BRNO UNIVERSITY OF TECHNOLOGY

VYSOKÉ UČENÍ TECHNICKÉ V BRNĚ

FACULTY OF BUSINESS AND MANAGEMENT

FAKULTA PODNIKATELSKÁ

INSTITUTE OF MANAGEMENT

ÚSTAV MANAGEMENTU

IMPROVING PROJECT MANAGEMENT PROCESSES IN A NON-GOVERNMENTAL, NON-PROFIT ORGANIZATION.

NÁVRH NA ZLEPŠENÍ PROCESŮ PROJEKTOVÉHO ŘÍZENÍ V NEVLÁDNÍ NEZISKOVÉ ORGANIZACI

MASTER'S THESIS

DIPLOMOVÁ PRÁCE

AUTHOR — Bc. Viktor Ján Miko

AUTOR PRÁCE

SUPERVISOR — doc. Joanna Kuczewska, Ph.D.

VEDOUCÍ PRÁCE

BRNO 2023

BRNO UNIVERSITY OF TECHNOLOGY
FACULTY OF BUSINESS AND MANAGEMENT

Assignment Master's Thesis

Department:	Institute of Management
Student:	Bc. Vikto Ján Miko
Supervisor:	doc. Joanna Kuczewska, Ph.D.
Academic Year:	2022/23
Study programme:	International Business and Management

Garantka studijního programu Vám v souladu se zákonem č. 111/1998 Sb., o vysokých školách ve znění pozdějších předpisů a se Studijním a zkušebním řádem VUT v Brně zadává Master's Thesis s názvem:

Improving project management processes in a non–governmental, non–profit organization.

Characteristics of thesis dilemmas:

Introduction
Aim of the Thesis, Methodology
Theoretical Background
Problem Analysis and Current Situation
Proposals and Contribution of Suggested Solutions
Conclusion
References
Appendices

Objectives which should be achieve:

The primary goal of this thesis is to explore the project management processes in the context of delivering comprehensive guidance for new project managers in the organization.

Basic sources of information:

SMOLÍKOVÁ, L. Projektové řízení. Brno: Akademické nakladatelství CERM, 2018.

CARROLL, J. Project management: in easy steps. Southam: Easy steps limited, 2009. ISBN 9781-84078-370-4.

ŠTEFÁNEK, R. Projektové řízení pro začátečníky. Brno: Computer Press, 2011. ISBN 978-80-2512835-0.

ŘEHÁČEK, P. Projektové řízení podle PMI. Praha: Ekopress, 2013. ISBN 978-80-86929-90-3.

DOLEŽAL, J., MÁCHAL P. a B. LACKO. Projektový management podle IPMA. 2., aktualiz. a dopl. vyd. Praha: Grada, 2012. ISBN 978-80-247-4275-5.

A guide to the project management body of knowledge: (PMBOK guide). 4th ed. Newton Square: Project Management Institute, 2008. ISBN 978-1-933890-51-7.

Deadline for submission Master's Thesis is given by the Schedule of the Academic year 2022/23

In Brno dated 5.2.2023

L. S.

doc. PhDr. Iveta Šimberová, Ph.D. Branch supervisor	doc. Ing. Vojtěch Bartoš, Ph.D. Dean

Abstract

The thesis examines the challenges faced by an organization serving marginalized Roma people in attracting and retaining qualified project managers. The issues stem from low pay and the unique characteristics of the target group. As a result, the organization hires young, inexperienced graduates and provides them with project management training. However, ensuring a solid understanding of project management principles and their effective application poses challenges. The thesis aims to propose practical solutions and recommendations to address the identified problems through a comprehensive guide-like format. It analyzes the current situation, compares project management standards, and presents a case study to identify key issues. The thesis also explores the impact of the proposed solutions and their potential benefits for the organization. By enhancing project management practices and providing a supplementary knowledge source, the thesis seeks to support new hires in understanding the role and overcoming challenges in managing projects effectively.

Keywords

project management, project, non-governmental organization, non-profit organization, project management handbook, case study

Abstrakt

Práce zkoumá problémy, kterým čelí nestátní nezisková organizace při získávání a udržení kvalifikovaných projektových manažerů. Problémy vyplývají z nízkých platů a jedinečných charakteristik cílové skupiny. V důsledku toho organizace najímá mladé, nezkušené absolventy a poskytuje jim školení v oblasti projektového řízení. Zajištění důkladného pochopení zásad projektového řízení a jejich efektivní aplikace však představuje problém. Cílem práce je navrhnout praktická řešení a doporučení k řešení zjištěných problémů prostřednictvím ucelené příručky. Analyzuje současnou situaci, porovnává standardy projektového řízení a představuje případovou studii, která identifikuje klíčové problémy. Práce rovněž zkoumá dopad navrhovaných řešení a jejich potenciální přínos pro organizaci. Rozšířením postupů projektového řízení a poskytnutím doplňujícího zdroje znalostí se práce snaží podpořit nové zaměstnance v pochopení úlohy a překonání problémů při efektivním řízení projektů.

Klíčová slova

projektový management, projekt, nestátní organizace, nezisková organizace, příručka projektového managementu, případová studie

Bibliographic citation

MIKO, Viktor Ján. *Improving project management processes in a non-governmental, non-profit organization.* [online]. Brno, 2023 [cit. 2023-05-14]. Available at: https://www.vutbr.cz/studenti/zav-prace/detail/151900. Master's Thesis. Brno University of Technology, Fakulta podnikatelská, Ústav managementu. Supervisor doc. Joanna Kuczewska, Ph.D.

Affidavit

I declare that the present master project is an original work that I have written myself. I declare that the citations of the sources used are complete, that I have not infringed upon any copyright (pursuant to Act. no 121/2000 Coll.).

Brno dated 14th May 2023

Bc. Viktor Ján Miko

author's signature

Acknowledgement

I would like to express my sincere gratitude to my supervisor dr. hab. Kuczewska and my colleagues, for their invaluable support, guidance and help throughout my thesis. Their assistance has been instrumental in the successful completion of my research, and I am truly thankful for the opportunities and knowledge they have provided me.

Contents

Introduction

The organization, which serves marginalized Roma people, is struggling to attract qualified project managers due to low pay and the nature of their target group. This has led to the organization being forced to hire young, inexperienced graduates or retrain current employees to fill these positions. While the concept of project management and the responsibilities of a project manager may seem straightforward, the actual execution and utilization of the correct tools and methods is a major challenge.

As a result, the organization has chosen to hire young students and train them in project management themselves. While this approach has its advantages, it also presents several challenges. One of the main challenges is ensuring that the newly hired project managers have a solid understanding of project management principles and can effectively apply them to the organization's specific needs.

Furthermore, the unique nature of the organization's target group requires a tailored approach to project management, which can be difficult for inexperienced project managers to navigate. Additionally, the lack of funding available to the organization limits the resources and tools available to project managers, further complicating their ability to effectively manage projects.

Overall, the organization's struggle to attract and retain qualified project managers highlights the challenges that non-profit organizations face in this field. While the rewards of working in this sector can be significant, the low pay and unique challenges can make it difficult to attract and retain experienced professionals. However, with the right approach and a commitment to improving project management practices, the organization can overcome these challenges and deliver meaningful impact to their target groups.

The main objective of this thesis is to examine the project management processes and develop a comprehensive guide for new project managers within the organization.

The first chapter of the thesis focuses on the aim and methodology. In this chapter, the goals of the thesis are discussed, taking into consideration the current situation and existing problems. The methodology section explains the specific methods used and the steps taken to achieve these goals. Following the introductory chapter, the thesis is divided into two main parts: theoretical background and problem analysis. The theoretical part delves into the explanation of important project terms and compares different project management standards. It provides a solid foundation for understanding project management concepts.

The problem analysis section presents a case study of a real and specific project. This case study serves as a tool to analyze the current situation, identify key issues, and draw comparisons with the theoretical background. Through this analysis, the thesis aims to offer practical solutions or recommendations to address the identified problems. The final chapter of the thesis is dedicated to the proposal. Here, the impact of the proposal is examined, along with potential improvement opportunities and the overall benefits it can bring to the organization. Given the flexibility of project management, the chapter explores several proposals, recognizing the endless possibilities for improvement.

The approach taken in this thesis is to present a comprehensive solution by structuring it in a guide-like format. The intention is to offer a clear and practical solution, a supplementary source of knowledge on project management, complementing the organization's official project management guide. By doing so, new hires can gain insights into the challenges and successes encountered by project managers, offering them a well-rounded understanding of the role.

1 Aim of the thesis and methodology

1.1 Aim of the thesis

The primary goal of this thesis is to explore the project management processes in the context of delivering the comprehensive guidance for new project managers in the organization. The focus will be on developing a resource that can be used in conjunction with the internal project management methodology to enable new, yet inexperienced employees to successfully coordinate, implement and manage projects.

To achieve this goal, the thesis will explore the core principles of project management and provide practical guidance on how to apply them to the specific needs of the organization's target group. It will also cover the essential tools and methods necessary for effective project management and provide examples of how they can be utilized in real-world scenarios.

The aim is also to improve the overall project management practices within the organization. By identifying areas where current practices may be lacking, the thesis will provide recommendations for improving project management processes and tools.

Ultimately, the thesis aims to provide a comprehensive and practical resource that can be used by anyone in the organization to learn about project management and apply it effectively to their work. By doing so, it will contribute to the organization's ability to deliver meaningful impact to their target group while overcoming the challenges of attracting and retaining experienced project managers in the non-profit sector.

To achieve this goal, there are three partial goals that need to be fulfilled. Firstly, writing an application for a state-declared project will be explored, providing insight into the requirements and best practices for successful project proposals. Secondly, a complex case study of a project during its initial phase will be conducted, examining the practical application of project management principles in a real-life scenario. Finally, an analysis of the steps taken during project preparation will be performed, exploring the challenges faced and best practices employed in the project management process.

Through the completion of these partial goals, the thesis aims to equip new project managers with a thorough understanding of project management principles and their practical application in the non-profit sector. This, coupled with the organization's existing internal project management methodology, will provide new project managers with the necessary tools to successfully coordinate and implement projects in the organization.

1.2 Methodology

To achieve the main goal of this thesis, several methods will be used, starting with exploring the theoretical backround. The theoretical backround provides an explanation of project management, including important and basic terms, such as what a project is, what it means to manage it, and so forth; and the definition of project teams using personality tests such as MBTI and OCEAN. Additionally, different project management methodologies such as IPMA, PMI, and PRINCE2 will be analysed, with a focus on their strengths and weaknesses.

The second method used will be a complex analysis, with a specific project examined as a case study divided into three main phases representing the life-cycle of a project. The pre-project phase will include an opportunity and feasibility study, as well as an examination of the organization's stance towards these methods. The project phase will include best practice recommendations, while the after-project phase will focus on evaluation and sustainability, examining the project's long-term impact.

The analytical input will also involve an examination of project management software used within the organization, identifying areas where improvements can be made. By using a combination of theoretical and analytical input, this thesis aims to explore the project management processes and deliver the professional and comprehensive guide for new project managers in the organization, enabling them to successfully coordinate and implement projects.

2 Theoretical backround

The theoretical part of this thesis describes firstly what exactly a project is, what it is not and why is it important to manage. The term is explained and defined, as to provide more information about the topic.

Secondly, the project phases are discussed and defined. There are three phases, each of which has different tools and methods that are used.

Lastly, general methods of project management are discussed, their pros and cons assessed and evaluated. These tools include the most basic ones, such as logical frame, decision-making tree or critical path. But more complex ones are also discussed, such as multi-criterial decision making.

These topics were chosen in accordance with the most needed information for the organization itself. Much more tools and methods exist, some more efficient than others, but these were chosen specifically for the purpose of non-governmental non-profit organization.

2.1 Definition of terms and standards

In the vast domain of project management, it is crucial to explore and explain numerous terms that are fundamental to a comprehensive understanding of this thesis. These terms encompass a wide range of concepts, ranging from core essentials to specialized tools and techniques that are employed within the organization. By clarifying these terms, this thesis aims to establish a solid foundation of knowledge and terminology.

In addition to terminology, a significant aspect of project management lies in the realm of standards and methodologies. These frameworks serve as invaluable guides, providing systematic instructions on how to successfully plan, execute, and control projects. Developed by seasoned professionals with hands-on experience, these methodologies strive to identify the most optimal solutions or procedures for effective project management. It is an ongoing journey of continuous improvement, as the field of project management is continuously evolving and adapting to meet the diverse and ever-changing needs of organizations, firms, and companies.

It is worth highlighting that the existence of multiple recognized project management standards globally is a testament to the flexibility and adaptability of project management practices. These standards offer diverse approaches and methodologies, recognizing that there is no one-size-fits-all solution. Instead, they provide a framework that can be tailored and customized to suit the unique requirements and contexts of different organizations.

By exploring these standards and methodologies, this thesis seeks to identify the best practices and methodologies that can be effectively implemented within the organization. By understanding and leveraging these insights, organizations can enhance their project management capabilities, optimize project outcomes, and achieve greater success in delivering value to stakeholders. Moreover, the findings of this thesis contribute to the ongoing development and refinement of project management practices, fostering a culture of continuous learning and improvement within the organization and the wider project management community.

2.1.1 Project definitions and characteristics

The definition of a project is not as simple as defining just one word. Different authors have different takes about how the term should be correctly explained. This discrepancy stems mainly from how different industries have different requirements for projects. In some industries, projects can be very small, community-like, for example organizing an event, or building a house. In others, however, project can be for example a destructuralisation of nations railway system, or digitalization of processes inside government departments.

Every publication about projects and every institution which realizes projects has its own definition for the term. (Štefánek et al. 2011) Below, some examples of definitions from different sources are listed.

"Project is a temporary task with a precisely defined goal, and its fulfillment requires the organized use of appropriate resources." (Dolanský, 1996, as cited in Řeháček 2013)

"Project is a proposal, representation or model of the state of a certain part of objective reality and the relationship between its elements in a precisely defined space and time, and at the same time a model of the ways to achieve this state." (Zonková, 1997 as cited in Řeháček 2013)

"Project is a temporary effort made to create a uniqe product." (Rosenau, 2000 as cited in Řeháček 2013)

"Project is a set of specific activities aimed at fulfilling a unique goal. It is limited by time, finances, human and material resources. The project is implemented by the project team under conditions of above-average uncertainty using complex methods. Project implementation is the implementation of change." (Štefánek et al. 2011)

"Project can be understood as a uniqe process, consisting of a series of coordinated and planned activities with predefined start and end times. A process that is carried out to achieve a set goal that meets specific requirements, including time, cost, and resource constraints." (Smolíková 2018)

A project is a unique, temporary, multidisciplinary and organised endeavour to realise agreed deliverables within predefined requirements and constraints." (Doležal et al. 2012)

The principal characteristic of any project is its novelty. It is a step into the unknown, fraught with risk and uncertainty. No two projects are ever exactly alike. Even a repeated project will differ in one or more commercial, administrative, or physical aspects from its predecessor (Lock 2020)

There are seven definitions of a project, each with a little bit different nuance and explanation. There are many, many more definitions, as was mentioned by Štefánek. However, these are enough to provide a definition that will hold true for this thesis and generally for projects inside the organization.

All definitions have some similarities. The most common one is the time constraint, with uniquness in second place. It can be derived then, that for all projects, at least some fundamental assumptions have to be met. As was mentioned by Štefánek (2011), every institution has its own definition. Due to the fact, that this thesis is written in a non-profit organization providing social services, another definition of a project is born.

For the purposes of this thesis, project is defined as such:

Project is a unique set of time-bound steps aimed at achieving a specific result related to the key strategic goals. It is limited by the funds provided by donors and the personnel capacity of the organization. The project must fulfil the specified indicators and its implementation is documented by the final report.

It is important to note that this definition is very specific, tailored for use of the organization. Many projects do not have external donors or indicators. With the definition of the term done, related terms can be explained. Specifically, project life-cycle and its phases.

Project life-cycle

A project life-cycle is a collection of generally sequential and sometimes overlapping project phases. These phases are mostly determined by the management and concrete needs of the organization involved in the project. Sometimes, the life cycle can be shaped by the unique aspects of the organization (Project Management Institute 2008).

There are several concepts about how should the project life-cycle be split up into individual phases. Each methodology states the phases a bit differently, mainly because of fixation on different outcomes. For example, PRINCE2 methodology is product based, therefore the phases are mainly concerned and connected with product life-cycle. On the other hand, PMI standard explains the project in five time-successive steps. Lastly, IPMA standard takes the life-cycle more simply than the mentioned two, as it divides the life-cycle into three phases, with different number of steps in each phase.

PRINCE2 methodology explains the project phases as follows (Lucid Content Team 2023):

1. Starting up a project
2. Directing a project
3. Initiating a project
4. Controlling a project
5. Managing product delivery
6. Managing stage boundaries
7. Closing a project

As mentioned, and seen in these phases, PRINCE2 is indeed product focused. More information about the methodology and its certification can be found in following chapter.

Project Management Institute describes the project phases a bit differently. According to PMBoK (Project Management Body of Knowledge), project can have one or more phases consisting of four processes. These processes are equivalent to project life-cycle phases of PRINCE2 and IPMA. These processes are:

1. Initiating processes
2. Planning processes
3. Executing processes

4. Closing processes

It is important to note that in this scheme, the steps are not neccessarily consecutive. After, or during the execution, the project can come back to planning (Project Management Institute 2008).

However, there is no way to define an ideal structure. Even in the same organization on two different projects, the phases can be defined differently. Some organizations can treat a feasibility study as pre-project phase, some can understand it as the first phase of the project and some can even consider it a completely separate project (Project Management Institute 2008).

Because of uneven distribution of phases and overall differentiation between different methodologies and run-of-the-mill processes, for the purpose of this thesis, most common, general and simple way of determining the project life-cycle is used. Project life-cycle by International Project Management Association, or IPMA.

According to IPMA, the stages, or phases, are more than sufficient to describe any project. These phases are pre-project phase, project phase and after-project phase. Each phase consists of steps that are either a must-be in that phase, or a recommendation for better project results.

1. Pre-project phase
    a. Feasibility study
    b. Opportunity study
2. Project phase
    a. Initiation
    b. Planning/preparation
    c. Realization
    d. Closure
3. After-project phase
    a. Evaluation and sustainability

Pre-project phase

The pre-project phase serves for preparation. There are two main studies conducted in this phase. Opportunity study looks for an answer to the question: Is it the right time to implement this project? The study is looking at both internal (organizations financial, personal, material situation, etc.) and external (economic, political, market development, etc.) factors. The opportunity study provides a relatively simple answer of yes, or no. However, if the project is recommended for implementation, opportunity study consists of first draft of the project (Doležal et al. 2012).

Continuation of pre-project phase is a feasibility study. According to Watt:

„A feasibility study is conducted to investigate whether each option addresses the project objective and a final recommended solution is determined. Issues of feasibility ("can we do the project?") and justification ("should we do the project?") are addressed." (Watt 2014)

In more detail, feasibility study can be described as an analysis of possible ways to achieve the goal in the current situation, evaluation of these ways in terms of the necessary total cost and the total necessary time, taking into account the available resources. The output is either a recommendation for most suitable way and specification of the goal, or a recommendation not to implement the project (Doležal et al. 2012).

Project phase

From the perspective of project management, realization is the most tricky and complex one. The end of realization comes with submitting all planned outputs (or finishing planned activities). The goal of this phase is to complete the plan and deliver the required output in the specified form. For this purpose, five recommendations are given.

1. Stick to the project plan
2. Compare the plan with reality
3. Unforeseen problems should be dealt with immediately
4. Active communication between all stakeholders
5. Keep up the work productivity

Following these recommendations should provide success in the end (Štefánek et al. 2011).

Project phase is very similar to the definition of project life-cycle by PMI. The difference is that PMI considers pre-project phase of IPMA definition as part of the initiation phase, and does not include after-project phase. The four stages of project phase are then as follows:

- Initiation

The initiation stage is the first phase of a project, where the project is formally defined, and its goals, objectives, and feasibility are determined. It's an essential stage because it sets the foundation for the project and ensures that the project's goals and objectives are aligned with the organization's overall strategy.

Sometimes, the feasibility study is already carried out in pre-project phase, however the innitiation stage provides more in-depth information and creates a preliminary project plan.

- Planning

This is the phase where the project team creates a detailed project plan, which outlines the tasks, resources, timelines, and budget required to complete the project successfully. The plan will also include a risk management strategy and a communication plan.

During this phase, the project team will work with stakeholders to identify specific requirements and break the project down into manageable components. The project plan will also be used to develop a work breakdown structure (WBS), which defines the project scope, identifies all deliverables, and outlines how the project team will achieve those deliverables.

- Realization / Execution

The execution phase is where the project plan is put into action, and the project team works on completing the project deliverables. This involves coordinating resources, managing schedules, and monitoring progress to ensure that the project is on track.

During this phase, the project team will focus on meeting project objectives while following the plan outlined in the planning phase. This includes executing project tasks, managing risks, monitoring progress, and communicating with stakeholders.

- Closure

The closing phase is the final stage of the project, where the completed project is delivered to the stakeholders, and the project is officially closed out. This includes documenting any lessons learned, completing final project reports, and transitioning any ongoing activities or responsibilities to the appropriate parties.

During this phase, the project team will focus on delivering the completed project to the stakeholders, and ensuring that all necessary documentation is complete. They will also conduct a post-project review to identify any areas for improvement and document any lessons learned for future projects.

Overall, understanding the different stages of a project is crucial to its successful completion. Each stage has its unique requirements, and each stage builds upon the previous one. Effective project management involves careful planning of all four stages, execution of project activities according to given demands, monitoring and controlling, and closure, with each stage contributing to the overall success of the project. By following a clear project management methodology, a project team can ensure that they stay on track, meet stakeholder expectations, and deliver high-quality results.

Project management methodology, or at least a definition and explanation of project management and how to use it effectively for managing for example the life-cycle of a project, is described in the next chapter.

After-project phase

After the project is completed and delivered, there is an after-project phase, which involves reviewing the project's performance and documenting any lessons learned. During this phase, the project team reflects on what went well and what could have been done differently. They also evaluate the project's overall success, including whether it met its objectives and whether it was completed within budget and on time.

The lessons learned during this phase can help inform future projects, allowing the project team to improve their processes and increase their chances of success. Additionally, during the after-project phase, any ongoing maintenance or support activities are transitioned to the appropriate parties, and the project team is disbanded.

Overall, the after-project phase is essential to the project life cycle, as it allows the project team to evaluate their performance and identify areas for improvement. This can lead to more successful projects in the future and can help organizations achieve their goals and objectives more effectively.

Evaluation

Evaluation has two different applications during the after-project phase. Firstly, the project is evaluated internally in terms of its organizational impact. This type of evaluation focuses on assessing how well the project meets its goals and objectives, and identifying any strengths or weaknesses of the project management processes. Secondly, there is an external evaluation, which assesses the project's performance against the agreed-upon indicators set by the donor or other stakeholders. This type of evaluation aims to measure the project's effectiveness and impact on the intended beneficiaries, and may involve feedback from external stakeholders. Overall, both internal and external evaluations are important for learning from past experiences and improving the quality and impact of future projects (Bulick 1993).

Sustainability

Not every single project has to be sustainable. It is derived mainly from the industry and the field in which the project is implemented. For example, projects for implementation of new marketing campaign for a specific product as a penetrating strategy onto a new market do not count with sustainability, because after the implementation, new project for continuous support of new market has to be written.

However, some projects do continue in their predefined form even after completion. The case study project of this thesis is a perfect example. The goal of the project is to support housing and to house certain number of people. After the end of project, those people cannot be evicted. Therefore, after-project sustainability had to be proposed. More about the sustainability of certain projects in analytical part (Siváková, 2018).

2.1.2 Project management, tools and methods

In the previous chapters, project and all related concepts were explained and introduced. This chapter serves as continuation, and extends on previously mentioned terms by defining the project management as a whole.

Project management is a critical component of successful project execution. At its core, project management involves applying knowledge, skills, tools, and techniques to achieve project objectives. This includes managing project scope, schedule, budget, quality, risk, and stakeholder expectations, among other factors. Effective project management helps ensure that projects are completed on time, within budget, and to the satisfaction of stakeholders.

Project Management Process

Project management processes refer to the series of activities and tasks that project managers undertake to successfully complete a project. These processes are designed to ensure that projects are completed on time, within budget, and to the satisfaction of stakeholders. Project management processes typically follow a defined framework or methodology, and may include processes for project initiation, planning, execution, monitoring and controlling, and closing.

These processes have been described from the point of view of the project, and theoretical information about each phase. However, this description focuses more on the personal involvement, the actual workload of a project manager.

Project initiation involves defining the project's purpose, goals, and objectives, as well as identifying key stakeholders. Project planning involves developing a detailed project plan that outlines the scope of work, project schedule, budget, quality standards, risk management plan, and communication plan. Project execution involves carrying out the work defined in the project plan, while monitoring and controlling involves tracking project progress against the plan, identifying and managing risks and issues, and making necessary adjustments to keep the project on track. Finally, project closing involves formally ending the project, including conducting a final evaluation and transitioning the project deliverables to the client or end user.

While the project life cycle refers to the overall stages of a project from initiation to closure, project management focuses on the processes and activities involved in successfully managing the project throughout its life cycle. In other words, project management is the ongoing process of planning, executing, monitoring, and controlling the project to ensure its success, while the project life cycle is the overall structure of the project, from its beginning to its end (Watt, 2014).

By understanding the difference between project life cycle and project management, project managers can better plan and manage their projects to achieve their objectives.

Project Management Tools, Methods and Software

In order to effectively manage a project, project managers need to use a variety of tools, methods, and software. Additionally, the right project management software can provide project managers with the visibility and control they need to successfully manage complex projects.

In this chapter, some of the most commonly used project management tools and methods are reviewed. Popular project management methods such as Waterfall, Agile, and Scrum are discussed, and their application is explored. Finally, some of the most popular project management software tools, including Trello, Asana, and Microsoft Project, are introduced.

- SWOT Analysis: SWOT analysis is a strategic planning tool used to identify the strengths, weaknesses, opportunities, and threats (SWOT) of a project, organization, or idea. It is typically used during the planning phase of a project, to help teams identify internal and external factors that may impact the success of the project. By identifying these factors, teams can develop strategies to leverage strengths, mitigate weaknesses, capitalize on opportunities, and address threats. SWOT analysis is useful for a wide range of projects, from product development to market analysis (Sarsby 2016).
- Work Breakdown Structure (WBS): A work breakdown structure is a hierarchical decomposition of a project into smaller, more manageable components. It is typically used during the planning phase of a project, to help teams break down the project into smaller tasks, and to identify dependencies and deliverables. By breaking down the project into smaller components, teams can better manage the project, estimate costs and resources, and track progress. WBS is particularly useful for complex projects, as it allows teams to break down the project into smaller, more manageable pieces (Sequeira, Lopes 2015).

- Risk Management: Risk management is the process of identifying, assessing, and mitigating risks that may impact the success of a project. It is typically used throughout the entire project lifecycle, from planning to execution to closing, but the most dire and important one is managing risks in the initiation phase. By identifying potential risks and developing strategies to mitigate those risks, teams can reduce the likelihood and impact of negative events. Risk management is particularly useful for high-risk projects, such as those that involve complex technology, high costs, or tight deadlines (Uher, Toakley 1999).
- Gantt Charts: A Gantt chart is a visual tool used to plan, schedule, and track progress of a project. It is typically used during the planning and execution phases of a project, to help teams visualize the project timeline, dependencies, and resource allocation. By visualizing the project timeline, teams can better manage the project, track progress, and communicate project status to stakeholders. Gantt charts are particularly useful for projects that involve multiple tasks or milestones, and for projects with tight deadlines (Geraldi, Lechter 2012).
- Critical Path Analysis: Critical path analysis is a method used to identify the critical path of a project, which is the sequence of tasks that must be completed on time in order to ensure that the project is completed on time. It is typically used during the planning phase of a project, to help teams identify the tasks that are critical to the success of the project, and to develop strategies to manage those tasks. By identifying the critical path, teams can better manage the project, allocate resources, and identify potential delays or bottlenecks. Critical path analysis is particularly useful for projects with complex dependencies and tight deadlines (Carruthers, Battersby 1966).
- Quality management: Quality management is the process of ensuring that a project or product meets or exceeds the expectations of stakeholders. It is typically used throughout the entire project lifecycle, from planning to execution to closing. By focusing on quality, teams can improve customer satisfaction, reduce costs, and increase productivity. Quality management is particularly useful for projects where quality is critical, such as those involving safety, reliability, or regulatory compliance (Rose 2005).

- Kanban board: A Kanban board is a visual tool used to manage and track the progress of work items in a project. It is typically used during the execution phase of a project, to help teams visualize the workflow, identify bottlenecks, and prioritize work items. By using a Kanban board, teams can improve efficiency, reduce waste, and increase transparency. Kanban boards are particularly useful for projects with a high volume of work items or a large number of team members (Nakazawa, Tanaka 2016).
- Ishikawa diagram: An Ishikawa diagram, also known as a fishbone diagram, is a tool used to identify the causes of a problem or issue. It is typically used during the analysis phase of a project, to help teams identify the root causes of a problem and develop strategies to address them. By using an Ishikawa diagram, teams can identify the underlying factors that contribute to a problem and prioritize actions to address them. Ishikawa diagrams are particularly useful for projects with complex problems or issues that require a systematic approach to analysis. Furthermore, Ishikawa diagrams are used for risk management and risk predictions, as the tool is efficient in visualizing situations (Gwiazda 2008).
- Mind mapping: A mind map is a visual tool used to organize and prioritize ideas and information. It is typically used to help teams brainstorm ideas, clarify concepts, and organize information. By using a mind map, teams can improve creativity and communicate ideas effectively. Mind maps are particularly useful for projects that involve complex concepts or a large volume of information (Bohemia et al. 2016).
- Decision Trees: In the pre-project phase of project management, decision trees can be a useful tool for decision-making. Decision trees are sequential models that can be used to logically combine a sequence of simple tests to identify potential problems and solutions. This can help project managers make informed decisions about project planning and resource allocation. By comparing attributes and values, decision trees can identify potential risks and guide decision-making. The advantage of using decision trees in project management is that they provide a transparent and easily interpretable model, which can be useful for project stakeholders who want to understand the decision-making process (Kotsiantis 2013).

As mentioned, aside from these tools, there are methods that can be used for project management. The relationship is hierarchical. First, the method to be used is determined and then the tools appropriate for the method are selected. The methods explored in this thesis are Waterfall, Agile and Scrum.

Waterfall is a traditional project management approach that follows a linear, sequential process. It is typically used for projects with well-defined requirements and a clear, predictable outcome. In a Waterfall approach, each stage of the project is completed before moving on to the next stage. This means that there is little room for changes or modifications once the project has started. The Waterfall approach works best for projects with stable requirements and limited uncertainty (Thesing, Feldmann, Burchardt 2021).

Agile is an iterative and flexible approach to project management. It is typically used for projects with dynamic and evolving requirements, where changes and modifications are expected. In an Agile approach, the project is broken down into smaller, more manageable iterations, with a focus on delivering value early and often. The Agile approach encourages collaboration and communication between team members and stakeholders, with a focus on adapting to change rather than following a rigid plan (Thesing, Feldmann, Burchardt 2021).

Scrum is a specific Agile framework used for managing complex projects. It is typically used for software development projects, but can be applied to other types of projects as well. In a Scrum approach, the project is broken down into small, cross-functional teams that work together to deliver value in short iterations called sprints. The team meets regularly to discuss progress, identify roadblocks, and plan the next steps. The Scrum approach emphasizes continuous improvement and encourages team members to work together to achieve the project goals (Hron, Obwegeser 2018).

The method depends on the type of the project. It would be unwise to try and apply waterfall method to uncertain projects, as the tools used in this method may be insufficient. On the other hand, the agile method is relatively versatile. Although it is mostly used for dynamic projects, due to its versatility it can also be applied to projects where waterfall would normally be chosen. However, it is important to note that it might prove to be unreasonably excessive. In the analytical part, more in-depth look of these two methods is discussed, as the organization works with both methods at once.

Lastly, an important addition to tools and methods of project management is project management software. Project management software can help automate and streamline the project management process, making it more efficient and accurate. These software solutions offer a range of features, such as task tracking, resource allocation, and reporting, which can help project managers manage their projects more effectively. By using project management software, project managers can reduce the risk of delays, resource conflicts, and miscommunications, leading to a more successful outcome for the project.

An example of such software is Trello, which is already used in the organization, Microsoft Project and Asana.

Trello is a visual project management tool that uses boards, lists, and cards to help users organize and prioritize tasks. Users can create boards for different projects or teams, add lists to each board to represent stages of a project or workflow, and create cards for each task or activity. Cards can be moved between lists to reflect progress, and users can add labels, due dates, and attachments to each card (Johnson 2017).

Asana, on the other hand, is a cloud-based project management tool that allows teams to track tasks and projects from start to finish. Users can create projects, add tasks and subtasks, and assign them to team members. Asana also includes features for team collaboration, such as comments, file sharing, and a calendar view (Marques, Bernardino 2019).

Lastly, Microsoft Project is a project management software tool that allows users to create and manage projects, track progress, and generate reports. Users can create project plans, define tasks and resources, and assign tasks to team members. Microsoft Project also includes features for Gantt chart and timeline views, resource allocation, and budget tracking (Pyron 2022).

Project manager and teams

A project manager is a person responsible for overseeing the project. This individual is responsible for managing project scope, schedule, budget, quality, risks, and resources to achieve project objectives. A project manager must possess strong leadership and communication skills to effectively manage project teams and stakeholders. The role of a project manager is critical to the success of any project, as they ensure that projects are completed on time, within budget, and to the required quality standards (Ceran, Dorman 1995).

According to 4th version of PMBoK, project manager is the person assigned by the organization to achieve the project objectives. For this, he can use many tools and methods, apply knowledge or techniques, but without some special characteristics, even these tools of good practice may not work. Project manager should possess the following characteristics:

- Knowledge
- Performance
- Personal

Knowledge refers to overal knowledge of the project manager about the project management. Performance refers to what the project manager is able to do while applying the knowledge. And lastly, personal characteristics are about behavior. How does the project manager behave when performing the project. His attitude, core personality characteristics and leadership are in question (Project Management Institute no date).

Another source states that project manager should be flexible, creative, patient, empathetic and reliable. Moreover, aside from these qualities, he should have some skills connected to these qualities. These skills are for example getting along with people, be able to solve and mediate conflicts, solve problems, be analytical, logical, be able to improvise, and have leadership skills (Smolíková 2018).

Being a project manager therefore means more than just creating applications and sending e-mails to different people. Aside from aforementioned characteristics and skills, knowledge about the project methodology, project life-cycle, risk management and so much more are all part of the job.

One of the most important task project managers are asked to be able to do is leading, creating and developing teams. (Doležal 2012)Project teams are essential for successful project implementation, as the people in these teams are the ones actually implementing the project. It is the biggest difference between the project manager and the members of the project team. Project manager does not create the project outputs. He provides support, direction and stability for his team.

Even in project-driven organizations, there are not always only project teams. Three different types of groupings are defined. These are team, group and community. The main difference between these three is in their perspective of what is the most important for the members, in their relationships between other members and in the type of management (Doležal et al. 2012).

Group is a collection of individuals who come together to achieve a common goal. They can form to work on a specific project or task, but without a shared sense of commitment. Moreover, members of a group can have different skills, experiences and perspectives, therefore their collaboration may suffer, or not work well. Lastly, a group can be temporary, but also permanent. Team, on the other hand, is created specifically for the purposes of the project. Team members have complementary skills, experience, and knowledge, and more importantly, they share common goal and work collaboratively towards its completion. Community is a little bit different altogether. A community is a group of individuals who share common interests, goals or values, but also for example common residence. For the purposes of project, communities can form in a support role, without direct involvement in the project work (Doležal et al. 2012).

Project teams, similarly to the project, have phases which they go through. Generally, every created team goes through these phases, with some little diversions storming from members personalities or low complexity of projects. These four phases are forming, storming, norming and performing.

Forming: The forming stage is the first phase of team development, where team members come together and are introduced to each other. Team members are cautious in their interactions and try to establish their roles and responsibilities. During this phase, team members may not yet fully understand the project goals, their individual roles, or the team's objectives. The project manager plays an important role in establishing team goals, clarifying roles and responsibilities, and facilitating team cohesion during this phase. In this stage, it is recommended for project manager to use dominant and directive managerial style (West Chester University 2022).

Storming: The storming phase is marked by conflicts, disagreements, and competing ideas among team members. As team members start to work together, they may have different ideas and approaches to the project, which can lead to tension and disagreements. Aside from this, personal conflicts may arise, as the members are not yet accustomed to each other. The project manager needs to manage these conflicts effectively and help the team find a way to resolve disagreements and work together. This stage is critical and for many teams also the last one, leading to dissolution of the team. The recommended managerial style for this stage is coaching style (Smolíková 2018).

Norming: The norming phase is when team members start to resolve their differences and establish common ground. The team starts to work collaboratively and establish group norms and procedures. During this phase, team members may start to identify with the team's objectives and feel a sense of ownership and commitment to the project. The project manager should continue to facilitate the team's progress and support team cohesion during this phase (West Chester University 2022).

Performing: The performing phase is when the team is fully functional and focused on achieving project goals. In this phase, project team is able to be fully independent and provide outputs even without direct intervention from project manager. Not every team is able to make it to this stage (Smolíková 2018).

Project Manager and Project Team Dynamics

Project teams are often made up of individuals with diverse personalities, backgrounds, and skill sets. These individuals come together to work towards a common goal, but their success depends on more than just their technical abilities. The personality of each team member, as well as the personality of the project manager, can greatly affect the implementation of the project. In recent years, personality tests such as the Myers-Briggs Type Indicator (MBTI) and the Big Five Personality Traits (OCEAN) have become increasingly popular in the workplace. These tests aim to help individuals better understand their own personality traits and how they may interact with others (Henkel et al. 2019).

Research has shown that project managers often have a differentiated personality from the rest of the population, as revealed by their MBTI or OCEAN results (Hussain et al. 2021).

However, it is important to note that for a successful project team, a balance of personalities is crucial. Teams with too many individuals who share similar personality traits may struggle to work cohesively and may miss out on the benefits of diversity.

For example, according to MBTI, a team with a mix of personality types tends to work best together. Ideally, the team should have a balance of introverted and extroverted types, as well as those who are focused on details versus those who take a more big-picture approach. Additionally, having a mix of thinking and feeling types can help ensure that both rational and emotional perspectives are considered when making decisions (Cohen, Ornoy, Keren 2013).

When it comes to OCEAN, research suggests that teams tend to be most successful when there is a mix of personalities across the five traits. For example, a team that includes members who score high in extraversion, openness, and conscientiousness may be more likely to be innovative and productive. On the other hand, having team members who score high in neuroticism may increase the risk of conflicts and communication breakdowns (Hussain et al. 2021).

2.2 Types of certification, standards, methodology

This chapter is divided into two categories: methodologies and certifications. Methodologies provide the steps for leading and managing a project, while certifications serve as proof of one's ability to use them effectively.

There are numerous methodologies in project management, each resulting from a particular professional group with a non-governmental character. These groups are from diverse cultures, regions, and work with different people and cultural norms. Therefore, comparing methodologies serves the purpose of gathering different inputs into a single output that summarizes the best practices within our organization.

While methodologies may appear vague, it's crucial to remember that project management is a vast field that comprises diverse approaches. Additionally, since it mostly involves working with or for people, the human factor is crucial (Doležal et al. 2012).

Unlike some standards and methodologies, which are written without practical experience, certifications hold weight as proof of one's capability in a particular method. This is due to the nature of organizations that provide certifications, which consist of professional practitioners of project management. The certification process is thus conditioned by experience in project management.

Standards, methodologies:

In order to understand the project management, it is necessary to become familiar with already established practice by internationally recognised standards. The list of the most important and recognised project management standards includes the following (Řeháček 2013):

- Project Management Body of Knowledge (PMBOK)
- PRojects IN Controlled Environments (PRINCE2)
- IPMA Competence Baseline (IPMA ICB)

These standards are accepted all over the world. However, each of them provides a slightly different approach to project management. PMBoK and PRINCE2 are more process-oriented standards, while IPMA is focusing on behavioural competencies of project managers. Because of this, Global Alliance for Project Management Performance Standards have been created. For over a decade a group of dedicated volunteers has been working through the GAPPS to provide a bridge between the different standards for project management produced by both professional and commercial organizations (Crawford 2013).

Through this work, several standards have been mapped and integrated into GAPPS. These include (Crawford 2013):

- Australian Institute of Project Management Standards (AIPM)
- Australian National Competency Standards for Project Management (ANCSPM)
- IPMA Competence Baseline V3.0 (ICB®)
- P2M (Japan)
- Project Management Institute's PMBoK®Guide 2008
- PRINCE2 2009
- SAQA National Qualifications Level 5 Standard
- Managing Successful Programmes (Cabinet Office, 2011)
- The Standard for Program Management (PMI, 2006)

For the purpose of this thesis however, it is less important to describe all of these than to describe the most used and known ones. Therefore, PMI, PRINCE2 and IPMA are explained, discussed and assessed in the next paragraphs.

2.2.1 PMBoK

The Project Management Body of Knowledge (PMBOK) is a methodology developed and maintained by the Project Management Institute (PMI) in the United States. It is the most widely used project management methodology in North America and much of the world, except for Europe (Roseke 2018).

The PMBOK is continuously revised and upgraded. Due to this continuous improvement, the current version of PMBOK has undergone significant changes from previous versions. To show how the theme of project management constantly evolves and grows, both the older and the newest versions are explained for comparison purposes. The seventh edition of PMBOK, published in 2021, redefines the main areas of project management and their processes.

In the sixth version of PMBOK, projects were divided into five Process Groups and ten Knowledge Areas. The process groups are roughly chronological, while the knowledge areas are applied at any time throughout the project. The process groups are horizontal and the knowledge areas are vertical (Roseke 2018).

However, over the past few years, emerging technology, new approaches, and rapid market changes have driven the project management profession to evolve. The seventh edition of the PMBOK has been updated to meet these challenges, better align to how people work today, and help project teams be more proactive, innovative, and nimble. Due to this change, the current version has redefined the knowledge areas into a different type of tool, called project performance domains (Project Management Institute 2021).

The shift from a process-based standard to one based on principles necessitates a different approach for thinking about the various aspects of project management. Thus, the project performance domains represent a group of related activities that are critical for the effective delivery of project outcomes. There are eight project performance domains in this guide (Project Management Institute 2021).

7th Version of PMBoK

This edition of the PMBOK focuses on delivering outcomes regardless of the approach used by the project team. However, project practitioners using the PMBOK also benefit from some level of understanding of how to deliver projects. In embracing the full spectrum of project approaches, this edition recognizes that no publication can capture every tool, technique, or practice that project teams might use. Therefore, this edition presents an array of commonly used models, methods, and artifacts that project practitioners can use to accomplish their work.

The PMBOK seventh edition encompasses three chapters, which are Project Performance Domains, Tailoring, and Models, Methods, and Artifacts. Work in the project performance domains is guided by the principles of project management. The principles for project management provide guidance for the behaviour of people involved in projects as they influence and shape the performance domains to produce the intended outcomes. While there is conceptual overlap between the principles and the performance domains, the principles guide behaviour, while the performance domains present broad areas of focus in which to demonstrate that behaviour (Project Management Institute no date).

These principles are defined by the Code of Ethics and Professional Conduct and are as follows (PMI 2023):

- Responsibility
- Respect
- Fairness
- Honesty

Project performance domains

A project performance domain refers to a collection of interconnected activities that are crucial for the successful achievement of project outcomes. These domains work collaboratively, complementing each other to realize the desired project objectives. Within the project management context, there are eight primary project performance domains that encompass various aspects of project execution (Project Management Institute 2021):

1. Stakeholders: This domain emphasizes the identification, engagement, and management of project stakeholders. It involves understanding their expectations, addressing their concerns, and fostering effective communication and collaboration throughout the project.
2. Team: The team domain focuses on building and nurturing a high-performing project team. It involves assembling the right talents, fostering teamwork and cohesion, establishing clear roles and responsibilities, and providing necessary support for team members to excel in their roles.
3. Development Approach and Life Cycle: This domain pertains to selecting and implementing an appropriate development approach and project life cycle. It encompasses decisions regarding the methodology, framework, or approach to guide project execution and the stages or phases that define the project's life cycle.
4. Planning: The planning domain encompasses the creation of comprehensive project plans. It involves defining project objectives, determining project scope, establishing realistic schedules, allocating resources, and developing strategies to mitigate risks and manage uncertainties.
5. Project Work: This domain focuses on the actual execution of project activities and tasks. It involves coordinating and managing the project work, monitoring progress, addressing issues and conflicts, ensuring quality control, and adhering to project standards and best practices.
6. Delivery: The delivery domain revolves around the finalization and delivery of project outputs or deliverables. It encompasses activities related to testing, validation, verification, and ensuring that the project's intended outcomes are achieved.

7. Measurement: The measurement domain emphasizes the monitoring and evaluation of project performance. It involves defining relevant metrics, collecting and analyzing data, assessing progress against predefined targets, and identifying opportunities for improvement.
8. Uncertainty: The uncertainty domain acknowledges and addresses the inherent uncertainties and risks associated with the project. It involves conducting risk assessments, implementing risk management strategies, and maintaining flexibility and adaptability to navigate unforeseen challenges.

These project performance domains form a cohesive and interconnected system. Throughout the project lifecycle, the domains operate concurrently, with project managers and teams engaging in activities related to stakeholders, team management, development approaches, planning, project work, delivery, measurement, and uncertainty management. Although the specific emphasis and interrelationships may vary depending on the project's context, these domains are integral to every project. It's important to note that the specific activities and priorities within each performance domain are determined based on the unique characteristics of the organization, project objectives, deliverables, project team composition, stakeholder dynamics, and other relevant factors. The presentation of these performance domains does not imply a specific order or hierarchical weighting; rather, they provide a comprehensive framework for understanding and managing the essential aspects of project performance (Heagney 2012).

Tailoring

Tailoring in project management refers to the purposeful customization of the project management approach, governance, and processes to ensure their suitability for the specific environment and project requirements. It involves a comprehensive understanding of the project context, goals, and operating environment, and requires thoughtful selection and adjustment of various project factors. The tailoring process is guided by the principles of project management, organizational values, and culture. The concept of tailoring recognizes that projects operate in diverse and complex environments, where competing demands must be balanced. These demands include delivering the project as quickly as possible, minimizing project costs, optimizing the value delivered, ensuring high-quality deliverables and outcomes, complying with regulatory standards, meeting diverse stakeholder expectations, and adapting to change. To create a practical operating environment for the project, these factors need to be thoroughly understood, evaluated, and harmonized (Project Management Institute 2021).

Tailoring acknowledges that there may be limitations on the extent to which project teams can tailor their approach. Organizational policies or contractual obligations, for example, might mandate the use of specific approaches. However, within the given constraints, tailoring enables project managers to make conscious decisions regarding the project management approach, processes, and governance that best align with the project's unique characteristics and requirements. During the tailoring process, project managers consider multiple project factors, including the criticality of the project, the number of stakeholders involved, and the desired outcomes. The guiding project management principles and organizational values provide the foundation for selecting appropriate activities and methodologies. For instance, if an organization prioritizes "customer centricity" as a core value, the activities chosen for requirements elicitation and scope validation would emphasize customer-centered approaches, in line with the principle of effectively engaging with stakeholders (Kerzner 2022).

Tailoring also recognizes that different organizations may have varying appetites for risk. A risk-averse organization may have more stringent processes and procedures in place to guide projects throughout their life cycles, while a risk-tolerant organization may adopt a more flexible and streamlined approach. Both scenarios align with the principle of optimizing risk responses, highlighting the flexibility and adaptability of the tailoring process to accommodate different organizational contexts. In summary, tailoring involves the deliberate adaptation of project management practices to suit the project's unique environment and requirements. It is driven by project management principles, organizational values, and culture. By carefully considering various project factors and striking a balance between competing demands, project managers can tailor the approach, governance, and processes to create an effective and practical operating environment for successful project delivery (Kerzner 2022).

Models, methods, artifacts

These tools serve to structure project efforts and facilitate the achievement of desired outcomes. A model is a thinking strategy that explains a process or framework, while a method is the means employed to achieve specific deliverables or results. Artifacts, on the other hand, refer to project-related outputs such as documents or templates. When tailoring their approach, project teams may utilize specific models, methods, or artifacts to suit their unique circumstances. For example, methods such as data gathering, analysis, estimation, and meetings can aid in tracking progress and engaging stakeholders effectively. Artifacts like plans, charts, and reports contribute to documenting crucial project information. Additionally, models such as situational leadership, communication models, and motivation models offer valuable frameworks for understanding and addressing project dynamics (Project Management Institute 2021).

It is important to note that the models, methods, and artifacts presented in this section are not meant to be exhaustive or prescriptive. Instead, they serve as options for project teams to consider in their decision-making process. As project teams engage with the tailoring questions, they begin to establish a framework for structuring their efforts towards achieving project outcomes. This framework encompasses the selection of specific methods and the customization of artifacts to capture and share relevant information, track progress, enhance team performance, and engage stakeholders effectively. It is essential for project teams to consider the associated costs of using models, methods, and artifacts, including factors such as time, level of expertise, impact on productivity, and more. During the decision-making process, project teams should avoid duplicating efforts, using unnecessary tools, generating misleading information, or prioritizing individual needs over the collective needs of the project team and its stakeholders. By leveraging the appropriate models, methods, and artifacts while considering the tailored needs of the project, project teams can enhance their project management approach, foster effective collaboration, and increase the likelihood of achieving project success (Project Management Institute 2021).

2.2.2 PRINCE2

The PRINCE2 methodology is a popular project management framework in the UK. It was developed by the UK government and is maintained by Axelos, which is partially owned by the UK government. Many UK government contracts require PRINCE2 certification to bid on them. PRINCE2 divides projects into "management stages," each with its own task lists, plans, and budgets. These management stages can be thought of as project phases. The framework contains 7 principles, 7 processes, and 7 themes that guide project management from start to finish. The 7 principles are guiding philosophies that govern the entire project and are reaffirmed at every management stage boundary. They include (Roseke 2018):

- Continued Business Justification,
- Learn from Experience,
- Define Roles and Responsibilities,
- Manage by Stages,
- Manage by Exception,
- Focus on Products
- Tailor to the Environment

The 7 processes represent the physical tasks of project management and contain various activities and project management "products" that must be produced by the specified member at specified times during the management stages. These processes are:

- Starting Up a Project,
- Initiating a Project,
- Directing a Project,
- Controlling a Stage,
- Managing Product Delivery,
- Managing a Stage Boundary
- Closing a Project

Throughout these processes, the PRINCE2 themes apply their valuable knowledge set to the tasks at hand. The themes are similar to Knowledge Areas in the PMBOK, and the seven themes include Business Case, Organization, Quality, Plans, Risk, Change, and Progress (Roseke 2018).

2.2.3 IPMA Competence Baseline (ICB)

The International Project Management Association (IPMA) is a Swiss-based global organization that promotes excellence in project management. IPMA provides certifications, standards, and guidelines for project management professionals. Founded in 1965, IPMA is one of the oldest and most respected project management associations in the world (International Project Management Association 2016).

One of the primary missions of IPMA is to develop and promote project management competency. IPMA offers four levels of certification: Certified Project Management Associate (IPMA Level D), Certified Project Manager (IPMA Level C), Certified Senior Project Manager (IPMA Level B), and Certified Projects Director (IPMA Level A). The certification process requires candidates to demonstrate their knowledge, skills, and experience in project management through a rigorous assessment process that includes a written exam, a project report, and an interview (International Project Management Association 2015).

IPMA also provides a range of project management standards and guidelines that are designed to help organizations and individuals improve their project management processes. These include the IPMA Individual Competence Baseline (ICB), which outlines the competencies that project management professionals need to possess at each certification level, and the IPMA Organizational Competence Baseline (OCB), which provides guidelines for assessing and improving an organization’s project management processes (Varajão, Cruz-Cunha 2013).

In addition to its certification and standardization efforts, IPMA also promotes research and education in project management. IPMA organizes conferences, workshops, and other events to bring together project management professionals from around the world to share their knowledge and experience. IPMA also funds research projects and publishes research papers and articles on various aspects of project management. One of the unique features of IPMA is its focus on behavioural competence in project management. In addition to technical skills and knowledge, IPMA also emphasizes the importance of soft skills, such as leadership, communication, and teamwork, in project management. This focus on behavioural competence is reflected in the IPMA ICB, which includes not only technical competencies but also interpersonal and personal competencies. IPMA has also developed a set of ethical guidelines for project management professionals. The IPMA Code of Ethics provides a framework for ethical behaviour in project management and includes principles such as integrity, responsibility, respect, and fairness (Varajão, Cruz-Cunha 2013).

Finally, IPMA is a member of the International Project Management Association Federation (IPMA-F) which is made up of national project management associations from around the world. The IPMA-F provides a forum for collaboration and knowledge sharing among its members and promotes the development of project management standards and guidelines on a global scale. In summary, IPMA is a global organization that promotes excellence in project management through certification, standardization, research, education, and ethical guidelines. IPMA's focus on behavioural competence and soft skills sets it apart from other project management associations and makes it a valuable resource for project management professionals and organizations around the world (International Project Management Association 2016).

3 Problem analysis and current situation

The problem analysis, or the analytical part of this thesis, will present a case study of a specific project funded by Czech Republic's operational plan Employement+ under the European funds. The part is divided into four phases, with preparation phase as an individual step between pre-project and project phase. Each phase will involve an explanation of the methods used, and other relevant details.

The aim of the case study is to provide an expertise analysis of project management processes dedicated for project management in non-profit organizations, and to compare theoretical practices with real-world experiences within the organization. This comparison will provide insights into the relationship between project management and non-profit organizations, and offer a best practical approach to projects.

It is important to note that the author of the thesis is a full-time employee of the organization. Many information in following paragraphs is either from personal experience while working on the case study itself, or information gained simply by being a part of the organization during the whole process.

3.1 Introduction of the organization

The organization in which the thesis is written is IQ Roma servis. It is a non-governmental, non-profit organization with operation in South Moravia region. Its target group is socially excluded, marginalized Romani. The vision of the organization is better future with minority and majority coexisting as one nation and one people.

IQ Roma servis was founded in 1997. In twenty five years from the start, it had major influence on the situation in Czech republic. Its current projects are still focused on South Moravia, but the organization works internationally (f.e. partners in Slovakia and Hungary). The headquarters resides in Brno, one branch is located in Břeclav. Organization currently employs around 65 employees. It is divided into two different parts. The direct work consists of social workers and field workers, who work directly with clients. Second part is indirect work, which consists of accounting team, project team, and operational team (Miko 2023).

3.2 Case study: Housing Led - housing support and housing loss prevention in South Moravian region

The case study will include an introduction of the whole project, where its importance, timescale and explanation is provided, and the life-cycle of the project. In each phase, the approach is discussed.

3.2.1 Research methodology

The information presented in the text is largely based on firsthand experience, as the author was actively involved in creating the project that is being used as a case study. The information has been gathered on meetings, individual consultations, random encounters etc.

However, to uphold the correct approach to research, the process had to be defined and measurable. One of the takes on the research process in theory is as such (Koráb 2022):

Stages

- Formulation and clarification of the topic
- Formulation of the research objective
- Choosing an appropriate research strategy
- Literature research (bibliometric analysis)
- Definition of a research gap
- Data collection
- Data analysis
- Research results disscussion
- Processing the results into the final report

The research focuses on investigating how project management in non-profit organizations operates, comparing the practical application to theoretical principles to identify gaps and inefficiencies. The strategy for conducting the research involves participation in a large-scale project and comparing the tools and steps taken with a first-hand perspective. The literature used for the research includes evaluation reports, news articles, and impact reports, as well as an internal project management methodology to compare different approaches in theory and practice. The research gap is defined by the identified discrepancies between theory and practice. Data collection is primarily through casual conversations with colleagues, information gathered at project meetings, lectures, and webinars, and two controlled interviews with the head of the project team and the main evaluator to gather more detailed information about specific aspects of the project. Finally, the research involves analyzing the collected data to draw conclusions and identify potential solutions.

3.2.2 Introduction to the project

The main objective of this project is to provide housing support and prevent homelessness. The project is based on the Housing First approach, which recognizes housing as a fundamental need for solving other problems. The approach acknowledges that if a person is homeless or at risk of homelessness, addressing other problems such as addiction, debts, and mental health issues becomes more difficult. The Housing First method recognizes that stable housing is the foundation for resolving other issues (Štěpán, Černá, Kubala 2018).

Moreover, through networking and outsourcing to other services within the organization, the project will provide full support to clients in addressing all of their needs. The aim is to create a stable housing environment, which will act as a stepping stone towards a better quality of life for the clients. The projects annotation might provide more insight into what the project is about.

„*The project will house and support 30 households in the South Moravian Region, mainly in Brno, Bučovice, Zastávka and Breclav. The housing programme is based on the principles of Housing First and targets households with comprehensive support needs. Participants will be selected on the basis of a mapping of housing need in the aforementioned localities; the prioritisation of project participants will be based on the level of vulnerability to housing need. The project will also set up a Housing Contact Point within the Brno city centre - partner of the project.“* (Milota, Siváková, Miko 2022)

Furthermore, the specific problem the project adresses is the problem of homelessness and the threat of homelessness in the South Moravian region. Although municipalities in the South Moravian Region, especially the city of Brno, own a relatively large housing stock, it does not allocate sufficient capacity to address housing need in its territory. The private housing is often unaffordable, and landlords' practices are discriminatory towards the most vulnerable part of the target group (Milota, Siváková, Miko 2022).

Based on application, for the Romani population discrimination on the housing market is a major barrier to obtaining standard housing, in addition to low income. The applicant's own data shows that 95% of contracts to find non-segregated housing within social services are unsuccessful. As a result of prolonged housing need, households develop severe mental and physical illnesses that are not resolvable during an episode of homelessness. The average duration of homelessness for households with children in Brno is 7 years (Štěpán, Černá, Kubala 2018).

Lastly, as part of the introduction to the project, the aim of the project is listed:

„The main goal of the project is to end homelessness of 30 households in Brno and selected municipalities of the South Moravian Region. These households use substandard housing in residential hotels, in unsuitable and overcrowded apartments or do not have security of tenancy. Given the anticipated long-term episodes of homelessness and other cumulative support needs, the goal is to provide robust and long-term support to homeless households across a wide range of living arrangements." (Milota, Siváková, Miko 2022)

3.2.3 Information about the project

As the thesis shall serve the purpose of a methodology, more in-depth information about the current project is provided. This leads to better understanding of the overall design and implementation processes.

Expected changes

Stabilizing families: the goal of getting 30 households into standard housing and thus ending their homelessness is the first prerequisite for stabilizing families in other problem areas. Stable and affordable housing along with services in the early stages of housing will bring individual changes in the areas of recovery from domestic violence, school success, health, reduction in the number of children in institutional care (prevention of removal or return of children), economic stability, more active collaboration with institutions, and more.

Housing Contact Point: the project partner, the Brno-střed municipality, will build a long-term sustainable unit within the authority that will directly provide citizens with advice on how to address housing need, gradually build capacity to end homelessness, and collect evidence and aggregated data for further development of activities to address housing need. This will substantially expand the advice for citizens in housing need and set up a system of coordinated assistance.

Prevention of housing loss: in selected municipalities of the South Moravian Region, a housing loss prevention system will be built to effectively help prevent the loss of housing for households threatened by debt and other breaches of lease agreements. In selected areas of the region, this will educate key actors (municipalities and private landlords) about the possibilities of solving problems related to breaches of tenancy agreements and ensure that the housing of the supported persons is maintained. The expected changes are based, among other things, on research from the *Pilot Testing of Rapid Re-housing of families with children* (Štěpán, Černá, Kubala 2018).

Project activities

As for the activities, less comprehensive explanation is provided, as the specific content is not as important from the project management point of view. This is also an important factor in overall work of PMs in the organization. The actual realization of activities does not depend, nor should it be considered as a responsibility of the project manager. He is responsible for organizing and managing the realization team.

More important than explanation of the activities is the division of them into two phases. These phases are not corelated with the project phases that are explained later, they are strictly limited to the execution stage of project phase. The activities are divided into preparatory phase and implementation phase.

In the initial months, the preparatory phase of the project will take place. The settlement programme team will be trained in basic support methods. Staff of the Contact Point for Housing (CPH) will be trained by the project partner in the preparatory phase (internships and training in navigation and coordination methods) and initial meetings will be held with relevant departments of the office and other relevant stakeholders. Landlords will be approached for a homelessness prevention programme in these localities and a broad deprivation network will be established. Subsequently, households will be prioritized for the housing program and participants will be recruited for the program. During the recruitment process, motivational community activities will be implemented according to the methodology (Milota, Siváková, Miko 2022).

The implementation phase will include intensive support for the participants of the housing programme and the ongoing setting up of the support network. CPH activities will be implemented at the project partner: ongoing support to households in housing need, navigation of housing need, support networking, case work within the office, etc. The implementation phase will also see the launch of a broad-based deprivation survey and the launch of a housing loss prevention programme. The activities focused on primary target group are complemented by supporting activities for realization team - Training and supervision of RT, and Evaluation and monitoring (Milota, Siváková, Miko 2022).

Project dissemination

Basic information about the project will be published on the organisation’s website. A specific section of this project will be created in the Projects section, where news and information about activities, possible events and methodological outputs of the project (including case studies) will be published. The project and its outcomes will also be communicated through the organisation's Facebook profile, which will also be an important communication channel for disseminating information among the target group. The target group will also be informed directly, through other activities and work of the applicant (social and other support services) (Milota, Siváková, Miko 2022).

The ongoing outputs of the project will also be regularly published in the annual IQ Roma service Activity Reports. During the project, client case studies will be produced and disseminated electronically on the applicant's website. The plan is to cooperate mainly with local media. In addition to the above-mentioned channels, the project outputs will also be disseminated during the local partnership meetings in Brno and Břeclav - KPSV working groups, community planning of social services, possibly other professional seminars or conferences, as well as during individual meetings with relevant representatives (Milota, Siváková, Miko 2022).

Realization team

The realization team for this project is rather extensive. It is divided into four different categories, according to their job descriptions and different responsibilities in the project.

1. Support in the Housing First programme
2. Real estate support
3. Housing Contact Point (CPH)
4. Housing Loss prevention programme
5. Administrative team

Support in the Housing First programme: the Social Support Team Leader is responsible together with the Project Coordinator for compliance with the HF principles and is actively involved in the direct support of clients. The Key Social Worker is responsible for the direct support of programme participants throughout the implementation period. The Peer Worker works together with the Key Worker under the direction of the Direct Support Team Leader. Depending on the needs of the target group, the involvement of Experts with a specific specialisation is foreseen: therapist, support during episodes of domestic violence, addictologist. The Real Estate Support Team consists of a Payment Management Officer who is responsible for accounting for direct payments of the housing allowance and housing supplement, and a Social Real Estate Agent who communicates with the owners of the apartments, implements the securing of the apartments and is responsible for the suitability of the apartment for the project as a whole and for specific participants. The CPH team has 4 members: the CPH Coordinator (Housing Ombudsman), the CPH Navigator, the CPH Key Worker and the Care Networking Coordinator - together they ensure the complex running of KMB for clients and within the authority. The Prevention Programme Team consists of the Prevention Team Leader and the Prevention Programme Key Personnel.

The administrative team will consist of a Project Manager, Finance Manager, Accountant.

The realization team therefore consists of nine directly involved people, with at least four more members involved either temporarily or occasionally and four employees of a partner, who has the responsibility for CPH.

3.2.4 Project Life-cycle

The organization's project management methodology divides the project life-cycle into four distinct phases, each with its unique set of steps and approaches. This case study will delve into the specifics within each of these phases. As a reflection of the real situation, the case study is structured in a unique way. The pre-project phase and part of the project phase have already been completed, and as of writing the thesis, the project is in the execution step of the project phase. As a result, the information presented up until the initiation stage is factual, while the information presented afterward is a recommendation of what should and must be done. In the solution proposal section, the pre-project phase will be thoroughly examined, and recommendations will be offered.

Pre-project phase

The pre-project phase is the initial stage of a project, which importance lies in creating a solid foundation for the project's success. For this particular case study, the development of the strategy for whole strategic period is the starting point of most pre-project phases.

Creating a strategic plan

The strategic plan is created for a period of five years and provides direction and focus for the organization throughout the strategic period. The plan identifies strategic objectives, the achievement of which is monitored and evaluated at the end of the period. The evaluation of these objectives is a useful tool to assess the organization's progress towards its vision and purpose. Quantitative outputs are prefered, as they mirror the reality and fulfillment of the goals in the easiest possible way to evaluate. However, not all evaluation goals can be quantified, therefore qualitative approaches are employed as well. Interventions with clients provide information about their situation, either by a dialouge, or simply by observing their current situation. Controlled interviews are also one of the method for gathering qualitative data. These are hard to evaluate, but provide value in the form of emotional stories, which provide at least some semblance of hope in this cold, dark, dark world.

Creating the strategic goals is a collaborative effort from various interested parties. As the main beneficiaries of the organization's services, the clients are asked first. Where potential issues lie, and what solutions can be explored. The organization's employees also provide valuable input, often bringing a different perspective and identifying problems that clients may not perceive as problematic. The current strategic plan is heavily evidence-based, precisely because of the quantifiability of outcomes. The documents used for research and data input for the strategic plan include internal documents from previous studies and projects, public strategies from the state and City of Brno, previous evaluation reports of the organization, and other relevant materials. Additionally, the organization analyzes European projects, particularly the project call plan for the strategic period, as a source of insight and inspiration. It is from this collective effort that the organization derives its strategic goals and objectives, marking the starting point of the pre-project phase.

Discrimination is the overarching issue that ties together the strategic goals of the organization, and it's been a persistent problem for some time. Due to the complexity of the issue, the organization recognizes that eliminating discrimination is a difficult task that will require more than five years to achieve significant progress. Nonetheless, the strategic objectives are designed to address discrimination in various areas, including housing, education, and employment. Throughout the development of the strategic plan, the organization sought solutions that could be applied in these areas. In some, the methods and tools are already tested and approved, therefore the solutions are easier to define, monitor and achieve. These areas include employement, or debt. In order to address the changes needed in these areas, we depend on our dedicated and passionate staff to determine which methods are practical, applicable, and effective. We recognize that there are numerous opportunities to effect change, and trust that our team's expertise and commitment will help us choose the best approaches to achieve our goals, which they prove again and again (Siváková 2023).

However, in the realm of housing, the organizaiton currently experiments with a new approach called Housing Led. Since it's a relatively new idea, it is still in the process of refining the approach and testing different methods.

This method is based on the principle that housing is fundamental to solving any problems a person may face. It operates on the idea that without a stable housing situation, it is nearly impossible to address other issues like addiction, debt, or unemployment. As a result, the Housing Led method prioritizes providing secure housing for individuals as a starting point for addressing other issues that may be impacting their lives (Milota 2022).

The organization has played a pioneering role in introducing the Housing Led method to the Czech Republic, and its efforts have contributed to increasing awareness and acceptance of the approach in the country. The recognition of the method's effectiveness by key stakeholders, such as ministries and the state, has led to expectations of funding opportunities for social housing projects. The organization has leveraged its network and expertise, as well as its connections to European funds and operational plans, to position itself as a potential beneficiary of such opportunities. This multi-pronged approach has enabled the organization to be at the forefront of addressing the pressing issue of housing discrimination (Siváková 2023).

Project plan

Once the organization has established its strategic plan and goals, the next step is to submit a project plan (or first draft) to the Ministry of Labor and Social Affairs. This proposal provides an outline of the type of project the organization intents to undertake during the strategic period. The project plan is brief and lacks specifics. This plan offers a glimpse into the intentions of organizations that will seek subsidies from the Ministry and align their activities with the proposed projects. As a result, the Ministry can adapt its calls for proposals, project scopes, and subsidy priorities accordingly. Nevertheless, it is worth noting that this project plan serves as a guide rather than a rigid rule that must be strictly followed.

Opportunity and Feasibility study

Once project calls are announced or at least hinted at, the organization must gather information to determine if they can apply for the project. This process is similar to an opportunity study, where the management team analyzes various factors such as current socio-economic trends, internal factors, and the potential impact of the project on the organization. The organization takes a theoretical approach in practice, proving its usefulness and impact. After assessing these factors, a detailed financial analysis is conducted to determine the feasibility of the project. As a non-profit organization, there are times when certain projects cannot be refused, either because they align with the organization's strategic goals or provide funding for the organization. The financial analysis provides data on the project's financial needs and possibilities, ultimately determining whether or not to pursue the project (Siváková 2023).

Preparation phase

Once a suitable call for projects has been found and the project plan has been approved, the project enters the preparation phase. This phase involves several important tasks that must be completed before the project can begin.

One of the first tasks in the preparation phase is to determine the division of roles for project preparation. This involves assigning responsibilities to team members and determining who will be responsible for each task. Another crucial task is to clearly define the problem the project aims to solve, its underlying causes, and the target group that the project is intended to help. It is important to ensure that the project is tailored to the specific needs, conditions, and circumstances of the target group. To achieve this, a needs analysis should be conducted to determine the needs and desires of the target group, their priorities, and their willingness to support the project (Siváková, 2019).

Various tools can be used to help formulate the problem and identify potential solutions, such as cause and effect tree, 5x method WHY, and mind mapping. Once the problem has been defined, the project's purpose and objectives should be clearly formulated using the SMART criteria (Specific, Measurable, Acceptable, Realistic, and Time-bound).

It is also essential to identify the desired outputs and results of the project and to develop a plan for measuring them. The proposed solution to the problem, including any specific tools or techniques, should be outlined, and a list of activities that will be undertaken to achieve the project's objectives should be developed along with a timeline for their completion. The implementation team should be identified, and their roles and responsibilities should be outlined. Potential risks to the project's success should be identified, and strategies for mitigating those risks should be developed. A descriptive and memorable name for the project should be chosen, and a detailed budget should be developed, including all anticipated expenses and sources of funding .(Siváková 2019)

Any potential partners or collaborators who could contribute to the project's success should be identified, and any supporting documentation, such as letters of support or technical specifications, should be included in the project proposal. Finally, the completed project proposal should be submitted to the relevant funding agency or partner organization (Siváková 2019).

The preparation phase is unique in that it is not typically included in the commonly acknowledged project life-cycle. However, the organization has decided to include it as an individual phase because it serves them well in terms of differentiating tasks in time according to current needs and capacities.

Project phase

The project phase has four distinctive stages, which split the phase into smaller, easier to monitor pieces. These stages are initiation, execution, monitoring and controling, and closure.

After a project is submitted, there is often a longer delay waiting to see if the donor will approve the project and allocate funding. In this intermediate phase, the donor may also want to add something to the project, adjust the budget, etc (Siváková 2019).

Initiation stage:

After the project is approved and the legal act is obtained, the project manager appointed to oversee the project assumes several responsibilities. These include putting the legal act on a shared server, updating the project schedule and budget, arranging a meeting with relevant team leaders, familiarizing themselves with the realization team, establishing rules for monitoring project indicators, creating a budget in conjunction with the financial manager, and finally, initiating the project's kick-off meeting (Siváková 2019).

Typically, the initiation phase of most projects is relatively brief, as the pre-project activities often overlap with the initiation phase. However, this project deviates from the norm.

As the project is large, in every aspect be it capacity, finances or time, the initiation phase is three months. In this time, the realization team has time to familiarize, to assemble and start working out a strategy for the whole project. In paralel, the partner has time to adjust and adapt to provide their services according to the application. The stage is freely managable, it can be shorter, but it cannot be longer than six months. From the call, there is a restraint given during the initiation phase, which is only 1,5 FTE can be expended on the project. Therefore, from nine member realization team, only two or three can work first few months.

Execution stage:

The execution stage encompasses the actual implementation of the project, the processes and steps that are taken to achieve the goal of the project. Some of those processes are team development, quality management, risk management.

Team development is a peculiar thing in this specific project. As explained, the total number of FTE is 1,5. This is enough for two people, one full-time key social worker with 1,0 FTE, and the coordinator of the project with 0,5 FTE. However, once the execution stage begins, the restriction is lifted and team has to be assembled. After the three-month period, several new people have to be included into the realization team.

As one of the problems explained in the very introduction of this thesis, personal capacities are at limit. Finding qualified employees willing to work on this project is hard and unrewarding. However, the effort still continues.

As explained in the theoretical part, team development can follow guideance, for example looking at personality tests, or following some specific tutorials. The organization does not consider any of this substantial enough to include it in the process of secting new employees. There are two reasons for that.

Firstly, as mentioned, the situation does not provide any other attitude rather than accept anyone interested in the position and at least with some experience. Secondly, the focus of the organization in its essence unites like-minded people willing to work towards a greater good. Teams are therefore created from who is available and who is willing, sometimes even both.

Most importantly, there is always focus on implementation of the project. Even if with not enough peronnel, the project does continue.

Quality management is another process that take place during the execution phase. In terms of the organization, the focus of its evaluation and importance of monitoring, the quality management focuses mostly on watching the continuous fulfillment of indicators given by the application.

Project indicators are tightly monitored for assessing overall progress and ultimate achievement of the project. Monitoring these indicators plays a vital role in gaining insights into the project's functionality, ensuring that all processes are appropriately established, and identifying areas that may require adjustments. From the perspective of the donor, these indicators and their successful fulfillment demonstrate that their funds are being allocated effectively and serving their intended purpose quality management.

The quality management is therefore two-fold, for the organization, it provides information if the project is continuing without any problems, and for the donor, it shows whether his investment is fruitful.

Monitoring and controlling

The purpose and meaning of monitoring are almost the same as definition of quality management from previous paragraph. The monitoring is conducted for quality management, it serves the purpose of controlling the overall progress of the project and in cases when something goes awry, to provide information on what and why happened.

Monitoring of the progress provides insight into possible risks and difficulties that might arise in the project. Therefore, the organization has a specific procedure for overall monitoring and providing risk management at the same time.

The procedure includes reflection of the operational plan of each team. Reflection provides insight into the past few months, what happened, what went well and what went completely sideways. The whole process consists of a meeting of all team leaders, with top management present as well, every three months. Discussion about all projects, their strategic impact and overall progress ensues, where the risks are highlighted and discovered.

Aside from reflection, monitoring serves the purpose of providing data for evaluation, which takes place in after-project phase.

Closure

The project officially ends at the date provided in the application. However, for the organization, it is not the end of the project itself. This date provides the timeframe for implementation, or rather for execution of the project. It therefore connects straight to that stage. The closure of a project usually consists of writing and delivering the final report, which is a document describing the whole project, into varying depth of detail.

Post-project phase

The main part of post-project phase is evaluation. It is important for gathering information about how well has the organization fullfilled its goal and vision. Data from the realization phase are gathered and evaluated to provide an insight into the overall performance of the whole project.

The next paragraphs provide more in-depth insight into the evaluation and monitoring. The approach for gathering information for this part comes from two sources. For evaluation, a controlled dialouge with the main evaluator of the organization has been conducted. There were set questions that had to be asked, but the form of the conversation was more fluid, not just question-answer. Therefore the results are provided in the form that best represents the answers.

The set questions were as such:

1. What is evaluation from the perspective of the organization and what are the main reasons to evaluate?
2. Difference between internal and external evaluation, what are the criteria for projects to be evaluated?
3. Are there any special requirements from the perspective of quality management of the evaluation?
4. What does the process of evaluation look in the perspective of life-cycle of project?
5. What are the main risks while evaluating?

Evaluation

Evaluation is a crucial aspect of project management that helps determine whether the activities outlined in the project plan were successfully completed or not. It not only provides information on progress and highlights potential risks, but also enables organizations to assess the impact of their projects on their target group. A systematic and planned approach, with a clear timetable and set responsibilities, is essential for conducting evaluations effectively (Pólová 2023).

Monitoring is an essential tool that provides data for the final evaluation. By regularly assessing the project's progress at predetermined milestones, previous data is gathered and recorded, providing a comprehensive look at the entire project. Although evaluating a project during its realization may provide unreliable data, monitoring can ensure that any issues are identified and addressed in a timely manner. The frequency of these milestones is determined before the start of the project and may be adjusted as necessary.

The evaluation of social work is a relatively new field, as evaluating social work can be complex and difficult to understand. In the past, there were not enough resources, capacity or knowledge to conduct evaluations, which is why the topic is still evolving. However, evaluation remains a crucial element of the social work sector, even if it was neglected for a long time due to a lack of resources. In the past, donors were the primary source of motivation for conducting evaluations. However, once the outputs and evaluation process had been developed and tested, these mandatory requirements were removed. Nevertheless, as an organization, we believe evaluation to be a crucial part of our work and have since shifted our motivation to self-initiative. However, the problem of limited resources and capacities for conducting evaluations remains a challenge. Despite the challenges, we take pride in being leaders in this field, and our evaluation process is among the best in the non-profit sector (Pólová 2023).

All projects in the organization are, even if some in far more detail than other, evaluated to some extent. Not every project is evaluated in complete detail, or systematically, as sometimes the evaluation is incorporated into the text of the application, but the process itself is not one of the required indicators. Then, we evaluate for our own purposes, not for the purposes of the project, and so the evaluation is more focused on what specific information is currently needed.

Internal and external evaluations serve different purposes. Internal evaluations are focused on risk management, collecting feedback, and identifying opportunities for operational changes within the organization. On the other hand, external evaluations are conducted by third parties after the project has ended and are meant to provide an objective assessment of the project's outcomes. However, external evaluations can be costly and require a significant amount of information gathering, which puts pressure on the team and coordinator of the project. Therefore, it is ineffective to consider external evaluators (Pólová 2023).

Regarding quality management of the evaluation, there are two types of goals to consider - quantitative and qualitative. Quantitative goals are relatively easy to evaluate, but when it comes to qualitative goals, it becomes a challenge for the evaluator. This is why it is important for the evaluator to have the necessary competence to define the steps and stakeholders involved, and to determine what quality means from the organization's perspective as well as from the stakeholders' perspective. The evaluator needs to define what objective quality is (Pólová 2023).

The organisation places a great emphasis on the quality of the services provided, as it is a crucial aspect to monitor and evaluate. The evaluation of quality does not solely depend on performance, as the opinions of only two respondents may not be representative of the overall satisfaction. To ensure that quality standards are met, the organization adheres to social work standards given by law, as failure to meet these standards would result in the organization being unable to continue its operations (Pólová 2023).

Life-cycle of the evaluation

The whole process of evaluating the project consists of several steps. These steps are coressponding to the life-cycle of the project itself, as in each phase of the project, some steps for evaluation are taken.

During the initiation stage of a project, an evaluation plan is developed which outlines the questions to be monitored and the data to be gathered. The questions and data depend on the project goals. However, if the goals are unclear, the evaluation process may become problematic. Next, the evaluation matrix provides detailed questions and methods for data collection while considering the options and capacities of the team. The organisation aims for ongoing evaluation, where monitoring and evaluation are conducted continuously. However, it is still challenging to evaluate objectively because the evaluator is not in personal contact with the client (Pólová 2023).

Main risks of evaluation

Incomplete or inaccurate data, poor goal-setting logic, and vague or non-evaluatable goals are the main risks associated with project evaluation. Additionally, evaluations may be compromised if the established rules are not followed, or if the work is not performed as expected. The most significant risk in project evaluation is when it is conducted during the project before it has been completed, which can occur when evaluation is a mandatory indicator. Such premature evaluations can result in incomplete data and a weak evaluation (Pólová 2023).

4 Proposals and contribution of suggested solutions

By analysing this specific project not only from a theoretical point of view, but more importantly by actually engaging in the creation and writing process, the author has gained a deep insight and understanding of the machinations at work in project management organizations. The theoretical part provided information on best practice scenarios, and their reflection into reality during the case study provided illuminating insight onto methods that are the same, those that are lacking and those that are far superior.

However, the main proposal for changing the organizations situation comes more from experience enriched by knowledge gathered during writing of this thesis. As it was already mentioned, project management is a work with people for people, therefore proposals for better practices come from personal feeling of the whole situation. The proposal takes into consideration not only current situation in the organization, but current staff and their plans for the future as well.

Writing of the thesis, being a part of the project team for the case study, together with responsibilities for different projects during the whole time and observing the colleagues both old and new, all of these experiences helped the author create a new perspective on the project management. Considering that the organisation, albeit unconsciously, leans most towards IPMA standards in its form of project management, it is evident that it is the behavioural competencies that are the most important for project managers in the organisation.

The first suggestion for improvement arises from this observation, which involves reevaluating the approach to recruiting new personnel. The author, being the target group of this thesis (an inexperienced project manager within the organization), can reflect on their own experience and conclude that having a project management background is not necessarily the most crucial factor for this role. Instead, placing greater emphasis on the candidate's personality becomes more significant in the long term. While having a specific background or education in project management can provide some initial support in navigating unfamiliar territory, it is the individual's personality that truly determines their success as a project manager. Education serves as a solid foundation, but it alone is insufficient for excelling in this role. Hence, when recruiting new employees, organisations should consider the behavioral competencies of candidates. This implies redesigning the recruitment process to focus less on testing knowledge and more on assessing the candidate's approach and behavior in specific situations.

According to Henkel’s (2019) study, project managers are indeed strongly leaning to specific personalities. Using both world-wide known personality tests, The Big Five Personalities (a. k. a. OCEAN) and Myers-Briggs Type Indicator on a large sample of project managers from different fields, the results showed a general rule for the types of personalities. This proves that the role of project manager is intertwined with the personality of the project manager and the success heavily depends on interpersonal skills.

This study serves as another example why the first proposal might bring benefit to the organisation. Focusing the recruiting process accordingly, even young and inexperienced project managers can be very beneficial from the start. Aside from typical project managers characteristics, a keen aptitude for learning should be required.

The second proposal suggests implementing personality tests as a part of the entire recruitment process for every employee within the organisation. By conducting these tests, the organization aims to assess the personalities of prospective candidates and ensure a better alignment with its culture and requirements. This approach would not only contribute to finding suitable candidates for the role of project managers, but it would also provide valuable information for top management to delegate tasks more effectively.

In cases where a candidate meets the personality profile of a project manager but the specific position is either filled or he is not the best fit, there could be further discussion about an alternative role within the organization, as a project manager. This approach enables the organization to leverage the identified strengths and capabilities of individuals who align with the project manager profile, potentially leading to better utilization of talents and resources.

However, it's important to acknowledge that this approach may be met with controversy, as personality tests delve into personal aspects and could be perceived as a violation of privacy. Despite this, there is potential value in utilizing information about individuals' personalities to create more cohesive and functional teams within the organisation.

This recommendation is presented as a direct suggestion, based solely on observations and findings. It is intended for the top management to carefully consider. If they find it valuable, the implementation of this proposal would require a subtle approach, taking into account the sensitivity of conducting personality tests during the recruitment process.

Taking all factors into consideration, if implemented correctly, the proposed approach could yield significant benefits for the organization. By having a clear understanding of the personalities of each employee, the process of forming realization teams could be focused on ensuring compatibility among team members. This, in turn, has the potential to enhance team efficiency and increase the likelihood of achieving positive outcomes.

The third proposal aims to address a challenge that is prevalent not only in the organisation but also in the wider non-profit sector. Due to the reliance on donors and fluctuating financial situations, non-profit organizations often face financial instability. As a result, the implementation of the proposed solution may be constrained by these external factors. However, the organisation can still take steps to mitigate the high turnover rate of educated employees by focusing on strategies to improve employee retention. These strategies may involve providing opportunities for career development, fostering a positive and supportive work environment, and offering competitive compensation and benefits packages. By prioritizing employee well-being and growth, the organisation can create an environment that encourages employees to stay and contribute their skills and expertise to the organization's mission.

The organisation can implement programs and initiatives that support employees' professional growth and advancement. This can include providing training workshops, seminars, and educational opportunities to enhance employees' skills and knowledge. Additionally, offering mentoring programs and opportunities for career progression within the organization can motivate employees to stay and contribute to their long-term career goals. Creating a positive and supportive work environment is crucial for employee retention. This can be achieved by fostering open communication, promoting teamwork and collaboration, and recognizing and appreciating employees' contributions. Providing a healthy work-life balance, flexible work arrangements, and opportunities for personal development and work-related autonomy can contribute to a positive work environment where employees feel valued and motivated to stay. Offering competitive compensation and benefits is essential to attract and retain talented employees. Conducting market research to ensure that employees' salaries are competitive within the industry and providing performance-based incentives or bonuses can demonstrate the organization's commitment to recognizing and rewarding employees' efforts. Additionally, comprehensive benefits packages, such as healthcare coverage, retirement plans, and work-life balance benefits, can enhance employees' overall job satisfaction and loyalty.

The fourth proposal aims to address the need for a comprehensive project management guide within the organization. This guide would serve as a complementary source of knowledge to the current organizational guide, specifically focusing on project management practices. The purpose of this guide is to provide a standardized framework and set of best practices that can be followed by project managers and teams across the organization.

The project management guide would cover various aspects of project management, including project initiation, planning, execution, monitoring, and closure. It would outline the key steps, methodologies, and tools that should be employed at each stage of the project lifecycle. The guide would also provide practical examples, case studies, and templates to assist project managers in implementing the recommended practices effectively.

By having a dedicated project management guide, the organisation can ensure consistency and standardization in project management approaches. It would provide project managers with a clear roadmap to follow, enabling them to navigate complex projects more efficiently and effectively. The guide would serve as a valuable resource for both experienced project managers and those new to project management, fostering a common understanding and language within the organization.

Furthermore, the project management guide would facilitate knowledge sharing and learning within the organization. It would serve as a repository of lessons learned from past projects, capturing valuable insights and best practices. Project managers can leverage this knowledge to avoid common pitfalls, mitigate risks, and enhance project outcomes. The guide can also support training and development initiatives by serving as a reference material for project management workshops and seminars.

In conclusion, the creation of a project management guide is proposed as a valuable resource to enhance project management practices within the organization. It would provide a standardized framework, promote consistency, and facilitate knowledge sharing. By implementing this guide, the organization can improve project outcomes, increase efficiency, and strengthen its project management capabilities.

Conclusion

The thesis comprised two main components: a theoretical exploration of the subject matter and an analytical case study of a specific project implemented by the non-profit organization IQ Roma Servis. The primary objective of the thesis was to analyze the theoretical concepts of project management and their practical application, ultimately creating an easy-to-understand guide for new project managers and all employees interested in the workings of projects. The research aimed to address the organization's challenges, namely the shortage of skilled project managers and the high turnover rate among educated employees.

The theoretical part delved into important terminology, provided essential definitions, and offered an in-depth understanding of project management through the lens of the three main project management standards PMI, PRINCE2 and IPMA.

The case study focused on a specific project called Housing Led, which provided valuable insights into the practical implementation of project management within a non-profit organization. It examined the correlation between the actual utilization of known project management tools and their theoretical descriptions, highlighting the inadvertent application and significance of certain tools.

To address the identified challenges, a proposal for improvement centered around refining the organization's recruitment approach for new employees. The suggestion was to shift the focus in project management towards evaluating the behavioral competencies of potential candidates. While education serves as a solid foundation, the long-term success of employees heavily relies on their personality traits. It is important to note that recruiting based on personality might be viewed as contentious by some. Therefore, the proposal is presented as a recommendation, something to consider and have an option to apply.

References

BOHEMIA, Erik, KOVACEVIC, Ahmed, BUCK, Lyndon, TOLLESTRUP, Christian, ERIKSEN, Kaare and OVESEN, Nis, 2016. MIND MAPPING AS A TOOL, AS A PROCESS, AS A PROBLEM/SOLUTION SPACE. *University of Montreal*. 2016.

BULICK, Willard J, no date. *Project evaluation procedures: a Publication of the American Association of Cost Engineers*.

CARRUTHERS, J. A. and BATTERSBY, Albert, 1966. Advances in Critical Path Methods. *OR*. 1966. Vol. 17, no. 4. DOI 10.2307/3007441.

CERAN, Turan and DORMAN, Albert, 1995. The Complete Project Manager. *Journal of Architectural Engineering*. June 1995. Vol. 1, no. 2.

COHEN, Yuval, ORNOY, Hana and KEREN, Baruch, 2013. MBTI personality types of project managers and their success: A field survey. *Project Management Journal*. June 2013. Vol. 44, no. 3, pp. 78–87. DOI 10.1002/pmj.21338.

CRAWFORD, Lynn, 2013. Competition, Comparison, Collaboration – Mapping a Pathway through Project Management Standards. *Procedia - Social and Behavioral Sciences*. March 2013. Vol. 74, pp. 1–9. DOI 10.1016/j.sbspro.2013.03.004.

DOLEŽAL, Jan, MÁCHAL, Pavel, LACKO, Branislav, DOLEŽAL, J, MÁCHAL, P and LACKO, B, no date. *Projektový management podle IPMA 2., aktualizované a doplněné vydání 2. vydání*.

GERALDI, Joana and LECHTER, Thomas, 2012. Gantt charts revisited: A critical analysis of its roots and implications to the management of projects today. *International Journal of Managing Projects in Business*. 7 September 2012. Vol. 5, no. 4, pp. 578–594. DOI 10.1108/17538371211268889.

GWIAZDA, A, 2008. Technical project management using quality methods. *Journal of Achievements in Materials and Manufacturing Engineering*. 2008. Vol. 31, no. 2.

HEAGNEY, Joseph, 2012. *Fundamentals of project management, fourth edition*. . 2012.

HENKEL, Thomas, HALEY, Gordon, BOURDEAU, Debra and MARION, James, 2019. An Insight to Project Manager Personality Traits Improving Team Project Outcomes. *Graziadio Business Review*. 2019. Vol. 22, no. 2.

HRON, Michal and OBWEGESER, Nikolaus, 2018. Scrum in practice: An overview of Scrum adaptations. In: *Proceedings of the Annual Hawaii International Conference on System Sciences*. 2018. DOI 10.24251/hicss.2018.679.

HUSSAIN, Amjad, JAMIL, Mohsin, FAROOQ, Muhammad Umar, ASIM, Muhammad, RAFIQUE, Muhammad Zeeshan and PRUNCU, Catalin I., 2021. Project managers' personality and project success: Moderating role of external environmental factors. *Sustainability (Switzerland)*. 2 August 2021. Vol. 13, no. 16. DOI 10.3390/su13169477.

INTERNATIONAL PROJECT MANAGEMENT ASSOCIATION, no date. *Individual competence baseline : for project, programme portfolio management*. ISBN 9789492338013.

INTERNATIONAL PROJECT MANAGEMENT ASSOCIATION, no date. *Organisational competence baseline : for developing competence in managing by projects*. ISBN 9789492338068.

JOHNSON, Heather A., 2017. Trello. *Journal of the Medical Library Association*. 2017. Vol. 105, no. 2. DOI 10.5195/jmla.2017.49.

KERZNER, Harold, 2022. *Project Management: A Systems Approach to Planning, Scheduling, and Controlling, 13th Edition*. Wiley. ISBN 978-1-119-80537-3.

KORÁB, Vojtěch, 2022. *Business Research*. . 10 December 2022. Brno: VUT.

KOTSIANTIS, S. B., 2013. *Decision trees: A recent overview*. . 2013.

LOCK, Dennis, 2020. *The Essentials of Project Management*. ISBN 9781472442543.

LUCID CONTENT TEAM, 2023. What Is PRINCE2 Methodology? *Lucidchart*. Online. 21 March 2023. [Accessed 15 April 2023]. Retrieved from: https://www.lucidchart.com/blog/what-is-prince2-methodology

MARQUES, Joana Ferreira and BERNARDINO, Jorge, 2019. Evaluation of asana, odoo, and projectlibre project management tools using the osspal methodology. In: *IC3K 2019 - Proceedings of the 11th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management*. 2019. DOI 10.5220/0008351903970403.

MIKO, Viktor Ján, no date. *Communication channels in non-profit organization IQ Roma Servis*.

MILOTA, Jan, SIVÁKOVÁ, Zuzana and MIKO, Viktor Ján, 2022. *Application for support - Housing Led*. Brno.

MILOTA, Jan, 2022. *Team meeting*. . 17 October 2022. Brno.

NAKAZAWA, Shun and TANAKA, Tetsuo, 2016. Development and application of kanban tool visualizing the work in progress. In: *Proceedings - 2016 5th IIAI International Congress on Advanced Applied Informatics, IIAI-AAI 2016*. 2016. DOI 10.1109/IIAI-AAI.2016.156.

PMI Code of Ethics and Professional Conduct PMI Code of Ethics and Professional Conduct CHAPTER 1. VISION AND APPLICABILITY 1.1 Vision and Purpose, no date. .

PÓLOVÁ, Šárka, 2023. *How do we evaluate projects*. . 20 April 2023. Brno.

PROJECT MANAGEMENT INSTITUTE, no date. *A guide to the project management body of knowledge (PMBOK® guide).* ISBN 9781935589679.

PROJECT MANAGEMENT INSTITUTE, no date. *The standard for project management and a guide to the project management body of knowledge (PMBOK guide).* ISBN 9781628256642.

PYRON, Tim, 2022. *Using Microsoft Project 2022*. Online. Que Publishing. [Accessed 12 March 2023]. ISBN 0-7897-2701-3. Retrieved from: https://books.google.cz/books?id=jN0Aj8YCMhMC&printsec=copyright&redir_esc=y#v=onepage&q&f=false

ŘEHÁČEK, Petr, 2013. *Projektové řízení podle PMI*. Praha: Ekopress. ISBN 978-80-86929-90-3.

ROSE, Kenneth, 2005. *Project quality management : why, what and how*. J. Ross Pub. ISBN 1932159487.

ROSEKE, Bernie, 2018. Guide To Project Management Methodologies. *ProjectEngineer*. Online. 23 November 2018. [Accessed 13 April 2023]. Retrieved from: http://www.projectengineer.net/guide-to-project-management-methodologies/

SARSBY, Alan, 2016. *SWOT Analysis: A guide to SWOT for business studies students*. Leadership Library. ISBN 978-0-9932504-2-2.

SEQUEIRA, Sérgio and LOPES, Eurico, 2015. Simple Method Proposal for Cost Estimation from Work Breakdown Structure. In: *Procedia Computer Science*. 2015. DOI 10.1016/j.procs.2015.08.559.

SIVÁKOVÁ, Zuzana, 2023. *Pre-project Phase*. . 26 April 2023. Brno.

SMOLÍKOVÁ, Lenka, 2018. *Projektové řízení*. CERM.

ŠTEFÁNEK, Radoslav, BOČKOVÁ, Kateřina, BENDOVÁ, Klára, HOLÁKOVÁ, Petra and MASÁR, Ivan, 2011. *Projektové řízení pro začátečníky*. Brno: EDIKA.

ŠTĚPÁN, Ripka, ČERNÁ, Eliška and KUBALA, Petr, 2018. *Pilotní testování rychlého zabydlení rodin s dětmi (Rapid Re-Housing)* Online. Ostrava. [Accessed 14 April 2023]. Retrieved from: https://socialnibydleni.org/wp-content/uploads/2018/12/RRH_Zaverecna-evaluacni-zprava_web.pdf

THESING, Theo, FELDMANN, Carsten and BURCHARDT, Martin, 2021. Agile versus Waterfall Project Management: Decision model for selecting the appropriate approach to a project. In: *Procedia Computer Science*. 2021. DOI 10.1016/j.procs.2021.01.227.

UHER, Thomas E. and TOAKLEY, A. Ray, 1999. Risk management in the conceptual phase of a project. *International Journal of Project Management*. 1999. Vol. 17, no. 3. DOI 10.1016/S0263-7863(98)00024-6.

ÚVOD, no date. *METODIKA PROJEKTOVÉHO MANAGEMENTU*. Brno.

VARAJÃO, João and CRUZ-CUNHA, Maria Manuela, 2013. Using AHP and the IPMA Competence Baseline in the project managers selection process. *International Journal of Production Research*. 2013. Vol. 51, no. 11. DOI 10.1080/00207543.2013.774473.

WATT, Adrienne, no date. *Project management*. ISBN 9781774200131.

WEST CHESTER UNIVERSITY, 2022. TUCKMAN'S STAGES OF GROUP DEVELOPMENT. *2023*. Online. 22 September 2022. [Accessed 15 May 2023]. Retrieved from: https://www.wcupa.edu/coral/tuckmanStagesGroupDelvelopment.aspx#:~:text=These%20stages%20are%20commonly%20known,more%20collaborative%20or%20shared%20leadership.