

UNIVERSIDAD PARA LA COOPERACION INTERNACIONAL
(UCI)

FINAL GRADUATION PROJECT
Project Management Guide for the Project of Developing, Testing and
Documenting a Credit Management Model for Small and
Midsize Producers Associated to COOCIQUE R.L.

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DEDICATION

To Ana, for always being there.

To those farmers who taught me how important they are in this world.

To those Savings and Credit Cooperatives willing to support small and midsize producers.

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ACKNOWLEDGMENTS

This Final Graduation Project (FGP) is inspired on the experience of the World Council Credit Union Inc. (WOCCU) in Guatemala and Kenya, where local Credit Unions support rural farmers and small and midsize enterprises by providing them access to credit and technical assistance. My gratitude to Dr. Brian Branch, CEO of WOCCU, for his support and encouragement to locally develop this topic tailoring it to the Costa Rican context.

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ABBREVIATIONS AND ACRONYMS

ATM	Automated Teller Machine
CABEI	Central American Bank for Economic Integration
CEO	Chief Executive Officer
COOCIQUE R.L.	Cooperativa de Ahorro y Crédito de la Comunidad de Ciudad Quesada (Savings and Credit Cooperative of the Quesada City)
EEF	Enterprise Environmental Factors
FGP	Final Graduation Project
IT	Information Technology
OPA	Organizational Process Assets
PMBOK®	A Guide to the Project Management Body of Knowledge - PMBOK Guide
PMI	Project Management Institute
PMO	Project Management Office
SBD	Costa Rican national Banking System for Development
SME	Small and Midsize Enterprises
SUGEF	General Superintendence of Financial Institutions
UCI	University for International Cooperation
USD	U.S. Dollar
SOW	Statement of Work
SWOT	Strengths, Weaknesses, Opportunities, and Threats analysis.
TOR	Terms of Reference
WBS	Work Breakdown Structure
WOCCU	World Council of Credit Unions Inc.

EXECUTIVE SUMMARY (ABSTRACT)

COOCIQUE R.L. –located in San Carlos, Costa Rica– is a Savings and Credit Cooperative that was founded in 1965; since then, it has been promoting the economic and social development of the geographical areas where they offer financial services. Today COOCIQUE R.L. is a sound financial institution regulated by the General Superintendence of Financial Institutions (SUGEF) and it serves more than 100.000 members nationwide. Credit products mainly include commercial loans, credit card loans, mortgage loans and productive loans.

One of the most important services offered by the Cooperative is the credit service for small and midsize producers, including agriculture and milk producers, among others. One of the challenges that COOCIQUE has been facing is to tailor credit services to the cooperative members' needs. They require guidelines to develop, test and document a credit management model for small and midsize producers, including credit policies, procedures and tools to facilitate producers' access to credit, digital-based delivery mechanisms, access to markets and credit risk management.

The proposed Project Management Guide was aimed at developing specific credit methodologies to address the small and midsize producers' needs. The purpose of this Project Management Guide was to offer a step-by-step guide to developing, testing and documenting new models of credit management in the productive loan portfolio. The absence of specific credit methodologies to address the small and midsize producers' needs and businesses characteristics increased the credit management risk and became a potential risk of non-compliance with SUGEF regulations.

The general objective of this Final Graduation Project was to develop a Project Management Guide, framed within the standards of the Project Management Institute, for developing, testing and documenting a credit management model for small and midsize producers associated to COOCIQUE R.L., a financial institution located in San Carlos, Costa Rica.

The specific objectives were: 1) To develop a Project Management Guide including the creation of a Project Charter that formally authorizes the project and provides the project manager with the authority to apply organizational resources to the project; 2) To develop a Project Management Guide that includes the following subsidiary plans: a) Scope Management Plan, b) Schedule Management Plan, c) Cost Management Plan, d) Quality Management Plan, e) Resource Management Plan, f) Communications Management Plan, g) Risk Management Plan, h) Procurement Management Plan, and i) Stakeholder Management Plan; and 3) To develop an implementation plan with short-, medium- and long-term actions that will help COOCIQUE R.L. to implement activities on a timely manner for developing, testing and documenting new credit management models for small and midsize producers.

For this research, a qualitative methodology was selected, supported by some quantitative analysis, using a combination of primary and secondary sources of information. The planning process was more qualitative than quantitative, but an analytical process of existing information and facts was conducted in order to develop a proper analysis, which would lead to critical conclusions about the credit management model components.

Developing new credit products demands the modification of credit management processes, procedures and organizational process assets in order to tailor credit products to small and midsize producers' needs. Changes to internal processes and procedures must include regulatory norms from the supervisory body, so before the elaboration of the Business Case or Project Charter some feasibility analyses had to be conducted, especially the legal feasibility analysis.

During this FGP we have identified new processes, activities or tools that need to be considered during the development of the new credit product for small and midsize producers, and we have suggested a limited number of new tools in order to add value to the project management process, but without creating a highly bureaucratic process and excessive paperwork.

Finally, assessing the current project management methodology at COOCIQUE and the PMO organization and operation is out of scope of this FGP. Nevertheless, we suggest that they assign Project Managers from the PMO, and not from functional areas that are also affected by the changes that the new product will generate. The COOCIQUE current project management methodology clearly integrates basic PMI best practices and principles, but that is a general document not fully operational for the development of new credit products. This is something that needs to be reviewed.

The general objective of this Final Graduation Project has been achieved by proposing the Project Management Guide including the subsidiary plans for the developing, testing and documenting a credit management model for small and midsize producers associated to COOCIQUE R.L. The visits to COOCIQUE and field interviews to COOCIQUE staff helped to understand the PMO functions and COOCIQUE project management methodology, which is framed within the standards of the Project Management Institute. The proposed implementation plan highlights the short-, medium- and long-term actions for fully implementing the whole Project for the design of the new credit product.

The suggested components of the Project Management Guide including subsidiary plans for the Project of developing new credit products will benefit COOCIQUE by providing a technical guide for planning this kind of projects in the future, in addition to the suggested tools that can help to improve the current project management methodology.

1 INTRODUCTION

1.1 Background

COOCIQUE R.L. –located in San Carlos, Costa Rica– is a Savings and Credit Cooperative. The acronym COOCIQUE R.L. stands for *Cooperativa de Ahorro y Crédito de la Comunidad de Ciudad Quesada*. This was the first cooperative of its nature in the municipality of San Carlos. The Junior Chamber of Ciudad Quesada was the communal movement encouraging the creation of the cooperative in April 1965 and, since then, it has been promoting the economic and social development of the northern areas of Alajuela province. Later on, the cooperative expanded services to other geographical areas in the country.

Today, COOCIQUE R.L. is a sound financial institution serving more than 100.000 members nationwide. Credit products mainly include consumer loans, commercial loans, credit card loans, mortgages loans and productive loans. As a financial institution, COOCIQUE R.L. is supervised by the General Superintendence of Financial Institutions (SUGEF), based on the *Ley N° 7391, Ley de Regulación de la Actividad de Intermediación Financiera de las Organizaciones Cooperativas* [Act No. 7391 Law regulating the financial intermediation activity of cooperative organizations], 1994.

As of December 31, 2018, the Cooperative managed a total amount of assets of USD 376,828,872, including a total loan portfolio of USD 282,858,484. The total members share capital is USD 35,581,517 (COOCIQUE R.L., 2019).

One of the most important services offered by the Cooperative at its 22 branches is the credit service for small and midsize producers, including agriculture and milk producers, among others. The total productive loan portfolio reaches a total of USD 91,123,414 (COOCIQUE R.L., 2019).

One of the challenges that COOCIQUE has been facing is how to tailor credit services to the cooperative members' needs, especially the small and midsize producers in rural areas. The financial market is continually changing and financial institutions need to adapt to the regulations regarding credit risk management.

Based on local conditions, COOCIQUE R.L. is requiring the development, testing and documentation of a new credit management model for small and midsize producers that includes the policies, procedures and tools that will facilitate producers' access to credit, digital-based delivery mechanisms, access to markets and credit risk management.

The proposed Project Management Plan will offer a systematic guide for developing, testing and documenting new models on productive loan portfolio's credit management.

1.2 Statement of the Problem

In the early 2000s, COOCIQUE R.L. increased their consumer loans portfolio in all the 22 branches nationwide, but the most recent regulations for Small and Midsize Enterprises (SME), based on the *Ley N° 8262, Ley de Fortalecimiento de las Pequeñas y Medianas Empresas* [Strengthening of Small and Midsize Enterprises Act No. 8262, 2002], and the *Ley N° 9274, Reforma Integral de la Ley Sistema de Banca para el Desarrollo* ["Banking System for Development Act" No. 9274, 2014], opened new opportunities to introduce new lines of credit, offer digital-based delivery mechanisms and improve access to markets for small and midsize producers. Nonetheless, COOCIQUE R.L. lacked the specific credit methodologies to address the small and midsize producers' needs based on their businesses' particular characteristics. In addition, credit risk management should be improved for productive sector activities.

This Project Management Guide aims to add project management knowledge to the cooperative and to improve operational competencies within COOCIQUE R.L. to develop, test and document new credit management models for small and midsize producers.

1.3 Purpose

The proposed Project Management Guide will offer a systematic guide for developing, testing and documenting new models on credit management of the productive loan portfolio. The absence of specific credit methodologies to address the small and midsize producers' needs and businesses characteristics increase

the credit management risk and become a potential risk of non-compliance of SUGEF regulations.

Many COOCIQUE R.L. members are agricultural producers, milk producers, animal farmers, manufacturers, merchants, food manufacturers, handmade leather goods manufacturers, handicrafts producers, and similar occupations. The Project Management Guide including subsidiary documents will help COOCIQUE R.L. to improve internal capacities for the design and implementation of new credit management models for small and midsize producers considering access to credit, digital-based delivery mechanisms, access to markets and credit risk management.

1.4 General Objective

To develop a Project Management Guide, framed within the standards of the Project Management Institute, for developing, testing and documenting a credit management model for small and midsize producers associated to COOCIQUE R.L., a financial institution located in San Carlos, Costa Rica.

1.5 Specific Objectives

1. To develop a Project Management Guide including the creation of a Project Charter that formally authorizes the project and provides the project manager with the authority to apply organizational resources to the project.
2. To develop a Project Management Guide that including subsidiary plans such as: a) Scope Management Plan, b) Schedule Management Plan, c) Cost Management Plan, d) Quality Management Plan, e) Resource Management Plan, f) Communications Management Plan, g) Risk Management Plan, h) Procurement Management Plan, and i) Stakeholder Management Plan.
3. To develop an implementation plan with short-, medium- and long-term actions that will help COOCIQUE R.L. to implement activities in a timely manner for developing, testing and documenting new credit management models for small and midsize producers.

2 THEORETICAL FRAMEWORK

2.1 Company/Enterprise Framework

2.1.1 Company/Enterprise Background

Founded in 1965, COOCIQUE R.L. has been one of the development engines of the northern region of Costa Rica by offering financial services in small towns in and by branching out in San José and other important cities in the Costa Rica metropolitan area.

In the early years of development, COOCIQUE was the pioneer in the region, introducing automated teller machines (ATM), credit and debit cards, mobile banking vehicles, after-hours service special cashiers and Drive Thru banking services.

These days, COOCIQUE is serving several geographic areas through twenty-two (22) branches in five (5) provinces as follows: Guanacaste province (2 branches), San José Province (1 branch), Heredia province (2 branches), Cartago province (1 branch), and Alajuela Province (16 branches) (COOCIQUE R.L., 2019). Figure 1 shows the locations of COOCIQUE branches.

Figure 1: COOCIQUE branches location



Map source: One World - Nations Online (map of Costa Rica, 2019)

As can be seen in Table 1, the productive loan portfolio, mainly targeting small and midsize producers, as of December 31, 2018, reached the total amount of USD 88.6 million representing 31.3% of the gross loan portfolio.

The volume of awarded loans to productive activities has been increasing in recent years and it is expected to further grow in the coming years. Five years ago, the balance of the productive loan portfolio was just USD 47,704,207.85

Table 1: COOCIQUE R.L. Financial data

COOCIQUE R.L. - Financial data	
<i>(as of December 31, 2018 - US Dollars)</i>	
Total Assets	376,828,872.00
Gross Loan Portfolio	282,858,484.00
Productive Loan Portfolio	88,641,541.84
Savings Deposits	221,481,926.75
Member Share Capital	35,581,517.64
Gross Income	2,545,008.18

Data source: COOCIQUE 2018 Annual Report (COOCIQUE R.L., 2019)

The Cooperative members own more than USD 35 million on member share capital and USD 221 million on savings, but these are not the only sources of funding. Loans for small and midsize producers are also funded with external resources from the Costa Rican national Banking System for Development (SBD) and the Central American Bank for Economic Integration (CABEI), among other international and national financial partners.

As shown in Table 2, COOCIQUE’s productive loan portfolio includes loans for agriculture, animal breeding and cattle raising for milk production, manufacturing, business loans for women, and loans for small and midsize enterprises (SME), which are the largest portion. SMEs represent 88.2% of the total productive loan portfolio.

As the productive loan portfolio has been increasing in recent years and the SME loans represent an important portion of the total loan portfolio, the development of

a new credit management model for small and midsize producers becomes strategic and a critical activity for credit management risk control.

Table 2: COOIQUE R.L. Productive Loan Portfolio

COOIQUE R.L. - Productive Loan Portfolio	
<i>(as of December 31, 2018 - US Dollars)</i>	
Agriculture	1,162,542.34
Animal breeding	7,481,084.40
SMEs	78,190,618.42
Manufacture	863,844.15
Business Loans for Women	943,452.52
Total Productive Loan Portfolio	88,641,541.84

Data source: COOIQUE 2018 Annual Report (COOIQUE R.L., 2019)

2.1.2 Mission and Vision Statements

The COOIQUE Mission and Vision statements aim to build up a sound cooperative enterprise, positively impacting the social and economic development of its members by generating wealth and wellbeing attached to their organizational values (COOIQUE R.L., 2019).

COOIQUE Mission and Vision statements are as follows (COOIQUE, R.L., 2019):

Mission

*Promote our members’ development
by generating wealth and wellbeing
attached to our values*

Vision

*To be a reliable and solid cooperative enterprise,
which impacts the social and economic development
of its members with a high sense of belonging*

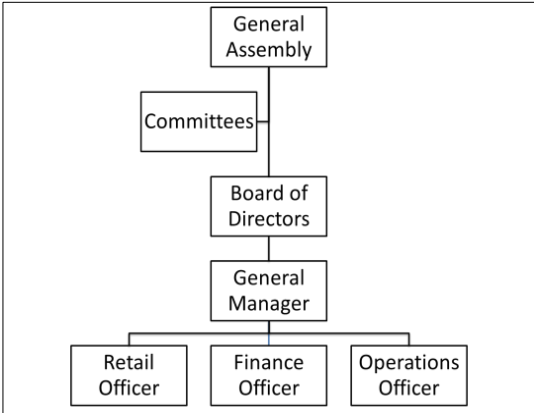
By improving credit management performance, reducing delinquent loans and better managing risk associated to small and midsize producers' activities, COOCIQUE will be able to accomplish the principles asserted in their Mission and Vision Statements. The proposed Project Management Guide for the project of developing, testing and documenting a credit management model for small and midsize producers will highly contribute to the achievement of these strategic goals.

Also, the Project Management Guide and subsidiary documents will contribute to increase the Cooperative knowledge and expertise on project management.

2.1.3 Organizational Structure

COOCIQUE's organizational structure is divided into three major divisions: retail financial services, finance management and operations management.

Figure 2: COOCIQUE R.L. Organizational Chart



The organizational area that will be impacted by the proposed Project Management Guide is the Retail and Commercial Department, which includes the following sections:

- a) Financial products and services: Several types of consumer loans, debit and credit cards, SMEs and other productive loans, savings deposit products and other services.
- b) Marketing and media.
- c) Distribution channels: Sales and branches.

2.1.4 Products Offered

The COOCIQUE webpage (COOCIQUE R.L., 2019) shows a list of the following financial products and services:

- a) Savings deposits: Regular savings; special savings, such as Christmas savings; and term deposit savings.
- b) Loans: Consumer loans, housing loans, SME and other credit lines for productive loans.
- c) Debit and credit cards.
- d) Insurance services.
- e) Others services such as special financial products and services for women, a mobile banking vehicle for accessing distant areas, a youth program, and several partnerships with providers, such as hospitals and hotels.

The proposed Project Management Guide will mainly have an impact on those loans for productive activities, especially SMEs.

2.2 Project Management Concepts

In this section, we present the main concepts of Project Management and their relationship with the proposed project and the COOCIQUE experience on project management.

At COOCIQUE, as part of the Strategic Management Unit, there is a Project Management function or Project Management Office (PMO) as described by the Project Management Institute in the *PMBOK®* (Project Management Institute, 2017). This role is performed by only one staff with professional education in Industrial Engineering.

The role of this office is very close to a mix between a supportive and a controlling PMO. The office provides a consultative role supporting COOCIQUE internal areas interested in pursuing new activities, services or products; it provides documentation templates and training on best practices. Also, especially for information technology (IT) projects, the office monitors projects' performance and compliance with special attention on the schedule performance.

One critical step developed by this COOCIQUE PMO is the alignment of new project objectives with the Strategic Plan. This is a high-level Business Case

Review, in which the proposed project or market opportunity should be aligned with the organizational strategy.

2.2.1 Project

A project is defined by the PMI as “a temporary endeavor undertaken to create a unique product, service, or result” (PMI, 2017). In the particular case of this Final Graduation Project (FGP), the concept of ‘project’ is understood as the development of a Project Management Guide for developing, testing and documenting a credit management model for small and midsize producers associated to COOCIQUE R.L.

COOCIQUE PMO uses the PMI concepts of project management and promotes an organizational culture respecting and implementing project management best practices. In this particular case, according to the COOCIQUE experience, the new project initiation factors are similar to the four fundamental factor categories mentioned in the *PMBOK®* (PMI, 2017: 7):

- Meet regulatory new requirements from supervisory bodies;
- Satisfy members’ needs or internal requests;
- Implement changes on business or technology; and
- Develop or improve current services or financial products.

2.2.2 Project Management

Project management is defined by the PMI as “the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements” (PMI, 2017).

According to the PMI *PMBOK®*, in this FGP all the project management knowledge areas will be reviewed during the elaboration of the Project Management Guide and subsidiary documents, but all the effort will be focused on the Initiating Process Group and Planning Process Group, where the development of plans is concentrated.

In the particular case of COOCIQUE, during the Initiating phase, the PMO would be strongly involved in guiding the elaboration of the Business Case document, by collecting inputs from other operational areas such as the project sponsor, the stakeholders, the Finance Department, and the Risk Management Unit. Finally the

Business Case would be approved or rejected by a Management Committee. Usually the project is directly executed by the sponsor or a project manager from the sponsoring internal area, and the PMO monitors some activities, especially the schedule compliance of IT projects.

2.2.3 Project Life Cycle

The Project life cycle refers to the “series of phases that a project passes through from its start to its completion” (PMI, 2017: 19). Usually these phases are identified as: a) Starting the Project; b) Organizing and Preparing the Project; c) Carrying out the work; and d) Ending the Project. These Project phases interact with the Knowledge Areas and the five Process Groups.

In this FGP the focus will be on the Starting the Project phase interacting with all the Knowledge Areas and Initiating and Planning Process Groups. In the particular case of COOCIQUE, they follow the general Project life cycle of Starting, Organizing, and Carrying out the work, and Ending every project they develop.

2.2.4 Project Management Processes

The Project Management Processes are the project management activities executed to manage the project life cycle, which include tools and techniques to produce outputs.

In this FGP, activities will be focused on the Initiating and Planning Process Groups with the final aim of producing the proposed Project Management Guide and subsidiary documents.

As described in the *PMBOK®*, every project management process produces outputs that could become inputs for other processes. The output can be a deliverable or a final outcome.

In the particular case of COOCIQUE, they follow activities as part of the main PMI process groups: Initiating, Planning, Executing, Monitoring and Controlling, and Closing. COOCIQUE PMO provides guidance to Project sponsors and Project managers on the key topics that should be included in each process.

2.2.5 Project Management Knowledge Areas

As described by the *PMBOK®* “a Knowledge Area is an identified area of project management defined by its knowledge requirements and described in terms of its component processes, practices, inputs, outputs, tools, and techniques” (PMI, 2017: 23). In the case of this FGP, the applicable Knowledge Areas will be reviewed in order to plan the Project Management Guide including subsidiary documents. The PMI Knowledge Areas are:

- Project Integration Management
- Project Scope Management
- Project Schedule Management
- Project Cost Management
- Project Quality Management
- Project Resource Management
- Project Communications Management
- Project Risk Management
- Project Procurement Management
- Project Stakeholder Management

In the case of COOCIQUE, the documentation reviewed does not clearly state how the PMO identifies the Knowledge Areas and applies related concepts to the entire project life cycle.

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

2.3.1 Legal Framework

The elaboration of the Project Management Guide of a Project for developing, testing and documenting a credit management model for small and midsize producers associated to COOCIQUE R.L. must consider a complex legal framework composed of several laws and regulations.

The Costa Rican laws and regulations that need to be considered for this Project are:

- Cooperative Act No. 4179
- Regulation of the Financial Intermediation Activity of Cooperative Organizations Act No. 7391.
- Strengthening of Small and Midsize Enterprises Act No. 8262.
- Banking System for Development Act No. 9274
- SUGEF regulations on Credit Management, Risk Management and on the application of the Banking System for Development Act.

2.3.2 Risk Mitigation Principles

According to the World Council of Credit Unions Inc. (WOCCU), “Lending to rural households requires tailoring products to meet client demand and assessing client repayment capacity based on multiple income streams” (WOCCU Inc., 2003: 3). Agricultural production risks are associated to climatic disasters, climate change and the incidence of pests and diseases. Market risks are associated to agricultural commodities price stability and respecting trade agreements.

Formal financial institutions need to look into credit models capable of reducing risk that could include key elements such as input supply agreements, contract farming, sales contracts, irrigation systems, greenhouse production, crop insurance, and other mechanisms.

In this FGP, the Project Management Guide including subsidiary plans should consider that one critical component of the project for developing, testing and documenting a credit management model for small and midsize producers is the risk mitigation for small and midsize producers’ activities.

3 METHODOLOGICAL FRAMEWORK

3.1 Sources of Information

The sources of information that will be used during the elaboration of this FGP are the PMI *PMBOK*® Guide (Project Management Institute, 2017) and the knowledge and experience from the COOCIQUE R.L. staff directly linked to the FGP topic. Eventually, the small and midsize producers associated to COOCIQUE R.L. will be consulted on specific matters.

Finally, COOCIQUE Organizational Process Assets will be a special source of information. We will consult the Strategic Plan, the Credit policies and procedures, the Credit products description, the reports, the internal project management processes, templates and other documents, the Credit analysts' knowledge and field experience, and the members' credit files and similar documents.

The elaboration of this FGP will be interactive and interpretative in order to understand a dynamic reality beyond the simple cause-effect relationship by identifying the particular local context (Barrantes, 2013). This is a descriptive research with the objective of proposing a solution to practical problems by offering tailored financial services to small and midsize producers.

Primary and Secondary sources of information will be used during the elaboration of this FGP as follows:

3.1.1 Primary Sources

As mentioned in Table 3, the primary sources of information are “original documents created or experienced concurrently with the event being researched” (William H. Hannon Library, 2019) and these might include meetings minutes, interviews or oral histories with participants or witnesses, audio or video recordings, internet communications, and original documents and studies with raw data among others.

As primary sources, the COOCIQUE Organizational Process Assets will be crucial for this FGP.

3.1.2 Secondary Sources

Secondary sources of information are “works that analyze, assess, or interpret a historical event, an era, or a phenomenon” (William H. Hannon Library, 2019)

using primary sources. As secondary sources, COOCIQUE credit analyses or research studies conducted by third parties will be considered.

Table 3: The difference between primary and secondary sources

	Primary	Secondary
Definition	Original documents created or experienced concurrently with the event being researched	Works that analyze, assess, or interpret a historical event, an era, or a phenomenon. Generally uses primary sources
Characteristics	First hand observations, contemporary accounts of the event. Viewpoint of the time	Interpretation of information, usually written well after an event. Offers reviews or critiques
Examples	Interviews, news footage, data sets, original research, speeches, diaries, letters, creative works, photographs	Research studies, literary criticism, book reviews, biographies, textbooks

Source: William H. Hannon Library, 2019.

Table 4: Sources of Information

Objectives	Sources of Information	
	Primary	Secondary
1. To develop a Project Management Guide, including the creation of a Project Charter that formally authorizes the project and provides the project manager with the authority to apply organizational resources to the project.	<ul style="list-style-type: none"> ● COOCIQUE R.L. staff directly linked to the FGP topic, such as General Manager, PMO, Risk Management Unit, and Credit Management Unit. 	<ul style="list-style-type: none"> ● <i>PMI PMBOK®</i> ● The PMI Lexicon of Project Management Terms.
2. To develop a Project Management Guide that includes the following subsidiary plans: a) Scope Management Plan, b) Schedule Management Plan, c) Cost Management Plan, d) Quality	<ul style="list-style-type: none"> ● COOCIQUE R.L. Organizational Process Assets. ● COOCIQUE R.L. staff directly linked to the FGP topic. ● Small and midsize producers. 	<ul style="list-style-type: none"> ● <i>PMI PMBOK®</i> ● WOCCU Inc. studies or documents related to Agricultural lending. ● PMI Practice Standard for Scheduling. ● PMI Practice Standard for Project Estimating.

Management Plan, e) Resource Management Plan, f) Communications Management Plan, g) Risk Management Plan, h) Procurement Management Plan, and i) Stakeholder Management Plan.	<ul style="list-style-type: none"> ● Legal framework linked to the FGP topic mentioned on section 2.3.1. of this document. ● COOCIQUE R.L. credit management statistics and credit management data. ● Agreements between COOCIQUE R.L. and Small and Midsize Producers. 	<ul style="list-style-type: none"> ● PMI Practice Standard for Earned Value Management. ● Rose, Kenneth. Project Quality Management, Why, What and How. ● Wanner, Roland. Project Risk Management: The Most Important Methods and Tools for Successful Projects
3. To develop an implementation plan with short-, medium- and long-term actions that will help COOCIQUE R.L. to implement activities in a timely manner for developing, testing and documenting new credit management models for small and midsize producers.	<ul style="list-style-type: none"> ● COOCIQUE R.L. Organizational Process Assets. ● COOCIQUE R.L. staff directly linked to the FGP topic. ● Small and midsize producers. 	<ul style="list-style-type: none"> ● PMI <i>PMBOK</i>® ● PMI Practice Standard for Scheduling. ● PMI Practice Standard for Project Estimating. ● PMI Practice Standard for Earned Value Management.

Data source: See notes at the end of this page¹

3.1.3 Research Methods

Based on the Australian University of Newcastle Library guides (University of Newcastle Library guides, 2019) the research methods to be used on this FGP are the Qualitative Research and the Quantitative Research.

The elaboration of the Project Management Guide for the project of developing, testing and documenting a credit management model for small and midsize producers associated to COOCIQUE R.L. will focus on a qualitative research supported by some quantitative analysis when needed. The planning process is more qualitative than quantitative, but an analysis of existing information and facts is expected in order to conduct the proper evaluation that will drive to critical conclusions about the credit management model components.

¹ Table 4 sources: PMI *PMBOK*® (PMI, 2017); PMI Lexicon (PMI, 2017) ; A Technical Guide to Rural Finance and other similar documents (WOCCU Inc., 2013); PMI Practice Standard for Scheduling, (PMI, 2011); PMI Practice Standard for Project Estimating, (PMI, 2011); PMI Practice Standard for Earned Value Management, (PMI, 2011); Rose, Kenneth. Project Quality Management, Why, What and How (Rose, 2014)

The Qualitative Research “...gathers data about lived experiences, emotions or behaviors, and the meanings individuals attach to them. It assists in enabling researchers to gain a better understanding of complex concepts, social interactions or cultural phenomena. This type of research is useful in the exploration of how or why things have occurred, interpreting events and describing actions” (University of Newcastle Library guides, 2019) which will be useful to study current credit management processes and small and midsize producers’ needs.

The Quantitative Research is related to gathering “...numerical data which can be ranked, measured or categorized through statistical analysis. It assists with uncovering patterns or relationships, and for making generalizations. This type of research is useful for finding out how many, how much, how often, or to what extent” (University of Newcastle Library guides, 2019) which will be useful to understand the current performance of the productive loan portfolio and the impact of potential changes on the credit methodology.

The techniques or tools used for gathering research data are described in Table 5.

Table 5: Techniques or tools used for gathering research data

Qualitative Techniques or Tools	Quantitative Techniques or Tools
Interviews: these can be structured, semi-structured or unstructured in-depth sessions with the researcher and a participant.	Surveys or questionnaires: which ask the same questions to large numbers of participants or use Likert scales which measure opinions as numerical data.
Focus groups: with several participants discussing a particular topic or a set of questions. Researchers can be facilitators or observers.	Observation: which can either involve counting the number of times a specific phenomenon occurs, or the coding of observational data in order to translate it into numbers.
Observations: On-site, in-context or role-play options.	Document screening: sourcing numerical data from financial reports or counting word occurrences.
Document analysis: Interrogation of correspondence (letters, diaries, emails etc) or reports.	Experiments: testing hypotheses in laboratories, testing cause and effect relationships, through field experiments, or via quasi- or natural experiments.
Oral history or life stories: Remembrances or memories of experiences told to the researcher.	

Source: University of Newcastle Library guides, 2019.

Table 6: Research Methods

Objective	Research methods	
	Qualitative	Quantitative
1. To develop a Project Management Guide, including the creation of a Project Charter that formally authorizes the project and provides the project manager with the authority to apply organizational resources to the project.	<ul style="list-style-type: none"> • Initial analysis made of COOCIQUE existing documents and interviews to key staff, such as the General Manager, the PMO Officer, the Risk Management Officer, and the Credit Management Officer. 	<ul style="list-style-type: none"> • Analysis of existing information about the productive loan portfolio performance will be either conducted or analyzed when existent.
2. To develop a Project Management Guide that includes the following subsidiary plans: a) Scope Management Plan, b) Schedule Management Plan, c) Cost Management Plan, d) Quality Management Plan, e) Resource Management Plan, f) Communications Management Plan, g) Risk Management Plan, h) Procurement Management Plan, and i) Stakeholder Management Plan.	<ul style="list-style-type: none"> • Interviews to key staff, such as the General Manager, the PMO Officer, the Risk Management Officer, and the Credit Management Officer. • Organizational Process Assets and documentation analysis. 	<ul style="list-style-type: none"> • Analysis of existing information about the productive loan portfolio performance will be either conducted or analyzed when existent. • Analysis of existing data about historical and current local costs will be conducted. • Analysis of existing data about historical and current resources used on similar projects or activities will be conducted. • Analysis of existing data about COOCIQUE communications budget and activities will be conducted.

<p>3. To develop an implementation plan with short, midsize and long term actions that will help COOCIQUE R.L. on implementing activities on timely manner for developing, testing and documenting new credit management models for small and midsize producers.</p>	<ul style="list-style-type: none"> • Interviews to key staff, such as the General Manager, the PMO Officer, the Risk Management Officer, and the Credit Management Officer. • Organizational Process Assets and documentation analysis. 	<ul style="list-style-type: none"> • Analysis of existing data about COOCIQUE planning and evaluation methodologies and processes will be conducted.
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3.2 Tools

In this section the research tools and techniques will be described according to the University of Newcastle Library guides and the PMI *PMBOK*®. See Table 7 below.

Table 7: Tools

Objectives	Tools
<p>1. To develop a Project Management Guide, including the creation of a Project Charter that formally authorizes the project and provides the project manager with the authority to apply organizational resources to the project.</p>	<ul style="list-style-type: none"> • Interviews to key staff • Documentation analysis
<p>2. To develop a Project Management Guide that includes the following subsidiary plans: a) Scope Management Plan, b) Schedule Management Plan, c) Cost Management Plan, d) Quality Management Plan, e) Resource Management Plan, f) Communications Management Plan, g) Risk Management Plan, h) Procurement Management Plan, and i) Stakeholder Management Plan.</p>	<ul style="list-style-type: none"> • Interviews to key staff • Documentation analysis • Communication requirements analysis • Data gathering • Data analysis • Data representation • Test and inspection planning • Organizational theory • Meetings • Expert Judgement • Communication technology • Communication models • Communication methods • Interpersonal team skills

	<ul style="list-style-type: none"> ● Source selection analysis ● Focus groups
3. To develop an implementation plan with short-, medium- and long-term actions that will help COOCIQUE R.L. to implement activities in a timely manner for developing, testing and documenting new credit management models for small and midsize producers.	<ul style="list-style-type: none"> ● Interviews to key staff ● Documentation analysis ● Meetings ● Expert Judgement

3.3 Assumptions and Constraints

According to the PMI Lexicon of Project Management Terms, assumptions are factors “...in the planning process considered to be true, real, or certain, without proof or demonstration” and constraints are factors “...that limit the options for managing a project, program, portfolio, or process” (PMI, 2017).

On every project, assumptions and constraints are identified and generated throughout the project “...such as defining technical specifications, estimates, the schedule, risks, etc.” (Project Management Institute, 2017). Assumptions and constraints are recorded in the Assumption Log.

Table 8: Assumptions and Constraints

Objectives	Assumptions	Constraints
1. To develop a Project Management Guide, including the creation of a Project Charter that formally authorizes the project and provides the project manager with the authority to apply organizational resources to the project.	<ul style="list-style-type: none"> ● The FGP requirements will remain as currently established and the University staff is available when needed through the official communication mechanisms. ● The FGP can be completed between August 1 and November 20, 2019. ● The Student is able to cover all costs/expenses related to the elaboration of this plan, including the fieldwork, meetings, 	<ul style="list-style-type: none"> ● The FGP is elaborated in English, which limits the communication with the financial institution partner staff.

	interviews and other activities in San Carlos region.	
2. To develop a Project Management Guide that includes the following subsidiary plans: a) Scope Management Plan, b) Schedule Management Plan, c) Cost Management Plan, d) Quality Management Plan, e) Resource Management Plan, f) Communications Management Plan, g) Risk Management Plan, h) Procurement Management Plan, and i) Stakeholder Management Plan.	<ul style="list-style-type: none"> ● The partner financial institution will be supportive in the facilitation of works related to the FGP. ● There will be access to a third party expert judgment on productive loans and SME operations. ● There will be access to UCI-Microsoft partnership for the usage of MS Project. 	<ul style="list-style-type: none"> ● Time-consuming visits to San Carlos region in order to collect all the required information and to hold meetings with stakeholders. ● Time availability of key stakeholders to attend meetings. ● Limited or null access to MS Project. ● Absence of financial institution quality policy. ● Limited staff at COOCIQUE PMO for future project implementation. ● Absence of organizational experience on communication strategies and plans. ● Limited organizational experience on project risk management strategies beyond IT projects. ● Limited time for quotations from required consultants or professional services. ● Limited time for the proper identification of all interested stakeholders.
3. To develop an implementation plan with short-, medium- and long-term actions that will help COOCIQUE R.L. to implement activities in a	<ul style="list-style-type: none"> ● The FGP can be completed between August 1 and November 20, 2019. ● The partner financial institution will be 	<ul style="list-style-type: none"> ● Cost-intensive and time-consuming visits to San Carlos region in order to collect all the required information and to hold meetings

timely manner for developing, testing and documenting new credit management models for small and midsize producers.	supportive in the facilitation of works related to the FGP.	with stakeholders. ● Limited staff at COOCIQUE PMO for future project implementation.
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3.4 Deliverables

According to the PMI, a deliverable is “any unique and verifiable product, result, or capability to perform a service that is produced to complete a process, phase, or project” (PMI, 2017).

The FGP final deliverable is the proposed Project Management Guide and subsidiary plans for developing, testing and documenting a credit management model for small and midsize producers associated to COOCIQUE R.L.

The Project deliverables are detailed in the following table:

Table 9: FGP Deliverables

Objectives	Deliverables
1. To develop a Project Management Guide, including the creation of a Project Charter that formally authorizes the project and provides the project manager with the authority to apply organizational resources to the project.	Project Charter
2. To develop a Project Management Guide including the following subsidiary plans: a) Scope Management Plan, b) Schedule Management Plan, c) Cost Management Plan, d) Quality Management Plan, e) Resource Management Plan, f) Communications Management Plan, g) Risk Management Plan, h) Procurement Management Plan, and i) Stakeholder Management Plan.	Project Management Guide including guidance for subsidiary plans: Scope Management Plan Schedule Management Plan Cost Management Plan Quality Management Plan Resource Management Plan Communications Management Plan Risk Management Plan Procurement Management Plan Stakeholder Management Plan
3. To develop an implementation plan with short-, medium- and long-term actions that	Implementation Plan

will help COOCIQUE R.L. to implement activities in a timely manner for developing, testing and documenting new credit management models for small and midsize producers.	
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4 RESULTS

4.1 Project Management Plan

4.1.1 Project Integration Management

The first specific objective of this FGP is to create a Project Management Guide for developing, testing and documenting a credit management model for small and midsize producers associated to COOCIQUE R.L., a financial institution located in San Carlos, Costa Rica.

According to the *PMBOK®*, the Project Management Plan is part of the Project Integration Management knowledge area, which includes the following Project Management Process Groups and processes:

Table 10: Project Integration Management

Project Management Process Group	Processes
Initiating Process Group	4.1. Develop Project Charter
Planning Process Group	4.2. Develop Project Management Plan
Executing Process Group	4.3. Direct Manage Project Work 4.4. Manage Project Knowledge
Monitoring and Controlling Process Group	4.5. Monitor and Control Project Work 4.6. Perform Integrated Change Control
Closing Process Group	4.7. Close Project or Phase.

Source: PMI, *PMBOK®*, 2017: 70.

In the particular case of COOCIQUE R.L., while developing a credit management model for small and midsize producers, we will consider that the Project Integration Management knowledge area is all about unifying, coordinating, consolidating, communicating and deciding about resources allocation, credit and risk management approaches, adaptation of internal procedures and processes to market conditions and to the small and midsize producers cash flow, among other factors. COOCIQUE R.L. must be aware of tailoring processes, procedures and organizational process assets in order to meet the objective of developing, testing and documenting a credit management model for small and midsize producers. Tailoring internal processes and procedures must respect the SUGEF 1-05

Agreement about the qualification of borrowers and other norms from the supervisory body.

COOCIQUE R.L. must consider that the Initiating Process Group and the Planning Process Group activities are reserved to the Project Manager. Project Integration Management is specific to project managers; the project manager is responsible for the project as a whole. According to the *PMBOK®*, Project Integration Management is about (PMI, 2017: 72):

- “Ensuring that the deliverable due dates of the product, service or result, project life cycle, and the benefits management plan are aligned;
- Providing a project management plan to achieve the project objectives;
- Measuring and monitoring the project’s progress and taking appropriate action to meet project objectives”

In the particular case of COOCIQUE R.L., the project of developing a credit management model for small and midsize producers must be assigned to a Project Manager within the PMO team or from any other area aside from the credit management area in order to avoid any conflict of interest. The Project Manager should guarantee total independence from the credit management area in order to objectively propose changes that will affect the procedures, policies and human resources from this area. Developing a new credit management model will impact current credit policies and procedures and may imply changing the job description and salary levels of some positions within the credit management area. For example, the productive loans area requires a field officer capable of visiting and assessing business feasibility, something that does not currently exist in COOCIQUE R.L.

Some additional considerations are:

- The Project Manager should identify the most effective management process to be applied to the project due to the local practice of using democratic procedures at the management level for project approval. The Management Committee is a formal structure composed of the General Manager and senior managers.

- The Project Manager should identify the most effective knowledge management process in order to foster a collaborative working environment and to capitalize experience and knowledge from branch staff, credit analysis officers and front desk staff dealing with small and midsize producers.
- The Project Manager should define a clear procedure in order to document the Lessons learned and to create digital databases to make information available for future similar projects.

4.1.2 Project Charter and Stakeholders Identification

Before starting the Planning Process Group activities, the Project manager should work on two key components of the Initiating Process Group: 4.1. Develop Project Charter and 13.1. Identify Stakeholders.

a) Project Charter

Developing the Project Charter is the process of creating a document that formally authorizes the existence of the project and provides the project manager with the authority to apply organizational resources to the project activities. This process is part of the first specific objective of this FGP.

For the development of the Project Charter, COOCIQUE R.L. should consider the following:

- The approved Project Charter formally initiates the project. For this reason, the Project Manager should be assigned before developing the Project Charter in order to facilitate the organizational needs and to create a collaborative working environment for defining the project purpose, objectives and expected benefits.
- As the Project Charter documents the information required by the decision maker to approve the project, it should explain the needs of the Organization and main business reason for the project. Developing new credit products for small and midsize producers must clearly be identified as an organizational need for market increase and better service to members.

- The Project Charter describes the expected product, service or result by answering who, what, when and where questions. It estimates the project duration and the probable project budget.
- The COOCIQUE R.L. PMO must actively initiate the project and guarantee the strategic alignment and the project contribution to the organization according to the strategic plan.
- COOCIQUE R.L. must consider reviewing the current process for new project initiation in which a project manager and a Technical leader is assigned to each project. The project manager manages the project but the technical leader is the responsible to decide about the project phases and methodology to develop the product, service or result. Assessing the COOCIQUE current project management methodology and PMO operation is out of scope of this FGP.
- Some Enterprise Environmental Factors (EEF) that should be considered for the development of a new credit management model for small and midsize producers are: Supervisory Body regulatory norms and financial industry standards, market place conditions for each branch located in different geographical locations, legal requirements from the Development Banking System, organizational framework of Credit management Department, and expectations and risks associated to small and midsize producers.
- Some Organizational Process Assets (OPA) that should be considered for the development of a new credit management model for small and midsize producers are: credit management policies and procedures, credit management system features and reporting capabilities, and credit application form templates and other documentation.
- Creating an Assumption Log in which to track all the operational assumptions and constraints identified during the project life cycle. Currently, COOCIQUE PMO does not use this document.
- The Project Charter template to be used can be seen below in Tool 1.

Tool 1: Project Charter Template

1.0 PROJECT IDENTIFICATION		
Name		
Description		
Sponsor		
Project Manager		
Project Team		
Start Date:		
2.0 BUSINESS REASONS FOR PROJECT		
3.0 PROJECT OBJECTIVES		
4.0 PROJECT SCOPE		
5.0 KEY PROJECT DELIVERABLES		
Name	Description	
Methodology		
Manual & Guidelines		
Tools		
Implementation Plan		
6.0 MILESTONE DATES		
Item	Major Events / Milestones	Dates
7.0 KEY ISSUES		
Severity	Description	
8.0 RISKS		
Severity	Description	
9.0 PROJECT'S CRITERIA FOR SUCCESS		
10.0 CRITICAL SUCCESS FACTORS		
11.0 APPROVAL		
Project Sponsor:	Project Manager:	
Date:	Date:	

b) Identify Stakeholders

According to the *PMBOK®*, the process of identifying project stakeholders is a process that should be conducted on a regular basis for the analysis and documentation of any relevant information regarding the interests and their power of influence and decision over the project.

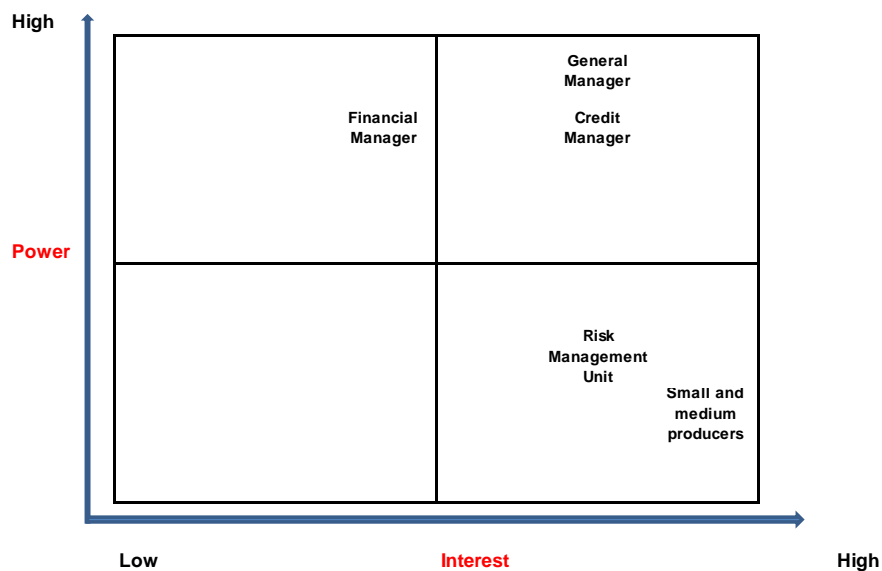
In the particular case of COOCIQUE R.L., for developing, testing and documenting a credit management model for small and midsize producers, some stakeholders were already identified during an initial analysis, as follows:

- Risk Management Unit
- Credit Manager
- Small and midsize producers
- General Manager
- Financial Manager

For this stakeholder analysis, meetings were conducted with each stakeholder. “Interest” is understood as the level of concern of each identified person as they can be affected by a decision related to the final product or service. “Power” is understood as the level of authority of each identified person.

Below, figure 3 shows the Stakeholders representation.

Figure 3: Stakeholders representation



4.1.3 Project Management Plan

The Planning Process Group includes among the key components the elaboration of the Project Management Plan and all subsidiary plans for the project of developing, testing and documenting a credit management model for small and midsize producers associated to COOCIQUE R.L. This Project Management Guide will guide COOCIQUE PMO on how to develop all required technical components of the new credit model, and also how to implement the testing phase and the documentation of the final version before launching it to the market.

According to the *PMBOK®*, the Project Management Plan is the “process of defining, preparing, and coordinating all plan components and consolidating them into an integrated project management plan” (PMI, 2017: 82).

In the particular case of COOCIQUE R.L., several subsidiary plans should be developed as follows:

- Scope Management Plan
- Schedule Management Plan
- Cost Management Plan
- Quality Management Plan
- Resource Management Plan
- Communications Management Plan
- Risk Management Plan
- Procurement Management Plan
- Stakeholder Management Plan

Finally, the Project Management Plan also includes the development of an implementation plan with short-, medium- and long-term actions that will help COOCIQUE R.L. to implement activities in a timely manner for developing, testing and documenting new credit management models for small and midsize producers. On the following sections of this FGP the main components of each subsidiary plan will be described.

As the FGP general objective states, the new credit management model includes the steps to develop, test and document the new credit model. This implies that the suggested final credit product methodology should be tested and properly documented. The whole process is wider than only defining a new product description and several organizational areas should be involved on each phase.

4.2 Subsidiary Plans

Before proposing the Plan components for developing, testing and documenting the new credit model for small and midsize producers, it is important to mention that COOCIQUE R.L. has a small PMO unit with one staff who is responsible of coordinating and controlling the development process of all kinds of projects within the organization.

According to Mrs. Katherine Rojas, the member of COOCIQUE R.L. PMO, this unit guides project management actions by following a document called “Project Management Methodology”, in which they apply the main project management principles to their particular condition as a financial institution.

That document is inspired in the PMI project management best practices but the PMI Body of Knowledge has been fully tailored to the particular conditions of the financial institution and it guides the development of all kinds of projects, from technology projects to services and financial products. The COOCIQUE “Project Management Methodology” guides the general process but it is missing the particular conditions of complex projects, such as developing specific credit products for specific segments of clients.

Our contribution in this FGP is to identify the new processes, activities or tools that need to be considered during the development of the new credit products for small and midsize producers, focusing on the product scope.

The particular analysis of COOCIQUE R.L. “Project Management Methodology” is out of scope of this FGP. Nevertheless, we want to suggest the key elements that COOCIQUE must consider for developing, testing and documenting the new credit products while using their current project management methodology. We will focus on how to apply project management best practices and COOCIQUE experience to

the development of the new proposed credit products for small and midsize producers.

Finally, as the current COOCIQUE PMO is only one staff dealing with all kinds of initiatives and projects, the suggested tools or methodology improvements included in this FGP aim at adding value to the project management process without creating highly bureaucratic activities which would add excessive paperwork to the project management process.

4.2.1 Scope Management Plan

a) Scope Management Approach

The Scope Management Plan is the main output of the Plan Scope Management process. According to the *PMBOK®*, the Project Scope Management knowledge area includes the following processes:

Table 11: Project Scope Management

<i>Project Management Process Group</i>	<i>Processes</i>
Initiating Process Group	
Planning Process Group	5.1. Plan Scope Management 5.2. Collect Requirements 5.3. Define Scope 5.4. Create WBS
Executing Process Group	
Monitoring and Controlling Process Group	5.5. Validate Scope 5.6. Control Scope
Closing Process Group	

Source: PMI, *PMBOK®*, 2017: 129.

According to the *PMBOK®*, the Project Scope Management “includes the processes required to ensure that the project includes all the work required, and only the work required, to complete the project successfully. Managing the project scope is primarily concerned with defining and controlling what is and is not included in the project”.

For the purpose of this FGP, we will focus on the Planning Process Group which includes the processes that COOCIQUE R.L. should create during the planning

process for developing, testing and documenting a credit management model for small and midsize producers. These processes are (PMI, 201: 129):

“5.1. Plan Scope Management: The process of creating a scope management plan that documents how the project and product scope will be defined, validated and controlled.

5.2. Collect Requirements: The process of determining, documenting, and managing stakeholder needs and requirements to meet project objectives.

5.3. Define Scope: The process of developing a detailed description of the project and product.

5.4. Create WBS: The process of subdividing project deliverables and project work into smaller, more manageable components.”

b) Practical Application

In the particular case of the planning process for developing, testing and documenting a credit management model for small and midsize producers, COOCIQUE must consider the following:

i) Plan Scope Management:

Today any COOCIQUE employee can launch a new initiative for the development of any new project and then to propose a Business Case. In the particular case of developing a new credit product for small and midsize producers, some initial studies are required before proposing the business case in order to properly define the project and product scope.

Some of the most important considerations to initiate a Project are those strategic and market related considerations such as the market demand, customer request, strategic opportunities or business need (PMI, 2017). In the particular case of COOCIQUE, there are two main reasons to look into new credit opportunities for small and midsize producers: a) the business need for credit portfolio diversification from consumer loans into productive loans, and b) the market demand because of the economic conditions of the Costa Rican northern zone where COOCIQUE headquarters office and several branches are located.

In COOCIQUE Project Management Methodology, the Business Case is defined before analyzing the strategic alignment and other analyses. In the case of the proposed new credit product, before defining the Business Case or Project Charter, it will be useful to conduct some studies, such as:

- Gross Loan portfolio concentration analysis.
- Current productive loan portfolio profitability and delinquency analysis.
- Current productive loan portfolio methodological issues.
- Small and midsize producers' financial requirements or market demand.
- The legal feasibility analysis of new credit features according to the financial industry regulatory body.

Conclusions from the suggested analyses will help to define the specific characteristics of new credit product and the potential strategic added value. Identifying credit management problems and business needs is a basic input for the Scope management plan.

As a result, the PMO will provide better guidance to the Management Staff on how the Project Scope should be defined and managed.

ii) Collect Requirements

COOCIQUE Project Management Methodology establishes the stakeholders' identification and analysis process, but not the identification of the needs of the product's final users. In the case of the new credit product for small and midsize producers some additional activities may be conducted in order to collect the potential clients' requirements.

Because of the low/medium literacy level of small and midsize producers in rural areas and their privacy about financial topics, COOCIQUE should explore the use of private interviews over other techniques for data gathering. This is a costly and time-consuming process, but it will produce better results.

The use of field visits and private interviews will also be a key factor to collect farmers' business information for the purpose of loan analysis, so creating a

trusting environment between the financial institution and the producers will always be a success key factor.

In addition to the private interviews for data gathering, other techniques that can be applied are:

- Brainstorming sessions with loan management experienced staff.
- Focus groups with small and midsize producers, input suppliers and market buyers, including technical assistance providers or agronomists.
- Benchmarking of other financial institutions serving producers.

iii) Define Scope and the WBS

Developing a detailed description of the project and product is established in COOCIQUE Project Management Methodology as the “Scope Definition” phase, which is the process of defining all the work required and only the work required. This phase includes the definition of the Work Breakdown Structure (Estructura de desglose de Trabajo – EDT in Spanish). Not in all cases the WBS is developed because it is only required according to the size of the project.

In the particular case of developing, testing and documenting a new credit product, there are several deliverables that need to be well identified. In this case, it is always useful to develop a WBS.

A detailed description of the work required should consider the following packages and potential deliverables:

- Planning & Organization: Planning and organizing the production process or crop season based on the diverse variety of crops or agribusiness projects being supported by COOCIQUE. This step may include the following:
 - Defining business opportunities by mapping the potential production market, selecting suitable crops with market potential and defining the potential loan portfolio to be financed (volume and number of loans).
 - Defining COOCIQUE operations to be improved by conducting initial studies and defining training activities for COOCIQUE staff.

- Support to farmer organizations: COOCIQUE should identify either individual small and midsize producers or producers' organizations to work with, such as producers' cooperatives or associations. Technical issues related to the production project must be handled in order to develop better business opportunities, to provide farmers with technical assistance, and to minimize loan risk. This step may include the following:
 - Selection of individual producers and/or producers' associations.
 - Small and midsize producers' linkage to existing value chains.
- Credit management: COOCIQUE is willing to diversify loan portfolio, from housing and consumer loans into production loans, a process that implies several changes on credit management policies and processes. Developing new credit models for small and midsize producers will demand credit management changes in order to minimize risk and increase profitability of production loan portfolio. This step may include the following:
 - Developing a Loan application form and cash flow analysis template (currently this does not exist).
 - Adjust the Loan Application approval process to small and midsize producers' needs.
 - Adjust the Loan disbursement process to the production project cash flow and business needs.
- Production Projects implementation & follow up: One of the biggest changes for COOCIQUE is developing the technical capacity to supervise the implementation of the approved production project by applying best farming practices and delivering the contracted production quantity and quality. This step may include the following:
 - Field visits to monitor the production plan implementation.
 - Production loan portfolio delinquency control.
 - Analysis of potential production capacity increases.
- Post-sale tracking: COOCIQUE must conduct crop season/production project evaluations, control loan portfolio diversification, and report key statistics for institutional partners, investors and the public opinion. Tracking key data will

support future decisions about the new production projects. This step may include the following:

- Production project evaluation.
- Loan portfolio diversification analysis.
- Reporting process.

c) Tools & Techniques

This section aims to suggest tools and techniques that need to be considered during the planning process for developing, testing and documenting a credit management model for small and midsize producers associated to COOCIQUE R.L.

In this section related to the Scope Management Plan, there are two different sets of tools that can be developed, such as tools related to Project Management best practices and tools related to the project scope itself. The suggested tools are as follows:

i) Tools related to Project Management best practices

In the COOCIQUE Project Management Methodology, the Business Case (Caso de Negocio in Spanish) is close to the Project Charter concept according to the *PMBOK®*. The COOCIQUE business case construction and analysis processes include activities, such as: Strategic Alignment Analysis, SWOT analysis, Supplier Analysis, Financial Analysis and Evaluation of Return on Investment, and Risk Assessment among others. Later on, during the Planning phase, the Project Scope is defined.

Based on our visits to COOCIQUE and interviews with key staff, there are no tools or templates for the Project Scope and the WBS. The WBS is developed only for those “projects that, due to their size, it is necessary to subdivide the work packages widely” and this is a decision of the PMO.

In the case of developing new credit products for small and midsize producers, due to technical and complex operational issues, it is better to implement templates and technical guidance for the use of the following tools:

- Project Scope Statement template:
This is the description of the project scope, major deliverables, assumptions and constraints. The main benefit for COOCIQUE is to properly define at an early stage of the project the entire scope, including project and product scope. A common understanding among management and credit department staff will be built when deliverables are defined in detail. Also stakeholder expectations are well managed if the scope is clearly defined from the beginning.

- WBS template:
COOCIQUE will better manage project components if the WBS is developed. Developing, testing and documenting new credit products requires a detailed description of smaller work packages in order to accomplish project objectives and to create the required deliverables. Overall planning, execution and control processes will be enriched due to the proper management of work packages.

- Requirements Traceability Matrix:
It is not an easy task to manage requirements from internal stakeholders, such as the Regulatory Compliance Unit, the Risk Unit, the Credit management Unit and others, and, at the same time, requirements from small and midsize producers, inputs providers and production buyers. The Requirements Traceability Matrix will be useful for tracking project requirements throughout the project activities in order to comply with final deliverables. The Requirements Traceability Matrix ensures that each requirement adds business value to the organization.

ii) Tools related to the product scope

Defining “all the work required and only the work required” for developing, testing and documenting a credit management model for small and midsize producers is not an easy task. Some deliverables that need to be considered are:

- Job descriptions for production loans field officers
- Eligibility pre-analysis of individual producers or producers' organizations.
- Loan Product description, policies and procedures.
- Producer (borrower) assessment form and production project cash flow template.
- Post-sale Production Project evaluation template.
- Training materials for COOCIQUE staff, and small and midsize producers.

4.2.2 Schedule Management Plan

a) Schedule Management Approach

The Schedule Management Plan is the main output of the Plan Schedule Management process. According to the *PMBOK®*, the Project Schedule Management knowledge area includes the following processes:

Table 12: Project Schedule Management

Project Management Process Group	Processes
Initiating Process Group	
Planning Process Group	6.1. Plan Schedule Management 6.2. Define Activities 6.3. Sequence Activities 6.4. Estimate Activity Durations. 6.5. Develop Schedule.
Executing Process Group	
Monitoring and Controlling Process Group	6.6. Control Schedule.
Closing Process Group	

Source: PMI, *PMBOK®*, 2017: 173.

According to the *PMBOK®*, the Project Schedule Management “includes the processes required to manage the timely completion of the project” (PMI, 2017: 173). Based on the interview to Mrs. Andrea Fernández, COOCIQUE’s Risk Manager, the timely completion of projects is the most difficult part of building the organization project management culture. The PMO invests a lot of time controlling project compliance with the original schedule.

Focusing on the Planning Process Group, the processes that COOCIQUE R.L. should develop during the planning process for developing, testing and documenting a credit management model for small and midsize producers are:

6.1. Plan Schedule Management: This is the process of establishing the policies, procedures, and documentation for planning, developing, managing, executing, and controlling the project schedule.

6.2. Define Activities: This is the process of identifying and documenting the specific actions to be performed to produce the project deliverables.

6.3. Sequence Activities: This is the process of identifying and documenting relationships among the project activities.

6.4. Estimate Activity Durations: This is the process of estimating the number of work periods needed to complete individual activities with the estimated resources.

6.5. Develop Schedule: This is the process of analyzing activity sequences, durations, resource requirements, and schedule constraints to create the project schedule model for project execution and monitoring and controlling.

b) Practical application

Project Schedule Management seems to be one of the weakest processes in the COOCIQUE Project Management Methodology because the PMO is investing a lot of time in controlling the projects' schedule and compliance with the original plan. As a result, Project Managers work together with the PMO on defining the Project Schedule. They use MS Project software for scheduling purposes.

Improving this process is key because of the importance and benefit of Schedule Management Plan, which is to provide guidance and direction on how the project schedule will be managed during the project life (PMI, 2017).

The COOCIQUE Project Management Methodology focuses on the Schedule Baseline as the main reference point that "will allow comparing the current results with the planned activities in order to determine either preventive or corrective actions are needed to meet the objectives of the project" (COOCIQUE R.L., n.d., 6).

Based on the COOCIQUE Project Management Methodology, the suggested schedule method is a critical path. This method determines “the minimum total project duration and the earliest possible finish date of the project as well as the amount of scheduling flexibility (total float) in the schedule model” (PMI, 2017: 210).

In the particular case of the planning process for developing, testing and documenting a credit management model for small and midsize producers, COOCIQUE must consider the following:

i) Activities definition, sequencing and duration

In the COOCIQUE case, two critical activities are the definition of the activity list and the activities sequencing, which are not clearly defined at the moment.

Define Activities “is the process of identifying and documenting the specific actions to be performed to produce the project deliverables” (PMI, 2017: 183). In this process, work packages are decomposed into schedule activities in order to estimate, schedule, execute, monitor and control the project work. Milestones should also be included in order to better estimate activity duration and the final project schedule.

In terms of activities definition and sequencing, developing the credit product faces the following challenges:

- Changes to COOCIQUE’s current operations, policies and procedures are translated into activities impacting the whole organization.
- Testing the new credit model on the field with real producers implies travel logistics, documentation and technological tools.
- Documenting the final version of the new credit model relates to creating manuals and/or other documentation.

Due to the complexity of this project, the planning process requires a detailed Activity List.

The Estimate Activity Durations is also included in the Activity List template that is proposed in next section. For this activity, COOCIQUE can apply a mix of at least three techniques, as follows:

- Expert Judgement: COOCIQUE staff from technical areas, such as credit management, risk, regulatory compliance, commercial and branch management have many years of experience managing financial services in the area.
- Analogous estimating: The initial studies about the productive loan portfolio provide enough information and statistics about production loans' performance under certain conditions. Also, operational areas have a lot of historical information regarding the organization's operations. Most staff is stable and has more than five years' experience in the organization.
- Bottom-up Estimating: If any activity duration cannot be estimated with a reasonable degree of confidence, this technique can be applied.

ii) Develop Schedule

COOCIQUE already uses the critical path method to estimate project schedule by using MS Project software and generating a Gantt diagram. This is the minimal requirement for developing the project schedule in the proposed credit model.

After finalizing the Project schedule, the Activity List can be updated with Leads/Lags estimation, a brief activity description and the required resources per activity as showed in the section below.

c) Tools & Techniques

i) Activity list chart

By using the Decomposition Technique, the project scope and project deliverables are divided into smaller and more manageable parts. The following suggested Activity List template (Tool 2) includes the activity code and name, milestones, and predecessors/successors list and activity duration as minimal requirements for the project of the proposed credit model.

Tool 2: Activity List Chart

WBS Code	Activity Code	Activity name	Activity duration (days)	Predecessor Activity	Successor Activity
1	1				
1.1.	2				
1.1.1.	3				
	4		0	N/A	5
	5		1	4	5
	6		10	5	20
1.1.2.	7				
	8		20	5	20
1.1.3.	9				

ii) Updated Activity list chart

The Activity List can be updated with Leads/Lags estimation, a brief activity description and the required resources per activity as showed below in Tool 3.

Tool 3: Updated Activity List Chart

WBS Code	Activity Code	Activity name	Activity duration (days)	Predecessor Activity	Successor Activity	Leads/Lags FS-/± days	Activity description	Required resources
1	1							
1.1.	2							
1.1.1.	3							
	4							
	5							
	6							

4.2.3 Cost Management Plan

a) Cost Management Approach

The Cost Management Plan is the main output of the Plan Cost Management process. According to the *PMBOK®*, the Project Cost Management knowledge area includes the following processes:

Table 13: Project Cost Management

Project Management Process Group	Processes
Initiating Process Group	
Planning Process Group	7.1. Plan Cost Management 7.2. Estimate Costs 7.3. Determine Budget
Executing Process Group	
Monitoring and Controlling Process Group	7.4. Control Costs
Closing Process Group	

Source: PMI, PMBOK®, 2017: 231.

According to the *PMBOK®*, the Project Cost Management “includes the processes involved in planning, estimating, budgeting, financing, funding, managing, and controlling costs so that the project can be completed within the approved budget” (PMI, 2017: 231).

Regarding the Planning Process Group, the processes that COOCIQUE R.L. should develop during the planning process for developing, testing and documenting a credit management model for small and midsize producers are:

7.1. Plan Cost Management: The process of defining how the project costs will be estimated, budgeted, managed, monitored and controlled.

7.2. Estimate Costs: The process of developing an approximation of the monetary resources needed to complete the project work.

7.3. Determine Budget: The process of aggregating the estimated costs of individual activities or work packages to establish an authorized cost baseline.

b) Practical Application

In the particular case of COOCIQUE, the project schedule estimating, the cost estimating and the cost budgeting are closely linked and can almost be seen as a single process. Therefore, Schedule and Costs definition is one single step. Actually, the Project Manager, with the support of the PMO, performs this process. One interesting characteristic is that COOCIQUE only performs estimate and budget costs from third parties. Internal resources from the organization are not estimated. The Project Management Methodology states “The costs of the project will only be planned and controlled when there are contracts with third parties... the

cost of using of internal resources will not be planned or controlled” (COOCIQUE R.L., n.d., 7).

In practical terms the organization is not ready for a Cost budgeting methodology for estimating and controlling both internal and external costs associated to the project, including the cost of internal human resources involved in the project.

In the particular case of developing, testing and documenting the new credit model, the only cost that can be estimated and controlled is the cost of external consultants, assuming that the organization is covering costs of human resources and logistics, such as transport, travel cost and others.

In the future, costs can be estimated using the following techniques:

- Expert Judgement.
- Analogous estimating.
- Bottom-up Estimating.

Also, a reserves analysis must be added. Management reserves are a planned amount of money or time, which is added to an estimate to address unforeseeable situations. Contingency reserves are a planned amount of money or time, which is added to an estimate to address a specific risk.

In the particular case of developing, testing and documenting the credit model for small and midsize producers, a contingency reserve must be estimated due to the large amount of activities, where the risk of not getting all of these completed within the applied timeframe is high. Also, relying on external consultants for medium-term projects implies a medium-high risk.

c) Tools & Techniques

There are no additional tools or techniques suggested at this stage.

4.2.4 Quality Management Plan

a) Quality Management Approach

The Quality Management Plan is the main output of the Plan Quality Management process. According to the PMBOK®, the Project Quality Management knowledge area includes the following processes:

Table 14: Project Quality Management

Project Management Process Group	Processes
Initiating Process Group	
Planning Process Group	8.1. Plan Quality Management
Executing Process Group	8.2. Manage Quality
Monitoring and Controlling Process Group	8.3. Control Quality
Closing Process Group	

Source: PMI, PMBOK®, 2017: 271.

According to the *PMBOK®*, the Project Quality Management “includes the processes for incorporating the organization’s quality policy regarding planning, managing, and controlling project and product quality requirements in order to meet stakeholders’ objectives” (PMI, 2017: 271).

Regarding the Planning Process Group, the process that COOCIQUE R.L. should develop during the planning process for developing, testing and documenting a credit management model for small and midsize producers is:

8.1. Plan Quality Management: This is the process of “identifying quality requirements and/or standards for the project and its deliverables, and documenting how the project will demonstrate compliance with the quality requirements and/or standards” (PMI, 2017: 271).

This is a crucial process to reduce costs, add value to the product and the organization, and to avoid rework in order to better manage time and costs.

b) Practical Application

Quality management is another weak area in the COOCIQUE Project Management Methodology. The Organization does not have a quality policy, and quality standards are only applied to software development projects, where final user tests are applied.

In the particular case of the planning process for developing, testing and documenting a credit management model for small and midsize producers, COOCIQUE must consider the following:

i) Basic quality definitions

According to the *PMBOK®*, the “quality management plan is a key component of the project management plan that describes how applicable policies, procedures, and guidelines will be implemented to achieve the quality objectives” (PMI, 2017: 718).

The Organization’s Quality Policy should explain the intended direction of the organization regarding quality by answering key questions related to the staff responsibilities, quality goals, and processes. At project management level, it includes the description of necessary activities and resources to achieve the quality objectives set for the project.

The Project Quality Management Plan key objectives should aim to:

- Improve credit management performance and producers’ satisfaction and loyalty by offering a new credit product adapted to their needs;
- Increase profitability by minimizing production loan risk and controlling delinquency rate;
- Increase competitiveness and improve access to better agricultural/production inputs and markets by reducing the crop rejection rate from buyers, among other factors.

ii) Identifying requirements

The correct collection of stakeholders’ requirements will help to determine, document, and manage stakeholder needs and requirements to meet objectives. From the small and midsize producers’ perspective, some of the identified requirements could be:

- Access to quality crop seeds or production inputs.
- Loan interest rates according to or below the market average.
- Having production buying contracts from final buyers.
- Increased production quality on farms, factories or businesses.
- Low Production Loan portfolio delinquency rate.

iii) Definition of standards and specifications

The definition of quality standards and the documentation of compliance with identified quality requirements and standards is a necessary step in continuous improvement to achieve quality.

Once the requirement is identified, the next step is to develop an operational definition and then a specific value against which performance will be measured to determine success. Standards and specifications are the end of quality planning and the foundation for quality assurance and control. Metrics are a means of measurement for determining the degree of conformance to specifications.

c) Tools & Techniques

During the process of developing, testing and documenting a new credit product for small and midsize producers, COOCIQUE can implement some tools related to Quality Management processes. The following examples provide an idea of the suggested tools:

i) Role and Responsibilities matrix

Tool 4 below helps to describe the role and responsibilities of applying policies, procedures and guidelines related to quality objectives.

Tool 4: Example of Role and Responsibilities matrix

Role	Responsibilities
CEO	<ul style="list-style-type: none">• Accountable for approving the Quality Management Plan.• Responsible for reporting project status to the Board of Directors.
PMO	<ul style="list-style-type: none">• Accountable for designing, implementing and oversight of the Quality Management plan.• Responsible for monitoring project activities, schedule, and resources.• Responsible for reporting project progress and status to the CEO.• Define Quality standards, metrics and tools.

Role	Responsibilities
Internal Audit	<ul style="list-style-type: none"> • Participate in quality audits and product review. • Communicate quality issues to other functional areas.
Commercial Department	<ul style="list-style-type: none"> • Participate in quality audits and product review. • Communicate quality issues to other functional areas. • Responsible for overseeing the agreement status with seed suppliers and crop buyers. • Responsible for reporting data about farmer training activities on production best practices. • Responsible for pilot testing the new credit product, procedures, and forms.
Credit Department	<ul style="list-style-type: none"> • Participate in quality audits and product review. • Communicate quality issues to other functional areas. • Responsible for defining and testing the new credit product policies and internal procedures. • Responsible for interest rate market analysis. • Accountable for providing market interest rate data to the Financial Department. • Accountable for production loans delinquency control and delinquency reports.
IT Department	<ul style="list-style-type: none"> • Participate in quality audits and product review. • Communicate quality issues to other functional areas. • Responsible for designing, testing and implementing Credit Module features for the new Credit product.

ii) Key Factors related to Quality

In Tool 5, we provide some examples of key factors related to quality that should be considered when developing new credit products for small and midsize

producers. In the particular case of COOCIQUE, these key factors should be properly identified during the collection of stakeholders' requirements.

Tool 5: Example of Key Factors related to Quality

Factor	Factor Definition	Quality Objective
Access to agricultural inputs	Farmers are experiencing low quality production issues due to lack of good agricultural inputs, especially good quality seeds, resulting in low sales and low capacity of loan repayment. Enhancing access to good quality seeds will help to improve farmers' productivity and profitability.	To reduce financial costs associated to farmers' low capacity of loan repayment, such as penalties, collection costs and legal paperwork.
Increasing market opportunities	Due to farmers' production issues, many of them do not comply with product quality according to buyers' requirements. Increasing market opportunities relates to helping farmers to enhance production quality and linking to buyers.	To increase financial income and delinquency reduction by increasing farmers' competitiveness and access to markets (better capacity of loan repayment).
Access to financial services according to farmers' needs	Farmers are exposed to high interest rates and property collaterals from informal lenders. Tailoring credit services to farmers' needs will support overall farming productivity.	To better understand credit service users, improving customization, responsiveness, and competence.
Farmers' involvement, satisfaction and loyalty	Understanding how credit users assess the financial institution services will help to increase farmers' satisfaction and loyalty.	To measure, test, and verify credit product conditions and user satisfaction level.

iii) Metrics and Quality baseline

Tool 6 below provides an example of the metrics and quality baseline to be considered as part of the new credit product and technical assistance to small and midsize producers, which helps the control quality process to verify compliance to the process.

Tool 6: Example of Metrics and Quality Baseline

Factor	Metrics	Metric definition	Expected outcome/result	Measurement frequency	Responsible
Access to agricultural inputs	Number of input supply agreements / Farmer Loan contracts	Input supply agreements included in Loan contracts	100% of processed and awarded Loan contracts, including input supply agreements	Monthly	Commercial Department
	Number of crop seeds delivered on time / Total number of farmers	Quality crop seeds' delivery time	Quality crop seeds delivered on time according to the farm's production plan	Monthly	Commercial Department
Increasing market opportunities	Number of buyer contracts / Farmer loan contracts	Buyer contract included in Loan contracts	100% of processed and awarded Loan contracts, including Buyer contracts	Monthly	Commercial Department
	Number of trainees / Total farmers - borrowers	Farmers trained on production best practices	Compliance with production best practices	After every training session/ program according to the training schedule	Commercial Department
	Production rejected by buyer / Production delivered by farmer	Crop rejection rate	Keeping crop rejection rate at a maximum of 10%	Monthly	Commercial Department
Access to financial services according to farmers' needs	Number of trainees / Total staff	Staff trained on changes in the Credit Manual	Compliance with the updated Credit Manual	After every training session/program according to the training schedule	Client Service Department
	Number of trainees / Total farmers - borrowers	Farmers trained on Credit policies and procedures	Compliance with the updated Credit Manual	After every training session/program according to the training schedule	Client Service Department
	Loan	Loan interest	Farmers will	Monthly	Client

Factor	Metrics	Metric definition	Expected outcome/result	Measurement frequency	Responsible
	interest rate vs. Market interest rate	rate should be 3% above/below market average interest rates	reduce funding costs, thus improving profitability		Service Department
	Loans >30 days delinquency / Total Avg. Loan portfolio	Delinquency rate of Loan portfolio <2%	Low delinquency rate supports farmers financial performance and financial institution profitability	Monthly	Client Service Department
Farmers' involvement, satisfaction and loyalty	Customer satisfaction rate	Loan borrower satisfaction rate	Level of farmer satisfaction of 90%+	After every crop season	Client Service Department

4.2.5 Resource Management Plan

a) Resource Management Approach

The Resource Management Plan is the main output of the Plan Resource Management process. According to the *PMBOK®*, the Project Resource Management knowledge area includes the following processes:

Table 15: Project Resource Management

Project Management Process Group	Processes
Initiating Process Group	
Planning Process Group	9.1. Plan Resource Management 9.2. Estimate Activity Resources
Executing Process Group	9.3. Acquire Resources 9.4. Develop Team 9.5. Manage Team
Monitoring and Controlling Process Group	9.6. Control Resources
Closing Process Group	

Source: PMI, *PMBOK®*, 2017: 307.

According to the *PMBOK®*, the Project Resource Management includes “the processes to identify, acquire and manage the resources needed for the successful completion of the project” (PMI, 2017: 307). The main goal is to ensure that the

right resources will be available to the project manager and project team at the right time and place.

Regarding the Planning Process Group, the processes that COOCIQUE R.L. should develop during the planning process for developing, testing and documenting a credit management model for small and midsize producers are (PMI, 2017: 307):

“9.1. Plan Resource Management: The process of defining how to estimate, acquire, manage, and utilize physical and team resources.

9.2. Estimate Activity Resources: The process of estimating team resources and the type and quantities of material, equipment, and supplies necessary to perform project work”.

b) Practical Application

COOCIQUE Project Management Methodology lacks a specific section for the Resource Management Plan. The project team is selected after analyzing the Business Case and before starting the project’s planning phase. All assigned staff comes from functional areas of the organization and will dedicate some hours per day to the project.

The Project Team assigns time to the project and the team members’ responsibilities are registered in a matrix.

In the particular case of the planning process for developing, testing and documenting a credit management model for small and midsize producers, COOCIQUE must consider the following:

i) Estimate Activity Resources

According to COOCIQUE practices, the internal physical and human resources from the organization are not estimated, so the Human Resources to be estimated are only the external consultants, which can be calculated using the following techniques:

- Expert Judgment.
- Analogous estimating.

c) Tools & Techniques

There are no additional tools or techniques suggested at this stage.

4.2.6 Communications Management Plan

a) Communications Management Approach

The Communications Management Plan is the main output of the Plan Communications Management process. According to the *PMBOK®*, the Project Communications Management knowledge area includes “the processes necessary to ensure that the information needs of the project and its stakeholders are met through development of artifacts and implementation of activities designed to achieve effective information exchange” (PMI, 2017: 359).

Table 16: Project Communications Management

Project Management Process Group	Processes
Initiating Process Group	
Planning Process Group	10.1. Plan Communications Management
Executing Process Group	10.2. Manage Communications
Monitoring and Controlling Process Group	10.3. Monitor Communications
Closing Process Group	

Source: PMI, *PMBOK®*, 2017: 359.

In the particular case of the planning process for developing, testing and documenting a credit management model for small and midsize producers, COOCIQUE must consider the following:

a) Implementation of a Communication Strategy

The COOCIQUE Project Manager should focus the communication strategy on promoting the project’s benefits, milestone achievements and results by planning and implementing activities, such as an email system/addresses for internal and external official communications; spoken communications with colleagues and

partners on weekly team meetings and monthly meetings with management levels; quarterly official and written Project reports to be shared with the General Manager, the Board of directors and other partners, and quarterly official Project report presentations on public meetings open to community leaders, media and other stakeholders identified in the Project Charter, especially if the project is working with producer organizations.

b) Practical Application

COOCIQUE Project Management Methodology includes the elaboration of a Communication plan for stakeholders' effective communication. The communications planning process determines the stakeholders' information and communication needs. A Communication matrix summarizes the type of information that is required by each stakeholder, how it will be issued, the frequency and the person who is responsible for sending this information.

The Communication Plan includes the necessary processes to ensure the generation, distribution, storage and final destination of the project information in a timely manner.

The limitation in this process is that this Communication Plan is optional and will be used only "in those projects that require proper stakeholder management" (COOCIQUE R.L., n.d., 8) due to project costs or any other criterion defined by the Project Manager.

For developing, testing and documenting a credit management model for small and midsize producers, the Communications Management Plan is mandatory. The Project will impact several functional areas, such as Credit Management, Risk Management, Regulatory Compliance, Commercial Department, Branches, Accounting, and Technology of Information among others. Communications should be effective among several stakeholders.

c) Tools & Techniques

There are no additional tools or techniques suggested at this stage.

4.2.7 Risk Management Plan

a) Risk Management Approach

Risk management is a very important component during the whole project for developing, testing and documenting a credit management model for small and midsize producers, due to the high risks associated to agriculture production and other productive transformation activities.

Developing new credit management models for small and midsize producers aims at mitigating risks associated to producers' activities. Financial institutions willing to support rural producers need to look into credit models capable of reducing risk, including key elements such as input supply agreements, contract farming, sales contracts, irrigations systems, greenhouse production, crop insurance and other similar mechanisms. The final credit product methodology should mitigate credit risk for production activities.

Although Risk Management is important to ensure a credit product that will reduce exposure of the financial institution to the risks associated to production activities, in this FGP we will focus on managing risks of the project itself.

The Risk Management Plan is the main output of the Plan Risk Management process. According to the *PMBOK®*, the Project Risk Management knowledge area includes the following processes:

Table 17: Project Risk Management

Project Management Process Group	Processes
Initiating Process Group	
Planning Process Group	11.1. Plan Risk Management 11.2. Identify Risks 11.3. Perform Qualitative Risk Analysis. 11.4. Perform Quantitative Risk Analysis. 11.5. Plan Risk Responses.
Executing Process Group	11.6. Implement Risk Responses.
Monitoring and Controlling Process Group	11.7. Monitor Risks.
Closing Process Group	

Source: PMI, *PMBOK®*, 2017: 395.

According to the *PMBOK®*, the Project Risk Management “includes the processes of conducting risk management planning, identification, analysis, response

planning, response implementation, and monitoring risk on a project” (PMI, 2017: 395).

Regarding the Planning Process Group, the processes that COOCIQUE R.L. should develop during the planning process for developing, testing and documenting a credit management model for small and midsize producers are (PMI, 2017: 395):

“11.1. Plan Risk Management: The process of defining how to conduct risk management activities for a project.

11.2. Identify Risks: The process of identifying individual project risks as well as sources of overall project risk, and documenting their characteristics.

11.3. Perform Qualitative Risk Analysis: The process of prioritizing individual project risks for further analysis or action by assessing their probability of occurrence and impact as well as other characteristics.

11.4. Perform Quantitative Risk Analysis: The process of numerically analyzing the combined effect of identified individual project risks and other sources of uncertainty on overall project objectives.

11.5. Plan Risk Responses: The process of developing options, selecting strategies, and agreeing on actions to address overall project risk exposure, as well as to treat individual project risks”.

b) Practical Application

The Risk Management area of the COOCIQUE Project Management Methodology is one of the most developed areas of the project management processes. They have five different tools and the Risk Management Unit is responsible for assessing project risks. Initial risks are analyzed during the Business Case review and if the initiative is accepted as a project, the risk analysis is performed using the defined tools. Also, the Operational Risk section of the Risk Management Unit monitors risks associated with active projects and financial services and products. Based on the Project Management Methodology, the following processes and activities are currently conducted:

- Project Team Workshop for Project Risk Identification.

- Risk Analysis tool and plan risk responses considering the identified risk, mitigating action, frequency, and person in charge.
- Operational Risk tool for risk analysis of every project.

In the particular case of the planning process for developing, testing and documenting a credit management model for small and midsize producers, COOCIQUE must consider risk at each of the three main phases: developing, testing and documenting the new credit product. At this point, the Operational Risk tool satisfies the minimal requirements for risk management while developing new credit products.

Considering that the COOCIQUE PMO is only one staff and that the Project Team is partially assigned from functional areas, it is difficult to implement a more complex risk analysis model. The Risk Management Unit is saturated monitoring current business risks and, additionally, the new projects risks.

Although the risk analysis processes and tools that are currently used comply with project management best practices, in the future the organization could consider the implementation of some additional tools and techniques, such as:

- A Risk Breakdown Structure: Currently COOCIQUE assesses risks in the following categories: Strategy, Confidentiality and Reputation, Profitability, Productivity, Legal and Regulatory Compliance, Internal and External Human Resources, and Technology and Security of the Information.

Risk areas that are not currently covered are: Technical risks (uncertainty of resources and availability of materials and equipment, land acquisition/expropriations, inadequate site investigation, or incomplete designing); Environmental risks (vulnerability to adverse weather conditions/natural hazards, such as tropical storms, earthquakes, flooding), and Financial risks (funding and lack of budget control due to the current practice of not estimating and budgeting internal resources).

- Probability and impact scales/Probability and impact matrix: Especially for the potential financial impact due to the current practice of not estimating and budgeting internal resources. Developing, testing and documenting a credit

management model for small and midsize producers includes several phases and activities, and could potentially be an expensive project.

c) Tools & Techniques

Although COOCIQUE risk management processes comply with project management best practices on risk identification, risk analysis and planning risk responses, for developing, testing and documenting a credit management model for small and midsize producers it would be advisable to develop a Risk Register matrix where it is clearly stated what specific risk will be escalated, mitigated or transferred.

Tool 7 below shows the suggested Risk Register Template.

Tool 7: Risk Register Template

RBS Code	Cause	Risk	Consequence	Probability	Impact	Trigger	Owner	Strategy	Cost
1.1									
2.1									

4.2.8 Procurement Management Plan

a) Procurement Management Approach

The Procurement Management Plan is the main output of the Plan Procurement Management process. According to the *PMBOK®*, the Project Procurement Management knowledge area includes the following processes:

Table 18: Project Procurement Management

Project Management Process Group	Processes
Initiating Process Group	
Planning Process Group	12.1. Plan Procurement Management
Executing Process Group	12.2. Conduct Procurements
Monitoring and Controlling Process Group	12.3. Control Procurements
Closing Process Group	

Source: PMI, *PMBOK®*, 2017: 459.

According to the PMBOK®, the Project Procurement Management “includes the processes necessary to purchase or acquire products, services, or results needed from outside the project team” (PMI, 2017: 459).

Regarding the Planning Process Group, the process that COOCIQUE R.L. should develop during the planning process for developing, testing and documenting a credit management model for small and midsize producers is:

“12.1. Plan Procurement Management: The process of documenting project procurement decisions, specifying the approach, and identifying potential sellers” (PMI, 2017: 459).

Project Procurement Management includes the management and control processes required to develop and manage all kind of contracts, agreements, purchase orders and so on. It must also consider all services or goods from outside the Project Team, but inside the organization, such as transport, travel funding, mobile devices and other physical resources required by the project team.

b) Practical Application

As mentioned before, COOCIQUE Project Management Methodology states that “The costs of the project will only be planned and controlled when there are contracts with third parties... the cost of using of internal resources will not be planned or controlled” (COOCIQUE R.L., n.d., 7). Due to this current practice, in terms of procurement, the organization only plans for external consultants, their agreements, payment process, and payment control.

In the particular case of developing, testing and documenting the new credit model, the only service under procurement processes is the external consultants’ engagement.

Planning a project for developing, testing and documenting the new credit model for small and midsize producers could include handling several product suppliers in addition to the technical consultants. The component of Technical Assistance to producers could also be a component of the new credit model. Product suppliers could be involved in several activities depending on how the project is designed. Some of those activities could be:

- Buying and testing quality/certified crop seeds or other production inputs, such as fertilizers.
- New techniques for handling harvesting and post-production transport.
- Machinery or tools for increasing production quality on farms, factories or businesses.

Finally, COOCIQUE management area owns all the relevant documentation regarding Consultants contracts, statement of work (SOW) templates and terms of reference (TOR) templates.

c) Tools & Techniques

Regarding the new credit product development, one area of improvement is the creation of a Sellers Database for all external providers in which past performance and reputation are graded.

4.2.9 Stakeholder Management Plan

a) Stakeholder Management Approach

The Stakeholder Management Plan is the main output of the Plan Stakeholder Management process. According to the *PMBOK®*, the Project Stakeholder Management knowledge area includes the following processes:

Table 19: Project Stakeholder Management

Project Management Process Group	Processes
Initiating Process Group	13.1. Identify Stakeholders
Planning Process Group	13.2. Plan Stakeholder Engagement.
Executing Process Group	13.3. Manage Stakeholder Engagement.
Monitoring and Controlling Process Group	13.4. Monitor Stakeholder Engagement.
Closing Process Group	

Source: PMI, *PMBOK®*, 2017: 503.

According to the *PMBOK®*, the Project Stakeholder Management “includes the processes required to identify the people, groups, or organizations that could impact or be impacted by the project, to analyze stakeholder expectations and their

impact on the project, and to develop appropriate management strategies for effectively engaging stakeholders in project decisions and execution” (PMI, 2017: 503).

Regarding the Planning Process Group, the process that COOCIQUE R.L. should develop during the planning process for developing, testing and documenting a credit management model for small and midsize producers is:

“13.1. Plan Stakeholder Engagement: The process of developing approaches to involve project stakeholders based on their needs, expectation, interests, and potential impact on the project” (PMI, 2017: 503).

b) Practical Application

For the purpose of this FGP, initial stakeholders were identified in section 4.1.2.. Nevertheless, according to the COOCIQUE Project Management Methodology, within the project planning process, stakeholders’ identification is conducted after reviewing the Business Case. The Project Manager should develop a diagram of interrelationships between stakeholders and deliverables.

In the COOCIQUE Project Management Methodology, the section that is not developed is the plan, management and monitoring of stakeholders’ engagement. Regarding the planning for developing, testing and documenting a credit management model for small and midsize producers, additional tools should be developed, as seen in next section.

c) Tools & Techniques

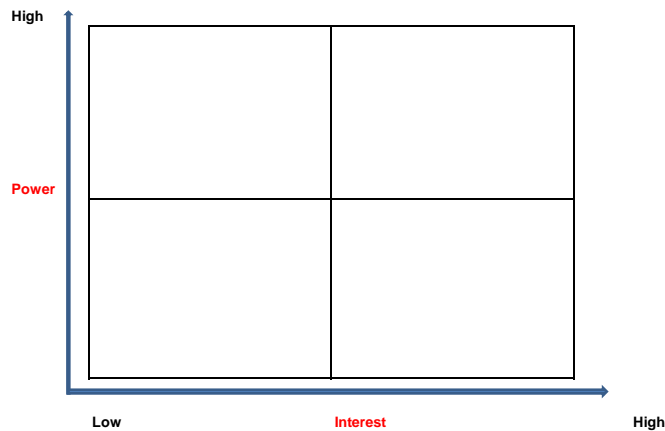
The Stakeholder Register is the document that contains information about the identified stakeholders, such as identification information, assessment information and stakeholder classification. In the particular case of COOCIQUE, since the project team comes from functional areas and the project sponsor is usually also from one of the functional areas, we suggest to include the stakeholder’s functional area, roles and responsibilities, main expectations, major requirements, classification and, finally, the action plan for every stakeholder. Tool 8 is the suggested tool.

Tool 8: Stakeholder Register Matrix

ID	Stakeholders	Functional Area	Roles - Responsibilities	Main Expectations	Major Requirements	Power/Interest (Low-Medium-High)	Action Plan
1							
2							
3							
4							
5							

The next tool is the Stakeholder Representation, which is based on the stakeholder's classification, as described in the Stakeholder Register Matrix. The Stakeholder Representation can be seen in Tool 9.

Tool 9: Stakeholder Representation



4.3 Implementation Plan

The Implementation Plan guides COOCIQUE PMO on how to implement the Project Management Plan for developing, testing and documenting a credit management model for small and midsize producers associated to COOCIQUE R.L.

The Implementation Plan describes the main project phases and components of each subsidiary plan, the testing process, and the final documentation. At the same time, actions are implemented on a short-, medium- and long-term basis. In this section of the FGP, we explain the implementation process in terms of phases and implementation timing.

4.3.1 Project Management Plan Phases and Components

The suggested Project Management Plan is divided into three different phases: a) Phase I is related to the development of the new credit product; b) Phase II is related to the testing process; and c) Phase III is related to the documentation process.

Phase I includes the Project Charter, the initial Stakeholders Identification process and the development of all subsidiary plans.

In the Scope Management Plan, COOCIQUE PMO should include all the Tools and deliverables related to the product scope that need to be completed during the planning and implementation process for the product design.

Including some initial studies the phase I is a short-term process that could take under three months to complete. The suggested main activities of this phase are:

1. Project Management Plan
 - Project Charter (Project Charter Template)
 - Identify Stakeholders (Stakeholders Representation)
2. Scope Management Plan
 - Project Scope Statement template
 - WBS template
 - Requirements Traceability Matrix
 - Tools/deliverables related to the product scope
3. Schedule Management Plan
 - Activity list chart
4. Cost Management Plan
5. Quality Management Plan
 - Role and Responsibilities matrix
 - Key Factors related to Quality
 - Metrics and Quality baseline
6. Resource Management Plan
7. Communications Management Plan
8. Risk management Plan

- Risk Register Template
9. Procurement Management Plan
- Sellers Database
10. Stakeholder Management Plan
- Stakeholder Register Matrix

Phase II of the planning process includes all the steps related to field testing the credit model by conducting field visits to small and midsize producers at their farms or businesses. Credit procedures, tools and techniques designed in Phase I should be applied in field visits during Phase II.

This testing process will last no less than six months and could take as long as eighteen months because testing time for the whole credit management processes, forms and tools will depend on the type of crop or production process that is selected. For example, there are some short-term crop cycles that could take from six to nine months, but growing cattle could easily take eighteen months or more.

The suggested main activities of this phase are those related to field visits to small and midsize producers in order to apply forms and tools, such as:

- Credit management policies and procedures
- Credit application form templates and other documentation: Loan application form and cash flow analysis template
- Credit management system features and reporting capabilities
- Loan Application, loan analysis and loan approval processes
- Loan disbursement process

For Phase III, COOCIQUE should conduct the documenting process of the testing phase results. This also includes the documentation for the lessons learned, the elaboration of a final version of the forms and other credit process documentation, and the final version of the new credit product policies and procedures. The suggested main activities of this phase are:

- Lessons learned
- Final version of forms and other documentation

- Final version of policies and procedures (Productive Loan Manual)

Starting from here, based on the conclusions of the whole project, COOCIQUE will need to invest in the technology and digital-based solutions in order to create accessible channels for loan delivery and collection processes. This is a long-term process that could take more than twelve months.

4.3.2 Additional Actions and Timing

In order to successfully plan and execute a project for developing, testing and documenting a credit product for small and midsize producers, COOCIQUE's functional areas must consider implementing the following additional activities, which could be new projects too.

a) Initial Studies: Short-term timeframe

- Gross Loan portfolio concentration analysis.
- Current productive loan portfolio profitability and delinquency analysis.
- Current productive loan portfolio methodological issues.
- Small and midsize producers' financial requirements or market demand.
- The legal feasibility analysis of new credit features according to the financial industry regulatory body.

b) Productive Credit Management: Medium-term timeframe

- Classification of farmers/producers into categories, such as: a) Subsistence farmers, b) Semi-commercial farmers, and c) Commercial farmers. Lending methodologies, credit products and technology must be adapted to each different category of producers. This process is repetitive along the year during every crop season.
- Designing policies for productive loan portfolio diversification among different types of producers, crops or productive projects.
- Market assessment and value chain mapping to identify potential markets for the potentially financed crops/products and to create linkages between the service/input providers and producers.

- Training program for producers on farming/production best practices and the use of better technology and international food/safety standards.
- Credit risk management: The credit process should be able to properly assess the different levels of risk in the productive loan.
- c) Technology Management: Long-term timeframe
 - Adapt/update the IT operating system according to the new credit products and develop mobile applications in order to improve credit delivery and collection processes.

4.3.3 Master Implementation Plan

The Master Implementation Plan, including the Project Management Plan, the additional actions and time frame, is shown on the next page.

Activities / Time frame	Short-Term Actions			Medium-Term Actions								Long -Term Actions						
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18
Initial Studies																		
Productive Credit Management																		
Technology Management																		
Phase I: Developing the new credit model																		
1. Project Management Plan Project Charter Identify Stakeholders																		
2. Scope Management Plan Project Scope Statement template WBS template Requirements Traceability Matrix Tools/deliverables related to the product scope Credit management policies and procedures Credit application forms: Loan application Credit management system features and reporting capabilities Loan Application, loan analysis and loan approval processes Loan disbursement process																		
3. Schedule Management Plan Activity list chart																		
4. Cost Management Plan																		
5. Quality Management Plan Role and Responsibilities matrix Key Factors related to Quality Metrics and Quality baseline																		
6. Resource Management Plan																		
7. Communications Management Plan																		
8. Risk Management Plan Risk Register Template																		
9. Procurement Management Plan Sellers Database																		
10. Stakeholder Management Plan Stakeholder Register Matrix																		
Phase II: Testing Credit Model																		
Field visits to small and misize producers in order to to test forms, tools, and processes																		
Phase III: Documenting process																		
Lessons learned Final version of forms and other documentation Final version of policies and procedures (Credit Manual)																		

5 CONCLUSIONS

One of the major challenges that Credit Unions in the world are facing is to tailor credit services to the cooperative members' needs in rural areas, especially for small and midsize producers. These days, this challenge is related to credit risk management and adapting credit services to producers, including changes to credit policies, procedures and tools in order to facilitate producers' access to credit, digital-based delivery mechanisms, and access to markets.

In this FGP, the proposed Project Management Guide aims at developing specific credit methodologies to address the small and midsize producers' needs. The goal of the proposed Project Management Guide is to offer a step-by-step guide to developing, testing and documenting new models of credit management in the productive loan portfolio.

As a result, the FGP general objective was to develop a Project Management Guide, framed within the standards of the Project Management Institute, for developing, testing and documenting a credit management model for small and midsize producers associated to COOCIQUE R.L., a financial institution located in San Carlos, Costa Rica. The specific objectives included the development of the Project Management Guide including subsidiary plans, and the development of an implementation plan with short-, medium- and long-term actions.

The major conclusions of this effort are:

- COOCIQUE R.L. is aware that developing new credit products demands the modification of credit management processes, procedures and organizational process assets in order to tailor credit products to small and midsize producers' needs. Tailoring internal processes and procedures must respect the SUGEF 1-05 Agreement about the qualification of borrowers and other norms from the supervisory body. For this reason, before the elaboration of the Business Case or Project Charter, some feasibility analyses must be conducted, especially the legal feasibility analysis.

Some additional studies about Loan portfolio concentration and the Loan portfolio profitability and performance will help to define the potential

characteristics of the new credit product and the overall project and product scope.

- COOCIQUE R.L. has a Project Management Methodology in which they apply project management principles and best practices to their particular condition as a financial institution. They also have a small PMO with only one staff, who oversees all kinds of projects within the organization.

This Project Management Methodology is a general guide that is not fully applicable for the development of financial services or products. During this FGP we have identified new processes, activities or tools that need to be considered during the creation of the new credit product for small and midsize producers. We tried to suggest a limited number of new tools in order to add value to the project management process, but without creating a highly bureaucratic process and excessive paperwork.

- During the FGP, we have identified the knowledge areas and the planning process groups that need to be considered during the planning process of the new credit product. We analyzed the practical application and we suggested tools when needed for each of the subsidiary plans.
- The Project Plan that will result from the application of this FGP guide will help COOCIQUE R.L. to develop a credit product especially designed to reduce credit risk management and to improve access to credit for small and midsize producers.

The institution still lacks the following final deliverables: Credit management policies and procedures for SME loans, introduction of a new Loan application form and cash flow analysis template, design of the Credit management system features and reporting capabilities, improvement of the loan application, loan analysis and loan approval processes, and of the loan disbursement process. Digital delivery channels should be developed as result of all these changes.

- The Implementation Plan highlights the Master Implementation Plan, which includes the Project Management Plan divided into three implementation phases, the additional actions that COOCIQUE should conduct in order to guarantee the new product success, and the general timeframe.

6 RECOMMENDATIONS

Assessing COOCIQUE's current Project Management Methodology and PMO organization and operation is out of scope of this FGP, but some areas for improvement were detected. When designing new products and financial services, COOCIQUE R.L. must consider adding technical staff to the PMO in order to assign Project Managers from the PMO and not from functional areas that are also affected by the changes that the new product will generate.

In current conditions, having only one staff in PMO is a very limited resource to lead the design of new and complex credit products. This is something that needs to be reviewed.

COOCIQUE's current Project Management Methodology clearly integrates basic PMI best practices and principles, but that is a general document not fully applicable for the development of new credit products. This FGP could become a practical guide for this type of projects beyond current organizational capacities.

-0-

7 BIBLIOGRAPHY

- Costa Rica (1994). *Ley N° 7391, Ley de Regulación de la Actividad de Intermediación Financiera de las Organizaciones Cooperativas [Act No. 7391 Law regulating the financial intermediation activity of cooperative organizations]*. Retrieved from Sistema Costarricense de Información Jurídica:
http://www.pgrweb.go.cr/scij/Busqueda/Normativa/Normas/nrm_texto_completo.aspx?param1=NRTC&nValor1=1&nValor2=11935&nValor3=93291&strTipM=TC
- Costa Rica (2002). *Ley N° 8262, Ley de Fortalecimiento de las Pequeñas y Medianas Empresas [Act No. 8262 Law for the Strengthening of Small and Midsize Enterprises]*. Retrieved from Sistema Costarricense de Información Jurídica:
http://www.pgrweb.go.cr/scij/Busqueda/Normativa/Normas/nrm_texto_completo.aspx?param1=NRTC&nValor1=1&nValor2=48533&nValor3=117549¶m2=1&strTipM=TC&IResultado=2&strSim=simp
- Costa Rica (2014). *Ley N° 9274, Reforma Integral de la Ley Sistema de Banca para el Desarrollo [Banking System for Development Act No. 9274]*. Retrieved from Sistema Costarricense de Información Jurídica:
http://www.pgrweb.go.cr/scij/Busqueda/Normativa/Normas/nrm_texto_completo.aspx?param1=NRTC&nValor1=1&nValor2=78471&nValor3=98873&strTipM=TC
- Barrantes, R. (2013). *Investigación: Un camino al conocimiento, un enfoque cualitativo, cuantitativo y mixto*. San José: EUNED.
- COOCIQUE R.L. (2019). *Informe Anual de Labores 2018*. Retrieved from coocique.fi.cr: https://coocique.fi.cr/informes/anuales/2018/?page_id=2339.
- COOCIQUE R.L. (2019). *Informe de Gestión de Riesgos*. Ciudad Quesada: COOCIQUE R.L.
- COOCIQUE R.L. (2019). *Nosotros*. Retrieved from https://coocique.fi.cr/?page_id=1478.
- COOCIQUE R.L. (2019). *Sucursales*. Retrieved from https://coocique.fi.cr/?page_id=1800.
- COOCIQUE R.L. (n. d.) *Procedimiento Metodología de Gestión de Proyectos [COOCIQUE Project Management Methodology]*. Internal COOCIQUE R.L. document: unpublished.
- One World - Nations Online (2019). *Map of Costa Rica*. Retrieved from <https://www.nationsonline.org/oneworld/map/costa-rica-map.htm>
- Project Management Institute. (2011). *Practice Standard for Earned Value Management*. Pennsylvania: Project Management Institute.
- Project Management Institute. (2011). *Practice Standard for Project Estimating*. Pennsylvania: Project Management Institute .
- Project Management Institute. (2011). *Practice Standard for Scheduling*. Pennsylvania: Project Management Institute.

- Project Management Institute. (2017). *A Guide to the Project Management Body of Knowledge (PMBOK Guide)*. Sixth Edition. Pennsylvania: Project Management Institute.
- Project Management Institute. (2017). *The Standard for Project Management*. Pennsylvania: Project Management Institute.
- Project Management Institute. (2017). *The PMI Lexicon of Project Management Terms*. Pennsylvania: Project Management Institute .
- Rose, Kenneth. (2014). *Project Quality Management, Why, What and How. Second Edition*. Florida: J. Ross Publishing.
- University of Newcastle (2019). University of Newcastle Library guides. Retrieved from <https://libguides.newcastle.edu.au/researchmethods>
- Wanner, Roland. (2013). *Project Risk Management: The Most Important Methods and Tools for Successful Projects*. Proconis.
- WOCCU Inc. (2003). *A Technical Guide to Rural Finance: Exploring Products. WOCCU Technical Guide #3*. Retrieved from https://www.woccu.org/documents/rf_techguide.

APPENDICES

Appendix 1: FGP Charter

PROJECT CHARTER	
Date	Project Name:
May 18, 2019	Project Management Guide for the project of developing, testing and documenting a credit management model for small and midsize producers associated to COOCIQUE R.L., a financial institution located in San Carlos, Costa Rica
Knowledge Areas / Processes	Application Area (Sector / Activity)
<p>Knowledge Areas: Project Integration Management Project Scope Management Project Schedule Management Project Cost Management Project Quality Management Project Communications Management Project Risk Management Project Procurement Management Project Stakeholder Management</p> <p>Process Groups: Initiating Process Group Planning Process Group Executing Process Group Monitoring and Controlling Process Group Closing Process Group</p>	Financial Services / Credit Management
Start date	Finish date
May 18, 2019	November 30, 2019
Project Objectives (General and Specific)	
<p>General objective: To develop a Project Management Guide, framed within the standards of the Project Management Institute, for developing, testing and documenting a credit management model for small and midsize producers associated to COOCIQUE R.L., a financial institution located in San Carlos, Costa Rica.</p> <p>Specific objectives:</p> <ol style="list-style-type: none"> 1. To develop a Project Management Guide including the creation of a Project Charter that formally authorizes the project and provides the project manager with the authority to apply organizational resources to the project.. 2. To develop a Project Management Guide that including subsidiary plans such as: a) Scope Management Plan, b) Schedule Management Plan, c) Cost Management Plan, d) Quality Management Plan, e) Resource Management Plan, f) Communications Management Plan, g) Risk Management Plan, h) Procurement Management Plan, and i) Stakeholder Management Plan. 3. To develop an implementation plan with short-, medium- and long-term actions that will help COOCIQUE R.L. to implement activities in a timely manner for developing, testing and documenting new credit management models for small and midsize producers. 	
Project Purpose or Justification (Merit and Expected Results)	
COOCIQUE R.L. (Cooperativa de Ahorro y Crédito de la Comunidad de Ciudad Quesada) was founded on April 11, 1965 and since then, it has been promoting the economic and social development of the geographical areas where they offer financial services. One of the most important services is the credit service for small and midsize producers, including agricultural and milk producers among others.	

One challenge that COOCIQUE is facing, as many other financial institutions, is to tailor credit services to the cooperative members' needs, market conditions and new regulations regarding credit risk management.

The proposed Project Management Plan will offer a step-by-step guide to developing, testing and documenting new models of credit management in the productive loan portfolio.

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

The Project final deliverable is the proposed Project Management Plan and subsidiary plans for developing, testing and documenting a credit management model for small and midsize producers associated to COOCIQUE R.L.

The Project final deliverables include the following documents:

- 1) The Project Management Plan that includes the Project Charter.
- 2) The following subsidiary plans: a) Scope Management Plan, b) Schedule Management Plan, c) Cost Management Plan, d) Quality Management Plan, e) Resource Management Plan, f) Communications Management Plan, g) Risk Management Plan, h) Procurement Management Plan, and i) Stakeholder Management Plan.
- 3) The implementation plan with short-, medium- and long-term actions.

Assumptions

1. The FGP requirements will remain as currently established and the University staff is available when needed through the official communication mechanisms.
2. The FGP can be completed between August 1 and November 20, 2019.
3. The Student is able to cover all costs/expenses related to the elaboration of this plan, including the fieldwork, meetings, interviews and other activities in San Carlos region.
4. The partner financial institution will be supportive in the facilitation of works related to the FGP.
5. There will be access to a third party expert judgment on productive loans and SME operations.
6. There will be access to UCI-Microsoft partnership for the usage of MS Project.

Constraints

1. The FGP is written in English, which limits the communication with the financial partner institution (COOCIQUE R.L.) staff.
2. Cost-intensive and time-consuming visits to San Carlos region in order to collect all the required information and to hold meetings with stakeholders.
3. Time availability of key stakeholders to attend meetings.
4. Limited or null access to MS Project.
5. Absence of financial institution quality policy.
6. Limited staff at COOCIQUE PMO for future project implementation.
7. Absence of organizational experience on communication strategies and plans.
8. Limited organizational experience on project risk management strategies beyond IT projects.
9. Limited time for quotations from required consultants or professional services.
10. Limited time for the proper identification of all interested stakeholders.

Preliminary Risks

1. If feedback from the Tutor is not conducted in a timely manner, the project schedule will suffer a delay.
2. If access to Expert Judgment on credit methodologies and other technical topics is not guarantee, the project quality will be negatively impacted.

Budget

The FGP cost estimate is USD 11,500.00

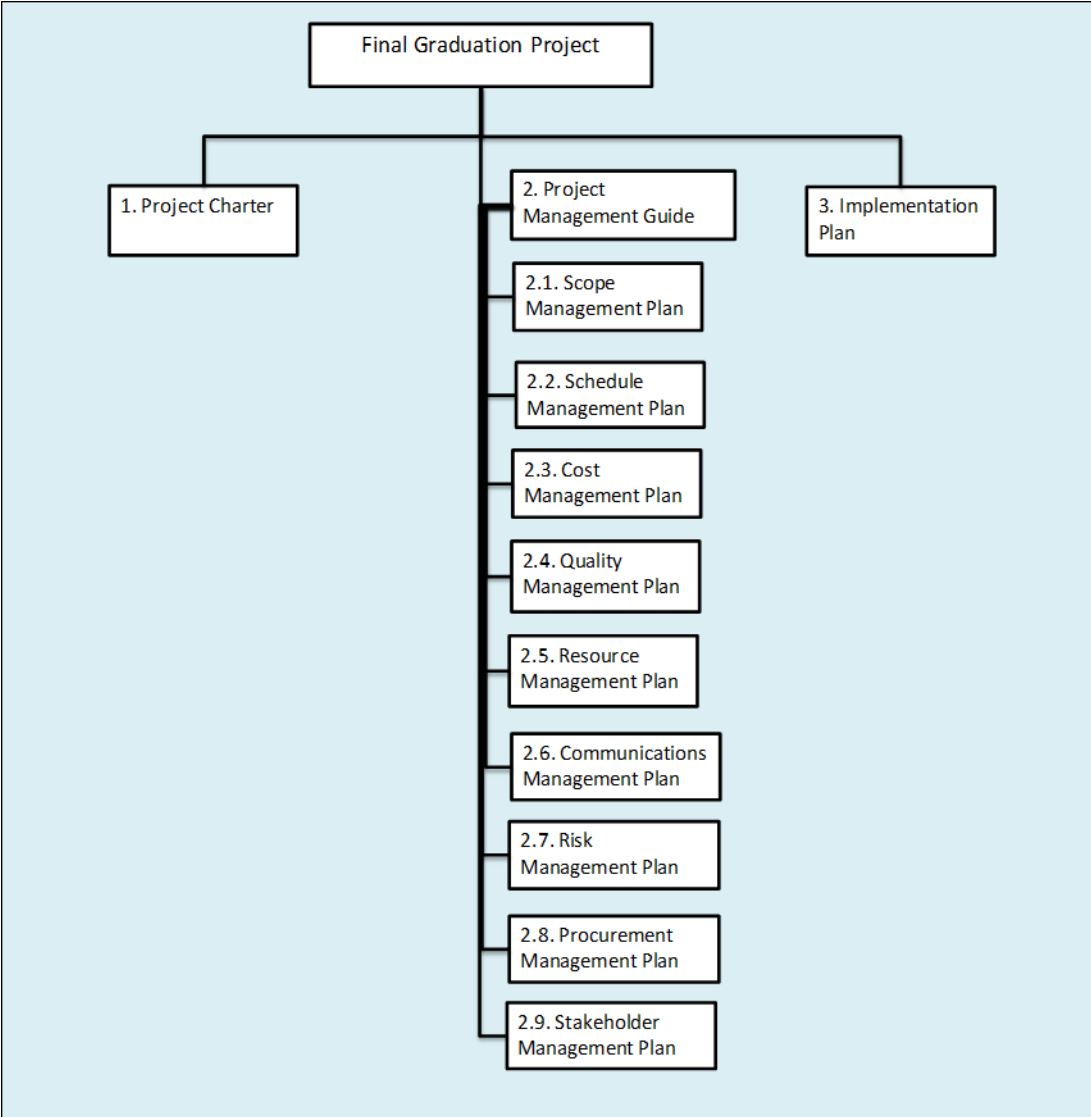
This budget considers 180 professional working hours, monthly trips to San Carlos area and FGP printing cost as follows:

- 180 professional working hours: USD 10,656
USD 59.20 working hour cost x 180 hours: USD 10,656
- Two trips per month from Cartago to San Carlos: USD 820.80
Transport: 6 trips x 240 km x 0.32 per km cost = USD 460.80
Meals: USD 20 a day * 6 trips = USD 120
Hotel: USD 40 a day * 6 trips = USD 240
- FGP printing cost: USD 22.5
USD 0.05 per page cost x 150 pages x 3 copies: USD 22.5

Milestones and Dates		
Milestone	Start date	End date
FGP Approved by the Tribunal of the FGP.	November 22, 2019	November 27, 2019
PM Guide for credit product development	November 28, 2019	November 28, 2019
Implementation Plan	November 28, 2019	April 15, 2020
Project Charter	November 28, 2019	December 11, 2019

Relevant Historical Information	
<p>COOCIQUE R.L. (Cooperativa de Ahorro y Crédito de la Comunidad de Ciudad Quesada) was founded on April 11, 1965 and since then, it has been promoting the economic and social development of the geographical areas where they offer financial services.</p> <p>Today, COOCIQUE R.L. is a sound financial institution regulated by Superintendencia General de Entidades Financieras – SUGEF and it serves more than 100.000 members nationwide. Credit products mainly include Commercial loans, Credit Card loans, Mortgages loans and productive loans.</p>	
Stakeholders	
<p>Direct stakeholders:</p> <ol style="list-style-type: none"> 1. COOCIQUE R.L Risk Management Unit 2. COOCIQUE R.L Credit Management Unit 3. The Student 4. The Tutor <p>Indirect stakeholders:</p> <ol style="list-style-type: none"> 1. COOCIQUE R.L. members (small and midsize producers) 	
Project Manager: ADRIÁN RODRÍGUEZ	Signature:
Authorized by:	Signature:

Appendix 2: FGP WBS



Appendix 3: FGP Schedule

Id	Nombre de tarea	Duración	Comienzo	Fin
1	Final Graduation Project	140 días	lun 13/5/19	jue 28/11/19
2	FGP Start	0 días	lun 13/5/19	lun 13/5/19
3	1. Graduation Seminar	25 días	lun 13/5/19	vie 14/6/19
4	1.1. FGP Deliverables	20 días	lun 13/5/19	vie 7/6/19
5	1.1.1. Charter	5 días	lun 13/5/19	vie 17/5/19
6	1.1.2. WBS	5 días	lun 13/5/19	vie 17/5/19
7	1.1.3. Chapter I. Introduction	5 días	lun 20/5/19	vie 24/5/19
8	1.1.4. Chapter II. Theoretical framework	5 días	lun 27/5/19	vie 31/5/19
9	1.1.5. Chapter III. Methodological framework	5 días	lun 3/6/19	vie 7/6/19
10	1.1.6. Annexes	15 días	lun 20/5/19	vie 7/6/19
11	1.1.6.1. Bibliography	5 días	lun 3/6/19	vie 7/6/19
12	1.1.6.2. Schedule	5 días	lun 20/5/19	vie 24/5/19
13	1.2. Graduation Seminar approval	5 días	lun 10/6/19	vie 14/6/19
14	Graduation Seminar approved	0 días	vie 14/6/19	vie 14/6/19
15	2. Tutoring process	79 días	lun 17/6/19	mar 8/10/19
16	2.1. Tutor	34 días	lun 17/6/19	lun 5/8/19
17	2.1.1. Tutor assignment	5 días	lun 29/7/19	lun 5/8/19
18	2.1.2. Communication	5 días	lun 17/6/19	vie 21/6/19
19	2.2. Adjustments of previous chapters (If needed)	15 días	mar 6/8/19	mar 27/8/19
20	2.3. Charter IV. Development (Results)	20 días	mié 28/8/19	mar 24/9/19
21	2.4. Chapter V. Conclusions	5 días	mié 25/9/19	mar 1/10/19
22	2.5. Chapter VI. Recommendations	5 días	mié 25/9/19	mar 1/10/19
23	2.6. Tutor approval	5 días	mié 2/10/19	mar 8/10/19
24	FGP Approved by Tutor	0 días	mar 8/10/19	mar 8/10/19
25	3. Reading by reviewers	12 días	mié 9/10/19	jue 24/10/19
26	3.1. Reviewers assignment request	5 días	mié 9/10/19	mar 15/10/19
27	3.1.1. Assignment of two reviewers	2 días	mié 9/10/19	jue 10/10/19
28	3.1.2. Communication	2 días	vie 11/10/19	lun 14/10/19
29	3.1.3. FGP submission to reviewers	1 día	mar 15/10/19	mar 15/10/19
30	3.2. Reviewers work	7 días	mié 16/10/19	jue 24/10/19
31	3.2.1. Reviewer	7 días	mié 16/10/19	jue 24/10/19
32	3.2.1.1. FGP reading	5 días	mié 16/10/19	mar 22/10/19
33	3.2.1.2. Reader 1 report	2 días	mié 23/10/19	jue 24/10/19
34	3.2.2. Reviewer	7 días	mié 16/10/19	jue 24/10/19
35	3.2.2.1. FGP reading	5 días	mié 16/10/19	mar 22/10/19
36	3.2.2.2. Reader 2 report	2 días	mié 23/10/19	jue 24/10/19
37	FGP reviewed by Readers	0 días	jue 24/10/19	jue 24/10/19
38	4. Adjustments	20 días	vie 25/10/19	jue 21/11/19
39	4.1. Report for reviewers	9 días	vie 25/10/19	mié 6/11/19
40	4.2. FGP update	1 día	jue 7/11/19	jue 7/11/19
41	4.3. Second review by reviewers	10 días	vie 8/11/19	jue 21/11/19
42	FGP Adjustments made	0 días	jue 21/11/19	jue 21/11/19
43	5. Defense to Board of Examiners	4 días	vie 22/11/19	mié 27/11/19
44	5.1. Final review by board	3 días	vie 22/11/19	mar 26/11/19
45	5.2. FGP grade report	1 día	mié 27/11/19	mié 27/11/19
46	FGP Approved by Board	0 días	mié 27/11/19	mié 27/11/19
47	FGP End	0 días	mié 27/11/19	mié 27/11/19
48	PM Guide for credit product development	0 días	jue 28/11/19	jue 28/11/19
49	6. Implementation Plan	360 días	jue 28/11/19	jue 15/4/21
50	Project Start	0 días	jue 28/11/19	jue 28/11/19
51	6.1. Initial Studies	60 días	jue 28/11/19	mié 19/2/20
52	6.2. Phase I: Developing the new credit model	80 días	jue 28/11/19	mié 18/3/20
53	6.2.1. Project Charter	10 días	jue 28/11/19	mié 11/12/19
54	6.2.2. PM Plan and Subsidiary Plans	70 días	jue 28/11/19	mié 4/3/20
55	6.3. Phase II: Testing Credit Model	220 días	jue 19/3/20	mié 20/1/21
56	6.4. Phase III: Documenting process	60 días	jue 21/1/21	mié 14/4/21
57	6.5. Project Management	360 días	jue 28/11/19	mié 14/4/21
58	Project End	0 días	jue 15/4/21	jue 15/4/21