UNIVERSIDAD PARA LA COOPERACION INTERNACIONAL
(UCI)

PROJECT MANAGEMENT PLAN
FOR THE CAVAN STUDIO IMPROVEMENT PROJECT

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MASTER IN PROJECT MANAGEMENT (MPM) DEGREE

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Master in Project Management (MPM) Degree

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DEDICATION

This project plan is dedicated to my dear mother who taught me to overcome difficulties and strive for excellence.

Love you mom!

ACKNOWLEDGMENTS

Thank you Carlos Brenes Vega for the incredible support, advice and knowledge sharing during this intensive process.

Thank you to my classmates, Ronald Valverde and Roxana Valiente, for sharing the same engagement and high level of work during all our courses.

To Max Gutierrez, for trusting me with the Cavan Studio Improvement Project and all the support provided.

INDEX OF CONTENTS

INDEX OF FIGURES

INDEX OF CHARTS

ABBREVIATIONS AND ACRONYMS

- ACAM: Association of Composers and Musical Authors of Costa Rica

- BSC: Balanced Scorecard

- CSAT: Customer/Client Satisfaction

- CSR: Corporate Social Responsibility

- FGP: Final Graduation Project

- GPM: Green Project Management

- ITTO: International Tropical Timber Organization

- KPI: Key Performance Indicator

- MEIC: Ministry of Economy, Industry and Commerce of Costa Rica

- PMI: Project Management Institute

- SME: Small and Medium Enterprises

- UCI: University for International Cooperation

- UN: United Nations

- UNA: Universidad Nacional de Costa Rica which translated to English means: National University of Costa Rica

- UH: Universidad Hispanoamericana which translated to English means: Hispanoamerican University

- PMBOK® Guide: A Guide to the Project Management Body of Knowledge.

- PMCD Framework: Project Manager Competency Development Framework

- WBS: Work Breakdown Structure

EXECUTIVE SUMMARY (ABSTRACT)

Cavan Studio was created as an alternative of an accessible and creative place for musicians by musicians. In 2009, Cavan became an official studio and further developed their professional services, rehearsal and production spaces for a variety of artists. As the company continued to grow, their focus on talent development and music production strengthened.

In 2017, Cavan Studio became a Small-Medium Size Enterprise and as part of this recognition and constant growth, the company's General Director decided to implement the Cavan Studio Improvement Project, which aimed to develop the business further by strengthening the company's brand, by focusing on talent development. Knowing that they will need a more structured approach than in the past to support their vision, Cavan Studio's General Director decided to adopt the Project Management support in order to have an appropriate Project Management Plan.

The creation of the Project Management Plan aimed to provide the Cavan Studio Improvement Project team with the tools, techniques, and concepts necessary to achieve successfully the project objectives through the execution, monitoring and controlling, and closing processes. At the same time, the Project Management Plan was created taking in consideration Corporate Social Responsibility aligned with the United Nations Sustainable Development Goals in order to have a positive impact in the society and the planet.

This Final Graduation Project general objective was to create a Project Management Plan for the Cavan Studio Improvement Project in order to structure the development and growth of the company as a Small/Medium Size Enterprise. The specific objectives were: to develop a project charter as part of the integration management plan to formally authorize the project and provide the project manager with the authority to apply organizational resources to project activities in order to further develop the project management plan, to develop a scope management plan in order to define, validate and control all the work in the project, to develop a schedule management plan to establish all the necessary procedures and documentation to manage appropriately the project schedule within time constraints, to develop a cost management plan to establish all the necessary policies, procedures and documentation in order to manage appropriately the approved project budget, to develop a quality management plan that identifies all the necessary requirements of the project, its deliverables and all the necessary documentation required to demonstrate compliance with quality requirements and standards, and to develop a risk management plan in order to analyze and define how to minimize and/or conduct risk management activities in the project.

The research methodology was based in four types of research methods: descriptive, analytical, quantitative and qualitative. The main information sources were: A Guide to the Project Management Body of Knowledge (PMBOK® Guide), The GPM Global P5™ Standard for Sustainability in Project Management, and

meetings held especially with the Cavan Studio's General Director. The information was analyzed and tools were used to create each of the subsidiary plans used to develop the Project Management Plan.

In conclusion, all tools and techniques provided in each of the subsidiary plans were described in detail in order to provide Cavan Studio with all the necessary details for project success. The project charter was the basis and main element to keep stakeholders aware of the high-level objectives. The Work Breakdown Structure, Work Breakdown Structure Dictionary and Balanced Scorecard especially were defined as key sources for the success of the Cavan Studio Improvement Project. They provided the core elements and guidelines for the achievement of the project goals.

The objectives on the plan were carefully defined and should be achievable if proper execution is followed. Monthly meetings and a collection of important templates were provided to achieve the correct track of information, communication of objectives and progressive elaboration during the execution process within scope, time, cost and quality constraints. Best practices and Corporate Social Responsibility recommendations were provided in an effort to provide the Cavan Studio with the best organizational approach in the current market and allowed them to stand out as a brand. All this elements should allow the company to achieve project success.

The main recommendations for the Cavan Studio Improvement Project team are: read the document thoroughly to familiarize with the document and consult with the project manager if needed; the Project Management Plan works as a source to aim for successful project completion; monthly meetings are highly recommended to keep close track of the project; and progressive elaboration through data analysis and monitoring is required.

Special consideration was paid to the fact that this is the first official project executed for Cavan Studio and therefore focus on thorough understanding and clarification of the Project Management Plan is the key. Clear and timely communication to key stakeholders is expected in order to reach the project objectives.

1 INTRODUCTION

1.1. Background

Cavan Studio opened its doors in Heredia, Costa Rica as a professional option, created by musicians for musicians, with the intention of becoming the home of bands and artists with the most varied tendencies and tastes. They started in 2006, as a small home recording studio with the most basic and rustic equipment for live events.

In 2009, Cavan became an official studio and since then has maintained a constant growth, consolidating as a solid and continuously evolving company. Through their specialized departments such as Rehearsal Rooms, Recording Studio and Technical Support, they have collaborated and worked with countless bands, artists, teachers and international musicians.

In 2016, Cavan expanded their service offer through the department of Creative Laboratories, focused on the generation of specialized knowledge.

Cavan Studio's commercial experience includes artistic and commercial projects (both local and international) in the most diverse areas of sound and audiovisual production such as:

- Audio to videogame consoles like PlayStation 3 and XboX
- Music productions awarded by the Association of Composers and Musical Authors of Costa Rica (ACAM)
- Product launch and activation campaigns
- Artist management and generation of content for social networks

In 2017, Cavan became an official Small/Medium Size Enterprise (SME), registered by the Ministry of Economy, Industry and Commerce of Costa Rica (MEIC). Thanks to this achievement, the company considers there is an organizational need to develop their business further and to achieve this they have requested the support of a project manager to develop a plan for their Improvement Project.

Previously, the company has done some informal implementations but this is the first time they will apply a proper Project Management Plan.

With the Improvement Project, Cavan Studio seeks to generate new alternatives for the development of talent and improve further the brand by building a stronger client base.

1.2. Statement of the problem

Cavan Studio has gradually developed from a home studio to an SME. This has been achieved by performing multiple small improvements throughout the years. As Cavan Studio seeks to keep growing and becoming a solid company, it has become clear for their General Director that there is a need to have more structure while improving the company further. The current lack of focus on professional development and potential to improve client loyalty to the brand can be corrected by creating a proper Project Management Plan.

1.3. Purpose

The purpose of developing a Project Management Plan for Cavan Studio is to create all the necessary documents that will be used by the Project Management Team during the execution, monitoring and controlling, and closing processes of the Cavan Studio Improvement Project.

Cavan Studio assigned the project manager with the task of creating a plan to improve key identified processes inside the company in order to develop further in the sector of Professional Services with a focus in talent development and music production. The project manager will apply the knowledge acquired during the Project Management Master studies, in order to develop a proper Project Management Plan to meet scope, time, cost, quality and risk constraints.

Research and Analysis of Information will be performed in order to understand the company and the stakeholders requirements and expectations in order to produce a management plan that is suitable for the project.

The Project Management Plan will provide the Cavan Studio Improvement Project with all of the necessary subsidiary plans and baselines along with all of the tools, techniques, and concepts necessary to delineate the strategy and tactics as well as the course of action or path in order to successfully complete the project.

1.4. General objective

To create a Project Management Plan for the Cavan Studio Improvement Project in order to structure the development and growth of the company as a Small/Medium Size Enterprise through the improvement of key identified processes.

1.5. Specific objectives

1. To develop a project charter as part of the integration management plan to formally authorize the project and provide the project manager with the authority to apply organizational resources to project activities in order to further develop the project management plan.
2. To develop a scope management plan in order to define, validate and control all the work in the project.
3. To develop a schedule management plan to establish all the necessary procedures and documentation for manage appropriately the project schedule within time constraints.
4. To develop a cost management plan to establish all the necessary policies, procedures and documentation in order to manage appropriately the approved project budget.
5. To develop a quality management plan that identifies all the necessary requirements of the project, its deliverables and all the necessary documentation required to demonstrate compliance with quality requirements and standards.
6. To develop a risk management plan in order to analyze and define how to minimize and/or conduct risk management activities in the project.

2   THEORETICAL FRAMEWORK

2.1.   Company/Enterprise framework

2.1.1. Company/Enterprise background

Cavan Studio originated in 2009 as a recording studio and through the years, it has developed with a focus on the Development and Production of Talent.

More than 250 customers use the studio facilities weekly. Those customers compose a wide variety of national bands that cover an immense range of creeds, experience, genres, history, proposal, and styles. Cavan facilities have been visited as well by recognized international musicians. This is without taking into account that they also share the property with a Tattoo shop, the Suburban music and accessories store and is the house of the Suburban Agency (company that presents the artist as a generator element of culture and develops projects through their work, accentuating respect, constancy and innovation in their art).

The studio has a patent for small private events and for a small store. Currently the studio is processing the license to sell liquor by the end of 2017. Cavan Studio has the following installations:

- Parking for 24 vehicles
- Events space (in the parking lot)
- 4 Pre-production Rooms (Rehearsal – increased by 2 on November 2013)
- 2 Production Rooms (Recording)
- Common areas (2 rooms, corridors, patio)
- Office of Audiovisual Production
- Reception
- Bathrooms

Additional benefits are the Studio's central location (150 meters south of the Pizza Hut of Heredia Center), 24 hours availability 365 days a year, air conditioning in all their rooms, and an entertainment area with video games.

To date, the studio facilities cover more than 300 m^2 of construction dedicated to Costa Rican music and suburban culture and practically 1200 m^2 including parking. Cavan Studio has several goals that subdivide in short-, medium- and long-term objectives:

- For short-term (December 2017), the company is focusing on a marketing campaign to promote them as an SME by capitalizing on their services and cooperation with artists and suppliers.
- Medium-term (December 2018), the company is focusing on improving installations and creating a more solid plan to develop talent and client impact).
- Long-term (July 2019), the company is aiming to become a 100% green company as part of their 10th anniversary.

In order to achieve the goals mentioned, the company has decided to seek support to create a proper management plan that reflects the growth the company is having and their aim to develop in a professional and organizational level.

The project manager will work closely with the General Director in order to receive as much information as possible in order to create a concise and clear management plan with all the necessary subsidiary plans in order to succeed with the Cavan Studio Improvement Project.

2.1.2. Mission and vision statements

Mission

To offer professional and quality solutions that allow the continuous development of the operations and activities of the company, its customers, suppliers and collaborators.

Vision

To transcend globally as the leading company in the development of regional talent through quality, perseverance and passionate work, supporting the continuous growth of committed people through a technical and administrative infrastructure

based on products, services and professional tools in our Departments of Recording, Rehearsal, Audiovisuals and Creative Laboratories.

The General Director of the company strives to develop Cavan Studio as a recognized and trusted brand that is recognized by the quality of their services and by the positive impact they bring to the community. Due to this high commitment, the project manager counts with the right sponsor for the project. Therefore, a solid research to create a thorough management plan is the next step to achieve these goals.

2.1.3. Organizational structure

Cavan Studio fixed staff consists of 5 full time employees who work across 4 shifts through a schedule from Monday to Saturday from 7 a.m. to 11 p.m. and Sundays from 9 a.m. to 11 p.m. However, the work schedule might vary depending on the service required or demand.

Figure 1 depicts the company's organizational structure. Max Gutiérrez – the General Director and founder, heads the company. He works together with Francisco Mora – the Director of Operations to oversee the different services the company provides.

Organizational chart - Cavan Studio

Isbel Obregón M.
Operations

Max Gutiérrez S.
General Director

Francisco Mora P.
Director of
Operations

Jefry Hidalgo
Operations

Fabian Salas
Operations

I Quarter, 2017
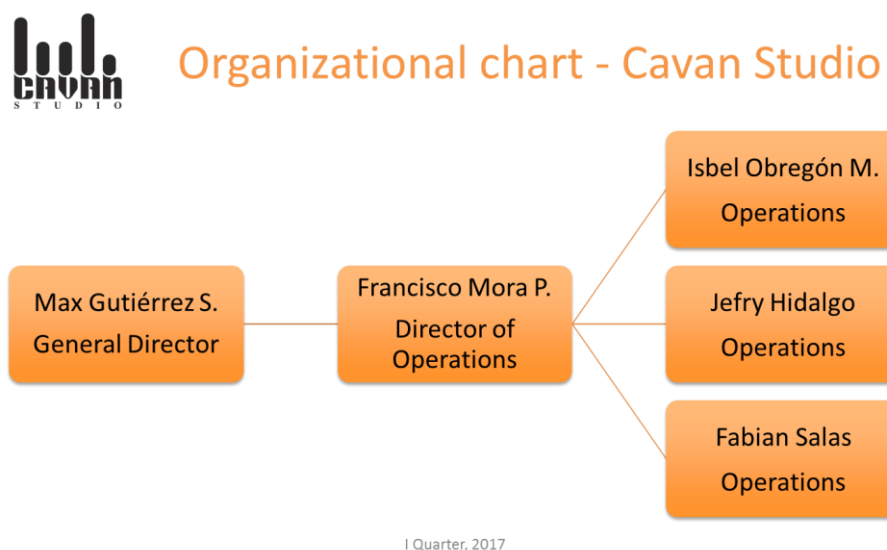
Figure 1 Organizational structure (Source: Gutiérrez, 2017, Presentation1Q2017)

2.1.4. Products offered

Cavan Studio portfolio of professional services offer:

- Production and Editing of Video

- Image and Photography

- Production of Artistic and Commercial Events

- Digital Marketing

- Strategies

- Management of Social Networks

Cavan Studio also provides the service of equipment, sound, lights and backline for national and international events. Among the brands they offer to their customers are (both in rehearsal rooms, studio and event sound services): Orange, Carvin, Randall, Marshall, Peavey, Shure, Sennheiser, AKG, Mapex, Pearl, Gibraltar, Sabian, Ampeg, and Roland.

They are also providers of services and products related to the world of audio and video for educational institutions such as the National University of Costa Rica (UNA) and the Universidad Hispanoamericana (UH), which provides the "Radio Production" course in their facilities for more than 3 years.

The project management plan will aim to utilize the services provided by Cavan Studio as foundation to create an appropriate management plan that can focus on the development of the company as well as talent development of their customers. The management plan will also aim to integrate such services in order for them to have a corporate social responsible impact in the community.

2.2. Project Management concepts

2.2.1. Project

"The acceptance of project management as a profession indicates that the application of knowledge, processes, skills, tools, and techniques can have a significant impact on project success." (PMI, 2013, PMBOK, p.2)

The Project Management Body of Knowledge (PMBOK® Guide) created by the Project Management Institute (PMI) is globally recognized as a source for good practice. The PMI is a worldwide-recognized institution due to its excellence and professional standards.

According to Wikipedia, PMI described its objectives in 1975 as to "foster recognition of the need for professionalism in project management, provide a forum for the free exchange of project management problems, solutions and applications; coordinate industrial and academic research efforts; develop common terminology and techniques to improve communications; provide interface between users and suppliers of hardware and software systems; and to provide guidelines for instruction and career development in the field of project management." [Chumas & Hartman (1975) *Directory of United States standardization activities.* NBS Special Publication 417. p. 141]. Though more lean, these goals remain quite similar today. Many companies seek project managers knowledgeable in the PMI standards in order to run their projects and achieve success. Cavan Studio is no exception, in order to achieve top quality results the company should focus in finding the best option for the Cavan Studio Improvement Project.

A project, as defined by PMI, "is a temporary endeavor undertaken to create a unique product, service, or result. The temporary nature of projects indicates that a project has a definite beginning and end." (PMI, 2013, PMBOK, p.3) In business, the use of projects is a good approach within the ever-changing global markets, emerging economies, technology and innovation. To create a unique product, service or result, if done properly, usually translates in brand recognition. To differentiate a company among others there is a need to set specific goals that will translate in the form of a very clear Project Management Plan such as the one required for this FGP.

"A project is a limited duration unique endeavor that produces a one-off set of deliverables that are not brought about by continually ongoing repetitive operations… A project has either a definitive beginning and/or a definitive end by

when a specific collection of objectives will have been achieved to the satisfaction of the project's stakeholders, or it is decided that these objectives cannot be effectively achieved, or these objectives are no longer applicable and thus the project is not required anymore" (Boyde, 2014)

For Cavan Studio, the main focus is to improve processes such a customer satisfaction and professional development to drive business through a better customer experience. The company focuses in obtaining results within a specific period. Therefore, the project management plan needs to be developed in detail in order to meet such expectations.

2.2.2. Project management

According to the PMI, "Project management is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements" (PMI, 2013, PMBOK, p.5)

Creating a well-defined Management Plan allows the project manager to demonstrate all the knowledge and skills acquired during the Project Management Master Program. Based in the PMI methodology, therefore most of the content of the FGP will be based on the PMBOK. In addition, it will allow the Project Manager to apply the tools and techniques necessary to obtain the expected deliverables for the Final Graduation Project.

"Successful project management can then be defined as having achieved the project objectives: within time, within cost, at the desired performance/technology level, while utilizing the assigned resources effectively and efficiently, and accepted by the customer" (Kerzner, 2009, p.3)

"Project management is the planning, organizing, directing, and controlling of company resources for a relatively short-term objective that has been established to complete specific goals and objectives. Furthermore, project management utilizes the systems approach to management by having functional personnel (the

vertical hierarchy) assigned to a specific project (the horizontal hierarchy). (Kerzner, 2009, p.4)

Cavan Studio aims to complete most of their objectives in a relative short period, for this, they seek the help of proper project management. The company will provide the necessary support from their personnel and other available resources in order to achieve the goals of the project.

2.2.3. Project life cycle

As shown in **Figure 2**, "A project life cycle is the series of phases that a project passes through from it initiation to its closure" (PMI, 2013, PMBOK, p.38).
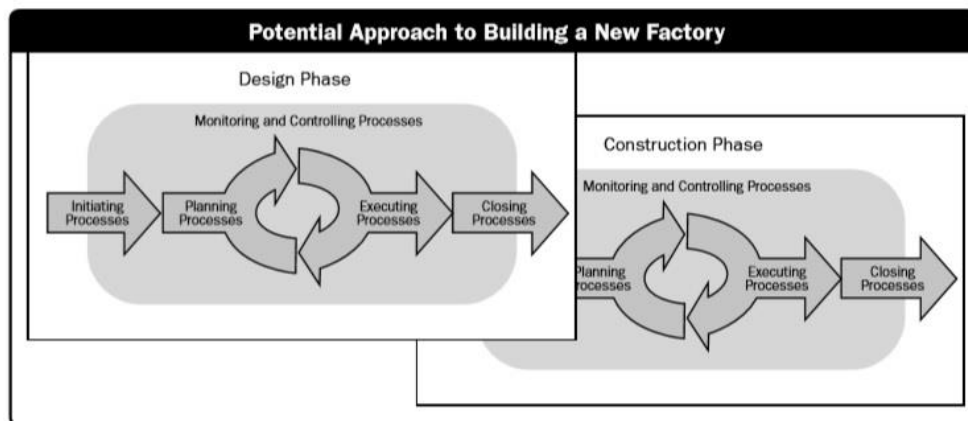
Figure 2 Example of a Project with Overlapping Phases (Source: PMI, 2013, PMBOK, p.43)

Within each phase of a project life cycle, five process groups interact with each other; the grey arrows in Figure 3 below illustrate them.
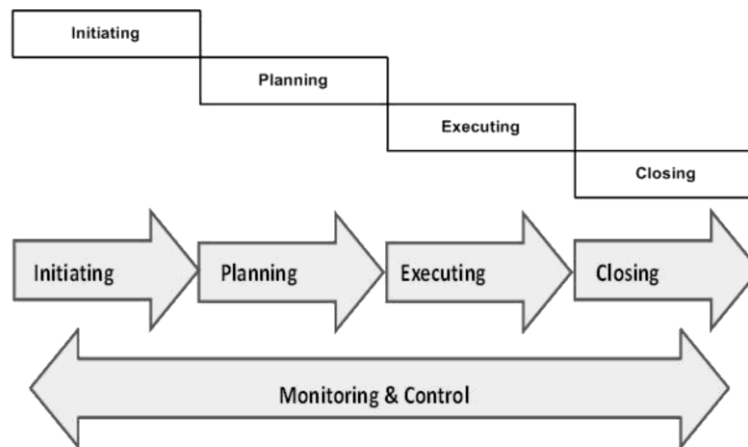
Figure 3 Project life cycle phases outlined as a Waterfall model (Source: Boyde, 2014, fig.5)

The Project Management Plan for the Cavan Studio Improvement Project will focus on using predictive life cycles. "Predictive life cycles are ones in which the project scope, and the time and cost required to deliver that scope, are determined as early in the project life cycle as practically possible." (PMI, 2013, PMBOK, p.44)
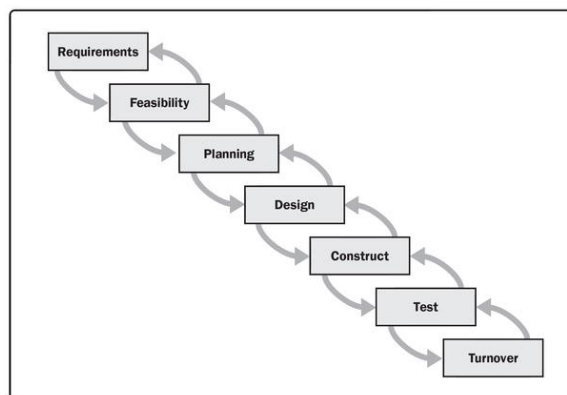
Figure 4 Example of Predictive Life Cycle (Source: PMI, 2013, PMBOK, p.44)

2.2.4. Project management processes

"A process is a set of interrelated actions and activities performed to create a pre-specified product, service, or result" (PMI, 2013, PMBOK, p.47)

Project management is categorized into five Process Groups: Initiating, Planning, Executing, Monitoring and Controlling, and Closing. "Project management

processes ensure the effective flow of the project throughout its life cycle. These processes encompass the tools and techniques involved in applying the skills and capabilities described in the Knowledge Areas." (PMI, 2013, PMBOK, p.47).
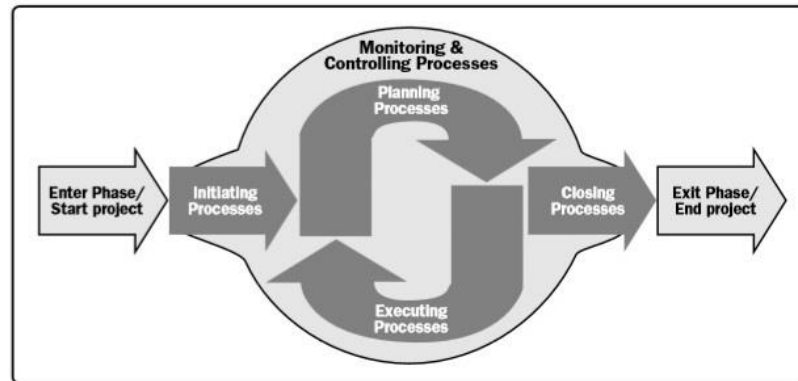
Figure 5 Project Management Process Groups (Source: PMI, 2013, PMBOK, p.6)

For the Final Graduation Project (FGP), due to time and cost constraints, the focus will be in the Initiating and Planning processes. The purpose is to create a realistic and understandable plan, which the company can run through the executing, monitoring and controlling, and closure processes.

As stated also in the PMBOK: "Progressive elaboration involves continuously improving and detailing a plan as more detailed and specific information and more accurate estimates become available." (PMI, 2013, PMBOK, p.6)

This is an important observation to follow by the project manager who will create the project management plan as well as for the person who will take the responsibility to follow it. As in any project, progressive elaboration refines the processes outcomes and improves the deliverables quality by gaining knowledge in each phase. This is achieved by the appropriate level of interaction in each phase, therefore important attention should be paid to that. Figure 6 shows the average level of interaction and how the process groups overlap. Figure 7 provides the overall summary of the basic flow and interactions among process groups and specified stakeholders.
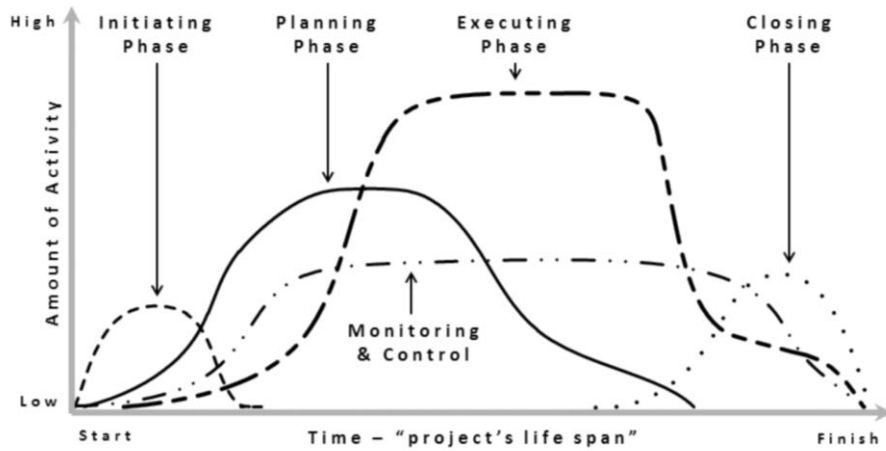
Figure 6 Process Groups Interact in a Phase or Project (Source: PMI, 2013, PMBOK, p.51)
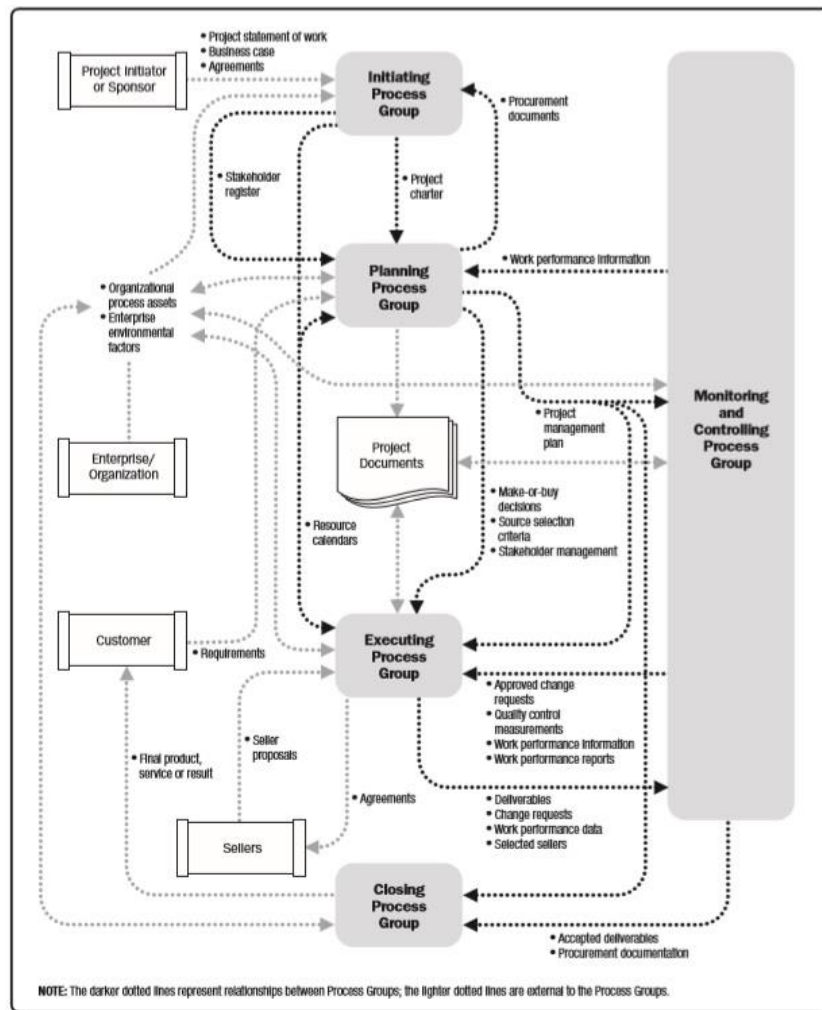
Figure 7 Project Management Process Interactions (Source: PMI, 2013, PMBOK, p.53)

2.2.5. Project management knowledge areas

Within each process group there is a set of concepts, terms, and activities that make up a professional field, project management field, or area of specialization, best known as Knowledge Areas. According to PMI there are 10 key knowledge areas that integrate with each of the five process groups. These knowledge areas contain a description of the inputs, tools and techniques, and outputs that are used to produce the necessary outcomes throughout the project management processes. How these areas interact with each process group, is depicted below in **Figure 8**.

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

Figure 8 Project Management Process Group and Knowledge Area Mapping (Source: PMI, 2013, PMBOK, p.61)

The 10 knowledge areas are Integration management, Scope management, Schedule management, Cost management, Quality management, Human Resources management, Communication management, Risk management, Procurement management, and Stakeholder management.

For the FGP, the aim is to create a Project Management Plan for the Cavan Studio Improvement Project. Six of the Knowledge Areas will be addressed in order to consider all the vital factors for project success. As mentioned before the Project

Management Plan will have the respective subsidiary plans, which relate to each of the knowledge area and created during the Planning process (as previously shown in **Figure 8**).

2.2.5.1   Project Integration Management

"Project Integration Management includes the processes and activities to identify, define, combine, unify, and coordinate the various processes and project management activities within the Project Management Process Groups" (PMI, 2013, PMBOK, p.63)

Key elements of this process are:

- **Project Statement of Work (SOW):** Narrative description of products, services, or results to be delivered by the project. (PMI, 2013, PMBOK, p.68) Due to the internal nature of the Cavan Studio Improvement Project the SOW is provided informally by the project sponsor as a business need for growth and development aligned with their strategic plan.

- **Business case:** describes the necessary information from a business standpoint to determine whether or not the project is worth the required investment.   (PMI,   2013,   PMBOK,   p.69) The Project Management Plan for Cavan Studio's Improvement Project comes as part of an organizational need.

- **Project Charter:** Document issued by the project initiator or sponsor that formally authorizes the existence of a project and provides the project manager with the authority to apply organizational resources to the project activities. (PMI, 2013, PMBOK, p.71). For the FGP charter please refer to **Appendix 1**.

- **Project Management Plan:** document that describes how the project will be executed, monitored, and controlled. It integrates and consolidates all of the subsidiary plans and baselines from the planning processes. (PMI, 2013, PMBOK, p.76).
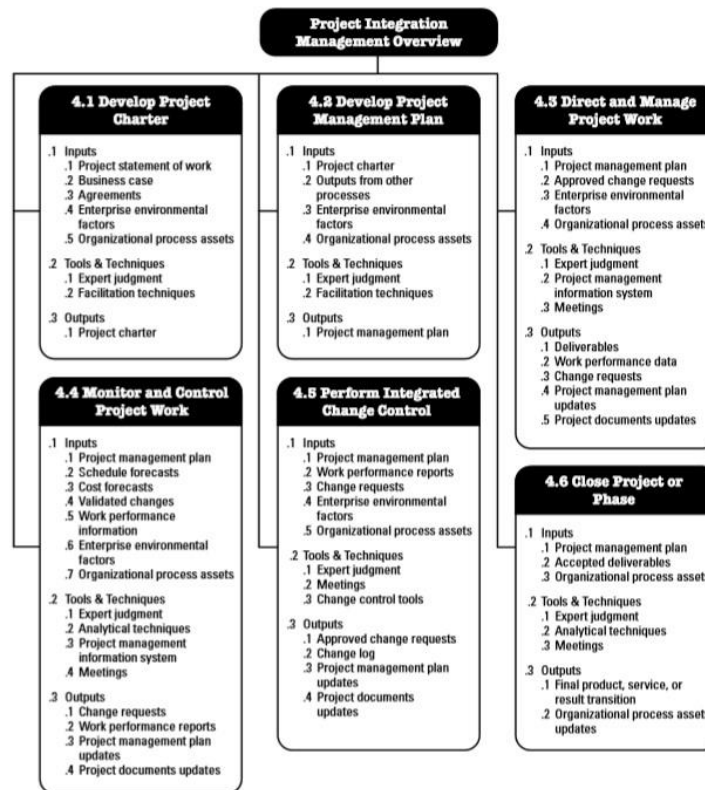
Figure 9 Project Integration Management Overview (Source: PMI, 2013, PMBOK, p.65)

2.2.5.2 Project Scope Management

"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" (PMI, 2013, PMBOK, p.105)

Key elements of this process are:

- **Scope Management Plan:** describes how the scope will be defined, developed, monitored, controlled, and verified. (PMI, 2013, PMBOK, p.109)

- **Requirements Traceability Matrix:** is a grid that links product requirements from their origin to the deliverables that satisfy them. Helps ensure that each requirement adds business value by linking it to the business and project objectives. (PMI, 2013, PMBOK, p.118)

- **Scope Baseline:** is the approved version of a scope statement, Work Breakdown Structure (WBS) and its associated WBS dictionary, which can be

changed only through formal change control procedures and is used as a basis for comparison. (PMI, 2013, PMBOK, p.131)

- **WBS:** hierarchical decomposition of the total scope of work to be carried out by the project team to accomplish the project objectives and create the required deliverables. For the FGP WBS please refer to **Appendix 2**.

For the Project Management Plan for the Cavan Studio Improvement Project there is a need to define clearly the Scope baseline to avoid unnecessary work that can affect the project negatively. A well-defined WBS is also a key element in order to communicate clearly to the stakeholders on the defined deliverables for the project.

Figure 10 Project Scope Management Overview (Source: PMI, 2013, PMBOK, p.106)

2.2.5.3   Project Time Management

"Project Time Management includes the processes required to manage the timely completion of the project" (PMI, 2013, PMBOK, p.141)

Key elements of this process are:

- **Schedule Management Plan:** establishes the criteria and the activities for developing, monitoring, and controlling the schedule. (PMI, 2013, PMBOK, p.148)

- **Schedule Baseline:** is the approved version of a schedule model that can be changed only through formal change control procedures and is used as a basis for comparison to actual results. (PMI, 2013, PMBOK, p.181)

- **Project Schedule:** output of a schedule model that presents linked activities either planned dates, durations, milestones, or resources. (PMI, 2013, PMBOK, p.182). For the FGP project schedule, please refer to **Appendix 3**.

Figure 11 Project Time Management Overview (Source: PMI, 2013, PMBOK, p.143)

2.2.5.4 Project Cost Management

"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, 2013, PMBOK, p.193)

Key elements of this process are:

- **Cost Management Plan:** describes how the project costs will be planned, structured, and controlled. (PMI, 2013, PMBOK, p.198)

- **Cost Baseline:** is the approved version of the time-phased project budget, excluding any management reserves, which can only be changed through formal change control procedures and is used as a basis for comparison to actual results. (PMI, 2013, PMBOK, p.212)

For the Project Management Plan the project manager will need to work closely with the General Director in order to define the proper budget for the project as well as the reserves in case of any risks that might appear.
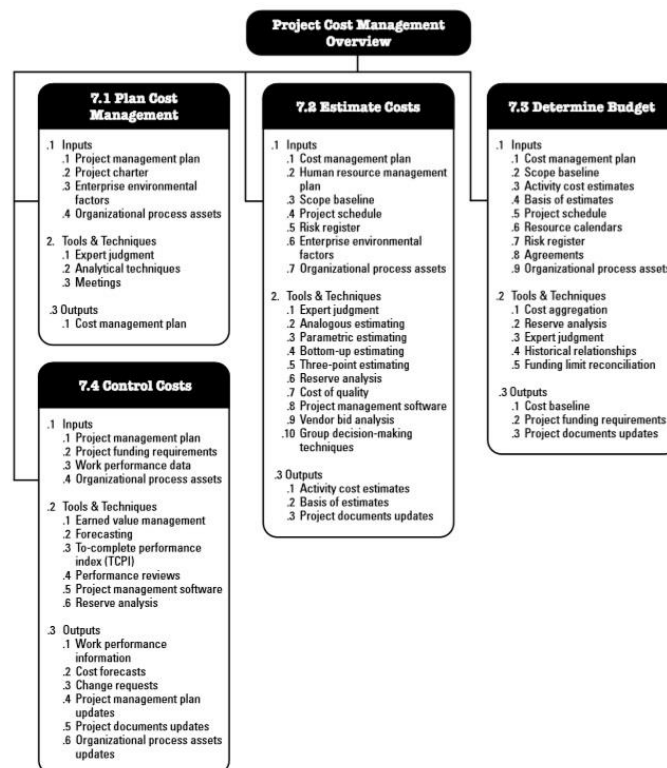
Figure 12 Project Cost Management Overview (Source: PMI, 2013, PMBOK, p.194)

2.2.5.5 Project Quality Management

"Project Quality Management includes the processes and activities of the performing organization that determine quality policies, objectives, and responsibilities so that the project will satisfy the needs for which it was undertaken" (PMI, 2013, PMBOK, p.227)

Key elements of this process are:

- **Quality Management Plan:** describes how the organization's quality policies will be implemented. It describes how the project management team plans to meet the quality requirements set for the project. (PMI, 2013, PMBOK, p.241)

- **Quality Metrics:** describes a project or product attribute and how the control quality process will measure it. (PMI, 2013, PMBOK, p.242)

- **Quality Checklists:** structured tool, usually component-specific, used to verify that a set of required steps has been performed. (PMI, 2013, PMBOK, p.242)

The Project Management Plan for the Cavan Studio Improvement Project aims to integrate the mentioned quality elements in order for the project team to control and produce deliverables within stakeholders' expectations.
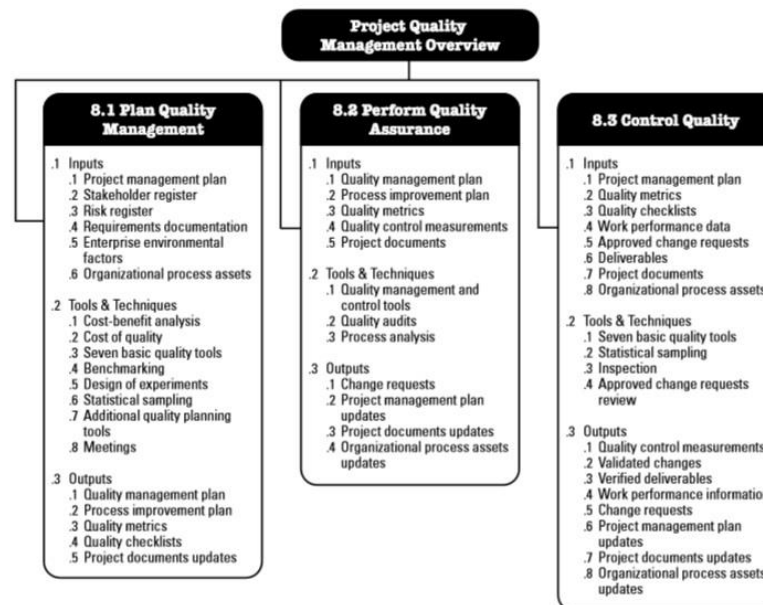
Figure 13 Project Quality Management Overview (Source: PMI, 2013, PMBOK, p.230)

2.2.5.6   Project Human Resource Management

"Project Human Resource Management includes the processes that organize, manage, and lead the project team. The project team is comprised of the people with assigned roles and responsibilities for completing the project" (PMI, 2013, PMBOK, p.255).

A key element of this process is the **Human Resource Management Plan:** describes how the roles and responsibilities, reporting relationships, and staffing management will be addressed and structured within a project. It also contains the staffing management plan including timetables for staff acquisition and release, identification of training needs, team-building strategies, plans for recognition and rewards programs, compliance considerations, safety issues, and impact of the staffing management plan on the organization. (PMI, 2013, PMBOK, p.259)
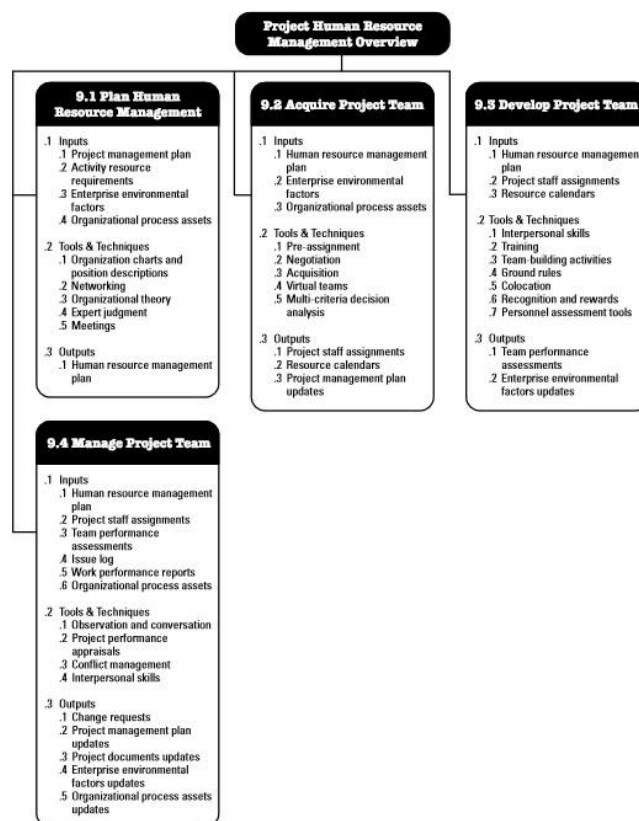
Figure 14 Project Human Resource Management Overview (Source: PMI, 2013, PMBOK, p.257)

2.2.5.7 Project Communications Management

"Project Communications Management includes the processes that are required to ensure a timely and appropriate planning, collection, creation, distribution, storage, retrieval, management, control, monitoring, and the ultimate disposition of project information" (PMI, 2013, PMBOK, p.287)

A key element of this process is the **Communications Management Plan:** describes how project communications will be planned, structured, monitored, and controlled. (PMI, 2013, PMBOK, p.296)

By managing a proper communication of the desired objectives of the project, the project team will be able to engage stakeholders and give clear guidelines on the desired action in order to obtain the expected results.
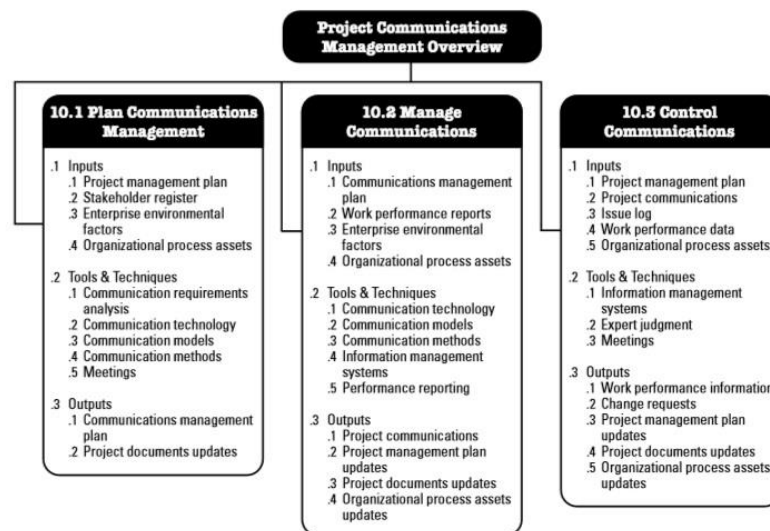
Figure 10-1. Project Communications Management Overview

Figure 15 Project Communications Management Overview (Source: PMI, 2013, PMBOK, p.288)

2.2.5.8 Project Risk Management

"Project Risk Management includes the processes of conducting risk management planning, identification, analysis, response planning, and controlling risk on a project" (PMI, 2013, PMBOK, p.309)

"A project risk is an uncertain event or condition that, if occurs, has a positive or negative effect on one or more project objectives such as scope, schedule, cost, and quality." (PMI, 2013, PMBOK, p.310)

Key elements of this process are:

- **Risk Management Plan:** describes how risk management activities will be structured and performed. It includes the following: methodology, roles and responsibilities, budgeting, timing, risk categories, definitions of risk probability and impact, probability and impact matrix, revised stakeholders' tolerances, reporting formats, and tracking. (PMI, 2013, PMBOK, p.316-318)

- **Risk Register:** document in which the results of risk analysis and risk response planning are recorded. (PMI, 2013, PMBOK, p.327)

The project manager will work closely with the General Director and the rest of the Cavan Studio staff by using different tools and techniques to obtain as much information as possible in order to forecast, prepare and react appropriately in case of project risks.
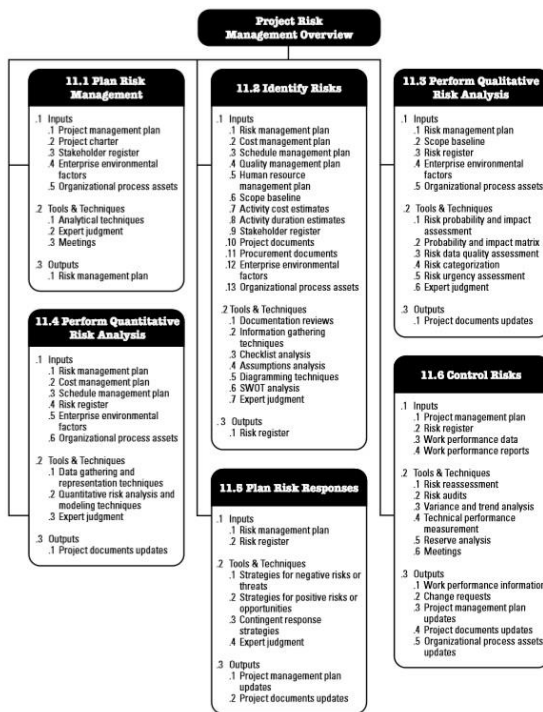
Figure 16 Project Risk Management Overview (Source: PMI, 2013, PMBOK, p.312)

2.2.5.9   Project Procurement Management

""Project Procurement Management includes the processes necessary to purchase or acquire products, services, or results needed from outside the project team" (PMI, 2013, PMBOK, p.355)

A key element of this process is the **Procurement Management Plan:** describes how a project team will acquire goods and services from outside the performing organization. It describes how the procurement processes will be managed from developing procurement documents through contract closure. (PMI, 2013, PMBOK, p.366)
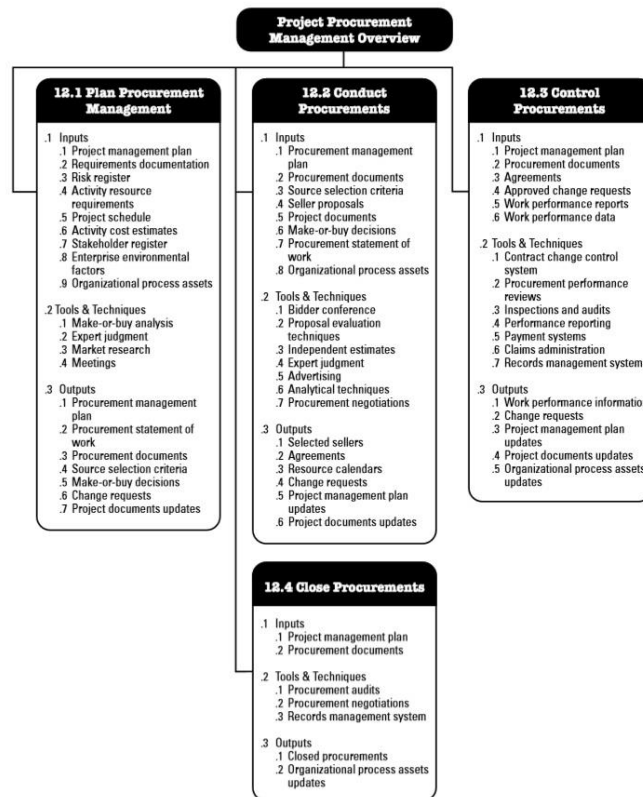
Figure 17 Project Procurement Management Overview (Source: PMI, 2013, PMBOK, p.356)

2.2.5.10 Project Stakeholder Management

"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, 2013, PMBOK, p.391)

PMI defines a stakeholder as "an individual, group, or organization that may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project." (PMI, 2013, PMBOK, p.563)

Key elements of this process are:

- **Stakeholder Register:** contains all details related to the identified stakeholders. (PMI, 2013, PMBOK, p.398)

- **Stakeholder Management Plan:** identifies the management strategies required to effectively engage stakeholders. Provides guidance on how the various stakeholders can be best involved in the project. Describes the methods and technologies used for stakeholder communication. (PMI, 2013, PMBOK, p.403)

Though this is the last knowledge area mentioned, it is one of the first ones to be approached when creating a Project Management Plan as the input it provides for other knowledge areas is quite valuable to define clear objectives and deliverables.
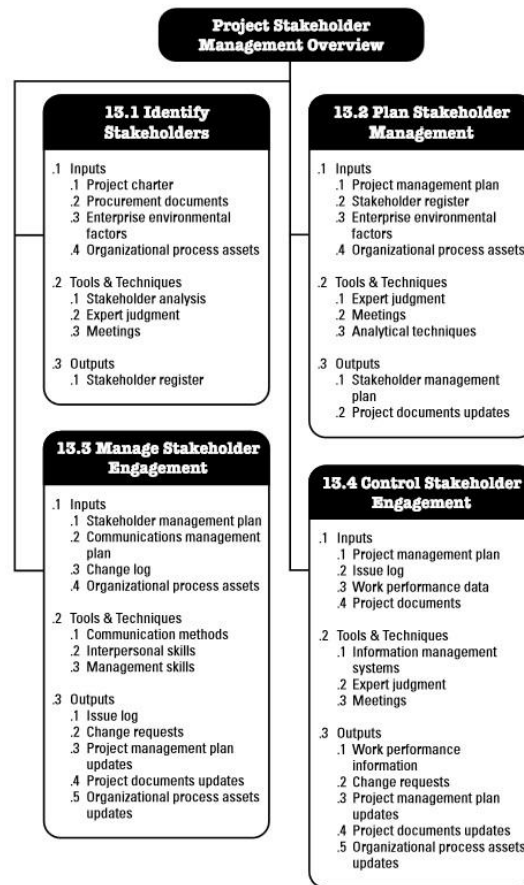
Figure 18 Project Stakeholder Management Overview (Source: PMI, 2013, PMBOK, p.392)

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

2.3.1. Project Management Skills

Being a good project manager is quite important for a project, but becoming a project leader brings additional benefits and positive value to the project.

More often, there is a need to focus on skills such as Leadership, Decision Making, Creativity, Effective Communication, Negotiation, Problem Solving, Conflict Resolution, Team building, etc. as part of the core competencies in Project Management.

During the cooperation with Cavan Studio, the project manager should be able to apply the knowledge and competencies learned during the Project Management Master Courses and focus on developing them further.

The Project Manager Competency Development Framework (PMCD Framework) provides an overview of the skills and behaviors a project manager will need to develop. The competencies are mainly divided in 2 sections:

- **Knowledge Competency:** can be demonstrated by passing an appropriately credential assessment (PMI, 2007, PMCD Framework).

- **Performance Competencies:** applicable to project managers that are generally recognized as good practice when leading most projects, most of the time. Can be demonstrated by assessing the project-related actions and outcomes. (PMI, 2007, PMCD Framework).

PERFORMANCE COMPETENCIES

1.0 Initiating a Project

.1 Project aligned with organizational objectives and customer needs

.2 Preliminary scope statement includes stakeholder needs and expectations

.3 High-level risks, assumptions and constraints are understood

.4 Stakeholders identified and their needs understood

.5 Project charter approved

2.0 Planning a Project

.1 Project scope agreed

.2 Project schedule approved

.3 Cost budget approved

.4 Project team identified with roles and responsibilities agreed

.5 Communications activities agreed

.6 Quality management process established

.7 Risk response plan approved

.8 Integrated change control processes defined

.9 Procurement plan approved

.10 Project plan approved

3.0 Executing a Project

.1 Project scope achieved

.2 Project stakeholders' expectations managed

.3 Human resources managed

.4 Quality managed against plan

.5 Material resources managed

4.0 Monitoring & Controlling a Project

.1 Project tracked and status communicated to stakeholders

.2 Project change is managed

.3 Quality is monitored and controlled

.4 Risk is monitored and controlled

.5 Project team is managed

.6 Contracts administered

5.0 Closing a Project

.1 Project outcomes accepted

.2 Project resources released

.3 Stakeholder perceptions measured and analyzed

.4 Project formally closed

Figure 19 Performance Competencies (Source: PMI, 2007, PMCD Framework, p.11)

- **Personal Competencies:** applicable to project managers when leading most projects, most of the time. Can be demonstrated by assessing the project manager's behavior. (PMI, 2007, PMCD Framework)
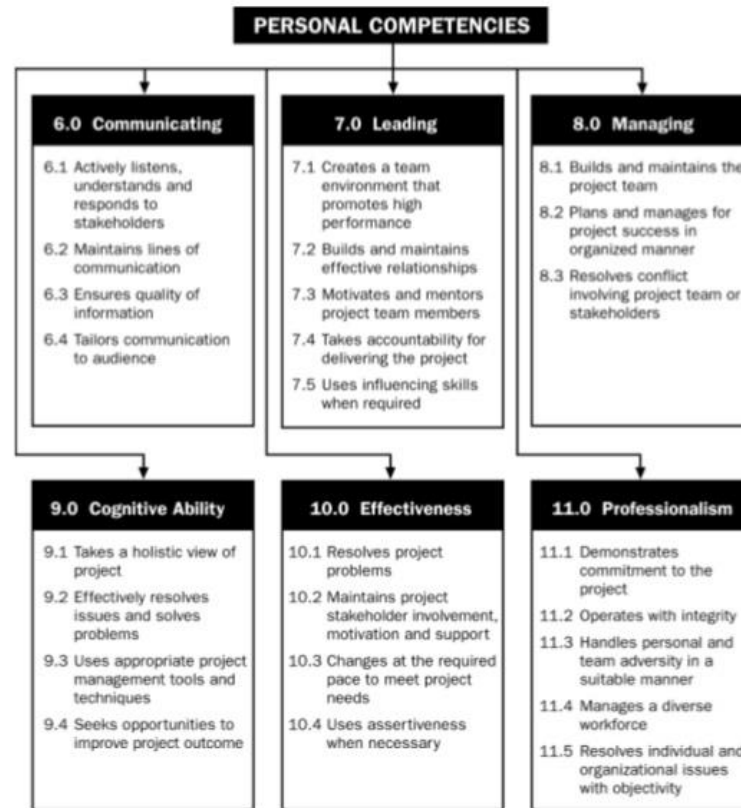
Figure 20 Personal Competencies (Source: PMI, 2007, PMCD Framework, p.25)

It is also the project manager responsibility to understand the scope of PMI´s Code of Ethics and Professional Conduct, and the implications of adhering to it, for application in professional activities.

Moreover, recent PMI studies applied the PMCD Framework to the skills needed by project managers through the use of The PMI Talent Triangle. The talent triangle focuses on three key skill sets (PMI, 2017, PMBOK, p.56):

- **Technical project management:** The knowledge, skills, and behaviors related to specific domains of project, program, and portfolio management. The technical aspects of performing one's role.

- **Leadership:** The knowledge, skills, and behaviors needed to guide, motivate, and direct a team, to help an organization to achieve its business goals.
- **Strategic and business management:** The knowledge of and expertise in the industry and organization that enhance performance and better delivers business outcomes.

Figure 21 The PMI Talent Triangle (Source: PMI, 2017, PMBOK, p.57)

2.3.2. Corporate Social Responsibility

As part of the Project Management Master studies, there was the opportunity to achieve a certification as a Green Project Manager after completing the Corporate Social Responsibility course. This benefit comes with the responsibility of seeking to apply the received knowledge into any future projects.

Corporate Social Responsibility (CSR, also called corporate conscience, corporate citizenship, social performance, or sustainable responsible business) is a form of corporate self-regulation integrated into a business model (GPM Reference Guide, 2013).

Social Responsibility should be integrated into the Corporate Strategy, in order to support the main business activities, explicitly seeking to avoid damage and promote the well-being of stakeholders by complying with the law and voluntarily going beyond it.

The International Standards, United Nations Global Principles and Initiatives are key instruments that organizations can adopt, as defined by the Green Project Management in the PRiSM Methodology, to incorporate, measure and control the impact of project processes and deliverables on the environment, society, the corporate bottom line, and the local economy.

The sustainability approach embraces current working practices with a focus on key five areas (people, planet, profit/prosperity, process, products) known as P5 to sustainable project management through PRiSM (Project integrating Sustainable Methods) as a mechanism to carry them out (GPM Reference Guide, 2013).

PRiSM is a structured project management methodology that highlight areas of sustainability and integrates them into the traditional core project phases, which, when understood and effectively addressed, can reduce negative environmental impacts in all types of projects while maximizing opportunities to manage sustainability and finite resources. The P5 Ontology bonds the triple bottom line approach, project processes and the resulting products or services, and it provides the foundation for a methodology such as PRiSM.
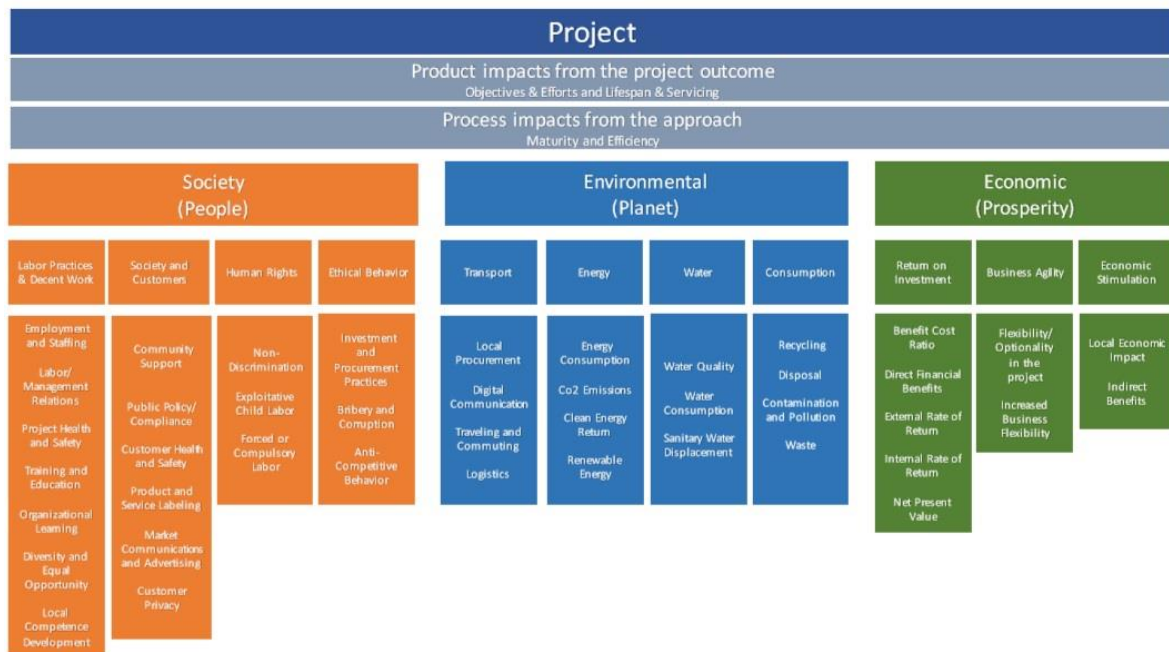
Figure 22 P5 Ontology (Source: The GPM Global P5™ Standard for Sustainability in Project Management, 2016)

One of the aims when creating the Project Management Plan for the Cavan Studio Improvement Project was to familiarize the Cavan Studio employees with the concept and methodology of Corporate Social Responsibility. Though this project might not include formal sustainable reporting guidelines, it aims to initiate the corporate social responsibility mindset through CRS recommendations. This will serve as a starting point for a more thorough inclusion and reporting in future projects in order to achieve sustainable business practices, through their processes and products, so that they are more sensitive and responsive to the environmental sustainability and society.

The General Director of Cavan Studio seeks to include such elements in the company which opens up many opportunities to integrate not one but several of the United Nations Sustainable Development Goals into the project.

Figure 23 United Nations Sustainable Development Goals
(Source: http://www.un.org/sustainabledevelopment/sustainable-development-goals/)

3   METHODOLOGICAL FRAMEWORK

3.1.   Information sources

"For the economic, scientific, technological and industrial development of any nation, information sources are essential. The goal of the information sources is to provide information that is valuable and valid so that the decision taken by the user can be optimally beneficial. For the scientific development, industrial progress and increase in productivity, the personnel must be kept well-informed in their fields." (Singh, 2013, p.3).

Information sources are the various means by which information is recorded and retrieved for use by an individual or an organization. It provides information and knowledge. There are three main categories of information sources, which can be observed in **Figure 24**.

By using the appropriate Information Gathering Techniques, information sources will be gathered as key tool to be used for the Final Graduation Project. These information sources will create the base for the research and draft of an appropriate Management Plan.

Primary sources	Secondary sources	Tertiary sources
These sources present the information in original form: original material on which other research is based.	These sources are written about primary sources. They talk about or write something that relates to primary sources.	These sources provide an overview of topic by synthesising information gathered from the other sources.
• Information is not interpreted or condensed or evaluated • Information is unfiltered • Primary sources provide researchers with original ideas, events and empirical studies, report of scientific research; first-hand information *Examples:* ⋄ Periodicals ⋄ Research/Technical reports ⋄ Speeches ⋄ Conference proceedings ⋄ Patents ⋄ Standards ⋄ Theses/Dissertations ⋄ Personal files ⋄ Trade literature ⋄ Autobiographies ⋄ Internet communication on e-mail ⋄ Newspaper or magazine articles written at the time of the event.	• From primary sources • Secondary sources describe, interpret, analyse and evaluate primary sources. • Information is filtered • Information is not original but it is an analysis of the speech. Re-state the works of others or rearranged for a specific purpose. • Cite primary sources, assist the user in locating primary sources. *Examples:* ⋄ Reference books ⋄ Handbooks ⋄ Encyclopaedias ⋄ Books including textbooks ⋄ Dictionaries ⋄ Geographical sources ⋄ Guide to literature ⋄ Abstracting journals ⋄ Indexing journals ⋄ Review of literature ⋄ Biographical work ⋄ CD-ROM	• They list, compile, digest or index primary or secondary sources. • They are based on primary and secondary sources of information • Information is distillation and collection of primary and secondary sources. • Information presented is highly condensed and thus tends to be factual. *Examples:* ⋄ Abstracts ⋄ Almanac and fact books of facts ⋄ Bibliography of bibliographies ⋄ Directories ⋄ Databases and indexes ⋄ Union catalogue ⋄ Guide to libraries ⋄ Organisations, literatures etc.

Figure 24 Distinction between Primary, Secondary and Tertiary Sources (Source: Singh, 2013, p.22)

3.1.1. Primary sources

"Primary Sources of Information are original materials. They are from the time period involved and have not been filtered through interpretation or evaluation. Primary sources are original materials on which other research is based. They are usually the first formal appearance of results in physical, print or electronic format. They present original thinking, report a discovery, or share new information. The definition of a primary source may vary depending upon the discipline or context." (Muthumari, 2013).

Additionally, Singh states that the primary sources as information especially in the scientific context (2013, p.5), "are also called *original sources of information*. Primary sources are the first published records of original research and development activities. These sources are very useful for the researchers to keep them up-to-date about the latest developments in their area of research. This will also help the researchers to avoid duplication in research. Primary sources are the original documents representing unfiltered original ideas. These are original medium of scientific communication. Primary sources consist of original theories, ideas, discoveries and inventions. These sources are scattered and unorganized. The information about the development is not published earlier in other sources."

Examples of primary sources are: Artifacts (e.g., coins, plant specimens, fossils, furniture, tools, clothing, all from the time under study); Audio recordings (e.g., radio programs), Diaries; Internet communications; Interviews (e.g., oral histories, telephone, e-mails); Journal articles published in peer-reviewed publications; Letters; Newspaper articles written at the time; Original Documents (i.e., birth certificate, will, marriage license, trial transcript); Patents; Photographs; Proceedings of Meetings, conferences and symposia; Records of organizations, government agencies (e.g., annual report, treaty, constitution, government document); Speeches; Survey Research (e.g., market surveys, public opinion polls); Video recordings (e.g., television programs); Works of art, architecture,

literature, and music (e.g., paintings, sculptures, musical scores, buildings, novels, poems), etc.

For the development of the FGP, the primary information sources that will be used are: expert judgement, meetings with the General Director, Cavan studio documentation, observation of Cavan Studio processes, and released works by the artists visiting Cavan.

The summary of information sources can be found in **Chart 1**.

3.1.2. Secondary sources

"Secondary Sources of Information are less easily defined than primary sources. Generally, they are accounts written after the fact with the benefit of hindsight. They are interpretations and evaluations of primary sources. Secondary sources are not evidence, but rather commentary on and discussion of evidence. However, what some define as a secondary source, others define as a tertiary source. Context is everything. The definition of a secondary source may vary depending upon the discipline or context." (Muthumari, 2013).

"Secondary sources are the sources that are compiled from the primary sources. They analyze, interpret, evaluate and discuss information contained in the primary sources." (Singh, 2013, p.13).

Examples of secondary sources are: Bibliographies (also considered tertiary); Biographical works; Commentaries, criticisms; Dictionaries, Encyclopedias (also considered tertiary); Histories; Journal articles (depending on the disciple can be primary); Magazine and newspaper articles(this distinction varies by discipline); Monographs, other than fiction and autobiography; Textbooks (also considered tertiary); Web site (also considered primary); etc.

For additional clarification and differentiation: "Tertiary Sources of information consist of information which is a distillation and collection of primary and secondary sources." (Muthumari, 2013). Examples of tertiary sources are: Bibliography of Bibliographies; Almanacs; Bibliographies (also considered secondary);

Chronologies; Dictionaries and Encyclopedias(also considered secondary); Directories; Fact books; Guide books; Indexes, abstracts, bibliographies used to locate primary and secondary sources; Manuals; Textbooks (also be secondary); etc.

For the development of the FGP, the secondary information sources that will be used are: PMBOK® Guide, library databases, the PMI database, the internet, The GPM® Reference Guide to Sustainability in Project Management, and The GPM Global P5™ Standard for Sustainability in Project Management.

The summary of information sources can be found in **Chart 1**.

Chart 1 Information sources (Source: O. Gutierrez Nikolaeva, The Author, July 2017)

Objectives	Information sources	
	Primary	**Secondary**
1. To develop a project charter as part of the integration management plan to formally authorize the project and provide the project manager with the authority to apply organizational resources to project activities in order to further develop the project management plan.	Expert judgement, meetings with the General Director (telephone and e-mails), Cavan studio original records and written communications.	PMBOK® Guide, library databases, PMI database, The GPM® Reference Guide to Sustainability in Project Management, and The GPM Global P5™ Standard for Sustainability in Project Management.
2. To develop a scope management plan in order to define, validate and control all the work in the project.	Expert judgement, meetings with the General Director (telephone and	PMBOK® Guide, library databases, PMI database, The GPM® Reference Guide to

	e-mails), observation of Cavan Studio processes.	Sustainability in Project Management, and The GPM Global P5™ Standard for Sustainability in Project Management.
3. To develop a schedule management plan to establish all the necessary procedures and documentation for manage appropriately the project schedule within time constraints.	Expert judgement, meetings with the General Director (telephone and e-mails), Cavan written communications.	PMBOK® Guide, library databases, PMI database, The GPM® Reference Guide to Sustainability in Project Management, and The GPM Global P5™ Standard for Sustainability in Project Management.
4. To develop a cost management plan to establish all the necessary policies, procedures and documentation in order to manage appropriately the approved project budget.	Expert judgement, meetings with the General Director (telephone and e-mails).	PMBOK® Guide, library databases, PMI database, and The GPM® Reference Guide to Sustainability in Project Management.
5. To develop a quality management plan that identifies all the necessary requirements of the project, its deliverables and all the necessary documentation	Expert judgement, meetings with the General Director (telephone and e-mails).	PMBOK® Guide, library databases, The GPM® Reference Guide to Sustainability in Project Management.

required to demonstrate compliance with quality requirements and standards.		
6. To develop a risk management plan in order to analyze and define how to minimize and/or conduct risk management activities in the project.	Expert judgement, meetings with the General Director (telephone and e-mails), Cavan studio original records.	PMBOK® Guide, library databases, PMI database, The GPM® Reference Guide to Sustainability in Project Management, and The GPM Global P5™ Standard for Sustainability in Project Management.

3.2. Research methods

Research is the search for the knowledge part of the scientific investigation that uses objective and systematic methods to find solutions to a problem. Some of the objectives of doing a research are: to gain familiarity with new insights into a phenomenon, to accurately portray the characteristics of a particular individual, group, or a situation, to analyze the frequency with which something occurs, and/or to examine the hypothesis of a causal relationship between two variables. (Irfan, 2012).

"Research Methods are the techniques you use to do research. They represent the tools of the trade, and provide you with ways to collect, sort and analyze information so that you can come to some conclusions. If you use the right sort of methods for your particular type of research, then you should be able to convince other people that your conclusions have some validity, and that the new knowledge you have created is soundly based." (Walliman, 2010).

"Research Methodology is the way in which research problems are solved systematically." (Irfan, 2012).

Irfan (2012) describes several types of research:

- **Descriptive Research** vs. **Analytical Research** (described below in sections **3.2.1.** and **3.2.2.**).

- **Quantitative Research** vs. **Qualitative Research** (described below in sections **3.2.3.** and **3.2.4.**).

- **Applied Research** (attempt to find solution to an immediate problem encountered by a firm, an Industry, a business organization, or the society) vs. **Fundamental Research** (gathering knowledge for knowledge's sake).

- **Conceptual Research** (the research related to some abstract idea or theory. Philosophers and thinkers use it to develop new concepts) vs. **Empirical Research** (relies on the observation or experience with hardly any regard for theory and system).

- **Other types of Research:** One-time or Longitudinal Research (on the basis time), Laboratory Research or Field-setting or Simulational Research (on the basis of environment), and Historical Research.

For the content of this FGP document, the following Research Methods were used:

3.2.1. Descriptive research method

Descriptive Research is where the researcher has to only report what is happening or what has happened. (Irfan, 2012).

This research is used to obtain information concerning the current status of a phenomena. It is used to identify and obtain information on the characteristics of a particular issue (Israr, 2016).

For the construction of this FGP document, descriptive research was used, a clear example is the Theoretical framework section.

3.2.2. Analytical research method

Analytical Research is where the researcher has to use the already available facts or information, and analyze them to make a critical evaluation of the subject (Irfan, 2012).

The Analytical Method is a generic process combining the power of the Scientific Method with the use of formal process to solve any type of problem. It attempts to establish the "Why?" or "How?" of a specific topic.

Analytical research means carrying out analysis on a phenomenon and mostly involves secondary data before a contemplated change. Analytical research aims to understand phenomena by discovering and measuring causal relations among them. It includes: Reviews (account of present understanding), Historical Research (accessing both primary and secondary sources to document past events), and Philosophical Research (organizing existing evidence into a comprehensive theoretical model) (Israr, 2016).

Analytical research will be used for the development of the Project Management Plan for the Cavan Studio Improvement Project. The summary of this research method is shown in **Chart 2** below.

3.2.3. Quantitative research method

Quantitative research involves the measurement of quantity or amount, such as economic and statistical methods. The quantitative approach uses experimental, inferential and simulation approaches to research. (Irfan, 2012).

Some of the characteristics of quantitative research/method are (Rajasekar, 2013):

- It is numerical, non-descriptive, applies statistics or mathematics and uses numbers.
- It is an iterative process whereby evidence is evaluated.
- The results are often presented in tables and graphs.
- It is conclusive.
- It investigates the what, where and when of decision-making.

3.2.4. Qualitative research method

Qualitative research is concerned with the aspects related to or involving quality or kind, such as motivational research involving behavioral sciences. The qualitative approach uses techniques like in-depth interview and focus group interviews. (Irfan, 2012). This research can also be used to understand the meaning of the numbers obtained by quantitative methods.

Some of the characteristics of qualitative research/method are (Rajasekar, 2013):

- It is non-numerical, descriptive, applies reasoning and uses words.
- Its aim is to get the meaning, feeling and describe the situation.
- Qualitative data cannot be graphed.
- It is exploratory.
- It investigates the why and how of decision-making.

Chart 2 Research methods (Source: O. Gutierrez Nikolaeva, The Author, July 2017)

Objectives	Research methods			
	Descriptive Research Method	Analytical Research Method	Quantitative Research Method	Qualitative Research Method
1. To develop a project charter as part of the integration management plan to formally authorize the project and provide the project manager with the authority to apply	Provides clear and detailed information of the project charter.	Allows a thorough analysis of the data available to present the optimal tools and techniques included in the	Analyzes the data to understand the what, where and when in order to improve decision-making.	Provides insight as a basis for further research and offers an indication of why and how decisions are

organizational resources to project activities in order to further develop the project management plan.		Project Management Plan for the Cavan Studio Improvement Project.		made.
2. To develop a scope management plan in order to define, validate and control all the work in the project.	Provides clear and detailed information and de-composition of the scope management plan.	Allows a thorough analysis of the docu-mentation available to present the optimal tools and techniques included in this subsidiary plan.	Analyzes the data to understand the what, where and when in order to improve decision-making and benchmarking.	Provides insight as a basis for further research and offers an indication of why and how decisions are made.
3. To develop a schedule manage-ment plan to establish all the necessary procedures and documentation for manage appropriately the project schedule	Provides clear and detailed information of the schedule manage-ment plan.	Allows a thorough analysis of the data available to present the optimal tools and techniques included in this subsidiary	Analyzes the data to understand the what, where and when in order to improve decision making and facilitate	Provides insight as a basis for further research and offers an indication of why and how decisions are made.

within time constraints.		plan.	projections of future outcomes in the project.	
4. To develop a cost management plan to establish all the necessary policies, procedures and documentation in order to manage appropriately the approved project budget.	Provides clear and detailed information of the cost manage-ment plan.	Allows a thorough analysis of the data available to present the optimal tools and techniques included in this subsidiary plan.	Analyzes the data to understand the what, where and when in order to improve decision making and facilitate projections of future outcomes in the project.	Provides insight as a basis for further research and offers an indication of why and how decisions are made.
5. To develop a quality management plan that identifies all the necessary requirements of the project, its deliverables and all the necessary documentation required to demonstrate	Provides clear and detailed information of the quality manage-ment plan.	Allows a thorough analysis of the data available to present the optimal tools and techniques included in this subsidiary plan.	Analyzes the data to understand the what, where and when in order to improve decision-making and benchmarking.	Provides insight as a basis for further research and offers an indication of why and how decisions are made.

compliance with quality requirements and standards.				
6. To develop a risk management plan in order to analyze and define how to minimize and/or conduct risk management activities in the project.	Provides clear and detailed information of the risk manage-ment plan.	Allows a thorough analysis of the docu-mentation available to present the optimal tools and techniques included in this subsidiary plan.	Analyzes the information gathered to understand the what, where and when in order to improve decision making and facilitate projections of future outcomes in the project.	Provides insight as a basis for further research and offers an indication of why and how decisions are made.

3.3. Tools

The Merriam-Webster dictionary defines tool as "a) a handheld device that aids in accomplishing a task; b) something (such as an instrument or apparatus) used in performing an operation or necessary in the practice of a vocation or profession; c) an element of a computer program (such as a graphics application) that activates and controls a particular function."

The PMBOK® Guide defines tool as "something tangible, such as a template or software program, used in performing an activity to produce a product or result" (PMI, 2013, PMBOK, p.565)

Definitions for each tool used in the FGP:

- Project Charter template: guides the development of the project charter. (Refer to **Appendix 1** as example).
- Project Management Plan template: guides the development and organization of the project management plan and all its subcomponents.
- Scope Management Plan template: guides the development of the scope management plan and all of its subcomponents.
- Requirements traceability matrix template: ensures that project requirements are necessary and will be met.
- Requirements Management Plan template: describes how the requirements will be analyzed, documented and managed.
- Requirements documentation template: captures the requirements documentation.
- WBS template: breaks down the project into smaller components so it can be more easily managed. (Refer to **Appendix 2** as example).
- Schedule Management Plan template: guides the development of the project management plan and all its subcomponents.
- Activity List template: captures the list of activities for the project.
- Scheduling tool: developed in Microsoft Project to create the Project Schedule using Schedule network analysis. (Refer to **Appendix 3** as example).
- Cost Management Plan template: develops the cost management plan that will guide the project team during the project's life cycle.
- Earned Value Analysis template: created in Microsoft Excel, develops and monitors three key dimensions for each work package and control account.
- Quality Management Plan template: guides the development of the quality management plan and all of its subcomponents.
- Quality Management tools: examples include cause-and-effect diagrams, flowcharts, checklists and control charts to be used throughout the project. The use of these tools will be outlined in the Quality Management plan.

- Risk Management Plan and Risk Register template: developed in Microsoft Excel, identifies and classifies risks, and plans risk responses.
- Stakeholder Register template: aids in identification of project stakeholders. (Refer to **Appendix 4** as example).

The summary of the tools for the FGP are shown in **Chart 3** below.

Chart 3 Tools (Source: O. Gutierrez Nikolaeva, The Author, July 2017)

Objectives	Tools
1. To develop a project charter as part of the integration management plan to formally authorize the project and provide the project manager with the authority to apply organizational resources to project activities in order to further develop the project management plan.	Project Charter template and Project Management Plan template.
2. To develop a scope management plan in order to define, validate and control all the work in the project.	Scope Management Plan template, Requirements traceability matrix template, Requirements Management Plan template, Requirements documentation template, WBS template, Microsoft Excel.
3. To develop a schedule management plan to establish all the necessary procedures and documentation for manage appropriately the project schedule within time constraints.	Schedule Management Plan template, Activity List template, Scheduling tool, Microsoft Project.

4.	To develop a cost management plan to establish all the necessary policies, procedures and documentation in order to manage appropriately the approved project budget.	Cost Management Plan template, Earned Value Analysis template, Microsoft Excel.
5.	To develop a quality management plan that identifies all the necessary requirements of the project, its deliverables and all the necessary documentation required to demonstrate compliance with quality requirements and standards.	Quality Management Plan template, Quality Management tools.
6.	To develop a risk management plan in order to analyze and define how to minimize and/or conduct risk management activities in the project.	Risk Management Plan template, Risk Register template, Microsoft Excel.

3.4.   Assumptions and constraints

The Merriam-Webster dictionary defines assumption as "a) an assuming that something is true a mistaken assumption; b) a fact or statement taken for granted". In addition, it defines constraint as "a) the state of being checked, restricted, or compelled to avoid or perform some action; b) a constraining condition, agency, or force."

"Assumption: A factor in the planning process that is considered to be true, real, or certain, without proof or demonstration." (PMI, 2013, PMBOK, p.529)

"Constraint: A limiting factor that affects the execution of a project or process." (PMI, 2013, PMBOK, p.533)

The summary of assumptions and constraints are shown in **Chart 4** below.

Chart 4 Assumptions and constraints (Source: O. Gutierrez Nikolaeva, The Author, July 2017)

Objectives	Assumptions	Constraints
1. To develop a project charter as part of the integration management plan to formally authorize the project and provide the project manager with the authority to apply organizational resources to project activities in order to further develop the project management plan.	The project charter will be created and approved before all the other subsidiary plans.	The project charter needs to be approved on time due to tight schedule.
2. To develop a scope management plan in order to define, validate and control all the work in the project.	It is assumed that the sponsor can deliver all the required information and it will be received on time, in order to identify all the work required and to develop a detailed scope management plan.	The sponsor might consider the reduction of the project scope.
3. To develop a schedule management plan to establish all the necessary procedures and documentation for manage appropriately the project schedule within time	It is assumed the FGP will be completed within 3 months.	Time: the FGP will need to comply with the dates and time periods established by the university.

constraints.		
4. To develop a cost management plan to establish all the necessary policies, procedures and documentation in order to manage appropriately the approved project budget.	The budget created during planning will accurately depict the financial resources.	The desired budget for the company is $1000-$1500.
5. To develop a quality management plan that identifies all the necessary requirements of the project, its deliverables and all the necessary documentation required to demonstrate compliance with quality requirements and standards.	The quality management plan will identify and comply with all of the quality requirements for the project.	Due to location (the project manager is located in Poland while the project will take place in Costa Rica), information regarding quality might be missed.
6. To develop a risk management plan in order to analyze and define how to minimize and/or conduct risk management activities in the project.	It is assumed that the company supplied all the necessary information to adequately identify most of the project risks.	As many as possible project risks need to be identified within the planning phase of the project.

3.5. Deliverables

According to Wikipedia: "Deliverable is a term used in project management to describe a tangible or intangible good or service produced as a result of the project that is intended to be delivered to a customer (either internal or external). A deliverable could be a report, a document, a software product, a server upgrade or any other building block of an overall project."

The PMBOK® Guide defines deliverable as ""any unique and verifiable product, result, or capability to perform a service that is required to be produced to complete a process, phase, or project" (PMI, 2013, PMBOK, p.537).

The summary of deliverables is shown in **Chart 5** below.

Chart 5 Deliverables (Source: O. Gutierrez Nikolaeva, The Author, July 2017)

Objectives	Deliverables
1. To develop a project charter as part of the integration management plan to formally authorize the project and provide the project manager with the authority to apply organizational resources to project activities in order to further develop the project management plan.	Project charter and Project Management Plan for the Cavan Studio Improvement Project
2. To develop a scope management plan in order to define, validate and control all the work in the project.	Scope management plan (including scope baseline, requirements, etc.)
3. To develop a schedule management plan to establish all the necessary procedures and documentation for manage appropriately the project schedule within time constraints.	Schedule management plan (including project schedule, activities, baseline, calendars, etc.)

4. To develop a cost management plan to establish all the necessary policies, procedures and documentation in order to manage appropriately the approved project budget.	Cost management plan
5. To develop a quality management plan that identifies all the necessary requirements of the project, its deliverables and all the necessary documentation required to demonstrate compliance with quality requirements and standards.	Quality management plan (including quality metrics, checklists, etc.)
6. To develop a risk management plan in order to analyze and define how to minimize and/or conduct risk management activities in the project.	Risk management plan (including the risk register)

4 RESULTS

4.1. Project Integration Management

A **Project Charter** for the Cavan Studio Improvement Project was developed as part of the specific objectives of this FGP. This first deliverable of the Project Integration Knowledge area was accomplished by performing a company research analysis and through observation in order to asses and understand their organizational process assets and enterprise environmental factors, an employee survey and planned meetings with the sponsor and the project manager to understand expectations and agree on general objectives as part of this partnership.

The Project Charter is the result of data analysis and the assessment of requirements including the projects general and specific objectives, the project's purpose, high-level deliverables/requirements, assumptions and constraints, preliminary high-level risks, summary budget, summary milestone schedule, relevant company's information, stakeholder list and assigned project manager and sponsor's approval which formally authorizes the project. (PMI, 2013, PMBOK, p.72)

Since this is the first formal implementation for Cavan Studio, the project manager will be the main person responsible for the development of the Cavan Studio Improvement Plan. The sponsor will work closely with the project manager as a provider of input and sources. Once the plan is delivered, the Project sponsor will establish who will be in charge of the Project development.

In **figure 25**, is the first deliverable: the **Project Charter** for the Cavan Studio Improvement Project.

PROJECT CHARTER	
Date	**Project Name:**
10.09.2017	Cavan Studio Improvement Project
Knowledge Areas / Processes	**Application Area (Sector / Activity)**
Knowledge areas: Integration, Scope, Schedule, Costs, Quality, Risk **Process groups:** Initiating, Planning	Cavan Studio is a business focused in talent development and music production.
Start date	**Finish date**
11.09.2017	09.12.2018

Project Objectives (general and specific)
General objective: To create a management plan for Cavan Studio in order to develop talent and improve further the brand by building a stronger team and client base. **Specific objectives:** 1 To create a client satisfaction plan 2 To create a training plan focused on clients and their talent development 3 To create a training plan to develop employee skills 4 To create a reward system for employees and their achievement of objectives

Project purpose or justification (merit and expected results)
In 2017,Cavan Studio became an official SME registered by MEIC (Ministry of Economy, Industry and Commerce of Costa Rica) thanks to this achievement the company considers there is an organizational need to develop their business further. The goal of having a proper management plan is to develop the team's skills and engagement in order to increase customer satisfaction and to create new possibilities of growth and development in the music and overall creative environment.

Description of Product or Service to be generated by the Project – Project final deliverables
1 Client satisfaction plan including the development of targets, tools and processes 2 Training plan for client's talent development 3 Professional development training plan 4 Reward system for employees and their achievement of objectives

Assumptions

- All the required information or inputs required to develop the plan will be delivered as scheduled.
- Prices or exchange rate won't change drastically during the project's duration.
- The installations and necessary equipment is available for the trainings.
- We assume the Project Budget is adequately funded.
- We assume we will have the required resources to complete the Project on time.
- There will be a Project manager assigned by the Project sponsor to execute the project plan.

Constraints

- The project manager is located in Poland while the project will take place in Costa Rica.
- Different time zones might affect the intake of information and communication (well-planned schedule is required to receive the necessary clarifications and data).
- The sponsor expectation is to have all deliverables by December, 2018.
- The budget is limited and cannot be exceeded.

Preliminary risks

- If the required information is not received in time, it might affect the quality of the project deliverables.
- If the company does not follow the established schedule this might affect the outcome of the deliverables.
- If some data will be very difficult to acquire this might affect the costs and schedule calculations and overall plan.
- Training materials and/or equipment are not available.
- Scope, schedule and cost changes.

Budget

The desired budget is $1000-$2000

Milestones and dates

Milestone	Start date	End date
Charter approval and Integration Management Plan	11.09.2017	17.09.2017
Scope Management Plan	18.09.2017	01.10.2017
Schedule Management Plan	02.10.2017	08.10.2017
Cost Management Plan	09.10.2017	15.10.2017
Quality Management Plan	16.10.2017	22.10.2017
Risk Management Plan	23.10.2017	29.10.2017
Start of project execution	04.12.2017	02.12.2018
End of project	03.12.2018	09.12.2018

Relevant historical information	
Cavan Studio opened its doors in Heredia (Costa Rica) as a professional option, created by musicians for musicians, with the intention of becoming the home of bands and artists with the most varied tendencies and tastes. Cavan started in 2006 as a small home recording studio with the most basic and rustic equipment for live events. In 2009, they became an official studio and since then Cavan have maintained a constant growth, consolidating as a solid and continuously evolving company. Through their specialized departments such as Rehearsal Rooms, Recording Studio and Technical Support, they have collaborated and worked with countless bands, artists, teachers and international musicians. In 2016, Cavan expanded their service offer through the department of Creative Laboratories, focused on the generation of specialized knowledge.	

Cavan Studio's commercial experience includes artistic and commercial projects, both local and international, in the most diverse areas of sound and audiovisual production: from audio to videogame consoles (like PlayStation 3 and XboX) to music productions awarded by ACAM (Association of Composers and Musical Authors of Costa Rica), through product launch and activation campaigns, artist management and the generation of content for social networks. As part of their portfolio of professional services they offer the management of projects in English, Portuguese and Spanish for: Production and Editing of Video, Image and Photography; Production of Artistic and Commercial Events; Digital Marketing; and Strategies and Management of Social Networks.

In 2017, Cavan became an official SME registered by MEIC (Ministry of Economy, Industry and Commerce of Costa Rica) dedicated to Sonic and Audiovisual Production, Video, Image and Photography as well as To Digital Marketing and Event Production. Website: www.cavanstudio.com

Stakeholders	
Direct stakeholders: - Sponsor : Max Gutierrez Sanchez - Project Manager : Olga Gutierrez Nikolaeva - Cavan Studio staff - Musicians - Contractors	
Project Manager: Olga Gutierrez Nikolaeva	**Signature:**
Authorized by: Max Gutierrez Sanchez	**Signature:**

Figure 25 Project Charter (Source: UCI, 2017)

The second deliverable of the Project Integration Knowledge area relates to the construction on the Project Management Plan that for the Cavan Studio Improvement Project will include, due to time constraints, the knowledge areas of Scope, Schedule, Cost, Quality and Risk.

The Project Management Plan for the Cavan Studio Improvement Project will integrate the project charter information that includes the scope, schedule and cost baselines, and the deliverables of each of the subsidiary plans to describe how the project will be executed, monitored and controlled. Any change will have to go through the **Perform Integrated Change Control process** as shown on **figure 26** and described further in the Scope Management Plan.
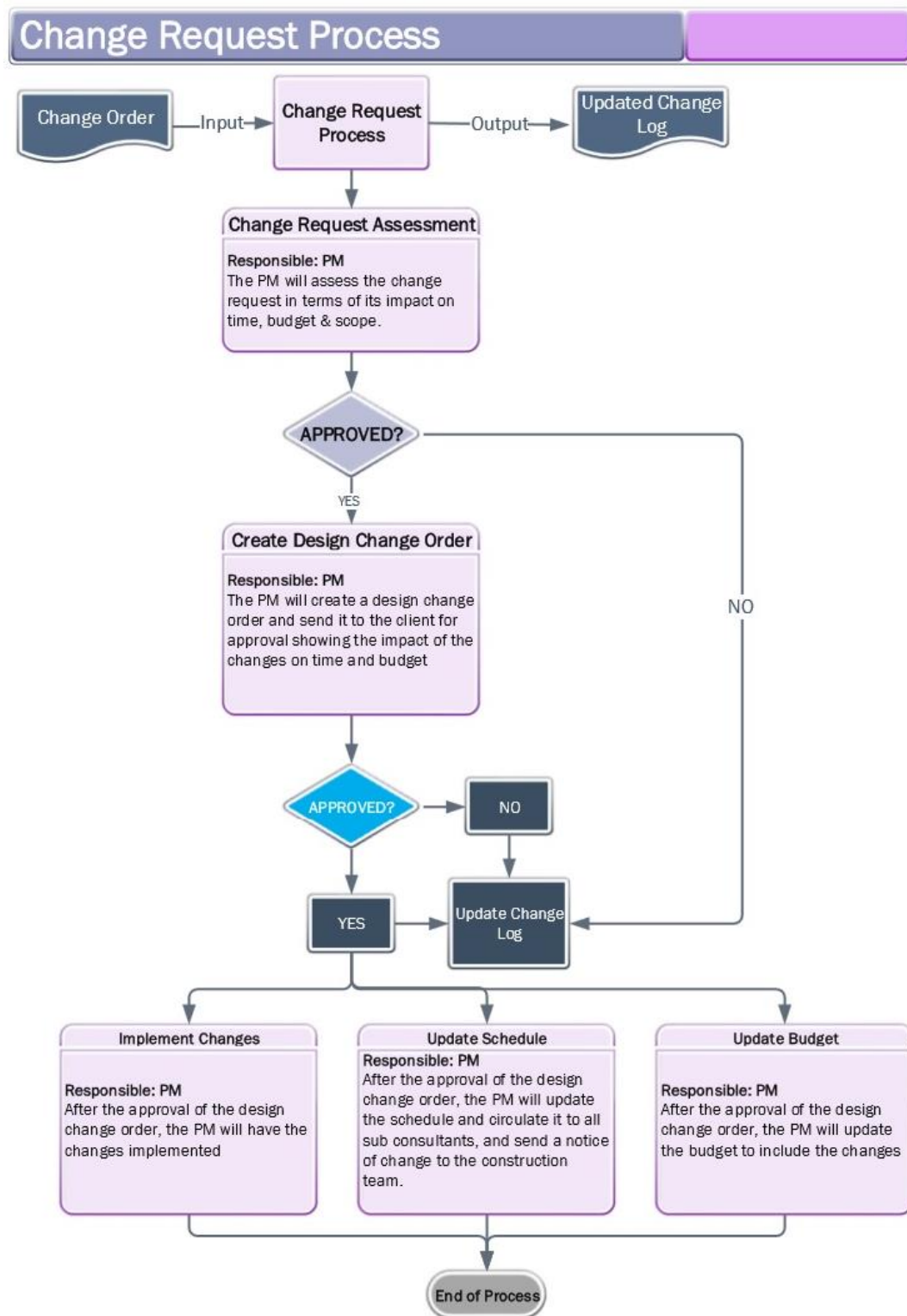
Figure 26 Change Request Process Flowchart (Source: ProjectManagement.com, 2017)

4.2.   Project Scope Management

The first process of the Scope Knowledge area is to Plan Scope Management. In order to achieve this, the project charter was used additionally with further meetings with the project sponsor and expert judgement provided by the FGP tutor to develop the

- **Requirements Management Plan**, please refer to **section 4.2.1.**
- **Scope Management Plan**, please refer to **section 4.2.2.**

An important part of the scope management plan is to collect requirements by using the input of the project charter, the requirements management plan and the stakeholder register. Together with tools and techniques, such as employee surveys, client meetings, observations and documents analysis, the proper **Requirements Documentation** (please refer to **Chart 6**) and **Requirements Traceability Matrix** (please refer to **Chart 7**) were created.

The collection of requirements will provide the input to define the scope statement and then creating the WBS, both achieved with the inputs of the Scope Management Plan, Project Charter, Requirements Documentation and Organizational process assets provided by the sponsor. (PMI, 2013, PMBOK, p.106)

4.2.1. Requirements Management Plan

The following plan was created using a modified template taken from the PMI website in the Tools & Templates section.

4.2.1.1 Overview

The purpose of developing a Requirements Management Plan is to provide the project manager with the necessary information for the Scope Management Plan as this will be a key document to be used by the Project Management Team during the execution, monitoring and controlling, and closing processes of the Cavan Studio Improvement Project.

Cavan Studio would like to focus in skill development not only for their clients but also for their employees.

This plan will guide the project team through the following aspects of requirements management

- **Collection:** gathering the basic needs of stakeholders
- **Categorization:** categorizing those needs
- **Prioritization:** prioritizing those needs and identifying "must haves"
- **Tracing:** tracking how those needs are addressed throughout the life of the project
- **Change Management:** the process by which a change of requirements can be performed
- **Verification:** how to verify that requirements have been met

This document is to be used as a tool for project communications, giving all stakeholders a view on how this process is managed for the Cavan Studio Improvement Project.

4.2.1.2   Requirements Collection

During this phase, the emphasis was on capturing as many perceived requirements as possible from all valid stakeholders. Not all of the needs identified ended up as actual "requirements", but they were identified, compiled and understood.

The collection method used was through information gathering shared through emails and discussion of this information on meetings via internet calls due to project manager's location.

Another collection method was the collection of surveys and interviews of the different stakeholders to understand their perception of the company and some of their expectations.

Chart 6 Requirements Documentation (Source: O. Gutierrez Nikolaeva, The Author, September 2017)

Requirement name	Description	Stakeholder	Importance	Acceptance criteria
1. To identify gaps for the improvement of Cavan Studio	Identify gaps in client satisfaction and employee engagement in Cavan Studio	Sponsor	High	To create a Project Management Plan
2. To identify how to improve or retain client satisfaction	Based on the gaps identified in the feedback from clients together with management observations	Sponsor	Medium	To create a client satisfaction plan
3. To develop client skills to improve the involvement or collaboration on production work	Prepare them with the necessary knowledge to enter the cycle of developing an artistic project	Sponsor	Medium	To create a training plan focused on clients and their talent development
4. To identify staff required skills and to create a training plan to develop those skills	In order to improve customer service and employee engagement	Sponsor	High	To create a training plan to develop employee skills
5. Identify a plan which will motivate employees to achieve targets	For the achievement of objectives	Sponsor	Medium	To create a reward system for employees and their achievement of objectives

4.2.1.3   Requirements Categorization

During this phase, the requirements were grouped into the following categories:

Quality Requirements

This category focuses in client satisfaction, key element as the Cavan Studio provides services for their clients.

2. To identify how to improve or retain client satisfaction

3. To develop client skills to improve the involvement or collaboration on production work

Performance Requirements

This category focuses on providing training plans and a reward system for Cavan Studio employees that will influence their engagement and overall performance through skill development.

4. To identify staff required skills and to create a training plan to develop those skills

5. Identify a plan that will motivate employees to achieve targets

Operational Requirements

This category focuses on social impact and Corporate Social Responsibility in order to achieve sustainable business practices with a positive impact on environmental sustainability and the society.

1. To identify gaps for the improvement of Cavan Studio

4.2.1.4   Requirements Prioritization

The approach followed to prioritize requirements was by working closely with the project sponsor. One important aspect considered for the prioritization was the relationship between requirements.

4.2.1.5   Requirements Traceability

Certain requirement attributes need to be tracked across the project life cycle in order to maintain a consistent understanding of how they are being addressed during the course of the project.

At the beginning of the project all requirements will be tracked: their source, the project objective they support, the part of the WBS where it is addressed, when it is verified and validated. The Requirements Traceability Matrix will be a tool to manage data on each requirement.

Persons responsible for the tracking of requirements will report any impacts to project requirements based on current performance to the project manager or sponsor within 24 hours of a status change.

Chart 7 Requirements Traceability Matrix (Source: O. Gutierrez Nikolaeva, The Author, September 2017)

Requirements	Priority	Category	Source	Related WBS codes
1. To identify gaps for the improvement of Cavan Studio	High	Operational	Project Manager	1.1, 1.2, 2.3, 2.4, 6.1
2. To identify how to improve or retain client satisfaction	Medium	Quality	Sponsor	1.3, 2.1, 3.1, 3.2, 3.3, 4.3
3. To develop client skills to improve the involvement or collaboration on production work	Medium	Quality	Sponsor	4.1, 4.3
4. To identify staff required skills and to create a training plan to develop those skills	High	Performance	Sponsor	1.2, 2.2, 4.2, 4.3
5. Identify a plan which will motivate employees to achieve targets	Medium	Performance	Sponsor	5.1, 5.2, 5.3

4.2.1.6 Change Management

The Cavan Studio Improvement project's requirements might change over time and those changes must be managed in order to ensure a successful outcome. As previously mentioned in the Integration Management section, any change will have

to go through the **Perform Integrated Change Control process** as shown in **figure 24**.

4.2.1.7 Requirements Verification

A Requirements Verification Matrix will be used to describe how the achievement of each requirement will be measured and verified during the Monitoring and Controlling process.

Chart 8 Requirements Verification Matrix (Source: O. Gutierrez Nikolaeva, The Author, September 2017)

Requirements	Related WBS codes	Metric (What will be measured?)	Date (When it will be measured?)	Responsible (Who will measure it?)	Achieved? (How it will be measured?)
1. To identify gaps for the improvement of Cavan Studio	1.1, 1.2, 2.3, 2.4, 6.1	Delivered Project Management Plan with its' 5 subsidiary plans	Date of revision of FGP by board	UCI Board of Examiners and Sponsor	5 plans should be included: Scope, Schedule, Cost, Quality and Risk
2. To identify how to improve or retain client satisfaction	1.3, 2.1, 3.1, 3.2, 3.3, 4.3	Client satisfaction plan that maintains 90% of satisfaction index	Every 6 months	Sponsor and Director of Operations	Client satisfaction plan, which will have a test run during project execution, should deliver over 90%
3. To develop client skills to improve the involvement or collaboration on production work	4.1, 4.3	1 training every 2-4 months, 90% client satisfaction index	After each training	Project Manager and Sponsor	Training plan focused on clients and their talent development. Client satisfaction survey delivers over 90%
4. To identify staff required skills and to create a training plan to develop those skills	1.2, 2.2, 4.2, 4.3	1 training every 2-4 months, 85% employee satisfaction	Quarterly	Sponsor	Training plan to develop employee skills. Employee survey over 85%
5. Identify a	5.1, 5.2,	Number of	Quarterly	Sponsor and	Reward system

Requirements	Related WBS codes	Metric (What will be measured?)	Date (When it will be measured?)	Responsible (Who will measure it?)	Achieved? (How it will be measured?)
plan which will motivate employees to achieve targets	5.3	rewards achieved, tracked in scoreboard		Project Manager	for employees. At least 2 objectives achieved within 6 months

─ **End of the Requirements Management Plan** ─

To provide a thorough analysis the project, manager applied the Logical Framework Approach, which is an analytical process and set of tools used to support project planning and management. This approach was performed by using the **Logical Framework Matrix** or Logframe, which summarizes the key elements of the project plan and provides a basis on which the resource requirements (inputs) and costs (budget) are determined.
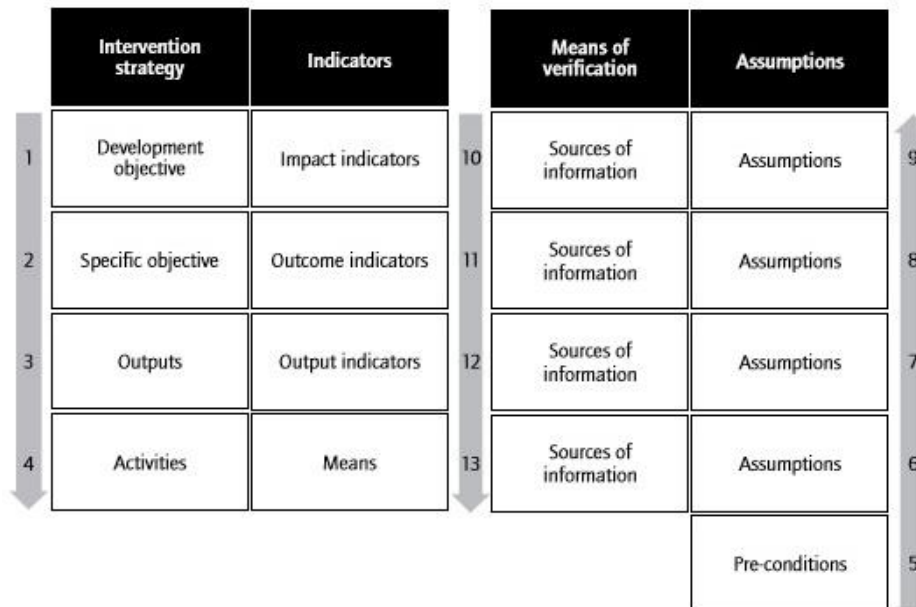
Figure 27 Logical Framework Matrix, order in which it should be completed (Source: ITTO, 2009, p.35)

The Logical Framework Matrix includes

- **Problem Tree Analysis:** identifies negative aspects of existing situations and establishes "cause and effect relationships" between the identified problems as shown below in **figure 28**.
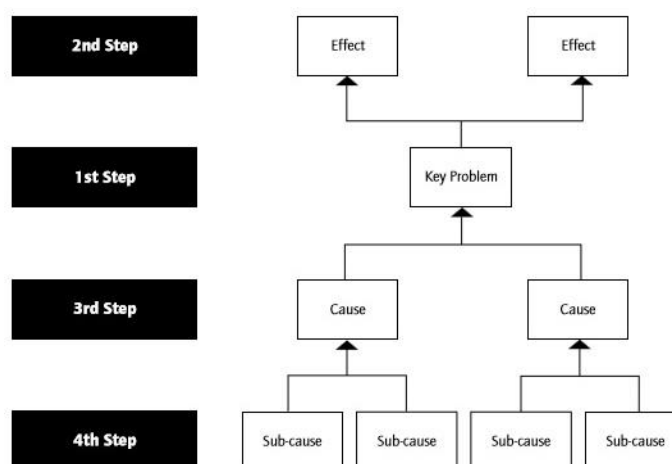
Figure 28 Problem Tree Analysis (Source: ITTO, 2009, p.28)

- **Objective Tree Analysis:** describes future situations, verifies the hierarchy of objectives, and illustrates the "means-end relationships" as shown below in **figure 29**.
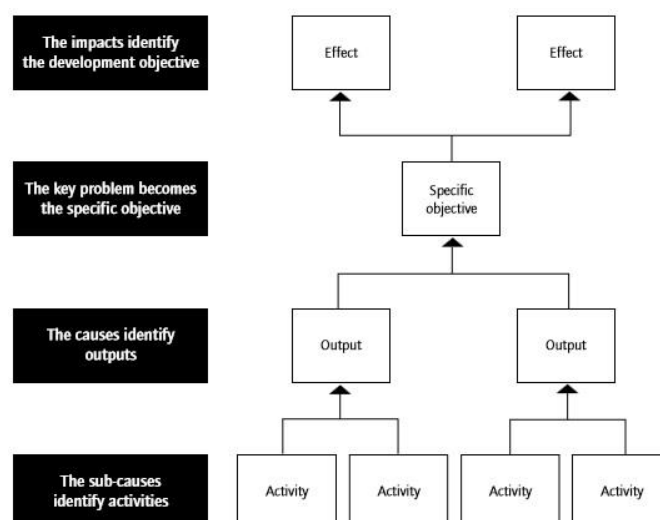
Figure 29 Objective Tree Analysis (Source: ITTO, 2009, p.30)

The last of the Planning Process group focuses in the **WBS**, which is done by decomposition with the help of all previous inputs and will help define, validate and control the project accurately and shown in **figure 30 in section 4.2.2.**

All of the previous elements will be integrated to deliver the **Scope Management Plan** for the Cavan Studio Improvement Project. This plan was created using a modified internet template and includes the Work Breakdown Structure and WBS Dictionary, scope verification and scope control measures in order to provide the project management team with all the necessary tool and techniques to complete the project successfully as per PMI standards.

4.2.2. Scope Management Plan

This scope management plan is a component of the project management plan. It describes how the project scope will be developed, defined, monitored, controlled and verified. The plan was created using a modified template taken from the PMI website in the Tools & Templates section.

4.2.2.1 Management Approach

The term "project scope" refers to the sum of all products, services and results that will be provided as the project.

The purpose of this scope management plan is to set forth the plans and procedures for defining, developing, monitoring, controlling, changing, implementing and verifying the project scope. It is the intent of scope management to ensure the completion of all the work required, and only the work required, to complete the project successfully.

The project manager will assume overall responsibility for project scope management. The people listed in **Chart 9** will assume the described scope management responsibilities.

Chart 9 Scope Management Responsibilities (Source: O. Gutierrez Nikolaeva, The Author, September 2017)

Names / Roles	Responsibilities
Olga Gutierrez Nikolaeva / Project Manager	Initiation and Planning, support on latter processes
Max Gutierrez Sanchez / Project Sponsor	Execution, Monitoring and Controlling, and Closing

4.2.2.2 Scope Development

Sources

The scope of this project is defined in the Scope Definition section, below. Development of the project scope began with an examination of the following sources:

- Project Charter
- Applicable codes, regulations, statutes and laws
- Stakeholders
- Requirements

Collect Project Requirements

The complete requirements gathering and definition process is described in the Requirements Management Plan and all known project requirements are set forth in the Requirements Traceability Matrix. The Requirements Traceability Matrix is included in the Requirements Management Plan.

4.2.2.3 Scope Definition

The project scope baseline is comprised of the project scope statement, the work breakdown structure and the WBS dictionary, below.

Project Scope Statement

To create a management plan for Cavan Studio in order to develop talent and improve further the brand by building a stronger team and client base. The

management plan will include the creation of a client satisfaction plan, a training plan focused on clients and their talent development, a training plan to develop employee skills, and a reward system for employees and their achievements of objectives. For additional information, please refer to the Project Charter.

Work Breakdown Structure (WBS)

The work breakdown structure (WBS) is included below in **figure 30**.
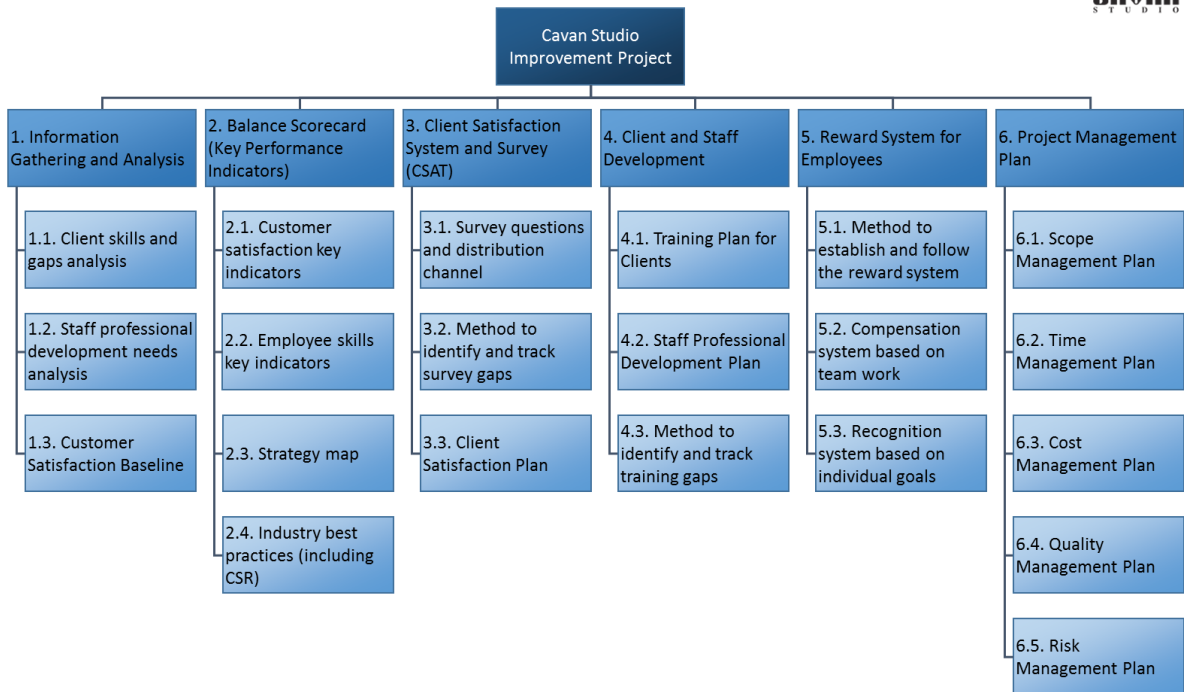
Figure 30 Work Breakdown Structure for the Cavan Studio Improvement Project
(Source: Olga Gutierrez Nikolaeva, 2017)

WBS Dictionary

The WBS dictionary is included below as **Chart 10**.

Chart 10 WBS Dictionary (Source: O. Gutierrez Nikolaeva, The Author, September 2017)

WBS Number: 1	WBS Name: Information Gathering and Analysis	Work Package? ☐ Yes / ☒ No
WBS Predecessor(s): none **Must-Start Date:** 01.07.2017 **Must-Finish Date:** 24.09.2017	**WBS Description:** Research of information and analysis of data required to create an appropriate Project Management Plan aligned with the PMI standards.	
WBS Estimated Effort: 60 days **Assigned to:** Project Manager	**Assumptions:** All the required information or inputs required to develop the plan will be delivered as scheduled. The analysis had all the necessary information to provide the correct data. **Constraints:** Different time zones might affect the intake of information and communication (well-planned schedule is required to receive the necessary clarifications and data).	

WBS Number: 1.1	WBS Name: Client skills and gaps analysis	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): none **Must-Start Date:** 01.07.2017 **Must-Finish Date:** 24.08.2017	**WBS Description:** The client analysis based on information provided by the sponsor and project manager knowledge allows to define the trainings needed to engage the clients and develop their talent.	
WBS Estimated Effort: 40 days **Assigned to:** Project Manager	**Assumptions:** All the required information or inputs required to develop the plan will be delivered as scheduled. **Constraints:** Different time zones might affect the intake of information and communication (well-planned schedule is required to receive the necessary clarifications and data).	

WBS Number: 1.2	WBS Name: Staff professional development needs analysis	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): 1.1 **Must-Start Date:** 25.08.2017 **Must-Finish Date:** 08.09.2017	**WBS Description:** The employee analysis based on the Stakeholder Register Matrix (please refer to **Appendix 4**), the Employee Satisfaction Survey (please refer to **Appendix 7**) and information provided by the sponsor allows to define the trainings needed to develop the skills of the Cavan Studio employees which will as consequently optimize their customer service impact.	
WBS Estimated Effort: 11 days **Assigned to:** Project Manager	**Assumptions:** All the required information or inputs required to develop the plan will be delivered as scheduled. There will be a Project manager assigned by the Project sponsor to execute the project plan. **Constraints:** The project manager is located in Poland while the project will take place in Costa Rica. Different time zones might affect the intake of information and communication (well-planned schedule is required to receive the necessary clarifications and data).	

WBS Number: 1.3	WBS Name: Customer Satisfaction Baseline	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): 1.2 **Must-Start Date:** 11.09.2017 **Must-Finish Date:** 24.09.2017	**WBS Description:** The client satisfaction analysis allows to set targets based on previous surveys and to create a baseline that will work as benchmark for future Client Satisfaction surveys. An appropriate scorecard will also be created to track and analyze survey results in order to achieve those targets.	
WBS Estimated Effort: 11 days **Assigned to:** Project Manager	**Assumptions:** The analysis had all the necessary information to provide the correct data. **Constraints:** The target accuracy is subject to client responsiveness.	

WBS Number: 2	WBS Name: Balance Scorecard (Key Performance Indicators)	Work Package? ☐ Yes / ☒ No
WBS Predecessor(s): 1 **Must-Start Date:** 25.09.2017 **Must-Finish Date:** 29.10.2017	**WBS Description:** Strategy performance management tool for the project manager. It provides industry best practices, Corporate Social Responsibility recommendations, a strategy map, and key performance indicators (KPIs) in order to assess if targets are met.	
WBS Estimated Effort: 26 days **Assigned to:** Project Manager	**Assumptions:** All the required information or inputs required to develop the plan will be delivered as scheduled. We assume we will have the required resources to complete the Project on time. There will be a Project manager assigned by the Project sponsor to execute the project plan. **Constraints:** The sponsor expectation is to have all deliverables by December, 2018. The budget is limited and cannot be exceeded.	

WBS Number: 2.1	WBS Name: Customer satisfaction key indicators	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): 2 **Must-Start Date:** 25.09.2017 **Must-Finish Date:** 01.10.2017	**WBS Description:** Set targets including a scorecard to track and analyze survey results in order to achieve those targets. It will provide guidelines in order to implement additional steps in case of not meeting the desired satisfaction index.	
WBS Estimated Effort: 6 days **Assigned to:** Project Manager	**Assumptions:** All the required information or inputs required to develop the plan will be delivered as scheduled. We assume we will have the required resources to complete the Project on time. There will be a Project manager assigned by the Project sponsor to execute the project plan. The customers will answer the survey. **Constraints:** The sponsor expectation is to meet targets by December, 2018.	

WBS Number: 2.2	WBS Name: Employee skills key indicators	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): 2.1 **Must-Start Date:** 02.10.2017 **Must-Finish Date:** 08.10.2017	**WBS Description:** Set targets including a scorecard to track and analyze professional development.	
WBS Estimated Effort: 6 days **Assigned to:** Project Manager	**Assumptions:** All the required information or inputs required to develop the plan will be delivered as scheduled. We assume we will have the required resources to complete the Project on time. There will be a Project manager assigned by the Project sponsor to execute the project plan. The employees will attend the planned trainings. **Constraints:** The sponsor expectation is to meet targets by December, 2018.	

WBS Number: 2.3	WBS Name: Strategy map	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): 2.2 **Must-Start Date:** 12.10.2017 **Must-Finish Date:** 22.10.2017	**WBS Description:** Diagram that will serve as guideline and overview of the primary strategic goals of the project.	
WBS Estimated Effort: 8 days **Assigned to:** Project Manager	**Assumptions and Constraints:** Identify any assumptions or constraints that could help project/scheduling **Assumptions:** There will be a Project manager assigned by the Project sponsor to execute the project plan. **Constraints:** The sponsor expectation is to have all deliverables by December, 2018.	

WBS Number: 2.4	WBS Name: Industry best practices (including CSR)	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): 2.3 **Must-Start Date:** 23.10.2017 **Must-Finish Date:** 29.10.2017	**WBS Description:** Each one of the plans aims to provide a best practice approach in order to achieve targets. Additionally, Corporate Social Responsibility recommendations will be provided in order to create a bigger impact related to the United Nations Sustainable Development Goals.	
WBS Estimated Effort: 6 days **Assigned to:** Project Manager	**Assumptions:** All the required information or inputs required to develop the plan will be delivered as scheduled. There will be a Project manager assigned by the Project sponsor to execute the project plan. **Constraints:** The sponsor expectation is to have all deliverables by December, 2018.	

WBS Number: 3	WBS Name: Client Satisfaction System and Survey (CSAT)	Work Package? ☐ Yes / ☒ No
WBS Predecessor(s): none **Must-Start Date:** 04.09.2017 **Must-Finish Date:** 01.10.2017	**WBS Description:** Client Satisfaction plan including the survey, distribution method, and control tool.	
WBS Estimated Effort: 21 days **Assigned to:** Project Manager	**Assumptions:** We assume we will have the required resources to complete the Project on time. There will be a Project manager assigned by the Project sponsor to execute the project plan. **Constraints:** The sponsor expectation is to have all deliverables by December, 2018.	

WBS Number: 3.1	WBS Name: Survey questions and distribution channel	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): 3	**WBS Description:** Set of questions that will be included in the Client Satisfaction Survey (please refer to **section 4.2.3.2**) in order to provide the necessary data to manage the Client Satisfaction of Cavan Studio customers. Defined distribution channel for the survey.	
Must-Start Date: 04.09.2017		
Must-Finish Date: 10.09.2017		
WBS Estimated Effort: 6 days	**Assumptions:** The analysis had all the necessary information to provide the correct information. We assume the survey will be activated as scheduled. **Constraints:** The length of the survey is subject to client responsiveness. The sponsor approves the survey channel.	
Assigned to: Project Manager		

WBS Number: 3.2	WBS Name: Method to identify and track survey gaps	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): 3.1	**WBS Description:** The plan will include a description of the necessary steps to be followed in order to evaluate survey results and identify gaps.	
Must-Start Date: 14.09.2017		
Must-Finish Date: 17.09.2017		
WBS Estimated Effort: 3 days	**Assumptions:** All the required information or inputs required to develop the plan will be delivered as scheduled. We assume we will have the required resources to complete the Project on time. There will be a Project manager assigned by the Project sponsor to execute the project plan. **Constraints:** The results of the survey are subject to client responsiveness.	
Assigned to: Project Manager		

WBS Number: 3.3	WBS Name: Client Satisfaction Plan	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): 3.2 **Must-Start Date:** 18.09.2017 **Must-Finish Date:** 01.10.2017	**WBS Description:** Client satisfaction plan (please refer to **section 4.2.3**) that includes the development of targets, tools and processes. This plan will manage client satisfaction by creating a customized Client Satisfaction Survey (please refer to **section 4.2.3.2**) for Cavan Studio customers, it also will allow constant client feedback by setting a survey schedule.	
WBS Estimated Effort: 11 days **Assigned to:** Project Manager	**Assumptions:** All the required information or inputs required to develop the plan will be delivered as scheduled. We assume we will have the required resources to complete the Project on time. There will be a Project manager assigned by the Project sponsor to execute the project plan. We assume the survey will be activated as scheduled. The customers will answer the survey. **Constraints:** The sponsor expectation is to have all deliverables by December, 2018. The length of the survey is subject to client responsiveness. The sponsor approves the survey channel.	

WBS Number: 4	WBS Name: Client and Staff Development	Work Package? ☐ Yes / ☒ No
WBS Predecessor(s): none **Must-Start Date:** 08.09.2017 **Must-Finish Date:** 16.10.2017	**WBS Description:** Cavan Studio aims to receive from this project 2 main plans related to skills development. One of them being a Training Plan for Client's talent development (please refer to **section 4.2.4**), and another focused in the Professional Development Plan for employees (please refer to **section 4.2.5**).	
WBS Estimated Effort: 27 days **Assigned to:** Project Manager	**Assumptions:** All the required information will be delivered as scheduled. Prices or exchange rate won't change drastically during the project's duration. We assume the Project Budget is adequately funded and we will have the required resources to complete the Project on time. There will be a Project manager to execute the project plan. **Constraints:** The budget is limited and cannot be exceeded. Trainings will follow the estimated schedule. The trainings have a limited number of participants.	

WBS Number: 4.1	WBS Name: Training Plan for Clients	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): 2	**WBS Description:** Training plan focused on clients and their talent development (please refer to **section 4.2.4**). The plan includes a list of the available trainings with their respective cost, and an estimated schedule to deliver the client trainings and workshops.	
Must-Start Date: 08.09.2017		
Must-Finish Date: 09.10.2017		
WBS Estimated Effort: 22 days	**Assumptions:** All the required information or inputs required to develop the plan will be delivered as scheduled. Prices or exchange rate won't change drastically during the project's duration. We assume we will have the required resources to complete the Project on time. There will be a Project manager assigned by the Project sponsor to execute the project plan. Clients will take part on the trainings. **Constraints:** Trainings will follow the estimated schedule. The trainings have a limited number of participants	
Assigned to: Project Manager		

WBS Number: 4.2	WBS Name: Staff Professional Development Plan	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): 3	**WBS Description:** Training plan focused on developing employee skills (please refer to **section 4.2.5**). The plan includes a list of the available trainings with their respective costs (please refer to **Chart 20**), and an estimated schedule for professional development trainings.	
Must-Start Date: 08.09.2017		
Must-Finish Date: 13.10.2017		
WBS Estimated Effort: 25 days	**Assumptions:** All the required information or inputs required to develop the plan will be delivered as scheduled. Prices or exchange rate won't change drastically during the project's duration. We assume the Project Budget is adequately funded. We assume we will have the required resources to complete the Project on time. There will be a Project manager assigned by the Project sponsor to execute the project plan. **Constraints:** The sponsor expectation is to have all deliverables by December, 2018. The budget is limited and cannot be exceeded.	
Assigned to: Project Manager		

WBS Number: 4.3	WBS Name: Method to identify and track training gaps	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): 4.1, 4.2 **Must-Start Date:** 14.10.2017 **Must-Finish Date:** 16.10.2017	**WBS Description:** The development plans will include a description of the necessary steps to be followed in order to track results and identify gaps.	
WBS Estimated Effort: 2 days **Assigned to:** Project Manager	**Assumptions:** All the required information or inputs required to develop the plan will be delivered as scheduled. We assume we will have the required resources to complete the Project on time. There will be a Project manager assigned by the Project sponsor to execute the project plan. **Constraints:** The results are subject to trainings completed.	

WBS Number: 5	WBS Name: Reward System for Employees	Work Package? ☐ Yes / ☒ No
WBS Predecessor(s): 1.2 **Must-Start Date:** 11.09.2017 **Must-Finish Date:** 11.10.2017	**WBS Description:** Reward system for employees and their achievement of objectives (please refer to **section 4.2.6**).	
WBS Estimated Effort: 23 days **Assigned to:** Project Manager	**Assumptions:** All the required information or inputs required to develop the plan will be delivered as scheduled. Prices or exchange rate won't change drastically during the project's duration. We assume the Project Budget is adequately funded. There will be a Project manager assigned by the Project sponsor to execute the project plan. **Constraints:** The sponsor expectation is to have all deliverables by December, 2018. The budget is limited and cannot be exceeded.	

WBS Number: 5.1	WBS Name: Method to establish and follow the reward system	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): 5 **Must-Start Date:** 11.09.2017 **Must-Finish Date:** 24.09.2017	**WBS Description:** The Reward System for Employees will include different options of rewards and recognitions. It will also include a description on how the rewards will be paid and an estimated target schedule for the achievement of objectives (please refer to **section 4.2.6**).	
WBS Estimated Effort: 11 days **Assigned to:** Project Manager	**Assumptions:** All the required information or inputs required to develop the plan will be delivered as scheduled. We assume the Project Budget is adequately funded. We assume we will have the required resources to complete the Project on time. There will be a Project manager assigned by the Project sponsor to execute the project plan. **Constraints:** The sponsor expectation is to have all deliverables by December, 2018. The budget is limited and cannot be exceeded.	

WBS Number: 5.2	WBS Name: Compensation system based on team work	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): 5.1 **Must-Start Date:** 25.09.2017 **Must-Finish Date:** 29.09.2017	**WBS Description:** Reward System baseline and targets for the achievement of objectives. A rewards scorecard will be created to track progress (please refer to **Chart 22**). The employee performance analysis based on information provided by the sponsor will work as input for the Reward System baseline and will allow setting the targets for the achievement of objectives.	
WBS Estimated Effort: 5 days **Assigned to:** Project Manager	**Assumptions:** We assume the Project Budget is adequately funded. We assume we will have the required resources to complete the Project on time. There will be a Project manager assigned by the Project sponsor to execute the project plan. **Constraints:** The sponsor expectation is to have all deliverables by December, 2018. The budget is limited and cannot be exceeded.	

WBS Number: 5.3	WBS Name: Recognition system based on individual goals	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): 5.2	**WBS Description:** Reward System baseline and targets for the achievement of objectives. A rewards scorecard will be created to track progress (please refer to **Chart 22**). The employee performance analysis based on information provided by the sponsor will work as input for the Reward System baseline and will allow setting the targets for the achievement of objectives.	
Must-Start Date: 02.10.2017		
Must-Finish Date: 06.10.2017		
WBS Estimated Effort: 5 days	**Assumptions:** We assume the Project Budget is adequately funded. We assume we will have the required resources to complete the Project on time. There will be a Project manager assigned by the Project sponsor to execute the project plan. **Constraints:** The sponsor expectation is to have all deliverables by December, 2018. The budget is limited and cannot be exceeded.	
Assigned to: Project Manager		

WBS Number: 6	WBS Name: Project Management Plan	Work Package? ☐ Yes / ☒ No
WBS Predecessor(s): 1,2,3,4,5	**WBS Description:** Project Management Plan for the Cavan Studio Improvement Project. It includes the subsidiary plans of Scope, Schedule, Cost, Quality and Risk.	
Must-Start Date: 11.09.2017		
Must-Finish Date: 05.11.2017		
WBS Estimated Effort: 41 days	**Assumptions:** All the required information or inputs required to develop the plan will be delivered as scheduled. Prices or exchange rate won't change drastically during the project's duration. We assume the Project Budget is adequately funded. We assume we will have the required resources to complete the Project on time. There will be a Project manager assigned by the Project sponsor to execute the project plan. **Constraints:** The project manager is located in Poland while the project will take place in Costa Rica. Different time zones might affect the exchange of information. The sponsor expectation is to have all deliverables by December, 2018. The budget is limited and cannot be exceeded.	
Assigned to: Project Manager		

WBS Number: 6.1	WBS Name: Scope Management Plan	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): 6 **Must-Start Date:** 11.09.2017 **Must-Finish Date:** 01.10.2017	**WBS Description:** The scope management plan is a component of the Project Management Plan. It describes how the project scope will be developed, defined, monitored, controlled and verified.	
WBS Estimated Effort: 16 days **Assigned to:** Project Manager	**Assumptions:** All the required information or inputs required to develop the plan will be delivered as scheduled. There will be a Project manager assigned by the Project sponsor to execute the project plan. **Constraints:** The project manager is located in Poland while the project will take place in Costa Rica. Different time zones might affect the exchange of information. The sponsor expectation is to have all deliverables by December, 2018. The budget is limited and cannot be exceeded.	

WBS Number: 6.2	WBS Name: Schedule Management Plan	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): 6.1 **Must-Start Date:** 02.10.2017 **Must-Finish Date:** 08.10.2017	**WBS Description:** The schedule management plan is a component of the Project Management Plan. It establishes the criteria and the activities for developing, monitoring, and controlling the schedule.	
WBS Estimated Effort: 6 days **Assigned to:** Project Manager	**Assumptions:** All the required information or inputs required to develop the plan will be delivered as scheduled. We assume we will have the required resources to complete the Project on time. There will be a Project manager assigned by the Project sponsor to execute the project plan. **Constraints:** The project manager is located in Poland while the project will take place in Costa Rica. Different time zones might affect the exchange of information. The sponsor expectation is to have all deliverables by December, 2018.	

WBS Number: 6.3	WBS Name: Cost Management Plan	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): 6.2 **Must-Start Date:** 09.10.2017 **Must-Finish Date:** 15.10.2017	**WBS Description:** The cost management plan is a component of the Project Management Plan. It describes how the project costs will be planned, structured, and controlled.	
WBS Estimated Effort: 6 days **Assigned to:** Project Manager	**Assumptions:** Prices or exchange rate won't change drastically during the project's duration. We assume the Project Budget is adequately funded. There will be a Project manager assigned by the Project sponsor to execute the project plan. **Constraints:** The sponsor expectation is to have all deliverables by December, 2018. The budget is limited and cannot be exceeded.	

WBS Number: 6.4	WBS Name: Quality Management Plan	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): 6.3 **Must-Start Date:** 16.10.2017 **Must-Finish Date:** 22.10.2017	**WBS Description:** The quality management plan is a component of the Project Management Plan. It describes how the project manager plans to meet the quality requirements set for the project.	
WBS Estimated Effort: 6 days **Assigned to:** Project Manager	**Assumptions:** There will be a Project manager assigned by the Project sponsor to execute the project plan. **Constraints:** The sponsor expectation is to have all deliverables by December, 2018.	

WBS Number: 6.5	WBS Name: Risk Management Plan	Work Package? ☒ Yes / ☐ No
WBS Predecessor(s): 6.4	**WBS Description:** The risk management plan is a component of the Project Management Plan. It describes how risk activities will be structured and performed.	
Must-Start Date: 23.10.2017		
Must-Finish Date: 29.10.2017		
WBS Estimated Effort: 6 days	**Assumptions:** All the required information or inputs required to develop the plan will be delivered as scheduled. Prices or exchange rate won't change drastically during the project's duration. We assume the Project Budget is adequately funded. We assume we will have the required resources to complete the Project on time. There will be a Project manager assigned by the Project sponsor to execute the project plan. **Constraints:** The project manager is located in Poland while the project will take place in Costa Rica. Different time zones might affect the exchange of information. The sponsor expectation is to have all deliverables by December, 2018. The budget is limited and cannot be exceeded.	
Assigned to: Project Manager		

4.2.2.4 Scope Validation

Scope validation refers to the process of verifying and formalizing acceptance of the completed project deliverables. High-level deliverables are:

1. Client satisfaction plan including the development of targets, tools and processes

2. Training plan for client's talent development

3. Professional development training plan

4. Reward system for employees and their achievement of objectives

Scope Verification

The project deliverables are verified through the analysis and cross-check of the project management plan with its original scope statement and WBS, the

requirements documentation, the requirements traceability matrix, the verified deliverables after the Control Quality process, and the work performance data retrieved during reviews and during activities being performed to carry out the project.

The deliverables will be presented in raw form to the project sponsor who will pass the information to the project manager for further analysis and inspection in case adjustments are required.

The verification and tracking of scope will be performed by the set dates and milestones according to the project schedule. The below table will be used for such purpose.

Chart 11 Scope verification (Source: O. Gutierrez Nikolaeva, The Author, September 2017)

WBS ID	WBS Name	Deliverable	Verified By	Variance	Notes

Deliverables Acceptance

After finalizing the project, all deliverables will be presented by the project manager to the sponsor for a final acceptance and sign off.

Chart 12 Deliverables acceptance (Source: O. Gutierrez Nikolaeva, The Author, September 2017)

Name / Role	Responsibility
Olga Gutierrez Nikolaeva / Project Manager	Verifies the project deliverables
Olga Gutierrez Nikolaeva / Project Manager	Presents the project deliverables
Olga Gutierrez Nikolaeva / Project Manager	Reviews the project deliverables
Max Gutierrez Sanchez / Project Sponsor	Accepts or rejects the project deliverables

Accepted or Rejected Deliverables

The project deliverables will be accepted or rejected through a final meeting during project closure. The acceptance and rejection of project deliverables will be tracked below in **Chart 13**.

Chart 13 Deliverables Acceptance and Rejection Log (Source: O. Gutierrez Nikolaeva, The Author, September 2017)

WBS ID	Deliverable	Reviewed by	Accepted or Rejected	Notes

4.2.2.5 Scope Control

Controlling project scope is the process of monitoring the status of the project scope and managing changes to the scope baseline.

Monitoring

The project sponsor together with the project manager will be in charge of monitoring the project scope to ensure the project remains within the scope baseline. The WBS dictionary will be an important tool as it will be used as a statement of work for each WBS element and as a guide to avoid out of scope performance.

Chart 14 Scope monitoring (Source: O. Gutierrez Nikolaeva, The Author, September 2017)

Name	Scope Monitoring Activities
Olga Gutierrez Nikolaeva / Project Manager	Follows up on the scheduled activities to track progress, suggest adjustments/changes if required
Max Gutierrez Sanchez / Project Sponsor	Monitors and controls that activities are on track, approves adjustments/changes if required

Work Performance Data

The work performance data to be gathered will include the work completed, key performance indicators, start and finish dates of scheduled activities, number of change requests, actual costs and actual durations, etc.

The project sponsor will deliver most of this data to the project manager, who will be in charge of tracking it in the different documents provided for the project.

Variance Analysis

Variance analysis is a technique used for determining the cause of any difference and the degree of any difference between the scope baseline and the actual performance.

Variance will be tracked via excel as this is a familiar tool for the project sponsor, the data to be included will be from the WBS related to work done, schedule and costs. Corrective or preventive actions can be implemented only after determining the cause and degree of variance relative to the scope baseline, and will need to be approved by the project manager and/or project sponsor.

Integrated Change Control Procedures

All requests for change must be documented in order to keep track of the changes. The project manager or the project sponsor may initiate changes to the project scope. All requests for changes must be submit to the project manager who will log and track each request on the Change Request Log included below in **Chart 15**. The project manager and project sponsor will analyze the change requests for impact to schedule, cost and quality. Once the sizing is complete, the project manager will electronically submit the change request for sponsor's approval.

Due to the fact that this project is ran by a small team, there is no change control board. Each change request will be reviewed by the sponsor and he will decide whether it becomes approved, approved with modifications, rejected or deferred. Once a decision is reached, the change request is signed and emailed to the project manager for planning revisions and implementation.

The project manager will track the approval, approval with modifications, rejection or deference on the change request log found in **Chart 15**, below. The project manager together with the sponsor will also ensure implementation of the change.

Chart 15 Change Request Log (Source: O. Gutierrez Nikolaeva, The Author, September 2017)

Project Name	Cavan Studio Improvement Plan	Date	04.02.2018
Project Number	01	Document Number	01
Project Manager	Olga Gutierrez Nikolaeva	Project Owner/Client	Max Gutierrez Sanchez

Change Request Number	Date Received	Requestor	Change Request Name and Description	If Approved, Approved By	Implemen- tation Due Date, if Applicable	WBS Number, if Applicable	Status
1							

4.2.2.6 Assumptions

While defining and managing project scope, it is inevitable that assumptions will be made. All assumptions regarding project scope will be documented in then transferred to the Risk Management Plan for further management.

Chart 16 High-level assumptions log (Source: O. Gutierrez Nikolaeva, The Author, September 2017)

Assumption	Date Transferred to Risk Management Plan
All the required information or inputs required to develop the plan will be delivered as scheduled	08.10.2017
Prices or exchange rate won't change drastically during the project's duration	08.10.2017
The installations and necessary equipment is available for the trainings.	08.10.2017
We assume the Project Budget is adequately funded.	08.10.2017
We assume we will have the required resources to complete the Project on time.	08.10.2017
There will be a Project manager assigned by the Project sponsor to execute the project plan.	08.10.2017

4.2.2.7 Issues

While defining and managing project scope, it is inevitable that issues will be encountered. All issues regarding project scope will be documented here then transferred to the Risk Management Plan for further management.

Chart 17 High-level issues log (Source: O. Gutierrez Nikolaeva, The Author, September 2017)

Issues	Date Transferred to Risk Management Plan
The project manager is located in Poland while the project will take place in Costa Rica	08.10.2017
Different time zones might affect the intake of information and communication (well-planned schedule is required to receive the necessary clarifications and data)	08.10.2017

The sponsor expectation is to have all deliverables by December, 2018	08.10.2017
The budget is limited and cannot be exceeded	08.10.2017

4.2.2.8 Risks

While defining and managing project scope, risk may be identified. All risks regarding project scope will be documented in here then transferred to the Risk Management Plan for further management.

Chart 18 High-level risks log (Source: O. Gutierrez Nikolaeva, The Author, September 2017)

Risks	Date Transferred to Risk Management Plan
If the required information is not received in time, it might affect the quality of the project deliverables	08.10.2017
If the company does not follow the established schedule this might affect the outcome of the deliverables	08.10.2017
If some data will be very difficult to acquire this might affect the costs and schedule calculations and overall plan	08.10.2017
Training materials and/or equipment are not available	08.10.2017
Scope, schedule and cost changes	08.10.2017

4.2.2.9 Scope Management Plan Approval

By signing below, I, Max Gutierrez Sanchez in my capacity as Project Sponsor approve of this Scope Management Plan.

Name:

Title:

_____   _____

Signature   Date Approved

4.2.3. Client Satisfaction Plan

One of the objectives of this project is to provide Cavan Studio with the necessary tools that will allow them to reach and retain 90% of client satisfaction.

4.2.3.1 Client satisfaction analysis

Cavan Studio had previously performed some surveys for their clients.

The first survey, performed in November 2015, was focused on tracking the customer basic information regarding their equipment use and preferences.

The second survey, performed in 2016, had the following five questions:

- Have you been or are part of a musical band?
- Do you know what is an Electronic Press Kit (EPK)?
- Enter your email address
- How often do you visit our facilities monthly?
- Define in a sentence your opinion about Cavan Studio.

33 of 155 clients, which is approximately 20%, responded to this survey confirming to be satisfied with Cavan Studio.

In order to understand the current customer perspective and have a proper baseline for the Client Satisfaction Plan, Cavan Studio will perform a short but concise Client Satisfaction Survey (please refer to **Appendix 5**). The length of the survey aims to retrieve a higher number of respondents and confirm an expected baseline of 90%. Nevertheless, this baseline may vary after executing the survey in order to adjust expectations.

4.2.3.2 Cavan Client Satisfaction survey

Based on these results and the input from the Cavan Studio General Director a thorough Client Satisfaction survey was created that will be used by Cavan Studio on a constant basis to monitor the client impact related to different improvements (please refer to **Appendix 6**).

The survey focuses on marketing analysis by aiming to understand the customer's buying patterns, their perception each of the services Cavan Studio provides, and track their demographics.

The goal of the Client Satisfaction Plan is to create a process that can be followed by Cavan Studio in order to receive constant feedback from their client and gain the knowledge to create new options for customer engagement. The aim is to retain over 90% client satisfaction index throughout the year. In case the percentage is lower, the Cavan Studio might want to create an additional improvement project or activity such a learning workshops for clients, meetings with the team to run a brainstorming session or a root cause analysis in order to boost their impact.

The survey will be created using **Google Forms**, which also allows to track client results by allowing to see each rating in charts and by also allowing to pull data in excel spreadsheets that can be later filtered as per required needs.

In order to receive a higher response from clients, the sponsor might approve a code generator source to provide customers with a 5% discount when completing the quarterly survey.

Once the results are received, the overall satisfaction will be tracked in a scorecard as shown in **Chart 19**.

Chart 19 Client Satisfaction Survey scorecard (Source: O. Gutierrez Nikolaeva, The Author, October 2017)

Date sent	# customers	# respon- dents	Close date	Overall satisfaction (>=90%)	Staff	Rooms	Parking	Will recommend

4.2.4. Trainings for Client Development

Cavan Studio is quite aware that in order to reinforce their client satisfaction and client impact it is not enough just to have the information provided by client surveys. Though this information is the first step to understand their customers it is quite important as well to retain them by creating additional benefits that add value to the Cavan Studio brand.

4.2.4.1 Client analysis

Cavan Studio clients possess general music skills: they know how to handle their instruments, have their favorite brands, etc. The clients' identified gaps relate to knowledge that is more technical. According to the client survey on November 2015, almost 50% of the clients did not know how to handle mixers and power plants; by observing the clients rehearse, the Cavan Studio staff has also identified basic tools and knowledge that might improve the clients' performance if entering a recording studio.

The main idea is to create a training plan focused on clients and their talent development. Provide the clients within a period of 2-4 months with training possibilities that will develop their talent in different areas. By gaining such skills, the bands will be able to pre-produce their work and prepare to enter the cycle of developing an artistic project.

4.2.4.2 Training plan for clients

The main trainings that will be provided are:

Music Industry Expert (Introduction to the Music Business)

Understanding of the roles and responsibilities in the music industry (who is who? and who does what?) during the career path of any artist no matter if it is a newcomer or an old school seeking to create a healthy and optimized career path.

Audio Equipment Manipulation Expert

Theory and practice seeking to ensure a professional manipulation of audio equipment: from microphones and mixers, power plants, cabinets, cables, signal, analog vs digital.

Video Equipment Manipulation Expert

Theory and practice seeking to ensure a professional manipulation of photo and video equipment: lenses, lighting, motion, etc.

These trainings will have a cost of $30 per person. Moreover, the trainings will be delivered in a previously booked room in Cavan Studio. The trainings will have a limited number of participants in order to focus in each client needs as much as possible.

Additional development options:

- **Meet-The-Hive (Meet-The-Band) Program:** one exclusive night for a maximum of 10 music enthusiasts who will share a private session with one of the bands from the Cavan Studio catalog. The fans will share a dinner with their favorite band and then an exclusive performance at Cavan's Studio Premium Room.
- **Music Team Building Program:** many companies have among their staff amateur and/or professional musicians that would love to write and record the company's latest hit or rehearse an amazing set list for this year's anniversary. Cavan Studio offers different options according to the company's budget and

needs: production of a recorded song, video, photo sessions and professional assistance in case they need a Producer.

- **Known artist workshop:** Numerous musicians often visit Costa Rica, Cavan Studio wants to position themselves also as an alternative for visiting artists who would like to give a short master class when in the country.
- **Talks:** As a long-term plan, Cavan Studio will continue focusing on music as a source for social benefit. Cavan Studio will consider participating in the Latin American Music Therapy Symposium held during the educational events of the Panama Jazz Festival, if any member of the staff will be able to go they can learn and create contacts to speakers that could eventually visit to give talks to Cavan customers.

Linked to the client trainings, Cavan Studio also wants to give something back as part of their Corporate Social Responsibility. The idea is to organize a free class or performance given by musicians in an orphanage or nursing home, which can involve as well volunteer clients who want to give back with their talent.

4.2.5. Professional Development Training Plan

It is well know that in order to retain clients the best service must be provided, for Cavan Studio this lays in two important resources: installations and staff. For the Cavan Studio Improvement Project the objective is to focus on developing employee skills, which can result in better customer service but more importantly employee engagement.

Talent management is a concept that has been developing strongly in the last years (Cornerstone, 2017). Knowing that great talent can be a source of true competitive advantage (Ogg, 2017), Cavan Studio needs to keep up with the evolving trends to remain current and increase their impact as an evolving business.

4.2.5.1 Employee analysis

In order to understand employee skills and gaps, an analytical and qualitative research was performed.

The Stakeholder Register Matrix, shown in **Appendix 4,** together with meetings with the sponsor provided with sufficient information to create an Employee satisfaction survey, shown in **Appendix 7**, as an additional source to confirm and receive the employees input. By allowing the staff to voice their opinions and concerns, the management engage them in the development topic.

The results of the Employee satisfaction survey returned an overall 77% satisfaction rate. The top areas for improvement were trainings, communication, motivation and recognition, thus reinforcing the information previously gathered in the stakeholder analysis.

4.2.5.2 Professional development trainings

By providing the staff with trainings, the management is also able to boost their motivation as the employees feel valued. Trainings provide the staff with the necessary skills to perform their job adequately and therefore delivering a better service to their customers that translate in client satisfaction. The holistic impact that is created cannot be disregarded if a company aims to outstand their competitors.

Chart 20 List of Professional Development Trainings (Source: O. Gutierrez Nikolaeva, The Author, October 2017)

Training	Source	Location	Cost
Music Industry Expert	Max Gutierrez	Cavan Studio	$0
Audio Equipment Manipulation Expert	Max Gutierrez	Cavan Studio	$0
Video Equipment Manipulation Expert	Max Gutierrez	Cavan Studio	$0

Finance Basics	External teacher	To be defined	$200
Data Privacy	External teacher/expert	To be defined	$200
Business Administration Basics	External teacher/expert	To be defined	$400
Legal Basics	External expert	To be defined	$200
Costumer Service Expert	External expert	To be defined	$200
Digital Marketing Expert	Cousera	online	$200
Photography	Joe Vindas	Cavan Studio	$200
Excel for Business	Cousera	online	$150
Cultural Identity, Art and Technology (ICAT) program courses (40 hours)	National University (UNA)	ICAT offices in Heredia	$175
Excel 2016 Basic-Intermediate (5 sessions of 4 hours)	Fundación Tecnológica de Costa Rica (FUNDATEC)	Zapote	$170
Advanced Excel for decision making	American Business Academy	San Jose	$285
Analysis of data using Excel	Universidad Latinoamericana de Ciencia y Tecnología (ULACIT)	Tournón	$256
Composition and graphic media	ULACIT	Escazú	$245
IV: Excel	ULACIT	Tournón	$218
Experimental Workshop of Audiovisual Creation I (3 hours per week, quarterly)	Universidad Continental de las Ciencias y las Artes (UCCART)	Barrio la California	$175
Seminar on Arrangement and Musical Composition with Adrian Goizueta (2 hours per week, monthly)	UCCART	Barrio la California	$53
Digital Photography (quarterly)	UCCART	Barrio la California	$211
Excel Intermediate (24 hours/ 4 hours per week)	Municipality of Escazú	Escazú	$0

For planning purposes, there is a need to consider that the trainings provided by Coursera will show only for a period of a month in advance and no further, hence follow up will be required that a specific training is available. Nevertheless, this

allows also the opportunity to use the budget on an alternative training if the management will deem it fit as replacement.

The trainings will be provided every 2-4 months and will be assigned according to the needs of each employee. The budget for each quarter is $400.

For the List of Professional Development Trainings on **Chart 20**, additional columns on the right will be created with the names of the employees in order to keep tracked of the skills gained.

A biannual employee satisfaction survey will be performed in order to track results. The goal is to achieve an 85% of employee satisfaction after the trainings.

The survey will be created using **Google Forms**, which also allows to track employee results by allowing to see each rating in charts and by also allowing to pull data in excel spreadsheets that can be later filtered as per required needs.

Once the results are received, the overall satisfaction will be tracked in a scorecard as shown in **Chart 21**.

Chart 21 Employee Satisfaction Survey scorecard (Source: O. Gutierrez Nikolaeva, The Author, October 2017)

Date sent	Close date	# respon- dents	Overall satisfaction (>=90%)	Compen- sation & benefits	Development (trainings, guidance)	Work en- vironment, culture & security	Performance, flexibility & guidance

4.2.6. Reward System for Employees

Cavan Studio will implement a reward system as an initiative to motivate employees and achieve business targets.

To motivate employees the management needs to help the employee see their connection and impact to the company's goals, this can be achieved by sharing the vision of the company and the achieved targets in staff meetings. By communicating properly, what the company expects from the employees and keeping track of the progress of the reward system, Cavan Studio will be able to reinforce employees' engagement.

Though reward and recognition are usually used interchangeably, they are both important components of a successful reward system.

Employee reward systems refer to programs set up by a company to reward performance and motivate employees on individual and/or group levels. They provide a financial benefit. Employee recognition programs are intended to provide a psychological benefit. Although many elements of designing and maintaining reward and recognition systems are the same, it is useful to keep this difference in mind, especially for small business owners interested in motivating staffs while keeping costs low (Inc.com).

The keys to developing a reward system are as follows:

- Identify the companies or group goals that the reward program will support.
- Identify the desired employee performance or behaviors that will reinforce the company's goals.
- Determine key performance indicators based on the individual or group's previous achievements to properly measure achievements.
- Determine the appropriate rewards.
- Communicate the program to the employees.

4.2.6.1 Reward method analysis

Cavan Studio has a record of accomplishment of their progress plus the objectives they want to achieve. Below you can see several images with the correspondent description.

SEMESTRE			
DIA	OBJ	AVG	DIF
Lunes	5,00	3,72	1,28
Martes	5,00	3,95	1,05
Miercoles	5,00	4,77	0,23
Jueves	5,00	5,93	-0,93
Viernes	6,00	5,12	0,88
Sabado	11,00	9,13	1,87
Domingo	11,00	5,93	5,07
TOTAL	48,00	38,55	9,45

Figure 31 Bookings per day. (Source: Biannual data from Cavan Studio, 2017)

DIA: day, OBJ: objective, AVG: average, DIF: difference

GRABACIONES 2016 - 2017								
	Trimestre 2016			Trimestre 2017			Objetivo 2017	
	Reportado	Facturado	AVG	Reportado	Facturado	AVG	Promedio	Rendimiento
1	124,50	74,90	99,70	130,00	144,00	137,00	195,00	70%
Ene	61,50	33,50	47,50	49,00	30,00	39,50	65,00	61%
Feb	56,00	20,00	38,00	34,50	37,50	36,00	65,00	55%
Mar	7,00	21,40	14,20	40,00	76,50	58,25	65,00	90%
2	182,50	174,25	178,38	0,00	0,00	0,00	195,00	0%
3	108,50	199,00	153,75	0,00	0,00	0,00	195,00	0%
4	132,50	144,00	138,25	0,00	0,00	0,00	195,00	0%
TOTAL	548,00	592,15		130,00	144,00		975,00	15%
AVG	570,08			137,00			195,00	70%

Figure 32 Recordings from 2016-2017. (Source: Cavan Studio, 2017)
Trimestre: Trimester, Reportado: reported, Facturado: billed, AVG: average,
Objetivo: objective, Promedio: average, Rendimiento: performance

LABORATORIOS CREATIVOS			
Mes	Estudiantes	Objetivo	Rendimiento
Trim I	6,00	6,00	100%
Ene	2,00	3,00	67%
Mar	4,00	3,00	133%

AUDIOVISUALES			
	Videos	Objetivo	Rendimiento
Trim I	10,00	12,00	83%
Ene	4,00	4,00	100%
Feb	3,00	4,00	75%
Mar	3,00	4,00	75%

Figure 33 Creative labs and Audiovisuals. (Source: Cavan Studio, 2017)
Mes: month, Estudiantes: students, Trim: Trimester, Objetivo: objective, Rendimiento: performance

ENSAYOS 2016 - 2017				
	Facturado			
	2016	2017	Objetivo	Rendimiento
1	74,90	939,00	1230,00	76%
Ene	314,50	291,00	410,00	71%
Feb	334,00	343,00	410,00	84%
Mar	311,00	305,00	410,00	74%
2	174,25	0,00	1230,00	0%
3	199,00	0,00	1230,00	0%
4	144,00	0,00	1230,00	0%

Figure 34 Rehearsals 2016-2017. (Source: Cavan Studio, 2017)
Facturado: billed, Objetivo: objective, Rendimiento: performance

The above data shows how Cavan Studio aims to incorporate more bands in their weekly cycle. Their week is divided in 2 parts:

- 20 bands at the start of the week (5 bands from Monday to Thursday)
- 28 bands at the closure of the week (6 bands on Friday, 11 on Saturday, and 11 on Sunday)

One of the goal is to increase the average number of visiting bands that rehearse on a monthly basis from 43 to 48 (10% increase).

In order to achieve this increase Cavan will like to include a reward system that is able to encourage their employees to achieve this.

Another objective of the reward system is to increase client satisfaction by encouraging employees to deliver a good customer service. The baseline and staff rating from the Client Satisfaction Survey scorecard in **Chart 19**, will serve as guides to measure their performance.

4.2.6.2 Types of Rewards

For the Cavan Studio Improvement Project different types of rewards will be considered. The idea is to have the enough variety and flexibility to encourage the employees to deliver their best effort and feel engaged and recognized for their impact on the company's achievement of goals. There will be a **compensations system based on team work** as the nature of the service provided by the company allows it (for example, one staff member can book a band in the morning and another one will work with them in the specific room in the afternoon or

another day). There will also be a **recognition system based on individual goals**, where an employee will be rewarded by their ideas and achievements.

The types of rewards defined to be applied by the management include:

1. **Group-based reward system:** based on a measurement of team performance, with individual rewards received based on this performance. An idea is to reward the team not by the days they work but by the days the objective is surpassed. Each person of the team gets $1 (team is of 6 people) and when they achieve $25 they get an Amazon gift certificate). The management is aware that while the group-based reward system encourage individual efforts toward common business goals, they also tend to reward under-performing employees along with average and above-average employees. Therefore, an additional reward program that recognizes individual achievements in addition to team performance will provide extra incentive for employees.

2. **Team meal:** whether it is breakfast, lunch or dinner, a team gathering is always fun, breaks up the routine and keeps employees in the office. Some alternatives are donuts, pizza, cake, catered lunch or an annual summer barbecue to recognize employees.

3. **Day off pass:** an extra day off from work always helps, and is even better when employees can pick the day and are paid for it.

4. **Double time:** employee gets double the time of a break, for a full week.

5. **Performance hours:** if employees consistently perform well, they receive "performance hours" tokens they can redeem to take a longer lunch, run errands or use for personal reasons.

6. **Recognition:** as a way to recognize employees, two options are wall of fame or employee of the month. It is important to remember to mention why the person was recognized, and adding an additional small gift is always a plus.

7. **Family thank you:** writing a card to the employee's entire family explaining how much you appreciate your colleague or recognizing him or her for an achievement.

8. **Recognition circle:** each employee writes something positive about the person that is being recognized on a piece of paper. Either give them the box of collected sayings or frame them for the person.

9. **Acknowledge employees in meetings:** when an employee has a good idea, performs above and beyond, or does something worthy, it is important to acknowledge him or her personally in meetings.

10. **Movie time:** give a pair of movie tickets, and the time off to go see their favorite movie during the workday.

11. **A concert shout out:** get the employees tickets to see their favorite band in concert. As a bonus, contact the band to give them a shout out during the concert.

12. **Collectors' paradise:** find out what the employee's passions, hobbies or interests are; then give them a gift in that field. Collectors are the easiest to do this for, they always love to get that perfect coin or stamp, etc.

13. **Name a beer after them:** microbreweries will often brew a small run of beer, slap a label with the employee's name on it (for example: Magnificent Mike Michalowicz Mead) or create a label and stick it over their favorite beverage.

14. **Celebrate birthdays:** everyone likes to be remembered on his or her birthday. Celebrate with a cake, or buy the birthday person's lunch.

15. **Special causes board:** employees usually have a special cause or group they support. Show your employees you appreciate their outside interests and causes by allowing them to post flyers, cards, photos and forms on the special causes board.

The approach and details of the reward system will be communicated by the management in a selected team meeting. Once all doubts are clarified, the project

manager and sponsor will be in charge of tracking and delivering the rewards according to the Rewards scorecard below.

Chart 22 Rewards scorecard (Source: O. Gutierrez Nikolaeva, The Author, October 2017)

Date	Employee	Target	Goal	Achieved	Team / Individual	Reward received
08.02.	XXX	Mon-Thu rents	5	8	Team	1
09.02.	XXX	Fri rents	6	6	Team	
11.02.	XXX	Sat-Sun rents	11	12	Team	2
13.02.	XXX	Birthday			Individual	Lunch
14.02.	XXX	Idea on meeting that increased sales			Individual	Employee choice between 3,4 or 10

4.2.7. Balanced scorecard

In today's current changing environment a company must seek to follow the latest best industry practices.

The Balanced scorecard (BSC) has been selected by the editors of Harvard Business Review as one of the most influential business ideas of the past 75 years.

The Balance scorecard is a strategic planning and management system that organizations use to communicate what they are trying to accomplish, align the day-to-day work that everyone is doing with strategy, prioritize projects, products, and services, and measure and monitor progress towards strategic targets. The system connects the dots between big picture strategy elements (mission, vision,

core values, strategic focus areas) and the more operational elements (objectives as continuous improvement activities, measures or key performance indicators, targets as the desired level of performance, and initiatives that help you reach your targets) (Balanced Scorecard Institute, 2017)

The BSC suggests that the organization should be understood from four perspectives, and to develop objectives, measures (KPIs), targets, and initiatives (actions) relative to each of these points of view:

- **Financial:** often renamed Stewardship or other more appropriate name in the public sector, this perspective views organizational financial performance and the use of financial resources.

- **Customer/Stakeholder:** this perspective views organizational performance from the point of view the customer or other key stakeholders that the organization is designed to serve.

- **Internal Business Processes:** views organizational performance through the lenses of the quality and efficiency related to our product or services or other key business processes.

- **Organizational Capacity/Learning and Growth:** views organizational performance through the lenses of human capital, infrastructure, technology, culture and other capacities that are key to breakthrough performance.

Cavan Studio is not falling behind on this approach and for the Cavan Studio Improvement Project a Balanced Scorecard with its respective Strategy map were created as seen in **Figure 35** below.

Cavan Studio Improvement Project – Balanced scorecard and Strategy map

Mission	To offer professional and quality solutions that allow the continuous development of the operations and activities of the company, its customers, suppliers and collaborators	
Vision	To transcend globally as the leading company in the development of regional talent through quality, perseverance and passionate work, supporting the continuous growth of committed people through technical and administrative infrastructure based on products, services and professional tools in our Departments of Recording, Rehearsal, Audiovisuals and Creative Labs	
General objective	To create a management plan for Cavan Studio in order to develop talent and improve further the brand by building a stronger team and client base	

Business objectives and Strategy map		Measures	Targets	Initiatives
Financial	Increase rents/ improve cash flow	# of rents	5 Mon-Thu, 6 Fri 11 Sat-Sun	Reward system
	Improve productivity	Rewards received % bands/trimester	50% as team, 50% of individuals 48 visiting bands (10% increase)	Reward system
Customer	Client satisfaction	% of client satisfaction	>=90% or increased by 5%	Client satisfaction plan
	Brand strength via client trainings	# of client trainings completed	2 per quarter, at least 50% completed	Client trainings
Internal business processes	Customer service	% of client satisfaction % in survey categories	>=90% or increased by 5% Categories from the survey up by 5%	Client satisfaction plan
	Improve opera-tional efficiency	% in survey categories % of project on track	Categories from the survey up by 5% 80%	Cavan Studio Improvement Project
Learning and Growth	Staff trainings/ employee skills	# of trainings completed	2 biannually, at least 50% completed	Staff professional development
	Employee satisfaction	% of employee satisfaction	>=85% or increased by 5%	Staff trainings Reward system
	Reward system to align goals	Rewards received	50% as team, 50% of individuals	Reward system

Figure 35 Cavan Studio Balanced scorecard and Strategy map. (Source: Olga Gutierrez Nikolaeva, 2017)

4.2.8. Corporate Social Responsibility recommendations

Another best industry practice that has a very high impact in the environment and the society is the integration into the Corporate Strategy of the United Nations Sustainable Development Goals (SDGs).

Corporate Social Responsibility refers to a company's delivery of long-term value in economic, social, environmental and ethical terms.

In order to integrate CSR recommendations to the project, two key documents were of special assistance: The GPM Global P5™ Standard for Sustainability in

Project Management (GPM Global, 2016) and the G4 Sustainability Reporting Guidelines. Implementation Manual. (Global Reporting Initiative, 2013).

According to these documents, Cavan Studio Improvement Project is closely related to the People and Prosperity bottom line according to the P5 Ontology (please refer to **figure 22**).

Below are the CSR recommendations related to the Cavan Studio Improvement Project:

Labor practices and Decent Work

- **Employment and Staffing:** achieves a number of sustainable project outcomes including providing model employment standards for the organization or industry. Supports the **SDG 8**: "By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal values".
    - o Engaging staff using appropriate employment types (full time or contract as well as volunteer).
    - o Paying livable wages.
    - o Holiday and parental leave.
    - o Fair dismissal.
    - o Allowing the project team to maintain a work-life balance.
- **Labor/Management Relations:** achieves being known as an 'employer of choice', improved ability to attract the best staff both for projects and in operations, engaged and motivated workforce that are committed to personal and organizational success.
    - o It is recommended that the project manager and project sponsor function in a partnership capacity to facilitate these matters as well as the acceptance, adoption, and integration of the project outcome(s) into an operating or 'business as usual' state.
- **Training and Education:** maximizes value to the project and positive contributions to the staff careers. Achieves a more efficient and effective

workforce, being known as an 'employer of choice', engaged and motivated workforce that are committed to personal and organizational success. Supports **SDG 4**: "By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university".

o Identify skills required and any skills gaps and development needs of project team members.

o Support and encourage team members to undertake training and development activities.

o Coach and mentor the project team to build skills and capabilities.

Reporting related recommendation: **Create programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings:** Programs for skills management allow organizations to plan skills acquisition that will equip employees to meet strategic targets in a changing work environment. A more skilled and aware workforce enhances the organization's human capital and contributes to employee satisfaction, which correlates strongly with improved performance. The goal of lifelong learning is to promote the development of knowledge and competencies that will enable each citizen to adapt to a rapidly changing labor market and to participate actively in all spheres of economic life.

o Identify employee-training programs that aim to upgrade skills including as a minimum: internal training courses, funding support for external training or education, the provision of sabbatical periods with guaranteed return to employment.

Reporting related recommendation: **Percentage of employees receiving regular performance and career development reviews, by gender and by employee category:** Appraising employee performance against common targets aids the personal development of individual employees and contributes to both skills management and the development of human capital within the organization. Employee satisfaction can also be enhanced, which correlates with

improved organizational performance. Demonstrates the extent to which this system is applied throughout the organization and if there is inequity of access to these opportunities.

- **Organizational Learning:** achieves enhanced capabilities across functions, increased maturity from project to project, creating opportunities for creating industry standards and engaging with like-minded organizations in benchmarking activities.
  - o The capture and analysis of lessons learned and the communication of these lessons throughout the organization.
  - o Incorporate recommendations from past projects.
  - o Using progressive elaboration, proofs of concept and 'test beds' to engage with stakeholders and promote organizational learning.
  - o Establishing communities of practice to share learnings across the organization and the broader community or industry

- **Local Competence Development:** achieves up-skilling locals to provide ongoing support and maintenance, growing the local economy through the establishment of new industries, skills transfer to the local economy or community that has occurred through partnering professional immigrants with local workers.
  - o Take into account the abilities of local and indigenous people for project resource planning.
  - o Use local labor in their project team to minimize brain drain.
  - o Incorporate local employment targets in supplier contracts.

Society and Customers

- **Public Policy and Compliance:** improves transparency and accountability, and strengthens brand protection and improves risk mitigation. Supports **SDG 16**: "Substantially reduce corruption and bribery in all their forms".
  - o The policies and procedures that are put in place to ensure that projects are complying with relevant laws and regulations.

- o The laws and customs of the land in which the project is taking place.
- o Establish mechanisms to ensure ongoing compliance.
- o Develop communications and reporting for relevant stakeholders on compliance related matters.

- **Product and Service labelling:** provides transparency and the environmental and social information for values-based purchasing decisions.
  - o It is recommended that project managers ensure that policies are in place to hold suppliers to the same level of product and services labeling standards and are aware of sustainable procurement standards such as ISO:20400 Sustainable Procurement Guidance.

    Reporting related recommendation: **Results of surveys measuring customer satisfaction:** Customer satisfaction is one measure of an organization's sensitivity to its customers' needs and preferences and, from an organizational perspective, is essential for long-term success. In the context of sustainability, customer satisfaction provides insight into how the organization approaches its relationship with one stakeholder group (customers). It may also be used in combination with other sustainability measures.

Business Agility

- **Flexibility/Optionality in the Project:** produces sustainable project outcomes including: better degree of success, focus on benefits and the organization, the environment, and society not process and outputs, realization that the environment both internally and externally will most probably change, and places emphasis on social return on investment.
  - o Project managers and project sponsors should work together to ensure flexibility exists to adjust requirements to achieve a higher degree of sustainability.

- **Increased Business Flexibility:** achieves greater chance of project success and ongoing funding, better focus on the organization, empowers and organizations ability to achieve a continuous improvement culture, better focus

on function as opposed to process and output, and builds sustainable competitive advantage for the organization.

- o Project managers should be benefits focused and lead with the total asset life cycle in mind.

Most of them are already followed by the business that should make it easier for all the employees to identify, engage and participate with additional ideas in order to create a higher impact on the environment, society and economy as a whole.

4.3. Project Schedule Management

The schedule management plan is a component of the project management plan. It establishes the criteria and the activities for developing, monitoring, and controlling the schedule. The plan was created using a modified template taken from the PMI website in the Tools & Templates section.

4.3.1. Purpose of the Schedule Management Plan

The purpose of this Schedule Management Plan is to assist and guide the project manager and project team in planning, developing and controlling the project schedule. The project manager facilitates the identification of activities necessary to produce deliverables and is accountable for producing the realistic and agreed-upon schedule. The project team participates in the estimation of durations of the project activities and estimation of necessary resources to complete the project activities. In addition, this plan documents how the schedule contingencies will be assessed. The iterative process of schedule development should result in a final approved schedule baseline that can be changed only through the **Perform Integrated Change Control process** as shown in **figure 24**.

4.3.2. Schedule Development

Before the schedule baseline is developed, the list of project activities, estimates of their durations and resource requirements are defined and project scope defined.

All risks identified by the project team should be carefully analyzed for their impact on the project schedule.

4.3.2.1 Creation of the Activity List

Having a well-defined list that includes all the required activities and resources in an appropriate sequence is very important because it will define the specific actions to be performed to produce the project deliverable. The activities represent the effort needed to complete each one of the WBS work packages (see **Chart 10**). The project team will use **Rolling wave planning**, where activities in the near future are planned in detail while other later activities can be at a higher level. Long-term activities include a more detailed schedule for each one of the trainings, precise dates for customer survey roll-outs, and milestones for the reward system. The activity attributes included in the Activity list are the WBS Id, activity scope and the respective work package deliverable. The assignment of the resources (responsible) for each activity will be performed during the execution phase.

Chart 23 Activity list (Source: O. Gutierrez Nikolaeva, The Author, October 2017)

WBS ID	Activity	Activity scope (Description of work)	Work package deliverable
1.	**Information Gathering and Analysis**	Research of information and analysis of data required to create an appropriate Project Management Plan aligned with the PMI standards.	Information and analyzed data
1.1.	**Client skills and gaps analysis**	Client analysis based on information provided by the sponsor and project manager knowledge, allows defining the trainings needed to engage the clients and develop their talent.	Client analysis
1.2.	**Staff professional**	Employee analysis based on the Stakeholder Register Matrix, the Employee Satisfaction	Employee analysis

	development needs analysis	Survey and information provided by the sponsor, allows defining the trainings needed to develop the skills of the Cavan Studio employees that will consequently optimize their customer service impact.	
1.3.	**Customer Satisfaction Baseline**	Client satisfaction analysis, which allows to set targets based on previous surveys and to create a baseline that will work as benchmark for future Client Satisfaction surveys. Creation of an appropriate scorecard to track and analyze survey results in order to achieve those targets.	Client satisfaction baseline
2.	**Balance Scorecard (Key Performance Indicators)**	Create a Balanced Scorecard, which is a strategy performance management tool. It provides industry best practices, Corporate Social Responsibility recommendations, a strategy map, and Key Performance Indicators (KPIs) in order to assess if targets are met.	Balanced Scorecard
2.1.	**Customer satisfaction key indicators**	Set targets including a scorecard to track and analyze survey results in order to achieve those targets and provide guidelines in order to implement additional steps in case of not meeting the desired satisfaction index.	Customer satisfaction targets
2.2.	**Employee skills key indicators**	Set targets including a scorecard to track and analyze professional development.	Employee skills scorecard
2.3.	**Strategy map**	Create a diagram that will serve as guideline and overview of the primary strategic goals of the project.	Strategy map
2.4.	**Industry best practices (including CSR)**	Each one of the plans aims to provide a best practice approach in order to achieve targets. Additionally, Corporate Social Responsibility recommendations will be provided in order to create a bigger impact related to the United Nations Sustainable Development Goals.	Industry best practices (including CSR recommen-dations)
3.	**Client Satisfaction**	Create a Client Satisfaction plan including the survey, distribution method, and control tool.	Client Satisfaction

	System and Survey (CSAT)		System and Survey
3.1.	**Survey questions and distribution channel**	Create a set of questions that will be included in the Client Satisfaction Survey in order to provide the necessary data to manage the Client Satisfaction of Cavan Studio customers. Define a distribution channel for the survey.	Client Satisfaction Survey
3.2.	**Method to identify and track survey gaps**	Include in the plan a description of the necessary steps to be followed in order to evaluate survey results and identify gaps.	Client Satisfaction Survey scorecard
3.3.	**Client Satisfaction Plan**	Create a Client satisfaction plan that includes the development of targets, tools and processes. This plan will manage client satisfaction by creating a customized Client Satisfaction Survey for Cavan Studio customers, it also will allow constant client feedback by setting a survey schedule.	Client Satisfaction Plan
4.	**Client and Staff Development**	Cavan Studio aims to receive from the project two main plans related to skills development. One of them being a Training Plan for Client's talent development, and another focused in the Professional Development Plan for employees.	Client and Staff Development plans
4.1.	**Training Plan for Clients**	Create a training plan focused on clients and their talent development. The plan includes a list of the available trainings with their respective cost, and an estimated schedule to deliver the client trainings and workshops.	Training Plan for Clients
4.2.	**Staff Professional Development Plan**	Create a training plan focused on developing employee skills. The plan includes a list of the available trainings with their respective costs, and an estimated schedule for professional development trainings.	Staff Professional Development Plan

4.3.	4.3. Method to identify and track training gaps	The development plans will include a description of the necessary steps to be followed in order to track results and identify gaps.	Employee Satisfaction Survey scorecard
5.	Reward System for Employees	Create a Reward system for employees and their achievement of objectives	Reward System for Employees
5.1.	Method to establish and follow the reward system	The Reward System for Employees will include different options of rewards and recognitions. It will also include a description on how the rewards will be paid and an estimated target schedule for the achievement of objectives.	Rewards scorecard
5.2.	Compensa-tion system based on team work	Define the Reward System baseline and targets for the achievement of objectives. A rewards scorecard will be created to track progress. The employee performance analysis based on information provided by the sponsor will work as input for the Reward System baseline and will allow setting the targets for the achievement of objectives.	Team work baseline and types of rewards
5.3.	Recognition system based on individual goals	Define the Reward System baseline and targets for the achievement of objectives. A rewards scorecard will be created to track progress. The employee performance analysis based on information provided by the sponsor will work as input for the Reward System baseline and will allow setting the targets for the achievement of objectives.	Individual goals baseline and types of rewards
6.	Project Management Plan	Create the Project Management Plan for the Cavan Studio Improvement Project. It includes the subsidiary plans of Scope, Schedule, Cost, Quality and Risk.	Cavan Studio Improvement Project plan
6.1.	Scope Management	Create the scope management plan is a component of the Project Management Plan.	Scope Management

	Plan	It describes how the project scope will be developed, defined, monitored, controlled and verified.	Plan including Project Charter
6.2.	**Time Management Plan**	Create the schedule management plan is a component of the Project Management Plan. It establishes the criteria and the activities for developing, monitoring, and controlling the schedule.	Time Management Plan
6.3.	**Cost Management Plan**	Create the cost management plan is a component of the Project Management Plan. It describes how the project costs will be planned, structured, and controlled.	Cost Management Plan
6.4.	**Quality Management Plan**	Create the quality management plan is a component of the Project Management Plan. It describes how the project manager plans to meet the quality requirements set for the project.	Quality Management Plan
6.5.	**Risk Management Plan**	Create the risk management plan is a component of the Project Management Plan. It describes how risk activities will be structured and performed.	Risk Management Plan

4.3.2.2 Activity duration estimates

Estimate the correct duration of a project involves estimating the amount of work effort required to complete each activity and the amount of available resources estimated to complete each.

The estimation of the activity durations was performed using **Analogous estimation**, which is a technique that uses historical data from similar activities parameters such as budget and duration. It is a gross estimation value approach due to limited amount of detailed information about the project.

For the planning phase of the project, part of the activities where done in parallel in order to meet the estimated deadlines. For a full view of the Cavan Studio Improvement Project schedule, please refer to **figure 36**.

The project team will progressively elaborate on the schedule, especially during project execution.

There is a strong recommendation in this plan for the project team to apply the **Program Evaluation and Review Technique (PERT)**, which is a better approach of the single-point activity duration as it includes the estimation of the uncertainty and risk, based on the optimistic, pessimistic and most likely scenarios.

Based on the PERT theory, the calculus of the distribution based on the probability can be obtained using the following equations:

1) $T_e = \frac{T_p + 4*T_m + T_o}{6}$

or the Excel formula $= (T_o+(4*T_m)+T_p)/6$

2) $\sigma^2 = \left(\frac{T_p - T_o}{6}\right)^2$

or the Excel formula $= ((T_o - T_p)/6)\wedge2$

3) $\sigma = \sqrt{\sigma^2}$

or the Excel formula $= SQRT(\sigma^2)$

Where:

$T_e = Time\ estimate$

$T_m = Time\ most\ likely$

$T_o = Time\ optimistic$

$T_p = Time\ pessimistic$

$\sigma^2 = Variance$

$\sigma = Standard\ deviation$

The values of the variables will be selected based on the historical data gathered by the company in similar projects. The tool that is going to be used for the calculus of the estimate durations will be Microsoft Excel.

It is highly recommended to use the **Critical Path Method** to estimate the minimum project duration and determine the amount of scheduling flexibility on the logical network paths within the schedule model, especially in regards to Client and Staff trainings and the Reward System.

The Critical Path Method is a schedule network analysis technique that calculates the early start, early finish, late start, and late finish dates for all activities without regard for any resource limitations by performing a forward and backward pass analysis thorough the schedule network. It is a sequence of activities that represents the longest path through a project which determines the shortest possible project duration.

Once the critical path is established, the project team can apply the Three-Point Estimating method originated with the Program Evaluation and Review Technique (PERT), and follow the use of the Beta Distribution formula to calculate time. It is also recommended to include the Variance and the Standard Deviation to this data to increase the probability of finishing the project from 50% to 80%.

An example of how the PERT table should look like is depicted in **Chart 24**.

4.3.2.3 Risk identification/schedule contingencies

Due to the fact that some risks might appear, such as: a course being cancelled or customers not being able to attend a planned training, there is a clear need to establish **time contingency reserves** (also called time reserves or buffers).

For the purpose of the Cavan Studio Improvement project, contingency reserves were added to the client and staff training schedules (2-3 months expected period plus 1 month/20% as buffer). A similar approach will be discussed and offered to the employees when the reward system is presented. For the client satisfaction survey there will be no contingency time but sending reminders to customers in order to avoid late and low response might be considered.

In **Chart 24**, the **Reserve time** analysis criteria is applied to the critical path, additionally an important consideration to be taken is that the scheduling software does not accept "decimal" values in the activity duration, therefore in the chart the **Final duration** column represent the rounded value of the time estimation, with which the schedule is generated.

Another consideration is that in the estimation of the project durations, some of the activities that belong to the critical path may be executed in parallel that means the final value of project duration cannot be founded with a sum of the durations of all the activities of the critical path.

Chart 24 Program Evaluation and Review Technique (PERT) (Source: O. Gutierrez Nikolaeva, The Author, October 2017)

ID	Predecessor	Optimistic duration	Most likely duration	Pessimistic duration	Expected duration	Variance	Reserve time	Final duration
7.4	7.1,7.2,7.3	10	15	25	15.83	6.25		
			Project expected duration		382.67			
			Deviation expected duration		16.78			

4.3.2.4 Use of scheduling tool/schedule development

Microsoft Project 2016 is the scheduling tool used to sequence all activities and develop an initial project schedule model.

The **Critical Chain Method**, which is similar to the Critical Path Method with the difference that it adds buffers that are non-work schedule activities to manage uncertainty, can also be used during project execution to allow the project team to place buffers on any of the scheduled project paths to account for limited resources or project uncertainties.

Fast tracking, where activities normally done in sequence performing in parallel, will be considered if necessary.

The initial schedule model with the initial project start and finish dates will most likely have to go through multiple iterations until accepted by all relevant stakeholders.

4.3.2.5 Approval of the schedule baseline

The project sponsor is in charge of approving the schedule baseline
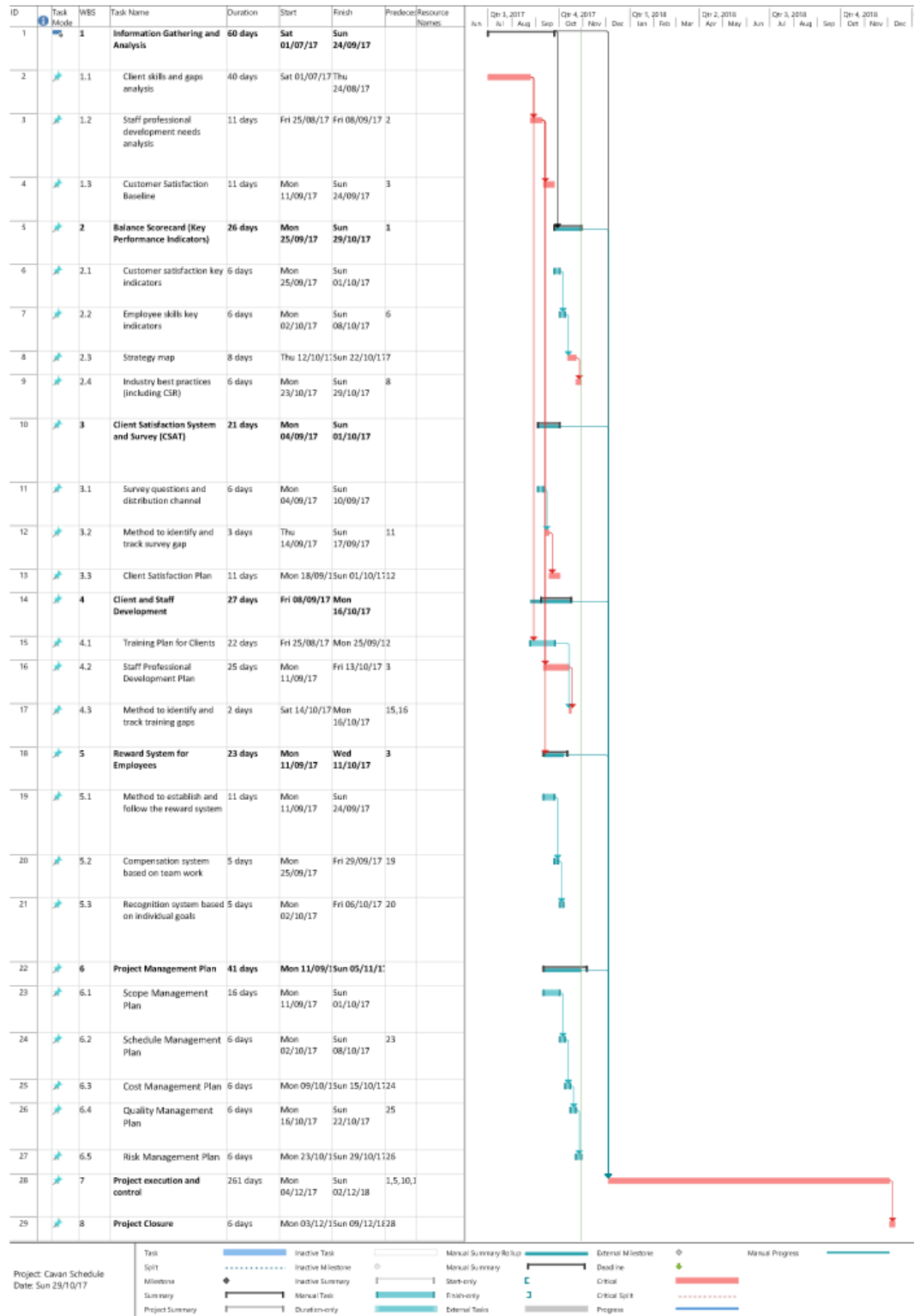
Figure 36 Cavan Studio Improvement Project schedule. (Source: Olga Gutierrez Nikolaeva, 2017)

4.3.3. Schedule Control

The schedule control procedure establishes the way in which the project activities will be monitored in order to update the project progress. It also defines how changes will be managed to the schedule baseline. This procedure allows the team to recognize alterations from the scheduled time and take corrective or preventive actions to minimize risks and consequences of a predictable effect.

The approved schedule baseline can be changed through the **Perform Integrated Change Control process** and only after the impact on the project constrains has been assessed.

The project schedule itself will be reviewed and updated as necessary when provided with additional information. I such cases, the team should meet to review the possible impact of any change to the schedule.

The project manager will keep track of the project schedule changes and the reporting of schedule status to the necessary stakeholders.

4.3.3.1 Performance reviews

The project schedule will be controlled by performance reviews based on the tracking made using a project management software. The comparison provided by the software between the planned dates and the actual dates is very useful to measure and analyze the performance and the remaining time of the project. By using the software, it is also possible to determine and forecast the consequences and effects of changes in the schedule model.

The **Critical Chain Method** will allow to help determine the schedule status by comparing the amount of buffer remaining to the amount of buffer needed to protect the delivery date.

Scheduled reviews will be included as part of the **monthly meetings** topics (please refer to **Appendix 8**) with the project team, in order to review the status of the project and perform a comparison between actual vs. planned dates.

The project team will document all the data monitored to provide the best Work Performance Information possible, pursue Schedule Forecasts, and of course update the existing files for the benefit of future projects.

4.3.3.2 Schedule performance reporting

The schedule performance will be reported by the project manager during the monthly project meetings.

4.3.3.3 Schedule Management Plan Approval

By signing below, I, Max Gutierrez Sanchez in my capacity as Project Sponsor approve of this Schedule Management Plan.

Name:

Title:

_____   _____

Signature   Date Approved

4.4. Project Cost Management

The cost management plan is a component of the project management plan. It describes how the project costs will be planned, structured, and controlled. The plan was created using a modified template.

This Plan has the objective of defining the tools and techniques that will be used to manage the costs associated with the Cavan Studio Improvement Project throughout all the time this will last. The conditions and norms by which the project will be measured, reported and controlled have been set.

4.4.1. Process description and importance

The Cost Management Plan establish the procedures for planning, managing, expending and controlling project costs. In this part, the costs needed to complete the activities determined for the project are presented along with a method to track

and control them. Actual costs and cost variances must be reported on regular basis, any cost changes over 5% requires project sponsor approval.

The Cost Management Plan, which is progressively elaborated, will aim to achieve the following key information that will be used as base to further define the final project budget:

- Activity cost estimates with high level of precision based on scope.
- Accurate and realistic cost estimates, including contingencies.
- Well-defined control accounts in the WBS, to be developed and agreed for the execution phase.
- Appropriate control threshold to monitor performance and any variance that may occur.

4.4.2. Tools and techniques

The technique to be used in the project cost management plan is mostly expert judgement guided by the historical information of similar endeavors and the expertise in the application and knowledge area, nevertheless another technique is the participation of all engaged stakeholders, all of above guided by the knowledge acquired during this Master studies.

Meetings will be held in order to develop this plan and the participation of all stakeholders is expected. The participation of experts is scheduled for these meetings, in order to have valuable insight and use their lessons learned and their knowledge about the processes to establish the cost management plan.

4.4.3. Activity cost estimates

This process will determine the amount of cost required to complete the project work based on the previously defined list of activities.

As cost estimates are mostly a prediction the process to define them needs to analyze thoroughly all the information available and consider the probability of risks and trade-offs that might appear. The right amount of detail will be required to

increase the level of accuracy of the estimation thus increasing the probability of project success.

Parametric estimation can be applied as a technique for cost estimates, since it uses statistical relationship between relevant historical data and other variables. There is historical information related to the durations of each activity in days and months (the schedule can be elaborated taken into consideration that X amount of days used for the activity per month). The model is quite simple, it can also only takes into consideration the amount of courses per resource and the cost per month.

A **cost management reserve**, amount of the project budget withheld for management control purposes and reserved for unforeseen work that is within the scope of the project, is considered. The management reserve is not included in the cost baseline but is part of the overall project budget and funding requirements.

4.4.4. Activity Cost List

Based on the WBS, the following costs for work packages have been identified.

Chart 25 Activity Cost List per WBS (Source: O. Gutierrez Nikolaeva, The Author, October 2017)

Activity ID No.	Activity Name	Cost ($)
1.	**Information Gathering and Analysis**	**200**
1.1.	Client skills and gaps analysis	100
1.2.	Staff professional development needs analysis	50
1.3.	Customer Satisfaction Baseline	50
2.	**Balance Scorecard (Key Performance Indicators)**	**450**
2.1.	Customer satisfaction key indicators	100
2.2.	Employee skills key indicators	100
2.3.	Strategy map	100

2.4.	Industry best practices (including CSR)	150
3.	**Client Satisfaction System and Survey (CSAT)**	**400**
3.1.	Survey questions and distribution channel	100
3.2.	Method to identify and track survey gaps	50
3.3.	Client Satisfaction Plan	250
4.	**Client and Staff Development**	**800**
4.1.	Training Plan for Clients	350
4.2.	Staff Professional Development Plan	400
4.3.	4.3. Method to identify and track training gaps	50
5.	**Reward System for Employees**	**400**
5.1.	Method to establish and follow the reward system	100
5.2.	Compensation system based on team work	150
5.3.	Recognition system based on individual goals	150
6.	**Project Management Plan**	**1750**
6.1.	Scope Management Plan	750
6.2.	Time Management Plan	250
6.3.	Cost Management Plan	250
6.4.	Quality Management Plan	250
6.5.	Risk Management Plan	250
	Total Project Cost For the Planning Phase	**$4000**

Additionally an estimated activity cost list is created for the project execution section that focuses mainly on investing in client and employee development. The client trainings calculation is based on a minimum of four participants as worst-case scenario but ideally being able to have more participants in order to balance staff trainings budget.

Chart 26 Activity Cost List for the execution phase (Source: O. Gutierrez Nikolaeva, The Author, October 2017)

Activity ID No.	Activity Name	Cost ($)
7.	**Project execution**	**-200**
7.1.	First Client Satisfaction Survey release	0
7.2.	Second Client Satisfaction Survey release	0
7.3.	Customer Satisfaction Survey analysis	-100
7.4.	Client trainings (1st quarter)	+90
7.5.	Client trainings (2nd quarter)	+90
7.6.	Client trainings (3rd quarter)	+90
7.7.	Client trainings (4th quarter)	+90
7.8.	Professional Development trainings (1st quarter)	-400
7.9.	Professional Development trainings (2nd quarter)	-400
7.10.	First Employee Satisfaction Survey release	0
7.11.	Trainings analysis	-150
7.12.	Professional Development trainings (3rd quarter)	-400
7.13.	Professional Development trainings (4th quarter)	-400
7.14.	Second Employee Satisfaction Survey release	0
7.15.	Trainings analysis	-150
7.16.	Reward System for Employees	-100
	Total Project Cost For the Execution and Control Phase	**-$1940**

4.4.5. Project Budget

After having the necessary information the project team can assign an estimated cost for each activity and control account to establish a well-defined cost baseline ready to be authorized as final project budget.

To accomplish the project budget the following techniques are applied:

Cost aggregation: The estimates cost for each activities are aggregated by work packages until the higher components until the entire project budget is calculated.

Reserve analysis: Budget reserve established for management reserve.

Historical relationships: Results of the parametric estimates to predict total project costs.

4.4.6. Cost Control procedure

The cost control procedure establishes the way in which the project budget will be monitored in order to update the project progress and manage changes to the cost baseline if required. Proper knowledge of actual costs spent allows recognizing variances and updating the budget when necessary.

To manage the cost baseline it is important to apply the following techniques, which will produce work performance information:

Earned Value Management (EVM): It is a methodology that combines scope, schedule and resource measurements to assess project performance and progress. The team will be able to integrate the scope baseline, cost baseline and schedule baseline to produce the performance measurement baseline to monitor and develop each work package and control account. The main measure to be used are:

- **Planned value (PV):** It refers to the value of the work planned to be completed to a point in time. It is the budget assigned to the work for an activity or WBS component.

- **Earned value (EV):** This refers to the planned value of all the work completed to a point in time, usually the data date is used, without reference to actual costs. This is the sum of all the planned value of completed work.

- **Actual cost (AC):** This is the actual cost of all the work completed to a point in time, usually the data date. It is the amount of money or resources that have been spent on the project to date.

- Therefore the cost variance is **CV: (EV-AC)** and the schedule variance is **SV: (EV-PV)**

To-Complete Performance Index (TCPI): is a measure of the cost performance that is required to be achieved with the remaining resources in order to meet the specific management goal, expressed as the ratio of the cost to finish the outstanding work to the remaining budget. The equation that will be used is: **BAC: (BAC – EV) / (BAC – AC)**

In case that the BAC (Budget at Completion) is no longer viable, the team will evaluate if to replace it with the forecasted EAC as follows: **EAC: (BAC – EV) / (EAC – AC)**

Performance reviews: compare cost performance over time, schedule activities or work packages overrunning and underrunning the budget, and estimated funds needed to complete the work in progress. The variance at completion is calculated using the following formula: **VAC: (BAC-EAC)**

MS Project: with the use of this Project Management software, the team will be able to monitor the three EVM dimensions (PV, EV, and AC). Additionally an Excel file template is provided for EVM calculations as shown in **Chart 27**.

Reserve analysis: this technique, used to estimate the project costs and to define project budget, will be used as well to monitor status of the management reserves for the project to determine if these reserves are still needed or if additional reserves need to be requested.

Scheduled reviews will be included as part of the **monthly meetings** topics (please refer to **Appendix 8**) with the project team, in order to review the status of the project and perform a comparison between actual vs. planned costs, monitor unplanned requirements such as equipment, staff, or consulting resources.

Attention will be payed to the possible causes of variances such as evolution of requirements, approved change requests, operational problems and faulty estimation.

The project manager will keep track of the project cost changes and budget reporting status to the necessary stakeholders.

The project team will document all the data monitored to provide the best Work Performance Information possible, pursue Cost Forecasts, and of course update the existing files for the benefit of future projects.

Chart 27 Earned Value Analysis template (Source: O. Gutierrez Nikolaeva, The Author, October 2017)

Activity ID No.	Activity Name	Cost ($)		Month	Month	Month	Month
7.	**Project execution**		PV				
			AC				
			EV				
7.1.	First Client Satisfaction Survey release	0	PV				
			AC				
			EV				
7.2.	Second Client Satisfaction Survey release	0	PV				
			AC				
			EV				
7.3.	Customer Satisfaction Survey analysis	-100	PV				
			AC				
			EV				
7.4.	Client trainings (1st quarter)	+90	PV				
			AC				
			EV				
7.5.	Client trainings (2nd quarter)	+90	PV				
			AC				
			EV				
7.6.	Client trainings (3rd quarter)	+90	PV				
			AC				
			EV				
7.7.	Client trainings (4th quarter)	+90	PV				
			AC				
			EV				
7.8.	Professional Development trainings (1st quarter)	-400	PV				
			AC				

			EV				
7.9.	Professional Development trainings (2nd quarter)	-400	PV				
			AC				
			EV				
7.10.	First Employee Satisfaction Survey release	0	PV				
			AC				
			EV				
7.11.	Trainings analysis	-150	PV				
			AC				
			EV				
7.12.	Professional Development trainings (3rd quarter)	-400	PV				
			AC				
			EV				
7.13.	Professional Development trainings (4th quarter)	-400	PV				
			AC				
			EV				
7.14.	Second Employee Satisfaction Survey release	0	PV				
			AC				
			EV				
7.15.	Trainings analysis	-150	PV				
			AC				
			EV				
7.16.	Reward System for Employees	-100	PV				
			AC				
			EV				
Total Project Cost For the Execution and Control Phase		**-1940**					
BAC							
Total PV							
Accumulated PV							
Total AC							
Accumulated AC							
Total EV							
Accumulated EV							
SV							
Accumulated SV							
CV							
Accumulated CV							
SPI							
Accumulated SPI							
CPI							

	Accumulated CPI						
	BAC						
	EAC if CPI is the same						
	Forecast left cost						
	EAC						
	Week						
	Project Duration						
	New Duration						
	Expected left weeks						
	Forecast left weeks						
	SV%						
	CV%						
	ETC (cost)=(BAC-EV)/CPI						
	TCPI=(BAC-EV)/(BAC-AC)						
	TCPI=(BAC-EV)/(EAC-AC)						
	VAC						
	VAC%						

4.4.7. Cost change management process description

The reserve analysis, the review of progress reports, results of performance measures, and modifications to the project scope or project budget may result in change requests to the cost baseline, scope baseline, and/or other components of the project management plan.

Actual costs and cost variances must be reported on regular basis to oversight committees, any cost change over 5% requires project sponsor approval. To create an appropriate cost management plan the previous information provided in this document should be considered.

Any type of change request will be processed for review and disposition through the **Perform Integrated Change Control process** and only after the impact on the project constrains has been assessed.

4.4.8. Cost Management Plan Approval

By signing below, I, Max Gutierrez Sanchez in my capacity as Project Sponsor approve of this Cost Management Plan.

Name:
Title:

_____   _____

Signature   Date Approved

4.5.   Project quality management

The quality management plan is a component of the project management plan. It describes how the organization's quality policies will be implemented and how the project management team plans to meet the quality requirements set for the project. The plan was created using a modified template taken from the PMI website in the Tools & Templates section.

4.5.1. Purpose of the Quality Management Plan

The Project Quality Management Plan documents the necessary information required to effectively manage project quality from project planning to delivery. It defines a project's quality policies, procedures, criteria for and areas of application, and roles, responsibilities and authorities.

The Project Quality Management Plan is created during the Planning Phase of the project. Its intended audience is the project manager, project team, project sponsor and any senior leaders whose support is needed to carry out the plan.

The seven quality tools defined by the PMBOK and that the project team can use in this project are:

1. Cause and effect diagrams: helps find the causes for a problem statement. Recommended to use in meeting to find a root cause for an issue.

2. **Flowcharts:** also known as process maps, an example is the Critical Path Method.

3. **Checksheets:** facilitate the collection of useful data, an example are the scoreboards used in this project.

4. **Pareto diagrams:** form of vertical bar chart used to identify the vital few sources that are responsible for causing most of a problem's effects. Recommended to analyze new data.

5. **Histograms:** special form of bar chart used to describe the central tendency, dispersion, and shape of a statistical distribution. Recommended for new data analysis.

6. **Control charts:** line charts used to determine if a process is stable or has a predictable performance. Can be used to monitor schedule and cost variances.

7. **Scatter diagrams:** plot ordered pairs (X,Y) used to find correlations. Recommended for data analysis.
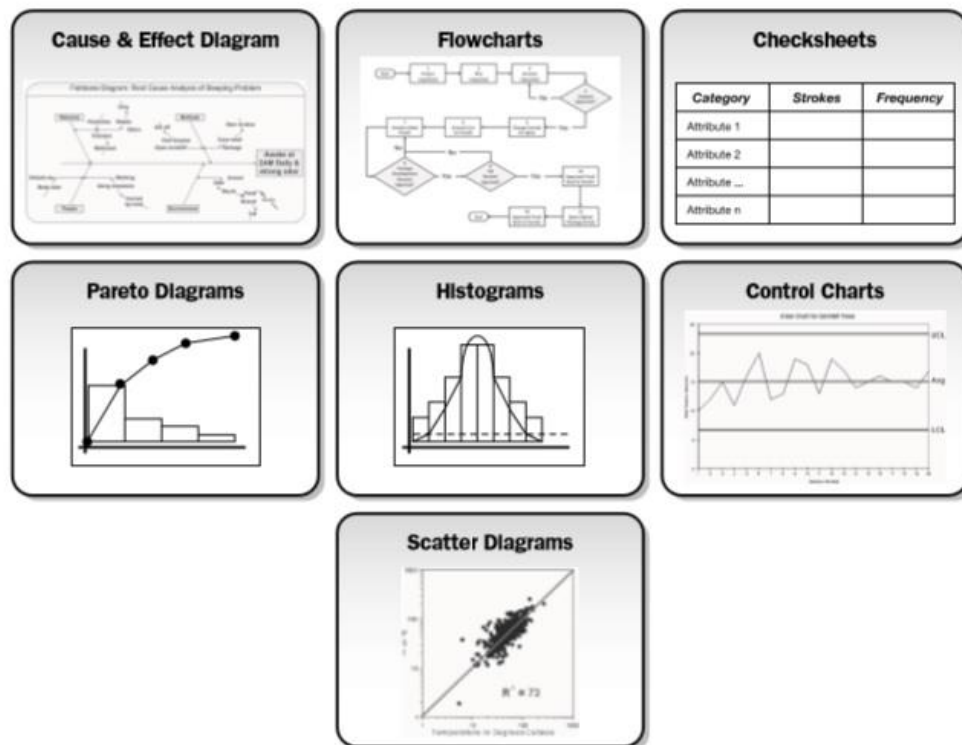
Figure 37 The Seven Basic Quality tools. (Source: PMI, 2013, PMBOK, p.239)

The project manager and the project team define metrics and use them to measure quality throughout the project life cycle for services and processes by analyzing the retrieved data. This allows identifying, **benchmarking** and implementing quality improvements.

4.5.2. Project Quality Management

At the highest of levels, Quality Management involves planning, doing, checking, and acting to improve project quality standards. PMI PMBOK breaks the practice of Quality Management into three process groups: Quality Planning (QP), Quality Assurance (QA) and Quality Control (QC). The following sections define how this project will apply each of these practice groups to define, monitor and control quality standards.

4.5.2.1 Quality Planning

Throughout this Project Management Plan, a series of quality standards and expectations have been defined. With them, a series of tools and template have been created with a clear description on how they will be applied and their relation to the control process. Examples of these are:

- Requirements verification matrix (**Chart 8**)
- Scope verification (**Chart 11**)
- Deliverables acceptance and Rejection log (**Chart 13**)
- Work Performance Data gathering
- Variance Analysis
- Change request log (**Chart 15**)
- Employee Satisfaction Survey scorecard (**Chart 21**)
- Rewards scorecard (**Chart 22**)
- Balanced Scorecard (**Figure 35**)
- PERT analysis (**Chart 24**)
- Monthly meetings template (**Appendix 8**)

- Earned Value Analysis template (**Chart 27**)

By tracking the mentioned files, the project team is able to understand the status of quality and consider if preventive actions are required.

These documents will also provide a quantity of metrics that can be used in different combinations to understand the quality of each work package and delivery from different angles.

The defined high-level metrics can be seen in the chart below:

Chart 28 Quality metrics (Source: O. Gutierrez Nikolaeva, The Author, October 2017)

Business objectives	Metrics/KPIs	Targets
Increase rents/ improve cash flow	# of rents	5 Mon-Thu, 6 Fri 11 Sat-Sun
Improve productivity	Rewards received % bands/trimester	50% as team, 50% of individuals 48 visiting bands (10% increase)
Client satisfaction	% of client satisfaction	>=90% or increased by 5%
Brand strength via client trainings	# of client trainings completed	2 per quarter, at least 50% completed
Customer service	% of client satisfaction % in survey categories	>=90% or increased by 5% Categories from the survey up by 5%
Improve operational efficiency	% in survey categories % of project on track	80%
Staff trainings/ employee skills	# of trainings completed	2 biannually, at least 50% completed
Employee satisfaction	% of employee satisfaction	>=85% or increased by 5%
Reward system to align goals	Rewards received	50% as team, 50% of individuals

Once the project is coming to an end, the review of the project deliverables is a must. For this case, the below table will be used.

Chart 29 Deliverables and Acceptance Criteria (Source: O. Gutierrez Nikolaeva, The Author, October 2017)

Deliverables	Acceptance Criteria/Applicable Standards
1.	
2.	
3.	

4.5.2.2 Quality Assurance

Quality assurance seeks to provide the confidence that the project quality is in fact being met and has been achieved. In order to provide such confidence, the project team needs to gather the necessary data to demonstrate such fact.

Quality is an iterative process where the project team measures process metrics, analyzes process data, and continuously improves the processes.

The seven quality management tools defined by the PMBOK that the project team can use in this project to confirm quality are:

1. **Affinity diagrams:** similar to mind-mapping techniques where ideas generate and link further to form organized patterns. This is highly recommended for meetings.

2. **Process decision program charts (PDPC):** used to understand the goal in relation to the steps to reach it. This is highly recommended for contingency planning.

3. **Interrelationship diagraphs:** creative problem solving in moderate complex scenarios that possess intertwined logical relationships for up to 50 relevant items. Recommended for meetings.

4. **Tree diagrams:** used to represent decomposition hierarchies such as the WBS.

5. **Prioritization matrices:** used to identify key issues and the suitable alternatives to be prioritized as a set of implementation decisions. Recommended for data analysis.

6. **Activity network diagrams:** network diagram, used with the PERT technique.

7. **Matrix diagrams:** control tool used to perform data analysis by seeking the strength of relationships.
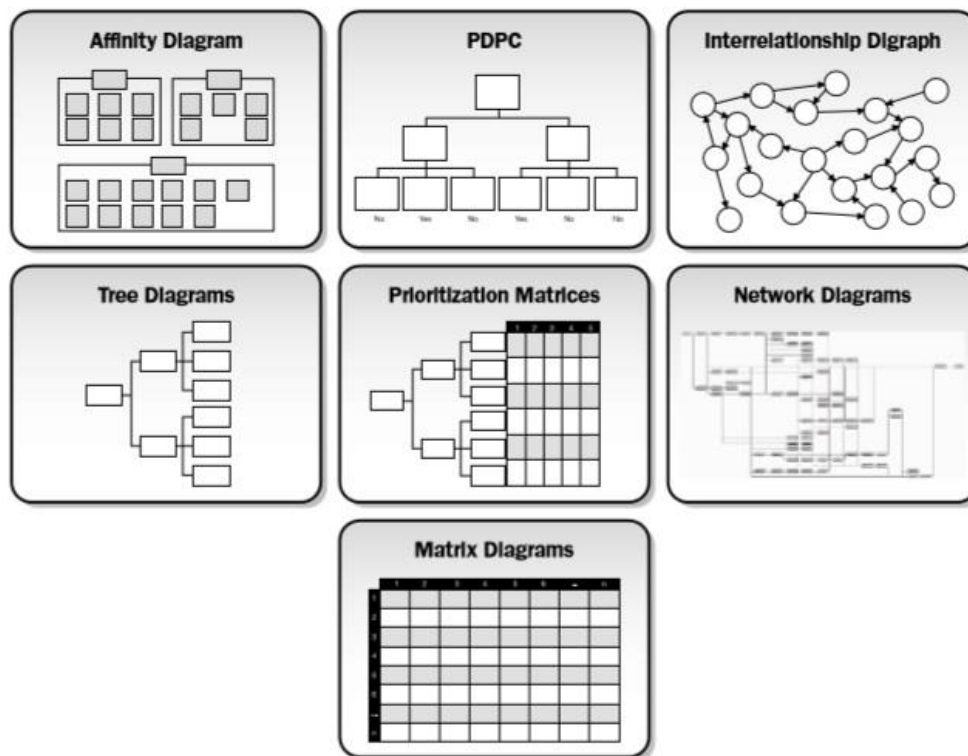
Figure 38 The Seven Quality Management tools. (Source: PMI, 2013, PMBOK, p.246)

The project manager will perform monthly assessments or **audits** to ensure all processes are being correctly implemented and executed. Using the different project scorecards, we can find enough information to track progress, find gaps between current and desired levels of performance, and plan contingency measures if required. Any discrepancies will be reviewed in the monthly meetings.

Process analysis and improvement is another aspect of quality assurance. The objective is to examine the experienced issues and suggest an improvement or preventive action as a way to eliminate unsatisfactory performance.

4.5.2.3 Quality Control

Monitoring and controlling actions that will be conducted to control quality throughout the project's life and that will determine that quality standards comply with the defined standards outlined earlier in this document.

The project manager is in charge of inspecting and reporting in order for the deliverables to meet the acceptance criteria against the previously set baselines.

The project manager will keep track of the project quality standards for both services and processes. The inspection should happen in a monthly basis.

Any type of change request will be processed for review and disposition through the **Perform Integrated Change Control process** and only after the impact on the project constrains has been assessed.

The project team will document all the data monitored to provide the best Work Performance Information possible, spot areas for improvement and update the existing files for the benefit of future projects.

Chart 30 Lessons Learned template (Source: O. Gutierrez Nikolaeva, The Author, October 2017)

Project:				
Client/PM:				
Type of job:				
Location:				
Date:				
Knowledge Area	Lesson learned that worked	What worked well recommen-dations	Lesson learned that did not worked	What did not worked well recommend-dations

Scope	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2.
Schedule	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.
Cost	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.
Quality	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.
Risk Manage-ment	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.

4.5.2.4 Quality Management Plan Approval

By signing below, I, Max Gutierrez Sanchez in my capacity as Project Sponsor approve of this Quality Management Plan.

Name:

Title:

_____   _____

Signature   Date Approved

4.6. Project Risk Management

The risk management plan is a component of the project management plan. It describes how risk management activities will be structured and performed. The plan was created using a modified template taken from the PMI website in the Tools & Templates section.

All projects have risks, therefore it is of high importance to be able to analyze the data available and consult with experts in order to identify the causes of potential risks that might appear during the project life cycle for the project team to be able to take the necessary actions at the right time.

There are different types of risks: known, unknown, positive (opportunities), negative (threats), etc. The organization should be committed enough to address risk management proactively and consistently to be successful in achieving the project's objectives. Careful and explicit planning enhances the probability of success.

High probability and high impact risks are defined in the project charter and followed up during project planning with the help of expert judgement and meetings. As the project progresses residual risks or new risks will appear especially when combining the stakeholder matrix with the overall project context. Identifying risks is an iterative process and therefore the project manager should be able to keep a proper track of potential risk changes or novelties.

4.6.1. Probability and Impact Scales

The quality and reliability of the risk analysis requires performing a proper assessment of the probability and impact of each of the identified risks.

Probability: investigates the likelihood that each specific risk will occur.

Impact: investigates the potential effect on a project objective such as schedule, cost, quality, or performance (including both negative effects for threats and positive effects for opportunities).

Assumptions were considered to define and justify the levels assigned to the probability and impact scales.

Chart 31 Probability Scale (Source: O. Gutierrez Nikolaeva, The Author, October 2017)

Probability Scale	Rate of Occurrence	Descriptor
<10%	Less than once in 4+ months	Very Low
10% to 30%	Once every 2 months	Low
30% to 50%	Once a month	Moderate
50% to 70%	Once a week	High
70% to 90%	More than once a week	Very High

Chart 32 Impact Scale (Source: O. Gutierrez Nikolaeva, The Author, October 2017)

Schedule	Cost	Scope	Impact Scale	Scale Definition
< 1 weeks (wks)	< 1%	Minimal	**0.5**	Very Low
1 wks to 2 wks	1% to 2%	Minor areas	**1**	Low
3 wks to 6 wks	3% to 5%	Major areas	**2**	Moderate
6 wks to 12 wks	6% to 10%	Unacceptable to sponsor	**5**	High
>12 wks	>10%	Project abandoned	**10**	Very High

4.6.2. Probability and Impact Matrix

A probability and impact matrix is a grid for mapping the probability of each risk occurrence and its impact on project objectives if that risk occurs. Risks are prioritized according to their potential implications for having an effect on the project's objectives.

		Impact				
		0.5	1	2	5	10
Probability	10%	0.05	0.10	0.20	0.50	1.00
	30%	0.15	0.30	0.60	1.50	3.00
	50%	0.25	0.50	1.00	2.50	5.00
	70%	0.35	0.70	1.40	3.50	7.00
	90%	0.45	0.90	1.80	4.50	9.00

Figure 39 Probability and Impact Matrix (Source: O. Gutierrez Nikolaeva, The Author, October 2017)

4.6.3. Risk Register

The Risk Register is a document used to record any risk-related activity that will have an impact (positive or negative) on any project, it reflects the **qualitative analysis** performed by the team in order to identify risks. It is recommended to maintain this document and update it throughout the project life cycle whenever more details come into play, since failing to do so might drive the project toward failure.

The Perform Qualitative Risk Analysis process within the Project Risk Management is prioritizing risks for further analysis or action by assessing and combining their probability of occurrence and impact. One of the most important lessons of the risk management processes application is to reach consensus of both the probability and impact scales and its corresponding definitions within the project team in charge of risk management, this way, the final risk prioritization is agreed upon by everyone.

Brainstorming is the most useful tool used for the risk identification process, it is important to mention that project team members must not be conditioned or suggested by any means to restrict the type of risk to propose and assessment of such ideas should not take place during the initial brainstorming session. Total freedom during the brainstorming session to assure sufficient amount of information.

Constraints and assumptions analysis is key to identify risks that may originate from inaccuracy, instability, inconsistency, or incompleteness.

As recommended by the PMBOK 5th version, each team member and stakeholder´s risk approach should also be assessed, allowing the project manager to identify bias during the risk assessment and pay special attention to it or correcting it if necessary.

The Risk Register below has the following elements:

- **Risk ID:** This is a unique ID given to each identified risk.
- **Risk Description:** A brief description of the risk identified.
- **Risk Cause:** A brief description of what caused or may trigger the risk.
- **Risk Consequence:** The possible effects if the risk will happen.
- **Risk Probability:** The probability of a particular risk happening (this needs to be entered as a percentage without the percentage symbol).
- **Risk Impact:** A rating from 1 to 10, where 1 is considered the lowest impact and 10 is the highest impact.
- **Risk Value (PxI):** This is automatically calculated based on the values entered in the Risk Impact and Risk Probability columns (Risk Impact x Risk Probability/100).
- **Risk Type:** Positive or negative.
- **Risk Response:** Based on the Risk Type (positive/negative), the risk response will vary (for negative risks, the options are Avoid, Mitigate, Transfer and Accept; for positive risks, the options are Exploit, Share, Enhance and Accept).
- **Risk Owner:** The name of the person who will be responsible for following up that particular risk and taking necessary response strategies (to be updated during project execution).
- **Status:** The status of the risk. There are three options given by default: Open, Complete and In Progress.

The Risk Register, in **figure 40**, lists the identified risks and for each risk, it outlines the associated cause, consequence, probability, impact, trigger and owner.

Project Title: Cavan Studio Improvement Project											
Start Date: 11.09.2017					End Date: 09.12.2018						
Project Sponsor: Max Gutierrez Sanchez					Project Manager: Olga Gutierrez Nikolaeva						
Risk ID	Category	Risk Description	Risk Cause	Risk Consequence (insignificant, minor, moderate, major, catastrophic)	Risk Probability (%)	Risk Impact (1-10)	Risk Value (PxI)	Risk Type (+/-)	Risk Response (Avoid, Mitigate, Transfer, Exploit, Share, Enhance, Accept)	Risk Owner	Status (open, complete, in progress)
1	High-level	If the required information is not received in time, it might affect the quality of the project deliverables.	Faulty organization, response time, external factors	Moderate	20	2	0.4	Negative	Mitigate	Project manager	In Progress
2	High-level	If the company does not follow the established schedule this might affect the outcome of the deliverables.	Faulty organization, external factors	Major	40	4	1.6	Negative	Mitigate	Project manager	Open
3	High-level	If some data will be very difficult to acquire this might affect the costs and schedule calculations and overall plan.	Accesibility	Moderate	15	1	0.15	Negative	Avoid	Project manager	Complete
4	High-level	Training materials and/or equipment are not available.	Data provided on specific periods	Moderate	10	1	0.1	Negative	Transfer	Project manager	Open
5	High-level	Scope, schedule and cost changes.	Unclear expectations	Major	10	1	0.1	Negative	Mitigate	Project manager	In Progress
6	Planning	The installations and necessary equipment are not available for the trainings.	Faulty organization, external factors	Minor	15	3	0.45	Negative	Transfer	Project team	Open
7	Planning	Client satisfaction survey response is low.	Survey is too long	Moderate	50	7	3.5	Negative	Mitigate	Project manager	Open
8	Planning	Schedule changes due to natural causes or unexpected events.	Climate change	Minor	20	2	0.4	Negative	Accept	Project team	Open
9	Planning	Lack of qualified training facilitators.	Unsufficient research	Minor	10	1	0.1	Negative	Transfer	Project manager	Open
10	Planning	Innapropriate communication of project objectives.	Lack or proper approach or management	Moderate	40	4	1.6	Negative	Mitigate	Project team	Open
11	Planning	Reward targets are not reached.	Unknown, research needed	Major	70	6	4.2	Negative	Mitigate	Project manager	Open
12	Planning	Customer satisfaction target is not reached.	Unknown, research needed	Major	80	8	6.4	Negative	Mitigate	Project manager	Open

13	Planning	Employee satisfaction target is not reached.	Unknown, research needed	Moderate	70	7	4.9	Negative	Mitigate	Project manager	Open
14	Schedule	Training is cancelled.	External factors	Moderate	50	5	2.5	Negative	Transfer	Project team	Open
15	Schedule	Training delays.	Faulty organization, external factors	Moderate	60	6	3.6	Negative	Transfer	Project team	Open
16	Cost	Incorrect budget calculation.	Prices or exchange rate change drastically during the project's duration, funding was innacurate, budget overruns	Major	50	7	3.5	Negative	Transfer	Project manager	Open
17	Cost	Rewards are not paid in time.	Lack of budget, improper funding/planning by management	Major	75	6	4.5	Negative	Mitigate	Project team	Open
18	Cost	Training price was reduced.	Updates in offer	Moderate	10	5	0.5	Positive	Exploit	Project team	Open
19	Stake-holder	Inappropiate change control procedure.	Poject team does not follow the process	Minor	60	3	1.8	Negative	Mitigate	Project team	Open
20	Stake-holder	Clients do not participate in trainings.	Time constraints, lack of marketing	Moderate	65	7	4.55	Negative	Mitigate	Project manager	Open
21	Stake-holder	Employees miss the scheduled trainings.	Faulty organization, external factors	Minor	25	4	1	Negative	Transfer	Project team	Open
22	Stake-holder	Employees lack clear information about the reward system.	Lack or proper approach or management	Moderate	40	4	1.6	Negative	Mitigate	Project team	Open
23	Stake-holder	Musicians visiting the studio can give a session.	Location advertising, good networking	Moderate	30	4	1.2	Positive	Accept	Project team	Open
24	Stake-holder	There are many clients who would like to receive the trainings.	Good marketing	Major	20	4	0.8	Positive	Accept	Project team	Open
25							0				
26							0				
27							0				
28							0				
29							0				
30							0				

Figure 40 Risk Register (Source: O. Gutierrez Nikolaeva, The Author, October 2017)

As shown, a thorough analysis delivered more insight in the identification and statement of threats, opportunities, probabilities, impacts, reserves and response strategies.

After careful analysis of the risk register, eight risks have been identified to have the higher probability and impact in the project. The following are:

- 12. Customer satisfaction target is not reached. (Planning, Pxl=6.4, threat)
- 13. Employee satisfaction target is not reached. (Planning, Pxl=4.9, threat)
- 20. Clients do not participate in trainings. (Stakeholder, Pxl=4.55, threat)
- 17. Rewards are not paid in time. (Cost, =4.5, threat)
- 11. Reward targets are not reached. (Planning, Pxl=4.2, threat)
- 15. Training delays. (Schedule, Pxl=3.6, threat)
- 07. Client satisfaction survey response is low. (Planning, Pxl=3.5, threat)
- 16. Incorrect budget calculation. (Cost, Pxl=3.5, threat)

Due to their priority, a major focus will be put on finding the necessary contingency measures in case of the event occurrence.

The project team will be in charge of gathering performance data such as status reports, progress measurements, issue logs and forecasts. Data will be collected periodically and timely distributed to key stakeholders during monthly meetings or earlier if urgent, and later transformed into comprehensive Work Performance Information for decision-making and processes adjustments. In case of an issue, the project team should meet in order to review if the issue has been already considered or if there is a need to perform a root-cause analysis in order to understand the nature and impact of the problem and adjust to the corresponding actions.

The use of an issue log during monthly meetings, please refer to **Appendix 8**, is necessary to document and monitor the resolution of issues which will facilitate the communication and understanding of issues according to each case, as well as

helping to understand who is responsible for solving those issues by the target date.

4.6.4. Risk Response Plan and Risk Control

The team will develop specific action for each risk as well as a **fallback/contingency plan** for implementation in case the strategy is not fully effective or if an accepted risk occurs. While planning each strategic action, a list of secondary risk must be drafted and properly documented.

As part of the Risk Control, the team will schedule periodical review meetings to perform **risk re-assessments** and **audits** in which the major risks should be evaluated, new risks analyzed, and the 3 risks from the risk register with less probability of occurrence that were added to a watch list will be monitored.

By applying the **modeling and simulation technique**, which is a simulation model that uses the Monte Carlo technique, the team will be able to perform a **quantitative analysis** and control risks by translating the new inputs and specified detailed uncertainties of the project into their potential impact on project objectives.

The **Monte Carlo technique** is a process that generates hundreds of probable performance outcomes based on probability distributions using cost and schedule estimates. With this variance and trend analysis, the team will be able to compare planned to actual results and take appropriate measures in case of unexpected or expected changes. If a contingency reserve is used, a **reserve analysis** must take place to determine if the remaining reserves are adequate.

By project closure, the project team should run a last review of the risk identification checklists and outcomes in order to incorporate it in the lessons learned documents.

4.5.2.5 Risk Management Plan Approval

By signing below, I, Max Gutierrez Sanchez in my capacity as Project Sponsor approve of this Risk Management Plan.

Name:

Title:

_____   _____

Signature   Date Approved

5   CONCLUSIONS

1. The Project Management Plan for the Cavan Studio Improvement Project was created using several research methods, learnings acquired during the master studies, and the fifth edition of the PMBOK® Guide as main source of knowledge. This plan provided a clear structured approach for the development and growth of the company, and sets a benchmark for future projects.

2. The project charter was the main element of the Integration Management Plan, it is a key document, result of data analysis, which formally authorized the project and provided all the high-level information necessary for this FGP. It is the basis document to validate and control all core topics related to the project.

3. The Scope Management Plan allowed to define and validate the overall project scope by integrating important elements such as the Requirements Management Plan, Work Breakdown Structure, Client Satisfaction Plan, Trainings for Client Development, Professional Development Training Plan, Reward System for Employees, Balanced Scorecard, and Corporate Social Responsibility recommendations. This plan included all the necessary work to ensure a successful completion of the project in the organization.

4. The Schedule Management Plan provided the project team with the information regarding the project activities, their durations and provided different methods to perform further calculations as the schedule is progressively elaborated. The plan also included several tools that the project team should use to execute and control the project in order to finish it within the expected time constraints. Thanks to this plan the project can be controlled and completed within the expected time frame.

5. The Cost Management Plan provided the project team with the essential activity costs for the execution phase, the plan also described the necessary procedures and tools to be used, such as the Earned Value Analysis template, for the team to be able to execute, monitor, control and finish the project within the approved

project budget. This plan was created to respect and manage the project budget appropriately.

6. The Quality Management Plan was created in order to guarantee the project would be completed within the necessary quality standards. The project team was provided with a list of basic quality tools, quality management tools, and quality metrics that should allowed them to analyze the relations within several documents across the Project Management Plan for quality execution and quality control. A Lessons Learned template was also attached. All these documents contain important information that can be used as reference for future projects in the organization.

7. The Risk Management Plan provided the team with tools and techniques such as the Probability and Impact calculations, Risk Register analysis and Risk Response and Control approach in order to identify risk and take the necessary actions to manage the project. This plan was created to help minimize and react appropriately to risk management activities in the project in order to complete the project within its constraints.

8. The Balanced Scorecard (BSC) will be one of the key sources for Cavan Studio as it provides a comprehensive and structured picture of business operations that will help improve their strategic planning, organizational alignment, management of information and performance reporting. The BSC links concrete company targets to specific objectives, which are as well linked to their respective perspectives (financial, customer, internal business processes and growth), and specifies the initiatives that the company will perform to achieve such objectives. The Balanced Scorecard also defines clear Key Performance Indicators (measures) which will help identify problems, run more effective meetings, drive business execution, clarify performance expectations and hold people accountable and engaged when communicated correctly (what is important related to company strategy).

6 RECOMMENDATIONS

1. Since this is the first official project executed by Cavan Studio, the assigned project team should take some time to read the whole project management plan and reach out to the project manager in case of any doubts.

2. This Project Management Plan should be used as a source, to provide Cavan Studio with the necessary tools and techniques to be able to invest in developing talent and improve the brand by increasing client and employee satisfaction.

3. The Cavan Studio project team should aim to follow the plan as accurately as possible in order to meet the expected objectives set by the Project Sponsor.

4. Monthly meetings are highly recommended to keep track of the project charter, each of the subsidiary plans and the progress towards the completion of the project objectives.

5. The project team should also familiarize with the templates provided in each plan in order to use them appropriately.

6. It is expected that the team will progressively elaborate the plan especially in the schedule of trainings for the coming year and the balance of their respective costs. In addition, the team is expected to release the customer satisfaction survey and track the results providing an on-time analysis.

7. The reward system should be communicated to employees before activating it, in order to receive additional inputs and recommendations from these main stakeholders.

8. All data received should be analyzed in order to track progress accurately and control any unforeseen risk that might appear.

9. The project sponsor will monitor project development and will be responsible for general support if required.

10. Best practices and CSR recommendations are an effort to provide the Cavan Studio with the best organizational approach in the current market and allowed them to stand out as a brand.

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8   APPENDICES

Appendix 1: FGP Charter

PROJECT CHARTER	
Date	**Project Name:**
26.06.2017	Project Management Plan for the Cavan Studio Improvement Project
Knowledge Areas / Processes	**Application Area (Sector / Activity)**
Knowledge areas: Integration, Scope, Schedule, Costs, Quality **Process groups:** Initiating and Planning	Professional Services / Talent development and Music Production
Start date	**Finish date**
26.06.2017	10.11.2017
Project Objectives (general and specific)	

General objective:
To create a Project Management Plan for the Cavan Studio Improvement Project in order to structure the development and growth of the company as a Small/Medium Size Enterprise.
Specific objectives:
1 To develop a project charter as part of the integration management plan to formally authorize the project and provide the project manager with the authority to apply organizational resources to project activities in order to further develop the project management plan
2 To develop a scope management plan in order to define, validate and control all the work in the project
3 To develop a schedule management plan to establish all the necessary procedures and documentation for manage appropriately the project schedule within time constraints
4 To develop a cost management plan to establish all the necessary policies, procedures and documentation in order to manage appropriately the approved project budget
5 To develop a quality management plan that identifies all the necessary requirements of the project, its deliverables and all the necessary documentation required to demonstrate compliance with quality requirements and standards
6 To develop a risk management plan in order to analyze and define how to minimize and/or conduct risk management activities in the project

Project purpose or justification (merit and expected results)

The purpose of developing a Project Management Plan for Cavan Studio is to create all the necessary documents that will be used by the Project Management Team during the execution, monitoring and controlling, and closing processes of the Cavan Studio Improvement Project. Cavan Studio assigned the project manager with the task of creating a plan for the Improvement Project in order for the company to develop further as a recognized Small/Medium Size Enterprise (SME) registered by the Ministry of Economy, Industry and Commerce of Costa Rica (MEIC).

The project manager will apply the knowledge acquired during the Project Management Master studies, in order to develop a proper Project Management Plan to meet scope, time, cost, and quality constraints.
By producing an appropriate management plan Cavan Studio will be able to execute and manage the Improvement Project in order to define the company's brand and focus on a more specialized service to their customers, which will result in future growth and development opportunities.

Description of Product or Service to be generated by the Project – Project final deliverables
1 Project charter and Project Management Plan for the Cavan Studio Improvement Project
2 Scope management plan (including scope baseline, requirements, etc.)
3 Schedule management plan (including project schedule, activities, baseline, calendars, etc.)
4 Cost management plan
5 Quality management plan (including quality metrics, checklists, etc.)
6 Risk management plan (including the risk register)

Assumptions
- It is assumed that the key stakeholder will stay engaged until the end of the project.
- It is assumed that the company will allow to make the project public.
- It is assumed that all the required information can be delivered and received on time.
- It is assumed the FGP will be completed within 3 months.

Constraints
- Location: the project manager is located in Poland while the project will take place in Costa Rica.
- Stakeholder expectations: is to have results by the end of the 4th quarter of 2018.
- Time: the FGP will need to comply with the dates and time periods established by the university.

Preliminary risks
- If the required information is not received in time, it might affect the quality of the project deliverable.
- If the company does not follow the established schedule this might affect the outcome of the deliverables.
- If there is a very high workload at work this might affect the time necessary for an optimal delivery of the FPG (well-planned schedule is required).
- If some data will be very difficult to acquire this might affect the costs, schedule calculations, and overall plan.
- Time difference between the student and the tutor might delay the exchange of information and communication affecting the project schedule.
- If all data is received in time and there are not many corrections the project can be finished before the expected deadline.

Budget
The desired budget for the company is $1000-$1500.

Milestones and dates

Milestone	Start date	End date
Week 1 deliverable: FGP Charter + WBS	26.06.2017	02.07.2017
Week 2 deliverable: Introduction chapter + FGP schedule	03.07.2017	09.07.2017
Week 3 deliverable: Theoretical Framework	10.07.2017	16.07.2017
Week 4 deliverable: Methodological Framework	17.07.2017	23.07.2017
Week 5 deliverable: Final document (executive summary, indices, final bibliography, signed FGP charter)	24.07.2017	30.07.2017
Tutoring process	12.08.2017	05.11.2017
Reading by Reviewers	13.11.2017	28.11.2017
Adjustments	29.11.2017	19.12.2017
Presentation to Board of Examiners	20.12.2017	26.12.2017

Relevant historical information
Cavan Studio opened its doors in Heredia (Costa Rica) as a professional option, created by musicians for musicians, with the intention of becoming the home of bands and artists with the most varied tendencies and tastes. Cavan Studio's commercial experience includes artistic and commercial projects, both local and international, in the most diverse areas of sound and audiovisual production: from audio to videogame consoles (like PlayStation 3 and XboX) to music productions awarded by the Association of Composers and Musical Authors of Costa Rica (ACAM), through product launch and activation campaigns, artist management and the generation of content for social networks. As part of their portfolio of professional services they offer the management of projects in English, Portuguese and Spanish for: Production and Editing of Video, Image and Photography; Production of Artistic and Commercial Events; Digital Marketing; and Strategies and Management of Social Networks. In 2017, Cavan Studio became an official SME registered by the Ministry of Economy, Industry and Commerce of Costa Rica (MEIC) thanks to this achievement the company considers there is an organizational need to develop their business further. Previously the company has done some informal implementations but this is the first time they will apply a proper management plan.

Stakeholders			
Direct stakeholders: - FGP Lecturer: Carlos Brenes - FGP Tutor: Carlos Brenes Vega - Project Manager: Olga Gutiérrez Nikolaeva - Cavan Studio General Director: Max Gutiérrez Sánchez Indirect stakeholders: - Reviewers - Academic Assistants: Angela Herrera and Gabriela Zúñiga - Cavan Studio staff - Musicians - Artists - Suburban Agency - Vendors - Universidad para la Cooperación Internacional (UCI)			
Project Manager: Olga Gutiérrez Nikolaeva		**Signature:**	
Authorized by:		**Signature:**	

Appendix 2: FGP WBS

Appendix 3: FGP Schedule

Appendix 4: Stakeholder Register Matrix

Project Name: Cavan Studio Improvement Project

Main Sponsor: Max Gutierrez Sanchez

Stakeholder Register Matrix

Cavan Studio Improvement Project - Stakeholder Analysis

| ID	Stakeholders	Functional Area	Roles - Responsibilities	Main Expectations	Major Requirements	Influence/Impact (Low-Medium-High)	Additional Comments	Required trainings
1	Max Gutierrez Sanchez	General Director - Operations	Project sponsor, determine high-level requirements; approve project charter. Bidding negotiations. • Provides vision, direction, and policy leadership for the project. • Assists in removing barriers and supports change management initiatives. • Has overall authority for the project. • Maintains accountability for the management of all resources assigned to the project.	Achievement of project objectives	Follow up of the project through the project life cycle, to run and finish the project on time and on budget	High	Expected to provide a deep understanding of the business' administration. Loyal and says what he thinks looking for answers. Needs to improve confidentiality related to business information.	Business Administration Basics, Finance Basics, Legal Basics, Costumer Service Expertise, Data Privacy, Music Industry Expertise
2	Francisco Mora	Director of Operations	Supervision and administration. • Correctly use the resources that the company provides to ensure that the customer experience within the facilities is exceeded. • Owns all property's maintanance tasks (leaks, TV, Internet, phone, etc). Indirect responsability over the parking. • Point of contact between the operations department and the management. • First line responsability in the achievement of metrics established according to the resource. • Coordinate the schedule during regular operations, vacations and holidays as well. • Responsible for all daily, weekly, bi-weekly, monthly, quarterly and yearly job tasks.	Achievement of project objectives	Follow up of the project through the project life cycle, to run and finish the project on time and on budget	High	Expected to provide a deep understanding of the business' administration.	
3	Ines Fonseca	Operations - Marketing	Direct Client / Customer Service. • Owns all responsabilities over Digital Marketing Strategies, including tasks within SEO, Google MyBusiness, Facebook Business. • Responsible for achieving all daily metrics according to the resource. • Responsible for all daily job tasks. • Correct use of resources that the company provides to ensure that the customer experience within the facilities is exceeded and deliver the best costumer driven experience.	Benefits such as skill improvement	Follow up the project plans	High	Expected to improve Cavan Studio's costumer service with a female approach and an european-driven feedback. Digital Marketing Technician. Needs to transform her experience behind the receptions desk into inputs for all the Digital Media strategies.	Costumer Service Expertise, Data Privacy, Music Industry Expertise, Digital Marketing Expertise
4	Fabian Salas	Operations - Social Media	Direct Client / Customer Service. • Owns all responsibility over Social Media tasks. • Responsible for achieving all daily metrics according to the resource. • Responsible for all daily job tasks. • Correct use of resources that the company provides to ensure that the customer experience within the facilities is exceeded and deliver the best costumer driven experience.	Benefits such as skill improvement	Follow up the project plans	Medium	Expected to ensure constant impact over Social Media and convert it into sales. Loyal but needs to learn to express his feelings and definitively needs to improve on daily time organization and correct implementation of giving and receiving feedback. Tends to get depressed or to negativity easily.	Costumer Service Expertise, Data Privacy, Music Industry Expertise, Digital Marketing Expertise
5	Isbel Obregón	Operations - Parking	Direct Client / Customer Service. • Owns all responsibility over all the parking's maintanance tasks (leaks, weeds, gutter, etc). • Responsible for achieving all daily metrics according to the resource. • Responsible for all daily job tasks. • Correct use of resources that the company provides to ensure that the customer experience within the facilities is exceeded and deliver the best costumer driven experience.	Benefits such as skill improvement	Follow up the project plans	Medium	Expected to have a constant overview of property's maintaince tasks. Loyal and needs guidance on life path's. Has not yet finished High School. Watch out close friends.	
6	Jeffy Hidalgo	Operations - Events Salon	Direct Client / Customer Service. • Owns all responsibility over the Events Saloon (indirect responsability over parking tasks on days with events). • Responsible for achieving all daily metrics according to the resource. • Responsible for all daily job tasks. • Correct use of resources that the company provides to ensure that the customer experience within the facilities is exceeded and deliver the best costumer driven experience.	Benefits such as skill improvement	Follow up the project plans	Medium	Expected a constant achievement of daily tasks delivered as expected. Finish December with 2 acts per month booked for 2018's fist quarter. Loyal and can say his mind when asked personally. Tends to get depressed or to negatively easily. Has not yet finished High School.	Finish High School, Business Administration Basics, Finance Basics, Legal Basics, Costumer Service Expertise, Data Privacy, Music Industry Expertise
7	Clients (Musicians)	Business / Customers	Customers	To receive optimal costumer service and working equipment	Receive value for their money	Medium	Proximity of location is key for some of the clients, the fact that some of their friends frequent the place even just to hang out increases client fidelity	To be developed
8	Olga Gutierrez Nikolaeva	Business	In charge of the Project Management Plan. • Plans and oversees the project, and ensures that deliverables and functionality are achieved as defined in the Project Charter, funding documentation, and subsequent project plans. • Serves as the primary liaison between the project and the Project Sponsor.	Achievement of project objectives	Create a working Project Management Plan with all the necessary information to complete the project successfully	High	Works from a different location	
9	Contractors	Business	Provide services such as trainings	Business income	To agree to follow up the specific plan they were hired for	Low		
10								

Appendix 5: Client satisfaction survey (for baseline)

Dear Cavan Studio user,

Thank you for giving us the opportunity to serve you better. Please help us by taking one minute to tell us about the service that you have received so far. We appreciate your business and want to make sure we meet your expectations.

Sincerely, Max Gutierrez (General Director).

Ratings

Please give your assessment, by circling one of the numbers from one to ten (one being awful, and ten being great)

1.	Staff Professionalism	1	2	3	4	5	6	7	8	9	10
2.	Staff Knowledge	1	2	3	4	5	6	7	8	9	10
3.	Staff Helpfulness	1	2	3	4	5	6	7	8	9	10
4.	Staff Organization	1	2	3	4	5	6	7	8	9	10
5.	Rehearsal/Pre-production rooms	1	2	3	4	5	6	7	8	9	10
6.	Recording/Production rooms	1	2	3	4	5	6	7	8	9	10
7.	Rooms Equipment	1	2	3	4	5	6	7	8	9	10
8.	Common Areas	1	2	3	4	5	6	7	8	9	10
9.	Parking	1	2	3	4	5	6	7	8	9	10

Overall satisfaction

Considering your complete experience in Cavan Studio, how likely would you be to recommend our company to a friend or colleague? (0 is not at all likely, 10 is extremely likely)

10.	Recommend Cavan to Others	1	2	3	4	5	6	7	8	9	10

Please give your overall assessment by circling one of the numbers from one to ten (one being awful, and ten being great)

11.	Overall Satisfaction with Cavan Studio	1	2	3	4	5	6	7	8	9	10

Would like to share any additional comments, experiences, suggestions for improvement, please enter them below?

_____

_____

Thank you for your time!

Appendix 6: Client satisfaction survey (to be sent quarterly)

Dear Cavan Studio user,
Thank you for giving us the opportunity to serve you better. Please help us by taking a few minutes to tell us about the service that you have received so far. We appreciate your business and want to make sure we meet your expectations.

Sincerely, Max Gutierrez (General Director).

How often do you typically use our services?

- Once a week
- 2 or more times a week
- Once a month
- 2-3 times a month
- Every 2-3 months
- 2-3 times a year less often
- Do not use, I just visit

Ratings

Please give your assessment, by circling one of the numbers from one to ten (one being awful, and ten being great)

12. Staff Professionalism	1	2	3	4	5	6	7	8	9	10
13. Staff Knowledge	1	2	3	4	5	6	7	8	9	10
14. Staff Helpfulness	1	2	3	4	5	6	7	8	9	10
15. Staff Organization	1	2	3	4	5	6	7	8	9	10
16. Rehearsal/Pre-production rooms	1	2	3	4	5	6	7	8	9	10
17. Recording/Production rooms	1	2	3	4	5	6	7	8	9	10
18. Rooms Equipment	1	2	3	4	5	6	7	8	9	10
19. Common Areas	1	2	3	4	5	6	7	8	9	10
20. Parking	1	2	3	4	5	6	7	8	9	10

Overall satisfaction

Considering your complete experience in Cavan Studio, how likely would you be to recommend our company to a friend or colleague? (0 is not at all likely, 10 is extremely likely)

21. Recommend Cavan to Others	1	2	3	4	5	6	7	8	9	10

Please give your overall assessment by circling one of the numbers from one to ten (one being awful, and ten being great)

22. Overall Satisfaction with Cavan Studio	1	2	3	4	5	6	7	8	9	10

Would like to share any additional comments, experiences, suggestions for improvement, please enter them below?

_____

Finally, please tell us a little about yourself…
How old are you?

- Under 15
- 15-17
- 18-28
- 29-34
- 35-49
- 50 or over

What is the highest level of education you have completed?

- Less than High School
- High School
- Some College
- Bachelor's Degree
- Master's Degree or Higher

Please mark the province you currently live in?

- Heredia
- San Jose
- Alajuela
- Cartago
- Guanacaste
- Puntarenas
- Limon

Please mark if you are proficient in the following musical instruments?

- Guitar
- Bass guitar
- Drums
- Vocals
- Keyboards
- Other (s): _____

Services

Did you know Cavan provides the following additional services:

23.	Backline for events	Yes	No
24.	Production of Artistic and Commercial events	Yes	No
25.	Production and Editing of Video	Yes	No
26.	Photography	Yes	No
27.	Digital Marketing	Yes	No
28.	Talent Development Trainings	Yes	No

If you would like to receive information about our Talent Development Trainings for Clients (such as Music Industry Expert, Audio and Video Equipment Manipulation). Please write to info@cavanstudio.com or ask our Cavan Studio staff.

Thank you for your time!

Appendix 7: Employee satisfaction survey

This is a survey for the employees of Cavan Studio. It is intended to give the management of the Company guidance as to improve the development of employees as well as the company. In order to gain the most productive response, this survey should be completed by employees anonymously.

Ratings

Please give your assessment of the Company on the following matters, by circling one of the numbers from one to five (one being unsatisfactory, and ten being fully satisfied)

1.	Compensation	1	2	3	4	5
2.	Opportunity for Advancement	1	2	3	4	5
3.	Benefits	1	2	3	4	5
4.	Friendly Work Environment	1	2	3	4	5
5.	Trainings	1	2	3	4	5
6.	Performance Evaluation	1	2	3	4	5
7.	Supervision & Guidance	1	2	3	4	5
8.	Culture	1	2	3	4	5
9.	Job Security	1	2	3	4	5
10.	Flexibility in performing the Job	1	2	3	4	5
11.	Overall Job Satisfaction	1	2	3	4	5

Employee Morale

12. How would you describe general employee morale?

_____

_____

_____

13. Do you have any specific recommendations to improve employee morale?

_____

Guidance

14. Are you given enough guidance to perform your job?

15. Are you given enough feedback on your work?

16. Do you have any recommendation to the Cavan Studio Management to improve their communication?

Training

17. What additional training of employees if any, would be beneficial for Cavan Studio?

Technology

18. What additional technology do you believe would be beneficial for Cavan Studio?

Benefits

19. What benefits do you find valuable that Cavan Studio offers?

20. What additional benefits would you like to see offered by Cavan Studio?

Flexibility

21. Are you given enough flexibility to perform your job?

22. What additional flexibility do you think would be valuable?

Appendix 8: Monthly meeting template

MONTHLY MEETING			
Project:	**Cavan Studio Improvement Project**		
Project start: **11.09.2017**	Scheduled project completion: **09.12.12018**		Extended approved date:
Meeting #:	Date:		Place:
Attendees			
1	2		3
4.	5.		6.
7.	8.		9.

1. Points not resolved (as agreed in last meeting)

Action item	Action sought (responsibility center)	Reasons for delay/ target date not met	Actions suggested now with target date

2. Agenda points under discussion

Action item	Owner	Status/resolution	Responsibility center	Target date

3. Progress status

High level plans	Up to last month	This month	Cumulative	Remark
Schedule				
Cost				
Quality				
Risk				
Budget				
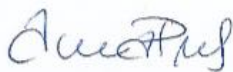
4. Variance				
Milestone	**As per schedule**	**As per actual date**	**Variation**	**Reasons attributable**
Physical progress percentage				
Project schedule				
Budget/project cost in monetary value				

5. Other issues				
Issue		**Date of occurrence**	**Next steps**	**Responsible**

Deliverables	**Actions Required**	**Items to be monitored**	**On track?**
Client trainings plan	*2 weeks left to finalize this quarter* *or Confirm payments*	Confirm participations	
Quarter trainings plan	*2 weeks left to finalize* *or/later Confirm payments*	Confirm participations	
Customer satisfaction survey release	*Next month* *Reminder for customers*	Close date	
Reward system track	*Review*	Individual and team status for this month	

6. Urgent actions required

7. Risks to be addressed

8. Any other points

Appendix 9: Revision Dictum

STATEMENT OF CONFIRMATION

I hereby confirm having proofread the Final Graduation Project ("Project

Management Plan for the Cavan Studio Improvement Project") by Olga Gutierrez

Nikolaeva.

Anna Prus
Ma in English Philology

Poznan, Poland, November 6, 2017

Appendix 10: Linguist Credentials: MA Diploma and translation

Część A

UNIWERSYTET IM. ADAMA MICKIEWICZA
W POZNANIU
(nazwa uczelni)
Wydział Neofilologii
(nazwa jednostki organizacyjnej uczelni)

DYPLOM

Anna Prus
Pan(i) ....
(imię/imiona i nazwisko)
2 maja 1982
urodzony(a) dnia .... r.
Kołobrzegu
w ....
filologia angielska
odbył(a) studia na kierunku ....

literaturoznawstwa
w zakresie ....

bardzo dobrym
z wynikiem ....
7 listopada 2008
i uzyskał(a) w dniu .... r.
magistra
tytuł zawodowy ....

Dziekan lub kierownik
jednostki organizacyjnej   Rektor
z up. Dziekana   z up. Rektora
Prodziekan   Prorektor

(pieczęć imienna i podpis)   (pieczęć imienna i podpis)
Poznań   rip.   *15 grudnia 2008*
....   dnia .... r.
(miejscowość)

Anna Kamila Prus
(podpis posiadacza dyplomu)

62182
Nr dyplomu ....

INTRO-DRUK Koszalin

Anna Łyskawa –Łowińska
Sworn Translator and Interpreter of English
ul. Swoboda 62A/ 7, 60-391 Poznań, Poland
Tel./ Fax +48 61 867-29-73

Translation from Polish

Part A-/-

On the left a black and white photo of the holder of the diploma. -------------------------------

(Signature of the holder of the diploma) (-) Anna Prus --

(Diploma No) No **62182** --

On the right the following text reading:

UNIWERSYTET ADAMA MICKIEWICZA
W POZNANIU
ADAM MICKIEWICZ UNIVERSITY OF POZNAŃ

MODERN LANGUAGES DEPARTMENT
(Name of school's organizational unit)

The national emblem of the Republic of Poland.

DIPLOMA

Mr./ Mrs./ Ms. **Anna Prus** ---

Born on **2 May 1982** --

In **Kołobrzeg** ---

Completed studies with the major course in **English Philology** ----------------------------------

With the concentration **Literature Studies** ---

With result: **very good** ---

And obtained on **7 November 2008** ---

The professional title **Master of Arts** --

Dean or Manager of Organizational Unit: *an oblong stamp reading*: PP Dean Vice-Dean

Prof. dr hab. Beata Mikołajczyk (-) *illegible signature* --

President: *an oblong stamp reading*: PP President Vice-President Prof. dr hab. Zbigniew

Pilarczyk (-) *illegible signature*--

Poznań, 15 December 2008. --

I, Anna Łyskawa-Łowińska (TP/2455/05), hereby attest the conformity of the translation with the original document in Polish.
Repertory number: 35/2012. Poznań, 20 January 2012.
A fee was charged for the translation of 1 page of 1,125 characters.