5 | Signed Contract | 0 days | 25-Sep-25 | 25-Sep-25 | 61 | Yes |
| 63 | 5 | Infrastructure and Data Security | 96 days | 03-Oct-25 | 13-Feb-26 | | |
| 64 | 5.1 | Hardware Procurement and Installation & Analytical Tool procurement | 71 days | 03-Oct-25 | 09-Jan-26 | | |
| 65 | 5.1.1 | Server and Storage Setup | 55 days | 24-Oct-25 | 08-Jan-26 | | |
| 66 | 5.1.1.1 | Hardware Tendering | 20 days | 24-Oct-25 | 20-Nov-25 | 62FS+20d | |
| 67 | 5.1.1.2 | Hardware Procurement | 20 days | 21-Nov-25 | 18-Dec-25 | 66 | |

| No | WBS code | Task Name | Du-ration | Start Date | Finish Date | Prede-cessors | Mile-stone |
|---|---|---|---|---|---|---|---|
| 68 | 5.1.1.3 | Infrastructure Setup | 15 days | 19-Dec-25 | 08-Jan-26 | 67 | |
| 69 | 5.1.2 | Backup and Disaster Recovery Planning | 10 days | 03-Oct-25 | 16-Oct-25 | 62FS+5 d | |
| 70 | 5.1.3 | Analytical Tool Procurement | 36 days | 21-Nov-25 | 09-Jan-26 | 66 | |
| 71 | 5.2 | System Environment Setup | 40 days | 22-Dec-25 | 13-Feb-26 | | |
| 72 | 5.2.1 | Testing Environment | 10 days | 22-Dec-25 | 02-Jan-26 | 67FS+1 d | |
| 73 | 5.2.2 | Production Environment | 10 days | 02-Feb-26 | 13-Feb-26 | 72FS+20d | |
| 74 | 5.3 | Security and Data Protection Design | 67 days | 03-Oct-25 | 05-Jan-26 | | |
| 75 | 5.3.1 | Digital Signature Support | 20 days | 21-Nov-25 | 18-Dec-25 | 66 | |
| 76 | 5.3.2 | Security Protocols and Firewall | 5 days | 03-Oct-25 | 09-Oct-25 | 62FS+5 d | |
| 77 | 5.3.3 | Connectivity Testing | 2 days | 02-Jan-26 | 05-Jan-26 | 68FS-5d | |
| 78 | 6 | Platform Development | 131 days | 01-Oct-25 | 01-Apr-26 | | |
| 79 | 6.1 | Requirement Gathering and Analysis | 25 days | 01-Oct-25 | 04-Nov-25 | | |
| 80 | 6.1.1 | Internal Stakeholder Consultation | 20 days | 01-Oct-25 | 28-Oct-25 | 62FS+3 d | |
| 81 | 6.1.2 | Business Process Mapping | 10 days | 22-Oct-25 | 04-Nov-25 | 80FS-5d | |
| 82 | 6.1.3 | Sign-off | 0 days | 04-Nov-25 | 04-Nov-25 | 81 | Yes |
| 83 | 6.2 | Technical Specifications | 25 days | 31-Oct-25 | 04-Dec-25 | | |
| 84 | 6.2.1 | System Design Documentation | 20 days | 31-Oct-25 | 27-Nov-25 | 81FS-3d | |
| 85 | 6.2.2 | Data Security | 5 days | 28-Nov-25 | 04-Dec-25 | 84 | |
| 86 | 6.2.3 | Sign-off on Documents | 0 days | 04-Dec-25 | 04-Dec-25 | 85 | Yes |

| No | WBS code | Task Name | Du-ration | Start Date | Finish Date | Prede-cessors | Mile-stone |
|---|---|---|---|---|---|---|---|
| 87 | 6.3 | Software Development | 90 days | 21-Nov-25 | 26-Mar-26 | | |
| 88 | 6.3.1 | Core E-Invoicing Development | 60 days | 21-Nov-25 | 12-Feb-26 | 84FS-5d | |
| 89 | 6.3.2 | Taxpayer Interface Development | 30 days | 09-Jan-26 | 19-Feb-26 | 88FS-25d | |
| 90 | 6.3.3 | Integration Components | 19 days | 13-Feb-26 | 11-Mar-26 | 89FS-5d | |
| 91 | 6.3.4 | Realtime Monitoring Dashboard | 20 days | 27-Feb-26 | 26-Mar-26 | 89FS+5 d | |
| 92 | 6.4 | Testing | 54 days | 16-Jan-26 | 01-Apr-26 | | |
| 93 | 6.4.1 | Unit Testing | 40 days | 16-Jan-26 | 12-Mar-26 | 89FS-25d | |
| 94 | 6.4.2 | Integration Testing | 10 days | 19-Mar-26 | 01-Apr-26 | 90FS+5 d | |
| 95 | 6.4.3 | User Acceptance Testing | 37 days | 23-Jan-26 | 16-Mar-26 | 89FS-20d | |
| 96 | 6.4.4 | Performance and Load Testing | 10 days | 12-Feb-26 | 25-Feb-26 | 89FS-6d | |
| 97 | 6.4.5 | Security Testing | 2 days | 18-Mar-26 | 19-Mar-26 | 91FS-7d | |
| 98 | 6.4.6 | Quality Assurance and Sign-off | 0 days | 26-Mar-26 | 26-Mar-26 | 91 | Yes |
| 99 | 7 | Piloting and Deployment | 86 days | 02-Mar-26 | 29-Jun-26 | | |
| 100 | 7.1 | Pilot Program Setup | 21 days | 02-Mar-26 | 30-Mar-26 | | |
| 101 | 7.1.1 | Select Pilot Participants | 10 days | 02-Mar-26 | 13-Mar-26 | 96FS+2 d | |
| 102 | 7.1.2 | Develop Pilot Testing Criteria | 8 days | 09-Mar-26 | 18-Mar-26 | 101FS-5d | |
| 103 | 7.1.3 | Train Participants on New System | 2 days | 27-Mar-26 | 30-Mar-26 | 98 | |
| 104 | 7.2 | Pilot Execution and Feedback | 25 days | 31-Mar-26 | 04-May-26 | | |
| 105 | 7.2.1 | Execute Pilot | 20 days | 31-Mar-26 | 27-Apr-26 | 103 | |

| No | WBS code | Task Name | Du-ration | Start Date | Finish Date | Prede-cessors | Mile-stone |
|---|---|---|---|---|---|---|---|
| 106 | 7.2.2 | Collect User Feedback and Issues | 15 days | 31-Mar-26 | 20-Apr-26 | 103 | |
| 107 | 7.2.3 | Refine System Based on Feedback | 20 days | 07-Apr-26 | 04-May-26 | 103FS+ 5d | |
| 108 | 7.2.4 | Pilot Successful | 0 days | 04-May-26 | 04-May-26 | 107 | Yes |
| 109 | 7.3 | Full System Deployment | 45 days | 28-Apr-26 | 29-Jun-26 | | |
| 110 | 7.3.1 | System Launch and Go-Live | 5 days | 08-May-26 | 14-May-26 | 108FS+ 3d | |
| 111 | 7.3.2 | Large Taxpayers | 20 days | 08-May-26 | 04-Jun-26 | 108FS+ 3d | |
| 112 | 7.3.3 | Specific Economic Sector | 17 days | 05-Jun-26 | 29-Jun-26 | 111 | |
| 113 | 7.3.4 | Communication and Announcement | 28 days | 28-Apr-26 | 04-Jun-26 | 105 | |
| 114 | 7.4 | Ongoing System Monitoring and Support | 12 days | 20-May-26 | 04-Jun-26 | | |
| 115 | 7.4.1 | System Performance | 12 days | 20-May-26 | 04-Jun-26 | 110FS+ 3d | |
| 116 | 7.4.2 | System Updates and Bugs | 12 days | 20-May-26 | 04-Jun-26 | 110FS+ 3d | |
| 117 | 8 | Training and Documentation | 127 days | 02-Jan-26 | 29-Jun-26 | | |
| 118 | 8.1 | Training Program Development | 82 days | 02-Jan-26 | 27-Apr-26 | | |
| 119 | 8.1.1 | Create Training Materials | 30 days | 02-Jan-26 | 12-Feb-26 | 88FS-30d | |
| 120 | 8.1.2 | Develop SOP | 15 days | 30-Jan-26 | 19-Feb-26 | 119FS-10d | |
| 121 | 8.1.3 | Develop User Guides and Manuals | 30 days | 09-Jan-26 | 19-Feb-26 | 88FS-25d | |
| 122 | 8.1.4 | Organize Training Sessions for Stakeholders | 2 days | 24-Apr-26 | 27-Apr-26 | 106FS+ 3d | |
| 123 | 8.2 | Support and Helpdesk | 50 days | 21-Apr-26 | 29-Jun-26 | | |
| 124 | 8.2.1 | Establish Helpdesk Procedures | 8 days | 21-Apr-26 | 30-Apr-26 | 106 | |

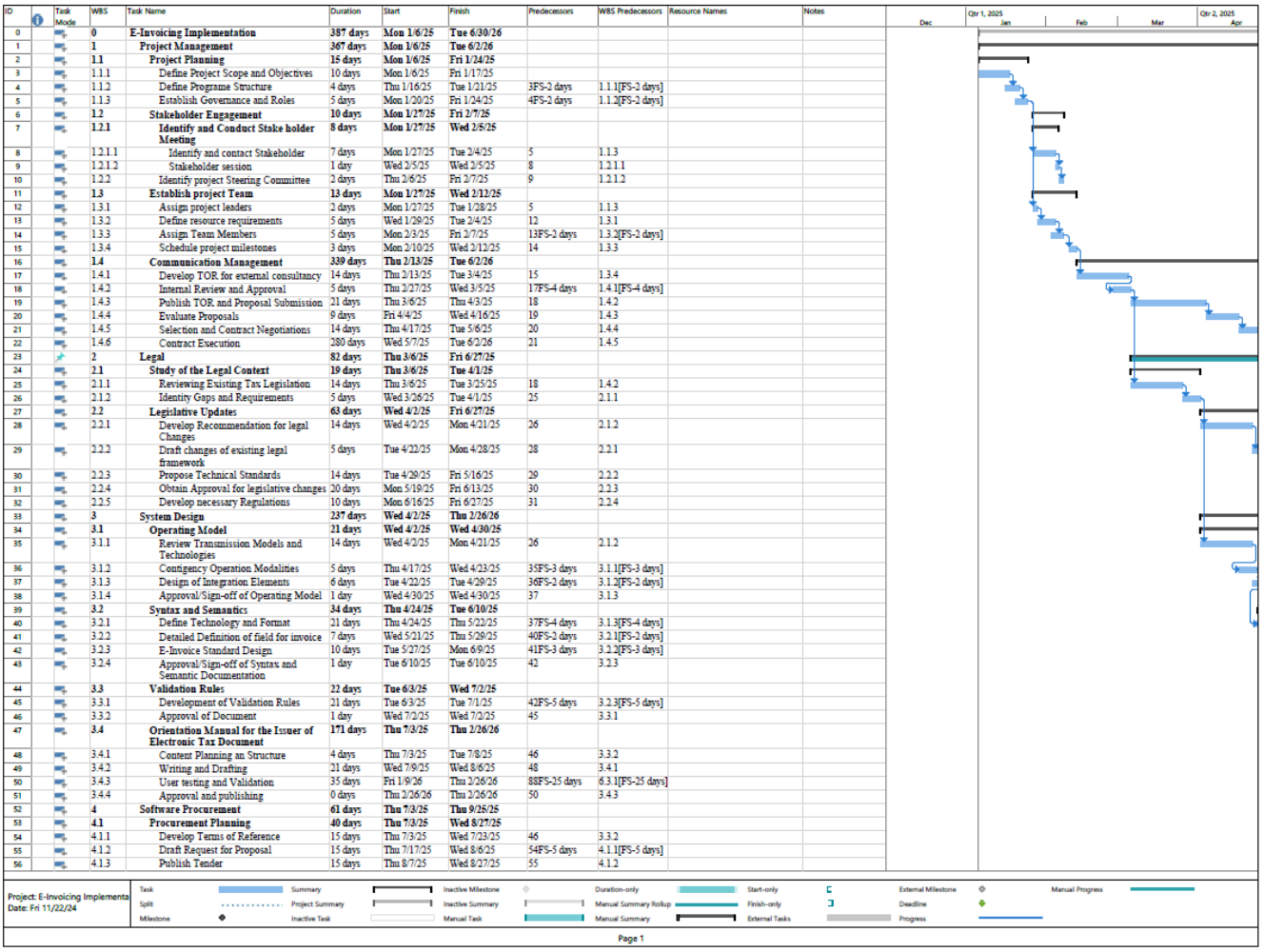
| No | WBS code | Task Name | Du-ration | Start Date | Finish Date | Prede-cessors | Mile-stone |
|---|---|---|---|---|---|---|---|
| 125 | 8.2.2 | Train Support Staff | 2 days | 01-May-26 | 04-May-26 | 124 | |
| 126 | 8.2.3 | Provide Ongoing Support Post-Implementation | 37 days | 08-May-26 | 29-Jun-26 | 108FS+3d | |
| 127 | 9 | Post-Implementation and Closure | 33 days | 15-May-26 | 30-Jun-26 | | |
| 128 | 9.1 | Data Analytics and Reporting Tool | 25 days | 15-May-26 | 18-Jun-26 | | |
| 129 | 9.1.1 | Deploy Analytical Tool | 5 days | 15-May-26 | 21-May-26 | 110 | |
| 130 | 9.1.2 | Develop and Configure Environment | 20 days | 20-May-26 | 16-Jun-26 | 129FS-2d | |
| 131 | 9.1.3 | Test Integration with E-invoicing System | 5 days | 22-May-26 | 28-May-26 | 129 | |
| 132 | 9.1.4 | Training of Users | 2 days | 17-Jun-26 | 18-Jun-26 | 130 | |
| 133 | 9.1.5 | Generate Initial Report | 5 days | 03-Jun-26 | 09-Jun-26 | 130FS-10d | |
| 134 | 9.2 | Post Implementation Review | 4 days | 17-Jun-26 | 22-Jun-26 | | |
| 135 | 9.2.1 | Stakeholder Feedback Collection | 4 days | 17-Jun-26 | 22-Jun-26 | 130 | |
| 136 | 9.2.2 | System Assessment | 2 days | 17-Jun-26 | 18-Jun-26 | 130 | |
| 137 | 9.3 | Negotiate Support and Maintenance Agreement | 14 days | 09-Jun-26 | 26-Jun-26 | | |
| 138 | 9.3.1 | Draft Agreement | 9 days | 09-Jun-26 | 19-Jun-26 | 130FS-6d | |
| 139 | 9.3.2 | Negotiate with Vendor | 5 days | 22-Jun-26 | 26-Jun-26 | 138 | |
| 140 | 9.3.3 | Signed Support and Maintenance Agreement | 0 days | 26-Jun-26 | 26-Jun-26 | 139 | Yes |
| 141 | 9.4 | Lessons Learned Documentation | 2 days | 29-Jun-26 | 30-Jun-26 | | |
| 142 | 9.4.1 | Document Challenges and Solutions | 2 days | 29-Jun-26 | 30-Jun-26 | 140 | |

| No | WBS code | Task Name | Du-ration | Start Date | Finish Date | Prede-cessors | Mile-stone |
|---|---|---|---|---|---|---|---|
| 143 | 9.5 | Project Closure | 1 day | 30-Jun-26 | 30-Jun-26 | | |
| 144 | 9.5.1 | Project Closing Meeting | 1 day | 30-Jun-26 | 30-Jun-26 | 142FS-1d | |
| 145 | 9.5.5 | Project Closure | 0 days | 30-Jun-26 | 30-Jun-26 | 144 | Yes |

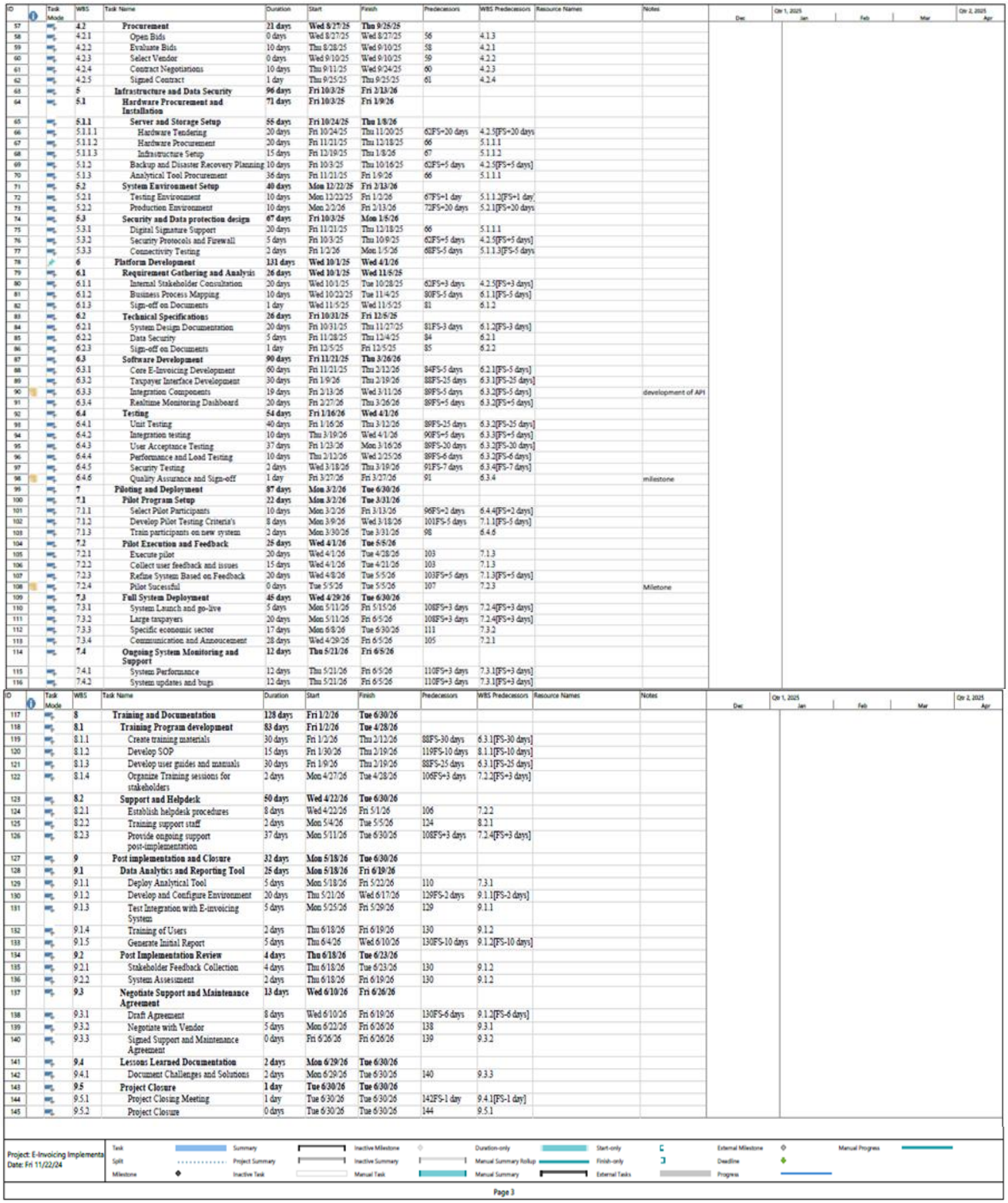
*(Source: Compiled by the Author)*

### 4.3.4. Schedule Baseline

## Chart 12 Gnatt Chart



| ID | Task Mode | WBS | Task Name | Duration | Start | Finish | Predecessors | WBS Predecessors | Resource Names | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | 0 | **E-Invoicing Implementation** | **387 days** | **Mon 1/6/25** | **Tue 6/30/26** | | | | |
| 1 | | 1 | **Project Management** | **367 days** | **Mon 1/6/25** | **Tue 6/2/26** | | | | |
| 2 | | 1.1 | **Project Planning** | **15 days** | **Mon 1/6/25** | **Fri 1/24/25** | | | | |
| 3 | | 1.1.1 | Define Project Scope and Objectives | 10 days | Mon 1/6/25 | Fri 1/17/25 | | | | |
| 4 | | 1.1.2 | Define Programe Structure | 4 days | Thu 1/16/25 | Tue 1/21/25 | 3FS-2 days | 1.1.1[FS-2 days] | | |
| 5 | | 1.1.3 | Establish Governance and Roles | 5 days | Mon 1/20/25 | Fri 1/24/25 | 4FS-2 days | 1.1.2[FS-2 days] | | |
| 6 | | 1.2 | **Stakeholder Engagement** | **10 days** | **Mon 1/27/25** | **Fri 2/7/25** | | | | |
| 7 | | 1.2.1 | **Identify and Conduct Stake holder Meeting** | **8 days** | **Mon 1/27/25** | **Wed 2/5/25** | | | | |
| 8 | | 1.2.1.1 | Identify and contact Stakeholder | 7 days | Mon 1/27/25 | Tue 2/4/25 | 5 | 1.1.3 | | |
| 9 | | 1.2.1.2 | Stakeholder session | 1 day | Wed 2/5/25 | Wed 2/5/25 | 8 | 1.2.1.1 | | |
| 10 | | 1.2.2 | Identify project Steering Committee | 2 days | Thu 2/6/25 | Fri 2/7/25 | 9 | 1.2.1.2 | | |
| 11 | | 1.3 | **Establish project Team** | **13 days** | **Mon 1/27/25** | **Wed 2/12/25** | | | | |
| 12 | | 1.3.1 | Assign project leaders | 2 days | Mon 1/27/25 | Tue 1/28/25 | 5 | 1.1.3 | | |
| 13 | | 1.3.2 | Define resource requirements | 5 days | Wed 1/29/25 | Tue 2/4/25 | 12 | 1.3.1 | | |
| 14 | | 1.3.3 | Assign Team Members | 5 days | Mon 2/3/25 | Fri 2/7/25 | 13FS-2 days | 1.3.2[FS-2 days] | | |
| 15 | | 1.3.4 | Schedule project milestones | 3 days | Mon 2/10/25 | Wed 2/12/25 | 14 | 1.3.3 | | |
| 16 | | 1.4 | **Communication Management** | **339 days** | **Thu 2/13/25** | **Tue 6/2/26** | | | | |
| 17 | | 1.4.1 | Develop TOR for external consultancy | 14 days | Thu 2/13/25 | Tue 3/4/25 | 15 | 1.3.4 | | |
| 18 | | 1.4.2 | Internal Review and Approval | 5 days | Thu 2/27/25 | Wed 3/5/25 | 17FS-4 days | 1.4.1[FS-4 days] | | |
| 19 | | 1.4.3 | Publish TOR and Proposal Submission | 21 days | Thu 3/6/25 | Thu 4/3/25 | 18 | 1.4.2 | | |
| 20 | | 1.4.4 | Evaluate Proposals | 9 days | Fri 4/4/25 | Wed 4/16/25 | 19 | 1.4.3 | | |
| 21 | | 1.4.5 | Selection and Contract Negotiations | 14 days | Thu 4/17/25 | Tue 5/6/25 | 20 | 1.4.4 | | |
| 22 | | 1.4.6 | Contract Execution | 280 days | Wed 5/7/25 | Tue 6/2/26 | 21 | 1.4.5 | | |
| 23 | | 2 | **Legal** | **82 days** | **Thu 3/6/25** | **Fri 6/27/25** | | | | |
| 24 | | 2.1 | **Study of the Legal Context** | **19 days** | **Thu 3/6/25** | **Tue 4/1/25** | | | | |
| 25 | | 2.1.1 | Reviewing Existing Tax Legislation | 14 days | Thu 3/6/25 | Tue 3/25/25 | 18 | 1.4.2 | | |
| 26 | | 2.1.2 | Identity Gaps and Requirements | 5 days | Wed 3/26/25 | Tue 4/1/25 | 25 | 2.1.1 | | |
| 27 | | 2.2 | **Legislative Updates** | **63 days** | **Wed 4/2/25** | **Fri 6/27/25** | | | | |
| 28 | | 2.2.1 | Develop Recommendation for legal Changes | 14 days | Wed 4/2/25 | Mon 4/21/25 | 26 | 2.1.2 | | |
| 29 | | 2.2.2 | Draft changes of existing legal framework | 5 days | Tue 4/22/25 | Mon 4/28/25 | 28 | 2.2.1 | | |
| 30 | | 2.2.3 | Propose Technical Standards | 14 days | Tue 4/29/25 | Fri 5/16/25 | 29 | 2.2.2 | | |
| 31 | | 2.2.4 | Obtain Approval for legislative changes | 20 days | Mon 5/19/25 | Fri 6/13/25 | 30 | 2.2.3 | | |
| 32 | | 2.2.5 | Develop necessary Regulations | 10 days | Mon 6/16/25 | Fri 6/27/25 | 31 | 2.2.4 | | |
| 33 | | 3 | **System Design** | **237 days** | **Wed 4/2/25** | **Thu 2/26/26** | | | | |
| 34 | | 3.1 | **Operating Model** | **21 days** | **Wed 4/2/25** | **Wed 4/30/25** | | | | |
| 35 | | 3.1.1 | Review Transmission Models and Technologies | 14 days | Wed 4/2/25 | Mon 4/21/25 | 26 | 2.1.2 | | |
| 36 | | 3.1.2 | Contigency Operation Modalities | 5 days | Thu 4/17/25 | Wed 4/23/25 | 35FS-3 days | 3.1.1[FS-3 days] | | |
| 37 | | 3.1.3 | Design of Integration Elements | 6 days | Tue 4/22/25 | Tue 4/29/25 | 36FS-2 days | 3.1.2[FS-2 days] | | |
| 38 | | 3.1.4 | Approval/Sign-off of Operating Model | 1 day | Wed 4/30/25 | Wed 4/30/25 | 37 | 3.1.3 | | |
| 39 | | 3.2 | **Syntax and Semantics** | **34 days** | **Thu 4/24/25** | **Tue 6/10/25** | | | | |
| 40 | | 3.2.1 | Define Technology and Format | 21 days | Thu 4/24/25 | Thu 5/22/25 | 37FS-4 days | 3.1.3[FS-4 days] | | |
| 41 | | 3.2.2 | Detailed Definition of field for invoice | 7 days | Wed 5/21/25 | Thu 5/29/25 | 40FS-2 days | 3.2.1[FS-2 days] | | |
| 42 | | 3.2.3 | E-Invoice Standard Design | 10 days | Tue 5/27/25 | Mon 6/9/25 | 41FS-3 days | 3.2.2[FS-3 days] | | |
| 43 | | 3.2.4 | Approval/Sign-off of Syntax and Semantic Documentation | 1 day | Tue 6/10/25 | Tue 6/10/25 | 42 | 3.2.3 | | |
| 44 | | 3.3 | **Validation Rules** | **22 days** | **Tue 6/3/25** | **Wed 7/2/25** | | | | |
| 45 | | 3.3.1 | Development of Validation Rules | 21 days | Tue 6/3/25 | Tue 7/1/25 | 42FS-5 days | 3.2.3[FS-5 days] | | |
| 46 | | 3.3.2 | Approval of Document | 1 day | Wed 7/2/25 | Wed 7/2/25 | 45 | 3.3.1 | | |
| 47 | | 3.4 | **Orientation Manual for the Issuer of Electronic Tax Document** | **171 days** | **Thu 7/3/25** | **Thu 2/26/26** | | | | |
| 48 | | 3.4.1 | Content Planning an Structure | 4 days | Thu 7/3/25 | Tue 7/8/25 | 46 | 3.3.2 | | |
| 49 | | 3.4.2 | Writing and Drafting | 21 days | Wed 7/9/25 | Wed 8/6/25 | 48 | 3.4.1 | | |
| 50 | | 3.4.3 | User testing and Validation | 35 days | Fri 1/9/26 | Thu 2/26/26 | 88FS-25 days | 6.3.1[FS-25 days] | | |
| 51 | | 3.4.4 | Approval and publishing | 0 days | Thu 2/26/26 | Thu 2/26/26 | 50 | 3.4.3 | | |
| 52 | | 4 | **Software Procurement** | **61 days** | **Thu 7/3/25** | **Thu 9/25/25** | | | | |
| 53 | | 4.1 | **Procurement Planning** | **40 days** | **Thu 7/3/25** | **Wed 8/27/25** | | | | |
| 54 | | 4.1.1 | Develop Terms of Reference | 15 days | Thu 7/3/25 | Wed 7/23/25 | 46 | 3.3.2 | | |
| 55 | | 4.1.2 | Draft Request for Proposal | 15 days | Thu 7/17/25 | Wed 8/6/25 | 54FS-5 days | 4.1.1[FS-5 days] | | |
| 56 | | 4.1.3 | Publish Tender | 15 days | Thu 8/7/25 | Wed 8/27/25 | 55 | 4.1.2 | | |



| ID | Task Mode | WBS | Task Name | Duration | Start | Finish | Predecessors | WBS Predecessors | Resource Names | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 57 | | 4.2 | **Procurement** | **21 days** | **Wed 8/27/25** | **Thu 9/25/25** | | | | |
| 58 | | 4.2.1 | Open Bids | 0 days | Wed 8/27/25 | Wed 8/27/25 | 56 | 4.1.3 | | |
| 59 | | 4.2.2 | Evaluate Bids | 10 days | Thu 8/28/25 | Wed 9/10/25 | 58 | 4.2.1 | | |
| 60 | | 4.2.3 | Select Vendor | 0 days | Wed 9/10/25 | Wed 9/10/25 | 59 | 4.2.2 | | |
| 61 | | 4.2.4 | Contract Negotiations | 10 days | Thu 9/11/25 | Wed 9/24/25 | 60 | 4.2.3 | | |
| 62 | | 4.2.5 | Signed Contract | 1 day | Thu 9/25/25 | Thu 9/25/25 | 61 | 4.2.4 | | |
| 63 | | 5 | **Infrastructure and Data Security** | **96 days** | **Fri 10/3/25** | **Fri 2/13/26** | | | | |
| 64 | | 5.1 | **Hardware Procurement and Installation** | **71 days** | **Fri 10/3/25** | **Fri 1/9/26** | | | | |
| 65 | | 5.1.1 | **Server and Storage Setup** | **55 days** | **Fri 10/24/25** | **Thu 1/8/26** | | | | |
| 66 | | 5.1.1.1 | Hardware Tendering | 20 days | Fri 10/24/25 | Thu 11/20/25 | 62FS+20 days | 4.2.5[FS+20 days] | | |
| 67 | | 5.1.1.2 | Hardware Procurement | 20 days | Fri 11/21/25 | Thu 12/18/25 | 66 | 5.1.1.1 | | |
| 68 | | 5.1.1.3 | Infrastructure Setup | 15 days | Fri 12/19/25 | Thu 1/8/26 | 67 | 5.1.1.2 | | |
| 69 | | 5.1.2 | Backup and Disaster Recovery Planning | 10 days | Fri 10/3/25 | Thu 10/16/25 | 62FS+5 days | 4.2.5[FS+5 days] | | |
| 70 | | 5.1.3 | Analytical Tool Procurement | 36 days | Fri 11/21/25 | Fri 1/9/26 | 66 | 5.1.1.1 | | |
| 71 | | 5.2 | **System Environment Setup** | **40 days** | **Mon 12/22/25** | **Fri 2/13/26** | | | | |
| 72 | | 5.2.1 | Testing Environment | 10 days | Mon 12/22/25 | Fri 1/2/26 | 67FS+1 day | 5.1.1.2[FS+1 day] | | |
| 73 | | 5.2.2 | Production Environment | 10 days | Mon 2/2/26 | Fri 2/13/26 | 72FS+20 days | 5.2.1[FS+20 days] | | |
| 74 | | 5.3 | **Security and Data protection design** | **67 days** | **Fri 10/3/25** | **Mon 1/5/26** | | | | |
| 75 | | 5.3.1 | Digital Signature Support | 20 days | Fri 11/21/25 | Thu 12/18/25 | 66 | 5.1.1.1 | | |
| 76 | | 5.3.2 | Security Protocols and Firewall | 5 days | Fri 10/3/25 | Thu 10/9/25 | 62FS+5 days | 4.2.5[FS+5 days] | | |
| 77 | | 5.3.3 | Connectivity Testing | 2 days | Fri 1/2/26 | Mon 1/5/26 | 68FS-5 days | 5.1.1.3[FS-5 days] | | |
| 78 | | 6 | **Platform Development** | **131 days** | **Wed 10/1/25** | **Wed 4/1/26** | | | | |
| 79 | | 6.1 | **Requirement Gathering and Analysis** | **26 days** | **Wed 10/1/25** | **Wed 11/5/25** | | | | |
| 80 | | 6.1.1 | Internal Stakeholder Consultation | 20 days | Wed 10/1/25 | Tue 10/28/25 | 62FS+3 days | 4.2.5[FS+3 days] | | |
| 81 | | 6.1.2 | Business Process Mapping | 10 days | Wed 10/22/25 | Tue 11/4/25 | 80FS-5 days | 6.1.1[FS-5 days] | | |
| 82 | | 6.1.3 | Sign-off on Documents | 1 day | Wed 11/5/25 | Wed 11/5/25 | 81 | 6.1.2 | | |
| 83 | | 6.2 | **Technical Specifications** | **26 days** | **Fri 10/31/25** | **Fri 12/5/25** | | | | |
| 84 | | 6.2.1 | System Design Documentation | 20 days | Fri 10/31/25 | Thu 11/27/25 | 81FS-3 days | 6.1.2[FS-3 days] | | |
| 85 | | 6.2.2 | Data Security | 5 days | Fri 11/28/25 | Thu 12/4/25 | 84 | 6.2.1 | | |
| 86 | | 6.2.3 | Sign-off on Documents | 1 day | Fri 12/5/25 | Fri 12/5/25 | 85 | 6.2.2 | | |
| 87 | | 6.3 | **Software Development** | **90 days** | **Fri 11/21/25** | **Thu 3/26/26** | | | | |
| 88 | | 6.3.1 | Core E-Invoicing Development | 60 days | Fri 11/21/25 | Thu 2/12/26 | 84FS-5 days | 6.2.1[FS-5 days] | | |
| 89 | | 6.3.2 | Taxpayer Interface Development | 30 days | Fri 1/9/26 | Thu 2/19/26 | 88FS-25 days | 6.3.1[FS-25 days] | | |
| 90 | | 6.3.3 | Integration Components | 19 days | Fri 2/13/26 | Wed 3/11/26 | 89FS-5 days | 6.3.2[FS-5 days] | | development of API |
| 91 | | 6.3.4 | Realtime Monitoring Dashboard | 20 days | Fri 2/27/26 | Thu 3/26/26 | 89FS+5 days | 6.3.2[FS+5 days] | | |
| 92 | | 6.4 | **Testing** | **54 days** | **Fri 1/16/26** | **Wed 4/1/26** | | | | |
| 93 | | 6.4.1 | Unit Testing | 40 days | Fri 1/16/26 | Thu 3/12/26 | 89FS-25 days | 6.3.2[FS-25 days] | | |
| 94 | | 6.4.2 | Integration testing | 10 days | Thu 3/19/26 | Wed 4/1/26 | 90FS+5 days | 6.3.3[FS+5 days] | | |
| 95 | | 6.4.3 | User Acceptance Testing | 37 days | Fri 1/23/26 | Mon 3/16/26 | 89FS-20 days | 6.3.2[FS-20 days] | | |
| 96 | | 6.4.4 | Performance and Load Testing | 10 days | Thu 2/12/26 | Wed 2/25/26 | 89FS-6 days | 6.3.2[FS-6 days] | | |
| 97 | | 6.4.5 | Security Testing | 2 days | Wed 3/18/26 | Thu 3/19/26 | 91FS-7 days | 6.3.4[FS-7 days] | | |
| 98 | | 6.4.6 | Quality Assurance and Sign-off | 1 day | Fri 3/27/26 | Fri 3/27/26 | 91 | 6.3.4 | | milestone |
| 99 | | 7 | **Piloting and Deployment** | **87 days** | **Mon 3/2/26** | **Tue 6/30/26** | | | | |
| 100 | | 7.1 | **Pilot Program Setup** | **22 days** | **Mon 3/2/26** | **Tue 3/31/26** | | | | |
| 101 | | 7.1.1 | Select Pilot Participants | 10 days | Mon 3/2/26 | Fri 3/13/26 | 96FS+2 days | 6.4.4[FS+2 days] | | |
| 102 | | 7.1.2 | Develop Pilot Testing Criteria's | 8 days | Mon 3/9/26 | Wed 3/18/26 | 101FS-5 days | 7.1.1[FS-5 days] | | |
| 103 | | 7.1.3 | Train participants on new system | 2 days | Mon 3/30/26 | Tue 3/31/26 | 98 | 6.4.6 | | |
| 104 | | 7.2 | **Pilot Execution and Feedback** | **25 days** | **Wed 4/1/26** | **Tue 5/5/26** | | | | |
| 105 | | 7.2.1 | Execute pilot | 20 days | Wed 4/1/26 | Tue 4/28/26 | 103 | 7.1.3 | | |
| 106 | | 7.2.2 | Collect user feedback and issues | 15 days | Wed 4/1/26 | Tue 4/21/26 | 103 | 7.1.3 | | |
| 107 | | 7.2.3 | Refine System Based on Feedback | 20 days | Wed 4/8/26 | Tue 5/5/26 | 103FS+5 days | 7.1.3[FS+5 days] | | |
| 108 | | 7.2.4 | Pilot Sucessful | 0 days | Tue 5/5/26 | Tue 5/5/26 | 107 | 7.2.3 | | Milestone |
| 109 | | 7.3 | **Full System Deployment** | **45 days** | **Wed 4/29/26** | **Tue 6/30/26** | | | | |
| 110 | | 7.3.1 | System Launch and go-live | 5 days | Mon 5/11/26 | Fri 5/15/26 | 108FS+3 days | 7.2.4[FS+3 days] | | |
| 111 | | 7.3.2 | Large taxpayers | 20 days | Mon 5/11/26 | Fri 6/5/26 | 108FS+3 days | 7.2.4[FS+3 days] | | |
| 112 | | 7.3.3 | Specific economic sector | 17 days | Mon 6/8/26 | Tue 6/30/26 | 111 | 7.3.2 | | |
| 113 | | 7.3.4 | Communication and Annoucement | 28 days | Wed 4/29/26 | Fri 6/5/26 | 105 | 7.2.1 | | |
| 114 | | 7.4 | **Ongoing System Monitoring and Support** | **12 days** | **Thu 5/21/26** | **Fri 6/5/26** | | | | |
| 115 | | 7.4.1 | System Performance | 12 days | Thu 5/21/26 | Fri 6/5/26 | 110FS+3 days | 7.3.1[FS+3 days] | | |
| 116 | | 7.4.2 | System updates and bugs | 12 days | Thu 5/21/26 | Fri 6/5/26 | 110FS+3 days | 7.3.1[FS+3 days] | | |
| 117 | | 8 | **Training and Documentation** | **128 days** | **Fri 1/2/26** | **Tue 6/30/26** | | | | |
| 118 | | 8.1 | **Training Program development** | **83 days** | **Fri 1/2/26** | **Tue 4/28/26** | | | | |
| 119 | | 8.1.1 | Create training materials | 30 days | Fri 1/2/26 | Thu 2/12/26 | 88FS-30 days | 6.3.1[FS-30 days] | | |
| 120 | | 8.1.2 | Develop SOP | 15 days | Fri 1/30/26 | Thu 2/19/26 | 119FS-10 days | 8.1.1[FS-10 days] | | |
| 121 | | 8.1.3 | Develop user guides and manuals | 30 days | Fri 1/9/26 | Thu 2/19/26 | 88FS-25 days | 6.3.1[FS-25 days] | | |
| 122 | | 8.1.4 | Organize Training sessions for stakeholders | 2 days | Mon 4/27/26 | Tue 4/28/26 | 106FS+3 days | 7.2.2[FS+3 days] | | |
| 123 | | 8.2 | **Support and Helpdesk** | **50 days** | **Wed 4/22/26** | **Tue 6/30/26** | | | | |
| 124 | | 8.2.1 | Establish helpdesk procedures | 8 days | Wed 4/22/26 | Fri 5/1/26 | 106 | 7.2.2 | | |
| 125 | | 8.2.2 | Training support staff | 2 days | Mon 5/4/26 | Tue 5/5/26 | 124 | 8.2.1 | | |
| 126 | | 8.2.3 | Provide ongoing support post-implementation | 37 days | Mon 5/11/26 | Tue 6/30/26 | 108FS+3 days | 7.2.4[FS+3 days] | | |
| 127 | | 9 | **Post implementation and Closure** | **32 days** | **Mon 5/18/26** | **Tue 6/30/26** | | | | |
| 128 | | 9.1 | **Data Analytics and Reporting Tool** | **25 days** | **Mon 5/18/26** | **Fri 6/19/26** | | | | |
| 129 | | 9.1.1 | Deploy Analytical Tool | 5 days | Mon 5/18/26 | Fri 5/22/26 | 110 | 7.3.1 | | |
| 130 | | 9.1.2 | Develop and Configure Environment | 20 days | Thu 5/21/26 | Wed 6/17/26 | 129FS-2 days | 9.1.1[FS-2 days] | | |
| 131 | | 9.1.3 | Test Integration with E-invoicing System | 5 days | Mon 5/25/26 | Fri 5/29/26 | 129 | 9.1.1 | | |
| 132 | | 9.1.4 | Training of Users | 2 days | Thu 6/18/26 | Fri 6/19/26 | 130 | 9.1.2 | | |
| 133 | | 9.1.5 | Generate Initial Report | 5 days | Thu 6/4/26 | Wed 6/10/26 | 130FS-10 days | 9.1.2[FS-10 days] | | |
| 134 | | 9.2 | **Post Implementation Review** | **4 days** | **Thu 6/18/26** | **Tue 6/23/26** | | | | |
| 135 | | 9.2.1 | Stakeholder Feedback Collection | 4 days | Thu 6/18/26 | Tue 6/23/26 | 130 | 9.1.2 | | |
| 136 | | 9.2.2 | System Assessment | 2 days | Thu 6/18/26 | Fri 6/19/26 | 130 | 9.1.2 | | |
| 137 | | 9.3 | **Negotiate Support and Maintenance Agreement** | **13 days** | **Wed 6/10/26** | **Fri 6/26/26** | | | | |
| 138 | | 9.3.1 | Draft Agreement | 8 days | Wed 6/10/26 | Fri 6/19/26 | 130FS-6 days | 9.1.2[FS-6 days] | | |
| 139 | | 9.3.2 | Negotiate with Vendor | 5 days | Mon 6/22/26 | Fri 6/26/26 | 138 | 9.3.1 | | |
| 140 | | 9.3.3 | Signed Support and Maintenance Agreement | 0 days | Fri 6/26/26 | Fri 6/26/26 | 139 | 9.3.2 | | |
| 141 | | 9.4 | **Lessons Learned Documentation** | **2 days** | **Mon 6/29/26** | **Tue 6/30/26** | | | | |
| 142 | | 9.4.1 | Document Challenges and Solutions | 2 days | Mon 6/29/26 | Tue 6/30/26 | 140 | 9.3.3 | | |
| 143 | | 9.5 | **Project Closure** | **1 day** | **Tue 6/30/26** | **Tue 6/30/26** | | | | |
| 144 | | 9.5.1 | Project Closing Meeting | 1 day | Tue 6/30/26 | Tue 6/30/26 | 142FS-1 day | 9.4.1[FS-1 day] | | |
| 145 | | 9.5.2 | Project Closure | 0 days | Tue 6/30/26 | Tue 6/30/26 | 144 | 9.5.1 | | |

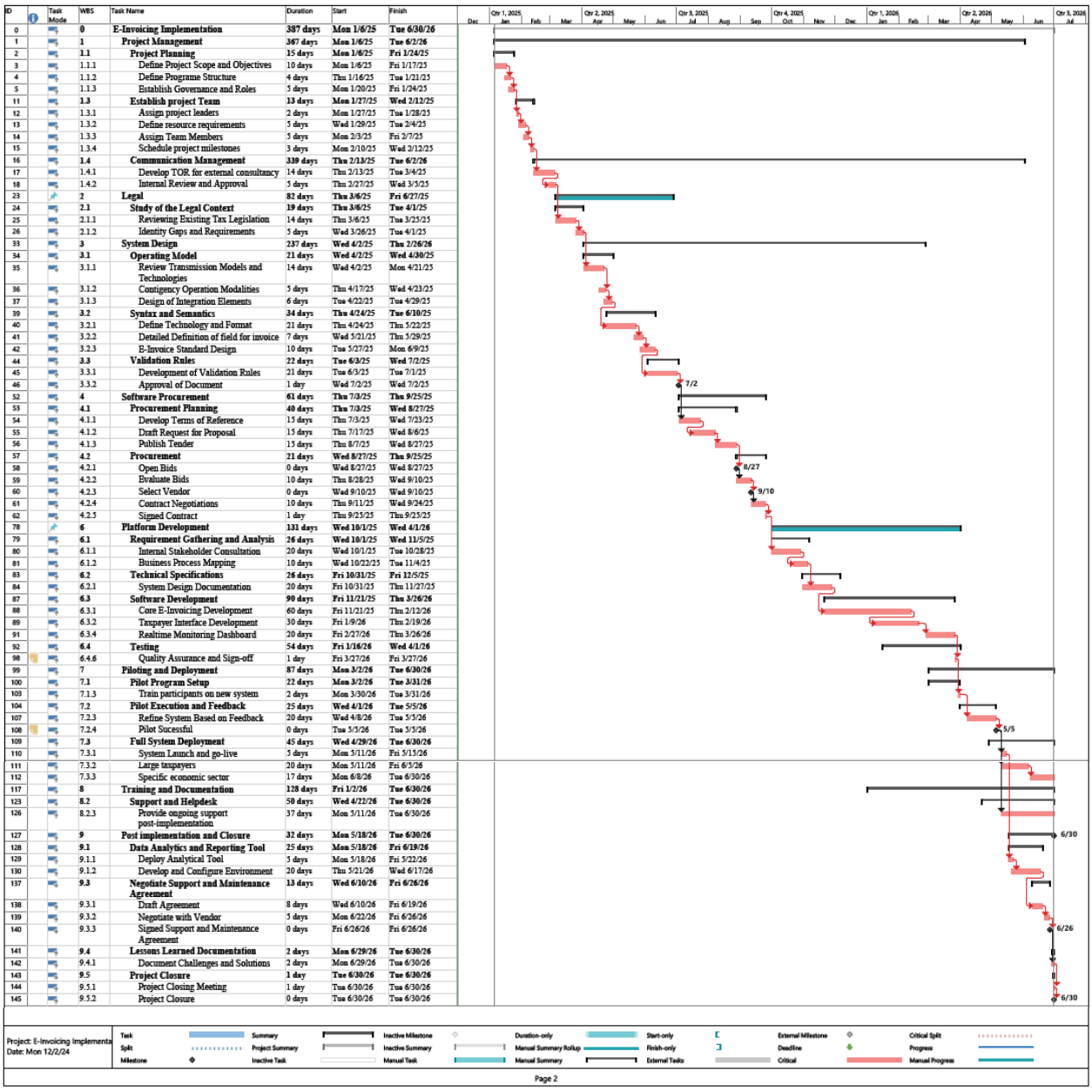


*(Compiled by the Author)*

### 4.3.4 Critical Path

The critical path for the e-invoicing project represents the sequence of tasks that directly impact the overall project timeline, as any delays in these activities will result in a delay to the project's completion. Monitoring the critical path allows the Project Manager to identify dependencies and constraints, enabling timely interventions, such as reallocating resources or adjusting schedules, to keep the project on track. This tool is essential for delivering the e-invoicing system on schedule.

## Chart 13 Critical Path



| ID | Task Mode | WBS | Task Name | Duration | Start | Finish |
|---|---|---|---|---|---|---|
| 0 | | 0 | **E-Invoicing Implementation** | **387 days** | **Mon 1/6/25** | **Tue 6/30/26** |
| 1 | | 1 | **Project Management** | **367 days** | **Mon 1/6/25** | **Tue 6/2/26** |
| 2 | | 1.1 | **Project Planning** | **15 days** | **Mon 1/6/25** | **Fri 1/24/25** |
| 3 | | 1.1.1 | Define Project Scope and Objectives | 10 days | Mon 1/6/25 | Fri 1/17/25 |
| 4 | | 1.1.2 | Define Programe Structure | 4 days | Thu 1/16/25 | Tue 1/21/25 |
| 5 | | 1.1.3 | Establish Governance and Roles | 5 days | Mon 1/20/25 | Fri 1/24/25 |
| 11 | | 1.3 | **Establish project Team** | **13 days** | **Mon 1/27/25** | **Wed 2/12/25** |
| 12 | | 1.3.1 | Assign project leaders | 2 days | Mon 1/27/25 | Tue 1/28/25 |
| 13 | | 1.3.2 | Define resource requirements | 5 days | Wed 1/29/25 | Tue 2/4/25 |
| 14 | | 1.3.3 | Assign Team Members | 5 days | Mon 2/3/25 | Fri 2/7/25 |
| 15 | | 1.3.4 | Schedule project milestones | 3 days | Mon 2/10/25 | Wed 2/12/25 |
| 16 | | 1.4 | **Communication Management** | **330 days** | **Thu 2/13/25** | **Tue 6/2/26** |
| 17 | | 1.4.1 | Develop TOR for external consultancy | 14 days | Thu 2/13/25 | Tue 3/4/25 |
| 18 | | 1.4.2 | Internal Review and Approval | 5 days | Thu 2/27/25 | Wed 3/5/25 |
| 23 | | 2 | **Legal** | **82 days** | **Thu 3/6/25** | **Fri 6/27/25** |
| 24 | | 2.1 | **Study of the Legal Context** | **19 days** | **Thu 3/6/25** | **Tue 4/1/25** |
| 25 | | 2.1.1 | Reviewing Existing Tax Legislation | 14 days | Thu 3/6/25 | Tue 3/25/25 |
| 26 | | 2.1.2 | Identity Gaps and Requirements | 5 days | Wed 3/26/25 | Tue 4/1/25 |
| 33 | | 3 | **System Design** | **237 days** | **Wed 4/2/25** | **Thu 2/26/26** |
| 34 | | 3.1 | **Operating Model** | **21 days** | **Wed 4/2/25** | **Wed 4/30/25** |
| 35 | | 3.1.1 | Review Transmission Models and Technologies | 14 days | Wed 4/2/25 | Mon 4/21/25 |
| 36 | | 3.1.2 | Contigency Operation Modalities | 5 days | Thu 4/17/25 | Wed 4/23/25 |
| 37 | | 3.1.3 | Design of Integration Elements | 6 days | Tue 4/22/25 | Tue 4/29/25 |
| 39 | | 3.2 | **Syntax and Semantics** | **34 days** | **Thu 4/24/25** | **Tue 6/10/25** |
| 40 | | 3.2.1 | Define Technology and Format | 21 days | Thu 4/24/25 | Thu 5/22/25 |
| 41 | | 3.2.2 | Detailed Definition of field for invoice | 7 days | Wed 5/21/25 | Thu 5/29/25 |
| 42 | | 3.2.3 | E-Invoice Standard Design | 10 days | Tue 5/27/25 | Mon 6/9/25 |
| 44 | | 3.3 | **Validation Rules** | **22 days** | **Tue 6/3/25** | **Wed 7/2/25** |
| 45 | | 3.3.1 | Development of Validation Rules | 21 days | Tue 6/3/25 | Tue 7/1/25 |
| 46 | | 3.3.2 | Approval of Document | 1 day | Wed 7/2/25 | Wed 7/2/25 |
| 52 | | 4 | **Software Procurement** | **61 days** | **Thu 7/3/25** | **Thu 9/25/25** |
| 53 | | 4.1 | **Procurement Planning** | **40 days** | **Thu 7/3/25** | **Wed 8/27/25** |
| 54 | | 4.1.1 | Develop Terms of Reference | 15 days | Thu 7/3/25 | Wed 7/23/25 |
| 55 | | 4.1.2 | Draft Request for Proposal | 15 days | Thu 7/17/25 | Wed 8/6/25 |
| 56 | | 4.1.3 | Publish Tender | 15 days | Thu 8/7/25 | Wed 8/27/25 |
| 57 | | 4.2 | **Procurement** | **21 days** | **Wed 8/27/25** | **Thu 9/25/25** |
| 58 | | 4.2.1 | Open Bids | 0 days | Wed 8/27/25 | Wed 8/27/25 |
| 59 | | 4.2.2 | Evaluate Bids | 10 days | Thu 8/28/25 | Wed 9/10/25 |
| 60 | | 4.2.3 | Select Vendor | 0 days | Wed 9/10/25 | Wed 9/10/25 |
| 61 | | 4.2.4 | Contract Negotiations | 10 days | Thu 9/11/25 | Wed 9/24/25 |
| 62 | | 4.2.5 | Signed Contract | 1 day | Thu 9/25/25 | Thu 9/25/25 |
| 78 | | 6 | **Platform Development** | **131 days** | **Wed 10/1/25** | **Wed 4/1/26** |
| 79 | | 6.1 | **Requirement Gathering and Analysis** | **26 days** | **Wed 10/1/25** | **Wed 11/5/25** |
| 80 | | 6.1.1 | Internal Stakeholder Consultation | 20 days | Wed 10/1/25 | Tue 10/28/25 |
| 81 | | 6.1.2 | Business Process Mapping | 10 days | Wed 10/22/25 | Tue 11/4/25 |
| 83 | | 6.2 | **Technical Specifications** | **26 days** | **Fri 10/31/25** | **Fri 12/5/25** |
| 84 | | 6.2.1 | System Design Documentation | 20 days | Fri 10/31/25 | Thu 11/27/25 |
| 87 | | 6.3 | **Software Development** | **90 days** | **Fri 11/21/25** | **Thu 3/26/26** |
| 88 | | 6.3.1 | Core E-Invoicing Development | 60 days | Fri 11/21/25 | Thu 2/12/26 |
| 89 | | 6.3.2 | Taxpayer Interface Development | 30 days | Fri 1/9/26 | Thu 2/19/26 |
| 91 | | 6.3.4 | Realtime Monitoring Dashboard | 20 days | Fri 2/27/26 | Thu 3/26/26 |
| 92 | | 6.4 | **Testing** | **54 days** | **Fri 1/16/26** | **Wed 4/1/26** |
| 98 | | 6.4.6 | Quality Assurance and Sign-off | 1 day | Fri 3/27/26 | Fri 3/27/26 |
| 99 | | 7 | **Piloting and Deployment** | **87 days** | **Mon 3/2/26** | **Tue 6/30/26** |
| 100 | | 7.1 | **Pilot Program Setup** | **22 days** | **Mon 3/2/26** | **Tue 3/31/26** |
| 103 | | 7.1.3 | Train participants on new system | 2 days | Mon 3/30/26 | Tue 3/31/26 |
| 104 | | 7.2 | **Pilot Execution and Feedback** | **25 days** | **Wed 4/1/26** | **Tue 5/5/26** |
| 107 | | 7.2.3 | Refine System Based on Feedback | 20 days | Wed 4/8/26 | Tue 5/5/26 |
| 108 | | 7.2.4 | Pilot Sucessful | 0 days | Tue 5/5/26 | Tue 5/5/26 |
| 109 | | 7.3 | **Full System Deployment** | **45 days** | **Wed 4/29/26** | **Tue 6/30/26** |
| 110 | | 7.3.1 | System Launch and go-live | 5 days | Mon 5/11/26 | Fri 5/15/26 |
| 111 | | 7.3.2 | Large taxpayers | 20 days | Mon 5/11/26 | Fri 6/5/26 |
| 112 | | 7.3.3 | Specific economic sector | 17 days | Mon 6/8/26 | Tue 6/30/26 |
| 117 | | 8 | **Training and Documentation** | **128 days** | **Fri 1/2/26** | **Tue 6/30/26** |
| 123 | | 8.2 | **Support and Helpdesk** | **50 days** | **Wed 4/22/26** | **Tue 6/30/26** |
| 126 | | 8.2.3 | Provide ongoing support post-implementation | 37 days | Mon 5/11/26 | Tue 6/30/26 |
| 127 | | 9 | **Post implementation and Closure** | **32 days** | **Mon 5/18/26** | **Tue 6/30/26** |
| 128 | | 9.1 | **Data Analytics and Reporting Tool** | **25 days** | **Mon 5/18/26** | **Fri 6/19/26** |
| 129 | | 9.1.1 | Deploy Analytical Tool | 5 days | Mon 5/18/26 | Fri 5/22/26 |
| 130 | | 9.1.2 | Develop and Configure Environment | 20 days | Thu 5/21/26 | Wed 6/17/26 |
| 137 | | 9.3 | **Negotiate Support and Maintenance Agreement** | **13 days** | **Wed 6/10/26** | **Fri 6/26/26** |
| 138 | | 9.3.1 | Draft Agreement | 8 days | Wed 6/10/26 | Fri 6/19/26 |
| 139 | | 9.3.2 | Negotiate with Vendor | 5 days | Mon 6/22/26 | Fri 6/26/26 |
| 140 | | 9.3.3 | Signed Support and Maintenance Agreement | 0 days | Fri 6/26/26 | Fri 6/26/26 |
| 141 | | 9.4 | **Lessons Learned Documentation** | **2 days** | **Mon 6/29/26** | **Tue 6/30/26** |
| 142 | | 9.4.1 | Document Challenges and Solutions | 2 days | Mon 6/29/26 | Tue 6/30/26 |
| 143 | | 9.5 | **Project Closure** | **1 day** | **Tue 6/30/26** | **Tue 6/30/26** |
| 144 | | 9.5.1 | Project Closing Meeting | 1 day | Tue 6/30/26 | Tue 6/30/26 |
| 145 | | 9.5.2 | Project Closure | 0 days | Tue 6/30/26 | Tue 6/30/26 |

*(Source: Compiled by the Author)*

### 4.3.5. Schedule Control

The schedule control for the e-invoicing project is managed by the Project Manager, who ensures that the project schedule remains accurate and aligned with the overall objectives. The schedule is updated on a semi-monthly basis to reflect tasks that have been

completed and to show the percentage of completion for ongoing tasks. This regular review allows the Project Manager to identify any shortfalls in progress and determine whether additional resources are required to accelerate the task or if the timeline for specific activities needs to be extended. Such updates provide a clear picture of the project's progress and enable proactive decision-making to address potential delays or bottlenecks.

Any changes to the project schedule must be presented to and approved by the Project Steering Committee, ensuring that decisions are aligned with strategic goals and stakeholder expectations. From time to time, the project's progress will be compared against the baseline schedule to assess variances and evaluate overall performance. This variance analysis helps determine the effectiveness of resource allocation and identifies areas requiring corrective action. By regularly monitoring task completion percentages and resource utilization, the Project Manager ensures that the project remains adaptable and on track while maintaining transparency and accountability throughout its lifecycle.

## 4.4. Cost Management Plan

The Cost Management Plan for the E-invoicing Implementation project is a critical document that outlines how the project costs will be estimated, budgeted, managed, and controlled throughout its lifecycle.

### 4.4.1. Cost Management Approach

The Cost Management Approach for the E-invoicing implementation project integrates strategies that ensures that the project remains within its approved budget and on schedule. This approach follows the processes of Plan Cost Management, Estimate Costs, Determine Budget, and Control Costs, guided by expert judgment and data analysis. The plan emphasizes proactive measures for monitoring and controlling costs, aiming to

mitigate cost overruns and delays. To achieve this, cost management processes are seamlessly integrated into the project's overall management framework. Cost accounts are established at the second level of the Work Breakdown Structure (WBS), enabling detailed tracking and accountability. Control accounts are used for more granular cost tracking, offering a structured view of expenditures and budget allocation.

In addition, project financial performance is evaluated and managed using Earned Value Management (EVM), a methodology that integrates scope, schedule, and cost metrics. EVM enables precise tracking of project performance, providing insights into variances and trends to address issues promptly. By using this approach, the project ensures effective cost tracking through periodic reviews, variance analysis, and forecast adjustments, enabling adaptive responses to financial challenges. These measures, combined with structured cost control processes, provide a disciplined approach to managing the project budget, ensuring that the E-invoicing implementation is both cost-effective and efficient.

### 4.4.2. Budget Estimation

Cost estimation for the E-invoicing implementation project combines multiple estimation techniques to ensure a realistic budgeting. Analogous estimating, parametric estimating, and bottom-up estimating were utilized to create realistic projections. Analogous and parametric methods drew from the experiences of similar implementations in the Latin American region, while adjustments were made to account for Belize's smaller economy and population size. Bottom-up estimating was applied to granular tasks, enabling precise allocation of resources and identification of associated costs.

The budget incorporates a capped cost for software acquisition, prioritizing the procurement of an off-the-shelf solution that will be customized to align with BTSD's operational model. This approach balances cost-efficiency with the flexibility required to meet the project's demands. Acknowledging the diverse needs of taxpayers, particularly small and medium-sized businesses, the project includes provisions for a free e-invoicing solution to support these groups, fostering compliance and inclusivity.

The project's communication efforts, a critical component of stakeholder engagement and public awareness, will be outsourced to specialized vendors. This ensures the delivery of high-quality and targeted messaging to all relevant stakeholders while optimizing internal resource use.

For tasks marked as $0 in the budget estimation table, it is important to note that these rely on existing internal staff. These activities, such as defining the program structure, establishing governance, and roles, are integral to the project's success but do not incur additional external costs. However, these tasks represent an opportunity cost, as they require staff to allocate time away from their regular duties. Effective workload planning has been implemented to manage this impact and maintain organizational efficiency.

Periodic reviews and updates to the cost estimates (see Chart 14) will address any emerging changes, enabling adaptive and proactive financial management.

**Chart 14 Estimated Cost**

| WBS code | Task Name | Duration | Cost | Contingency | Resources |
|---|---|---|---|---|---|
| **0** | **E-invoicing Implementation** | **387 days** | **$670,000.00** | **$67,000.00** | |
| 1 | Project Management | 367 days | $59,100.00 | $5,910.00 | |

| WBS code | Task Name | Duration | Cost | Contingency | Resources |
|---|---|---|---|---|---|
| 1.1 | Project Planning | 15 days | $1,100.00 | $110.00 | |
| 1.1.1 | Define Project Scope and Objectives | 10 days | $1,100.00 | $110.00 | Project Sponsor |
| 1.1.2 | Define Program Structure | 4 days | $0.00 | $0.00 | Project Sponsor |
| 1.1.3 | Establish Governance and Roles | 5 days | $0.00 | $0.00 | Project Sponsor |
| 1.2 | Stakeholder Engagement | 10 days | $2,000.00 | $200.00 | |
| 1.2.1 | Identify and Conduct Stakeholder Meetings | 8 days | $500.00 | $50.00 | Project Sponsor, Project Team lead |
| 1.2.1.1 | Identify and contact stakeholders | 7 days | $500.00 | $50.00 | Project Sponsor, Project Team lead |
| 1.2.1.2 | Stakeholders session | 1 day | $1,000.00 | $100.00 | Project Sponsor |
| 1.2.2 | Identify Project Steering Committee | 2 days | $0.00 | $0.00 | Project Sponsor |
| 1.3 | Establish Project Team | 13 days | $6,500.00 | $650.00 | |
| 1.3.1 | Assign Project Leaders | 2 days | $0.00 | $0.00 | Project Sponsor |
| 1.3.2 | Define Resource Requirements | 5 days | $6,000.00 | $600.00 | Project Team Lead |
| 1.3.3 | Assign Team Members | 5 days | $0.00 | $0.00 | Project Team Lead |
| 1.3.4 | Schedule Project Milestones | 3 days | $500.00 | $50.00 | Project Team Lead, Project Team |
| 1.4 | Communication Management | 339 days | $49,500.00 | $4,950.00 | |
| 1.4.1 | Develop TOR for external consultancy | 14 days | $7,000.00 | $700.00 | CIAT Consultant (E-invoicing Specialist), |

| WBS code | Task Name | Duration | Cost | Contingency | Resources |
|---|---|---|---|---|---|
| | | | | | Project Team Lead |
| 1.4.2 | Internal Review and Approval | 5 days | $750.00 | $75.00 | Project Team Lead, Project Team |
| 1.4.3 | Publish TOR and Proposal Submission | 21 days | $1,000.00 | $100.00 | Project Team Lead |
| 1.4.4 | Evaluate Proposals | 9 days | $750.00 | $75.00 | Project Team Lead, Project Team |
| 1.4.5 | Selection and Contract Negotiations | 14 days | $0.00 | $0.00 | Project Team Lead, Project Team |
| 1.4.6 | Contract Execution | 280 days | $40,000.00 | $4,000.00 | Communication Consultant |
| 2 | Legal | | $24,500.00 | $2,450.00 | |
| 2.1 | Study of the Legal Context | 19 days | $12,250.00 | $1,225.00 | |
| 2.1.1 | Reviewing Existing Tax Legislation | 14 days | $8,750.00 | $875.00 | CIAT Consultant (Legal), Legal Officer |
| 2.1.2 | Identify Gaps and Requirements | 5 days | $3,500.00 | $350.00 | CIAT Consultant (Legal), Legal Officer |
| 2.2 | Legislative Updates | 63 days | $12,250.00 | $1,225.00 | |
| 2.2.1 | Develop Recommendations for Legal Changes | 14 days | $7,000.00 | $700.00 | CIAT Consultant |
| 2.2.2 | Draft Changes of Existing Legal Framework | 5 days | $0.00 | $0.00 | Legal Officer |
| 2.2.3 | Propose Technical Standards | 14 days | $5,250.00 | $525.00 | CIAT Consultant |
| 2.2.4 | Obtain Approval for Legislative Changes | 20 days | $0.00 | $0.00 | Legal Officer |

| WBS code | Task Name | Duration | Cost | Contingency | Resources |
|---|---|---|---|---|---|
| 2.2.5 | Develop Necessary Regulations | 10 days | $0.00 | $0.00 | Legal Officer |
| 3 | System Design | | $41,900.00 | $4,190.00 | |
| 3.1 | Operating Model | 20 days | $10,000.00 | $1,000.00 | |
| 3.1.1 | Review Transmission Models and Technologies | 14 days | $2,500.00 | $250.00 | CIAT Consultant (E-invoicing Specialist), IT Team, Project Team Lead |
| 3.1.2 | Contingency Operation Modalities | 5 days | $3,500.00 | $350.00 | CIAT Consultant (E-invoicing Specialist), IT Team, Project Team Lead |
| 3.1.3 | Design of Integration Elements | 6 days | $4,000.00 | $400.00 | CIAT Consultant (E-invoicing Specialist), IT Team, Project Team Lead |
| 3.1.4 | Approval/Sign-off of Operating Model | 0 days | $0.00 | $0.00 | Project Team Lead, Project Steering Committee |
| 3.2 | Syntax and Semantics | 33 days | $13,500.00 | $1,350.00 | |
| 3.2.1 | Define Technology and Format | 21 days | $3,000.00 | $300.00 | CIAT Consultant (E-invoicing Specialist), IT Team, Project Team Lead |
| 3.2.2 | Detailed Definition of Field for Invoice | 7 days | $7,000.00 | $700.00 | CIAT Consultant (E-invoicing Specialist), IT |

| WBS code | Task Name | Duration | Cost | Contingency | Resources |
|---|---|---|---|---|---|
| | | | | | Team, Project Team Lead |
| 3.2.3 | E-Invoice Standard Design | 10 days | $3,500.00 | $350.00 | CIAT Consultant (E-invoicing Specialist), IT Team, Project Team Lead |
| 3.2.4 | Approval/Sign-off of Syntax and Semantic Documentation | 0 days | $0.00 | $0.00 | Project Team Lead, Project Steering Committee |
| 3.3 | Validation Rules | 21 days | $6,500.00 | $650.00 | |
| 3.3.1 | Development of Validation Rules | 21 days | $6,500.00 | $650.00 | CIAT Consultant (E-invoicing Specialist), IT Team, Project Team Lead |
| 3.3.2 | Approval of Document | 0 days | $0.00 | $0.00 | Project Team Lead, Project Steering Committee |
| 3.4 | Orientation Manual for the Issuer of Electronic Tax Document | 172 days | $11,900.00 | $1,190.00 | |
| 3.4.1 | Content Planning and Structure | 4 days | $3,000.00 | $300.00 | CIAT Consultant (E-invoicing Specialist), IT Team, Project Team Lead |
| 3.4.2 | Writing and Drafting | 21 days | $7,000.00 | $700.00 | CIAT Consultant (E-invoicing Specialist), IT Team, Project Team Lead |

| WBS code | Task Name | Duration | Cost | Contingency | Resources |
|---|---|---|---|---|---|
| 3.4.3 | User Testing and Validation | 35 days | $900.00 | $90.00 | CIAT Consultant (E-invoicing Specialist), IT Team, Project Team Lead |
| 3.4.4 | Approval and Publishing | 0 days | $1,000.00 | $100.00 | Project Team Lead, Project Steering Committee |
| 4 | Software Procurement | 62 days | $14,000.00 | $1,400.00 | |
| 4.1 | Procurement Planning | 40 days | $13,500.00 | $1,350.00 | |
| 4.1.1 | Develop Terms of Reference | 15 days | $7,500.00 | $750.00 | CIAT Consultant (E-invoicing Specialist), IT Team, Project Team Lead |
| 4.1.2 | Draft Request for Proposal | 15 days | $5,000.00 | $500.00 | CIAT Consultant (E-invoicing Specialist), IT Team, Project Team Lead |
| 4.1.3 | Publish Tender | 15 days | $1,000.00 | $100.00 | Project Team Lead |
| 4.2 | Procurement | 22 days | $500.00 | $50.00 | |
| 4.2.1 | Open Bids | 1 day | $0.00 | $0.00 | Team lead, IT Manager, Project Team |
| 4.2.2 | Evaluate Bids | 10 days | $500.00 | $50.00 | Team lead, IT Manager, Project Team |
| 4.2.3 | Select Vendor | 1 day | $0.00 | $0.00 | Team lead, IT Manager, Project Team |
| 4.2.4 | Contract Negotiations | 10 days | $0.00 | $0.00 | Team lead, Project |

| WBS code | Task Name | Duration | Cost | Contingency | Resources |
|---|---|---|---|---|---|
| | | | | | Sponsor, IT Manager |
| 4.2.5 | Signed Contract | 0 days | $0.00 | $0.00 | Project Steering committee |
| 5 | Infrastructure and Data Security | 96 days | $138,000.00 | $13,800.00 | |
| 5.1 | Hardware Procurement and Installation & Analytical Tool procurement | 71 days | $120,000.00 | $12,000.00 | |
| 5.1.1 | Server and Storage Setup | 55 days | $60,000.00 | $6,000.00 | CIAT Consultant (Engineer), IT Manager, Project Team Lead, System Admin, Network Admin |
| 5.1.2 | Backup and Disaster Recovery Planning | 10 days | $20,000.00 | $2,000.00 | CIAT Consultant (Engineer), IT Manager, System Admin, Network Admin |
| 5.1.3 | Analytical Tool Procurement | 36 days | $40,000.00 | $4,000.00 | CIAT Consultant (Engineer), IT Manager, Project Team Lead, System Admin, Network Admin |
| 5.2 | System Environment Setup | 40 days | $0.00 | $0.00 | |
| 5.2.1 | Testing Environment | 10 days | | $0.00 | System Admin, Network Admin |
| 5.2.2 | Production Environment | 10 days | | $0.00 | System Admin, Network Admin |
| 5.3 | Security and Data Protection Design | 67 days | $18,000.00 | $1,800.00 | |

| WBS code | Task Name | Duration | Cost | Contingency | Resources |
|---|---|---|---|---|---|
| 5.3.1 | Digital Signature Support | 20 days | $10,000.00 | $1,000.00 | CIAT Consultant (E-invoicing Specialist), IT Manager, Team Lead |
| 5.3.2 | Security Protocols and Firewall | 5 days | $8,000.00 | $800.00 | Network Admin |
| 5.3.3 | Connectivity Testing | 2 days | $0.00 | $0.00 | System Admin, Network Admin |
| 6 | Platform Development | 131 days | $347,500.00 | $34,750.00 | |
| 6.1 | Requirement Gathering and Analysis | 25 days | $1,500.00 | $150.00 | |
| 6.1.1 | Internal Stakeholder Consultation | 20 days | $500.00 | $50.00 | Project Team lead, Managers, Project Sponsor; Vendor |
| 6.1.2 | Business Process Mapping | 10 days | $1,000.00 | $100.00 | Project Team lead, Managers, Project Sponsor, IT Manager, Vendor |
| 6.1.3 | Sign-off | 0 days | $0.00 | $0.00 | Project Steering committee |
| 6.2 | Technical Specifications | 25 days | $3,000.00 | $300.00 | |
| 6.2.1 | System Design Documentation | 20 days | $1,500.00 | $150.00 | Vendor, Managers, Project Team lead |
| 6.2.2 | Data Security | 5 days | $1,500.00 | $150.00 | Network Admin, CIAT Consultant (Engineer); IT Manager |
| 6.2.3 | Sign-off on Documents | 0 days | $0.00 | $0.00 | Project Steering committee |

| WBS code | Task Name | Duration | Cost | Contingency | Resources |
|---|---|---|---|---|---|
| 6.3 | Software Development | 90 days | $324,000.00 | $32,400.00 | |
| 6.3.1 | Core E-Invoicing Development | 60 days | $258,000.00 | $25,800.00 | CIAT Consultant, IT Team, Vendor |
| 6.3.2 | Taxpayer Interface Development | 30 days | $63,000.00 | $6,300.00 | CIAT Consultant, IT Team, Vendor |
| 6.3.3 | Integration Components | 19 days | $1,000.00 | $100.00 | CIAT Consultant, IT Team, Vendor |
| 6.3.4 | Realtime Monitoring Dashboard | 20 days | $2,000.00 | $200.00 | CIAT Consultant, IT Team, Vendor |
| 6.4 | Testing | 54 days | $19,000.00 | $1,900.00 | |
| 6.4.1 | Unit Testing | 40 days | $5,000.00 | $500.00 | Vendor |
| 6.4.2 | Integration Testing | 10 days | $5,000.00 | $500.00 | Vendor |
| 6.4.3 | User Acceptance Testing | 37 days | $1,000.00 | $100.00 | Testers |
| 6.4.4 | Performance and Load Testing | 10 days | $5,000.00 | $500.00 | CIAT Consultant (Engineer), Network Admin |
| 6.4.5 | Security Testing | 2 days | $3,000.00 | $300.00 | CIAT Consultant (Engineer), Network Admin, System Administrator |
| 6.4.6 | Quality Assurance and Sign-off | 0 days | $0.00 | $0.00 | Project Steering committee |
| 7 | Piloting and Deployment | 86 days | $12,000.00 | $1,200.00 | |
| 7.1 | Pilot Program Setup | 21 days | $1,000.00 | $100.00 | |
| 7.1.1 | Select Pilot Participants | 10 days | $0.00 | $0.00 | Project Team lead, Project |

| WBS code | Task Name | Duration | Cost | Contingency | Resources |
|---|---|---|---|---|---|
| | | | | | Team; Project Sponsor |
| 7.1.2 | Develop Pilot Testing Criteria | 8 days | $500.00 | $50.00 | Project Team lead, Project Team, IT Manager |
| 7.1.3 | Train Participants on New System | 2 days | $500.00 | $50.00 | Training Manager |
| 7.2 | Pilot Execution and Feedback | 25 days | $1,000.00 | $100.00 | |
| 7.2.1 | Execute Pilot | 20 days | $1,000.00 | $100.00 | Taxpayers, Project Team lead, Project Team |
| 7.2.2 | Collect User Feedback and Issues | 15 days | $0.00 | $0.00 | Project Team |
| 7.2.3 | Refine System Based on Feedback | 20 days | $0.00 | $0.00 | Vendor |
| 7.2.4 | Pilot Successful | 0 days | $0.00 | $0.00 | Project Team lead |
| 7.3 | Full System Deployment | 45 days | $7,000.00 | $700.00 | |
| 7.3.1 | System Launch and Go-Live | 5 days | $5,000.00 | $500.00 | Project Team lead, Project Team |
| 7.3.2 | Large Taxpayers | 20 days | $0.00 | $0.00 | Project Sponsor |
| 7.3.3 | Specific Economic Sector | 17 days | $0.00 | $0.00 | Project Sponsor |
| 7.3.4 | Communication and Announcement | 28 days | $2,000.00 | $200.00 | Project Team lead |
| 7.4 | Ongoing System Monitoring and Support | 12 days | $3,000.00 | $300.00 | |
| 7.4.1 | System Performance | 12 days | $0.00 | $0.00 | Network Admin, System Admin, IT Manager |
| 7.4.2 | System Updates and Bugs | 12 days | $3,000.00 | $300.00 | Vendor |

| WBS code | Task Name | Duration | Cost | Contingency | Resources |
|---|---|---|---|---|---|
| 8 | Training and Documentation | 127 days | $12,000.00 | $1,200.00 | |
| 8.1 | Training Program Development | 82 days | $10,500.00 | $1,050.00 | |
| 8.1.1 | Create Training Materials | 30 days | $1,000.00 | $100.00 | Training Manager |
| 8.1.2 | Develop SOP | 15 days | $2,000.00 | $200.00 | Training Manager |
| 8.1.3 | Develop User Guides and Manuals | 30 days | $2,500.00 | $250.00 | Training Manager |
| 8.1.4 | Organize Training Sessions for Stakeholders | 2 days | $5,000.00 | $500.00 | Training Manager, Project Team lead |
| 8.2 | Support and Helpdesk | 50 days | $1,500.00 | $150.00 | |
| 8.2.1 | Establish Helpdesk Procedures | 8 days | $500.00 | $50.00 | Training Manager, Project team |
| 8.2.2 | Train Support Staff | 2 days | $1,000.00 | $100.00 | Training Manager |
| 8.2.3 | Provide Ongoing Support Post-Implementation | 37 days | $0.00 | $0.00 | Helpdesk team |
| 9 | Post-Implementation and Closure | 33 days | $21,000.00 | $2,100.00 | |
| 9.1 | Data Analytics and Reporting Tool | 25 days | $17,500.00 | $1,750.00 | |
| 9.1.1 | Deploy Analytical Tool | 5 days | $5,000.00 | $500.00 | CIAT Consultant (E-invoicing Specialist), IT Manager, Project Team lead |
| 9.1.2 | Develop and Configure Environment | 20 days | $5,000.00 | $500.00 | Vendor |
| 9.1.3 | Test Integration with E-invoicing System | 5 days | $1,500.00 | $150.00 | Vendor, Database Administrator |

| WBS code | Task Name | Duration | Cost | Contingency | Resources |
|---|---|---|---|---|---|
| 9.1.4 | Training of Users | 2 days | $6,000.00 | $600.00 | Vendor |
| 9.1.5 | Generate Initial Report | 5 days | $0.00 | $0.00 | IT Manager |
| 9.2 | Post Implementation Review | 4 days | $1,000.00 | $100.00 | |
| 9.2.1 | Stakeholder Feedback Collection | 4 days | $1,000.00 | $100.00 | project team |
| 9.2.2 | System Assessment | 2 days | $0.00 | $0.00 | CIAT Consultant (E-invoicing Specialist), IT Manager |
| 9.3 | Negotiate Support and Maintenance Agreement | 14 days | $1,500.00 | $150.00 | |
| 9.3.1 | Draft Agreement | 9 days | $1,500.00 | $150.00 | Project Team lead, Project Sponsor, IT Manager |
| 9.3.2 | Negotiate with Vendor | 5 days | $0.00 | $0.00 | Project Team lead, Project Sponsor, IT Manager |
| 9.3.3 | Signed Support and Maintenance Agreement | 0 days | $0.00 | $0.00 | Project Sponsor |
| 9.4 | Lessons Learned Documentation | 2 days | $0.00 | $0.00 | |
| 9.4.1 | Document Challenges and Solutions | 2 days | $0.00 | $0.00 | Project Team lead, project team |
| 9.5 | Project Closure | 1 day | $1,000.00 | $100.00 | |
| 9.5.1 | Project Closing Meeting | 1 day | $1,000.00 | $100.00 | All parties involved |
| 9.5.5 | Project Closure | 0 days | $0.00 | $0.00 | |

*(Source: Compiled by the Author)*

### 4.4.3. Budget Determination

The Budget Determination process consolidates estimated costs from all project activities to establish an approved cost baseline, serving as the financial benchmark for monitoring project performance. For the Project, cost aggregation, reserve analysis, and expert judgment were used to calculate the total estimated project cost of $670,000 with an additional contingency reserve of $67,000 (10%) for identified risks and a management reserve of $36,850 (5%) for unforeseen circumstances. This resulted in a total budget of $773,850, with the contingency reserve included in the cost baseline of $737,000. A Cost Distribution (chart 15) was developed at the second level of the WBS, illustrating cumulative expenditure over the 18-month period. From this distribution, an S-curve (chart 16) was derived, providing insights into the project's financial progress over time and informing the development of a cash flow projection.

The budget was allocated in alignment with the WBS, grouping costs into higher-level work packages and control accounts for effective monitoring. These allocations were time-phased to synchronize with the project schedule, ensuring that financial resources are available when needed. The cash flow projection (chart 16) further details quarterly expenditure requirements, offering clear visibility into financial needs and resource allocation throughout the project. Once approved by the Project Steering Committee, the budget is baselined, but it is subject to changes only with their authorization, ensuring financial discipline. This structured approach supports risk management, informed decision-making, and alignment with project objectives while maintaining transparency in financial oversight.

**Cost Baseline and Total Budget**

The aggregated project costs resulted in an estimated project cost of $670,000. The inclusion of contingency and management reserves led to the following breakdown:

Project Estimated Cost: $670,000

Contingency Reserve (10%): $67,000

Project Cost Baseline: $737,000

Management Reserve (5%): $36,850

Total Budget: $773,850

## Chart 15 Budget Distribution for Project Duration

| Code | Task Name | Cost | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | |
| 1 | Project Management | 59100 | | | | | | | | | | | | | | | | | | |
| 1.1 | Project Planning | 1100 | 1100 | | | | | | | | | | | | | | | | | |
| 1.2 | Stakeholder Engagement | 2000 | 500 | 1500 | | | | | | | | | | | | | | | | |
| 1.3 | Establish Project Team | 6500 | 1625 | 4875 | | | | | | | | | | | | | | | | |
| 1.4 | Communication Management | 49500 | 2475 | 5940 | 1485 | | | | | 7425 | | | 2475 | | 9900 | | 9900 | | 7425 | 2475 |
| 2 | Legal | 24500 | | | | | | | | | | | | | | | | | | |
| 2.1 | Study of the Legal Context | 12250 | | | 11638 | 613 | | | | | | | | | | | | | | |
| 2.2 | Legislative Updates | 12250 | | | | 6125 | 6125 | | | | | | | | | | | | | |
| 3 | System Design | 41900 | | | | | | | | | | | | | | | | | | |
| 3.1 | Operating Model | 10000 | | | | 10000 | | | | | | | | | | | | | | |
| 3.2 | Syntax and Semantics | 13500 | | | | | 10125 | 3375 | | | | | | | | | | | | |
| 3.3 | Validation Rules | 6500 | | | | | | 6500 | | | | | | | | | | | | |
| 3.4 | Orientation Manual for the Issuer of Electronic Tax Document | 11900 | | | | | | | 2975 | 6545 | | | | | 595 | 1785 | | | | |
| 4 | Software Procurement | 14000 | | | | | | | | | | | | | | | | | | |
| 4.1 | Procurement Planning | 13500 | | | | | | | 7425 | 6075 | | | | | | | | | | |

| Code | Task Name | Cost | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.2 | Procurement | 500 | | | | | | | | 500 | | | | | | | | | | |
| 5 | Infrastructure and Data Security | 138000 | | | | | | | | | | | | | | | | | | |
| 5.1 | Hardware Procurement and Installation | 120000 | | | | | | | | | | 24000 | 6000 | 60000 | 30000 | | | | | |
| 5.2 | System Environment Setup | 0 | | | | | | | | | | | | | | | | | | |
| 5.3 | Security and Data Protection Design | 18000 | | | | | | | | | | 8100 | | 9900 | | | | | | |
| 6 | Platform Development | 347500 | | | | | | | | | | | | | | | | | | |
| 6.1 | Requirement Gathering and Analysis | 1500 | | | | | | | | | | 1500 | | | | | | | | |
| 6.2 | Technical Specifications | 3000 | | | | | | | | | | 0 | 3000 | | | | | | | |
| 6.3 | Software Development | 324000 | | | | | | | | | | 0 | 32400 | 32400 | 64800 | 64800 | 64800 | 64800 | | |
| 6.4 | Testing | 19000 | | | | | | | | | | | | | 1900 | 3800 | 5700 | 7600 | | |
| 7 | Piloting and Deployment | 12000 | | | | | | | | | | | | | | | | | | |
| 7.1 | Pilot Program Setup | 1000 | | | | | | | | | | | | | | | 1000 | | | |
| 7.2 | Pilot Execution and Feedback | 1000 | | | | | | | | | | | | | | | | 1000 | | |
| 7.3 | Full System Deployment | 7000 | | | | | | | | | | | | | | | | | 7000 | |
| 7.4 | Ongoing System Monitoring and Support | 3000 | | | | | | | | | | | | | | | | | | 3000 |
| 8 | Training and Documentation | 12000 | | | | | | | | | | | | | | | | | | |
| 8.1 | Training Program Development | 10500 | | | | | | | | | | | | | 3150 | 2100 | 5250 | | | |

| Code | Task Name | Cost | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8.2 | Support and Helpdesk | 1500 | | | | | | | | | | | | | | | | 750 | 750 | |
| 9 | Post-Implementation and Closure | 21000 | | | | | | | | | | | | | | | | | | |
| 9.1 | Data Analytics and Reporting Tool | 17500 | | | | | | | | | | | | | | | | | 8750 | 8750 |
| 9.2 | Post Implementation Review | 1000 | | | | | | | | | | | | | | | | | | 1000 |
| 9.3 | Negotiate Support and Maintenance Agreement | 1500 | | | | | | | | | | | | | | | | | | 1500 |
| 9.4 | Lessons Learned Documentation | 0 | | | | | | | | | | | | | | | | | | |
| 9.5 | Project Closure | 1000 | | | | | | | | | | | | | | | | | | 1000 |
| | Project Estimate | 670000 | 5700 | 12315 | 13123 | 16738 | 16250 | 9875 | 10400 | 20545 | 0 | 33600 | 43875 | 102300 | 110345 | 72485 | 86650 | 74150 | 23925 | 17725 |
| | Contingency (10%) | 67000 | | | | | | | | | | | | | | | | | | |
| | Cost Baseline | 737000 | | | | | | | | | | | | | | | | | | |
| | Management Reserve (5%) | 36850 | | | | | | | | | | | | | | | | | | |
| | Total Project Budget | 773850 | | | | | | | | | | | | | | | | | | |

*(Source: Compiled by the Author)*

### 4.4.4. Cost Control

The Cost Control process ensures that the E-Invoicing Implementation Project remains within the approved budget by monitoring expenditures, managing variances, and taking corrective actions as necessary. This process analyses the relationship between the consumption of project funds and the actual work accomplished, ensuring that financial resources are used effectively to achieve project objectives.

Project performance will be measured using Earned Value Management (EVM), a key tool that integrates scope, cost, and schedule baselines. The following EVM metrics will be utilized to measure cost performance:

**Schedule Variance (SV):** Measures the difference between earned value and planned value to determine schedule performance.

**Cost Variance (CV):** Measures the difference between earned value and actual cost to determine cost performance.

**Schedule Performance Index (SPI):** Indicates schedule efficiency as a ratio of earned value to planned value.

**Cost Performance Index (CPI):** Indicates cost efficiency as a ratio of earned value to actual cost

If the SPI or CPI has a variance between 0.1 and 0.2, the Project Manager must report the reasons for the exception. For variances greater than 0.2, the Project Manager must provide the Project Steering Committee with a detailed corrective plan to restore performance to acceptable levels.

**Key Elements of Cost Control**

The following elements are integral to the cost control process:

- Influencing factors that create changes to the authorized cost baseline.
- Ensuring timely action on all change requests.
- Managing actual changes as they occur.
- Ensuring that cost expenditures do not exceed authorized funding at any level, whether by period, WBS component, or activity.
- Monitoring cost performance to identify and address variances from the approved baseline.
- Informing stakeholders of all approved changes and their associated costs.
- Keeping expected cost overruns within acceptable limits.

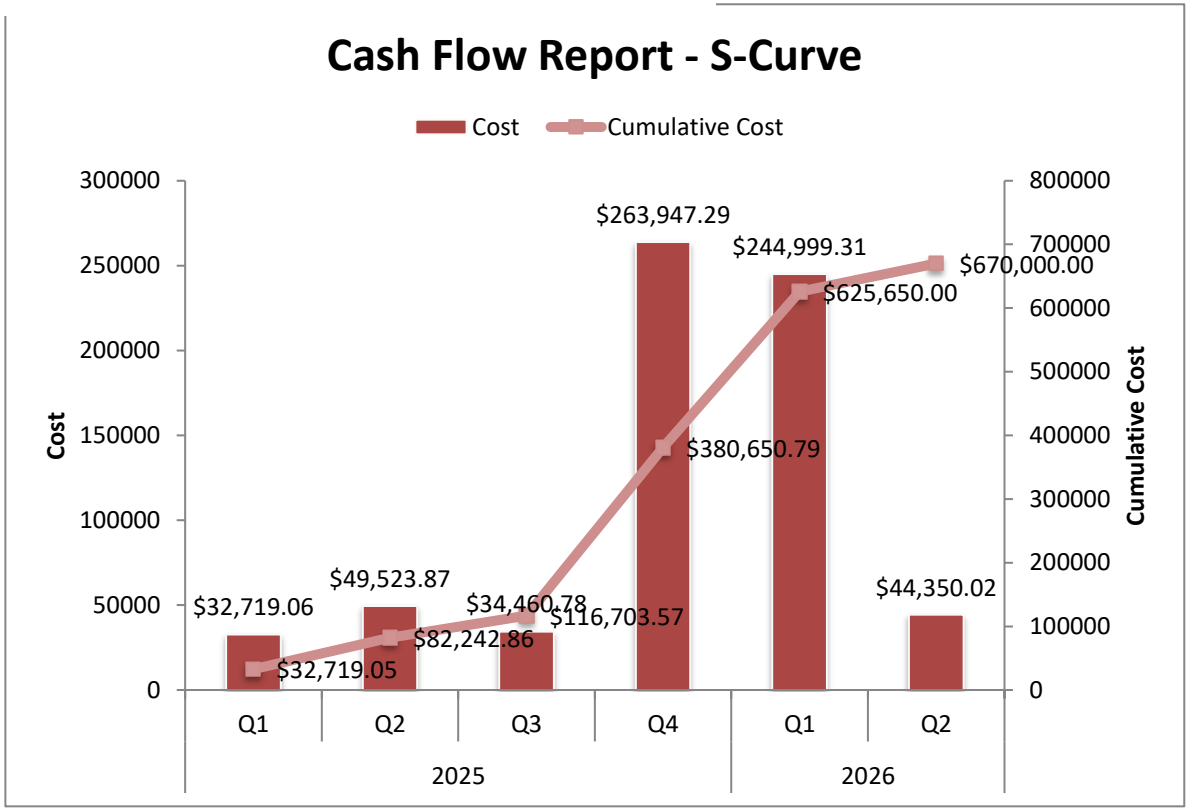
**Cost Baseline and S-Curve Analysis**

The cost baseline, a time-phased version of the approved budget (excluding management reserves), serves as the primary reference for evaluating actual performance. The cost estimates that constitute the baseline are directly tied to the schedule activities, enabling a time-phased view typically represented as an S-curve.

The S-curve for this project was generated using MS Project, providing the Project Manager with a visual representation of cumulative expenditures over time (see Chart 16). This tool allows for the assessment of performance trends and the

identification of variances between planned and actual performance. By integrating the scope baseline, cost baseline, and schedule baseline, the S-curve facilitates proactive decision-making and effective performance management.

**Chart 16 Cash Flow and S-Curve** (*Source*: Compiled by the Author)




## 4.5. Quality Management Plan

This Quality Management Plan establishes a structured framework for ensuring that the E-invoicing system meets its quality standards and satisfies stakeholder expectations. The plan serves as a roadmap to project success by outlining processes and procedures to manage, control, and improve the quality of deliverables throughout the project lifecycle. It

defines clear quality objectives and aligns them with activities such as quality control, performance metrics, and procedures for addressing non-compliance. This plan consistently delivers high-quality outcomes that meet project requirements and standards by incorporating the three essential components of quality management: planning, managing, and controlling.

### 4.5.1. Plan Quality Management

The Plan Quality Management section outlines the processes and procedures to define, plan, and establish quality standards for the E-invoicing implementation project. This section ensures that quality requirements are integrated into the project's scope, cost, and schedule and are aligned with stakeholder expectations. By identifying relevant quality standards, defining clear objectives, and determining measurable metrics, the project ensures that the E-invoicing system meets regulatory requirements, operates efficiently, and delivers value to all users, including small and medium-sized businesses. The planning process includes identifying specific metrics, tools, and techniques to maintain and measure quality throughout the project lifecycle.

The Quality Management Plan provides a roadmap for achieving these quality objectives, detailing the strategies for quality assurance and control and outlining the project team's roles and responsibilities. Key quality metrics, such as system uptime, Data Accuracy, Integrity, Compliance and Output, and stakeholder satisfaction scores, are established to monitor performance against benchmarks. This structured approach ensures that quality standards are not only defined but also systematically achieved, allowing for proactive identification and resolution of potential issues.

### 4.5.2. Quality Objectives

Below are the objectives that will be included in the Quality Management Plan:

- **Deliver a robust, secure, and user-friendly e-invoicing system** that complies with all legal and regulatory requirements, ensuring that it meets the needs of taxpayers and the BTSD.
- **Ensure the system provides consistent performance**, achieving minimal downtime and maintaining high levels of data accuracy across all operational phases.
- **Minimize errors** during the pilot, deployment, and post-implementation phases through thorough testing, validation, and feedback loops.
- **Achieve high levels of stakeholder satisfaction** by implementing effective communication strategies and providing comprehensive training to all users, fostering confidence in the system.
- **Develop a scalable and reliable platform** capable of adapting to future operational needs and supporting the long-term goals of modernizing tax administration in Belize.

### 4.5.3. Roles and responsibilities

This section outlines the key roles involved in the quality management process and specific roles and responsibility of the stakeholders (see Chart 17).

### Chart 17 Quality Roles and Responsibilities

| Roles | Responsibilities |
|---|---|
| Project Manager | Oversee quality assurance processes, ensure schedule adherence, and manage updates. |
| Quality Assurance Officer | Implement and monitor quality control processes, conduct testing, and validate results. |
| Chief Information Security Officer | Ensure system compliance with security standards and manage digital signature integrity and security incidents. |

| | |
|---|---|
| Training Coordinator | Design and implement user training programs and evaluate their effectiveness. |
| IT Manager | Ensure system performance, scalability, uptime and response time |
| System Administrator | Ensure system performance and uptime. |
| Developer | Ensure successful integration with systems and functional API |

*(Source: Compiled by the Author)*

### 4.5.4. Quality Metrics and Baseline

This section outlines the quality objectives, corresponding metrics, and expected outcomes for the E-invoicing implementation project. These metrics provide a baseline for monitoring and evaluating the project's performance against defined quality standards. Regular measurements and reporting ensure that the project remains aligned with its quality objectives throughout the lifecycle (see Chart 18).

### Chart 18 Quality Metrics and Baseline

| Objectives | Metric | Metric Definition | Expected Outcomes/Result | Measurement Frequency | Responsible |
|---|---|---|---|---|---|
| Deliver a robust, secure, and user-friendly e-invoicing system that complies with all legal and regulatory requirements | System Compliance Rate | Percentage of system features compliant with legal and regulatory standards. | 100% compliance with all legal and regulatory requirements. | Quarterly | Project Manager |
| | Security Incident Rate | Number of security breaches or incidents reported. | Zero security breaches during and after implementation. | Monthly | Chief Information Security Officer |
| Ensure the system provides consistent | System Uptime | Percentage of time the system | 99.9% uptime | Weekly | IT Manager |

| | | | | | |
|---|---|---|---|---|---|
| performance with minimal downtime and high data accuracy. | | is operational and accessible. | | | |
| | Data Accuracy Rate | Percentage of invoices processed without errors. | 98% or higher accuracy rate. | semi-Monthly | IT Manager |
| | System Response Time | Average time taken for the system to process and validate invoices. | Invoices processed within 10 seconds of submission. | Semi-monthly | IT Manager |
| Minimize errors during the pilot, deployment, | Error Rate During Pilot | Percentage of invoices rejected due to | Less than 5% error rate during the pilot phase. | After Pilot Completion | Quality Assurance Officer |

| | | | | | |
|---|---|---|---|---|---|
| and post-implementation phases. | | system or user errors during pilot testing. | | | |
| | Post-Implementation Error Rate | Percentage of rejected invoices due to technical issues post-implementation. | Less than 2% error rate post-implementation. | Monthly | Quality Assurance Officer |
| Achieve high levels of stakeholder satisfaction through effective communication and training. | Stakeholder Satisfaction Score | Average satisfaction rating from surveys conducted with stakeholders. | 85% or higher satisfaction score from stakeholders. | Semi-Annually | Quality Assurance Officer |

| | | | | | |
|---|---|---|---|---|---|
| | Training Effectiveness Rate | Percentage of trained users who demonstrate competency in using the system. | 90% of trained users demonstrate system competency. | After Training Sessions | Training Coordinator |
| Develop a scalable and reliable platform that can adapt to future operational needs. | Scalability Assessment | System's ability to handle increased volume without degradation in performance. | Supports a 50% increase in invoice processing volume without issues. | Semi-Annually | IT Manager |

| | | | | | |
|---|---|---|---|---|---|
| | System Maintenance Downtime | Total downtime due to maintenance activities. | Less than 2 hours of downtime per maintenance window. | Quarterly | System Administrator |
| Facilitate seamless integration with external systems and tools. | Integration Testing Success Rate | Percentage of successful data exchanges between the e-invoicing system and ERP systems. | 100% successful integration without errors. | After Integration Testing | Developer |

*(Source: Compiled by the Author)*

### 4.5.5. Manage Quality

The Manage Quality process ensures that the planned quality standards are implemented during the project lifecycle. It focuses on quality assurance activities that proactively manage processes, identify improvements, and ensure project deliverables align with stakeholder requirements. This process bridges the gap between quality planning and control, helping the team prevent defects and maintain project alignment with its quality objectives.

### 4.5.6. Activities

This section outlines the quality objectives, corresponding metrics, and expected outcomes for the E-invoicing implementation project. These metrics provide a baseline for monitoring and evaluating the project's performance against defined quality standards. Regular measurements and reporting ensure the project remains aligned with its quality objectives throughout the lifecycle.

- Quality Assurance: Quality assurance audits are annual evaluations to ensure that project processes align with defined quality standards and the Quality Management Plan. These audits focus on identifying inefficiencies, non-compliance, and areas for improvement across various project phases. An external auditor will do this on a yearly basis. Figure 11 shows the audit template that can be used for reporting purposes.

- Benchmarking: involves comparing the project's quality metrics and processes with those of similar e-invoicing systems to identify best practices and performance gaps.

This activity helps ensure that the project meets or exceeds industry standards. Primary comparisons will be made with e-invoicing systems in Latin American countries, with adjustments for differences in economy of scale.

- Documentation Reviews: These reviews ensure that all project deliverables, including requirements documentation, design specifications, user manuals, and training materials, meet predefined quality standards. They are essential for maintaining consistency, completeness, and compliance with project requirements.

**Figure 11 Quality Audit Plan**

# QUALITY AUDIT

Project Title: Click here to enter text.
Date Prepared: Click here to enter a date.
Project Auditor: Click here to enter text.
Audit Date: Click here to enter a date.

Area Audited

| | |
|---|---|
| ☐ Project processes | ☐ Project documents |
| ☐ Product documents | ☐ Product documentation |
| ☐ Quality management plan | ☐ Defect/deficiency repair |
| ☐ Organizational policies and procedures | |

Good Practices from Similar Projects:

| |
|---|
| Click here to enter text. |

Areas for Improvement:

| |
|---|
| Click here to enter text. |

Deficiencies or Defects:

| ID | Defect | Action | Responsible Party | Due Date |
|---|---|---|---|---|
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter a date. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter a date. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter a date. |
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Comments:

| |
|---|
| Click here to enter text. |

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### 4.5.7. Continuous Process Improvement

The project team integrates continuous improvement by employing a structured approach to identify and implement opportunities for refinement throughout the E-invoicing implementation lifecycle. This process ensures that quality standards are not only maintained but also enhanced as the project progresses.

- **Feedback Loops**: Feedback is regularly collected from stakeholders, team members, and end-users through surveys, focus groups, interviews, and performance review sessions. Insights from this feedback are analyzed to pinpoint improvement opportunities and address emerging challenges. Stakeholder engagement ensures the project remains aligned with user needs and expectations.
- **Key Performance Indicators (KPIs)**: Quality metrics such as defect density, system uptime, data accuracy, and stakeholder satisfaction are continuously monitored to identify performance trends and deviations. KPI tracking provides a data-driven foundation for decision-making, helping the team proactively address issues before they escalate. Regular reporting of KPIs ensures transparency and alignment with project quality objectives.
    - **Corrective and Preventive Actions**: Immediate solutions are implemented to resolve identified issues, such as addressing defects, performance, inefficiencies, or non-compliance with quality standards. Long-term strategies are adopted to mitigate the recurrence of similar issues, such as refining workflows, optimizing training materials, or enhancing system

designs. Both corrective and preventive actions are tracked and evaluated for effectiveness to ensure sustained quality improvements.

This continuous process of gathering information, monitoring performance, and implementing actions fosters a culture of excellence, ensuring that the project meets or exceeds its quality goals while adapting to its evolving needs.

### 4.5.8. Control Quality

The Control Quality process ensures that project deliverables meet the predefined quality standards and acceptance criteria by monitoring, measuring, and validating outputs. This process focuses on identifying variances, addressing defects, and ensuring that all deliverables align with the quality metrics and baseline. Control Quality also generates data for continuous improvement and overall project performance evaluation.

**Chart 19 Key Performance Indicators**

| Objective | KPI | Definition | Target Value | Measurement Frequency | Responsible |
|---|---|---|---|---|---|
| Ensure system reliability and uptime | System Uptime | Percentage of time the system is operational and accessible. | 99.9% | Monthly | System Administrator |
| Ensure a robust and secure system | Security Incident Rate | Number of security breaches or | Zero breaches | Monthly | Chief Information Security Officer |

| | | | | | |
|---|---|---|---|---|---|
| | | incidents reported. | | | |
| Minimize defects and errors | Defect Density | Number of defects/issues per system modules | Less than 8 % | After User Acceptance Testing | Quality Assurance Officer |
| | Error rate during pilot | Percentage of invoices rejected due to system or user errors during testing. | Less than 5% | After Pilot Completion | Quality Assurance Officer |
| Ensure stakeholder satisfaction | Stakeholder Satisfaction | Average satisfaction rating from stakeholder surveys. | 85% or higher | Semi-Annually | Quality Assurance Officer |
| | Training Effectiveness Rate | Percentage of trained users demonstrating | 90% competency | After training and semi-annually | Training Coordinator |

| | | | | | |
|---|---|---|---|---|---|
| | | system competency. | | | |
| Ensure system performance and accuracy | Response Time | Average time to process and validate invoices. | Less than 10 seconds | Semi-monthly | IT Manager |
| | Data Accuracy Rate | Percentage of invoices processed without errors. | 98% or higher accuracy | Semi-monthly | IT Manager |
| Ensure scalability and adaptability | Scalability Assessment | The system can handle increased invoice volume without performance degradation. | Supports 50% volume increase | Semi-Annually | IT Manager |

*(Source: Compiled by the Author)*

### 4.6. Resource Management Plan

The Project Management Institute (PMI) defines a Resource Management Plan as a component of the project management plan that outlines how resources are categorized,

allocated, managed, and released (PMI, 2017, p. 318). This plan ensures the efficient identification, acquisition, and utilization of physical and team resources for the electronic invoicing implementation project. It aims to appropriately provide the right resources while balancing costs, efficiency, and effectiveness to achieve the project's objectives. By detailing the types and quantities of resources required, scheduling their use to avoid conflicts, and optimizing their allocation, the Resource Management Plan ensures that the project is completed on time, within budget, and with the desired quality. This document provides a structured approach to managing resources effectively across all project phases, aligning with the project's scope and strategic goals.

### 4.6.1. Plan Resource Management

The approach for the Resource Management Plan follows a structured process aligned with PMBOK guidelines to ensure effective planning, acquisition, utilization, and control of resources. First, Plan Resource Management establishes the strategy for categorizing, allocating, and managing resources, including developing a Resource Breakdown Structure (RBS) and defining roles and responsibilities. Next, Estimate Activity Resources identifies the types and quantities of resources required for each task, using tools like estimation worksheets and resource calendars to align availability with project needs.

The plan also includes Acquire Resources, focusing on obtaining the necessary team members, equipment, and materials through internal allocation or external procurement, ensuring all resources are secured efficiently. To enhance project performance, Develop Team emphasizes improving skills and fostering collaboration through targeted training and team-building activities. Once the team is operational, Manage Team involves tracking

performance, resolving conflicts, and optimizing productivity to meet project goals. Finally, Control Resources ensures resources are used as planned, with regular monitoring and adjustments to address any shortages or inefficiencies, supported by detailed usage reports and reallocation strategies. This approach provides a comprehensive framework to ensure all resources contribute effectively to the project's success.

### 4.6.2. Team Identification

The resource identification process for the electronic invoicing implementation project encompasses human, physical, material, and financial resources to ensure its successful execution. The project will utilize a combination of internal and external resources, with much of the human resources drawn from existing staff who will be assigned to act in specific roles. A core project team, composed of internal staff such as the Project Manager, Project Coordinator, IT Manager and Business Analysts, will collaborate closely with external consultants to bring specialized expertise. This blended approach ensures that the project leverages existing capabilities while integrating external knowledge to address complex challenges and achieve project objectives effectively.

**Chart 20 Resource Identification**

| Category | Resources |
|---|---|
| Human Resources | Project Manager/Sponsor, Project Coordinator, Legal consultants, Software Developers, IT Team, E-invoicing Expert, Trainers, Support Team, Quality Assurance Officer, Business Analyst, Procurement |

| | |
|---|---|
| | Officer, Security expert, Legal Officer, Technical Writer |
| Physical Resources | Servers, storage devices, networking equipment, laptops, computers, disaster recovery site, |
| Material Resources | training room, meeting rooms, printers, manuals, Analytical tool, Microsoft projects, Office 365 and collaboration tools. |
| Financial Resources | Budget for procurement, training, development, |

*(Source: Compiled by the Author)*

### 4.6.3. Team Roles and Responsibilities

The project team for the E-Invoicing implementation has been identified based on the skills and expertise required for each task within the WBS. The team comprises professionals with diverse technical, managerial, and legal backgrounds to ensure that all aspects of the project are addressed effectively. Key roles include the Project Manager, who is responsible for overall coordination; IT Infrastructure Specialist, E-invoicing Experts, and Software Developers for system design and platform development; Legal Consultants for legislative updates; and Procurement Officers for managing vendor contracts. Additionally, specialized roles such as Data Analysts, Quality Assurance Officers, and

Trainers have been included to ensure thorough testing, effective training, and stakeholder collaboration. This team structure ensures the right resources are in place to meet project objectives, optimize resource allocation, and deliver the desired outcomes within the established timeline and budget.

**Chart 21 Resources Roles and Responsibilities**

| Roles | Responsibilities |
|---|---|
| Project Manager/Sponsor | • Develop and manage the project plan.<br>• Oversee project execution, ensuring alignment with scope, schedule, and budget.<br>• Manage risks, resolve conflicts, and facilitate communication among stakeholders.<br>• Monitor and control project performance.<br>• Ensure proper resource allocation and utilization. |
| Project Coordinator | • Support the Project Manager with administrative and logistical tasks.<br>• Maintain project documentation and track deliverables.<br>• Coordinate team meetings and prepare reports.<br>• Coordinate pilot testing activities, including participant selection and criteria development.<br>• Oversee the execution of pilot tests and collect user feedback.<br>• Manage the full deployment of the e-invoicing system. |

| | |
|---|---|
| | • Coordinate with stakeholders for phased rollouts and ensure system readiness. |
| Legal Consultant | • Analyse existing tax legislation and identify gaps.<br>• Draft legal updates and recommendations for compliance with e-invoicing standards. |
| Legal officer | • Review and assess the impact of proposed legislative changes.<br>• Support the development of technical standards and regulations.<br>• Assist in drafting and finalizing legal documents. |
| E-invoicing Expert | • Design the system architecture for the e-invoicing platform.<br>• Develop operational models and integration frameworks.<br>• Review transmission technologies and contingency plans.<br>• Define syntax, semantics, and data validation rules for the e-invoicing system.<br>• Ensure data models comply with technical standards and business requirements. |
| Technical Writer | • Create user manuals and orientation materials for system users.<br>• Coordinate user testing and validate documentation before publication. |

| | |
|---|---|
| Procurement Officer | • Develop terms of reference (TOR) for procurement activities.<br>• Manage the RFP process, including tender publication and vendor evaluations.<br>• Negotiate contracts and finalize agreements. |
| IT Infrastructure Specialist | • Procure and install hardware and analytical tools.<br>• Configure servers and storage systems for the e-invoicing platform.<br>• Set up testing and production environments.<br>• Conduct connectivity and firewall testing.<br>• Performance Testing<br>• Deployment of e-invoicing system<br>• Manage Database system |
| Security Expert | • Design and implement data security and protection measures.<br>• Ensure compliance with security protocols and regulations. |
| Business Analyst | • Gather system requirements from stakeholders.<br>• Map business processes and ensure alignment with project goals. |
| Software Developer | • Develop the core e-invoicing platform, including user interfaces and integration components. |

| | |
|---|---|
| Quality Assurance Officer | • Conduct unit testing and resolve issues during development.<br>• Conduct unit, integration, and performance testing.<br>• Ensure the platform meets quality standards and user requirements. |
| Trainer | • Coordinate with stakeholders for phased rollouts and ensure system readiness.<br>• Conduct training sessions for internal and external stakeholders.<br>• Coordinate user testing |
| Data Analyst | • Deploy and configure analytics and reporting tools.<br>• Generate reports on system performance and user feedback. |
| Support Officer | • Provide ongoing technical and user support and resolve post-deployment issues.<br>• Answer taxpayer queries via emails or calls |
| BTSD Project Core Team | • Actively participate in project meetings to provide input, insights, and expertise.<br>• Review and provide feedback on project documents, including plans, deliverables, and reports.<br>• Contribute to strategic decision-making processes to ensure alignment with project objectives. |

| | |
|---|---|
| | • Collaborate with the Project coordinator to address risks, resolve issues, and evaluate progress.<br>• Serve as a point of communication and coordination between sections and the project team.<br>• Foster a cohesive team environment to promote collaboration and knowledge sharing. |

*(Source: Compiled by the Author)*

### 4.6.4. Team Allocation

Team allocation for the E-Invoicing implementation project is structured to ensure that the right expertise is assigned to the appropriate tasks, maximizing efficiency and productivity. The project team for the electronic invoicing implementation will be allocated based on their specialized skills and alignment with WBS. The team comprises professionals with diverse technical, managerial, and legal backgrounds to ensure that all aspects of the project are addressed effectively. Team allocation will also consider workload balancing, ensuring that resources are not overburdened while maintaining a clear focus on meeting project deadlines and deliverables (see Chart 22). Collaboration between internal staff and external consultants will be closely coordinated to leverage the strengths of both groups effectively.

### Chart 22 Skillset Required

| Task Name | Skills Required | Role | Role Description |
|---|---|---|---|
| Project Planning | Project scoping, scheduling, resource planning | Project Manager/Sponsor | Define scope, objectives, and timeline. Create the project plan and identify resource requirements. |
| Stakeholder Engagement | Communication, negotiation, stakeholder management | Project Manager/Sponsor, Project Coordinator | Conduct stakeholder analysis, engage stakeholders, and gather requirements. |
| Establish Project Team | Team building, human resource allocation | Project Sponsor, Project Manager | Form the project team, assign roles, and define responsibilities. |
| Communication Management | Communication planning, documentation, interpersonal skills | Project Manager, Project Coordinator | Develop a communication plan and manage stakeholder communication |

| | | | |
|---|---|---|---|
| | | | throughout the project. |
| Study of the Legal Context | Legal analysis, tax law expertise | Legal Consultant | Analyse existing tax laws and identify gaps or necessary updates for e-invoicing. |
| Legislative Updates | Legislative drafting, stakeholder consultation | Legal Consultant, Legal Officer, BTSD Core Project Team | Draft legislative changes, propose technical standards, and obtain approvals. |
| Operating Model | System design, operational analysis | E-invoicing Experts, BTSD Core Project Team | Review transmission models and design the operational framework. |
| Syntax and Semantics | Data modelling, standardization, syntax design | E-invoicing Experts, BTSD Core Project Team | Define technology standards, invoice fields, and semantic structures. |
| Validation Rules | Data validation, system integration | E-invoicing Experts, BTSD | Develop validation rules and ensure |

| | | | |
|---|---|---|---|
| | | Core Project Team | compliance with system requirements. |
| Orientation Manual for the Issuer of Electronic Tax Document | Technical writing, user-focused content creation | E-invoicing Experts, technical Writer, Quality Assurance officer, BTSD Core Project Team | Draft, validate, and publish manuals for system users. |
| Procurement Planning | Market research, request for proposal (RFP) writing | Procurement Officer, BTSD Core Project Team | Develop terms of reference and publish procurement documentation. |
| Procurement | Vendor evaluation, contract negotiation | Procurement Officer, Project Coordinator | Evaluate bids, negotiate contracts, and finalize agreements. |
| Hardware & Analytical Tool Procurement and Installation | IT hardware setup, server configuration, procurement | Procurement Specialist, IT infrastructure Specialist | Procure and install servers, analytical tools, and storage systems. |

| | | | |
|---|---|---|---|
| System Environment Setup | Environment configuration, system testing | IT infrastructure Specialist | Set up testing and production environments. |
| Security and Data Protection Design | Cybersecurity, encryption protocols, compliance | Security Expert | Implement security protocols and ensure data protection measures are in place. |
| Requirement Gathering and Analysis | Business analysis, stakeholder consultation | Business Analyst, BTSD Core Project Team | Gather system requirements from stakeholders and map processes. |
| Technical Specifications | Technical documentation | Business Analyst, BTSD Core Project Team | Document technical requirements and system specifications. |
| Software Development | Programming, UI/UX design, database management | Developers, Project Coordinator | Develop the core e-invoicing platform, user interface, and integration modules. |
| Testing | Quality assurance, performance testing | Quality Assurance Officer | Perform unit, integration, and performance testing. |

| | | | |
|---|---|---|---|
| Pilot Program Setup | Testing criteria development | Project coordinator, trainer, BTSD Core Project Team | Select pilot participants and set up testing criteria. |
| Pilot Execution and Feedback | System testing, feedback collection | Project coordinator, trainer, BTSD Core Project Team | Conduct pilot testing, collect feedback, and refine the system. |
| Full System Deployment | Deployment planning, stakeholder coordination | Project coordinator, IT infrastructure specialists. | Execute full-scale deployment for large taxpayers and specific sectors. |
| Ongoing System Monitoring and Support | System monitoring, issue resolution | IT Infrastructure Specialists, BTSD Core Project Team | Monitor system performance, resolve issues, and implement updates. |
| Training Program Development | Training material creation, eLearning platform expertise | Trainer | Develop user guides, manuals, and training sessions. |

| | | | |
|---|---|---|---|
| Support and Helpdesk | Customer support, issue tracking, troubleshooting | Support Officer | Set up a helpdesk and provide ongoing support. |
| Data Analytics and Reporting Tool | Data analysis, reporting software | Data Analyst, BTSD Core Project Team | Deploy and configure analytics tools for reporting. |
| Post Implementation Review | Stakeholder engagement, project evaluation | Project Core Team, BTSD Core Project Team | Conduct reviews and gather feedback for project assessment. |
| Negotiate Support and Maintenance Agreement | Vendor negotiation, contract management | Project Manager, Procurement Officer | Finalize agreements for ongoing support and maintenance. |
| Lessons Learned Documentation | Technical writing, knowledge sharing | Project Coordinator, BTSD Core Project Team | Document project challenges, solutions, and key takeaways. |
| Project Closure | Project management, documentation | Project Coordinator, BTSD Core Project Team | Conduct a final meeting and officially close the project. |

*(Source: Compiled by the Author)*

### 4.6.5. Responsibility Assignment Matrix

The Responsibility Assignment Matrix (RAM) is a critical tool for defining and documenting the roles and levels of involvement of team members and stakeholders in the project. For this project, the RAM uses the RACI framework (Responsible, Accountable, Consulted, Informed) to establish clarity in decision-making and task execution. The matrix assigns specific accountability for each task or deliverable, detailing who is Responsible for completing the task, who is Accountable for approving decisions, who should be consulted for input, and who must be Informed about progress or outcomes. This structured approach minimizes confusion, prevents overlaps or gaps in responsibilities, and fosters efficient collaboration throughout the project lifecycle.

In the electronic invoicing implementation project, the RAM is aligned with the WBS to ensure that every task is assigned to the appropriate role. By defining and clarifying roles across all phases of the project, from planning and system design to deployment and closure, the RAM serves as an essential tool for fostering accountability, streamlining workflows, and maintaining alignment with project objectives. This structured framework supports seamless coordination between the core team, external consultants, and other stakeholders, enabling the project to progress efficiently and effectively while maintaining clear communication and accountability. Kindly refer to Chart 23 for the RACI Matrix.

## Chart 23 RACI Matrix

| | Project Team | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Task Name** | Project Manager/Sponsor | Project Coordinator | Legal Consultant | Legal officer | E-invoicing Expert | Technical Writer | Procurement Officer | IT Infrastructure Specialist | Security Expert | Business Analyst | Software Developer | Quality Assurance Officer | Trainer | Data Analyst | Support Officer | BTSP |
| Project Planning | A | R | I | I | C | I | I | I | I | I | I | I | I | I | I | I |
| Stakeholder Engagement | A | R | I | I | C | I | I | I | I | I | I | I | I | I | I | R |
| Establish Project Team | A | R | I | I | I | I | I | I | I | I | I | I | I | I | I | R |
| Communication Management | A | R | I | I | C | I | I | I | I | I | I | I | I | I | I | R |
| Study of the Legal Context | A | I | R | R | C | I | I | I | I | I | I | I | I | I | I | I |
| Legislative Updates | A | I | R | R | C | I | I | I | I | I | I | I | I | I | I | I |
| Operating Model | A | R | C | I | R | I | I | I | I | I | I | I | I | I | I | R |
| Syntax and Semantics | A | I | C | I | R | I | I | I | I | I | I | I | I | I | I | R |
| Validation Rules | A | I | C | I | R | I | I | I | I | I | I | I | I | I | I | R |
| Orientation Manual for the Issuer of Electronic Tax Document | A | R | I | I | R | R | I | I | I | I | I | I | C | I | I | R |
| Procurement Planning | A | R | I | I | C | I | R | C | C | I | I | I | I | I | I | R |
| Procurement | A | R | I | I | C | I | R | C | C | I | I | C | I | I | I | R |
| Hardware & Analytical Tool Procurement and Installation | A | I | I | I | C | I | R | R | A | I | I | C | I | I | I | I |
| System Environment Setup | I | I | I | I | I | I | I | R | A | I | C | C | I | I | I | I |
| Security and Data Protection Design | I | I | I | I | C | I | I | R | A | I | I | I | I | I | I | I |
| Requirement Gathering and Analysis | A | I | C | C | C | I | I | C | C | R | I | I | I | C | I | R |
| Technical Specifications | A | R | C | C | C | I | I | C | C | R | I | I | I | C | I | R |
| Software Development | I | I | I | I | C | I | I | I | I | I | R | I | I | I | I | I |
| Testing | I | I | I | I | I | I | I | R | C | C | R | A | C | I | R | I |
| Pilot Program Setup | I | A | I | I | I | I | I | I | I | I | I | I | R | I | I | R |
| Pilot Execution and Feedback | I | A | I | I | I | I | I | C | I | I | C | I | R | I | I | R |
| Full System Deployment | A | R | I | I | C | I | I | R | C | I | I | I | I | I | I | R |
| Ongoing System Monitoring and Support | I | A | I | I | I | I | I | R | I | I | I | R | C | | A | R |
| Training Program Development | I | A | I | I | I | I | I | I | I | I | I | I | R | I | R | I |
| Support and Helpdesk | I | A | I | I | I | I | I | I | I | I | I | I | I | I | R | I |
| Data Analytics and Reporting Tool | I | A | I | I | C | I | I | C | I | C | I | I | R | R | I | R |
| Post Implementation Review | A | R | I | C | C | C | C | C | C | C | C | C | C | C | C | R |
| Negotiate Support and Maintenance Agreement | A | R | I | C | I | I | R | I | I | I | I | I | I | I | I | I |
| Lessons Learned Documentation | A | R | I | I | I | I | I | I | I | I | I | I | I | I | I | R |
| Project Closure | A | R | I | I | I | I | I | I | I | I | I | I | I | I | I | R |

*(Source: Compiled by the Author)*

### 4.6.6. Develop team

According to PMBOK, developing a team is the process of improving competencies, team member interaction, and the overall team environment to enhance project performance. This section will focus on enhancing the project team's skills, collaboration, and morale to ensure the successful delivery of the e-invoicing implementation project. The team comprises internal staff and external consultants whose expertise is critical for meeting project objectives. This section also outlines the strategies and activities to build a high-performing, motivated, and cohesive team capable of addressing the complexities of this initiative.

The primary goal of the Develop Team process is to enhance team members' competencies in areas relevant to the electronic invoicing system, foster collaboration among team members, both internal and external, and build a cohesive team that aligns with project goals and contributes effectively to project success.

The following strategies on Chart 24 are vital for team development:

**Chart 24 Strategies for Development**

| Category | Activity | Description |
|---|---|---|
| Team-Building Activities | Workshops and Training Sessions | • Conduct specialized workshops on e-invoicing standards, technical integration, and legal compliance.<br>• Offer specialized training on general e-invoicing concepts and engage with countries that have successfully |

| | | |
|---|---|---|
| | | implemented similar systems to learn from their experiences. |
| | Team-Building Exercises | • Organize activities such as team lunches and off-site retreats to strengthen trust and communication among team members.<br>• Facilitate joint problem-solving exercises between internal staff and external consultants to encourage collaboration. |
| | Cross-Functional Collaboration | • Hold regular inter-section meetings to share perspectives. |
| Skill Development | Technical Training | • Provide advanced software development and cybersecurity training for IT specialists and developers. Train the trainers' programs, data analytics, and E-invoicing |
| | Communication and Leadership Development | • Offer stakeholder management and communication workshops for Project Managers and Coordinators. |
| Performance Metrics | Task Completion Rates | • Track adherence to deadlines and milestone schedules through Microsoft Project. |

| | | |
|---|---|---|
| | | • Monitor progress using Gantt charts to identify task delays and reallocate resources as needed. |
| | Quality Assessment | • Engage external auditors to validate critical outputs, such as legal updates or system designs, against industry standards. |
| | Resource Utilization | • Monitor resource allocation efficiency, ensuring optimal human, physical, and financial resource use.<br>• Compare planned versus actual resource usage to identify underutilization or overuse. |
| | Issue resolution Efficiency | • Track the number of issues raised and resolved within a specific timeframe.<br>• Evaluate the response time and effectiveness of issue resolution processes to maintain smooth project execution. |
| Communication and Feedback | Regular Team Meeting | • Conduct weekly or biweekly team meetings to review project updates, |

| | | |
|---|---|---|
| | | discuss challenges, and align team efforts with project goals.<br>• Rotate meeting facilitation among team members to promote engagement and shared ownership.<br>• Foster an environment where team members feel valued by encouraging managers to provide regular positive feedback and express appreciation during regular meetings. |
| | One-on-one meeting | • Schedule periodic individual meetings with team members to address concerns, evaluate workload balance, and provide targeted feedback.<br>• One-on-one sessions to understand individual challenges and offer career development guidance tailored to their roles |
| | Surveys | • Distribute anonymous surveys to assess team dynamics, satisfaction with project |

| | | |
|---|---|---|
| | | leadership, and opportunities for improvement.<br>• Share aggregated survey results with the team to foster transparency and to develop action plans based on feedback. |
| Motivation and Rewards | Incentives | • Implement a reward program that recognizes high performers.<br>• Provide non-monetary rewards such as certificates, organization-wide acknowledgment, or additional project responsibilities for exceptional contributions |
| | Team recognition events | • Host events such as milestone celebrations, project completion dinners, or team outings to reward collective achievements. |
| | Career Development | • Offer targeted training programs or certification aligned with individual career goals to encourage skill enhancement and professional growth. |

| | | |
|---|---|---|
| | | • Provide opportunities for team members to take on leadership roles or new responsibilities within the project. |
| Conflict Management | Open Communication | • Establish a safe and supportive environment where team members can openly share concerns and disagreements without fear of repercussions. |
| | Collaborative problem solving | • Encourage team members to work together to brainstorm and to propose mutually beneficial solutions to conflicts.<br>• Use team workshops or joint discussions to resolve group-level disagreements. |

*(Source: Compiled by the Author)*

### 4.7. Communication Management Plan

The Communications Management process is designed to ensure that the information needs of the project and stakeholders are met effectively and efficiently (Project Management Institute, 2017, p. 359). To define how communication will be managed for the electronic invoicing project at the BTSD, ensure the timely and accurate exchange of project information among stakeholders. The Project Coordinator will proactively manage communication by ensuring that project updates, milestones, risks, and issues are communicated as defined in the Communications Matrix. The plan will be updated if project changes occur, including updates in scope, schedule, or team roles.

### 4.7.1. Plan Communication Management

The Plan Communications Management process involves creating a strategy for how project communication activities will be executed based on the specific information needs of project stakeholders. This process includes identifying all relevant stakeholders, determining their communication requirements, and selecting the most appropriate methods and technologies for delivering information, as illustrated in Chart 27.

The outcome of this process is a Communications Management Plan that defines what information stakeholders need, when it should be delivered, how it will be communicated, and who will be responsible for disseminating it. This includes specifying the frequency of communication, the type of information to be shared, and the format for delivering updates, such as reports, emails, or meetings.

For the e-invoicing implementation project, a key aspect of the communication approach is outsourcing the promotional and public relations components. The selected consultant will be responsible for developing advertising campaigns, creating leaflets, flyers, and ensuring the appropriate branding of the e-invoicing platform. This strategy will ensure that external communication efforts reach the intended audience effectively while allowing the core project team to focus on technical implementation and internal communications.

### 4.7.2. Communication Objectives

Effective communication is essential to the successful implementation of the e-invoicing project. This section outlines key communication objectives which ensure that stakeholders are well-informed, engaged, and aligned with the project’s goals throughout its lifecycle.

**Ensure Transparency:** Transparency involves maintaining open and honest communication to build trust and ensure that all stakeholders clearly understand the project's status, risks, and expected outcomes. This is achieved through consistent reporting on project progress, identified issues, and resolutions. Stakeholders are granted continuous access to up-to-date project information through project dashboards, performance summaries, and executive reports. Transparency is further strengthened by ensuring that decision-making processes are visible, and by sharing milestones, timelines, and key project decisions through project meetings and official updates.

**Engage Stakeholders**: Actively involving stakeholders ensures that their feedback, concerns, and expectations are considered, fostering better alignment with the project's goals. Regular consultation sessions, workshops, and focus groups provide opportunities to collect stakeholder input and enhance project design and implementation. Two-way communication channels are established through surveys, interviews, and open feedback mechanisms, allowing stakeholders to stay informed and to share their perspectives throughout the project lifecycle.

**Support Decision-Making:** Providing accurate, timely, and relevant information is critical to enabling effective decision-making. Project leaders and key stakeholders need reliable data and updates to make well-informed decisions. This includes executive-level reports with performance summaries and actionable recommendations. Project metrics, key performance indicators (KPIs), and potential risks are reported proactively, allowing decision-makers to respond effectively to delays, compliance issues, and emerging project challenges.

**Promote Accountability**: Accountability ensures that project team members clearly understand their roles, responsibilities, and deliverables. This objective is reinforced through the regular assignment of tasks, clear documentation of key project actions, and well-maintained task logs and issue registers. Regular project meetings are held to review assignments, track progress, and address unresolved issues. An established escalation process ensures that problems are resolved promptly and effectively, fostering a culture of accountability and performance excellence.

**Build Trust and Manage Expectations**: Consistent and transparent communication builds trust and ensures that project goals align with stakeholder expectations. This includes providing regular updates on project milestones, upcoming deliverables, and risks addressed. Clear and realistic expectations regarding timelines, budgets, and key deliverables are set from the project's inception. Frequent progress reviews and executive briefings ensure that stakeholders remain informed and aligned with the project's expected outcomes, supporting a shared understanding of the project's success criteria.

### 4.7.3. Roles and Responsibility

Effective communication is essential for the successful implementation of the electronic invoicing system at the BTSD. Clear roles and responsibilities ensure that stakeholders understand their communication obligations, fostering transparency, collaboration, and accountability. Each team member plays a specific role in managing and distributing project-related information. This section outlines the key roles involved in the communication process and specific responsibilities. See Chart 25.

**Chart 25 Communication Roles and Responsibilities**

| Role | Responsibility |
|---|---|
| Project Sponsor/Manager | Approve major project communications and progress reports. |
| Project Coordinator | Oversee all project communications, activities and ensures project objectives are communicated effectively and manage the progress updates. |
| Project Core Team | Provide project progress updates, task-specific reports, and collaborate closely with external consultants |
| Developer | Provide technical updates, system development progress, and testing results |
| Legal Officer | Communicate legal compliance updates and policy changes |
| Procurement Officer | Provide procurement and vendor management updates. |
| Trainers and Support Staff | Communicate training updates and helpdesk responses. |
| External Consultants/Vendors | Deliver specialized technical and legal reports and provide recommendation where required. |

*(Source: Compiled by the Author)*

### 4.7.4. Communication Matrix

The Communication Matrix serves outlines the specific communication requirements essential for the successful execution of the e-invoicing system. This tool ensures that key project information is consistently and accurately conveyed to relevant stakeholders, enabling effective collaboration, informed decision-making, and timely

project updates. Each communication event is clearly defined by its type, objective, delivery method, frequency, target audience, and responsible owner. By following this matrix on Chart 26, the project team can maintain transparency, promote accountability, and minimize communication gaps throughout the project lifecycle.

### Chart 26 Communication Matrix

| **Communication Type** | **Objective** | **Delivery Method** | **Frequency** | **Audience** | **Owner** |
|---|---|---|---|---|---|
| Kick-off Meeting | Project Introduction | In-person/Virtual Meeting | Once | All Stakeholders | Project Sponsor |
| Weekly Project Updates | Status Reports | Email / Virtual Meeting | Weekly | Project Team | Project Coordinator |
| Monthly Status Reports | Project Progress Overview | In-person/Virtual Meeting | Monthly | Project Steering Committee | Project Coordinator |
| Vendor Meeting | Discuss requirements, specifications, progress updates, etc. | In-person/Virtual Meeting | As needed | Project Coordinator | Project Coordinator |

| | | | | | |
|---|---|---|---|---|---|
| Requirement Gathering Meeting | Identify business needs | Workshop/Online Session | As needed | Business Analyst, vendor, core project team | Project Coordinator/ Vendor |
| Technical review meetings | Validate technical documents | Workshop/Online Session | As needed | Business Analyst, vendor, core project team | Project Coordinator/ Vendor |
| Training Sessions | Conduct user training and onboarding. | Workshop/Online Session | As needed | Taxpayers, BTSD staff | Trainer |
| Press Releases & Public Updates | Inform Taxpayers, Businesses | Press Release/BTSD Website | As needed | General Public | Project Coordinator |
| Closure Meeting | Review project outcomes and lessons learned | In-person/Virtual Meeting | Once | All stakeholder | Project Sponsor/Manager |

*(Source: Compiled by the Author)*

### 4.7.5. Communication Escalation Process

The Escalation Process for the e-invoicing implementation ensures that issues, concerns, and risks are addressed promptly through a structured communication pathway. This process establishes clear levels of authority for resolving problems based on their

severity, urgency, and project impact. It supports decision-making by ensuring that unresolved issues are escalated to higher management levels in a timely and efficient manner. Escalations can be triggered by project delays, budget overruns, technical issues, vendor performance issues or stakeholder conflicts.

A communication escalation matrix, as outlined on Chart 27, is a structured tool that outlines the specific steps, roles, and responsibilities for escalating issues within a project. It helps ensure that issues are addressed promptly and by the appropriate levels of authority.

### Chart 27 Escalation Matrix

| Priority | Definition | Responsible Party | Action Required | Timeframe |
|---|---|---|---|---|
| Low | Minor issues that do not impact project timelines or deliverables. | Task Owner/Team Lead | Discuss in team meetings, document issues and resolution | 2 days |
| Medium | Issues that may cause project delays, budget overruns, or quality concerns. | Project Coordinator | Investigate and coordinate with relevant teams. Update the Project Manager if unresolved. | 3 days |

| | | | | |
|---|---|---|---|---|
| High | Significant issues affecting key deliverables, legal compliance, or system performance. | Project Sponsor/ Manager | Conduct a detailed issue assessment, involve key stakeholders, and initiate corrective actions. | 5 days |
| Critical | Severe issues threatening project success, requiring executive decisions or scope changes. | Project Steering Committee | Make strategic decisions, approve necessary changes, and authorize additional resources. | 7 days |

*(Source: Compiled by the Author)*

### 4.7.6. Monitor Communication

The Monitor Communication process for the e-invoicing implementation ensures that all project communication activities align with the Communications Management Plan and meet stakeholders' information needs. This process involves tracking and evaluating the effectiveness of communication methods, ensuring that accurate and timely information is delivered to the right stakeholders. The Project Sponsor/Manager oversees the process by reviewing communication performance metrics, ensuring adherence to the Communications Matrix, and resolving any communication issues logged during the project. The Project Coordinator assists by tracking updates, preparing reports, and addressing communication gaps as needed.

The process relies on inputs such as the Communications Management Plan, project status reports, risk registers, and work performance data. Tools like performance reviews, feedback surveys, and meetings are used to assess the clarity, accuracy, and timeliness of shared information. Monitoring criteria include the on-time delivery of project updates, task completion rates, stakeholder engagement through surveys, and the quality of project reports. Corrective actions are taken when communication gaps are identified, ensuring that project information flow efficiently, supporting informed decision-making, and maintaining transparency with stakeholders throughout the project lifecycle.

## 4.8. Risk Management Plan

Risk management planning identifies, analyses, and prepares for potential risks that could impact a project. It involves assessing potential threats and opportunities, determining their likelihood and impact, and developing strategies to mitigate adverse effects or capitalize on positive ones (Project Management Institute, 2017, p. 395). The Risk Management Plan for the implementation of e-invoicing for the BTSD outlines the processes for identifying, analysing, responding, and monitoring project risks. The goal is to increase the probability and impact of positive events and decrease the probability and impact of adverse events to optimize project success.

### 4.8.1. Plan Risk Management

The purpose of this Risk Management Plan is to identify, analyse, and manage potential risks that could impact the successful implementation of the e-invoicing project.

The plan ensures that risks are proactively managed to minimize project disruptions and increase the likelihood.

### Risk Management Objective

- Identify and categorize potential project risks.
- Assess the likelihood and impact of identified risks.
- Develop risk response strategies to minimize potential project disruptions.
- Monitor, review, and update risks throughout the project lifecycle.

### Roles and responsibilities

**Chart 28 Risk Roles and Responsibilities**

| Role | Responsibility |
|---|---|
| Project Sponsor/Manager | Approve the Risk Management Plan and responses. |
| Project Coordinator | Lead the risk management process, monitors risk activities, and ensures mitigation plans are executed. |
| Project Core Team | Identify risks, reports them, and supports response planning. |
| Developer | Provide technical updates, system development progress, and testing results |
| Legal Officer | Assess risks related to compliance, contracts, and regulatory issues. |
| Procurement Officer | Monitor risks associated with vendor management. |

| | |
|---|---|
| IT Infrastructure Specialist | Identify technical and system-related risks. |
| External Consultants/Vendors | Provide specialized knowledge and technical expertise related to the e-invoicing implementation in other countries. |

*(Source: Compiled by the Author)*

### 4.8.2. Risk Management Approach

The Risk Management Approach for the e-invoicing implementation project ensures that potential risks are identified, analysed, monitored, and addressed throughout the project lifecycle.

The process begins with Risk Identification, where project stakeholders, team members, BTSD Management, and e-invoicing experts collaborate to identify potential project risks across categories such as technical, legal, procurement, financial, social, and operational risks. Identified risks are logged in the project's Risk Register for tracking and management.

Next, Risk Analysis is conducted using qualitative and quantitative methods. Risks are prioritized based on their likelihood and potential impact using a Probability and Impact Matrix. This allows the team to classify risks as low, moderate, high, or extreme, enabling efficient resource allocation for managing high-priority risks.

Risk Response Planning involves selecting appropriate strategies such as avoidance, mitigation, transfer, or acceptance. Each risk is assigned to a risk owner responsible for monitoring and executing the defined response plan.

The final step, Risk Monitoring and Control, involves continuous tracking of project risks through regular reviews, status reports, and project audits. Changes in risk conditions trigger updates to the Risk Register and Communications Plan. This ongoing monitoring ensures that risks are managed effectively and that any emerging issues are addressed promptly, supporting the successful implementation of the e-invoicing system.

### 4.8.3. Identify Risk

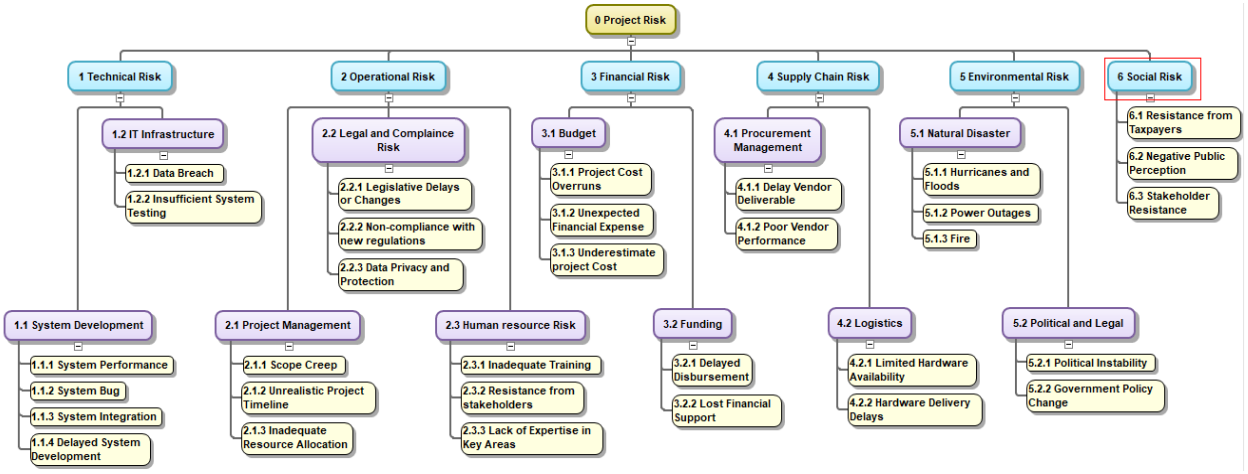
The Identify Risks process focuses on detecting potential threats and opportunities that could influence the e-invoicing implementation project. This approach aligns with the PMBOK Guide's risk management framework and leverages expert judgment, team discussions, historical project data, and stakeholder input to uncover potential risks early.

The process begins with a comprehensive review of project documents, including the project charter, scope statement, and project management plan. Stakeholders, e-invoicing expert, and core team members engage in meeting and brainstorming sessions to identify risks across technical, operational, financial, supply chain, environmental, and social domains. Tools such as SWOT analysis, and checklists ensure that most potential risks are thoroughly explored.

Identified risks are documented in the Risk Register, including their causes, probability, consequences, potential impacts, risk response and assigned risk owners as shown on Chart 29. This structured approach supports continuous monitoring and ensures that the project team can effectively manage uncertainties, contributing to the successful implementation of the e-invoicing system.

The Risk Breakdown Structure (RBS) serves as a hierarchical framework designed to assist in identifying and categorizing project risks systematically. It organizes risks into broad categories, which are further divided into more specific subcategories and individual risks. For the e-invoicing implementation project, Chart 29 shows the RBS, detailing potential risks across relevant categories such as technical, operational, financial, supply chain, social, and environmental factors.

**Chart 29 Risk Breakdown Structure**




*(Source: Compiled by the Author)*

### 4.8.4. Perform Analysis

The Qualitative Risk Analysis process evaluates identified risks based on their likelihood of occurrence and potential impact on the e-invoicing implementation project. This process helps prioritize risks, ensuring the project team focuses on the most critical threats that could disrupt project deliverables, timelines, and or compliance. Each risk is assessed using predefined scales for probability (from Very Low (1) to Very High (5)) and impact (from Insignificant (1) to Severe (16)) as depicted in Figure 12. This evaluation supports effective decision-making by highlighting risks that require immediate action.

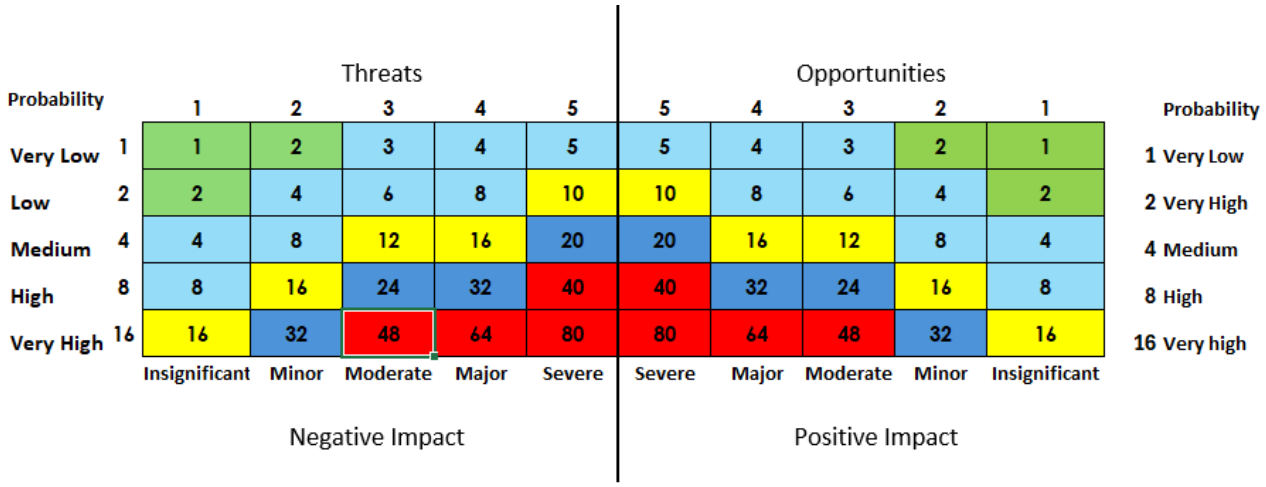
The analysis uses a Probability and Impact Matrix, where risks are ranked by multiplying their probability and impact scores to determine their Risk Scores, which can range from Negligible (1-2) to Extreme (40-80). Figure 13 is used to determine the risk scores. Risks with higher scores are classified as High or Extreme, requiring urgent attention and response planning. Risks with lower scores are monitored but may not require immediate intervention. The matrix structure ensures consistency and objectivity in evaluating project risks.

The process involves expert judgment, stakeholder input, and project document reviews to validate risk rankings. The final output includes an Updated Risk Register with risk scores, and recommended response actions as shown on Chart 31. This structured approach ensures that risks are continuously assessed, helping the project team to remain proactive and prepared for potential challenges throughout the e-invoicing implementation lifecycle.

**Figure 12 Probability and Impact Legend**

| PROBABILITY \| 1 – 5 | IMPACT \| 1 – 16 | PI SCORES \| 1 – 80 |
|---|---|---|
| 1 - Very Low | 1 - INSIGNIFICANT | 1 – 2 • NEGLIGIBLE |
| 2 - Low | 2 - MINOR | 3 – 8 • LOW |
| 3 - Medium | 4 - MODERATE | 10 – 16 • MEDIUM |
| 4 - High | 8 - MAJOR | 20 – 32 • HIGH |
| 5 - Very High | 16 - SEVERE | 40 – 80 • EXTREME |

## Figure 13 Probability and Impact Matrix with Scoring Scheme



## Chart 30 Risk Register

| RBS | Category | Cause | Risk | Consequence | Probability | Impact | Risk Rating | Risk Response | Owner |
|---|---|---|---|---|---|---|---|---|---|
| 1.1.1 | Technical | System performance degradation due to high user loads | System downtime affecting services | Loss of service, reduced satisfaction | 2 | 8 | 16 | Upgrade system infrastructure to handle peak loads | IT Infra-structure Specialist |
| 1.1.2 | Technical | System bugs identified after system deployment | Reduced system functionality | Reduced reliability, user dissatisfaction | 3 | 8 | 24 | Deploy updates, maintain bug-tracking logs | Deve-lopers, Testers |
| 1.1.4 | Technical | Delays in system development due to technical complexities | Delayed system launch | Extended project timeline, increased development costs, | 3 | 4 | 12 | consider agile development approach and conduct regular system review | Vendor |
| 1.2.1 | Technical | Insufficient cybersecurity protocols | Data breaches and unauthorized access | Financial loss and reputational damage | 2 | 8 | 16 | Implement strong data encryption protocols | Security Expert |
| 2.1.1 | Operational | Frequent project scope changes due to evolving requirements | Scope creep causing project delays and budget overruns | Extended project timeline and increased costs | 3 | 8 | 24 | Conduct scope reviews and change management | Project Co-ordinator |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2.1.2 | Operational | Unrealistic project timeline set during planning | Missed project milestones due to tight deadlines | Delays in system delivery and reduced project credibility | 3 | 4 | 12 | Reassess project timelines and build buffer periods | Project core team |
| 2.2.1 | Operational | Legislative delays and changes in tax policies | Project delays due to delayed legal approvals | Extended project timelines, legal non-compliance | 4 | 8 | 32 | Engage policymakers regularly and Attorney general Office | Legal Officer |
| 2.3.2 | Operational | Resistance from stakeholders | Delayed decision-making | Missed deliverables and increased cost | 2 | 8 | 16 | Engage stakeholders through consultation | Project Co-ordinator |
| 2.3.3 | Operational | Lack of expertise in key areas | Reduced productivity and delays | Project extensions and increased costs | 4 | 8 | 32 | Organized Specialized training, and field visit to other countries | Project Co-ordinator |
| 3.1.1 | Financial | Budget overruns | Insufficient funds for project completion | Project extension or re-scoping | 2 | 8 | 16 | Increase the contingency fund | Procure-ment Officer |
| 3.1.3 | Financial | Underestimated project costs in budgeting | Budget overrun | Funding shortages, delayed phases | 2 | 8 | 16 | Review budget and adjust reserves | Project Sponsor/Manager |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 3.2.1 | Financial | Delays in funding disbursement | Project funding shortfalls | Project suspension or resource reallocation | 3 | 4 | 12 | Engage with funding authorities, secure alternative funds | Project Sponsor/ Manager |
| 4.1.1 | Supply Chain | Delayed vendor deliverables | Late hardware and software deliveries | Delayed project phases and increased costs | 3 | 4 | 12 | Set contract deadlines with penalties | Project Sponsor/ Manager |
| 4.1.2 | Supply Chain | Poor vendor performance | Project timeline extensions | Missed deadlines and additional costs | 2 | 8 | 16 | Establish vendor performance reviews | Project Co-ordinator |
| 4.2.1 | Supply Chain | Limited hardware availability from suppliers | Missed project milestones | Delayed deliveries, higher costs | 2 | 4 | 8 | Source alternate suppliers | Procure-ment Officer |
| 5.1.1 | Environme ntal | Natural disasters like hurricanes or floods | Project disruptions due to facility damages and power outages | Extended project delays and increased costs | 3 | 8 | 24 | Develop a disaster recovery and emergency response plan | Project Core Team |
| 5.2.1 | Environme ntal | Political instability causing project uncertainty | Project delays or cancellations | Missed project milestones, increased risks, and project cancellation | 2 | 4 | 8 | Engage Minister and maintain regular project reviews | Project Sponsor/ Manager |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 5.2.2 | Environmental | Government policy changes impacting project scope | Project redesign due to policy changes and new requirements | Revised project deliverables and increased costs | 4 | 8 | 32 | Collaborate with policymakers and adjust project timelines | Project Sponsor/ Manager |
| 6.1 | Social | Resistance from Taxpayers unfamiliar with the system | Low adoption of the e-invoicing platform | Reduced system effectiveness and lower revenue collection | 3 | 8 | 24 | Conduct end-user training and awareness campaigns | Trainer |
| 6.2 | Social | Negative public perception of the project | Public backlash and reduced support | Reputational damage and project credibility loss | 3 | 16 | 48 | Launch a public engagement campaign | Communi-cation Consultant |
| 6.3 | Social | Resistance to system changes by stakeholders | Project implementation resistance | Slowed deployment and higher project costs | 2 | 4 | 8 | Conduct outreach programs and consultations | Project core team |

*(Source: Compiled by the Author)*

### 4.8.5. Plan Risk Response

The Plan Risk Responses process involves developing strategies to address identified risks by minimizing negative impacts and maximizing opportunities. For the risk management, we have purposefully focus on the negative impacts and perhaps later on in the project we will explore the opportunities. This step ensures that project risks are proactively managed,

reducing potential disruptions to the e-invoicing implementation project. The core project team selects appropriate risk-response strategies based on the Risk Register, focusing on high-priority risks identified during the risk analysis phase.

Key Risk Strategies used are:

- **Avoid:** Eliminate the risk entirely by adjusting the project plan.
- **Mitigate:** Reduce the likelihood or impact of the risk.
- **Transfer:** Shift the responsibility to a third party, such as a vendor or supplier
- **Accept:** Acknowledge the risk without action, typically for low-impact risks. Implement Risk Response

**Chart 31 Risk Response Strategy**

| Risk | Risk Response Strategy | Planned Response | Contingency Plan |
|---|---|---|---|
| System downtime affecting services | Mitigate | Implement robust monitoring and backup systems to detect and resolve downtime quickly. | Connect to the Central Information Technology Office a disaster recovery Infrastructure |
| Reduced system functionality | Mitigate | Conduct regular testing and include user feedback in system refinements. | Roll out incremental system updates. |
| Delayed system launch | Avoid | Use agile project management to ensure tasks are completed within deadlines. | Adjust project milestones to accommodate critical delays |
| Data breaches and unauthorized access | Mitigate | Implement strong encryption, multi-factor authentication, and digital certificates | establish rapid incident response teams. |

| | | | |
|---|---|---|---|
| Scope creep causing project delays and budget overruns | Avoid | Enforce strict change control processes | Re-assess project budget and reallocate resources as needed. |
| Missed project milestones due to tight deadlines | Mitigate | Re-evaluate project timelines and build buffer periods into the schedule. | Prioritize critical tasks |
| Project delays due to delayed legal approvals | Mitigate | Engage with policymakers/cabinet to expedite approvals. | Continue partial implementation without complete approval. |
| Delayed decision-making | Mitigate | Establish a clear escalation process | Engage Project Steering Committee |
| Reduced productivity and delays | Mitigate | Provide targeted training and improve resource allocation to boost team efficiency. | Allocate additional BTSD staff to cover resource gaps. |
| Insufficient funds for project completion | Mitigate | Source from Finance for supplemental funding and identify cost-saving measures. | Reduce the scope temporarily. |
| Budget overrun | Mitigate | Conduct regular budget reviews and implement strict cost-control measures. | Re-allocate funds from lower-priority tasks to high-priority project areas. |
| Project funding shortfalls | Mitigate | Maintain a financial contingency reserve. | Delay non-critical tasks until funding is secured. |
| Late hardware and software deliveries | Transfer | Maintain a financial contingency reserve. | Delay non-critical tasks until funding is secured. |
| Project timeline extensions | Mitigate | Add penalty clauses in contracts, identify backup vendors. | Source alternative suppliers to fulfil critical requirements. |

| | | | |
|---|---|---|---|
| Disruptions due to facility damages and power outages | Accept | Develop a disaster recovery plan, including alternate workspace arrangements. | cloud-based operations for continuity. |
| Project delays or cancellations | Avoid | Engage policymakers and stakeholders to maintain project support and alignment. | Re-assess project priorities and adjust deliverables |
| Project redesign due to policy changes and new requirements | Accept | Collaborate with policymakers and align project deliverables with updated requirements. | Adjust project scope and timelines to accommodate new changes. |
| Low adoption of the e-invoicing platform | Accept | Provide extensive user training, and stakeholder engagement sessions. | Introduce incentives for early adopters |
| Public backlash and reduced support | Mitigate | Launch targeted public awareness campaigns to communicate project benefits effectively. | Address public concerns via on air talk shows |
| Project implementation resistance | Mitigate | Engage key stakeholders through regular consultations and awareness programs. | Identify change champions to support implementation |

*(Source: Compiled by the Author)*

### 4.8.6. Monitor Risks

The Monitor Risks process ensures continuous tracking of identified risks, oversight of residual and secondary risks, and identification of new risks throughout the e-invoicing implementation project. This process evaluates the effectiveness of risk responses and keeps the risk management strategy dynamic and adaptable, safeguarding project objectives and maintaining alignment with project goals.

The Project Coordinator will oversee the monitoring of risks documented in the Risk Register, ensuring timely updates and tracking. The Project Manager will ensure that the planned risk response strategies are implemented as designed. Risk monitoring will be an ongoing process, with the Risk Register reviewed and updated monthly. Updates will be shared with the core project team during regular status meetings.

As risk events occur, the list of risks will be reprioritized during monthly reviews. Any changes to the risk environment, including the identification of secondary risks, residual risks, or new risks, will be reflected in the updated Risk Management Plan. These updates ensure that the project remains prepared to address any emerging challenges effectively.

The Project Sponsor or Project Manager will notify the Project Steering Committee of significant changes to risk statuses during quarterly meetings or through formal reports. This approach to risk monitoring ensures that risks are continuously managed, response plans remain effective, and the project team is well-prepared to adapt to evolving challenges, supporting the successful implementation of the e-invoicing system.

## 4.9. Procurement Management Plan

Procurement management encompasses the acquisition of goods, services, or works from external sources to achieve project objectives (Project Management Institute, 2017, p. 459). It is organized into three primary processes: Plan Procurement Management, Conduct Procurement, and Control Procurement. This process ensures that procurement activities

are carefully planned, executed, and monitored to align with the project's goals, timelines, and quality expectations.

This plan outlines the framework for identifying procurement requirements, selecting vendors, managing contracts, and ensuring that procured resources meet project schedules and standards. Key activities include defining procurement needs, determining appropriate procurement methods, evaluating and selecting vendors, and contract negotiations. For the e-invoicing implementation project, procurement management will be led by the Procurement Officer, supported by the Project Coordinator and core project team. The primary objective is to ensure that all procurement activities are aligned with the project scope, budget, and schedule, while adhering to the Government of Belize's Procurement Guidelines.

### 4.9.1. Plan Procurement Management

The Plan Procurement Management phase involves establishing a structured approach to acquire the goods or services necessary for the E-Invoicing implementation project. This phase includes defining the procurement approach, procurement responsibilities and preparing procurement documents. Key activities include determining what needs to be procured, how it will be procured, and the appropriate timelines. This phase also involves selecting suitable contract types, such as fixed-price, cost-reimbursable, or time-and-materials, depending on the goods or services procured and establishing criteria for evaluating vendor/supplier proposals. The procurement activities must be aligned with the project scope, schedule, and budget, providing a solid foundation for the effective management of external resources.

**Procurement Objectives**

- Ensure timely and cost-effective acquisition of goods and services
- Engage qualified vendors with expertise in e-invoicing, system integration, analytical tools and infrastructure systems
- Maintain compliance with the Belize government procurement policies.
- Minimize procurement risks through solid planning and contract management.

### Chart 32 Procurement Roles and Responsibilities

| Role | Responsibility |
|---|---|
| Project Sponsor/Manager | Approve procurement budgets and contractual agreements. |
| Project Coordinator | Oversee procurement activities, ensures alignment with project objectives, resolves procurement issues and remain within budget |
| Project Core Team | Provide input for technical requirements and evaluates vendor proposals. |
| Procurement Officer | Manage vendor communications, prepares procurement documentation, and facilitates the evaluation process. |
| Project Steering Committee | Approve Procurement documents, short listed vendor and potential vendor |

| | |
|---|---|
| External Consultants/Vendors | Provide specialized knowledge and technical expertise related to the e-invoicing specifically the Terms of Reference. |

*(Source: Compiled by the Author)*

### 4.9.2. Procurement Strategy

A procurement strategy outlines the approach to identify resources for external procurement, determining suitable procurement methods and contract types, developing procurement documents, and establishing vendor selection criteria. This strategy ensures that procurement activities are tailored to meet the project's specific requirements and are conducted efficiently and effectively.

- **Identify Resources for External Procurement**: Determine the resources that need to be procured externally based on the project scope and requirements. This process requires a thorough analysis to identify which components can be best obtained from outside vendors. For instance, the E-invoicing platform, including the taxpayer invoicing portal, is a Commercial Off-the-Shelf (COTS) package and will likely need to be outsourced internationally, using a competitive bidding process. The same applies to the analytical tool, as these advanced tools are not developed by local providers.
- **Determine Suitable Procurement Methods and Contract Types**: Identify the most suitable procurement methods and contract types for each requirement. This decision-making process considers factors such as

complexity, risk, and urgency. For example, fixed-price contracts will be used for hardware and software procurement, while time-and-materials contracts will be more appropriate for individual consultants.

- **Develop Procurement Documents**: Create procurement documents based on the procurement process (e.g., Quality and Cost Based Selection or individual consultants). These documents include Terms of Reference (TOR), Requests for Information (RFI), Requests for Proposals (RFPs), or Requests for Quotations (RFQs). These documents outline the project requirements and solicitation terms for potential vendors.
- Establish Vendor Selection and Evaluation Criteria: Define criteria for vendor selection and evaluation to ensure that vendors are assessed based on relevant factors such as quality, adequacy of technical proposals, technical responsive checklists, past project references, key expert qualifications, and financial proposal.

### 4.9.3. Procurement Process

Chart 33 shows a comprehensive procurement process that ensures transparency, fairness, and efficiency in acquiring the necessary goods and services for the e-invoicing implementation project. Each step involves specific activities that contribute to the overall success of the procurement process, from preparing the procurement package to finalizing the contract with the selected vendor.

### Chart 33 Procurement Process

| No | Process Step | Process Description |
|---|---|---|
| 1 | Prepare Procurement Package | Compile all necessary documents and information required for the procurement process. This includes the scope of work, specifications, budget. |
| 2 | Seek Approval of Procurement Package contents | Submit the prepared procurement package to project steering committee for review and approval to ensure that all necessary components are included and meet the project requirements. |
| 3 | Publish Expression of Interest (EOI) Notice | Upload EOI to the National Procurement Portal (CARICOM Procurement Portal), UNDB Website, BTSD Website, and publish in local newspaper.<br>Engage with bidders to clarify requirements and answer questions. |
| 4 | Identify Evaluation Committee Members | Select and appoint members to the evaluation committee who will be responsible for assessing the proposals received. Ensure that the committee |

| | | |
|---|---|---|
| | | includes individuals with relevant expertise and knowledge. |
| 5 | Develop Terms of Reference | Create a detailed document outlining the objectives, scope, requirements (Functional, technical, implementation), indicative delivery schedule payment schedules, deliverables and responsibilities for the project. This serves as a guide for potential bidders to understand the project requirements. |
| 5 | Prepare Evaluation Matrix and Criteria's | Develop a structured evaluation matrix and criteria to objectively assess the proposals based on predefined factors such as cost, quality, technical capability, and past performance. |
| 6 | Opening of EOI package Meeting | Conduct public opening/receipt of Expression of Interest (if necessary). |
| 7 | Evaluate EOI | Conduct briefing of the evaluation matrix, scoring, and procurement guidelines to the evaluation committee |

| | | |
|---|---|---|
| 8 | Prepare Evaluation Report on Short Listed vendor | Prepare EOI evaluation Report with recommended short-listed vendors |
| 9 | Finalize Request for Proposal Document and include approved Terms of Reference | Finalize draft RFP document (Invitation letter, TOR, evaluation criteria, etc.) |
| 10 | Seek Project Steering Committee approval | Submit the Final RFP to project steering committee for review and approval. |
| 11 | Send Request for Proposal (RFP) document to Short Listed Firms | Submit final RFP via email to short listed vendors.<br>Respond to all clarification requests received by the deadline indicated in the RFP. |
| 12 | Received Technical and Price Proposals | Collect the technical and price proposals submitted by the shortlisted vendors within the specified deadline. Ensure that all submissions are properly recorded and secured. |
| 13 | Bidders Conference for opening of Proposal | Organize a conference to officially open the received proposals in the presence of the bidders. This ensures transparency and allows for any immediate clarifications. |

| | | |
|---|---|---|
| 14 | Evaluate Technical Proposals | Assess the technical proposals based on the pre-defined evaluation criteria. Focus on the Adequacy of Proposal, technical Response, Past project reference and key experts and qualifications. |
| 15 | Finalize Report on Qualified vendor | Document the results of the technical evaluation, identifying the vendors that meet the technical requirements and are qualified to proceed to the financial evaluation stage |
| 16 | Opening of Price Proposal for short-list vendor | Invite short-listed vendors that met the technical evaluation criteria and conduct a meeting to open the price proposals. |
| 17 | Evaluate Financial Proposal | Use financial evaluation matrix to complete evaluation of price proposal and compare the prices against the project budget |
| 18 | Negotiate with the Highest Ranked Consulting Firm | Engage in negotiations with the highest-ranked vendor based on the combined technical and financial evaluation. Aim to |

| | | |
|---|---|---|
| | | reach an agreement that meets the project requirements and budget. |
| 19 | Prepare Combined Evaluation Report | Compile a comprehensive report that combines the results of the technical and financial evaluations, providing a clear rationale for the selection of the preferred vendor. |
| 20 | Request for MOF approval | Submit the combined evaluation report to the Ministry of Finance for approval, ensuring that all financial aspects are reviewed and sanctioned. |
| 21 | Request for Contractor General Approval | Seek approval from the Contractor General to ensure compliance with regulatory and legal requirements before finalizing the contract. |
| 22 | Contract signing between Vendor and BTSD | Finalize and sign the contract between the selected vendor and the BTSD, formalizing the agreement and initiating the project. |

### 4.9.4. Vendor Selection Criteria

The vendor selection criteria for the E-Invoicing implementation project are designed to ensure the identification of qualified and reliable vendors who can meet the project objectives effectively and efficiently. Evaluation will focus on the vendors' technical expertise, specifically in E-Invoicing systems, including their proposed approach, methodology, work plan, technical solution description, training plan will be assessed as part of the **adequacy of the proposal**. The evaluation will also consider the vendors' technical response to functional, technical, and implementation requirements, as well as past project references, and the qualifications of key experts proposed for the project.

## Figure 14 Vendor Evaluation Criteria

Vendor Name

| No | Description of approach, methodology and work p | Max Point | Achieved Point | Guideline |
|---|---|---|---|---|
| 1.a | Technical Approach and Methodology | 10 | | Read proposal from bidders (one by one) and put number of points (between 0 and max points) which under relevant bidder/criteria |
| 1.b | Work Plan | 7 | | |
| 1.c | Organization and Staffing | 3 | | |
| 1 | **Total** | **20** | **0** | **This is summary line of 3 lines above** |
| | | | | |
| | | | | |
| **NO** | **Adequacy of Proposal** | **Max Points** | **Achieved Points** | |
| 1 | Description of approach, methodology and work plan | 20 | 0 | This line is transferred from Total line above |
| 2 | Technical solution description | 10 | | Read proposal from all bidders (one by one) |

| | Technical Response Checklist | | |
|---|---|---|---|
| Fil in column "Availability" A or C. Points will be added automatically accoerding to scored below (2 or 4). Colimn Check is just to assure that all | | | |
| ID | Requirement outline | lax Poin | Availability (A/C) |
| | General Requirements | | |
| | Main general requirements | | |
| GEN-1 | Vendors must propose a firm fixed price for the implementation project for all tax types in scope and for all functionality required to administer e-invocing syste. Change orders for the delivery project are not expected and will only be executed under very limited circumstances. Requirements listed in the procurement are provided to give vendors a sense of project scope. Vendors must provide a fixed price even though those requirements will change and expand. | 4 | |
| GEN-2 | The new system must be customizable. | 4 | |
| GEN-3 | The new system must be built on standard framework of core features and layers for the customization, which should be done following a configuration approach rather than one based on individually designed and specifically developed components. | 4 | |
| GEN-4 | The new system must provide full history on reference data. | 4 | |
| GEN-5 | The new system must provide a full suite of tax related functionality, including a comprehensive Risk Management System component. | 4 | |
| GEN-6 | The new system must provide comprehensive data exchange capability for systematic exchange of relevant data with other public authorities and private sector 3rd party information providers. | 4 | |
| GEN-7 | | 4 | |
| | Functional Requirements of the E-invoicing System | | |
| | Taxpayer Registration | | |
| FUN-1 | Allocate a new unique taxpayer identification number (TIN) to a new registrant with a calculated check digit based on numbers within the TIN itself. | 4 | A |
| FUN-2 | Capture and store general taxpayer registration details. | 4 | |
| FUN-3 | Maintain and update taxpayer status (Active, Inactive, Suspense etc.) | 4 | |
| FUN-4 | Capture, update and maintain registration details from Business Register. | 4 | |
| FUN-5 | Determine in advance for which tax types the newly registered taxpayer , will be required to file a return. | 4 | |
| FUN-6 | Capture, update and maintain registration details from Business Register. | 4 | |
| FUN-7 | De-register taxpayers and allow retrieval of de-registered taxpayer details from archive. | 4 | |
| FUN-8 | | 4 | |
| FUN-9 | | 4 | |

The evaluation criteria, as detailed on Figure 14, will allocate **80%** of the score to the **technical proposal and 20% to the financial proposal.**

**Past Project Reference**

**Bidders will not qualify if qualifying reference does not have at least 70% (more than 17 points)**

| Functionality | Max points per reference | Qualifying reference Name of reference 1 1=Yes or 0=No | Other References Name of reference 2 1=Yes or 0=No | Other References Name of reference 3 1=Yes or 0=No | Total Points |
|---|---|---|---|---|---|
| Invoice Creation and Submission | 2 | | 0 | 0 | 0 |
| Automated Invoice Processing | 3 | | 0 | 0 | 0 |
| Multiple Invoice Formats | 3 | | 0 | 0 | 0 |
| Digital Signatures and Authenticatic | 2 | | 0 | 0 | 0 |
| Accounting | 3 | | 0 | 0 | 0 |
| Dashboard and Reporting Tools | 3 | | 0 | 0 | 0 |
| Custom Workflows | 2 | | 0 | 0 | 0 |
| Custom Business Rules | 1 | | 0 | 0 | 0 |
| Data Import and Export | 3 | | 0 | 0 | 0 |
| Data Standardization and Validatior | 3 | | 0 | 0 | 0 |
| **Points** | **25** | **0** | **0** | **0** | **0** |
| Qualification % | 70% | 0% | | | |
| Qualified | | No | | | |

Key Experts

| Project Team Role | Project Manager | E-invoicing Expert | Test Lead | Business analyst | Quality Assurance Manager | Total | Max Points |
|---|---|---|---|---|---|---|---|
| General Qualifications | | | | | | 0 | 3 |
| Adequacy of the Assignment | | | | | | 0 | 3 |
| Optional Requirements | | | | | | 0 | 3 |
| Experience in Belize/Central America/Caribbean | | | | | | 0 | 1 |
| TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 10 |

| Technical Score | Max points | Achieved Points | Weight | Weighted Pints |
|---|---|---|---|---|
| **Adequacy of Technical Proposal** | 40 | 0 | 40% | - |
| **Technical Responsiveness Checklis** | 1752 | 0 | 20% | - |
| **Past Project references** | 50 | 0 | 10% | - |
| **Key Expert Qualification** | 10 | 0 | 30% | - |
| **Total points** | | | **100%** | - |

| Financial Score | | Implementation | Post-Implementation | | | Total in USD |
|---|---|---|---|---|---|---|
| **Type** | **Item** | **20 weeks** | 1st year | 2nd year | 3rd year | |
| **Licenses** | E-invoicingCOTS License | | | | | |
| | Other Licenses | | | | | |
| | Hardware | | | | | |
| **Services** | Configuration and Customization | | | | | |
| | Training | | | | | |
| | Technical Support | | | | | |
| | Functional Upgrades | | | | | |
| **Total amount in USD** | | | | | | |

*(Source: Compiled by the Author)*

### 4.9.5. Control Procurement

The Control Procurement process ensures that procurement activities are executed as planned, vendor performance is monitored, and contract obligations are fulfilled. This involves managing contracts, tracking deliverables, resolving procurement-related issues, and ensuring that goods and services meet the project's quality, scope, and timeline requirements.

- **Contract Administration** involves managing agreements with vendors by tracking deliverables and maintaining open communication to address progress updates, potential delays, and contractual issues. The procurement officer documents and manages any procurement changes while ensuring that vendors remain accountable to their contractual obligations.
- **Performance Monitoring** ensures that vendors meet project requirements through KPIs, such as adherence to delivery schedules, quality of services, and compliance with project specifications. Regular performance reviews and procurement status reports provide visibility into vendor progress and help guide corrective actions when needed.
- **Quality Assurance**: Quality Assurance focuses on verifying that all hardware, software, and consulting services meet the project's technical specifications. Inspections, audits, and testing are conducted as required, with acceptance certificates issued upon successful completion of deliverables. This process ensures that only products and services of acceptable quality are integrated into the e-invoicing system

- **Change Management** involves tracking and managing changes in procurement contracts. Requests for modifications, such as changes to system specifications or delivery schedules, are reviewed and approved through a formal change control process. This helps the project team adapt to evolving project needs while ensuring procurement integrity.
- **Issue Resolution** ensures that procurement-related disputes, such as late deliveries or quality issues, are documented and resolved according to contract terms. An issue log is maintained, and disputes are escalated when necessary, using formal mechanisms like mediation or arbitration to minimize project disruptions.
- **Payment Management** ensures that vendor payments are processed only after deliverables have been verified against agreed milestones. This guarantees that vendors are paid fairly while maintaining financial accountability and ensuring that project funds are spent efficiently
- **Contract Closure:** Contract closure confirms that all contractual obligations have been met and documented. The process includes conducting final performance evaluations, reconciling outstanding payments, and obtaining formal acceptance of completed deliverables.

### 4.10. Stakeholder Management Plan

Project stakeholder management involves identifying all people or organizations affected by the project, analysing their expectations and impact, and developing appropriate strategies for effectively engaging stakeholders in project decisions and execution (Project

Management Institute, 2017, p. 503). The objective is to ensure that stakeholders' interests are recognized, their concerns addressed, and their engagement maximized throughout the e-invoicing implementation project lifecycle. The main processes include identifying stakeholders, planning stakeholder engagement, managing stakeholder engagement, and monitoring stakeholder.

### 4.10.1. Stakeholder Identification

The Stakeholder Identification process ensures that all individuals, groups, and organizations affected by or interested in the project are identified. Proper identification enables the project team to determine how to engage each stakeholder effectively. This process involves documenting key information such as stakeholders' interests, levels of influence, and roles within the project. Through workshop sessions with the management team, relevant stakeholders were identified, resulting in the creation of the Stakeholder Register, as shown in Chart 34.

**Stakeholder Management Objectives**

- Identify and classify stakeholders such as all individuals, groups, and organizations affected by the project.
- Understand stakeholder needs by assessing stakeholder expectations, interests, and potential impact on the project.
- Develop engagement strategies by define methods for engaging stakeholders effectively.

- Ensure transparent communication by maintaining open, consistent, and timely communication.
- Promote active participation by fostering collaboration and maintaining a positive relationship.

**Roles and Responsibilities**

**Chart 34 Stakeholder Roles and Responsibilities**

| Role | Responsibility |
|---|---|
| Project Sponsor/Manager | Oversee stakeholder engagement activities. |
| Project Coordinator | Manage communication logistics and updates the Stakeholder Register. |
| Project Core Team | Participate in meetings, consultations, and project reviews. |

*(Source: Compiled by the Author)*

### 4.10.2. Stakeholder Register

The Stakeholder Register serves as a central reference tool for managing stakeholders involved in the e-invoicing implementation project. The register also classifies stakeholders as either **Direct (D)** or **Indirect (I)** based on their level of involvement and impact. Direct stakeholders are those directly affected by project execution and outcomes, such as project sponsors, government agencies, and software vendors. In contrast, Indirect stakeholders may not be directly impacted by the project's results but can benefit from receiving updates and being informed about key developments, such as industry associations, taxpayers, and the general public. This structured approach ensures clear communication, accountability, and transparency throughout the project lifecycle.

## Chart 35 Stakeholder Register

| Position/Organization | Category | Role and Responsibility | Power/Interest | Engagement Requirements |
|---|---|---|---|---|
| Project Sponsor | Direct | Provides strategic direction and funding | High/High | Regular updates and project reviews |
| Belize Tax Service (BTSD) | Direct | Leads implementation and project oversight | High/High | Weekly project meetings |
| Ministry of Finance (MOF) | Direct | Provides policy and funding oversight | High/High | Budget and policy briefings |
| CIAT | Direct | Offers technical assistance and best practices | Medium/High | Consultation and technical updates |
| Procurement Specialist | Direct | Manages procurement process and compliance | Medium/Medium | Contract and procurement reports |
| CITO | Direct | Manages IT infrastructure and system security | High/High | System updates and integration plans |
| Attorney General | Direct | Provides legal oversight and drafting changes | High/Low | Legal compliance reports |
| Businesses | Direct | End-users affected by the system | Medium/High | Training sessions and system guides |
| Software Vendors | Direct | Develops and supplies e-invoicing platform | High/High | Regular performance reviews |

| Position/Organization | Category | Role and Responsibility | Power/Interest | Engagement Requirements |
|---|---|---|---|---|
| IT Specialists | Direct | System integration and technical support | Medium/High | Technical project meetings |
| Database Administrators | Direct | Manages system databases and backups | Medium/Medium | System and data status reports |
| Legal Advisors | Direct | Ensures project legal compliance | High/Medium | Regulatory compliance updates |
| Business Analysts | Direct | Oversees system requirements and ensure compliance | Medium/High | Requirement and Technical documents |
| Trainers | Direct | Conducts system training for end-users | Low/Medium | Scheduled training sessions |
| System Developers | Direct | Manages software development | High/High | System design and performance updates |
| Belize Chamber of Commerce | Indirect | Represents business interests | Medium/High | Business consultations |
| E-Governance Unit | Indirect | Supports digital transformation | Low/Medium | Digital transformation briefings |
| Public Service Union of Belize (PSU) | Indirect | Represents public service employees | Low/Medium | Employee consultation sessions |
| City and Town Councils | Indirect | Facilitates local tax system adoption | Low/High | System integration meetings |

| Position/Organization | Category | Role and Responsibility | Power/Interest | Engagement Requirements |
|---|---|---|---|---|
| Taxpayers | Indirect | End-users benefiting from the system | Medium/High | Public information sessions |
| Citizens | Indirect | General public receiving system benefits | Low/Low | Public announcements |
| Media Houses | Indirect | Disseminates public updates | Low/Low | Press releases and media briefings |
| BELTRAIDE | Indirect | Promotes business and trade compliance | Medium/High | Business support consultations |
| Accounting Association | Indirect | Provides industry-specific tax insights | Medium/High | Expert consultations and forums |
| Customs Department | Indirect | Coordinates with customs tax systems | Medium/Low | System and API documentation |

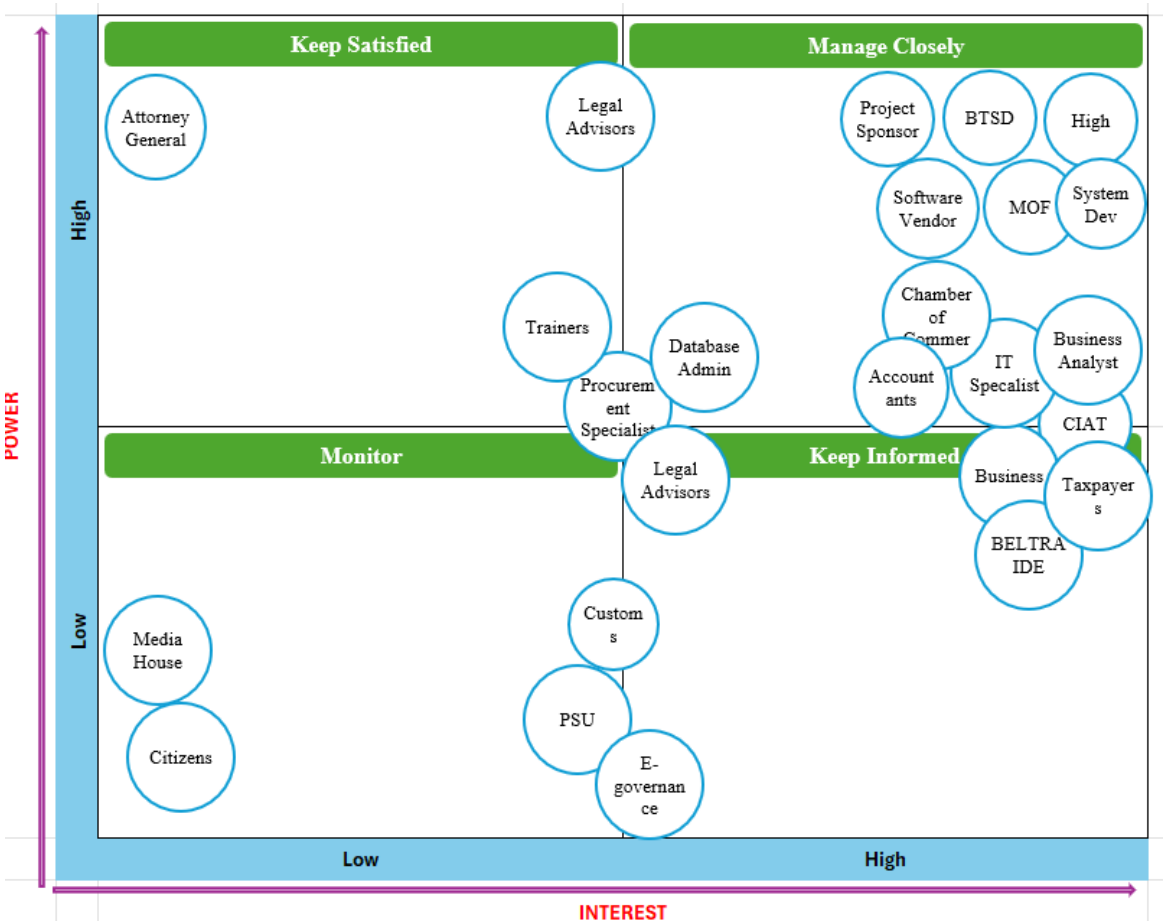
*(Source: Compiled by the Author)*

### 4.10.3. Stakeholder Analysis

To assess stakeholder characteristics and prioritize stakeholders, the core project team evaluates each stakeholder's level of power, interest, and impact on the e-invoicing implementation project. Power refers to a stakeholder’s ability to influence project outcomes, while interest reflects their concern about project success or failure. Impact measures how significantly the project affects them. Based on these factors, stakeholders are prioritized using a Power-Interest Grid (Figure 16), where they are categorized into four

groups: Manage Closely (high power, high interest), Keep Satisfied (high power, low interest), Keep Informed (low power, high interest), and Monitor (low power, low interest). This prioritization ensures that stakeholders with the most influence and critical roles receive the highest engagement levels while those with less direct involvement are monitored and informed as needed. This structured approach allows the project team to allocate engagement resources effectively and maintain project alignment.

**Figure 15 Power Interest Matrix**




*(Source: Compiled by the Author)*

### 4.10.4. Stakeholder Engagement

Stakeholder engagement activities foster collaboration, ensure transparency, and maintain continuous communication with key stakeholders throughout the e-invoicing implementation project. These activities include meetings, workshops, training sessions, public forums, and system demonstrations aimed at informing, consulting, involving, and collaborating with stakeholders. Kindly refer to Chart 36.

**Chart 36 Stakeholder Engagement Plan**

| Engagement Activity | Objective | Frequency | Target Stakeholders | Responsible Party |
|---|---|---|---|---|
| **Steering Committee Meetings** | Review project progress and key decisions | Quarterly | Project Manager/Sponsor, Ministry of Finance, CIAT, CITO | Project Manager/Sponsor |
| **Project Status Meetings** | Discuss project updates, resolve issues | Monthly | Core Project Team, Project Manager/Sponsor | Project Coordinator |
| **Vendor Performance Reviews** | Monitor vendor deliverables and quality | Monthly | Vendors, Procurement Officer, Project Core Team | Procurement Officer |
| **Stakeholder Consultations** | Gather feedback and address concerns | As Needed | Businesses, Taxpayers | Project Coordinator |
| **Training Workshops** | Build stakeholder capacity and skills | As Needed | Businesses, BTSD Staff, BELTRAIDE, Chamber of Commerce, Accounting Association | Trainers, Core Project Team |

| | | | | |
|---|---|---|---|---|
| **System Demonstrations** | Showcase system features and progress | Milestone-Based | BTSD, CIAT, Taxpayer, Chamber of Commerce, Accounting Association, | IT Team, Vendors |
| **Public Announcements** | Share significant project updates and milestones | As Needed | General Public, Media Houses | Communication Consultant |

*(Source: Compiled by the Author)*

### 4.10.5. Stakeholder Monitoring

Stakeholder Monitoring and Evaluation is a continuous process which ensures that stakeholders remain effectively engaged throughout the e-invoicing implementation project. The project team can identify engagement gaps by gathering feedback, assessing participation levels, and taking corrective actions when necessary. Key tools such as stakeholder engagement logs, meeting summaries, and performance reviews help to maintain a transparent record of project communications and stakeholder contributions. Feedback collected through surveys and consultations supports evidence-based adjustments to engagement strategies, ensuring alignment with project goals.

Regular reporting and quarterly review meetings ensure that the engagement progress is consistently assessed while action plans address any identified challenges. This adaptive approach ensures that stakeholders remain informed, involved, and supportive, contributing to the successful implementation of the e-invoicing project.

# 4 CONCLUSIONS

1 The Integration Management Plan for the BTSD e-invoicing implementation project ensures that all components work cohesively toward achieving the desired outcomes. This plan aligns with the principles outlined in the PMBOK® Guide, integrating various project elements such as scope, milestone schedule, general budget, assumptions, restrictions, preliminary risk, and interest groups. Effectively coordinating project activities through integration management allows for continuous monitoring, adaptation, and seamless transitions between project phases. Critical processes like change management, issue resolution, and performance monitoring ensure that project goals align with the organization's strategic vision. The Integration Management Plan lays the foundation for a well-organized, efficient, and scalable e-invoicing implementation through a structured approach combining predictive and adaptive methodologies.

2 The Scope Management Plan for the e-invoicing implementation project at BTSD provides a comprehensive plan for defining, validating, and controlling the project scope throughout the project lifecycle. It ensures that tasks for the project's success are identified, documented, and managed, thereby preventing unwanted activities that could lead to scope creep and reassuring the team about the plan's effectiveness. This plan is a key tool for effective project management, defining roles and responsibilities, establishing processes for managing changes to scope, and most importantly, defining deliverables through the WBS. The WBS provides a clear and structured breakdown of the project, helping the team understand their tasks and

how they contribute to its success. Detailed descriptions for each task complement the plan, all consistent with best practices outlined in the PMBOK® Guide. The Scope Management Plan is a foundational document that guides the e-invoicing project toward completion, ensuring adherence to project objectives and yielding quantifiable advantages, including improved tax compliance, streamlined invoicing procedures, and enhanced operational efficiency.

3 The Schedule Management Plan establishes a structured approach to defining, managing, and controlling the project timeline for the e-invoicing implementation. It includes key processes such as defining activities, sequencing tasks, estimating duration, and monitoring project progress using Microsoft Project. Regular updates, variance analysis, and corrective actions ensure that the project remain on track while adapting to changes. This plan supports timely project completion by integrating critical path monitoring and clear communication with stakeholders, ensuring accountability and alignment with project goals.

4 The Cost Management Plan for the e-invoicing implementation project provides a well-defined framework for budgeting, estimating, and controlling project costs. It promotes financial discipline and transparency through established cost management processes, including Earned Value Management EVM, variance analysis, and cost monitoring. The integration of contingency and management reserves allows flexibility to address unexpected expenses. A detailed budget was developed for Level 3 of the WBS, ensuring accurate cost estimation. This approach

positions the project for success by enabling timely and cost-effective implementation while maximizing value for the BTSD.

5 The Quality Management Plan provides a structured framework to ensure that project deliverables meet established quality standards and align with stakeholder expectations. The plan promotes compliance, efficiency, and adaptability by incorporating quality assurance, control processes, and continuous improvement strategies. Consistent monitoring, performance evaluation, and corrective actions enable the project team to manage quality effectively throughout the project lifecycle. Clearly defined metrics and baselines ensure that the system meet required standards and can be scaled for future enhancements and integration with the enterprise tax system. This strategy supports the successful delivery of a robust and sustainable e-invoicing solution.

6 The Resource Management Plan outlines a structured approach for identifying, acquiring, and managing the human, technical, and material resources necessary to implement the e-invoicing system successfully. By clearly defining roles, responsibilities, and resource allocation strategies, the plan ensures optimal utilization of available assets while minimizing resource-related risks. The inclusion of a Responsibility Assignment Matrix (RACI), a Resource Breakdown Structure and strategy to develop the team promotes accountability and transparency. This comprehensive approach supports project efficiency and positioning the project for success.

7 The Communication Management Plan ensures that information flow efficiently among all project stakeholders, fostering transparency, collaboration, and informed decision-making throughout the e-invoicing implementation. By clearly defining communication roles and responsibilities, and a comprehensive communication matrix that outlines methods, frequency, objectives, and target audiences, the plan supports consistent updates and clear messaging. This structure enables effective coordination within the project team and ensures that all stakeholders remain informed and engaged. The integration of communication tools and a structured escalation process allows for the timely resolution of issues, minimizing potential disruptions. While the plan primarily focuses on internal communication within the BTSD, it also recognizes the importance of external engagement through a public campaign managed by a specialized communication consultancy. This dual approach ensures that both internal project teams and the wider public are appropriately informed, facilitating smooth project execution, enhanced stakeholder trust, and the successful delivery of the e-invoicing system

8 The Risk Management Plan for the e-invoicing implementation project establishes a systematic approach to identifying, assessing, mitigating, and monitoring project risks. It ensures proactive management of uncertainties by outlining processes for qualitative risk analysis and prioritizing risks based on impact and probability. Including a comprehensive risk register, defined risk response strategies, and a structured monitoring and control process enables timely decision-making and

corrective actions. This framework minimizes disruptions, ensures project stability, and supports the successful implementation of e-invoicing.

9 The Procurement Management Plan for implementing the E-Invoicing System provides a comprehensive framework for acquiring goods, services, and works essential to project success. It outlines structured processes for planning procurements, executing the procurement process, conducting vendor evaluations, awarding contracts, and monitoring vendor performance. The plan ensures transparency and alignment with the project's budget, timeline, and quality standards.

Tools like the Procurement Process and vendor selection strengthen procurement oversight by enabling informed decision-making and proactive issue resolution. Regular performance reviews, vendor assessments, and contract audits ensure that procurement activities remain efficient and effective. This well-defined procurement framework reduces risks, enhances accountability, and supports the timely and successful implementation of the e-invoicing system.

10 The Stakeholder Management Plan for Implementing the E-Invoicing System establishes a structured framework for identifying, analysing, and engaging stakeholders throughout the project lifecycle. It ensures that all relevant individuals, groups, and organizations affected by the project are appropriately informed, consulted, involved, and supported. The plan fosters transparency, builds trust, and encourages meaningful participation by defining roles, responsibilities, communication methods, and engagement strategies.

The comprehensive approach includes tailored engagement activities, regular communication updates, and continuous monitoring through established metrics such as participation rates, feedback quality, and issue resolution timelines. Tools such as the Stakeholder Register, Power-Interest Grid, and Stakeholder Engagement Plan ensure effective stakeholder categorization and engagement management. The project team can adapt strategies to evolving needs through regular evaluations, feedback sessions, and project review meetings. This proactive stakeholder management approach will ensure strong partnerships, reduce resistance, and support the successful and timely implementation of the e-invoicing system.

# 5 RECOMMENDATIONS

1. To strengthen the Integration Management Plan, consider enhancing the change management framework by clearly defining how scope, budget, or timeline changes will be evaluated, approved, and communicated. Establish a formal process for submitting and reviewing change requests, supported by defined roles and responsibilities. This process would minimize disruptions and ensure transparency in decision-making. Create a knowledge transfer and documentation strategy to capture project insights and technical specifications throughout the project lifecycle. This strategy should include detailed user guides, process manuals, and system configurations to support future maintenance and upgrades. Lastly, implement a post-integration support framework with a dedicated help desk team and system monitoring procedures. This approach would ensure continuous system functionality, quick issue resolution, and sustainable project success.
2. The Scope Management Plan for the e-invoicing implementation project can be enhanced by introducing a dedicated Assumptions and Constraints Register. This register would capture critical project assumptions, such as technology availability, legal compliance timelines, and resource commitments. Documenting constraints such as budget limitations, regulatory requirements, and system compatibility would help the project team identify potential risks early. Regularly reviewing and updating this register throughout the project lifecycle would ensure that project planning stays realistic and adaptive to changing circumstances. Defining a detailed workflow would clarify deliverable validation by enhancing the scope verification

process. This workflow could include specific checkpoints, approval timelines, and acceptance criteria for project milestones. Establish performance metrics such as deliverable completion rates, scope change frequency, and stakeholder satisfaction levels to maintain project alignment. Lastly, organize regular feedback sessions with key stakeholders to provide continuous input, ensuring that evolving project needs are captured and addressed promptly. These enhancements would create a more transparent, adaptive, and stakeholder-driven scope management process.

3. To enhance the Schedule Management Plan, consideration should be made to link the project schedule directly to the Resource Management Plan. This integration would align task timelines with resource availability, adequately allocating team members and reducing potential bottlenecks. By connecting key tasks with corresponding resources, the project team can better estimate task durations, manage workloads, and adjust schedules in real time as availability changes. Aligning cost and resource management with schedule management allows for more comprehensive and detailed management using Microsoft projects. This approach would improve the accuracy of project timelines and minimize delays caused by resource constraints.

   Establishing a formal schedule review framework with defined intervals would also strengthen schedule monitoring and control. Regularly scheduled reviews would allow the project team to assess progress, identify potential delays, and take corrective actions early. Incorporating a stakeholder reporting plan that includes visual tools like Gantt charts, network diagramming, progress dashboards, and

milestone summaries would improve communication with both internal and external stakeholders.

4. To enhance the Cost Management Plan for the e-invoicing implementation project, it's essential to include a comprehensive cost breakdown by project phase and work package for improved visibility and accuracy. Incorporate real-time cost-tracking tools and schedule regular financial audits to maintain budget adherence. Additionally, integrate vendor-specific cost management practices, like milestone-based payments and performance-linked incentives. Furthermore, a separate table should be added to outline costs that do not affect the project budget, such as contributions from existing staff and in-house resources. This will provide a complete picture of the total investment needed for system implementation, enhancing transparency and financial planning.
5. To enhance the Quality Management Plan for the e-invoicing implementation project, consider adding a detailed testing framework, including system integration, user acceptance, and performance testing with clear responsibilities and timelines. Implement automated quality monitoring tools such as dashboards to ensure continuous performance tracking while reducing manual errors. Establish a stakeholder feedback mechanism for ongoing system improvements, including vendor quality assurance with SLAs. Conduct regular internal and external audits to ensure compliance and address issues promptly. Additionally, provide comprehensive training for project team members and end-users to improve system adoption and data accuracy. These improvements would strengthen the project's

quality management, ensuring a reliable, scalable, and sustainable e-invoicing system.

6. To strengthen the Resource Management Plan for the e-invoicing implementation project, it is recommended that the Resource Breakdown Structure (RBS) be expanded to include human resources, materials, and works. This should cover essential materials, equipment, and works required for system implementation, such as IT infrastructure, hardware installations, and communication consultancy. Clearly defining and categorizing these resources would improve project planning and ensure comprehensive resource allocation. Creating a specific material and works planning section would enhance procurement management by identifying necessary supplies, setting procurement timelines, and reducing logistical delays. Furthermore, incorporating a Resource Cost Allocation Table that distinguishes between budgeted and non-budgeted resources would provide a clearer picture of the total investment. This table should include direct costs such as procurement expenses, external consultancy fees, and indirect contributions from existing staff. Tracking both types of resources would enhance transparency, facilitate better cost control, and allow for more precise project budgeting. This approach would support the effective management of resources while ensuring that the project remain aligned with its financial goals.
7. To strengthen the Communication Management Plan for the e-invoicing implementation project, it is recommended that a more comprehensive external communication strategy be developed. This strategy should include specific

outreach activities, a detailed timeline, and measurable goals for raising public awareness. Clearly defining the roles and responsibilities of the specialized communication consultancy would enhance coordination and accountability. The consultancy should handle public awareness campaigns, media relations, and community outreach, while the internal team should focus on project-related updates, internal communication, and stakeholder engagement. Establishing these clear divisions would ensure seamless collaboration and avoid communication overlaps.

The plan should also incorporate a formal feedback mechanism to gather input from internal and external stakeholders, enabling continuous improvement. Expanding communication tools to include modern channels such as social media, email newsletters, and an interactive project website would increase accessibility and public engagement. A crisis communication plan should also be developed, outlining specific protocols, spokesperson roles, and pre-approved messaging templates to respond quickly and effectively during project disruptions. These enhancements would create a more structured and dynamic communication framework, ensuring the project's success through transparent and consistent messaging.

8. To enhance the Risk Management Plan for the e-invoicing implementation project, consider expanding the risk register by categorizing risks into specific types such as technical, operational, financial, compliance, and reputational risks. This classification would streamline risk management by enabling more focused risk

response strategies tailored to each category. Additionally, establishing a detailed timeline for implementing risk mitigation actions would ensure that critical risks are addressed promptly, minimizing potential project delays and disruptions. Including clear milestones for risk response activities would also enhance accountability and tracking. Incorporating quantitative risk analysis methods such as Monte Carlo simulations or decision trees could provide more accurate forecasts of risk impacts and financial implications. This would support data-driven decision-making and improve contingency planning. Furthermore, actively involving key stakeholders, including vendors and project sponsors, in regular risk review meetings would ensure diverse perspectives and promote shared responsibility for risk management. This collaborative approach would increase transparency, enhance proactive problem-solving, and strengthen the project's overall risk management framework.

9. To improve the e-invoicing procurement process, suppliers should be chosen through a transparent, competitive bidding system. This includes setting clear evaluation criteria, publishing notices on recognized platforms, and ensuring a fair evaluation of proposals. Communicating the selection process to bidders fosters transparency and trust, attracting competitive bids that meet project needs. Additionally, formulating firm contracts is vital for managing vendor relationships. Contracts must specify deliverables, timelines, payment terms, performance metrics, and dispute resolutions. Regular monitoring through reviews and reports ensures timely compliance with standards. Post-procurement evaluations after key milestones assess vendor performance, identify improvements, and integrate lessons

learned into future procurements. These steps will boost accountability, uphold quality, and ensure project success.

10. To enhance the Stakeholder Management Plan for the e-invoicing implementation project, it is recommended that engagement strategies be refined based on stakeholder roles outlined in the Stakeholder Register. Direct stakeholders, such as the core project team, Ministry of Finance, and CITO, should be involved in key decision-making. In contrast, indirect stakeholders like the Belize Chamber of Commerce and Taxpayers should receive regular updates through public forums and reports. Maintaining an up-to-date Stakeholder Register by regularly reviewing and adjusting roles, contact details, and engagement requirements will keep the project organized and responsive. Finally, conducting training sessions and implementing a centralized communication platform will increase transparency, improve public awareness, and ensure effective two-way communication with all stakeholders. These measures will help maintain alignment with project goals while fostering collaboration.

# 6 VALIDATION OF THE FGP IN THE FIELD OF REGENERATIVE AND SUSTAINABLE DEVELOPMENT

The vision of the BTSD is to substantially enhance Belizeans' social and economic well-being. In line with this vision, BTSD has undertaken several initiatives under the Modernization of the Tax Administration Project, embracing regenerative development principles to guide its sustainability efforts. A key objective of the department is to achieve a paperless environment within the next five years, which is supported by initiatives such as the deployment of a Document Management System to digitize thousands of manual records, and the implementation of electronic invoicing (e-invoicing). The e-invoicing system, in particular, will significantly advance sustainable development goals by drastically reducing paper consumption and streamlining tax processes.

The introduction of an electronic taxpayer portal, now handling nearly 90% of BTSD's transactions online, further supports this transformation by minimizing paper usage and enhancing service efficiency. These efforts not only align with BTSD’s sustainability objectives but also contribute directly to several key Sustainable Development Goals (SDGs), particularly those related to responsible consumption and production, climate action, and innovation in infrastructure.

Additionally, the adoption of virtualization techniques for BTSD’s server infrastructure and the transition to cloud-based hosting are pivotal in the e-invoicing process. These technological advancements are crucial for reducing BTSD’s carbon footprint by optimizing server efficiency and minimizing the physical resources required for data management. Leveraging cloud services not only enhances operational flexibility

but also significantly reduces energy consumption compared to traditional computing methods, aligning with broader environmental sustainability goals.

Effective organizational governance is essential for the successful implementation of these sustainability-driven initiatives. By establishing a governance framework that prioritizes strategic oversight and resource allocation, BTSD can effectively minimize the ecological footprint of its IT operations. This strategic approach not only addresses immediate environmental impacts but also lays the foundation for long-term sustainability, ensuring that BTSD's Information Technology practices contribute positively to environmental conservation and regenerative development efforts.

## 6.1 Relationship to the Sustainable Development Goals.

The implementation of an electronic invoicing system at the BTSD, as proposed in this FGP, directly relates to several Sustainable Development Goals (SDGs) set forth by the United Nations. The project supports global efforts to promote sustainable development by addressing key economic, environmental, and social objectives. Below is an explanation of how this project aligns with specific SDGs:

- SDG 8: Decent Work and Economic Growth

  The e-invoicing system supports economic growth by improving the efficiency of tax administration, reducing administrative burdens on businesses, and enhancing the overall business environment. Facilitating more effective tax collection and reducing compliance costs for businesses, the project contributes to sustained economic growth, higher levels of productivity, and the creation of more decent work opportunities.

- SDG 9: Industry, Innovation, and Infrastructure

  The e-invoicing system contributes to the modernization of infrastructure within BTSD by leveraging innovative digital technologies. It promotes the development of resilient and sustainable infrastructure, facilitating the adoption of digital solutions that streamline tax processes and improve overall efficiency. By fostering innovation and improving the efficiency of tax administration, the project strengthens Belize's institutional capacity to support sustainable development and innovation.

- SDG 12: Responsible Consumption and Production

  The transition from paper-based invoicing to electronic invoicing reduces the consumption of paper and other physical resources, directly contributing to more sustainable production practices. The reduction in resource consumption and waste generation aligns with the goal of ensuring sustainable consumption and production patterns. The project also promotes the efficient use of resources and helps to minimize the environmental impact of administrative processes.

- SDG 13: Climate Action

  By minimizing energy consumption associated with traditional paper-based systems, the e-invoicing system contributes to climate action efforts. Using less paper means we are saving the trees. Additionally, leveraging the use of Cloud infrastructure also contributes to the reduction of carbon footprint, for it significantly reduces energy consumption compared to traditional

computing methods. The project helps reduce greenhouse gas emissions and supports Belize's efforts to mitigate climate change. By promoting digitalization, the project indirectly encourages the adoption of environmentally friendly practices across the public and private sectors.

- SDG 16: Peace, Justice, and Strong Institutions

  The e-invoicing system enhances transparency, accountability, and efficiency within BTSD, thereby strengthening the institution's ability to manage and monitor tax compliance effectively. By improving tax collection and reducing opportunities for tax evasion, the project contributes to the creation of a more transparent and accountable public institution. This achievement aligns with the goal of promoting peaceful and inclusive societies with strong, effective institutions.

- SDG17: Partnerships for the Goals

  The project's implementation requires collaboration between various stakeholders, including the government, private sector, and international organizations. This fosters partnerships that are essential for achieving the broader objectives of sustainable development. By promoting collaboration and sharing best practices, the project contributes to strengthening global partnerships aimed at achieving sustainable development goals.

Therefore, implementing the e-invoicing system at BTSD aligns with multiple Sustainable Development Goals by promoting responsible resource use, fostering innovation, reducing environmental impact, enhancing institutional transparency, and supporting economic

growth. The project contributes to the modernization of Belize's tax administration and supports global efforts to build a more sustainable and equitable future.

## 6.2 Relationship to the Regenerative Development

Implementation of e-invoicing at the BTSD aligns closely with several dimensions of regenerative development. The vision of BTSD to enhance the social and economic well-being of Belizeans is reflected in its commitment to sustainability and modernization, as evident by the initiatives under the Modernization of the Tax Administration Project. These efforts are not only about improving tax processes but also about contributing to the broader goals of regenerative development.

- Environmental Dimension

  The implementation of an e-invoicing system and the transition to a paperless environment are directly aligned with the environmental dimension of regenerative development. By significantly reducing paper consumption, digitizing manual records, and adopting cloud-based hosting, BTSD is minimizing its environmental footprint. Usage of virtualization techniques and cloud-based hosting reflects environment dimension of regenerative development. These technological advancements optimize server efficiency and reduce the physical resources required for data management. By enhancing BTSD's digital infrastructure, the project supports the creation of a more sustainable and resilient environment. These initiatives support the conservation of natural resources and the reduction of waste, contributing to long-term environmental sustainability.

- Social Dimension

  The introduction of the electronic taxpayer portal, which now handles nearly 90% of BTSD's transactions online enhances accessibility and equity in tax administration. The implementation of e-invoicing further facilitates greater transparency and fairness in tax administration. By making tax compliance more accessible and efficient, the project helps to reduce inequalities in the tax system, ensuring that all businesses, regardless of size, can comply with tax obligations in a cost-effective manner. This promotes social equity and supports the economic empowerment of marginalized groups, which is a key aspect of regenerative development. This aligns with the social dimension of regenerative development, which emphasizes the well-being and empowerment of communities.

- Economic Dimension

  The implementation of an e-invoicing system and the move toward a paperless environment strongly align with the environmental dimension of regenerative development. By drastically reducing paper usage, digitizing manual records, and adopting cloud-based hosting, BTSD is effectively minimizing its environmental footprint. The use of virtualization techniques and cloud infrastructure exemplifies this commitment to environmental sustainability by optimizing server efficiency and decreasing the reliance on physical resources for data management. These technological advancements not only enhance BTSD’s digital infrastructure but also support the creation

of a more sustainable and resilient environment, contributing to the conservation of natural resources and the reduction of waste.

- Political Dimension

  The FGP aims to modernize BTSD by implementing an e-invoicing system that enhances the department's operational efficiency and effectiveness. This aligns with the political dimension of regenerative development by reinforcing the capacity of public institutions to manage resources responsibly and to deliver services transparently. The project contributes to building a more robust and accountable tax administration that can better serve the needs of Belizeans.

- Cultural Dimension

  The focus on e-invoicing and digitization promotes ethical stewardship by enhancing transparency and accountability within BTSD. By reducing opportunities for tax evasion and ensuring fair tax practices, the project aligns with the cultural dimension of regenerative development. This dimension emphasizes responsible management of resources and the equitable treatment of all stakeholders.

## 6.3 Indicators to Measure

Specific indicators can be used to effectively monitor and evaluate progress towards achieving the SDGs and regenerative development. These indicators help quantify the impact of projects like implementing an e-invoicing system at the BTSD.

- **Employment Rate:** Track the creation of new jobs, particularly in the digital and technology sectors because of the e-invoicing system by conducting surveys with businesses to assess changes in compliance costs and administrative burden.
- **Paper Usage Reduction:** Measure the reduction in paper consumption as a direct result of transitioning to e-invoicing. By conducting audits of resource use before and after the implementation of e-invoicing to quantify reductions in paper and other materials
- **Compliance Rates:** Track the compliance rates of businesses and individuals with tax regulations by using data from the e-invoicing system and tax System to track filing and payment and new registrations.

## 6.4 P5 Impact Analysis

The GPM® P5TM Standard for Sustainability in Project Management, developed by Green Project Management Global® (GPM®), aims to promote sustainability and sustainable practices in project management to achieve lasting results. It is based on five pillars: People, Planet, Prosperity, Process, and Product. The three categories, People, Planet, and Prosperity are structured into subcategories (11) and elements (49) used to assess impacts

and define measures. (The GPM® P5™ Standard for Sustainability in Project Management, 2023)

Creating a P5 Impact Analysis for the FGP involves assessing the project's potential impact across 3 categories for classification: People, Planet, and Prosperity. This framework, allows for a comprehensive evaluation of the project's broader implications.

- **People**

  The e-invoicing system is expected to make tax compliance more accessible and user-friendly for all taxpayers, including individuals and businesses of all sizes. By reducing the complexity and administrative burden of tax filing, the system enhances the overall taxpayer experience and promotes greater participation in the formal economy. For BTSD employees, the shift to an e-invoicing system offers opportunities for skill development and professional growth as they adapt to new technologies and processes. Training and capacity-building initiatives will be essential to ensure that staff are well-equipped to manage and support the new system. The e-invoicing implementation will also contribute to reducing inequalities in the tax system by making compliance processes more equitable and accessible, especially for marginalized groups, small, large and the informal sector. This promotes broader economic inclusion and social equity.

- **Planet**

  The transition to a paperless environment through the implementation of e-invoicing significantly reduces paper consumption, which in turn conserves natural resources and decreases waste generation. The reduction in physical document storage also

minimizes the need for energy-intensive storage facilities. The BTSD Strategy of adopting virtualization techniques and cloud-based hosting will lower carbon footprint associated with traditional paper-based and on-premises data management systems. This shift contributes to Belize's efforts to mitigate climate change by reducing greenhouse gas emissions. It will also promote the efficient use of resources by leveraging digital technologies that minimize the environmental impact of tax administration processes. This aligns with the broader goals of regenerative development, which emphasize sustainability and resource conservation. The success of the e-invoicing project relies on effective collaboration between various stakeholders, including government agencies, businesses, technology providers, and international partners. This partnership approach ensures that the system meet the needs of all parties involved and is implemented efficiently.

- **Prosperity**

The implementation of an e-invoicing system is expected to boost economic growth by improving the efficiency of tax administration and reducing compliance costs for businesses. This strategy fosters a more conducive environment for business operations, encourages investment, and supports the development of systems that operate within the e-invoicing ecosystem, thereby enhancing the overall competitiveness of the Belizean economy.

By increasing tax compliance and reducing opportunities for tax evasion, the project will contribute to higher revenue collection for the government. Increased revenue allows the government to invest more in public services, infrastructure, and social programs, further driving economic prosperity. The system will streamline tax processes, reduce administrative

burdens, and improve cash flow for businesses, particularly small and medium-sized enterprises (SMEs). This deliverable contributes to a more dynamic and resilient economy that supports entrepreneurship and innovation.

The e-invoicing system enhances transparency and accountability in tax administration by providing real-time data on transactions and compliance. This enhancement reduces the potential for corruption and tax evasion, promoting a fairer and more just tax system. By modernizing its tax administration processes, BTSD will strengthen its institutional capacity to manage and monitor tax compliance effectively, contributing to building a more robust and resilient public institution that upholds the rule of law and serves the public interest.

A more transparent and efficient tax system fosters public trust in government institutions. By ensuring that tax policies are implemented fairly and equitably, the project supports the creation of a more inclusive and harmonious society.

BIBLIOGRAPHY

Alonso, C., Feliz, L., Gil, P., & Pecho, M. (2021). Enhancing tax compliance in the Dominican Republic through risk-based VAT invoice management. International Monetary Fund.

Avalara Europe. (2023, May 3). Rise of E-invoicing video. YouTube. https://www.youtube.com/watch?v=nrLvYO8P9D0

Avalara Europe. (2023, May 3). Webinar: Mastering E-Invoicing Implementation - Lessons from the Leaders video. YouTube. https://www.youtube.com/watch?v=3LwT5W02dnI

Barreix A. and Zambrano R. (2018). Electronic Invoicing in Latin America: English Summary of the Spanish document. Inter-American Development Bank

Bellon, M. M., Chang, J., Dabla-Norris, M. E., Khalid, S., Paliza, J. C., & Villena, P. (2022). Digitalization and tax compliance spillovers: Evidence from a VAT E-invoicing reform in Peru. International Monetary Fund.

Edicom. (n.d.). Electronic invoicing. Retrieved July 14, 2024. from https://edicomgroup.com/electronic-invoicing/

European Commission. (n.d.). Documentation eInvoicing. Retrieved July 14, 2024 from https://ec.europa.eu/digital-building-blocks/sites/display/DIGITAL/Documentation+eInvoicing

Green Project Management (GPM) Global. (2023). The P5 standard for sustainability in project management (Version 3.0). U.S.A.: Green Project Management (GPM)

OECD. (2020). Tax Administration 3.0: The Digital Transformation of Tax Administration. OECD. Paris. http://www.oecd.org/tax/forum-on-tax-administration/publications-and-products/tax-administration-3-0-the-digital-transformation-of-tax-administration.htm

OECD. (2022). Tax Administration 3.0 and Electronic Invoicing: Initial Finding. OECD Forum on Tax Administration. Paris. https://doi.org/10.1787/2ffc88ed-en

Pires, J.M., Howlin S., and van Brunschot, F. (2023). How to Implement Electronic Fiscal Reporting (Fiscalization). IMF. International Monetary Fund

Project Management Institute. (2017). A Guide to the Project Management Body of Knowledge (PMBOK® Guide) - Sixth Edition, Project Management Institute, Inc., 2021.

Project Management Institute. (2021). A Guide to the Project Management Body of Knowledge (PMBOK® Guide)- Seventh Edition, Project Management Institute, Inc., 2021.

European Commission, Directorate-General for Taxation and Customs Union, Luchetta, G., Giannotti, E., Dale, S. (2022). VAT in the digital age : final report. Volume 1, Digital reporting requirements, Publications Office of the European Union. https://data.europa.eu/doi/10.2778/541384

# APPENDICES

## Appendix 1: FGP Charter

**CHARTER OF THE PROPOSED**
**FINAL GRADUATION PROJECT (FGP)**

1. Student name

| |
|---|
| Gabriel Bol |

2. FGP name

| |
|---|
| Developing a Comprehensive Management Plan for the Implementation of Electronic Invoicing for the Belize Tax Service. |

3. Application Area (Sector or activity)

| |
|---|
| Tax Administration, Information Technology, Electronic Invoicing |

4. Student signature

| |
|---|
|  |

5. Name of the Graduation Seminar facilitator

| |
|---|
| Dr. Paula Villalta Olivares |

6. Signature of the facilitator

| |
|---|
| |

7. Date of charter approval

| |
|---|
| |

8. Project start and finish date

| | |
|---|---|
| July 1st,2024 | |

9. Research question

How will the implementation of electronic invoicing impact efficiency, compliance and revenue collection of the Belize Tax Service, based on current baselines, and what metrics and evidence will be used to measure these improvements?

10. Research hypothesis

The implementation of electronic invoicing will significantly increase revenue collection for the Belize Tax Service by reducing tax evasion and ensuring more accurate and timely reporting of sales and purchases as measured against established baseline metrics.

11. General objective

1 To develop a comprehensive Project Management Plan for implementing electronic invoicing for the Belize Tax Service with the aim of improving operational efficiency, increasing compliance and revenue collection.

12. Specific objectives

1. To develop a Project Charter that will outline the project's purpose and objectives, ensuring a clear and shared understanding of the project's intentions.
2. To develop a Project Scope Management Plan that defines and documents the project scope, ensuring that all the work required and only the work required is included.
3. To develop a Project Schedule Management Plan that details the project's timeline, including milestones and deadline ensuring that the project's activities are achieved on time
4. To develop a Project Cost Management Plan that defines the budget allocation required to complete the implementation of electronic invoicing.
5. To develop a Project Quality Management Plan that establishes quality standards and procedures, ensuring that the deliverables meet the required quality criteria.
6. To develop a Project Resource Management Plan that defines, identifies and allocates necessary project resources and ensuring that they are used efficiently.
7. To develop a Project Communication Management Plan that defines the communications methods ensuring the effective information flow among all stakeholders.
8. To develop a Project Risk Management Plan that identifies potential risks, outlines mitigation strategies and ensures that risks are managed properly throughout the project's lifetime.

9. To develop a Project Procurement Management Plan that defines the procurement processes, ensuring timely and cost-effective acquisition of project resources.
10. To develop a Project Stakeholder Management Plan that identifies and engages stakeholders, ensuring that their needs and expectations are managed throughout the project lifecycle.

13. FGP purpose or justification

Based on the recommendation of the International Monetary Fund (IMF), the Government of Belize (GOB) embarked on a major initiative to modernize the country's tax administration. In 2019, this effort began with the amalgamation of the Income and Business Tax Department (IBTD) and the General Sales Tax (GST) Department into a single entity known as the Belize Tax Service Department (BTSD). The primary goal of this initiative is to create a tax environment in Belize that aligns with best practices in organization, personnel, processes, and technology. This modernization aims to enhance the efficiency and effectiveness of tax administration, while providing improved services to taxpayers and other stakeholders.

Over the past four years, the BTSD has undertaken several key initiatives aligned with its mandate to modernize the tax administration. These activities include establishing a new business model, implementing a modern tax information system, digitizing documents, deploying a learning management system, and enhancing the technical skills of its human resources.

To complement its modernization efforts, the Belize Tax Service Department (BTSD) has proposed the implementation of an Electronic Invoicing System. This initiative aims to enhance efficiency and compliance, minimize tax evasion and fraud, and improve revenue collection. The BTSD has recognized that many businesses have either been underreporting their tax revenue or deliberately evading taxes. This realization has been confirmed through recent sting operations and comprehensive data analysis of taxpayer behaviours.

The implementation of electronic invoicing is anticipated to bring significant benefits to taxpayers, the department, and the country. These benefits include:

1. **Automating Invoice Processing:** The system will automate the processing of invoices between sellers and buyers, streamlining transactions and reducing the manual workload.
2. **Reducing Human Errors:** By digitizing the invoicing process, the system will significantly reduce human errors that are common in manual data entry and processing.

3. **Improving Compliance:** Electronic invoicing will enhance compliance by ensuring that all transactions are accurately recorded and reported, making it harder for businesses to evade taxes.
4. **Environmental Impact:** The shift to a paperless system will indirectly benefit the environment by reducing the need for paper, thereby lowering the carbon footprint associated with paper production and waste.
5. **Increasing Revenue Collection:** The BTSD anticipates a significant increase in revenue collection, with estimates suggesting an improvement of at least 30%. This increase will be driven by better compliance and more accurate reporting.
6. **Reducing Time and Cost:** The automation of invoicing processes will lead to time and cost savings for both the tax department and businesses, as it will expedite transaction processing and reduce administrative burdens.

14. Work Breakdown Structure (WBS). In table form, describing the main deliverable as well as secondary, products or services to be created by the FGP.

Final Graduation Project

1. Graduation Seminar (FGP profile)
   - 1.1 FGP Charter (Question 1-10) and Bibliography
   - 1.2 FGP Charter (Question 11-12) and Work Breakdown Structure
   - 1.3 FGP Charter (Question 13-19)
   - 1.4 Chapter II Theoretical Framework and FGP Charter (Question 20)
   - 1.5 Chapter III Methodological Framework and FGP Charter (Question 21)
   - 1.6 Chapter I Introduction and Chapter 7 Validation in the regenerative and sustainable development field and FGP Charter (Question 22)
   - 1.7 FGP Charter Final Corrections and Consolidated Document
     - 1.7.1 Executive Summary
     - 1.7.2 List of References and Indexes
   - 1.8 Signed FGP
2. Tutoring Process
   - 2.1 Tutor
     - 2.1.1 Tutor Assignment
     - 2.1.2 Communication
   - 2.2 Adjustment of Previous Chapters
   - 2.3 Chapter IV. Development (Results)
     - 2.3.1 Project Charter Development
     - 2.3.2 Scope management Plan
     - 2.3.3 Schedule Management Plan
     - 2.3.4 Cost Management Plan
     - 2.3.5 Quality Management Plan
     - 2.3.6 Resource Management Plan
     - 2.3.7 Communication Management Plan
     - 2.3.8 Risk Management Plan
     - 2.3.9 Procurement Management Plan
     - 2.3.10 Stakeholder Management Plan
   - 2.4 Chapter V Conclusion
   - 2.5 Chapter VI Recommendations
3. Reading by reviewers
   - 3.1 Reviewers Assignment Request
     - 3.1.1 Assignment of two reviewers
     - 3.1.2 Communication

3.1.3 Submission to reviewers
3.2 Reviewers Work
3.2.1 Reviewer 1
3.2.1.1 FGP Reading
3.2.1.2 Reader 1 Report
3.2.2 Reviewer 2
3.2.2.1 FGP Reading
3.2.2.2 Reader 2 Report
4. Adjustments and Modification
4.1 Report for reviewers
4.2 FGP Update
4.3 Second review by reviewers
5. Presentation to the Board of Examiners
5.1 Final review by the board
5.2 FGP Grade Report

15. FGP budget

The Total Budget required to complete the FGP, excluding the student time in BZD Dollars $825.00.

Below is the detailed budget required to complete the FGP.

| Quantity | Unit | Item | Unit Cost | Total |
|---|---|---|---|---|
| 3 | Month | Project Plan 3 Licence | $60.00 | $180.00 |
| 1 | Book | Color Printing of FGP | $110.00 | $110.00 |
| 1 | Book | Binding of FGP | $80.00 | $80.00 |
| 1 | Package | Shipping Fee | $200.00 | $200.00 |
| 15 | Plates | Food for workshop | $12.00 | $180.00 |
| 1 | | Contingency (10%) | | $75.00 |
| | | **Total Cost** | | **$825.00** |

16. FGP planning and development assumptions

The following assumptions are made in relation to the development of the FGP.

1. **Availability of Key Management Staff**: Key management personnel will be available to participate in workshops, ensuring alignment with the proposed project management plan.

2. **Political Support**: There is sufficient political will to support the implementation of electronic invoicing.
3. **Tutor Assistance**: The assigned tutor will be available to provide advice and guidance as needed.
4. **Good Practices**: The implementation plan will be developed based on international good practices.
5. **Budget Responsibility**: The student will be responsible for managing the budget of the FGP.
6. **Timeline**: The FGP must be completed within a three-month period.

17. FGP constraints

The following constraints must be considered during the development of the FGP.

1. **Time**: The project must be completed within three months, which limits the time needed to complete a comprehensive FGP
2. **Resources**: The development of the comprehensive plan will be undertaken by one person, which may impact the completeness of the plan.
3. **Scope**: Including Business to Consumer (B2C) implementation can significantly broaden the scope, making it potentially overwhelming
4. **Quality**: The accuracy of information may be hindered due to proper translation of documents as many implementations are done in Latin American countries.
5. **Documentation**: There is limited English-language documentation available on e-invoicing implementation, posing a challenge for thorough research.
6. **Confidentiality**: Certain planning documents are confidential to the department, restricting access to potentially critical information.

18. FGP development risks

The following identified risk can potential impact the development of the FGP.

1. **Poor Stakeholder Engagement**: Limited involvement of key stakeholders in the planning process may result in an impractical project management plan which may not align to the BTSD needs
2. **Delayed Tutor Feedback**: delays in receiving feedback from the tutor can impact ability to complete amendments and timely FGP deliverable submission.
3. **Work Assignments**: As a full-time employee additional project can be assigned during the duration of the FGP which can reduce focus and time available which can compromise the quality and completion of the FGP
4. **Missed Deadline**: Insufficient time or unexpected challenges can cause missed deadline for FGP completion resulting in failure to graduate from the program.
5. **Active Hurricane Season**: An active hurricane season during project timeline can potentially impact deliverables deadlines if Belize is directly affected causing delaying in meeting FGP deadlines.

19. FGP main milestones

Milestones are related to deliverables on the second level (deliverables) and third level (control accounts) of the WBS of section 14 of this Charter. At the same time the deliverables are related to the specific objectives (in the case of the FGP please include the times for the tutorship reviews as well as for the readership).

| Deliverable | Finish estimated date |
|---|---|
| 1. FGP profile | |
| 1.1. FGP Charter (Question 1-10) and Bibliography | July 8, 2024 |
| 1.2. FGP Charter (Question 11-12) and Work Breakdown Structure | July 15 2024 |
| 1.3. FGP Charter (Question 13-19) | July 22, 2024 |
| 1.4. Chapter II Theoretical Framework and FGP Charter (Question 20) | July 29, 2024 |
| 1.5. Chapter III Methodological Framework and FGP Charter (Question 21) | August 5 2024 |
| 1.6. Chapter I Introduction and Chapter 7 Validation in the regenerative and sustainable development field and FGP Charter (Question 22) | August 12, 2024 |

| | |
|---|---|
| 1.7. FGP Charter Final Corrections and Consolidated Document | August 19, 2024 |
| 1.8. Signed FGP | August 26, 2024 |
| | |
| 2. Tutoring Process | September 3, 2024 |
| 2.1. Tutor | |
| 2.1.1. Tutor Assignment | September 3,2024 |
| 2.2. Adjustment of previous chapters | September 9,2024 |
| 2.3. Chapter IV: Development | |
| 2.3.1. Signed Charter | September 16,2024 |
| 2.3.2. Scope Management Plan | September 23, 2024 |
| 2.3.3. Schedule Management Plan | September 30, 2024 |
| 2.3.4. Cost Management Plan | October 7, 2024 |
| 2.3.5. Quality Management Plan | October 14, 2024 |
| 2.3.6. Resource Management Plan | October 21 2024 |
| 2.3.7. Communications Management Plan | October 28 2024 |
| 2.3.8. Stakeholder Engagement Plan | November 4, 2024 |
| 2.3.9. Procurement Management Plan | November 11, 2024 |
| 2.3.10. Risk Management Plan | November 18, 2024 |
| 2.4. Chapter V. Conclusions | November 25, 2024 |
| 2.5. Chapter VI. Recommendations | December 2, 2024 |
| 3. Reading by Reviewers | |
| 3.1. Reviewer Assignment request | |
| 3.1.1. Assignment of reviewers | December 3, 2024 |
| 3.1.2. FGP Submission to reviewers | December 3, 2024 |
| 3.2. Reviewer's Work | |
| 3.2.1. Reviewer 1 | |
| 3.2.1.1. FGP Reading | December 16,2024 |
| 3.2.1.2. Reader 1 Report | December 23, 2024 |
| 3.2.2. Reviewer 2 | |
| 3.2.2.1. FGP Reading | December 16,2024 |
| 3.2.2.2. Reader 2 Report | December 23, 2024 |
| 4. Adjustments and Modification | |
| 4.1. Report from reviewer | December 23, 2024 |
| 4.2. FGP Update | January 6, 2025 |
| 4.3. Second Review by reviewer | January 10, 2025 |
| 5. Presentation to the Board of Examiners | |
| 5.1. Final review by Board | January 17, 2025 |
| 5.2. FGP Grade Report | January 17, 2025 |

20. Theoretical framework

20.1 Estate of the “matter”

The BTSD currently relies heavily on voluntary reporting of sales and purchases, which make up the monthly tax returns. Invoicing uses a more traditional approach and is heavily paper based. This approach is susceptible to inefficiencies, human errors, and under reporting. The lack of an automated electronic invoicing system hampers the BTSD’s ability to effectively detect and prevent tax evasion and fraud, resulting in sub-optimal compliance levels and a significant tax gap.

Research has shown that the adoption of electronic invoicing (e-invoicing) can address many of the challenges faced by tax administrations. According to the OECD document, e-invoicing helps in creating a sustainable e-business environment, optimizing cash flow, and reducing payment times. (OECD, 2020) It supports regulatory compliance and enhances compliance risk management by allowing tax authorities to access tax data more easily and accurately. This facilitates the early identification of discrepancies, errors, and fraud, ultimately maximizing tax revenues and closing the tax gap.

Various countries have implemented e-invoicing with positive outcomes. These implementations have led to improved efficiency in tax administration, better compliance, and increased VAT revenue. “We find that the reform led to an improvement in compliance with filing and information reporting obligations.” (Alonso, Feliz, Gil, Pecho, 2021)

20.2 Basic conceptual framework

List of the basic concepts to be included in the document.

- **Project Management** - involves the application of knowledge, skills, tools, and techniques to project activities to meet specific objectives and deliverables
- **Electronic Invoicing** - refers to the process of generating, transmitting, receiving, and processing invoices in an electronic format, rather than using traditional paper-based methods
- **Digital Transformation** - is the integration of digital technology into all areas of an organization, changing how it operates and delivers to its stakeholders
- **Digital Certificates** - are electronic documents that verify the identity of a person, organization, or device in online transactions
- **Tax Compliance** - is the adherence to tax laws, regulations, and filing requirements by taxpayers.

- **Key Performance Indicator** - is a measurable value that demonstrates how effectively an organization is achieving its key objectives
- **Regenerative Development** - an approach that seeks to restore and enhance the vitality of natural, social, and economic systems.

21. Methodological framework

| Objective | Name of deliverable | Information sources | Research method | Tools | Restrictions |
|---|---|---|---|---|---|
| To develop a Project Charter that will outline the project's purpose, and objectives ensuring a clear and shared understanding of the project's intentions. | Project Charter | Interview<br>Workshop<br>Technical Reports | Qualitative | Interviews<br>Surveys<br>Focus Group | |
| To develop a Project Scope Management Plan that defines and documents the project scope, ensuring all the work required and only the work required is included. | Scope Manage-ment Plan | Workshop<br>Interview<br>Technical Reports | Qualitative | Interviews<br>Workshop<br>Data Analysis<br>Mind Mapping<br>WBS | potential inclusion of B2C trans-actions. Project will be designed for B2B implement ation |
| To develop a Project Schedule | Schedule Managem ent Plan | Workshop<br>Interview | Analytical | Workshop<br>Expert Judgement | Must be completed in 18 |

| | | | | | |
|---|---|---|---|---|---|
| Management Plan that details the project's timeline, including milestones and deadline ensuring that the project's activities are achieved on time | | Technical Reports | | Microsoft Projects<br>Analogous estimating<br>Critical Path Method | months, leaving little flexibility in the schedule. |
| To develop a Project Cost Management Plan that defines the budget allocation required to complete the implementation of electronic invoicing. | Cost Management Plan | Workshop<br>Interview<br>Technical Reports | Quantitative | Workshop<br>Expert Judgement<br>Analogous estimating<br>Parametric estimating<br>Earned value estimating<br>Microsoft projects<br>Historical information review | Not imple-mented in the Caribbean region<br><br>Most imple-mentation in Latin American Countries |
| To develop a Project Quality Management Plan that establishes quality standards and procedures, ensuring that the deliverables meet the | Quality Management Plan | Workshop<br>Interview<br>Technical Reports | Qualitative | Interviews<br>Mind Mapping<br>Brainstorming<br>Root Cause Analysis<br>Meeting | Limited avail-ability of English-language documen-tation |

| | | | | | |
|---|---|---|---|---|---|
| required quality criteria. | | | | | |
| To develop a Project Resource Management Plan that defines, identifies and allocates necessary project resources and ensuring they are used efficiently. | Resource Management Plan | Workshop Interview Technical Reports | Qualitative | Expert Judgement RACI Matrix Multicriteria decision making. Interpersonal and team skill Microsoft Projects Workshop | Resource avail-ability may be cons-trained by other ongoing projects within BTSD and limited staff with knowledge of E-invoicing |
| To develop a Project Communication Management Plan that defines the communications methods ensuring the effective information flow among all stakeholders. | Communication Management Plan | Workshop Interview Technical Reports | Mix (Qualitative, Quantitative, Analytical) | Surveys Communication technology and methods Stakeholder engagement matrix Workshop | Potential language Barrier and translation issues with business com-munity |
| To develop a Project Risk Management Plan that identifies potential risks, | Risk Management Plan | Workshop Interview Technical Reports | Mix (Qualitative, Quantitative, Analytical) | Workshop Expert Judgement Root Cause Analysis SWOT analysis | Inability to carry out in depth compre-hensive risk |

| | | | | | |
|---|---|---|---|---|---|
| outlines mitigation strategies and ensure that risks are managed properly throughout the project's lifetime. | | | | Risk Probability and Impact assessment. Strategy for threats and opportunities | assessment. |
| To develop a Project Procurement Management Plan that defines the procurement processes, ensuring timely and cost-effective acquisition of project resources. | Procurement Management Plan | Workshop Interview Technical Reports | Mix (Qualitative, Quantitative, Analytical) | Workshop Source selection analysis. Make or Buy analysis. Advertising Bidder conference Proposal Evaluation Performance Reviews | Procure-ment options may be limited by budget constraints |
| To develop a Project Stakeholder Management Plan that identifies and engages stakeholders, ensuring that their needs and expectations are manged throughout the project lifecycle. | Stake-holder Manage-ment Plan | Workshop Interview Technical Reports | Mix (Qualitative, Quantitative, Analytical) | Workshop Questionnaire and surveys Stakeholder analysis Mind mapping Stakeholder Analysis and Mapping | Stake-holder engage-ment may be limited because of willing-ness to participate |

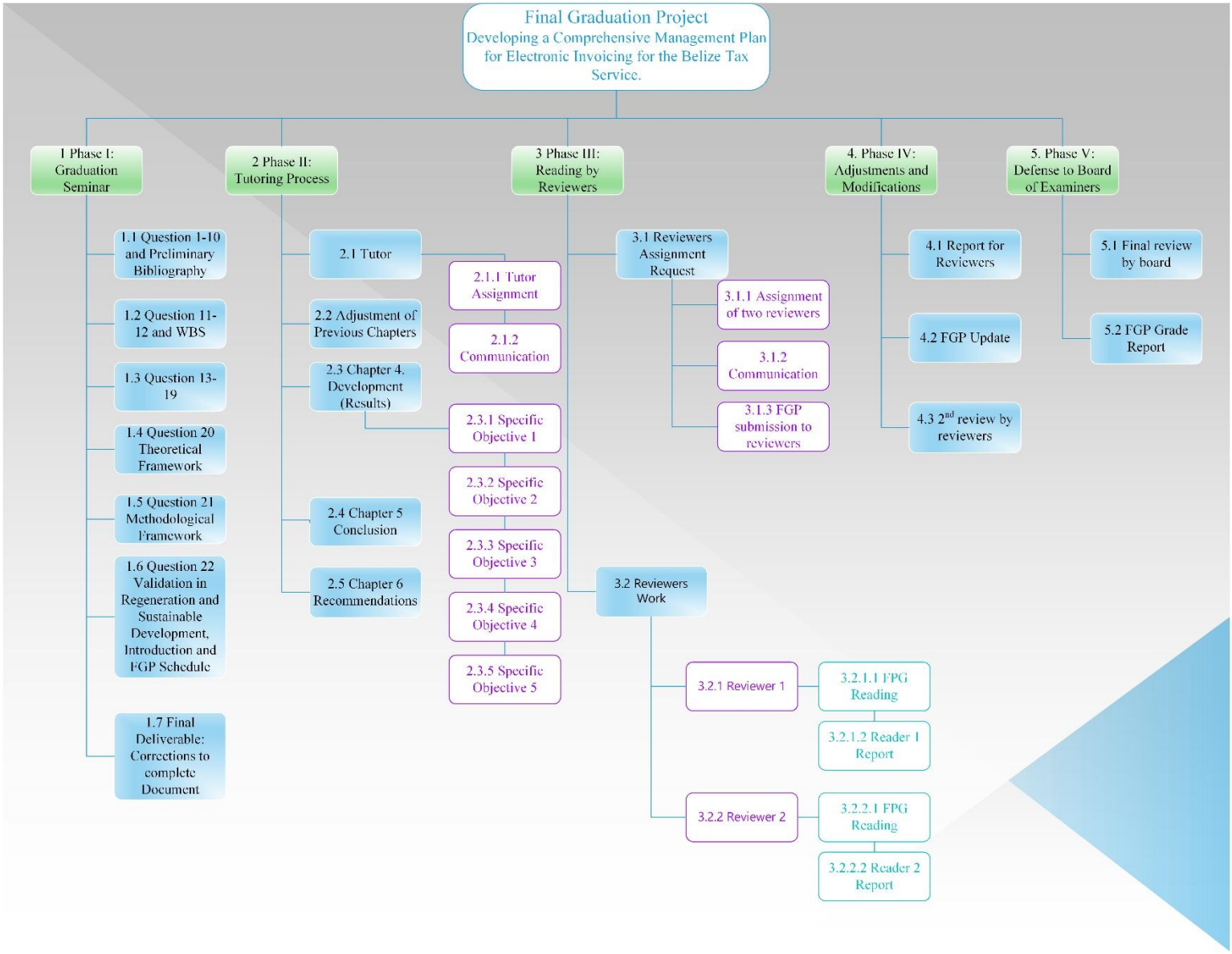
Validation of the work in the field of the regenerative and sustainable development.

The BTSD is dedicated to significantly enhancing the social and economic well-being of Belizeans, as reflected in its commitment to sustainability and modernization through the Modernization of the Tax Administration Project. A key objective of this initiative is to achieve a paperless environment within the next five years, supported by the deployment of a Document Management System and the implementation of an electronic invoicing (e-invoicing) system. These efforts are not only aimed at improving tax processes but also at contributing to broader sustainable development and regenerative development goals.

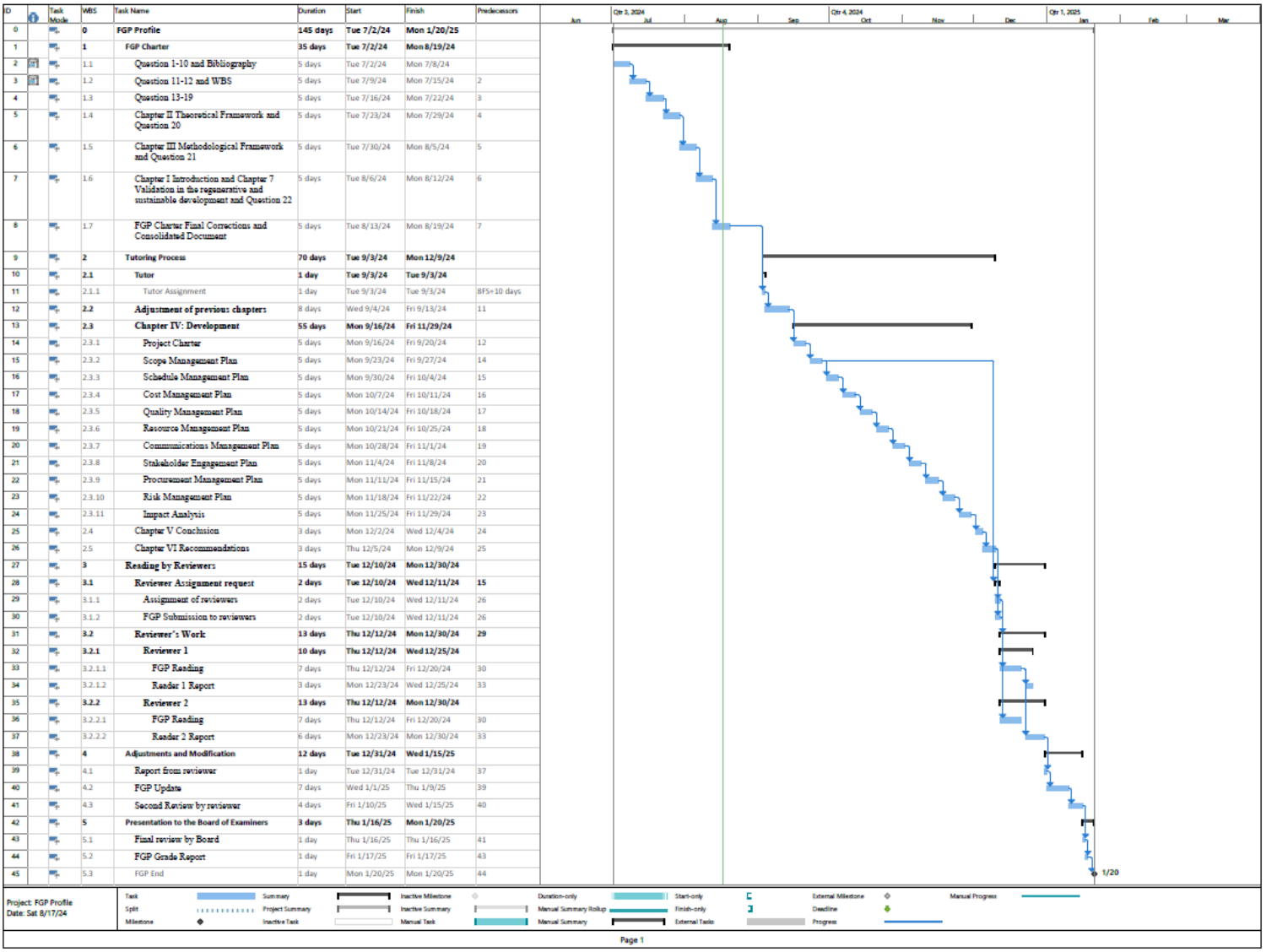
The implementation of the e-invoicing system is particularly aligned with several Sustainable Development Goals (SDGs) and dimensions of regenerative development. Environmentally, the project significantly reduces paper consumption, optimizes server efficiency through cloud-based hosting, and minimizes BTSD's carbon footprint, contributing to long-term environmental sustainability. Socially, the project enhances accessibility and equity in tax administration by making tax compliance more transparent and efficient, thus promoting social equity and economic empowerment, especially for marginalized groups. Economically, the e-invoicing system supports sustained economic growth by improving the efficiency of tax administration and reducing compliance costs for businesses. Politically, the project reinforces the capacity of public institutions to manage resources responsibly and transparently, contributing to the creation of a more robust and accountable tax administration in Belize. Culturally, the focus on digitization and ethical stewardship ensures that tax practices are fair, transparent, and aligned with the principles of responsible resource management.

Overall, the implementation of the e-invoicing system at BTSD aligns with multiple dimensions of regenerative development and several key SDGs. The project not only contributes to the modernization of BTSD but also supports global efforts to build a more sustainable, equitable, and resilient Mother Earth.

## Appendix 2: FGP WBS



## Appendix 3: FGP Schedule



| ID | Task Mode | WBS | Task Name | Duration | Start | Finish | Predecessors |
|---|---|---|---|---|---|---|---|
| 0 | | 0 | **FGP Profile** | **145 days** | **Tue 7/2/24** | **Mon 1/20/25** | |
| 1 | | 1 | **FGP Charter** | **35 days** | **Tue 7/2/24** | **Mon 8/19/24** | |
| 2 | | 1.1 | Question 1-10 and Bibliography | 5 days | Tue 7/2/24 | Mon 7/8/24 | |
| 3 | | 1.2 | Question 11-12 and WBS | 5 days | Tue 7/9/24 | Mon 7/15/24 | 2 |
| 4 | | 1.3 | Question 13-19 | 5 days | Tue 7/16/24 | Mon 7/22/24 | 3 |
| 5 | | 1.4 | Chapter II Theoretical Framework and Question 20 | 5 days | Tue 7/23/24 | Mon 7/29/24 | 4 |
| 6 | | 1.5 | Chapter III Methodological Framework and Question 21 | 5 days | Tue 7/30/24 | Mon 8/5/24 | 5 |
| 7 | | 1.6 | Chapter I Introduction and Chapter 7 Validation in the regenerative and sustainable development and Question 22 | 5 days | Tue 8/6/24 | Mon 8/12/24 | 6 |
| 8 | | 1.7 | FGP Charter Final Corrections and Consolidated Document | 5 days | Tue 8/13/24 | Mon 8/19/24 | 7 |
| 9 | | 2 | **Tutoring Process** | **70 days** | **Tue 9/3/24** | **Mon 12/9/24** | |
| 10 | | 2.1 | **Tutor** | **1 day** | **Tue 9/3/24** | **Tue 9/3/24** | |
| 11 | | 2.1.1 | Tutor Assignment | 1 day | Tue 9/3/24 | Tue 9/3/24 | 8FS+10 days |
| 12 | | 2.2 | **Adjustment of previous chapters** | 8 days | Wed 9/4/24 | Fri 9/13/24 | 11 |
| 13 | | 2.3 | **Chapter IV: Development** | **55 days** | **Mon 9/16/24** | **Fri 11/29/24** | |
| 14 | | 2.3.1 | Project Charter | 5 days | Mon 9/16/24 | Fri 9/20/24 | 12 |
| 15 | | 2.3.2 | Scope Management Plan | 5 days | Mon 9/23/24 | Fri 9/27/24 | 14 |
| 16 | | 2.3.3 | Schedule Management Plan | 5 days | Mon 9/30/24 | Fri 10/4/24 | 15 |
| 17 | | 2.3.4 | Cost Management Plan | 5 days | Mon 10/7/24 | Fri 10/11/24 | 16 |
| 18 | | 2.3.5 | Quality Management Plan | 5 days | Mon 10/14/24 | Fri 10/18/24 | 17 |
| 19 | | 2.3.6 | Resource Management Plan | 5 days | Mon 10/21/24 | Fri 10/25/24 | 18 |
| 20 | | 2.3.7 | Communications Management Plan | 5 days | Mon 10/28/24 | Fri 11/1/24 | 19 |
| 21 | | 2.3.8 | Stakeholder Engagement Plan | 5 days | Mon 11/4/24 | Fri 11/8/24 | 20 |
| 22 | | 2.3.9 | Procurement Management Plan | 5 days | Mon 11/11/24 | Fri 11/15/24 | 21 |
| 23 | | 2.3.10 | Risk Management Plan | 5 days | Mon 11/18/24 | Fri 11/22/24 | 22 |
| 24 | | 2.3.11 | Impact Analysis | 5 days | Mon 11/25/24 | Fri 11/29/24 | 23 |
| 25 | | 2.4 | Chapter V Conclusion | 3 days | Mon 12/2/24 | Wed 12/4/24 | 24 |
| 26 | | 2.5 | Chapter VI Recommendations | 3 days | Thu 12/5/24 | Mon 12/9/24 | 25 |
| 27 | | 3 | **Reading by Reviewers** | **15 days** | **Tue 12/10/24** | **Mon 12/30/24** | |
| 28 | | 3.1 | **Reviewer Assignment request** | **2 days** | **Tue 12/10/24** | **Wed 12/11/24** | **15** |
| 29 | | 3.1.1 | Assignment of reviewers | 2 days | Tue 12/10/24 | Wed 12/11/24 | 26 |
| 30 | | 3.1.2 | FGP Submission to reviewers | 2 days | Tue 12/10/24 | Wed 12/11/24 | 26 |
| 31 | | 3.2 | **Reviewer's Work** | **13 days** | **Thu 12/12/24** | **Mon 12/30/24** | **29** |
| 32 | | 3.2.1 | **Reviewer 1** | **10 days** | **Thu 12/12/24** | **Wed 12/25/24** | |
| 33 | | 3.2.1.1 | FGP Reading | 7 days | Thu 12/12/24 | Fri 12/20/24 | 30 |
| 34 | | 3.2.1.2 | Reader 1 Report | 3 days | Mon 12/23/24 | Wed 12/25/24 | 33 |
| 35 | | 3.2.2 | **Reviewer 2** | **13 days** | **Thu 12/12/24** | **Mon 12/30/24** | |
| 36 | | 3.2.2.1 | FGP Reading | 7 days | Thu 12/12/24 | Fri 12/20/24 | 30 |
| 37 | | 3.2.2.2 | Reader 2 Report | 6 days | Mon 12/23/24 | Mon 12/30/24 | 33 |
| 38 | | 4 | **Adjustments and Modification** | **12 days** | **Tue 12/31/24** | **Wed 1/15/25** | |
| 39 | | 4.1 | Report from reviewer | 1 day | Tue 12/31/24 | Tue 12/31/24 | 37 |
| 40 | | 4.2 | FGP Update | 7 days | Wed 1/1/25 | Thu 1/9/25 | 39 |
| 41 | | 4.3 | Second Review by reviewer | 4 days | Fri 1/10/25 | Wed 1/15/25 | 40 |
| 42 | | 5 | **Presentation to the Board of Examiners** | **3 days** | **Thu 1/16/25** | **Mon 1/20/25** | |
| 43 | | 5.1 | Final review by Board | 1 day | Thu 1/16/25 | Thu 1/16/25 | 41 |
| 44 | | 5.2 | FGP Grade Report | 1 day | Fri 1/17/25 | Fri 1/17/25 | 43 |
| 45 | | 5.3 | FGP End | 1 day | Mon 1/20/25 | Mon 1/20/25 | 44 |

**Appendix 4: Preliminary bibliographical research**

Alonso, C., Feliz, L., Gil, P., & Pecho, M. (2021). Enhancing tax compliance in the Dominican Republic through risk-based VAT invoice management. International Monetary Fund.

Avalara Europe. (2023, May 3). Rise of E-invoicing. YouTube. https://www.youtube.com/watch?v=nrLvYO8P9D0

Avalara Europe. (2023, May 3). Webinar: Mastering E-Invoicing Implementation - Lessons from the Leaders.YouTube. https://www.youtube.com/watch?v=3LwT5W02dnI

Barreix Alberto and Raul Zambrano. (2018). Electronic Invoicing in Latin America: English Summary of the Spanish document. Inter-American Development Bank

Bellon, M. M., Chang, J., Dabla-Norris, M. E., Khalid, S., Paliza, J. C., & Villena, P. (2022). Digitalization and tax compliance spillovers: Evidence from a VAT E-invoicing reform in Peru. International Monetary Fund.

Edicom. (n.d.). Electronic invoicing. Retrieved July 14, 2024. from https://edicomgroup.com/electronic-invoicing/

European Commission. (n.d.). Documentation eInvoicing. Retrieved July 14, 2024 from https://ec.europa.eu/digital-building-blocks/sites/display/DIGITAL/Documentation+eInvoicing
Green Project Management (GPM) Global. (2023). The P5 standard for sustainability in project management (Version 3.0). U.S.A.: Green Project Management (GPM)

European Commission, Directorate-General for Taxation and Customs Union, Luchetta, G., Giannotti, E., Dale, S. (2022). *VAT in the digital age: final report. Volume 1, Digital reporting requirements*, Publications Office of the European Union. **https://data.europa.eu/doi/10.2778/541384**

OECD. (2020). Tax Administration 3.0: The Digital Transformation of Tax Administration. OECD. Paris. http://www.oecd.org/tax/forum-on-tax-administration/publications-and-products/tax-administration-3-0-the-digital-transformation-of-tax-administration.htm

OECD. (2022). Tax Administration 3.0 and Electronic Invoicing: Initial Finding. OECD Forum on Tax Administration. Paris. https://doi.org/10.1787/2ffc88ed-en

Pires, José Maria, Stephen Howlin, and Frank van Brunschot (2023). How to Implement Electronic Fiscal Reporting (Fiscalization). IMF: International Monetary Fund

Project Management Institute. (2017). A Guide to the Project Management Body of Knowledge (PMBOK® Guide).

Project Management Institute. (2021). A Guide to the Project Management Body of Knowledge (PMBOK® Guide).

## Appendix 5: Philological Dictum

**AMADO MAURICIO CHAN**
**Masters of Arts**
**English**
**Certified by The Board of Regents of the University System of Georgia**
**Upon Recommendation of the Faculty of Valdosta State University, 1997**

**December 19th, 2024**

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

Dear Academic Advisor,

**Re: Thorough Review and Proofreading of Final Graduation Project submitted by Gabriel Umberto Bol in partial fulfilment of the requirements for the Master's in Project Management (MPM) Degree.**

I hereby confirm that Gabriel Umberto Bol has made all the corrections to the Final Graduation Project document entitled "Project Management Plan for the Implementation of Electronic Invoicing for Belize Tax Service" as I have advised. In my opinion, the document now meets the literary and linguistic standards expected of a student for a degree at the Master's level.

Amado Mauricio Chan, M.A.
Philologist