

UNIVERSIDAD PARA LA COOPERACIÓN INTERNACIONAL
(UCI)

PROJECT MANAGEMENT PLAN FOR THE RENOVATION OF BAJO SOMBRA
COFFEE SHOP

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DEDICATION

I dedicate this work to God, my family, and my future kids. There is nothing I have strived to achieve without me thinking of you.

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ABBREVIATIONS AND ACRONYMS

- Final Graduation Project (FGP).
- Instituto Nacional de Seguros (INS).
- Long Range Planning (LRP)
- Project Management Institute (PMI).
- Universidad para la Cooperación Internacional (UCI).
- Work Breakdown Structure (WBS).

EXECUTIVE SUMMARY (ABSTRACT)

Bajo Sombra Coffee is a soon to be opened local family-owned coffee shop, placed in the owner's house backyard located in Belén, Heredia. It will have a schedule of Tuesday to Sunday from 8 a.m. to 7 p.m. Bajo Sombra will be visited by locals and people from the different work Free Zones located around.

Its owners, the Castro González family, will transform their private residence into a local public space with the intention of their customers enjoying the coffee options in an immersive experience, but they have no previous background in construction or remodeling. Therefore, the project team will support the family creating a project management plan in order to maximize their resources and minimize the waste in the construction from the earliest stages of the project, so they can open the coffee shop as soon as possible and focus on running the business and creating the experience desired for their customers.

The married couple owner of the land is already retired from their previous careers and Andrea, their daughter, works at a multinational company located in the surroundings, so the intention of this coffee shop is to generate additional income for the family and continue in parallel with the current jobs, rather than being the only income source for them. Nevertheless, if the coffee shop grows big enough, Andrea will like to make it her main job, as the social impact is bigger than her current job. The coffee shop will employ at least 10 people and will support additional families through different vendors.

The Final Graduation Project's general objective was to create a Project Management Plan for the construction of the cafeteria, framed within the Project Management Institute (PMI) standards. The specific objectives were: to create a project charter and provide the project manager with the authority and organizational resources for the project management plan completion; to create a sustainable scope management plan, defining the key stakeholders and requirements; to create a sustainable schedule management plan for the completion of the project in the established and agreed timeframe; to create a cost management plan that ensures the completion of the work packages and manage the project within the budget constraints; to develop a sustainable resource management plan that ensures the assignment of resources complying with the international laws and conventions on labor and manage all the project resources effectively; to create a sustainable risk management plan that identifies, examines and plans the risk responses within the likelihood and impact of happening; to create a sustainable procurement management plan that ensures the external resources comply with the project budget, quality, and time requirements; to develop a sustainable quality management plan that guarantees stakeholder acceptance; to create a sustainable communications management plan that ensures timely and clear communication with the different stakeholders of the project status; to develop a stakeholder's

management plan for the identification of the key stakeholders and their relevance to the project success.

This project methodology included primary and secondary information sources, varying from interviews and communications via email between Bajo Sombra owners and the performing organization, to the use of the PMBOK Guide 6th Edition (PMI, 2017) and PMI database, analyzing the information gathered through the analytical research method to create the Project Management Plan to complete the project.

In order to successfully complete the Bajo Sombra Coffee Shop renovation, a Project Management Plan was created, framed within the Project Management Institute (PMI) standards, using an analytical method. The first step for the Project Management Plan was to create a project charter as stated in the specific objective number one. Taking into consideration the project deliverables and objectives, a schedule management plan was defined to complete the project in the established and agreed timeframe, as stated in the specific objective number three, including the project schedule, predecessor and dependencies, as well as the control schedule practices. Based on the activity list, a cost management plan was created to ensure the completion of the work packages and manage the project within the budget constraints, including the cost estimates and cost control activities, as stated in the specific objective number four.

With the created procurement management plan, the procurement types, the procurement needs, and categories were identified to ensure the external resources comply with the project budget, quality and time requirements, as per specific objective number seven. Based on influence, impact, power, and interest, the key stakeholders were identified and their relevance to the project success in the stakeholder's management plan, in the register matrix, analysis, and management decision, as per the specific objective number ten. The Project Management Plan was successfully created based on the Project Sponsor and other stakeholders' requirements, as it was set as the general objective of the Final Graduation Project.

It is highly recommended to Bajo Sombra Coffee Shop to keep a project pipeline to make continuous improvements for the customers, as well as to consider making surveys (in social media) about which music groups should be considered to increase customer interactions and engagement. In general, they should keep updating the business plan as needed, to ensure competitiveness.

The University for International Cooperation (UCI) should assign the tutors earlier in the process to ensure the alignment is done according to the schedule provided in the Graduation Seminar.

CHAPTER I. INTRODUCTION

1.1. Background history of Bajo Sombra Coffee Shop and owners

Sandra González and José Pablo Castro are married since 1980 and they have 4 children, including Andrea Castro. Since 1990, they have lived in the same house within the terrain where Bajo Sombra will be located. However this project didn't really start until Andrea and her boyfriend fell in love with coffee in 2017, after taking some barista classes and learning to drink and enjoy coffee in an immersive experience. Inspired by this, Andrea convinced her family to open the coffee shop in her parents' house backyard and the project started from there, transforming it into a fine local family-owned coffee shop with a variety of dishes, with the name inspired by the tree's shadow (Bajo Sombra means under the shadow in Spanish).

1.2. Statement of the problem

The Castro González family will transform their private residence into a local public space with the intention of their customer enjoying the coffee options in an immersive experience, but they have no previous background in construction or remodeling. Therefore, the project team will support the family creating a project management plan in order to maximize their resources and minimize the waste from the earliest stages of the project, so they can open the coffee shop as soon as possible and focus on running the business and creating the experience desired for their customers.

1.3. Purpose

The project to develop the Bajo Sombra Coffee Shop Renovation Project Management Plan is necessary to ensure the Project Management Team can complete the renovation with the contracted company, Olivia Constructores. The establishment will be a local family-owned coffee shop placed in the owner's house

backyard located in Belén, Heredia. It will have a schedule of Tuesday to Sunday from 8 a.m. to 7 p.m. Bajo Sombra will be visited by locals and people from the different work Free Zones located around.

The project team understands the importance of the project's success, which will develop the subsidiaries' project plans to ensure the stakeholders' requirements are met in terms of quality, cost, and schedule. The married couple owner of the land is already retired from their previous careers and Andrea, their daughter, works at a multinational company located in the surroundings. The intention of this coffee shop is to generate additional income for the family and continue in parallel with the current jobs, rather than being the only income source for them. Nevertheless, if the coffee shop grows big enough, Andrea will like to make it her main job, as the social impact is bigger than her current job. The coffee shop will employ at least 10 people and will support additional families through different vendors.

1.4. General objective

- To create a Project Management Plan for the construction of the cafeteria, framed within the Project Management Institute (PMI) standards.

1.5. Specific objectives

1. To create a project charter and provide the project manager with the authority and organizational resources for the project management plan completion.
2. To create a sustainable scope management plan, defining the key stakeholders and requirements.
3. To create a sustainable schedule management plan for the completion of the project in the established and agreed timeframe.
4. To create a cost management plan that ensures the completion of the work

packages and manage the project within the budget constraints.

5. To develop a sustainable resource management plan that ensures the assignment of resources complying with the international laws and conventions on labor.
6. To create a sustainable risk management plan that identifies, examines and plans the risk responses within the likelihood and impact of happening.
7. To create a sustainable procurement management plan that ensures the external resources comply with the project budget, quality, and time requirements.
8. To develop a sustainable quality management plan that guarantees stakeholder acceptance.
9. To create a sustainable communications management plan that ensures timely and clear communication with the different stakeholders of the project status.
10. To develop a stakeholder's management plan for the identification of the key stakeholders and their relevance to the project's success.

CHAPTER II. THEORETICAL FRAMEWORK

2.1. Company/enterprise framework

2.1.1. Company/enterprise background

Sandra González and José Pablo Castro both come from humble families, so they learned to drink coffee until they were taking classes in college, where they met each other. Both have loved drinking coffee since they first tried it, even though they were used to buy a poor quality one, just for savings.

Some years later, Andrea started dating his boyfriend Pablo, who is from Santa María de Dota, a rural area known for its coffee quality. Pablo's family only drank Dota's specialty coffee, and because of it, Andrea re-discovered her love for this beverage, as well as learned to drink it better in the barista classes.

2.2. Mission and vision statements

2.2.1. Mission statement

"To provide our customers the Costa Rica's best coffees in an immersive local experience of food a fair price for the full supply chain, including the producers and our customers" (Bajo Sombra Coffee Shop, n. d., n. p.).

2.2.2. Vision statement

"To be a leader in the community where Bajo Sombra is located, providing innovation, service, and quality through our products, employees, and experiences" (Bajo Sombra Coffee Shop, n. d., n. p.).

2.3. Organizational structure

Bajo Sombra will be a small company, with a handful of employees working,

and they may share different roles rather than having just one. Most of them will work in the front-office side of the business, as described in *Figure 1* below, where the employees have contact with the customers, and the roles will be chef (1), waiters (2), barista (1), cashier/junior procurement manager (1) and a manager (1). On the other hand, there are four roles in the back-office side, including kitchen cookers (2) and a cleaning clerk (1). The coffee shop will be owned by Sandra González, José Pablo Castro, and Andrea Castro, and partially supported by Pablo, Andrea's boyfriend.

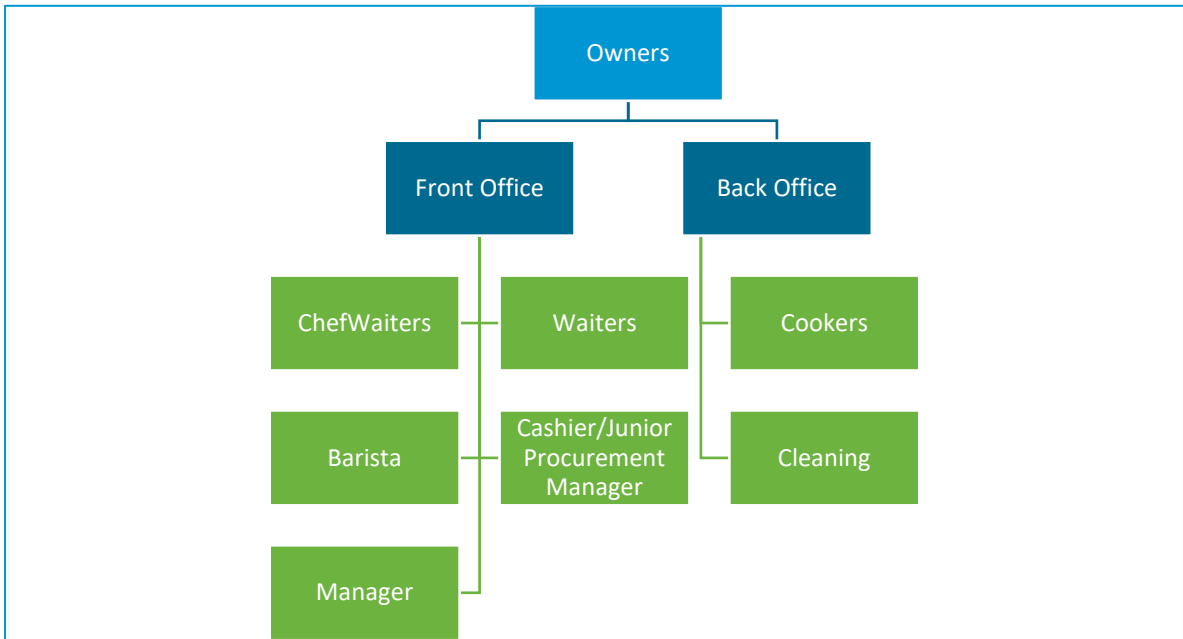


Figure 1. Organizational structure

Source: Andrea Castro, 2019.

2.3.1. Products offered

Bajo Sombra will offer coffee in different processes, as well as drinks made out of coffee, with only high-quality products from Santa María de Dota. To delight its customers, it will serve varied local dishes with home-made flavor and handmade pastries. Additionally, it will have a space for varied public events, such as yoga classes and personal growth workshops, as well as reservations for private events.

2.4. Project management concepts

2.4.1. Project

According to the PMBOK Guide (PMI, 2017), a project is temporary (with a defined beginning and end in time) and has a defined scope and resources (Project Management Institute, 2017).

2.4.2. Project management

The PMBOK Guide (PMI, 2017) defines project management as “the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements” (Project Management Institute, 2017, p. 10). The Project Management practice has been organized into five groups: initiating, planning, executing, monitoring and controlling, and closing; and into ten areas of knowledge: integration, scope, time, cost, quality, procurement, resources, communications, risk management, and stakeholder management. The Final Graduation Project will consist of the creation of a Project Management Plan for the Renovation of Bajo Sombra Coffee Shop, managed as a project accordingly, for the different knowledge areas and life-cycles of the project.

2.4.3. Project life-cycle

A project life-cycle can be defined as a “series of phases that a project passes through from its initiation to its closure” (Project Management Institute, 2017, p. 18). A generic life-cycle will be divided into four phases: starting the project, organizing and preparing, carrying out the work and ending the project, as stated in *Figure 2*. Accordingly, each phase will have a phase gate in which there will be a deliverable, such as the Project Charter or a decision will be made, such as continue the project to the next phase.

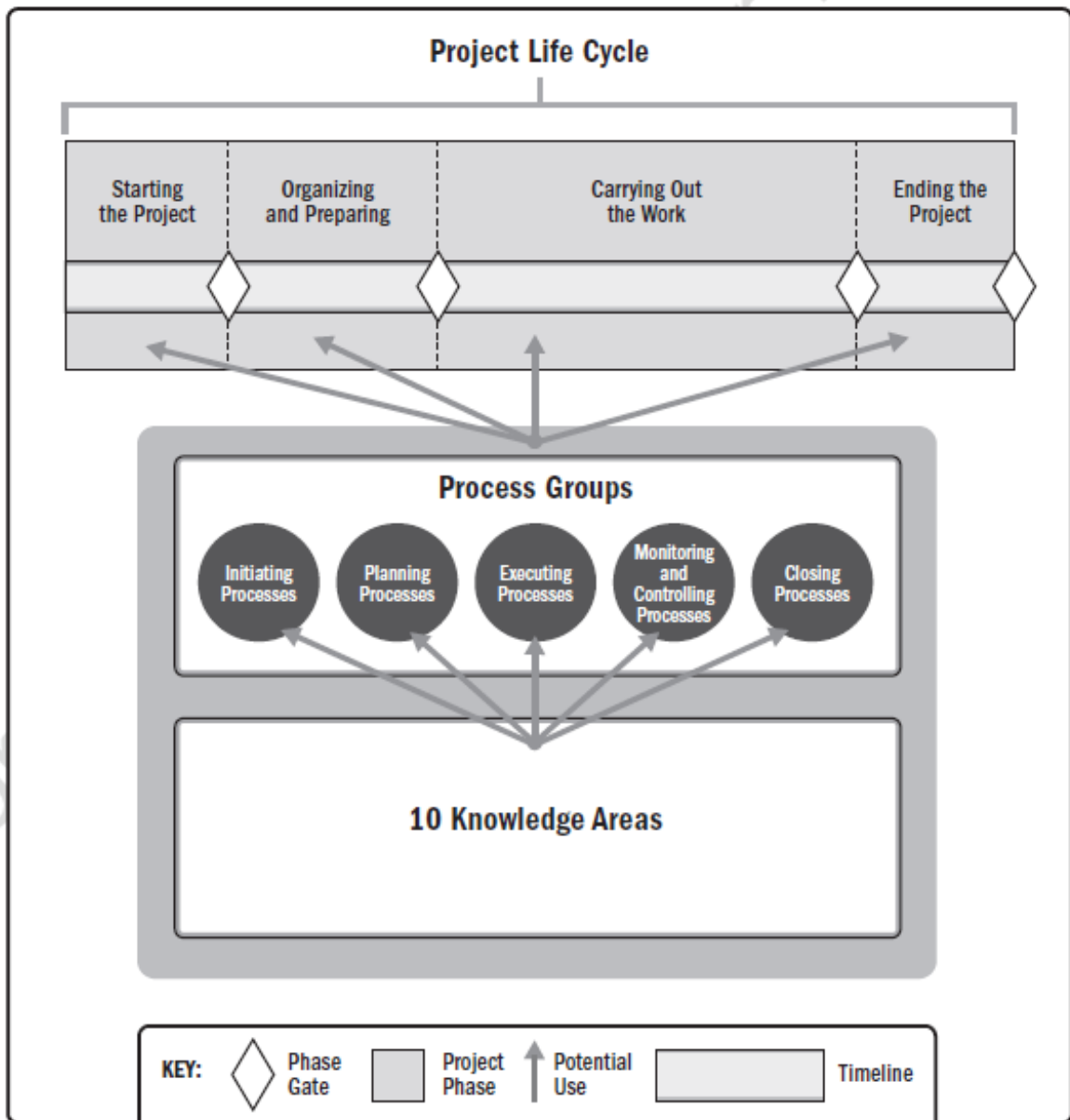


Figure 2. Project life-cycle

Source: PMBOK Guide (PMI, 2017).

2.4.4. Project management processes

According to the PMBOK Guide (PMI, 2017), the project life-cycle will be managed by executing different project management activities or processes,

organized in a way that each one will have an input, a set of tools and techniques, and an output after performed, as shown in *Figure 3* (Project Management Institute, 2017).

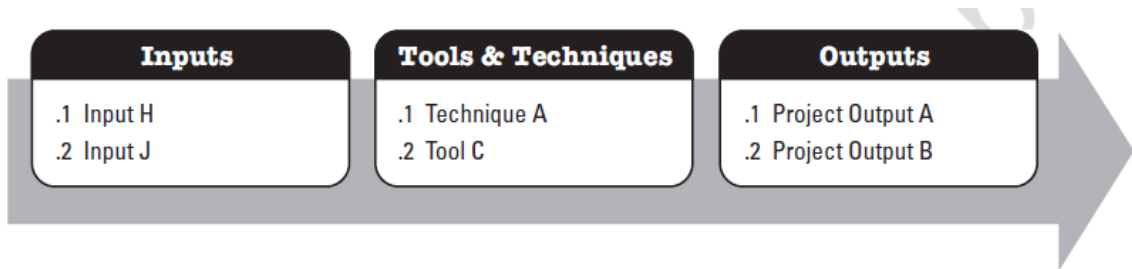


Figure 3. Project management processes

Source: PMBOK Guide (PMI, 2017)

Some processes will be performed once, others periodically or continuously throughout the project, and can be organized in five groups: initiating (define a new project or phase with authorization); planning (define scope, objectives, and course of action); executing (complete the work defined and satisfy the requirements); monitoring and controlling (track, review and regulate the process and performance, as well as changes to get the expected results if different); and closing (formally complete or close the project, phase or contract) processes.

2.4.5. Project management knowledge areas

According to the PMBOK Guide (PMI, 2017), a knowledge area is “an identified area of project management defined by its knowledge requirements and described in terms of its components processes, practices, inputs, outputs, tools and techniques” (Project Management Institute, 2017, p. 23). There are 10 knowledge areas:

1. Integration Management: includes processes and activities required to ensure that the elements of the project are properly coordinated (identified, combined, unified and coordinated).

2. Scope Management: includes processes and activities required to ensure that the project includes all the work required, and just the work required, to complete the project successfully.
3. Schedule management: includes the processes and activities required to ensure the timely completion of the project.
4. Cost Management: includes the processes and activities required to complete the project within the approved budget (planning, estimating, budgeting, financing, funding, managing, and controlling the costs).
5. Quality Management: includes the processes and activities required to ensure the project will satisfy the stakeholders' requirements and the company's quality policy.
6. Resource Management: includes the processes and activities to have the resources needed to complete the project successfully.
7. Communications Management: includes the processes and activities to ensure the timely and appropriate generation, collection, dissemination, storage, and ultimate disposition of project knowledge.
8. Risk Management: includes the processes and activities concerned with identifying, analyzing, and responding to project risk.
9. Procurement Management: includes the processes and activities required to acquire the goods and services from outside the performing organization.
10. Stakeholder Management: includes the processes and activities that identify and develop relationships with those people and organizations which are impacted by the project and which influence how the team works.

CHAPTER III. METHODOLOGICAL FRAMEWORK

3.1. Information sources

Information can be defined as “organized or structured data, processed for a specific purpose to make it meaningful, valuable, and useful in specific contexts” (Project Management Institute, 2017, p. 708). According to the Merriam-Webster Dictionary (n. d.), a source can be defined as a generative force. Therefore, an information source is a generative source for data organized in a way that is meaningful in a particular context.

The places where information can be obtained can vary in multiple ways, being written words (digital or printed) as well as spoken words or multimedia. Either way, the sources can be classified as primary, secondary and tertiary, depending on the degree of interaction to the information generator.

3.1.1. Primary sources

According to the Library of University of Minnesota Crookston (n. d.), a primary source is the one recording or showing evidence of events described for the first time, without commentary or interpretation, displaying original thinking, report on new discoveries or share fresh information. There are multiple primary sources examples such as theses, interviews, autobiographies, speeches, scholarly journal articles or correspondence. For the primary sources in this project refer to *Table 1*.

3.1.2. Secondary sources

According to the Library of University of Minnesota Crookston (n. d.), a secondary source is the one offering analysis or restatement of a primary source, including descriptions or interpretation, summarizing, reorganizing or providing additional value to the primary source. There are multiple secondary sources such as biographies, edited works, commentaries or textbooks. For the secondary

sources in this project refer to *Table 1*.

Table 1. Information sources

Objectives	Information sources	
	Primary	Secondary
1. To create a project charter and provide the project manager with the authority and organizational resources for the project management plan completion.	Interviews and communications via email	PMBOK Guide 6 th Edition (PMI, 2017) and PMI database
2. To create a sustainable scope management plan, defining the key stakeholders and requirements.	Interviews and communications via email	PMBOK Guide 6 th Edition (PMI, 2017) and PMI database
3. To create a sustainable schedule management plan for the completion of the project in the established and agreed timeframe.	Interviews and communications via email	PMBOK Guide 6 th Edition (PMI, 2017) and PMI database
4. To create a cost management plan that ensures the completion of the work packages and manage the project within the budget constraints.	Interviews and communications via email	PMBOK Guide 6 th Edition (PMI, 2017) and PMI database
5. To develop a sustainable resource management plan that ensures the assignment of resources complying with the international laws and conventions on labor and manage the project resources effectively.	Interviews and communications via email	PMBOK Guide 6 th Edition (PMI, 2017) and PMI database
6. To create a sustainable risk management plan that identifies, examines and plans the risk responses within the likelihood and impact of happening.	Interviews and communications via email	PMBOK Guide 6 th Edition (PMI, 2017) and PMI database
7. To create a sustainable procurement management plan that ensures the external resources comply with the project budget, quality, and time requirements.	Interviews and communications via email	PMBOK Guide 6 th Edition (PMI, 2017) and PMI database
8. To develop a sustainable quality management plan that guarantees stakeholder acceptance.	Interviews and communications via email	PMBOK Guide 6 th Edition (PMI, 2017) and PMI database

Objectives	Information sources	
	Primary	Secondary
9. To create a sustainable communications management plan that ensures timely and clear communication with the different stakeholders of the project status.	Interviews and communications via email	PMBOK Guide 6 th Edition (PMI, 2017) and PMI database
10. To develop a stakeholder's management plan for the identification of the key stakeholders and their relevance to the project's success.	Interviews and communications via email	PMBOK Guide 6 th Edition (PMI, 2017) and PMI database

Source: prepared by the author.

3.2. Research methods

According to the Cambridge Dictionary (n. d.), a research method is a particular way of studying something in order to discover new information about it or understand it better. There are multiple methods, varying from if it is best for basic or applied research or for descriptive or analytical, among others. For this project, the research method will be the analytical method and will be explained below.

3.2.1. Deductive-Inductive method

According to the research methodology, methods, and techniques, in the deductive research method the researcher “works from the ‘top down’, from a theory to hypotheses to data to add to or contradict the theory” (Creswell and Plano Clark, 2007, p.23) and in the inductive research method the researcher works “bottom-up, using the participants’ views to build broader themes and generate a theory interconnecting the themes” (Creswell and Plano Clark, 2007, p.23).

3.2.2. Analytical method

According to the research methodology, methods, and techniques, in the analytical research method “the researcher has to use facts or information already available and analyze these to make a critical evaluation of the material” (Kothari,

2004, p. 3).

Table 2. Research method

Objectives	Research method
	Analytical Method
1. To create a project charter and provide the project manager with the authority and organizational resources for the project management plan completion.	It will be applied by using the information and data gathered from the different sources identified in Table 1 to create the project charter of the project.
2. To create a sustainable scope management plan, defining the key stakeholders and requirements.	It will be applied by using the information and data gathered from the different sources identified in Table 1 to create a sustainable scope management plan.
3. To create a sustainable schedule management plan for the completion of the project in the established and agreed timeframe.	It will be applied by using the information and data gathered from the different sources identified in Table 1 to create a sustainable schedule management plan.
4. To create a cost management plan that ensures the completion of the work packages and manage the project within the budget constraints.	It will be applied by using the information and data gathered from the different sources identified in Table 1 above to create a cost management plan.
5. To develop a sustainable resource management plan that ensures the assignment of resources complying with the international laws and conventions on labor and manage the project resources effectively.	It will be applied by using the information and data gathered from the different sources identified in Table 1 to develop a sustainable resource management plan.
6. To create a sustainable risk management plan that identifies, examines and plans the risk responses within the likelihood and impact of happening.	It will be applied by using the information and data gathered from the different sources identified in Table 1 to create a sustainable risk management plan to identify, examine and plan the risk responses within the likelihood and impact of happening.
7. To create a sustainable procurement	It will be applied by using the information and

Objectives	Research method
	Analytical Method
management plan that ensures the external resources comply with the project budget, quality, and time requirements.	data gathered from the different sources identified in Table 1 above to create a sustainable procurement management plan
8. To develop a sustainable quality management plan that guarantees stakeholder acceptance.	It will be applied by using the information and data gathered from the different sources identified in Table 1 above to develop a sustainable quality management plan.
9. To create a sustainable communications management plan that ensures timely and clear communication with the different stakeholders of the project status.	It will be applied by using the information and data gathered from the different sources identified in Table 1 above to create a sustainable communications management plan.
10. To develop a stakeholder's management plan for the identification of the key stakeholders and their relevance to the project's success.	It will be applied by using the information and data gathered from the different sources identified in Table 1 above to create a stakeholder's management plan.

Source: prepared by the author.

3.3. Tools

A research tool will be anything tangible that helps facilitate a product or result, in this case, the research (Project Management Institute, 2013). The tools employed for this project will be explained and summarized in *Table 3* below.

- Bottom-up estimating – start with the highest level of details estimating the cost/ spending/revenue and then adding up to see a higher view
- Checklist analysis – create a checklist including the requirements
- Expert judgment - judgment is provided based upon a specific set of criteria and/or expertise that has been acquired in a previous experience

- Forecasting - predict or estimate (a future event or trend) based on historical or future known data
- Gantt Chart - type of bar chart that illustrates a project schedule
- Hierarchical charts - diagram that shows the structure of an organization and the relationships and relative ranks of its parts and positions/jobs
- Meetings - gathering of two or more people that has been convened for the purpose of achieving a common goal through verbal interaction
- Microsoft Project - a project management software product, developed and sold by Microsoft.
- Performance reviews - compares and analyzes the performance of work in progress against the baseline expected.
- Risk Categorization – group the identified risks in categories easier to handle collectively
- Risk probability and impact assessment – analyze the probability of occurrence of each risk and if occurred, the impact it would have to the project
- Source selection analysis – set of attributes desired in a vendors and upon which the decision will be made

Table 3. Tools

Objectives	Tools
1. To create a project charter and provide the project manager with the authority and organizational resources for the project management plan completion.	<ul style="list-style-type: none"> • Expert judgment • Meetings

Objectives	Tools
2. To create a sustainable scope management plan, defining the key stakeholders and requirements.	<ul style="list-style-type: none"> • Expert judgment • Meetings
3. To create a sustainable schedule management plan for the completion of the project in the established and agreed timeframe.	<ul style="list-style-type: none"> • Gantt Chart • Expert judgment • Meetings • Microsoft Project
4. To create a cost management plan that ensures the completion of the work packages and manage the project within the budget constraints.	<ul style="list-style-type: none"> • Expert judgment • Bottom-up estimating • Forecasting • Performance reviews
5. To develop a sustainable resource management plan that ensures the assignment of resources complying with the international laws and conventions on labor and manage the project resources effectively.	<ul style="list-style-type: none"> • Expert judgment • Hierarchical charts • Meetings
6. To create a sustainable risk management plan that identifies, examines and plans the risk responses within the likelihood and impact of happening.	<ul style="list-style-type: none"> • Expert judgment • Meetings • Checklist analysis • Risk Probability and impact assessment • Risk Categorization
7. To create a sustainable procurement management plan that ensures the external resources comply with the project budget, quality, and time requirements.	<ul style="list-style-type: none"> • Expert judgment • Source selection analysis • Meetings
8. To develop a sustainable quality management plan that guarantees stakeholder acceptance.	<ul style="list-style-type: none"> • Expert judgment • Meetings

Objectives	Tools
9. To create a sustainable communications management plan that ensures timely and clear communication with the different stakeholders of the project status.	<ul style="list-style-type: none"> • Expert judgment • Meetings
10. To develop a stakeholder's management plan for the identification of the key stakeholders and their relevance to the project success.	<ul style="list-style-type: none"> • Expert judgment • Meetings

Source: Project Management Institute, 2017.

3.4. Assumptions and constraints

According to the PMBOK (PMI, 2017), an assumption is “a factor in the planning process that is considered to be true, real, or certain without proof or demonstration” (PMI, 2017, p 699) and a constraint is “a limiting factor that affects the execution of a project, program portfolio, or process” (Ibidem). The assumptions and constraints considered this project will be identified in the *Table 4*.

Table 4. Assumptions and constraints

Objectives	Assumptions	Constraints
1. To create a project charter and provide the project manager with the authority and organizational resources for the project management plan completion.	The project charter will be created and approved before all the other subsidiary documents.	There are only five (5) days allocated to create the project charter.
2. To create a sustainable scope	The project scope will be defined and approved by the	The scope may change as the project progresses.

Objectives	Assumptions	Constraints
management plan, defining the key stakeholders and requirements.	stakeholders.	
3. To create a sustainable schedule management plan for the completion of the project in the established and agreed timeframe.	The time allocated is realist and enough to complete the project.	The project can't exceed three (3) months.
4. To create a cost management plan that ensures the completion of the work packages and manage the project within the budget constraints.	The final budget approved will consider all the resources needed, as well as consider the risks.	After the budget has been approved, there will not be available additional funding for the project.
5. To develop a sustainable resource management plan that ensures the assignment of resources complying with the international laws and conventions on labor.	The project will have the necessary resources, internal, project team and subcontracted, to successfully complete the project.	The resources may be not fully allocated to this project.
6. To create a sustainable risk management plan that identifies, examines and plans the risk responses within the likelihood and impact of happening.	All identified risks will be budgeted and will have a corresponding response plan.	If a risk is not identified in the plan and it materializes, can affect the schedule, cost or quality of the project.
7. To create a sustainable procurement management plan that	All the products and services procured will aligned with the time, quality and budget	The suppliers can close their businesses.

Objectives	Assumptions	Constraints
ensures the external resources comply with the project budget, quality, and time requirements.	expectations of the project.	
8. To develop a sustainable quality management plan that guarantees stakeholder acceptance.	All the requirements will be collected and considered in the plan.	The requirements may change if the stakeholders change.
9. To create a sustainable communications management plan that ensures timely and clear communication with the different stakeholders of the project status.	The project has the required roles and responsibilities assigned to the resources, as well as the communication tools to successfully manage the stakeholders.	The communication tools may suffer technical errors and generate delays.
10. To develop a stakeholder's management plan for the identification of the key stakeholders and their relevance to the project success.	All stakeholders will be identified and managed accordingly based on their level of influence and level of interest.	The stakeholders may change as the project progresses.

Source: prepared by the author.

3.5. Deliverables

According to the PMBOK (PMI, 2017), a deliverable is “any unique and verifiable product, service, or result that is required to be produced to complete a process, phase, or project.” (PMI, 2017, p 704). The deliverables for this project will be summarized in the *Table 5*.

Table 5. Deliverables

Objectives	Deliverables
1. To create a project charter and provide the project manager with the authority and organizational resources for the project management plan completion.	Project Charter
2. To create a sustainable scope management plan, defining the key stakeholders and requirements.	Scope management plan
3. To create a sustainable schedule management plan for the completion of the project in the established and agreed timeframe.	Schedule management plan
4. To create a cost management plan that ensures the completion of the work packages and manage the project within the budget constraints.	Cost management plan
5. To develop a sustainable resource management plan that ensures the assignment of resources complying with the international laws and conventions on labor.	Resource management plan
6. To create a sustainable risk management plan that identifies, examines and plans the risk responses within the likelihood and impact of happening.	Risk management plan
7. To create a sustainable procurement management plan that ensures the external resources comply with the project budget, quality, and time requirements.	Procurement management plan

Objectives	Deliverables
8. To develop a sustainable quality management plan that guarantees stakeholder acceptance.	Quality management plan
9. To create a sustainable communications management plan that ensures timely and clear communication with the different stakeholders of the project status.	Communications management plan
10. To develop a stakeholder's management plan for the identification of the key stakeholders and their relevance to the project success.	Stakeholder's management plan

Source: prepared by the author.

CHAPTER IV. RESULTS

4.1. Project integration management plan

In order to accomplish the general objective, the first specific objective and process was to create a project charter to formally authorize the project and provide the project manager the authority to apply the organizational resources to create the project management plan. The latter consisting on the project purpose, objectives, stakeholders, requirements, assumptions and constraints, project budget, milestones, project manager identification and sponsor authorization.

In regards of this Final Graduation Project, the other specific objectives included the process of the development of the Project Management Plan, including the subsequent plans, the scope management plan, defining the key stakeholders and requirements. Also, it includes the schedule management plan, to complete the project in the established and agreed timeframe; the quality management plan, to ensure stakeholder acceptance; the resource management plan, to ensure the assignment of resources complying with the international laws and conventions on labor; the communications management plan to ensure a timely and clear communication with the different stakeholders of the project status; the risk management plan to identify, examine and plan the risk responses within the likelihood and impact of happening; the procurement management plan, to ensure the external resources needed comply with the project budget, quality and time requirements; the stakeholder's management plan to identify the key stakeholders and their relevance to the project success. Finally, the cost management plan that ensures the completion of the work packages and manage the project within the budget constraints.

The other processes of the Integration Management Plan including direct and manage work, manage knowledge, monitor and control work, perform integrated change control and close project or phase will be dependent of the project manager

during the execution of the project.

4.2. Project scope management plan

4.2.1. Introduction

The project to develop the Bajo Sombra Coffee Shop Renovation Project Management Plan is necessary to ensure the Project Management Team can correctly complete the coffee shop renovation with the contracted company of Olivia Constructores. The establishment will be local family-owned coffee shop placed in the owner's house backyard located in Belén, Heredia. It will have a schedule of Tuesday to Sunday from 8 a.m. to 7 p.m. and will be visited by locals and people from the different work Free Zones located around. The project team understand the importance of the project success, to which will develop the subsidiaries project plans to ensure the stakeholders requirements are met in terms of quality, cost and schedule.

4.2.2. Project requirements

Andrea Castro, project sponsor, wants to open the Bajo Sombra Coffee Shop in Belén on the owner's property within 6 months. In order to do that, the project will have these specific objectives:

1. To renovate the patio area for the coffee shop.
2. To hire the employees that will work in the coffee shop.
3. To buy all the furniture, decorations and equipment needed for the coffee shop.
4. To complete all the local statutory requirements for the operation within the Costa Rican law.
5. To train the employees and test all the equipment before the opening day.

6. To open the coffee shop in June 6, 2020 with an event.

4.2.3. Activity list

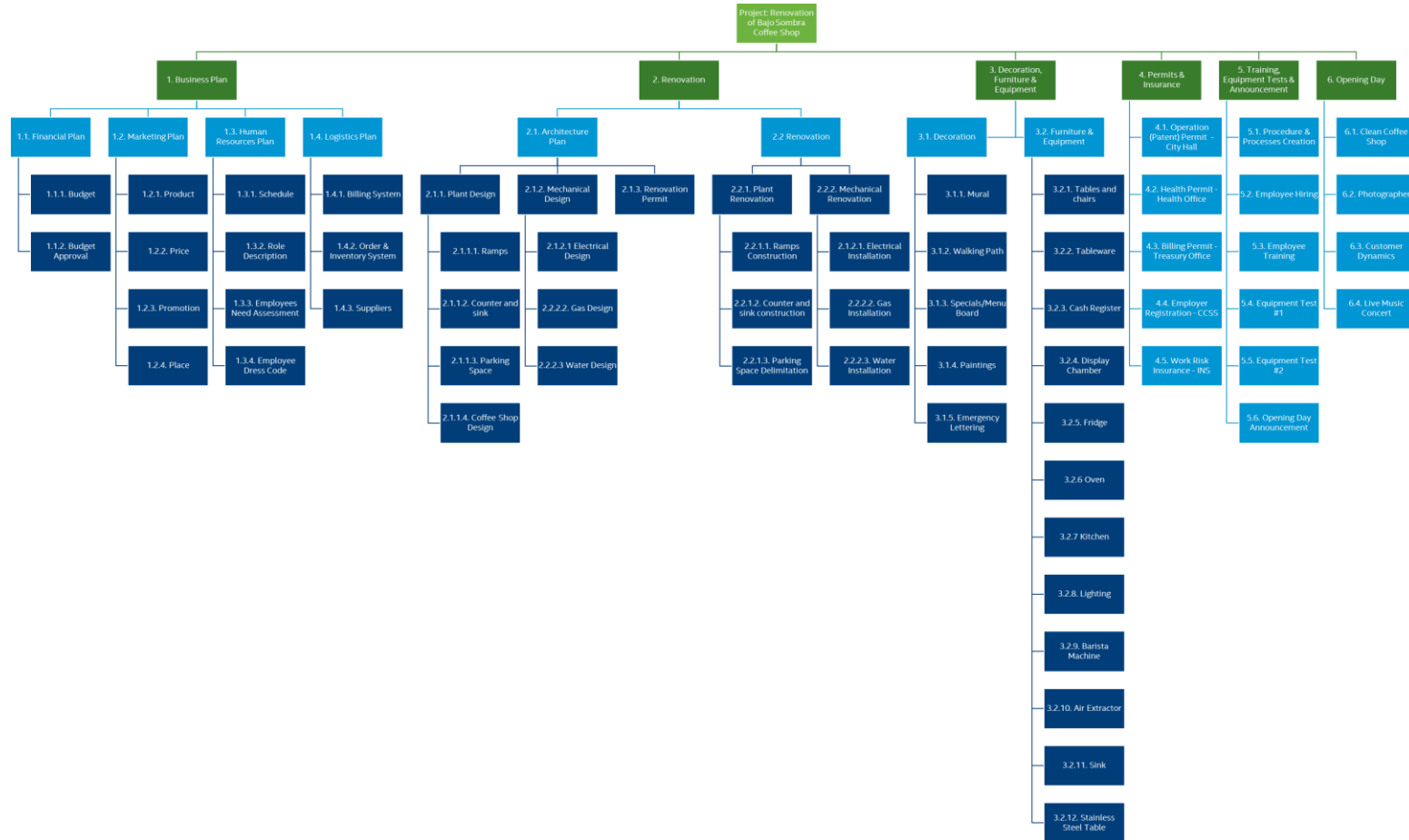
Table 6. Project activity list

0. Project: Renovation of Bajo Sombra Coffee Shop		
1. Business Plan		
1.1. Financial Plan	1.1.1. Budget	
	1.1.2. Budget Approval	
1.2. Marketing Plan	1.2.1. Product	
	1.2.2. Price	
	1.2.3. Promotion	
	1.2.4. Place	
1.3. Human Resources Plan	1.3.1. Schedule	
	1.3.2. Role Description	
	1.3.3. Employees Need Assessment	
	1.3.4. Employee Dresscode	
1.4. Logistics Plan	1.4.1. Billing System	
	1.4.2. Order & Inventory System	
	1.4.3. Suppliers	
2. Renovation		
2.1. Architecture Plan	2.1.1. Plant Design	2.1.1.1. Ramps
		2.1.1.2. Counter and sink
		2.1.1.3. Parking Space
		2.1.1.4. Coffee Shop Design
	2.1.2. Mechanical Design	2.1.2.1. Electrical Design
		2.2.2.2. Gas Design
2.2.2.3. Water Design		
2.1.3. Renovation Permit		
2.2. Renovation	2.2.1. Plant Renovation	2.2.1.1. Ramps Construction
		2.2.1.2. Counter and sink construction
	2.2.2. Mechanical Renovation	2.2.1.3. Parking Space Delimitation
		2.1.2.1. Electrical Installation
		2.2.2.2. Gas Installation
		2.2.2.3. Water Installation
3. Decoration, Furniture & Equipment		
3.1. Decoration	3.1.1. Mural	
	3.1.2. Walking Path	
	3.1.3. Specials/Menu Board	
	3.1.4. Paintings	
	3.1.5. Emergency Lettering	
3.2. Furniture & Equipment	3.2.1. Tables and chairs	
	3.2.2. Tableware	
	3.2.3. Cash Register	
	3.2.4. Display Chamber	
	3.2.5. Fridge	
	3.2.6. Oven	
	3.2.7. Kitchen	
	3.2.8. Lighting	
	3.2.9. Barista Machine	
	3.2.10. Air Extractor	
	3.2.11. Sink	
	3.2.12. Stainless Steel Table	
4. Permits & Insurance		
4.1. Operation (Patent) Permit - City Hall		
4.2. Health Permit - Health Office		
4.3. Billing Permit - Treasury Office		
4.4. Employee Registration - CCSS		
4.5. Work Risk Insurance - INS		
5. Training, Equipment Tests & Announcement		
5.1. Procedure & Processes Creation		
5.2. Employee Hiring		
5.3. Employee Training		
5.4. Equipment Test #1		
5.5. Equipment Test #2		
5.6. Opening Day Announcement		
6. Opening Day		
6.1. Clean Coffee Shop		
6.2. Photographer		
6.3. Customer Dynamics		
6.4. Live Music Concert		

Source: prepared by the author.

4.2.4. Work breakdown structure

Figure 4. Project WBS



Source: prepared by the author.

4.2.5. Roles and responsibilities

Table 7. Roles & responsibilities

Role	Name	Responsibilities
Project Sponsor	Andrea Castro	a. Approve or deny scope change requests as appropriate
		b. Evaluate need for scope change requests
		c. Accept project deliverables
Project Manager	Valeria Mena	a. Measure and verify project scope
		b. Facilitate scope change requests
		c. Facilitate impact assessments of scope change requests
		d. Organize and facilitate scheduled change control meetings
		e. Communicate outcomes of scope change requests
		f. Update project documents upon approval of all scope changes
Team Members	Architect	a. Participate in defining change resolutions
		b. Evaluate the need for scope changes and communicate them to the project manager as necessary
-Subcontractors/Sub -Consultants/Site Workers	Stakeholders	a. Can propose scope changes
		b. Will execute change directives issued by Project Manager

Source: prepared by the author.

4.2.6. Project charter

Table 8. Project charter

PROJECT CHARTER	
(Formalizes the project start and confers the project manager with the authority to assign company resources to the project activities. Benefits: it provides a clear start and well-defined project boundaries)	
Date:	Project Name:
11/11/2019	Project Management Plan for the Renovation of Bajo Sombra Coffee Shop
Knowledge Areas / PM Processes:	Application Area (Sector / Activity):
<p>Knowledge Areas: Project Integration Management, Project Scope Management, Project Schedule management, Project Cost Management, Project Quality Management, Project Resources management, Project Communications Management, Project Risk Management, Project Procurement Management, Project Stakeholder Management</p>	Planning/Construction/Commercial
<p>PM Processes: Initiation, Planning, Executing, Monitoring and Controlling, Closing</p>	
Project Start Date:	Project Finish date:
11/11/2019	6/23/2020
Project Objectives (General and Specific):	
General Objective:	
To open the Bajo Sombra Coffee Shop in Belén within the owner's property within 6 months	
Specific Objectives:	
1. To renovate the patio area in order to host the coffee shop	
2. To hire the employees that will work in the coffee shop	
3. To buy all the furniture, decorations and equipment needed for the coffee shop	
4. To complete all the local statutory requirements in order to operate within the Costa Rican law	
5. To train the employees and test all the equipment before the opening day	
6. To open the coffee shop in June 6, 2020 with an event	
Project purpose or justification (merit and expected results):	

The project to develop the Bajo Sombra Coffee Shop Renovation Project Management Plan is necessary to ensure the Project Management Team can correctly complete the coffee shop renovation with the contracted company of Olivia Constructores. The establishment will be local family-owned coffee shop placed in the owner's house backyard located in Belén, Heredia that will have a schedule of Tuesday to Sunday from 8am to 7pm. Bajo Sombra will be visited by local people and from the different work Free Zones located around.

The project team understand the importance of the project success, to which will develop the subsidiaries project plans to ensure the stakeholders requirements are met in terms of quality, cost and schedule.

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

- Help with Business Plan
- Employee Hiring
- Renovation Supervision
- Opening Day Logistics & Support

Assumptions:

The project management plan can be completed within 6 months
The project can be completed within budget

Constraints:

Time Constraints: 6 months
Budget constrains: 20.000.000 CRC
Resources: 1 (one) project manager

Preliminary Risks:

1. If the milestone schedule is not followed, the project management plan might not be completed within 6 months. Possible scheduling delays:
 - a. Severe climate changes causing delays
 - b. Shipping delays
 - c. Design delays
 - d. Local government permits delays
2. If the owner changes the approved design, the project cost might not be within the budget constraints
3. If the local municipality doesn't approve the renovation plans, the project management plan will not be completed

Budget:

Renovation & Decorations	15,800,000
Operations, Logistics & Systems	2,325,000
Permits	875,000

Marketing & Opening Day Event		500,000
Contingency 3%		500,000
Total		20,000,000
Milestones and dates:		
Milestone	Start date	End date
0. Project: Renovation of Bajo Sombra Coffee Shop	11/11/2019	6/22/2020
1. Business Plan	11/11/2019	1/24/2020
1.1. Financial Plan	11/11/2019	11/15/2019
1.1.1. Budget	11/11/2019	11/14/2019
1.1.2. Budget Approval	11/15/2019	11/15/2019
1.2. Marketing Plan	11/18/2019	12/27/2019
1.2.1. Product	11/18/2019	12/6/2019
1.2.2. Price	12/9/2019	12/13/2019
1.2.3. Promotion	12/16/2019	12/20/2019
1.2.4. Place	12/23/2019	12/27/2019
1.3. Human Resources Plan	12/30/2019	1/7/2020
1.3.1. Schedule	12/30/2019	12/30/2019
1.3.2. Role Description	12/31/2019	1/1/2020
1.3.3. Employees Need Assessment	1/2/2020	1/7/2020
1.3.4. Employee Dress code	12/30/2019	12/30/2019
1.4. Logistics Plan	12/30/2019	1/24/2020
1.4.1. Billing System	12/30/2019	12/31/2019
1.4.2. Order & Inventory System	12/30/2019	1/3/2020
1.4.3. Suppliers	12/30/2019	1/24/2020
2. Renovation	11/18/2019	2/3/2020
2.1. Architecture Plan	11/18/2019	1/3/2020
2.1.1. Plant Design	11/18/2019	12/13/2019
2.1.1.1. Ramps	11/18/2019	11/18/2019
2.1.1.2. Counter and sink	11/18/2019	11/29/2019
2.1.1.3. Parking Space	11/18/2019	11/19/2019
2.1.1.4. Coffee Shop Design	11/18/2019	12/13/2019
2.1.2. Mechanical Design	11/18/2019	11/22/2019

2.1.2.1 Electrical Design	11/18/2019	11/22/2019
2.2.2.2. Gas Design	11/18/2019	11/22/2019
2.2.2.3 Water Design	11/18/2019	11/22/2019
2.1.3. Renovation Permit	12/16/2019	1/3/2020
2.2 Renovation	1/6/2020	2/3/2020
2.2.1. Plant Renovation	1/6/2020	1/24/2020
2.2.1.1. Ramps Construction	1/6/2020	1/10/2020
2.2.1.2. Counter and sink construction	1/6/2020	1/24/2020
2.2.1.3. Parking Space Delimitation	1/6/2020	1/7/2020
2.2.2. Mechanical Renovation	1/27/2020	2/3/2020
2.1.2.1. Electrical Installation	1/27/2020	2/3/2020
2.2.2.2. Gas Installation	1/27/2020	2/3/2020
2.2.2.3. Water Installation	1/27/2020	2/3/2020
3. Decoration, Furniture & Equipment	2/4/2020	3/5/2020
3.1. Decoration	2/4/2020	3/5/2020
3.1.1. Mural	2/4/2020	2/20/2020
3.1.2. Walking Path	2/4/2020	2/10/2020
3.1.3. Specials/Menu Board	2/21/2020	2/27/2020
3.1.4. Paintings	2/28/2020	3/5/2020
3.1.5. Emergency Lettering	2/4/2020	2/5/2020
3.2. Furniture & Equipment	2/4/2020	2/6/2020
3.2.1. Tables and chairs	2/4/2020	2/5/2020
3.2.2. Tableware	2/4/2020	2/4/2020
3.2.3. Cash Register	2/4/2020	2/5/2020
3.2.4. Display Chamber	2/4/2020	2/5/2020
3.2.5. Fridge	2/4/2020	2/5/2020
3.2.6 Oven	2/4/2020	2/4/2020
3.2.7 Kitchen	2/4/2020	2/4/2020
3.2.8. Lighting	2/4/2020	2/6/2020
3.2.9. Barista Machine	2/4/2020	2/5/2020
3.2.10. Air Extractor	2/5/2020	2/6/2020

3.2.11. Sink	2/4/2020	2/6/2020
3.2.12. Stainless Steel Table	2/4/2020	2/4/2020
4. Permits & Insurance	1/27/2020	4/16/2020
4.1. Operation (Patent) Permit - City Hall	3/6/2020	4/16/2020
4.2. Health Permit - Health Office	3/6/2020	4/16/2020
4.3. Billing Permit - Treasury Office	1/27/2020	3/6/2020
4.4. Employer Registration - CCSS	1/27/2020	3/6/2020
4.5. Work Risk Insurance - INS	3/9/2020	3/27/2020
5. Training, Equipment Tests & Announcement	3/6/2020	6/22/2020
5.1. Procedure & Processes Creation	3/6/2020	4/2/2020
5.2. Employee Hiring	3/30/2020	5/8/2020
5.3. Employee Training	5/9/2020	5/28/2020
5.4. Equipment Test #1	5/29/2020	5/29/2020
5.5. Equipment Test #2	6/1/2020	6/1/2020
5.6. Opening Day Announcement	6/2/2020	6/22/2020
6. Opening Day	6/6/2020	6/6/2020
6.1. Clean Coffee Shop	6/8/2020	6/8/2020
6.2. Photographer	6/8/2020	6/8/2020
6.3. Customer Dynamics	6/8/2020	6/8/2020
6.4. Live Music Concert	6/8/2020	6/8/2020
Finish Project	6/23/2020	6/23/2020
Relevant historical information:		
Not applicable		
Stakeholders:		
Direct stakeholders: Project Manager - Valeria Mena. Responsibilities include: A. Production B. Coordination C. Quality Control D. Procurement E. Regulation Compliance F. Architectural Engineering G. Reporting H. Project finances Project Sponsor: Andrea Castro		

Indirect stakeholders: Local Government: Municipalidad de Belén Coffee Shop Employees	
Approval:	
Project Manager: Valeria Mena	Signature:
Authorized by: Andrea Castro	Signature:

Source: prepared by the author.

4.3. Project schedule management plan

4.3.1. Introduction

Project Schedule includes the processes required to manage the timely completion of the project. These processes include plan schedule management, define activities, sequence activities, estimate activities duration, develop and control schedule. The project schedule is important as it provides a detailed plan of how and when on project deliverables as defined in the project scope. It also serves as a tool for communication, managing stakeholder's expectations and as a basis for performance reporting.

4.3.2. Project schedule

Table 9. Project schedule

Name	Start	Finish	Duration	Predecessors
Renovation of Bajo Sombra Coffee Shop	11/11/2019	6/22/2020	162 days	
1. Business Plan	11/11/2019	1/24/2020	55 days	
1.1. Financial Plan	11/11/2019	11/15/2019	5 days	
1.1.1. Budget	11/11/2019	11/14/2019	4 days	

Name	Start	Finish	Duration	Predecessors
1.1.2. Budget Approval	11/15/2019	11/15/2019	1 day	4
1.2. Marketing Plan	11/18/2019	12/27/2019	30 days	3
1.2.1. Product	11/18/2019	12/6/2019	15 days	
1.2.2. Price	12/9/2019	12/13/2019	5 days	7
1.2.3. Promotion	12/16/2019	12/20/2019	5 days	8,7
1.2.4. Place	12/23/2019	12/27/2019	5 days	7,8,9
1.3. Human Resources Plan	12/30/2019	1/7/2020	7 days	3,6
1.3.1. Schedule	12/30/2019	12/30/2019	1 day	
1.3.2. Role Description	12/31/2019	1/1/2020	2 days	12
1.3.3. Employees Need Assessment	1/2/2020	1/7/2020	4 days	12,13
1.3.4. Employee Dress code	12/30/2019	12/30/2019	1 day	
1.4. Logistics Plan	12/30/2019	1/24/2020	20 days	3,6
1.4.1. Billing System	12/30/2019	12/31/2019	2 days	
1.4.2. Order & Inventory System	12/30/2019	1/3/2020	5 days	
1.4.3. Suppliers	12/30/2019	1/24/2020	20 days	
2. Renovation	11/18/2019	2/3/2020	56 days	3
2.1. Architecture Plan	11/18/2019	1/3/2020	35 days	
2.1.1. Plant Design	11/18/2019	12/13/2019	20 days	
2.1.1.1. Ramps	11/18/2019	11/18/2019	1 day	
2.1.1.2. Counter and sink	11/18/2019	11/29/2019	10 days	
2.1.1.3. Parking Space	11/18/2019	11/19/2019	2 days	
2.1.1.4. Coffee Shop Design	11/18/2019	12/13/2019	20 days	
2.1.2. Mechanical Design	11/18/2019	11/22/2019	5 days	
2.1.2.1	11/18/2019	11/22/2019	5 days	

Name	Start	Finish	Duration	Predecessors
Electrical Design				
2.2.2.2. Gas Design	11/18/2019	11/22/2019	5 days	
2.2.2.3 Water Design	11/18/2019	11/22/2019	5 days	
2.1.3. Renovation Permit	12/16/2019	1/3/2020	15 days	22,27
2.2 Renovation	1/6/2020	2/3/2020	21 days	31
2.2.1. Plant Renovation	1/6/2020	1/24/2020	15 days	
2.2.1.1. Ramps Construction	1/6/2020	1/10/2020	5 days	
2.2.1.2. Counter and sink construction	1/6/2020	1/24/2020	15 days	
2.2.1.3. Parking Space Delimitation	1/6/2020	1/7/2020	2 days	
2.2.2. Mechanical Renovation	1/27/2020	2/3/2020	6 days	33
2.1.2.1. Electrical Installation	1/27/2020	2/3/2020	6 days	
2.2.2.2. Gas Installation	1/27/2020	2/3/2020	6 days	
2.2.2.3. Water Installation	1/27/2020	2/3/2020	6 days	
3. Decoration, Furniture & Equipment	2/4/2020	3/5/2020	23 days	20
3.1. Decoration	2/4/2020	3/5/2020	23 days	
3.1.1. Mural	2/4/2020	2/20/2020	13 days	
3.1.2. Walking Path	2/4/2020	2/10/2020	5 days	
3.1.3. Specials/Menu Board	2/21/2020	2/27/2020	5 days	43
3.1.4. Paintings	2/28/2020	3/5/2020	5 days	43,45
3.1.5. Emergency Lettering	2/4/2020	2/5/2020	2 days	
3.2. Furniture & Equipment	2/4/2020	2/6/2020	3 days	
3.2.1.	2/4/2020	2/5/2020	2 days	

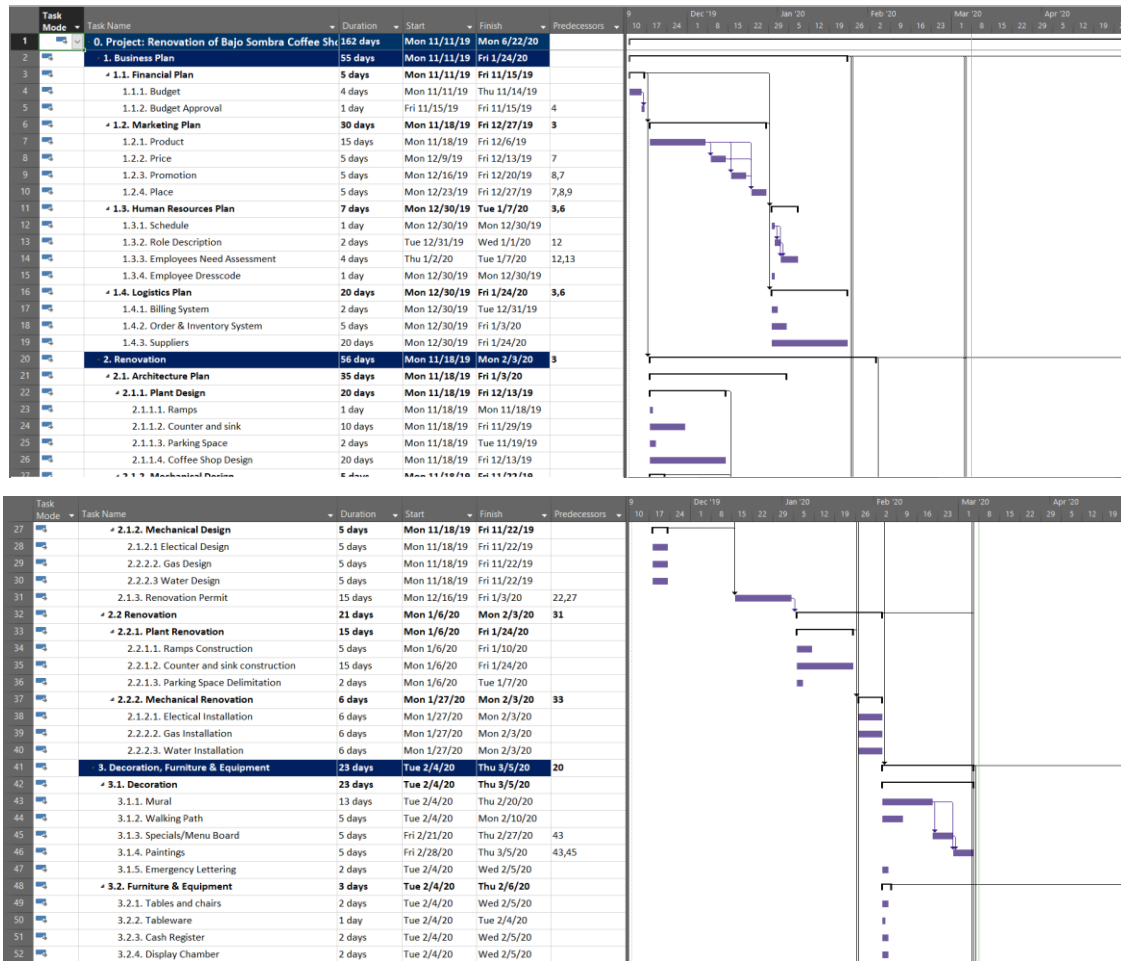
Name	Start	Finish	Duration	Predecessors
Tables and chairs				
3.2.2. Tableware	2/4/2020	2/4/2020	1 day	
3.2.3. Cash Register	2/4/2020	2/5/2020	2 days	
3.2.4. Display Chamber	2/4/2020	2/5/2020	2 days	
3.2.5. Fridge	2/4/2020	2/5/2020	2 days	
3.2.6. Oven	2/4/2020	2/4/2020	1 day	
3.2.7. Kitchen	2/4/2020	2/4/2020	1 day	
3.2.8. Lighting	2/4/2020	2/6/2020	3 days	
3.2.9. Barista Machine	2/4/2020	2/5/2020	2 days	
3.2.10. Air Extractor	2/5/2020	2/6/2020	2 days	54,55
3.2.11. Sink	2/4/2020	2/6/2020	3 days	
3.2.12. Stainless Steel Table	2/4/2020	2/4/2020	1 day	
4. Permits & Insurance	1/27/2020	4/16/2020	59 days	2
4.1. Operation (Patent) Permit - City Hall	3/6/2020	4/16/2020	30 days	32,41
4.2. Health Permit - Health Office	3/6/2020	4/16/2020	30 days	2,20,41
4.3. Billing Permit - Treasury Office	1/27/2020	3/6/2020	30 days	
4.4. Employer Registration - CCSS	1/27/2020	3/6/2020	30 days	2
4.5. Work Risk Insurance - INS	3/9/2020	3/27/2020	15 days	65
5. Training, Equipment Tests & Announcement	3/6/2020	6/22/2020	78 days	2,20,41
5.1. Procedure & Processes Creation	3/6/2020	4/2/2020	20 days	41
5.2. Employee Hiring	3/30/2020	5/8/2020	30 days	65,66
5.3. Employee Training	5/9/2020	5/28/2020	15 days	65,66,69
5.4. Equipment	5/29/2020	5/29/2020	1 day	48,70

Name	Start	Finish	Duration	Predecessors
Test #1				
5.5. Equipment Test #2	6/1/2020	6/1/2020	1 day	71
5.6. Opening Day Announcement	6/2/2020	6/22/2020	15 days	72
6. Opening Day	6/6/2020	6/6/2020	1 day	61,67
6.1. Clean Coffee Shop	6/8/2020	6/8/2020	1 day	
6.2. Photographer	6/8/2020	6/8/2020	1 day	
6.3. Customer Dynamics	6/8/2020	6/8/2020	1 day	
6.4. Live Music Concert	6/8/2020	6/8/2020	1 day	
Finish Project	6/23/2020	6/23/2020	1 day	

Source: prepared by the author.

4.3.3. Critical path (Gantt chart)

Critical path (Gantt chart) was created to graphically represent the schedule plan and dependencies of the project as follows:



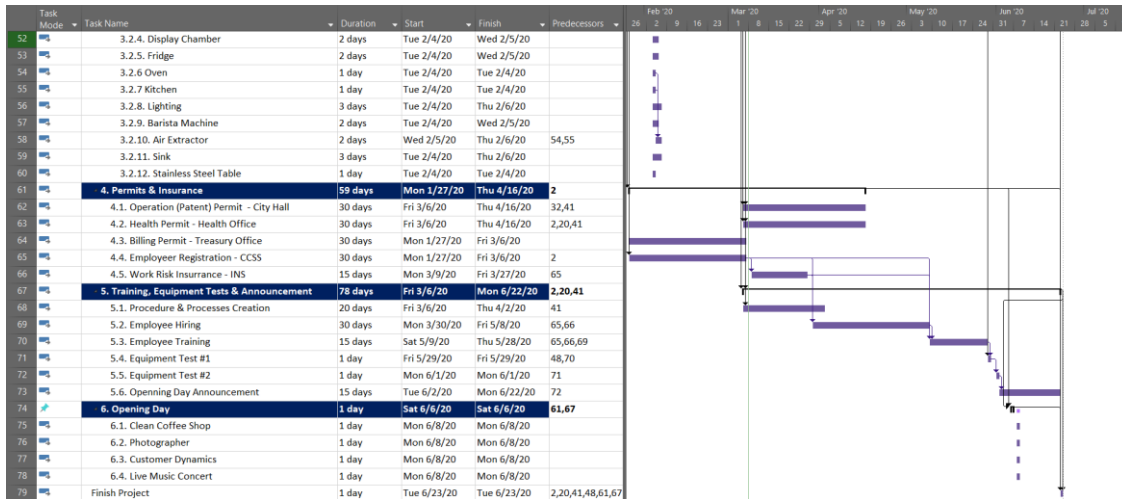


Figure 5. Gantt Chart

Source: prepared by the author.

4.3.4. Control schedule practices

Control schedule is the process of monitoring the status of the project to update the schedule and managing changes to the schedule baseline. It is important to the project as the schedule baseline is maintained throughout it and the Perform Integrated Change Control process is used to approve these changes. This allows the team to know the current status of the project schedule, the factors that influence it, and if reconsideration will be necessary for schedule reserve, to determine if the project schedule has changed and to manage any actual changes as they occur. This is also important since regular updates can ensure that the work is progressing as agreed upon to ensure the schedule is under control.

To accomplish this, the Project Manager will use Microsoft Project to schedule and track all the activities. It will be reviewed and update on a weekly and task completion basis, in which all the Team Members and contractors will need to inform the project manager of any time related risk in the execution. The project sponsor

will be informed of the status and will be requested for any time schedule change above this threshold:

- Any change resulting in a 10% reduction of the project time schedule baseline.
- Any change resulting in a 3% increase of the project time schedule baseline.

4.4. Project cost management plan

4.4.1. Introduction

The Cost Management Plan will ensure a good estimation, budget and cost control of the project. The Project Manager will be the primarily responsible for the management, reporting and making changes throughout the project to bring it back within budget, as well as sending bi-weekly communications to the Project Sponsor. The project members and subcontractors will have the obligation to follow and align to the approved budget based on the cost estimated provided, to ensure cost management.

4.4.2. Budget

As approved in the project charter, the project budget is a total of CRC 20.000.000, that will be managed in 5 different budget categories as follow:

Table 10. Project budget

Budget:	
Renovation & Decorations	15,800,000
Operations, Logistics & Systems	2,325,000
Permits	875,000
Marketing & Opening Day Event	500,000
Contingency 3%	500,000
CRC Total	20,000,000

Source: prepared by the author.

The budget allocated to each category can be modified by the Project Sponsor or suggested by the Project Manager with approval of the Project Sponsor.

4.4.3. Costs estimates

Table 11. Project cost estimates

Name	Budget Categories	Estimates
1. Business Plan		1,150,000
1.1. Financial Plan		50,000
1.1.1. Budget	Operations, Logistics & Systems	50,000
1.1.2. Budget Approval	Operations, Logistics & Systems	-
1.2. Marketing Plan		150,000
1.2.1. Product	Operations, Logistics & Systems	25,000
1.2.2. Price	Operations, Logistics & Systems	25,000
1.2.3. Promotion	Operations, Logistics & Systems	75,000
1.2.4. Place	Operations, Logistics & Systems	25,000
1.3. Human Resources Plan		250,000
1.3.1. Schedule	Operations, Logistics & Systems	-
1.3.2. Role Description	Operations, Logistics & Systems	100,000
1.3.3. Employees Need Assessment	Operations, Logistics & Systems	150,000
1.3.4. Employee Dress code	Operations, Logistics & Systems	-
1.4. Logistics Plan		700,000
1.4.1. Billing System	Operations, Logistics & Systems	350,000
1.4.2. Order & Inventory System	Operations, Logistics & Systems	350,000
1.4.3. Suppliers	Operations, Logistics & Systems	-
2. Renovation		3,925,000
2.1. Architecture Plan		1,775,000
2.1.1. Plant Design		1,200,000
2.1.1.1. Ramps	Renovation & Decorations	150,000
2.1.1.2. Counter and	Renovation & Decorations	150,000

Name	Budget Categories	Estimates
sink		
2.1.1.3. Parking Space	Renovation & Decorations	150,000
2.1.1.4. Coffee Shop Design	Renovation & Decorations	750,000
2.1.2. Mechanical Design		450,000
2.1.2.1 Electrical Design	Renovation & Decorations	150,000
2.2.2.2. Gas Design	Renovation & Decorations	150,000
2.2.2.3 Water Design	Renovation & Decorations	150,000
2.1.3. Renovation Permit	Renovation & Decorations	125,000
2.2 Renovation		2,150,000
2.2.1. Plant Renovation		1,200,000
2.2.1.1. Ramps Construction	Renovation & Decorations	500,000
2.2.1.2. Counter and sink construction	Renovation & Decorations	600,000
2.2.1.3. Parking Space Delimitation	Renovation & Decorations	100,000
2.2.2. Mechanical Renovation		950,000
2.1.2.1. Electrical Installation	Renovation & Decorations	350,000
2.2.2.2. Gas Installation	Renovation & Decorations	300,000
2.2.2.3. Water Installation	Renovation & Decorations	300,000
3. Decoration, Furniture & Equipment		11,875,000
3.1. Decoration		1,250,000
3.1.1. Mural	Renovation & Decorations	1,000,000
3.1.2. Walking Path	Renovation & Decorations	100,000
3.1.3. Specials/Menu Board	Renovation & Decorations	50,000
3.1.4. Paintings	Renovation & Decorations	50,000
3.1.5. Emergency Lettering	Renovation & Decorations	50,000
3.2. Furniture & Equipment		10,625,000
3.2.1. Tables and chairs	Renovation & Decorations	3,000,000
3.2.2. Tableware	Renovation & Decorations	350,000
3.2.3. Cash Register Computer	Renovation & Decorations	500,000
3.2.4. Display Chamber	Renovation & Decorations	500,000
3.2.5. Fridge	Renovation & Decorations	1,100,000

Name	Budget Categories	Estimates
3.2.6 Oven	Renovation & Decorations	1,875,000
3.2.7 Kitchen	Renovation & Decorations	850,000
3.2.8. Lighting	Renovation & Decorations	500,000
3.2.9. Barista Machine	Renovation & Decorations	1,000,000
3.2.10. Air Extractor	Renovation & Decorations	300,000
3.2.11. Sink	Renovation & Decorations	250,000
3.2.12. Stainless Steel Table	Renovation & Decorations	400,000
4. Permits & Insurance		875,000
4.1. Operation (Patent) Permit - City Hall	Permits	875,000
4.2. Health Permit - Health Office	Permits	-
4.3. Billing Permit - Treasury Office	Permits	-
4.4. Employer Registration - CCSS	Permits	-
4.5. Work Risk Insurance - INS	Permits	-
5. Training, Equipment Tests & Announcement		1,325,000
5.1. Procedure & Processes Creation	Operations, Logistics & Systems	-
5.2. Employee Hiring	Operations, Logistics & Systems	925,000
5.3. Employee Training	Operations, Logistics & Systems	250,000
5.4. Equipment Test #1	Operations, Logistics & Systems	-
5.5. Equipment Test #2	Operations, Logistics & Systems	-
5.6. Opening Day Announcement	Marketing & Opening Day Event	150,000
6. Opening Day		350,000
6.1. Clean Coffee Shop	Marketing & Opening Day Event	20,000
6.2. Photographer	Marketing & Opening Day Event	150,000
6.3. Customer Dynamics	Marketing & Opening Day Event	100,000
6.4. Live Music Concert	Marketing & Opening Day Event	80,000
Contingency 3%		500,000
Project: Renovation of Bajo Sombra Coffee Shop		20,000,000

Source: prepared by the author.

4.4.4. Cost controls

On a bi-weekly basis, the Project Sponsor will receive the following cost control sheet provided by the Project Manager stating all the expense actuals for all the project categories. If there is any overspend will follow the corresponding:

1. Analysis of areas to offset the overspend.
2. Notification to the Project Sponsor and justification with the offset options.
3. Approval and offset in other areas.

If there is any underspend will follow the corresponding:

1. Notification to the Project Sponsor and justification.
2. The Project Sponsor will decide if the budget will be reused for other purposes or marked as savings, even after completion of the milestones and with the corresponding split of the different project tasks as per below:

Table 12. Project cost control summary

Budget:	Budget	Actuals	% Of Estimate	Delta to Estimate
Renovation & Decorations	15,800,000	-	0%	(15,800,000)
Operations, Logistics & Systems	2,325,000	-	0%	(2,325,000)
Permits	875,000	-	0%	(875,000)
Marketing & Opening Day Event	500,000	-	0%	(500,000)
Contingency 3%	500,000	-	0%	(500,000)
Total	20,000,000	-	0%	(20,000,000)

Source: prepared by the author.

Table 13. Project cost control

Name	Budget Type	Estimate	Actuals	% Of Estimate	Delta to Estimate
1. Business Plan		1,150,000	-	0%	(1,150,000)
1.1. Financial Plan		50,000	-	0%	(50,000)
1.1.1. Budget	Operations, Logistics & Systems	50,000	-	0%	(50,000)
1.1.2. Budget Approval	Operations, Logistics & Systems	-	-	NA	-
1.2. Marketing Plan		150,000	-	0%	(150,000)
1.2.1. Product	Operations, Logistics & Systems	25,000	-	0%	(25,000)
1.2.2. Price	Operations, Logistics & Systems	25,000	-	0%	(25,000)
1.2.3. Promotion	Operations, Logistics & Systems	75,000	-	0%	(75,000)
1.2.4. Place	Operations, Logistics & Systems	25,000	-	0%	(25,000)
1.3. Human Resources Plan		250,000	-	0%	(250,000)
1.3.1. Schedule	Operations, Logistics & Systems	-	-	NA	-
1.3.2. Role Description	Operations, Logistics & Systems	100,000	-	0%	(100,000)
1.3.3. Employees Need Assessment	Operations, Logistics & Systems	150,000	-	0%	(150,000)
1.3.4. Employee Dresscode	Operations, Logistics & Systems	-	-	NA	-
1.4. Logistics Plan		700,000	-	0%	(700,000)
1.4.1. Billing System	Operations, Logistics & Systems	350,000	-	0%	(350,000)
1.4.2. Order & Inventory System	Operations, Logistics & Systems	350,000	-	0%	(350,000)
1.4.3. Suppliers	Operations, Logistics & Systems	-	-	NA	-
2. Renovation		3,925,000	-	0%	(3,925,000)
2.1. Preliminary Plan		1,200,000	-	0%	(1,200,000)
2.1.1. Plant Design		1,200,000	-	0%	(1,200,000)
2.1.1.1. Ramps	Renovation & Decorations	150,000	-	0%	(150,000)
2.1.1.2. Counter and sink	Renovation & Decorations	150,000	-	0%	(150,000)
2.1.1.3. Parking Space	Renovation & Decorations	150,000	-	0%	(150,000)
2.1.1.4. Coffee Shop Design	Renovation & Decorations	750,000	-	0%	(750,000)
2.1.2. Mechanical Design		450,000	-	0%	(450,000)
2.1.2.1. Electrical Design	Renovation & Decorations	150,000	-	0%	(150,000)
2.2.2.2. Gas Design	Renovation & Decorations	150,000	-	0%	(150,000)
2.2.2.3. Water Design	Renovation & Decorations	150,000	-	0%	(150,000)
2.1.3. Renovation Permit	Renovation & Decorations	125,000	-	0%	(125,000)
2.2. Renovation		2,150,000	-	0%	(2,150,000)
2.2.1. Plant Renovation		1,200,000	-	0%	(1,200,000)
2.2.1.1. Ramps Construction	Renovation & Decorations	500,000	-	0%	(500,000)
2.2.1.2. Counter and sink construction	Renovation & Decorations	600,000	-	0%	(600,000)
2.2.1.3. Parking Space Delimitation	Renovation & Decorations	100,000	-	0%	(100,000)
2.2.2. Mechanical Renovation		950,000	-	0%	(950,000)
2.2.2.1. Electrical Installation	Renovation & Decorations	350,000	-	0%	(350,000)
2.2.2.2. Gas Installation	Renovation & Decorations	300,000	-	0%	(300,000)
2.2.2.3. Water Installation	Renovation & Decorations	300,000	-	0%	(300,000)
3. Decoration, Furniture & Equipment		11,875,000	-	0%	(11,875,000)
3.1. Decoration		1,250,000	-	0%	(1,250,000)
3.1.1. Mural	Renovation & Decorations	1,000,000	-	0%	(1,000,000)
3.1.2. Walking Path	Renovation & Decorations	100,000	-	0%	(100,000)
3.1.3. Specials/Menu Board	Renovation & Decorations	50,000	-	0%	(50,000)
3.1.4. Paintings	Renovation & Decorations	50,000	-	0%	(50,000)
3.1.5. Emergency Lettering	Renovation & Decorations	50,000	-	0%	(50,000)
3.2. Furniture & Equipment		10,625,000	-	0%	(10,625,000)
3.2.1. Tables and chairs	Renovation & Decorations	3,000,000	-	0%	(3,000,000)
3.2.2. Tableware	Renovation & Decorations	350,000	-	0%	(350,000)
3.2.3. Cash Register Computer	Renovation & Decorations	500,000	-	0%	(500,000)
3.2.4. Display Chamber	Renovation & Decorations	500,000	-	0%	(500,000)
3.2.5. Fridge	Renovation & Decorations	1,100,000	-	0%	(1,100,000)
3.2.6. Oven	Renovation & Decorations	1,875,000	-	0%	(1,875,000)
3.2.7. Kitchen	Renovation & Decorations	850,000	-	0%	(850,000)
3.2.8. Lighting	Renovation & Decorations	500,000	-	0%	(500,000)
3.2.9. Barista Machine	Renovation & Decorations	1,000,000	-	0%	(1,000,000)
3.2.10. Air Extractor	Renovation & Decorations	300,000	-	0%	(300,000)
3.2.11. Sink	Renovation & Decorations	250,000	-	0%	(250,000)
3.2.12. Stainless Steel Table	Renovation & Decorations	400,000	-	0%	(400,000)
4. Permits & Insurance		875,000	-	0%	(875,000)
4.1. Operation (Patent) Permit - City Hall	Permits	875,000	-	0%	(875,000)
4.2. Health Permit - Health Office	Permits	-	-	NA	-
4.3. Billing Permit - Treasury Office	Permits	-	-	NA	-
4.4. Employee Registration - CCSS	Permits	-	-	NA	-
4.5. Work Risk Insurance - INS	Permits	-	-	NA	-
5. Training, Equipment Tests & Announcement		1,325,000	-	0%	(1,325,000)
5.1. Procedure & Processes Creation	Operations, Logistics & Systems	-	-	NA	-
5.2. Employee Hiring	Operations, Logistics & Systems	925,000	-	0%	(925,000)
5.3. Employee Training	Operations, Logistics & Systems	250,000	-	0%	(250,000)
5.4. Equipment Test #1	Operations, Logistics & Systems	-	-	NA	-
5.5. Equipment Test #2	Operations, Logistics & Systems	-	-	NA	-
5.6. Opening Day Announcement	Marketing & Opening Day Event	150,000	-	0%	(150,000)
6. Opening Day		350,000	-	0%	(350,000)
6.1. Clean Coffee Shop	Marketing & Opening Day Event	20,000	-	0%	(20,000)
6.2. Photographer	Marketing & Opening Day Event	150,000	-	0%	(150,000)
6.3. Customer Dynamics	Marketing & Opening Day Event	100,000	-	0%	(100,000)
6.4. Live Music Concert	Marketing & Opening Day Event	80,000	-	0%	(80,000)
Contingency 3%	Contingency 3%	500,000	-	0%	(500,000)
Project: Renovation of Bajo Sombra Coffee Shop		20,000,000	-	0%	(20,000,000)

Source: prepared by the author.

4.5. Project resources management plan

4.5.1. Introduction

This Resources Management Plan will document the methods to identify, acquire, develop, and manage the resources necessary to successfully complete the Bajo Sombra Renovation Project and will supplement the overall Project Management Plan (PMP). This Resource Management Plan is intended to be a living document, reviewed and updated as needed.

4.5.2. Project resources

The project has both human and material resources that will be described in the Table 14 below.

Table 14. Project resources

Project Resource	Quantity	Responsibilities
Project Manager	1	Responsible of the overall project planning, distributing resources, schedule management, risk management, managing the budget, managing staff and managing relationships with key stakeholders, as well as the overall project success.
Architect	1	Responsible for ensuring the building aesthetics, function, and use of space are adhered to. The Architect is also responsible for all the various disciplines, excluding the project manager and production of project documents.
Professional Services: Renovation Contractor	1	Responsible for reading, hiring the subcontractors and executing all the electrical, gas and water design plans, and ensuring the correct functioning of all these systems within the cost and schedule approved.
Professional Services: Muralist	1	Responsible for the design and creating of the wall mural, specials/menu board and the paintings according to the project specifications within the cost and schedule approved.
Professional Services: Employment Agency	1	Responsible for the recruiting and hiring of the coffee shop staff according to the project specifications within the cost and schedule approved.
Professional Services: Music Group	1	Responsible for the music and acoustic of the opening day event according to the project specifications within the cost and schedule approved.
Total	6	Human Resources

Project Resource	Quantity	Responsibilities
Material Resources		
Computer	1	
Microsoft Project license	1	

Source: prepared by the author.

4.5.3. Coffee shop human resources

The employment agency will receive the following list of Coffee Shop Resources needed and will present the best two resources recruited to the Project Manager, which will have the final hiring decision. After that, the agency will ensure the proper hiring and training process of the employees according to the Procedure & Processes Document provided by the Project Manager. The agency can include additional requirements based on experience on top of the stated below and roles will include the following responsibilities but not limited to:

- Front office:
 - Chef (1 position): responsible for developing new recipes, planning menus, manage customer relations, train the kitchen staff, inventory management, quality control, monitoring safety standards, coordinating with the purchasing department, looks after the hygiene standards and obtains feedback from the guests. Requisite: formal studies and food handling card.
 - Waiter (2 positions): responsible for taking orders and serving food and beverages to guests, checking on customers to ensure that they are enjoying their meals and act to correct any problems. Requisite: 2 years of work experience and food handling card.
 - Barista (1 position): responsible for making and serving beverages

based on coffee and tea, explain menu items to customers, clean, and attempt to ensure that customers are comfortable and satisfied. Help the waiters and cashier as needed. Requisite: formal studies and food handling card.

- Manager (1 position): responsible for maintaining the restaurant's revenue, profitability and quality goals. Will ensure efficient restaurant operation, as well as maintain high production, productivity, quality, and customer-service standards. Requisite: 2 years of work experience and food handling card.
- Cashier/junior procurement manager (1 positions): responsible for welcoming customers, answering their questions, helping them locate items, and providing advice or recommendations, operating scanners, scales, cash registers, and other electronics, accepting payments, ensuring all prices and quantities are accurate and proving a receipt to every customer, processing refunds and exchanges, resolving complaints, bagging or wrapping purchases to ensure safe transport, following all store procedures regarding coupons or gift cards, and maintaining a clean workspace. Requirements: high school diploma or equivalent, business administration student, customer service or cashier experience, high level of energy with strong customer service skills and basic math and computer skills.
- Back office:
 - Cookers (2 positions): responsible for cleaning food preparation areas as determined by law and company policy, preparation of foods to the specifications of the client, adjusting food items to accommodate guests with allergies or specific diet concerns, washes dishes and communicates with owner about how to

improve meal service. Requisite: 2 years of work experience and food handling card.

- Cleaning clerk (1 position): responsible for cleaning, stocking and supplying designated facility areas including restrooms and dishes, performing and documenting routine inspection and maintenance activities, carry out heavy cleaning tasks and special projects. Requisite: 2 years of work experience.

- Material Resources:

Table 15 – Bajo sombra material resources

Material Type	Number
Systems	
Billing System	1
Order & Inventory System	1
Furniture & Equipment	
Tables	10
Chairs	30
Computer	1
Display Chamber	1
Fridge	1
Oven	1
Kitchen	1
Lights	10
Barista Machine	1
Air Extractor	1
Sink	2
Stainless Steel Table	1
Tableware	
Dishes	80
Forks	80
Spoons - Big	80
Spoons - Small	80
Glasses	50
Cups	50

Source: prepared by the author.

4.5.4. Training requirements

All the project team members, professional services providers and contractors will be subject to operating license requests and required to provide evidence of previous jobs. On the other hand, all subcontractors are responsible for their crew and their crew training needs. A CV and relevant testimonials required from all workers will employ only skilled and proficient personals as evident. Finally, the coffee shop employees will be trained by the employment agency according to the Procedure & Processes Document provided by the Project Manager.

4.5.5. Rewards and recognitions

No rewards nor recognitions will be provided during this project. For the Coffee Shop operations, the employees are subject to the internal rewards and recognitions program.

4.5.6. Project manager contract and financial proposal

Owner hereby engages Manager to manage on behalf of Owner in accordance with the following:

1. Manager shall provide Owner with the planning, budgeting, scheduling, expediting, coordinating and supervising necessary for the timely execution of the Project by all workmen, suppliers of material, contractors, subcontractors and others (collectively, 'Contractors') supplying materials for services to the Project.
2. Manager shall take all reasonable steps on behalf of Owner to ensure the project shall be completed in a good and workmanlike manner in accordance with the design specifications and cost estimate, subject to

any changes.

3. The manager services agreed for owner are the following:
 - Preparation of Project cost estimate, review of same with Owner, and obtaining Owner's approval thereof.
 - Preparation of work schedule for Project.
 - Preparation and submission of application for development and/or building permit for Project if applicable.
 - Contracting all Contractors for the project, obtaining quotes, reviewing same with Owner, and supervision of such Contractors on behalf of Owner.
 - Supervising day to day work on Project.
 - Counseling Owner in respect to Builder' Lien holdbacks applicable to the Project.
 - Ensuring for Owner that all Contractors engaged in Project properly perform their duties and rectify deficiencies.
 - Reviewing progress claims and invoices of all Contractors on the Project before submission to Owner for payment.
 - Ensuring that the construction corresponds to the Project plans and specifications, subject to any approved changes.
- In performing the duties under this Agreement, Manager shall be the limited agent of Owner for the purpose of obtaining, reviewing and discussing with Owner all quotes and bids by Contractors. Contracts, purchase orders and similar documents for the Project shall be in the name of Owner and may be signed by Manager of behalf of Owner provided they are consistent with the agreement.

- Owner hereby indemnifies and holds harmless Manager from all debts, claims and liabilities incurred by Manager in the performance of the functions under the Agreement, provided that such functions are carried out by Manager within the scope of its authority.
- Manager's fee shall be as outlined below:
 - Cost + 15% based on budgeted project cost of 20.000.000 CRC for a total of 3.000.000 CRC over the period of 6 months.
 - To be paid on monthly installments of 500.000 CRC beginning on contract signature.
 - At completion, actual cost of project will determine the final installment.

4.6. Project risk management plan

4.6.1. Introduction

The main project risks were identified during the project charter but in the Project Risk Management Plan will be analyze qualitatively and plan for corresponding risk responds. The Project Manager will be the primarily responsible for the proper risk management for the project, but the team and contractors will be co-responsible of the execution of the plan in order to control and monitor any risk, as well as to raise any additional concern that could affect the project success.

The qualitative risk analysis is characterized by being opinion-based and not requiring calculations. As it is based on opinion, it is difficult to use when the team is inexperienced since involves a lot of guessing and it is important to balance the opinions in the consensus of the team. It cannot incorporate a cost/value analysis; therefore it is difficult to assess the cost impact of the risks in the project objectives. For the purposes of this project, the qualitative risk analysis will be sufficient. To

manage risks there are two important factors: impact and probability, in terms of schedule, cost, quality or performance in accordance to the likelihood of occurrence.

4.6.2. Risk identification & management

In order to manage the risks known for this project, three aspects will be used: category, probability and impact. The category will help the project manager and different stakeholders understand the circumstances in which the risk might occur. The probability scale will help them understand the likelihood of occurrence based on a gut percentage and the impact scale will help them understand the impact based on the relationship to the project objectives of cost, time, scope or quality. The risks will be identified based on three categories, as follows:

Table 16. Risk categories

Risk Category	Risk Explanation
Operational	Resulting from processes, people, systems or events not properly planned to result in failure.
Execution	Resulting from processes, people, systems or events properly planned but not followed
Market	Resulting from external business context situations affecting the profitability of the coffee shop

Source: prepared by the author.

4.6.2.1. Probability scale

A scale of 1-5 will be used for probability.

Table 17. Risk probability scale

Descriptor	Score	Detail description
Certain	5	Expected to occur in most circumstances (95% Chance)
Likely	4	Will probably occur in most circumstances (66% - 99%Chance)
Occasional	3	Might occur at some time (36% - 65% Chance)
Seldom	2	Could occur at some time (5% - 35% Chance)
Unlikely	1	May occur but only in exceptional circumstances (< 5% chance)

Source: prepared by the author.

4.6.2.2. Impact scale

Illustrated of risk impact and definitions using four different project objectives.

Table 18. Risk impact scale

Project Objectives	Insignificant	Marginal	Moderate	Critical	Catastrophe
Cost	Inconsequential cost increase	<10% increase	10%-20% increase	20% - 40% increase	>40% increase
Time	Inconsequential Time increase	<5% increase	5%-10% increase	10%-20% increase	>20% increase
Scope	Inconsequential Scope decrease	Scope effect: Minor	Scope effect: Major	Unacceptable adjustments	Project is cancelled
Quality	Compromise barely noticeable	Minor reduction	Approval needed for reduction	Unacceptable reduction	Project is useless

Source: prepared by the author.

For the Bajo Sombra Coffee Shop Renovation project, the following probability and impact matrix will be used.

		Impact				
		1 - Insignificant	2 - Marginal	3 - Moderate	4 - Critical	5 - Catastrophe
Probability	1 - Very low (unlikely)	Low	Low	Low	Medium	Medium
	2 - Low (seldom)	Low	Low	Medium	Medium	Medium
	3 - Medium (occasional)	Low	Medium	Medium	Medium	High
	4 - High (likely)	Medium	Medium	Medium	High	High
	5 - It is a fact (definitely)	Medium	Medium	High	High	High

		Impact				
		1 - Insignificant	2 - Marginal	3 - Moderate	4 - Critical	5 - Catastrophe
Probability	1 - Very low (unlikely)	1	2	3	4	5
	2 - Low (seldom)	2	4	6	8	10
	3 - Medium (occasional)	3	6	9	12	15
	4 - High (likely)	4	8	12	16	20
	5 - It is a fact (definitely)	5	10	15	20	25

Figure 6. Risk probability and impact matrix

Source: prepared by the author.

The prioritization of the risks should start with the high and medium priority levels as those are the risks with higher level of impact and probability of occurrence. The low priority level is still important but should not be the priority and the impact

goes from insignificant to moderate and might be a higher investment of time and money than the actual impact to the project.

4.6.3. Risk register

Table 19. Risk register

RBS Code	Cause	Risk	Consequence	Probability	Impact	Pxl	Priority	Owner	Strategy
1	Operational	Inefficient Organizational Structure	Incompetent staff and delay in commencement of the project	3 – Medium (occasional)	3 - Moderate	9	Medium	Project Manager	Mitigate
2	Operational	Inefficient Service Providers	Suppliers do not deliver the expected products and services	4 - High (likely)	4 - Critical	16	High	Project Manager	Transfer
3	Operational	Noncompliance of permit requirements	Project delays and incompletion	3 – Medium (occasional)	5 - Catastrophe	15	High	Project Manager	Mitigate
4	Execution	Project delays	Late opening of the coffee shop	4 - High (likely)	3 - Moderate	12	Medium	Project Manager	Transfer
5	Execution	Scope changes	Project delays and incompletion	1 - Very low (unlikely)	3 - Moderate	3	Low	Project Manager	Avoid
6	Execution	Cost changes	Budget overrun	3 – Medium (occasional)	5 - Catastrophe	15	High	Project Manager	Transfer
7	Execution	Attraction and retention of skilled labor	Retraining time and possible delays	3 – Medium (occasional)	2 - Marginal	6	Low	Project Manager	Accept
8	Execution	Employee safety	Penalty fees and incapacity payment	2 - Low (seldom)	4 - Critical	8	Medium	Project Manager	Mitigate
9	Market	Better prices	Customers	3 – Medium	4 - Critical	12	Medium	Project	Mitigate

RBS Code	Cause	Risk	Consequence	Probability	Impact	Pxl	Priority	Owner	Strategy
		from competitors	prefer other coffee shops	(occasional)				Manager	

Source: prepared by the author.

4.6.4. Monitoring and Controlling

Table 20. Risk strategy and actions

Strategy	Risks	Actions
Mitigate	<ul style="list-style-type: none"> • Inefficient Organizational Structure • Noncompliance of permit requirements • Employee safety • Better prices from competitors 	<p>In the business plan, the actions will be contemplated as follows:</p> <ul style="list-style-type: none"> • Human Resources advisor will be consulted for this type of business to ensure proper organizational structure. • The permit requirements will be researched and taken into consideration before continuing to the next project phase. • The procedure and process manual will be created to ensure employee safety, as well they will be trained. • During the marketing plan, the price will be set based on the product attributes, but also will consider the competitors' offerings and prices to ensure competitiveness.
Transfer	<ul style="list-style-type: none"> • Inefficient Service Providers • Project delays • Cost changes 	<p>Any project delay or cost change will be transfer to the service providers, in a penalty fee.</p> <p>For any other cost or delay, the project has accounted contingency budget of 3% of the total project cost and a 3%-time buffer of the total project schedule.</p>
Avoid	<ul style="list-style-type: none"> • Scope changes 	<p>After the project charter is approved, the project sponsor will not be able to change the scope for this project. Any additional change, will be recommended for future</p>

Strategy	Risks	Actions
		projects.
Accept	<ul style="list-style-type: none"> • Attraction and retention of skilled labor 	This risk and possible consequence will be accepted; therefore no additional action will be accounted for it as it will be part of the normal operation of the coffee shop or a responsibility of the service providers hired for their subcontractors.

Source: prepared by the author.

The project manager will be responsible of monitoring and controlling these risks and ensure that all the project resources know their roles in this management plan. If needed, will share, with the Project Sponsor, the concerns and action plan to correct it.

4.7. Project procurement management plan

4.7.1. Introduction

Procurement consists on the processes necessary for the acquisition of services, goods and products required from outside of the project. It includes the management and control processes to develop and administer agreements like contracts, purchase orders, memoranda of agreements or internal service level agreements. The Project Manager will be the primarily responsible for the correct procurement for the project, except for the preferences of the Project Sponsor.

4.7.2. Procurement types

- Systems: the systems will consist of an initial payment considered in the project and a monthly subscription.
- Services: services required for work such as the architect, renovation

contractor, muralist, employment agency and music group to be procured for this project will be solicited under contract for professional services.

- Furniture & Equipment: all the furniture and equipment will be a one-time purchase.

4.7.3. Processes

Table 21. Procurement processes

Process	Plan Procurement	Conduct Procurement	Control Procurement
Inputs	<ol style="list-style-type: none"> 1. Project charter 2. Business documents 3. Project Management Plan 4. Project documents 5. Enterprise environmental factors 6. Organizational process assets 	<ol style="list-style-type: none"> 1. Procurement management plan 2. Procurement document 3. Source selection criteria 4. Seller proposals 5. Project documents 6. Procurement statement of work 7. Organizational process assets 	<ol style="list-style-type: none"> 1. Project Management Plan 2. Project Documents 3. Agreements 4. Procurement documentation 5. Approved change requests 6. Work Performance Data 7. Enterprise environmental factors 8. Organizational process assets
Tools and techniques	<ol style="list-style-type: none"> 1. Expert judgment 2. Data gathering 3. Data analysis 4. Source selection analysis 5. Meetings 	<ol style="list-style-type: none"> 1. Expert judgment 2. Advertising 3. Bidder Conferences 4. Data Analysis 5. Interpersonal and team skills 	<ol style="list-style-type: none"> 1. Expert judgment 2. Claims administration 3. Data analysis 4. Inspection 5. Audits

Process	Plan Procurement	Conduct Procurement	Control Procurement
Outputs	<ol style="list-style-type: none"> 1. Procurement management plan 2. Procurement strategy 3. Bid documents 4. Procurement statement of work 5. Source selection criteria 6. Make-or-buy decisions 7. Independent cost estimates 8. Change requests 9. Project documents updates 10. Organizational process assets updates 	<ol style="list-style-type: none"> 1. Selected sellers 2. Agreements 3. Change Requests 4. Project Management Plan Updates 5. Organizational Project Assets 	<ol style="list-style-type: none"> 1. Closed procurements 2. Work performance information 3. Procurement documentation updates 4. Change requests 5. Project management plan updates 6. Organizational process assets updates

Source: prepared by the author.

4.7.3.1. Procurement needs

Table 22. Procurement needs

Procurement Need	Number	Needed By
Systems		
Billing System	1	12/30/2019
Order & Inventory System	1	12/30/2019
Services		
Architect	1	11/18/2019
Renovation Contractor	1	1/6/2020
Muralist	1	2/4/2020
Employment Agency	1	3/30/2020
Music Group	1	6/8/2020
Furniture & Equipment		
Tables	10	2/6/2020
Chairs	30	2/6/2020
Computer	1	2/6/2020

Procurement Need	Number	Needed By
Display Chamber	1	2/6/2020
Fridge	1	2/6/2020
Oven	1	2/6/2020
Kitchen	1	2/6/2020
Lights	10	2/6/2020
Barista Machine	1	2/6/2020
Air Extractor	1	2/6/2020
Sink	2	2/6/2020
Stainless Steel Table	1	2/6/2020
Tableware		
Dishes	80	2/4/2020
Forks	80	2/4/2020
Spoons - Big	80	2/4/2020
Spoons - Small	80	2/4/2020
Glasses	50	2/4/2020
Cups	50	2/4/2020
Knives	80	2/4/2020

Source: prepared by the author.

4.8. Project quality management plan

4.8.1. Introduction

This Quality Management Plan will document the quality management approach and control activities to successfully complete the Bajo Sombra Renovation Project based on the procurement needs, supplementing the overall Project Management Plan (PMP). This Quality Management Plan is intended to be a living document, reviewed, and updated as needed.

4.8.2. Plan quality management

For the product quality, the project will ensure to hire according to the industry standards, including the minimum qualifications for the project manager, architect, renovation contractor, muralist, employment agency and music group, but also based on the expertise proven by each. For the process quality, the Project Manager

will ensure that all the organizational and regulatory standards are followed throughout the project activities, including safety and permit requirements.

4.8.2.1. Product warranty

The furniture and equipment will be a one-time purchase, but will need to include warranty as follows:

- Furniture: 3 months.
- Equipment: 5 years full coverage warranty.

4.8.2.2. Service level agreements

All the service provides will sign a service level agreement with the Project Manager as follows:

Table 23. Service level agreement template

Service Title					
Contacts:		Date Sign:		Approval:	
				Effective Service Dates:	
Service	Requirements	Key Indicator	Service Level	Threshold Limits	Escalation Path
1.					
2.					
3.					
4.					
5.					

Change	Reason for change	Approval	Effective Date
Random Audits Acceptance		Quality Reports Delivery	
Yes		No	Every ____
Non-Compliance Penalty			
Services Payment			

Source: prepared by the author.

4.8.2.3. Meeting minutes

To ensure proper use of time and resources in the meetings planned, a meeting minute template will be filled to guarantee the other stakeholders can be informed if needed, but also to control the quality and necessity of the meetings as follows:

Table 24. Meeting minute template

Meeting Name	Meeting Attendees
Meeting Purpose	Meeting Date & Time
Agenda	Topic Owner
1.	
2.	
3.	
4.	

5.	
Action Items	Owner
1.	
2.	
3.	
4.	
5.	

Source: prepared by the author.

4.8.3. Project quality checklist

In order to complete the Quality Management Plan and before the project phase, the quality checklist needs to be completed and verified with the Project Sponsor.

Table 25. Quality checklist

Project:		Date:			
			Verification		
Quality Item	Yes	No	NA	Comments	Date
Have all the service providers signed a service level agreement?					
Were all the equipment written warranty received?					
Do all the stakeholder have access to					

the Quality Management Plan?					
Have all the product quality metrics been established, reviewed and agreed upon?					
Is the project team aware, instructed and capable to fill the meeting minutes?					
Has the project sponsor approved this project quality management plan?					
Has the Renovation Contractor signed the result of the equipment test #2?					

Source: prepared by the author.

Once all the items in the quality checklist have been marked as *yes* verified, the project can be finalized.

4.9. Project communications management plan

4.9.1. Introduction

The Communications Plan will serve as a guide to assist in communication between the stakeholders of the Bajo Sombra Renovation Project. The Project Manager will take the primary role in ensuring effective communications on this project. The communication plan will state the information, audience, frequency and responsible for all the requirements.

4.9.2. Communications table

Table 26. Communications table

Communication	Format	Frequency	Owner	Distribution
Team Briefing	On Site Meeting	Daily 9:00 AM	Project Manager	Team and Project Sponsor
Budget and Schedule Detail	Email	Bi-weekly	Project Manager	Project Team and Project Sponsor
Technical Incident	Call/ WhatsApp	Immediately after incident	External Team Member, Project Team	Project Manager
Milestones	Email	After completion	Project Manager	Project Sponsor
Scope changes	Email, On Site Meeting	Immediately after approval	Project Sponsor	Project Manager and Team
Permit approvals	Email and physical document	Immediately after approval	Government	Project Manager and Team

Source: prepared by the author.

4.10. Project stakeholder management plan

4.10.1. Introduction

The Stakeholder Management Plan will help understand the people or entities impact on the Bajo Sombra Renovation Project, that will contribute to the success.

The Project Manager will take the primary role in ensuring effective stakeholder management on this project. The Stakeholder Management Plan considers different elements defined by the Merriam Webster Dictionary as follows:

- Influence: the power or capacity of causing an effect in indirect or intangible ways.
- Impact: the force of impression of one thing on another; a significant or major effect.
- Power: ability to act or produce an effect or legal or official authority, capacity, or right.
- Interest: something or someone that arouses such attention or an advantage/benefit.

Based on these conditions, the correct management decision or strategy will be determined for each stakeholder.

4.10.2. Stakeholder register matrix

Table 27. Stakeholder register

Stakeholder Register Matrix						
Project Name Main Sponsor			Renovation of Bajo Sombra Coffee Shop Andrea Castro			
ID	Stakeholders	Functional Area	Roles - Responsibilities	Main Expectations	Major Requirements	Influence/ Impact (Low-Medium-High)
1	Project Sponsor		Responsible of the making sure the business case is valid and in step with the business proposition, in alignment of the business strategy, goals and objectives; staying informed of project events to keep project viable, helping with decision making and approving deliverables, as well as project closure.	Coffee Shop Return on Investment	Project completion and success in the expected timetable and within budget	High
2	Project Manager	Project Management	Responsible of the overall project planning, distributing resources, schedule management, risk management, managing the budget, managing staff and managing relationships with key stakeholders, as well as the overall project success.		Project completion and success in the expected timetable and within budget	High

Stakeholder Register Matrix						
3	Architect	Design	Responsible for ensuring the building aesthetics, function, and use of space are adhered to. The Architect is also responsible for all the various disciplines, excluding the project manager and production of project documents.	Fair trade	Project completion and success in the expected timetable and within budget	High
4	Renovation Contractor	Renovation	Responsible for reading, hiring the subcontractors and executing all the electrical, gas and water design plans, and ensuring the correct functioning of all these systems within the cost and schedule approved.	Fair trade	Project completion and success in the expected timetable and within budget	High
5	Muralist	Decoration	Responsible for the design and creating of the wall mural, specials/menu board and the paintings according to the project specifications within the cost and schedule approved.	Owner satisfaction	Good paint	Medium
6	Employment Agency	Hiring	Responsible for the recruiting and hiring of the coffee shop staff according to the project specifications within the cost and schedule approved.	Recruit and hire the best candidates	Good job requirements	High
7	Music Group	Entrainment	Responsible for the music and acoustic of the opening day event according to the project specifications within the cost and schedule approved.	Happy Customers	Great sound equipment	Low

Stakeholder Register Matrix						
8	Belén City Hall	Government Entities	Provide Operation (Patent) Permit	Increase trade, economic and cultural ground	Correct field use certification, sanitary permit, to be up to date with CCSS and Treasury Office requirements, Inspection	High
9	Health Office	Government Entities	Provide Sanitary Permit	Correct Food Handling Practices and Population Health	Payment, ID Card, Field Use Certification	High
10	Treasury Office	Government Entities	Provide Billing Permit	Correct Tax Collection	Commercial Activity, ID Card	Medium
11	CCSS	Government Entities	Approve Employer Registration	Integral Health Services and social, economic and pension protection	Payment, ID Card, Employee Information, Job Titles	Medium
12	INS	Government Entities	Provide Work Risk Insurance	Prevent and Treat Job Related Injuries	Prevention through good work practices and on time treatment	Medium
13	Community	Demand rights and duties	Cooperation and participation in the interest of the population	Economic growth, environmental protection	Easy access to the coffee shop with high quality food and beverages and great service at the lowest cost available	High

Source: prepared by the author.

4.10.3. Stakeholders' Analysis and Management

All the stakeholders will be analyzed based on the power and interest each has on the project success, considering the Stakeholder Register Matrix presented in the previous section.

Table 28. Stakeholder power & interest

		Power	Interest
High Power/ High interest	Project Sponsor	Have a lot of power while deciding the design of the coffee shop and business plan and with it, the success of the coffee shop, including the future possible profitability.	With a successful coffee shop, the project sponsor and business owner will receive profit
	Project Manager	Will be responsible of managing all the project and with it, the decision-making responsibilities that will impact the success of the coffee shop, including the future possible profitability.	With a successful coffee shop, the project manager will receive the final payment and ability to showcase a successful project
	Architect	Directly involved in the design, that will influence the customer attraction and therefore project success	Interest in promoting the muralist services by showcasing the results
	Renovation Contractor	Directly involved in the renovation and correct functioning of the coffee shop, that will influence the customer attraction and therefore project success	Interest in promoting the muralist services by showcasing the results
	Employment Agency	The agency will do recruiting and hiring of the coffee shop staff according to the project specifications within the cost and schedule approved, if the correct employees aren't selected, the coffee shop will not be successful	Given that the employees change over time, the employment agency is interested in continuing providing its services
	Muralist	Directly involved in the design, that will influence the customer attraction and therefore project success	Interest in promoting the muralist services by showcasing the results
High Power/ Low Interest	Belén City Hall	As the governing body of the region, they hold power over businesses and projects occurring in the territory	Given that the coffee shop comes with economic and trading benefits to Belén, there is an interest in the project but only on the compliance of requirements
	Health Office	Without the Sanitary Permit, the	Given that the coffee shop

		Power	Interest
		coffee shop can't operate	comes with possible health implications in the community, there is an interest in the project but only on the compliance of requirements
	Treasury Office	Without the Billing Permit, the coffee shop can't operate	Given that the coffee shop comes with economic and trading benefits to Belén, there is an interest in the project but only on the compliance of requirements
	CCSS	Without the Employee Registration, the coffee shop can't operate	Given that the coffee shop comes with employment options to the Belén population, there is an interest in the project but only on the compliance of requirements
	INS	Without the Work Risk Insurance, the coffee shop can't hire employees and operate	Given that the coffee shop comes with economic and employment options to the Belén population, there is an interest in the project but only on the compliance of requirements
Low Power/ High Interest	Community	They are not directly involved in the decision-making processes for the coffee shop renovation	They are interested in visiting the coffee shop and having more eating options
	Music Group	They are not directly involved in the decision-making processes for the coffee shop renovation	They are interested in visiting the coffee shop project success to continue to have concerts there
Low Power/ Low Interest	Not Applicable		

Source: prepared by the author.

Based on the analysis, the project's stakeholders will be classified according to their corresponding power and interest as follows:

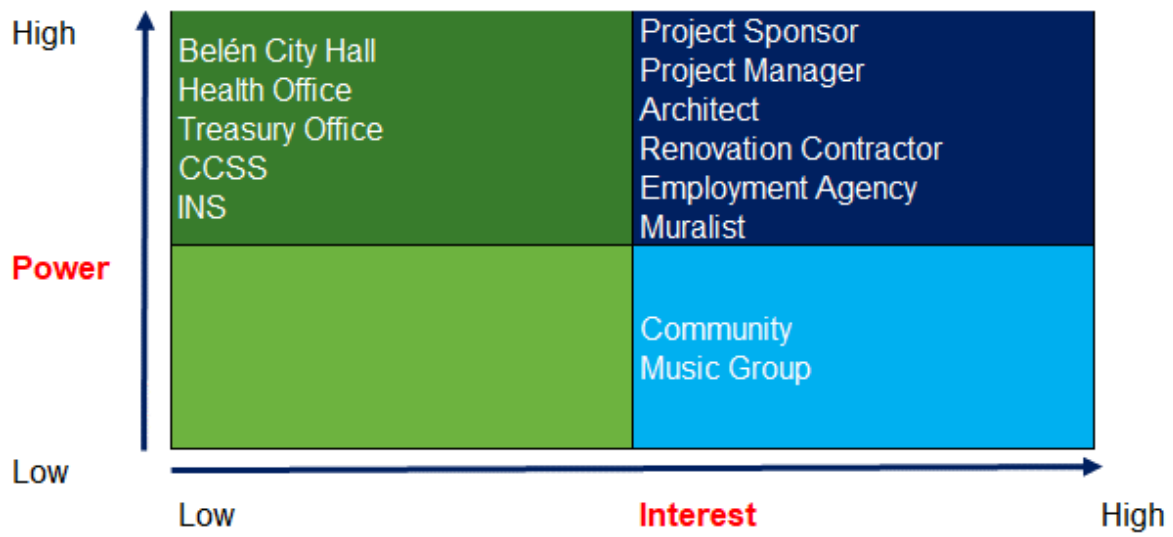


Figure 7. Stakeholder power & interest matrix

Source: prepared by the author.

Depending on the matrix location, the stakeholders will be managed differently:

- High power/High interest: some key stakeholders make highly relevant decisions upon project's success. .
 - Stakeholder Management Decision: manage closely, with involvement in decision making process and continuous updates of the project progress.
- High power/Low interest: some groups have the power to change the project's strategies.
 - Stakeholder Management Decision: keep satisfied with requirements compliance in order to obtain the permits.
- Low power/High interest: some groups may have a high interest in the project's goals.
 - Stakeholder Management Decision: keep informed, with

continuous updates of the project progress.

- Low power/Low interest: some groups may have a low interest in the project's deliverables.
 - Stakeholder Management Decision: monitor, not applicable in this project.

All the stakeholders will receive the proper engagement and will be monitored with the communications mentioned in the Communications Plan, on different deliverable basis, but will have the opportunity to reach the Project Manager when needed, in order to receive the information or benefit planned. This project stakeholder's management plan will be updated as needed to ensure stakeholders satisfaction and appropriate management to guarantee project success.

CHAPTER V. CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

1. In order to successfully complete the Bajo Sombra Coffee Shop renovation project a Project Management Plan was created, framed within the Project Management Institute (PMI) standards, using an analytical method.
2. The first step for the Project Management Plan was to create a project charter as stated in the specific objective number one, which formally authorized the project and provided the project manager the authority to apply the organizational resources to create the project management plan.
3. To define the key stakeholders and requirements, a scope management plan was created, according to the specific objective number two, including the project requirements, the activity list, the work breakdown structure (WBS) and the roles and responsibilities to complete the project.
4. Taking into consideration the project deliverables and objectives, a schedule management plan was defined to complete the project in the established and agreed timeframe, as stated in the specific objective number three, including the project schedule, predecessor and dependencies, as well as the control schedule practices.
5. Based on the activity list, a cost management plan was created to ensure the completion of the work packages and manage the project within the budget constraints, including the cost estimates and cost control activities, as stated in the specific objective number four.
6. To ensure the assignment of resources complying with the international laws and conventions on labor and managing the project resources effectively resource management plan was created, as stated in the specific objective number five, including the project resources list, coffee

shop resources list, the training requirements, the rewards and recognitions considered for the project, and the project manager contract and financial proposal.

7. The risk identification, examination and risk responses within the likelihood and impact of happening were included in the risk management plan according to the specific objective number six.
8. With the created procurement management plan, the procurement types, the procurement needs, and categories were identified to ensure the external resources comply with the project budget, quality and time requirements, as per specific objective number seven.
9. Taking into consideration the stakeholder requirements and in accordance to the specific objective number eight, multiple tools were established in the quality management plan, to ensure stakeholder acceptance, including the minimum product warranty, the service level agreement template for the professional services procured, meeting minutes templates and the checklist.
- 10.A communications table including the communication name, format, frequency, owner and distribution was created in the communications management plan to ensure a timely and clear communication with the different stakeholders of the project status, as planned in the specific objective number nine.
11. Based on influence, impact, power and interest, the key stakeholders were identified and so was their relevance to the project success in the stakeholder's management plan, in the register matrix, analysis, and management decision, as per the specific objective number ten.
12. The Project Management Plan was successfully created based on the Project Sponsor and other stakeholders' requirements, as it was set on

the general objective of the Final Graduation Project.

5.2. Recommendations

1. Bajo Sombra Coffee Shop should implement a long-range planning (LRP) forecast of at least 3 years to keep the team motivated and oriented of the financial return on investment expected from the owners.
2. Bajo Sombra Coffee Shop should add to the different business roles and responsibilities an authority signature, empowering with an amount approval threshold depending on the role and creating an accountability culture in the company.
3. Bajo Sombra Coffee Shop should consider making surveys in social media, about which music groups should be considered to increase customer interactions and engagement.
4. Bajo Sombra Coffee Shop should implement a service professional evaluation considering aspects such as time and budget compliance, as well as quality, and keep contact with the successful professional services providers as can be useful in future projects.
5. Bajo Sombra Coffee Shop should request feedback from the customers during the opening event to understand the needs and keep a project pipeline to make continuous improvements for the customers.
6. Bajo Sombra Coffee Shop should start with an introductory price to help the customers get to know the products and keep updating the business plan as needed, to ensure competitiveness specially with the price.
7. The University for International Cooperation (UCI) Final Graduation Project Course assistant should assign the tutors earlier in the process to ensure the alignment is done according to the schedule provided in the Graduation Seminar.

8. The University for International Cooperation (UCI) should consider having the students go through the same project throughout the master's degree project to experience the complexity of relating all the project management knowledge areas to the same project, rather than using a different project each course.

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APPENDICES

Appendix 1. FGP charter

PROJECT CHARTER	
Date:	Project Name:
Sunday, September 1, 2019	Project Management Plan for the Renovation of Bajo Sombra Coffee Shop
Knowledge Areas / PM Processes:	Application Area (Sector / Activity):
Knowledge Areas: Project Integration Management, Project Scope Management, Project Schedule management, Project Cost Management, Project Quality Management, Project Resources Management, Project Communications Management, Project Risk Management, Project Procurement Management, Project Stakeholder Management	Planning/Construction/Commercial
PM Processes: Initiation, Planning, Executing, Monitoring and Controlling, Closing	
Project Start Date:	Project Finish date:
Sunday, September 1, 2019	Sunday, April 5, 2020
Project Objectives (General and Specific):	
General Objective:	
To create a Project Management Plan to manage the construction of the cafeteria, framed within the Project Management Institute (PMI) standards	
Specific Objectives:	
1. To create a project charter to formally authorize the project and provide the project manager the authority to apply the organizational resources to create the project management	

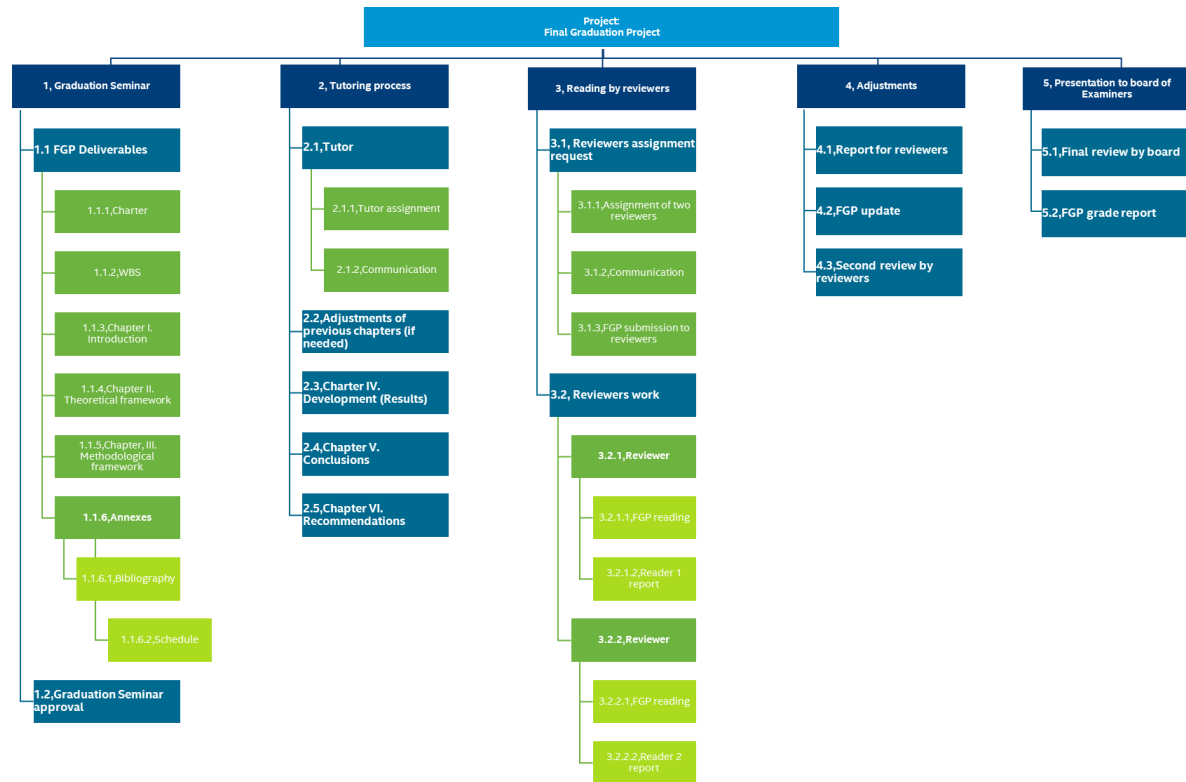
plan
2. To create a sustainable scope management plan, defining the key stakeholders and requirements
3. To create a sustainable schedule management plan, to complete the project in the established and agreed timeframe
4. To create a cost management plan to ensure the completion of the work packages and manage the project within the budget constraints
5. To develop a sustainable resource management plan, to ensure the assignment of resources complying with the international laws and conventions on labor and manage the project resources effectively
6. To create a sustainable risk management plan to identify, examine and plan the risk responses within the likelihood and impact of happening
7. To create a sustainable procurement management plan, to ensure the external resources comply with the project budget, quality and time requirements
8. To develop a sustainable quality management plan, to ensure stakeholder acceptance
9. To create a sustainable communications management plan to ensure timely and clear communication with the different stakeholders of the project status
10. To develop a stakeholder's management plan to identify the key stakeholders and their relevance to the project success
Project purpose or justification (merit and expected results):

<p>The project to develop the Bajo Sombra Coffee Shop Renovation Project Management Plan is necessary to ensure the Project Management Team can correctly complete the coffee shop renovation with the contracted company of Olivia Constructores. The establishment will be a local family-owned coffee shop placed in the owner's house backyard located in Belén, Heredia that will have a schedule of Tuesday to Sunday from 8 a.m. to 7 p.m. Bajo Sombra will be visited by local people and from the different work Free Zones located around.</p> <p>The project team understands the importance of the project's success and will develop the subsidiaries' project plans to ensure the stakeholders' requirements are met in terms of quality, cost, and schedule.</p>		
<p>Description of Product or Service to be generated by the Project – Project final deliverables:</p>		
<p>Project Management Plan, including the specific deliverables associated with the specific objectives:</p> <p>1. Project charter, 2. Scope management plan, 3. Schedule management plan, 4. Quality management plan, 5. Resource management plan, 6. Communications management, 7. Risk management plan, 8. Procurement management plan, 9. Stakeholder's management plan, 10. Cost management plan</p>		
<p>Assumptions:</p>		
<p>The project management plan can be completed within 3 months The project can be completed within budget</p>		
<p>Constraints:</p>		
<p>Time Constraints: 3 (three) months Resources: 1 (one) project manager</p>		
<p>Preliminary Risks:</p>		
<p>1. If the milestone schedule is not followed, the project management plan might not be completed within 3 (three) months</p> <p>2. If the supervisor is not diligent, the corrections might not be completed with the required quality</p>		
<p>Budget:</p>		
<p>Budget will constitute of financial resources required to print, bind and revision of the Final Graduation Project</p>		
<p>Milestones and dates:</p>		
Milestone	Start date	End date
Final Graduation Project	August 26, 2019	April 13, 2020

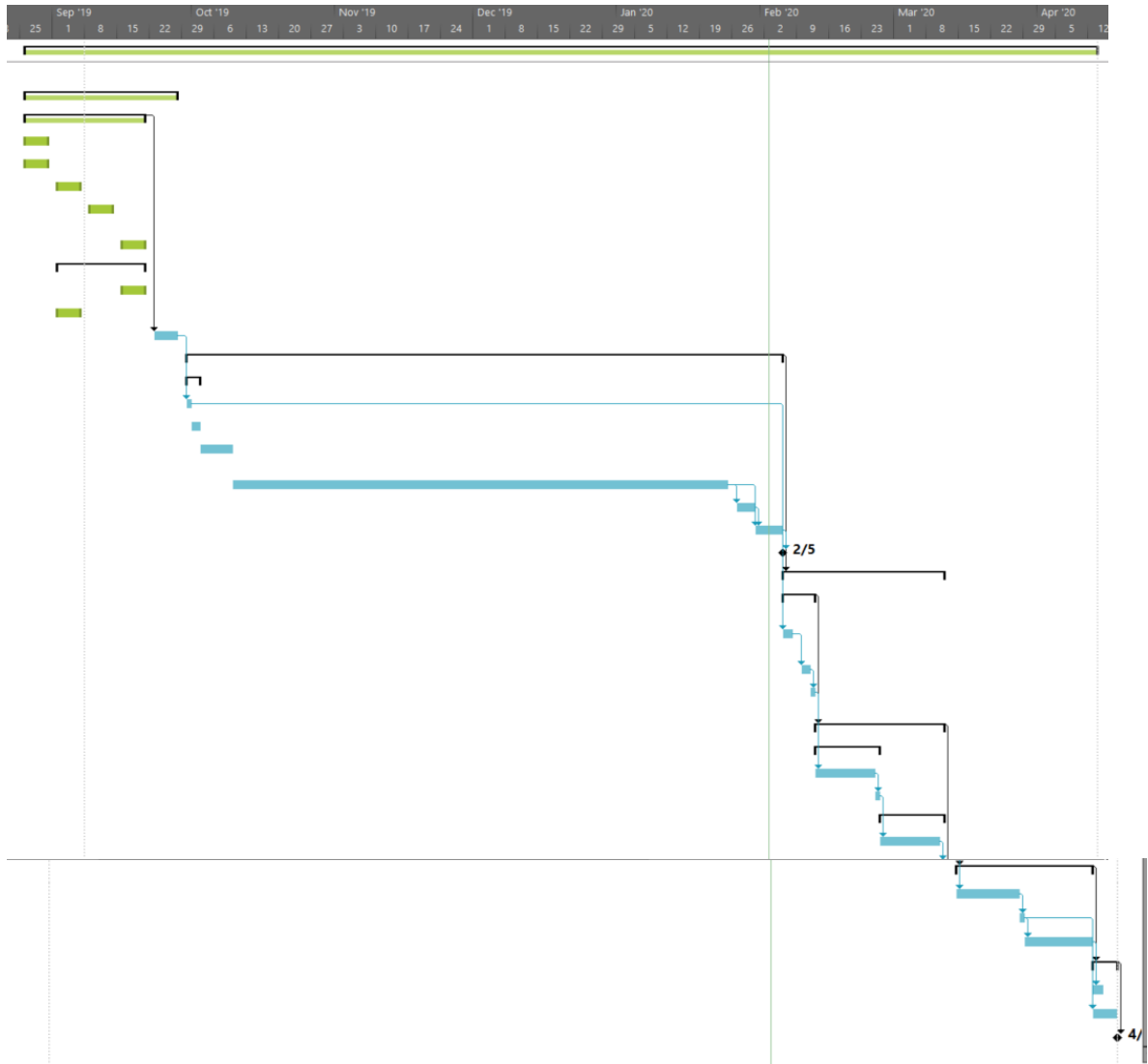
FPG Start		
1, Graduation Seminar	August 26, 2019	September 27, 2019
1.1 FGP Deliverables	August 26, 2019	September 20, 2019
1.1.1, Charter	August 26, 2019	August 30, 2019
1.1.2, WBS	August 26, 2019	August 30, 2019
1.1.3, Chapter I. Introduction	September 2, 2019	September 6, 2019
1.1.4, Chapter II. Theoretical framework	September 9, 2019	September 13, 2019
1.1.5, Chapter, III. Methodological framework	September 16, 2019	September 20, 2019
1.1.6, Annexes	September 2, 2019	September 20, 2019
1.1.6.1, Bibliography	September 16, 2019	September 20, 2019
1.1.6.2, Schedule	September 2, 2019	September 6, 2020
1.2, Graduation Seminar approval	September 23, 2019	September 27, 2019
2, Tutoring process	September 30, 2019	February 5, 2020
2.1, Tutor	September 30, 2019	October 2, 2019
2.1.1, Tutor assignment	September 30, 2002	September 30, 2002
2.1.2, Communication	October 1, 2019	October 2, 2019
2.2, Adjustments of previous chapters (if needed)	October 3, 2019	October 9, 2019
2.3, Charter IV. Development (Results)	October 10, 2019	January 24, 2020
2.4, Chapter V. Conclusions	January 27, 2020	January 30, 2020
2.5, Chapter VI. Recommendations	January 31, 2020	February 5, 2020
Tutor Approval	February 5, 2020	February 5, 2020
3, Reading by reviewers	February 6, 2020	March 11, 2020
3.1, Reviewers assignment request	February 6, 2020	February 12, 2020
3.1.1, Assignment of two reviewers	February 6, 2020	February 7, 2020
3.1.2, Communication	February 10, 2020	February 11, 2020
3.1.3, FGP submission to reviewers	February 12, 2020	February 12, 2020
3.2, Reviewers work	February 13, 2020	March 11, 2020

3.2.1,Reviewer	February 13, 2020	February 26, 2020
3.2.1.1,FGP reading	February 13, 2020	February 25, 2020
3.2.1.2,Reader 1 report	February 26, 2020	February 26, 2020
3.2.2,Reviewer	February 27, 2020	March 11, 2020
3.2.2.1,FGP reading	February 27, 2020	March 10, 2020
3.2.2.2,Reader 2 report	March 11, 2020	March 11, 2020
4,Adjustments	March 12, 2020	April 8, 2020
4.1,Report for reviewers	March 12, 2020	March 24, 2020
4.2,FGP update	March 25, 2020	March 25, 2020
4.3,Second review by reviewers	March 26, 2020	April 8, 2020
5,Presentation to the board of examiners	April 9, 2020	April 13, 2020
5.1,Final review by the board	April 9, 2020	April 10, 2020
5.2,FGP grade report	April 9, 2020	April 13, 2020
FGP end	April 13, 2020	April 13, 2020
Relevant historical information:		
Not applicable		
Stakeholders:		
Direct stakeholders:		
Project Manager - Valeria Mena Guevara		
FGP Lecturer - To be defined		
Tutor - Evelyn Hernández Rojas		
Indirect stakeholders:		
Academic Assistant - Gabriela Zúñiga		
Reviewers		
Approval:		
Project Manager: Valeria Mena Guevara	Signature:	
Authorized by: Evelyn Hernández Rojas	Signature:	
		Version July 2019

Appendix 2. FGP WBS



Appendix 3. FGP schedule



Microsoft Project File:



2. Work Schedule - Valeria Mena.mpp