



**VILNIUS UNIVERSITY**  
**BUSINESS SCHOOL**

**INTERNATIONAL PROJECT MANAGEMENT PROGRAMME**

**Gulnar Abasova**

*Student 2230716*

**FINAL MASTER THESIS**

<b>“Organizaciniai Iššūkiai didėjant Projektų Valdymo Brandai”</b>	<b>“Organizational Challenges with growing Project Management Maturity”</b>
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Vytautas Pugacevskis  
Partnership Assoc. Prof.

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SUMMARY

VILNIUS UNIVERSITY BUSINESS SCHOOL

INTERNATIONAL PROJECT MANAGEMENT PROGRAMME

GULNAR ABASOVA

“ORGANIZATIONAL CHALLENGES WITH GROWING PROJECT MANAGEMENT  
MATURITY”

Supervisor – Partnership Assoc. Prof. Vytautas Pugacevskis

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The strategic value of organizational Project Management Maturity in achieving successful project outcomes is widely acknowledged. However, the journey to improve project management maturity levels often presents inherent challenges. This research seeks to identify these challenges using an extensive review of existing literature, focusing on analyzing diverse Project Management Maturity Models (PMMM). It embarks on a comprehensive analysis of these models before selecting an apt one for evaluating organizational project management maturity by research respondents.

The research employs qualitative analytical practices through semi-structured interviews, aligning findings with Kerzner's PMMM. The data analysis is divided into two core sections—analyzing specific challenges identified during the interviews, and finding broader trends and patterns across varying maturity levels. The insights derived contribute to theoretical literature and providing practical knowledge for project management decision-makers.

The study extends to encompass industry-wide challenges, thereby highlighting solutions and contributing to the development of best practices that elevate project management maturity across diverse industries. An in-depth understanding of these challenges is pivotal to resolving them, subsequently enabling mature project management practices to deliver enhanced value.

Furthermore, the research seeks to propose strategic recommendations that support organizations in navigating these challenges. Special emphasis is placed on areas such as resource allocation, alignment of business objectives, and managing resistance to change. The outcomes of this research aim to stimulate subsequent investigations into understanding these challenges at a deeper level, thereby paving the way for growth in project management maturity.

Overall, for project managers and stakeholders, this study provides an opportunity to equip themselves with tools and strategies that lead their organizations to attain higher maturity levels in project management.

**Keywords:** Project Management; Maturity Models; Project Management Maturity Models; Organizational challenges; Kerzner's PMMM

## SANTRAUKA

### VILNIAUS UNIVERSITETAS VERSLO MOKYKLA

#### TARPTAUTINĖS PROJEKTŲ VADYBOS PROGRAMA

GULNAR ABASOVA

#### “ORGANIZACINIAI IŠŠŪKIAI DIDĖJANT PROJEKTŲ VALDYMO BRANDAI”

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Plačiai pripažįstama strateginė organizacinio projektų valdymo brandos vertė siekiant sėkmingų projekto rezultatų. Tačiau projektų valdymo brandos lygio gerinimo kelias dažnai kelia savų iššūkių. Šiuo tyrimu siekiama nustatyti šiuos iššūkius naudojant išsamią esamos literatūros apžvalgą, sutelkiant dėmesį į įvairių projektų valdymo brandos modelių (PMMM) analizę. Ji pradeda išsamią šių modelių analizę prieš pasirinkdama tinkamą, skirtą įvertinti tyrimo respondentų organizacinių projektų valdymo brandą.

Tyrimo naudojama kokybinė analitinė praktika per pusiau struktūruotus interviu, suderinant išvadas su Kerznerio PMMM. Duomenų analizė suskirstyta į dvi pagrindines dalis – analizuojant konkrečius interviu metu nustatytus iššūkius ir ieškant platesnių tendencijų bei modelių skirtinguose brandos lygiuose. Gautos išvalgos prisideda prie teorinės literatūros ir suteikia praktinių žinių projektų valdymo sprendimų priėmėjams.

Tyrimas apima visos pramonės iššūkius, taip išryškinant sprendimus ir prisidedant prie geriausios praktikos, kuri padidina projektų valdymo brandą įvairiose pramonės šakose, kūrimo. Išsamus šių iššūkių supratimas yra labai svarbus juos sprendžiant, o tai vėliau leidžia brandžioms projektų valdymo praktikoms sukurti didesnę vertę.

Be to, tyrimu siekiama pasiūlyti strategines rekomendacijas, kurios padėtų organizacijoms įveikti šiuos iššūkius. Ypatingas dėmesys skiriamas tokioms sritims kaip išteklių paskirstymas, verslo tikslų suderinimas ir atsparumo pokyčiams valdymas. Šio tyrimo rezultatais siekiama paskatinti vėlesnius tyrimus, siekiant suprasti šiuos iššūkius gilesniame lygmenyje, taip sudarant sąlygas projektų valdymo brandos augimui.

Apskritai projektų vadovams ir suinteresuotosioms šalims šis tyrimas suteikia galimybę apsirūpinti įrankiais ir strategijomis, kurios padeda jų organizacijoms pasiekti aukštesnį projektų valdymo brandos lygį.

**Raktiniai žodžiai:** Projektų valdymas; brandos modeliai; Projektų valdymo brandos modeliai; Organizaciniai iššūkių; Kerznerio PMMM

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## INTRODUCTION

In today's dynamic business landscape, organizations are increasingly recognizing the strategic importance of project management practices with greater maturity levels in achieving successful project outcomes and overall business objectives. As businesses strive for greater efficiency, effectiveness, and agility in project execution, the maturity level of their project management practices becomes a crucial factor. However, the journey toward achieving higher PMO maturity levels is full of challenges that require careful consideration and strategic planning.

The aim of this paper is to analyze the organizational challenges associated with the progression of project management maturity levels. Through a comprehensive analysis of existing literature, we aim to examine the diverse Project Management Maturity Models (PMMM) currently available. By drawing comparisons between these models, intention is to find a model best fitting to assess an organization's project management maturity. Furthermore, we will examine what challenges are prevalent in each level, the patterns and trends among them, opportunities to solve these challenges, and possible directions in the further researches regarding growing project management maturity levels within organizations.

In previous studies, a survey instruments was created and administered by Simangunsong and Da Silva (2013) and according to the findings of the analysis, the construction and primary industries foud to be more mature than manufacturing and services. It should be highlighted, however, that comprehension of project management is limited across industries. It led to suggestion that additional high-quality project management training or certification is needed to increase overall project management understanding for stepping into the next project management maturity level. This recommendation also corresponded to Cooke-Davies and Arzymanow's findings (2003). However, there are more significant challenges found in previous literature stating that organization`s overall project management maturity level is built on different co-factors, therefore there is much to identify and solve. Other studies by Adams (1997) and Long, etal. (2004) have identified low managerial skills of contractors as one of the fundamental difficulties of the developing-country construction sector. subsequently, Abadir's (2011) study assessed project management maturity in Ethiopian construction, surveyed 40 contractors. The average maturity identified at 1.30, with many knowledge areas being implemented informally. The study also compared road construction and building construction contractors, with the former showing higher

maturity. As observed from these studies and findings from literature review, while some challenges have already been identified, *the range and depth of these challenges remain relatively limited*. This highlights the necessity for an extended and more comprehensive investigation into the barriers hindering project management maturity. The crucial reasons emphasizing *the need for this additional research* can be grouped as below:

1. Prior studies have indeed shed light on certain challenges affecting project management maturity, but these have often been limited to specific industries or a small set of identified issues.
2. Expanding the research will facilitate a deeper exploration of newly emerging challenges.
3. The identification of additional challenges serves as a catalyst for progress. Recognizing and comprehensively understanding these barriers will contribute to the development of best practices, training modules, and certifications aimed at improving project management maturity across diverse industries.

As organizations try to excel at their project management maturity, it is hypothesized that they will encounter a spectrum of organizational challenges. *The hypothesis* suggests that the successful navigation and solution of these challenges will contribute positively to the overall project management maturity of the organization. It further suggests that the nature and extent of these challenges will vary across maturity levels. The study aims to validate this hypothesis by systematically identifying, analyzing, and categorizing the organizational challenges faced during the growth of project management maturity.

In order to get a comprehensive understanding of the organizational challenges associated with the growing project management maturity levels, this thesis will focus on the following *objectives*:

1. To thoroughly analyze and understand the different Project Management Maturity Models (PMMM) available in the current landscape and their application in various organizations.
2. To draw comparisons between the different PMMMs to determine their advantages, limitations, and deciding on which model to use in order to assess the maturity levels in organizations selected for the research.

3. To examine the challenges that organizations face when trying to improve their Project Management maturity levels, including resource allocation, alignment with business objectives, resistance to change, and other potential obstacles.
4. To investigate and propose possible recommendations and strategies that can help organizations overcome the challenges based on the conclusions.
5. To discuss the opportunities for potential future research that can help investigating challenges in more depth.

These objectives have been carefully outlined to provide a thorough investigation of Project Management Maturity Models and project management maturity within organizations, the challenges faced during transitions, and the potential solutions and opportunities that come along with enhanced PMO maturity.

We shall study the fundamental ideas and difficulties involved in increasing project management maturity inside organizations in the *Theoretical Review* part of this thesis. This section is broken into two main parts that each focus on different facets of the issue to give a thorough grasp of it. The theoretical framework and Project Management Maturity Levels by its definition will be examined in the first section, and an extensive analysis of organizational challenges will be presented in the second.

The *Research Methodologies* chapter offers a comprehensive insight into the systematic approach employed to explore the challenges associated with growing Project Management Maturity, providing a clear framework for data collection, analysis, and interpretation. Qualitative analysis methods and interview structure will be discussed in this chapter along with central and sub research questions. Furthermore, *the research design, data sources, sampling techniques, data-gathering instruments, data processing, and ethical considerations* will be discussed in more depth at this chapter.

The *Data Analysis* chapter is the interpretative core of this thesis, focusing on insights from interviews with organizational respondents about their challenges in enhancing project management maturity. Guided by Kerzner's Maturity Model, the chapter is structured into two sections. The first examines specific challenges identified, including both recurring and unique issues, during interviews. The second section analyzes overarching trends and patterns, providing a comprehensive understanding of real-time difficulties faced by organizations. Aligning these findings with the theoretical framework offers a profound understanding of dynamics within

organizations striving for project management maturity growth. The insights derived aim to guide transformations, inform decision-makers, and stimulate further academic discourse on the subject.

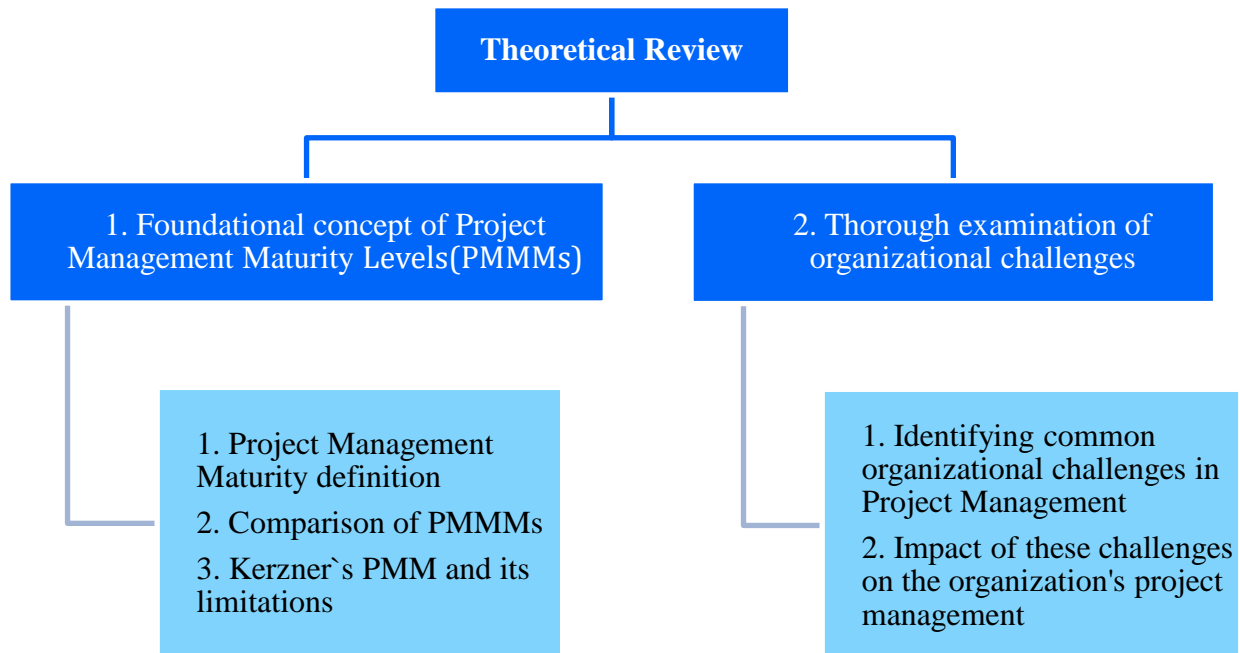
Finally, the *Conclusions and Suggestions for Further Research* chapter serves as the final segment of this research, depicting the key findings and insights gathered throughout the study. This chapter aims to offer a comprehensive synthesis of the theoretical review, research methods, data collection tools and data analysis presented in preceding chapters. In the initial section of this chapter, the conclusions drawn from the empirical findings will be outlined, providing a clear and concise summary of the identified challenges and the patterns found across various maturity levels. Secondly, practical recommendations and strategies for organizations to address these challenges will be presented, offering a valuable resource for practitioners, leaders, and decision-makers in project management.

## 1. THEORETICAL REVIEW

In the theoretical review part of this thesis, we will look at the fundamental concepts and challenges associated with growing project management maturity inside organizations. To provide a complete understanding of the topic, this section is divided into two primary sections that each concentrate on different aspects of it. The theoretical framework and the foundational concept of Project Management Maturity Levels (PMMMs) will be discussed in the first section, and a thorough examination of organizational challenges will be discussed in the second.

**Figure 1.**

*Structure of Theoretical Review*



*Source:* compiled by the author

### 1.1. Theoretical foundation

#### 1.1.1. Introduction to Project Management Maturity

Projects are now viewed as being about much more than just building fabrics, working on medical devices, or fixing technical issues; they are also learning opportunities for businesses. That being the case, Mullaly and Thomas' research on project management value revealed that higher maturity levels enhance intangible value within an organization (Thomas & Mullaly, 2007).

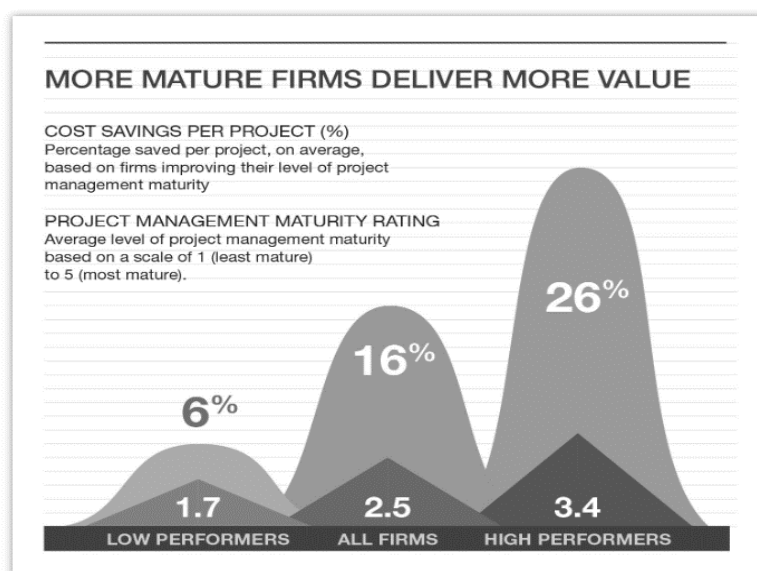
And in the context of organizations, the ability of the organization to implement projects for various reasons may be indicated or measured by the phrase "project maturity". *Maturity Models*, which define an organization's level of project management maturity, help assess current performance and outline strategies for improving project management systems (Göçmen Polat, 2021; Pasian, 2011). Project management maturity refers to a company's standing in terms of its project management procedures. Hence, maturity models are aimed at measuring a company's capability to successfully handle projects (Van Der Waldt, 2020; T. F. de Souza & Gomes, 2015).

The interest in project management maturity has emerged within organizations due to the effective role projects play in altering complex situations. The idea of project maturity is deeply associated with the probability of success or failure. Organizations lacking maturity are identified by their ad hoc management practices, and their failure to create necessary links among different knowledge domains (Cappellari et al., 2019; Jr & Pessôa, 2005).

The study from PM Solutions, Project Management Maturity & Value Benchmark, supports the idea that organizations will see increases in project management performance as they increase their project management maturity (*Benchmark Study Shows Higher Project Management Maturity = Stronger Performance* / PM Solutions, n.d.).

## Figure 2.

*Benchmark Study for showing value of PM Maturity*



Source: PM Solutions, Project Management Maturity & Value Benchmark

Maturity models provide an overview of an organization's current stage of evolution by evaluating its present performance. This facilitates the creation of tactics and strategies for ongoing enhancement (Derenskaya, 2017). More precisely, by segregating the evolutionary progress into a series of stages or phases, a logical route from the beginning point to the final stage of maturity is created. This assists in determining and prioritizing measures for improvement and control during the change process (Virkkala et al., 2020).

Obtaining higher levels of maturity equates to gaining more complex organizational skills, increased predictability and governance of processes. This can be achieved by minimizing informal communication among project team members and mitigating negative impacts triggered by individual characteristics present within the workforce. The facilitation of project management practices is aided by formalizing knowledge, increasing project management activities' standardization, and adequately documenting issues and best practices. Improvements in project management are also linked with greater use of qualitative indicators and the implementation of project management's best practices (Derenskaya, 2017). The adoption of organizational project management procedures can expedite the introduction of a new product into the market by 30-65%, diminish defects by 35-75%, reduce changes to the project's scope and engineering aspects by 45-68%, amplify profit by 6% and escalate return on investment by up to 20% (Degtyaryev, 2014).

### **1.1.2. Common Project Maturity Models in today's organizations**

The Project Management Institute (PMI) identifies numerous maturity models that organizations commonly implement. At first, these models were originated more towards operations, with project success being measured primarily by cost, time, and compliance to technical standards (Shenhar & Stefanovic, 2006). These models highlight differences in how various companies carry out their projects, which is contingent on their unique visions and objectives.

Maturity models are utilized across various disciplines and applications to evaluate and enhance the process of product or service development (Tunç, 2022; Farrokh & Mansur, 2013). Numerous maturity models exist, each with distinctive features and methods to attain the objective

(R. M. de Souza et al., 2020). However, all possess some common elements, such as (Garzon, 2019; Torres, 2014):

- 4 to 5 maturity levels
- Definition for each level, for example: initial, repeatable, defined, managed, and optimized
- A brief explanation for each level, featuring its uniqueness
- A grouping of process areas, dimensions, or both
- A grouping of components or tasks aligned with each process area and dimension
- A comprehensive explanation of each component or task.

Initially, when evaluating an organization's project management processes, the maturity assessment model best suited for the organizational needs to be chosen. This choice greatly depends on the resources and needs of the organization. Once chosen, it can not only determine the organization's maturity level but also establish the level it aims to reach in the future (T. F. de Souza & Gomes, 2015), even though some researchers claims that in reality, there are no organizations that have attained a high level of maturity (Produção et al., 2021; Andersen & Jessen, 2003). Instead, there are companies striving to reach varying maturity levels that align with their objectives. In order to attain the desired maturity level, it is necessary to scrutinize historical data, understand crucial sub-processes, gain knowledge, and set achievable improvement goals for these sub-processes (Cerdeiral & Santos, 2019).

However, a significant limitation of these models is their restrictive scope. Most of them serve merely as tools to classify an organization's actual behavior, without offering a broader, more comprehensive perspective. This section discusses most common PMMMs and compares their differences in use.

### **Capability Maturity Model Integration**

In project management and organizational development, a diverse array of maturity models exists, with over 30 models in widespread use. Some are specific to the industry, while others are more general. For instance, the *Capability Maturity Model Integration* (CMMI®) is widely used in the software industry. This approach was developed by the Carnegie Mellon University Software Engineering Institute with the European Foundation for Quality Management (EFQM) collaborating on development. It incorporates features from the Risk Maturity Model that describes



which elements and actions can result in a sustainable and consistent risk management program. According to Carsten Ruseng Jakobsen and Jeff Sutherland, when CMMI and Scrum are used together, performance improves dramatically while becoming CMMI compliant. Using these two methods together cuts approximately half of all work categories (defects, revisions, the overall work needed, and process overhead).

Some researches suggests that organizations face difficulties in implementing CMMI, implying that the need for assessment facilitation is necessary to prevent resource wastage (Xu et al., 2023; Allué et al., 2013; Staples & Niazi, 2008). As per Allué et al. (2013), one way to facilitate this process is by equipping organizations with tools or software products designed to simplify the CMMI adoption process. However, very few tools support every type of CMMI-related activity. Furthermore, the level of support provided is often minimal, and the adaptability of the tool to meet user requirements is typically limited (Musat et al., 2010). Best factor for utilizing CMMI is that it is compatible with the AGILE project management methodology (Stachowiak & Pawłyszyn, 2021; Jiang et al., 2004).

### **Project Management Maturity Model (PMMM) by Darci Prado**

This model originally proposed by Darci Prado in 2002 to help consulting services, but it has subsequently evolved into a project management maturity model utilized by a variety of businesses. The primary objective of the PMMM is to serve as a strategic roadmap for organizational transformation. It accomplishes this by offering a structured framework for evaluating an organization's project management capabilities and pinpointing areas of strength and weakness. Through this systematic assessment, businesses gain valuable insights into their project management practices, enabling them to make informed decisions and improvements (*The Effect Of Project Governance And Performance Management On Organizational Strategy*, n.d.). Furthermore, the PMMM plays a vital role to establishing a clear correlation between an organization's level of project management maturity and overall project performance. It acknowledges that successful project management is more than just following best practices; it is a crucial factor of project success (Vrchota et al., 2021). Companies experience real benefits in project results as they progress through the maturity levels, such as lower costs, shorter delivery times, and more stakeholder satisfaction (Pulse of the Profession, PMI, 2016).

### **Organizational Project Management Maturity Model (OPM3)**

In the field of project management, OPM3 is regarded as the most advanced among the identified maturity models, although it is also the most resource-demanding (Pretorius et al., 2023; Backlund et al., 2014; T. J. Cooke-Davies, n.d., 2002).

This model by PMI (2003) helps businesses plan growth, prioritize work, and save funds. It provides a best practices database, KPI clarifications, expected outcomes, and suggestions for improving project management effectiveness. The concept is divided into five stages: initial, unregulated, individual project management, management, integration, and improvement. It enables businesses to organize, set priorities, and conserve resources while assuring excellent project management. Continuous advancement and automation of project management methods are promoted by the approach.

When we compare PMMMs based on the capability maturity model (CMM), which follows a tiered display of maturity, to OPM3, we see that CMM is based on product quality standards intended for industrial goods. OPM3, on the other hand, is scalable and versatile since it is based on a widely established project management body of knowledge (PMBOK), program management, and portfolio management. It does not adhere to the standard assumptions of staged representation of maturity or of the development dependency of maturity levels.

### **PMMM model by Harold Kerzner**

Project management maturity models support the advancement of the PMO from embryonic to mature state ( Project Management Institute, 2008b; H. Kerzner, 2005). The strategic project management planning practices of companies like Motorola and Nortel, made them successful in aligning their efforts with their strategic goals (H. Kerzner, 2001). Nortel, a global telecommunications equipment manufacturer, and Ericsson, a telecommunications technology company, achieved significant results during the period of 1992 to 1998. Despite not revealing specific accomplishments or projects, the strategic and mature approach to project management played a crucial role in their success.

PMMM is a five-level framework for achieving excellence in project management. It consists of five levels: common language, common processes, singular methodology, benchmarking, and continuous improvement. Level 1 acknowledges the importance of project management and its basic knowledge. Level 2 defines and develops common processes for

repeatable success. Level 3 combines all corporate methodologies into a singular methodology, making process control easier. Level 4 emphasizes continuous benchmarking for process improvement and evaluates the effectiveness of benchmarking information. In order to reach Level 5, the business must assess the data gathered through benchmarking and determine whether it will improve the singular methodology. It is possible for these levels to co-exist within an organization.

Besides the above-mentioned models, there are other models of assessing organizational maturity: *SPICE* model (Software Process Improvement and Capability Determination); Project *FRAMEWORK* produced by ESA; *PM Solutions*, etc. (Rusyakova, 2018, 2014).

### **1.1.3. Comparison of Project Management Maturity Models.**

The Project Management Maturity Models (PMMM) reported in the literature varies greatly in terms of complexity, area of study, features, and criteria covered. The table below shows the comparison of various Project Management Maturity Models (PMMM), including OPM3, PMMM by Darci Prado, CMMI, PMI PMMM, PM Solution, and PMMM by Harold Kerzner. Each model has its own unique complexities and areas of use. While models like OPM3 and PMI PMMM have a high complexity and focus on project management and organizational strategy, the CMMI model has a moderate complexity and is more specific to the software industry and risk management.

The table also compares the unique features of each model, illustrating various strategies such as best practice databases, performance improvements, project solutions, and scaling maturity levels. It also outlines the industries these models are mainly used in, showing a general focus on project-based industries. Additionally, the key variables offer a comparison of the different stages, elements, methods, and solutions found within each model. This comparison aids in understanding the diversity of PMMMs, their areas of application, and their potential impacts on project management and organizational development.

**Table 1.***Comparison of PMMMs*

	OPM3	PMMM by Darci Prado	CMMI	PMI PMMM	PM Solution	PMMM by Harold Kerzner
<b>Complexity</b>	High	High	Moderate	High	Moderate	High
<b>Area of use</b>	Project management, organizational development	Project management, organizational strategy	Software industry, Risk management	Project management, organizational strategy	Project management	Project management
<b>Features</b>	Best practices database, KPI clarifications, expected outcomes, suggestions for improvement	Assessment of project management capabilities, improvement strategies, roadmap for transformation	Consistent risk management, CMMI compliance, performance improvement	Best practices, prioritization of work, cost-saving strategies	Project solutions	Scaling maturity levels, evaluation and development methods
<b>Industry Used</b>	Multiple, with a focus on project-based industries	Varied	Software	Multiple, with a focus on project-based industries	Multiple, with a focus on project-based industries	Multiple, with a focus on project-based industries
<b>Key Variables</b>	Stages of growth: initial, unregulated, individual project management, management, integration, and improvement	Evaluation of strengths and weaknesses, establishment of project management maturity and performance correlation	Elements and actions contributing to risk management, CMMI and Scrum combination benefits	Efficient project management, continuous advancement and automation of project management methods	Project solutions	Progression from one level of maturity to a higher level, maturity ladder concept

*Source:* compiled by author

Generally, existing Project Management Maturity Models (PMMMs) have notable limitations, including the introduction of bureaucratic complexities into management processes, as noted by Kerzner (2001, 2004, 2005, 2006). Additionally, these models, while designed to enhance project management (PM) maturity, often overlook the importance of capitalizing on project knowledge and leveraging past experiences to improve PM processes. Project knowledge management, when addressed in the models, is typically relegated to administrative closure of projects, with project reviews commonly reserved for the highest levels of maturity. (Alami et al., 2015; M. Karim et al., 2022). This study, however, will focus on more in-depth evaluation of widely recognized project management maturity model - *PMMM*, which analyses most areas of organizations and assists them in getting a competitive edge over rival companies. Following a rigorous structural analysis of the models, it is decided that *PMMM* is the most promising maturity model that, due to its unique approach to evaluation and development methods, may truly deliver an advantage to business organizations. Additionally, *PMMM* suggests that a progression from one level of maturity to a higher one is possible. As stated by Kerzner (2005), idea of a maturity ladder is based on the idea that maturity grows over time and can be identified through certain steps or stages.

## **1.2. Challenges in maturing project management within organizations.**

The organizational challenges section will focus around the requirement for organizational project management maturity and the challenges that are faced along the way. To begin, firms must match project management capabilities with the rising complexity of projects. This entails merging functional divisions, aligning goals, regulating relationships, and encouraging open communication, especially in the setting of global operations and virtual teams. As proven by stock price increases, achieving project management maturity is critical for industries such as financial institutions, automotive subcontractors, and high-tech enterprises (Christie, A., 2006). However, businesses face challenges in improving project management maturity (M. A. Karim et al., 2023), including selecting the right PMO, securing administrative support, and maintaining up-to-date technological knowledge and tools, as well as addressing systemic problems and long-term commitments. Recently, the project success rate globally has been stagnant, and project management maturity models (PMMM) are being examined further (M. A. Karim et al., 2023).

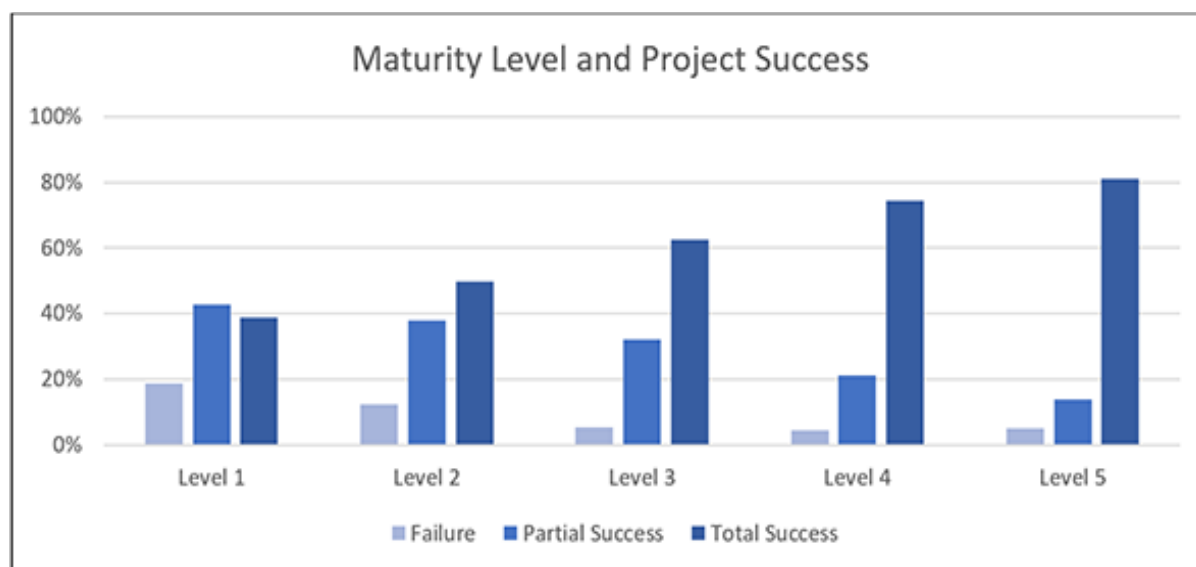
### **1.2.1. Organizational needs for Project Management Maturity**

ISO (the International Organization for Standardization) explains term “organization (3.2.1)” as “person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its objectives”. The reason for organizations to exist is to fulfill identified goals and to develop collaborative coordinated efforts. According to IPMA Organizational Baseline (IPMA OCB), there are two types of organizations, which are a temporary, meaning that exist as long as projects being implemented, and permanent organizations. Focusing on permanent organizations, the rising complexity of projects need proper project management competencies. Incorporating functional divisions, synchronizing goals, controlling interactions, and providing open communication are all part of this. It is especially crucial for companies with a global presence or virtual teams which necessitate substantial commitment and understanding of cultural factors.

Financial institutions, automotive subcontractors, and high-tech companies have already stated that they benefit from mature project management practices. As shown in Figure 3, these companies have achieved to increase their project success with implementation of better project management practices.

**Figure 3.**

*Impact on Project success as a result of better project management*



*Source:* Project Management Academy, “Project Management Maturity - Where Does Your Organization Fall?”

### 1.2.1. Challenges of project management maturity

Common sense offers it's likely that organizations with structured systems implementing a mature project processes, combined with a culture of constant improvement, have higher chances of successfully completing projects (Mcgrath & Kostalova, 2023; Langston & Ghanbaripour, 2016). Over time, researches have been conducted to create frameworks that can objectively assess organizational maturity (Jayanetti et al., 2023; Nesensohn et al., 2014). Typically, widely-used frameworks tend to be intricate and demand significant expertise and time when applied in a practical setting (Langston & Ghanbaripour, 2016). Maturity models commonly have foundational concepts, incorporating elements that identifies the ongoing enhancement of competencies. Ideally, they also depict the processes organizations can adopt to attain a more advanced level of maturity (PMI, 2013).

One challenge related to the application of current models in organizations is their emphasis on solid knowledge areas of project management, while *overlooking intangible assets*. These less apparent assets, like customer engagement and implicit human factors such as creativity, integrity, and trust, critically contribute to project management maturity (Backlund et al., 2014; Pasian, 2011; Jugdev & Thomas, 2002). Another issue with existing models is the

*complexity of their frameworks*, which could deter potential users from implementing them due to the commitment of time and cost involved (Crawford, 2011). He argues that project management is now recognized as an organizational capability, marked by the prevalence of generic 'maturity' models that offer universal approaches to what is deemed 'best practice'. However, both maturity models and best practices pose challenges. Maturity models often advocate for companies to progressively achieve predefined levels of practice across a standardized set of 'best' practices. Crawford questions the notion of a one-size-fits-all approach, emphasizing that what constitutes best practice depends on the organization, its context, and unique strategies. While project management systems may share similarities across firms, they operate in diverse contexts and are influenced by distinct strategies, making practices that work well for some organizations less suitable for others.

This research emphasizes a situation wherein predominant market solutions for organizational maturity each come with their own limitations. They are often too rigid (adopting a one-size-fits-all approach), deterministic (relying on hierarchical evaluations), not aligned with objectives (lacking strategic focus), and not practical (having a disconnect with project success). Additionally, these prevailing market solutions are often complicated and consume a large amount of resources (Langston & Ghanbaripour, 2016).

**Uncustomizability of Maturity models.** The current state of maturity models, with their 'one size fits all' approach, is inadequate for diverse companies operating in various sectors with distinct maturity stages. The applicability of 'best practices' can differ significantly from one industry to another, and current models lack the capacity for nuanced differentiation (Celani de Souza et al., 2023; Brookes & Clark, 2009). Additionally, there is a risk that revealing areas of immaturity through these models can negatively impact an organization's reputation and competitive standing. Further, the constant evolution of organizations and the critical role of individual capabilities in determining success necessitates an adaptable, customizable maturity model. This model should not only measure maturity but also guide companies towards improvement, helping to accentuate strengths and rectify weaknesses. There is a notable need for more flexible, customizable, and confidential maturity models to accurately measure and enhance an organization's project management maturity.

**Managing capabilities associated with Project Management Maturity.** Capabilities are integrally linked with ultimate strategic organizational objectives, which in turn are rooted in an



organization's vision, mission, and values. When these capabilities are mature, strategic effectiveness is enhanced (MohamadSaleh & Alzahrani, 2023). However, a significant challenge arises when an organization has a vast array of detailed project management capabilities, which may weaken their connection to the overall strategic objective (Langston & Ghanbaripour, 2016). It is, therefore, a critical challenge to simplify and focus the assessment on a limited number of core capabilities (Nandyal R 2018). Despite project management's evolving nature, from projects to aligned projects (programs), to collections of projects and programs (portfolios), the challenge lies in ensuring that capabilities are also mature and advance.

The concept of Management by Objectives (MBO) introduced by Peter Drucker has its sets of challenges when it comes to implementation, especially in tracking organization's performance in its journey from lower to higher capability over time (Dosi et al., 2000). Each capability requires setting target goals, measuring outcomes, assessing performance, and improving systems where necessary. The challenge for maturity models lies in their capacity to manage and align numerous capabilities without losing sight of the overarching strategic objectives. This underscores the need for adaptable maturity models to efficiently manage a focused set of core capabilities.

**Adhering to continuous improvement.** Maturity, by definition, is the progression from a state of simplicity to one of sophistication and rigor, and this process demands constant improvement. A key challenge for maturity models emerges in converting this abstract process into concrete, measurable metrics at every stage (Wysocki, 2004).

The implementation of Edwards Deming's plan-do-check-act (PDCA) cycle across all management activities magnifies the challenge. Constantly executing this process, including establishing targets (plan), measuring outcomes (do), assessing performance (check), and enhancing protocols (act), in line with the relevant organizational capabilities is a considerable a challenge (Varadejsatitwong et al., 2022; Du et al., 2008).

The very nature of maturity entails a cyclical process of learning from past performances and applying these learnings to enhance future processes (Wysocki, 2004). Moreover, fostering a culture of learning and continuous improvement, as opposed to a tiered hierarchy of maturity levels, is another significant challenge for maturity models (Boateng & Olexova, 2023; Stacey, 2007). Therefore, developing maturity models that can effectively manage these complexities is a daunting but necessary task for continuous organizational growth.

**Selecting an appropriate project strategy aligned with PMMM.** The selection of a strategy becomes paramount in effectively managing the uncertainties, changes, and complexities associated with advancing project management maturity levels. The strategy, conceived as a plan aligning resources to achieve desired objectives (Umuteme & Adegbite, 2022; Cobb, 2012), necessitates a comprehensive approach. Incorporating risk assessment, option development, trade-off studies, and SWOT analysis becomes crucial in the strategic decision-making process. The challenge lies in integrating these strategic considerations within the broader framework of project management maturity, where the complexity of evolving processes and practices requires a nuanced and informed strategic direction (Dempsey et al., 2022; Cobb, 2012).

**Conflict of interests.** In the search of advancing project management maturity, a noteworthy challenge arises in ensuring the expeditious and fair resolution of conflicts, a critical issue given the involvement of diverse stakeholders with potentially conflicting interests in projects (Dempsey et al., 2022; Alotaibi & Mafimisebi, 2016). The outcome of a project is intricately linked to the effectiveness with which conflicts are addressed. Acknowledging the inevitability of conflicts, as underscored by Wellman (2011), emphasizes the necessity for organizations to proactively devise plans for conflict management. This challenge becomes particularly intricate within the framework of enhancing project management maturity, necessitating organizations to delicately balance the imperative of conflict resolution with broader maturity objectives.

**Measuring success in mature project management environment.** Another significant challenge lies in establishing a standard, objective measurement of success that is broadly applicable across the organization. Here, the definitions of 'project success' and 'project management success' come into play, as highlighted by Cooke-Davies (2002). 'Project success' refers to the selection of the right project, while 'project management success' pertains to executing the project in the right manner.

Adding to this complexity is distinguishing 'success factors,' which contribute to successful outcomes, and 'success criteria,' used to evaluate that success, as pointed out by Davis (Alintah-Abel et al., 2023; Davis, 2014). This challenge can be accelerated due to the variation in these criteria and factors according to specific project types and client objectives.

Moreover, the usage of success criteria (such as KPIs) and success factors (like core project constraints) interchangeably further complicates the landscape (Kovacevic, 2021; Westerveld,

2003). Navigating this web of definitions, measures, and interrelationships poses a substantial challenge to project management maturity models, emphasizing the need for well-structured models that can effectively address these complexities.

## **2.2. Challenges identified by H.Kerzner in PMMM**

The Project Management Maturity Model (PMMM), as conceptualized by Harold Kerzner, outlines a progressive journey through five distinct levels, each presenting unique challenges and prerequisites for advancement. In this analysis, we explore the difficulties and trends associated with each level, emphasizing the essential transitions required for organizational growth. The PMMM serves as a guide for entities aiming to enhance their project management capabilities, with each level signifying a stage of maturity in project management practices. As we explore each level, from initial challenges in Level 1 to continuous improvement in Level 5, we uncover the complexities of fostering a strong project management culture in an organization. According to PMMM model by H. Kerzner, there are some challenges that exist in each level of PMMM and necessary steps to complete before proceeding into next level.

**Level 1: Common language challenges.** In organizations with the initial stage of maturity, the advantages of project management are frequently disregarded, with managers often prioritizing their personal influence and control over the overall success of the company. Decisions are typically made based on what is most beneficial to the decision-maker, with little or no investment in project management training or education to avoid disrupting the existing order. A common barrier to change is the apprehension of a "potential culture shift" among the management, sparked by the perceived threat of losing control over project managers. This fear often leads to justifications for not adopting appropriate project management practices. While multiple-boss reporting is usually associated with project management, it may require alterations in the existing power dynamics and authority structures.

An organization must set up initial project management training, acquire qualified professionals, and encourage staff to use a common language to proceed to Level 2. According to the Project Management Body of information (PMBOK), obstacles to completion include resistance to change, a lack of fundamental information, an awareness of the tools at hand, and a comprehension of project management concepts.

**Level 2: Common processes.** The central challenge in Level 2 project management maturity is the need to develop standard methods and behaviors for sustained success. Personnel are required to follow specific set conducts for repeated process execution. The tangible benefits such as reduced costs, shrinking schedules, no “quality or scope” compromise, and improved customer contentment are the top-priority. There is an emphasis on the need for continuous support from top-level management and possible changes to the company's culture. Unswerving procedures and processes are vital for producing successful projects. The Level 2 project management program focuses on establishing a comprehensive project management curriculum (beyond a simple PM course). It highlights the organization's affirmation to project management and executing projects within the given budget, scope, and schedule. This often necessitates changes to the cost accounting system.

In level 2, acknowledging the strategic significance of project management efficiency, an increasing number of managers and companies are opting to obtain certification, i.e. to have their management practices being evaluated and enhanced (PMI, 2010).

Common organizational procedures necessitate a clearly defined method as well as the appropriate organizational behavior to carry them out. There are five life cycle phases that can be used to segment common Level 2 processes. A key challenge in the embryonic stage, *the first cycle*, is the organization's recognition and understanding of the need for project management. Recognizing the need for project management, as well as any potential advantages, uses, and adjustments needed to put it into practice, are all part of this phase.

Change happens swiftly once leaders understand that project management is necessary to survive, leading to executive management acceptance, which is *second life cycle*. As stated by IPMA OCB (2016), senior executives identify organizational features that need be modified or adjusted, organize investments for change attempts, and engage external parties.

Line management acceptance, which is the *third stage*, entails outward line management support, a dedication to project management, education, and the release of operational staff for project management training courses.

The growth phase, the *fourth life cycle* phase, is crucial and necessitates the successful completion of the first three life cycle phases. This stage involves creating a project management

methodology for the business, committing to good planning, minimizing scope modifications, and choosing project management software to support the approach.

The *fifth life cycle*, entails the creation of a management cost/schedule control system, the integration of cost and schedule control, and a continuous educational program to assist project management and improve individual abilities. Because executives and line managers despise project cost control, also known as horizontal accounting, which they wish to implement before a project plan is formed, many businesses never fully finish this phase.

Resistance to change results from suspicion of strict standards and processes, distrust of shifting power and authority dynamics, and worry that it may reveal issues that some have poor estimation skills. Four crucial steps must be taken in order to reach Level 3: creating a project management culture that supports both behavioral and quantitative aspects; identifying the motivating factors and benefits; developing a repeatable project management process; and developing an ongoing, all-employee project management curriculum that ensures long-term benefits and improvement.

**Level 3: Singular integrated methodology.** At level 3, an organization aims to establish one singular, integrated methodology for efficiency and control, abandoning multiple conflicting ones. This requires a blend of integrated processes, organizational culture, managerial support, and informal project management methods, adding new aspects like risk and change management as they grow more experienced. Challenges faced include resistance to adopt a singular methodology, initial reluctance to accountability, and organizations with non-cooperative cultures.

Key components needed for success are integrated processes, fostering cooperative culture, strong management support at all levels, informal project management minimizing paperwork, emphasis on communication, delegation, and teamwork, and robust training and education that is quantitatively and qualitatively evaluated. Standards like Organizational Competence Baseline by IPMA aids in achieving the desired results.

Behavioral excellence, recognizing different approaches for project and line management, fostering project leaders and efficient teamwork are other imperatives. Although achieving Level 3 doesn't guarantee complete project success due to unforeseeable issues, it enhances the likelihood of positive outcomes. Areas posing resistance are organizations thriving on paperwork, fragmented corporate cultures, and avoiding fixing unbroken aspects. Transitioning to level 4 requires

overcoming these through embracing shared accountability, supportive culture, and integrating related procedures into a singular system.

**Level 4: the Benchmarking stage,** involves continuous comparison of a company's project management practices with industry leaders for productivity enhancement. The primary aim is to gather data for improving operations or competitive edge. Choosing what to benchmark is essential and concentrating on key elements for commercial success is encouraged.

Challenges arise upon recognizing the potential for improvement in the current process. To retain or improve competitive leverage, project-driven companies need to adopt regular benchmarking and establish project offices or centers of excellence committed to process improvement. However, disagreements by founders of the singular methodology introduced in Level 3 can pose challenges to changes revealed by benchmarking.

At Level 4, organizations create dedicated project offices focusing on strategic planning, benchmarking, continuous improvement, mentoring, knowledge banking, idea sharing, problem-solving, planning, cost control, reporting, and career path and curriculum development. However, the resistance to change and fear of unexpected consequences from benchmarking can obstruct the transition from Level 4 to Level 5. It's only upon realizing the essentiality of benchmarking for survival that companies can truly commit to it.

**Level 5.** introduces continuous improvement, harnessing data from benchmarking against other organizations to optimize project management procedures. This level emphasizes continuous development and learning from mistakes, with key features including creation of 'lessons learned' files, knowledge transfer through training programs, mentorship for upcoming project managers, and ongoing strategic planning for project management.

Challenges often occur in documenting project outcomes in lessons learned files. People naturally want to associate their names with success rather than errors. There are often hurdles in recording failures, but acknowledging and learning from them is important.

This level encourages continuous improvement to stay ahead of the competition. Factors like increased software availability, cooperative corporate culture, and training contribute to internal improvement while external influences include consumer and supplier relations, and legal, social, technological, and political factors.

In conclusion, the PMMM journey identifies a spectrum of challenges and evolving trends across its five levels. At Level 1, the struggle lies in establishing a common language and overcoming resistance to change. Moving to Level 2 involves creating standardized processes, necessitating top-level management support and cultural shifts. Level 3 marks the integration of methodologies, emphasizing organizational culture and behavioral excellence. Level 4 introduces benchmarking for continuous improvement, while Level 5 focuses on perpetual refinement through lessons learned and strategic planning. Challenges persist at each stage, including resistance to change, cultural shifts, and the need for continuous learning. The overarching trend throughout is the increasing importance placed on organizational culture, behavioral aspects, and the integration of project management into the broader business strategy. As organizations navigate these challenges and embrace the evolving trends, they position themselves for enhanced project management maturity and sustained success.

## 2. RESEARCH METHODOLOGY

The research methodology section delves into Project Management Maturity Model (PMMM) that reflects the level to which a company has implemented and integrated project management processes, methodologies, tools, and capabilities in accordance with the five maturity levels outlined by Harold Kerzner. Enhancing project management maturity offers potential benefits for project performance, resource optimization, risk management, and strategic alignment. Nonetheless, achieving higher maturity in project management is not a linear progression; it involves overcoming various impediments and challenges that can hinder its efficacy and efficiency at each level of the PMMM. This chapter analyzes the methodology employed in investigating the challenges brought about by growing Project Management Maturity and the strategies to overcome obstacles hindering its progression through the levels. The research design incorporates *a qualitative method* to acquire an in-depth understanding of the challenges as organizations advance through the maturity levels of project management and potential solutions for improving project management maturity in organizational contexts. This chapter explains *the research design, data sources, sampling techniques, data-gathering instruments, data processing, and ethical considerations*.

The research model is designed to explore organizational challenges related to the growth of project management maturity levels, employing a *descriptive research design*. The qualitative research method incorporates semi-structured interviews and utilizes Kerzner's Project Management Maturity Model (PMMM) for assessing organizational maturity. As the purpose of this thesis is identify main organizational challenges associated with project management maturity levels, the central *research question* is formulated as follows:

*“What are the primary challenges faced by organization in adapting to and managing the increasing maturity within a dynamic business landscape?”*

The following sub research questions will set the stage for answering the main research question:

1. How does the maturity level of the organization influence the successful delivery of projects, resource allocation, risk management, and overall organizational performance?
2. How does the implementation of project management methodologies within organizations are accepted by senior management in organizations aiming to standardize and adapt project management practices across diverse teams and departments?



3. To what extent do organizational structures, cultural aspects, and leadership strategies within the organization either facilitate or hinder the growth and efficiency of their project management practices?

**Research Design.** The study's primary objective is to identify challenges posed by the growing level of project management maturity within organizations. In this pursuit, the research centers its focus on data collection methods to further explore the challenges associated with the increasing project management maturity within the organizational context. *Semi-structured interviews* serve as a pivotal component, offering an interactive platform to collect firsthand insights from project managers operating in service industry companies, from consulting to digitalization and IT services. These interviews aim to extract specific, on-the-ground experiences, and perspectives regarding the obstacles and complexities encountered during the growth of project management maturity. Furthermore, to evaluate the companies' maturity level in project management, in which the respondents are employed, the Kerzner's **assessment tool** is employed. This tool is recognized for its structured and comprehensive approach in assessing an organization's project management maturity across various dimensions and stages. By utilizing this assessment tool, the study seeks to qualitatively measure and evaluate organizations' current maturity level, offering a comparative results to discern challenges and areas for improvement in their project management practices as the organization progresses towards greater maturity. The combination of these methodologies - interviews, and Kerzner's assessment tool - provides a multifaceted and in-depth analysis of the challenges and solutions to progress into the next level of maturity.

Based on the analyzed literature review and research design, a conceptual framework has been created. Figure 3 shows the stages of conducted research.

**Table 2.**

*Framework for the research.*

<b>1.</b>	<b>Initial preparation and Introduction</b>
1.1.	Research on relevance of topic
1.2.	Identifying research problem

1.3.	Work on objectives
1.4.	Collecting initial literature
<b>2.</b>	<b>Theoretical review</b>
2.1.	Work on Theoretical Review chapter structure
2.2.	Literature review of common PMMMs
2.3.	Literature review on common organizational challenges associated with PMM levels
2.4.	Review of H. Kerzner`s approach on PMMM and challenges identified
<b>3.</b>	<b>Research Methodology</b>
3.1.	Choosing relevant methods for research, including data collection and analysis instruments
3.2.	Deciding data collecting methods and preparing Interview questions
3.3.	Selecting interviewees and sharing “Information sheet”
3.4.	Familiarizing interviewees with Assessment model and conducting assessment
3.5.	Conducting separate interviews
3.6.	Documenting and verifying gathered results
<b>4.</b>	<b>Data analysis</b>
4.1	Analyzing interviewer answers, data analysis and generalizing findings
<b>5.</b>	<b>Conclusion and Recommendations</b>

*Source:* compiled by the author

**Data Collection Methods.** The *literature review* was initiated by conducting a keyword search on the large electronic databases of literature: Google Scholar, Scopus and Web of Science, (Emerald Management eJournals Collection, Business Source Complete (EBSCO), Regional Business News (EBSCO), Science Direct: Freedom Collection, SAGE Journals Online, Springer LINK, JSTOR, etc. Articles, critical reviews and books have been used in preparation of this research. The database search includes the following terms: “Project Management Maturity Models”, “Organizational Project Management Maturity Model”, “PM Maturity Models analysis”.

The Project Manager Competency Development (PMCD) Framework – Second Edition outlines how project manager competencies directly impact performance, with their influence on project success varying based on factors such as project types and organizational context,

especially emphasizing the varying impact related to organizational maturity. One of the best data sources are those competent project managers that help building mature PMOs and maintain efficiency. Conducting *semi-structured interviews* with project managers is selected as data collection method with the aim to gather insights on the challenges faced and the strategies used to enhance PPM maturity.

**Choosing a Model for Project Management Maturity Assessment.** According to Man (2007), the evaluation of maturity models for PMMMs could be developed along three dimensions: a. structure, b. applicability and c. usage. Using those three criteria and other characteristics of the models, the researcher has chosen to apply the Project Management Maturity Model (PMMM) that was presented by Kerzner to assess the project management maturity of the organizations. In accordance with PMBOK standards, the Project Management Maturity Model (PMMM) presents a realistic and standardized methodology. It defines the various degrees or phases of project management maturity and provides assessment methods to determine an organization's place along this maturity spectrum. As each organization has a unique approach to maturity, companies are free to modify the PMMM questionnaire's questions and answers. The model consists of a book and an online assessment tool, providing participants and organizations with a breakdown of maturity levels, comparisons, and a high-level action plan for improvement.

**Relevance of the PMMM Model to the Research Study.** The PMMM model is chosen to be used for research purposes of this paper as it provides a thorough journey for evaluating and developing project management maturity (J. Kent Crawford, 2021), which fully aligns with the study's fundamental aims of strengthening organizational project management skills. Furthermore, the thesis is expected to analyze the challenges organizations encounter as they progress in project management maturity. The PMMM model provides a structured framework for systematically assessing and categorizing these challenges at various maturity levels. It describes the particular problems connected with each maturity level, laying the groundwork for further study and analysis (Guerrero et al., 2023). The approach also incorporates benchmarking and best practices to assist firms in proposing solutions and successfully addressing difficulties. It also emphasizes measurement and evaluation in order to determine the impact of increasing project maturity on organizational performance. The PMMM model is a useful tool for understanding, assessing, and addressing organizational difficulties related with growing project maturity, and it provides an organized way to navigating the intricacies of this topic.

**Limitations of PMMM model.** The PMMM model is a widely used tool for assessing project maturity. However, it has several limitations that can affect its validity and generalizability. Firstly, it is primarily designed for large, complex projects and organizations, which may not be suitable for smaller enterprises or those with different project management requirements. Secondly, the model relies on self-assessment and subjective judgments, which can introduce bias and inaccuracies. Thirdly, the model assumes a linear progression from lower to higher maturity levels, which may not always be the case due to external factors. Fourthly, the model's effectiveness may be based on historical data, which may not reflect the rapidly changing project management landscape. Finally, the model may not explicitly consider external factors like economic conditions, market dynamics, or regulatory changes, which can influence an organization's project management maturity.

**Introduction to Interview Structure.** In formulating the interview structure for this research, a meticulous and inclusive approach has been developed to gain a nuanced understanding of the challenges associated with growing project maturity levels in both service and IT industries. Recognizing the multifaceted nature of project management, distinct interview structure has been crafted to ensure a comprehensive exploration of the research objectives.

In selecting participants from various industries, emphasis is placed on their extensive professional experience in project management, ensuring a diverse and comprehensive perspective on organizational challenges related to growing project maturity levels. The chosen interviewees, engaged in a broad spectrum of projects, provide insights into both commonalities and differences in challenges faced across varying scales, complexities, and industry sectors. This diversity aims to facilitate a thorough examination of project maturity across different organizational contexts. Additionally, the research prioritizes individuals who have actively participated in or overseen the implementation of project management maturity models, allowing for a comparative analysis of implementation experiences.

Additionally, several factors taken into account while selecting participants are below:

- 1. Professional Experience:* The selected project managers possess a significant background in project management within organizations, with a preferred minimum experience level of 5+ years. This depth of experience enables a comprehensive understanding of the organization's project management practices.

2. *Project Diversity*: Participants were selected based on their involvement in a diverse range of projects, spanning different scales, complexities, and industry sectors. This criterion ensures a comprehensive examination of how project maturity impacts various project types.

3. *Involvement in PMMM Implementation*: Interviewees actively participated in or oversaw the implementation of project management maturity models, providing firsthand insights into the challenges and successes encountered during this strategic process.

4. *Leadership Roles*: Project managers in leadership roles, responsible for leading project teams or influencing project management policies within the organization, were included. Their perspectives offer a strategic understanding of how project maturity aligns with overall organizational goals.

5. *Availability and Commitment*: Selected participants have demonstrated the availability and commitment necessary to engage in a thorough and in-depth interview process.

### **Interview questions.**

**General Questions about Respondent's background and organization.** The following questions are designed to capture a comprehensive view of the respondents' professional journeys, organizational dynamics, and the strategic alignment of project management activities within their workplaces.

1. Can you please provide a brief overview of your professional background in project management and your current role within the organization?
2. How would you describe the overall organizational culture and structure in your current workplace?
3. Can you share any notable projects you have been involved in recently and their impact on the organization? Can you outline any existing processes or methodologies that guide project management activities?
4. How has your organization historically approached project management, and have you observed any changes over time? To what extent is the concept of project management maturity understood within your organization?
5. Have there been efforts to connect project management goals with broader organizational objectives? What specific methodologies or frameworks related to project management has your organization adopted or considered adopting?

**Specific Questions about Challenges in Growing Project Management Maturity.** Through targeted questions, the aim is to get insights from respondents about specific challenges within their respective organizations.

6. What challenges, if any, have you encountered during the implementation of project management practices in your organization?
7. Have you observed any resistance among team members to changes in project management processes? How does the organization manage change and address potential resistance when implementing new project management practices?
8. What role does leadership play in driving and supporting the enhancement of project management maturity levels within your organization? How does your organization engage stakeholders in the project management process, and what challenges have been encountered in stakeholder management? Is there a structured approach to involving stakeholders in decision-making related to project management?
9. What challenges does the organization face in allocating resources, both in terms of personnel and funding, for project management maturity initiatives? How committed is the organization to investing in the personnel, time, and funding required for maturing project management practices?
10. How does your organization currently measure the success or effectiveness of its projects, and how is this linked to project management maturity? Are there challenges in establishing meaningful Key Performance Indicators (KPIs) for project success?
11. How do changes in project management maturity levels impact the organizational culture, and how has your organization adapted to these changes?
12. Have you observed any challenges related to knowledge transfer or the institutionalization of best practices as your organization matures in project management? How does the organization integrate industry best practices and standards, such as those from PMI, into its project management processes? Have there been challenges in aligning project management practices with recognized standards?
13. How does the organization address the need for continuous learning and adaptation as it strives to improve project management maturity? Are there formalized programs or initiatives in place to facilitate ongoing learning and improvement in project management practices?

14. Looking forward, what recommendations do you have for organizations aiming to enhance project management maturity, based on your experiences and observations?

**Data Analysis.** In the initial phase, the assessment were distributed to a representative group of chosen project managers . In addition, relevant documentation were reviewed, and hands-on observations of the PMO's and projects' organizational settings were conducted. The questionnaire was generated using the *Kerzner`s Assessment tools* and was modified to fit the case under research using observations of operational activities and paperwork. The questionnaire results were collated and categorically assessed against the five levels of the chosen project management maturity mode by Kerzner. Part one of the questionnaire responses aided in giving basic information about project managers and their exposure to the project management discipline.

After deciding on maturity level of the company, semi-constructive interviews were held in order to identify challenges that project managers faced in organizational level. Documentation and verification was used to validate the findings of the interviews. All of the discussions was transcribed and checked with respondents in order to acquire reliable data.

*Thematic analysis* is utilized to examine qualitative data obtained from interviews. Primary and secondary data sources have been used to obtain every relevant detail for the purpose of the study. Other secondary data sources, such as operating procedures, timelines for projects, monthly and biannual reports, and other project-related sources, were also analyzed, helping with triangulating the data and strengthening the study.

**Ethical Considerations.** Ethical considerations involved obtaining informed consent from participants, ensuring confidentiality and anonymity, and following ethical guidelines for research involving respondents.

The assurance of both the validity and reliability of collected data is a critical aspect of the research process. This verification involved a thorough examination of the gathered information, comparing it against existing literature. Additionally, to establish reliability, a variety of methods were employed, aligning with Creswell's perspective (2009) that the utilization of diverse data gathering technologies facilitates cross-verification of information. Consequently, the incorporation of 20 secondary data sets acquired through multiple means significantly supported data triangulation, ultimately ensuring the reliability of the data.

**Limitations.** Given the complexity of certain models and the likelihood that many companies have never undertaken an evaluation, let alone developed a ranking, it might diminish the validity and reliability of the data collected. Furthermore, because most components of research are subjective or need subjective interpretation, self-evaluation is frequently unfeasible. It requires assessors, in this instance project managers, with considerable knowledge and expertise in the Project Management area.

Relying heavily on interview data as a primary source for assessing maturity levels also introduce inherent limitations. Interviews are prone to subjectivity and can be influenced by personal biases or limited perspectives of the interviewees. This reliance might lead to an incomplete or biased representation of the organization's actual maturity levels. Moreover, in larger organizations with diverse teams, interviews do not capture the comprehensive view of project management practices. The subjective nature of interviews might overlook certain aspects, potentially undermining the accuracy and reliability of the PMMM's assessments.

Due to the early stages of some projects, the research faced limitations in data collection as the project managers themselves were not included as part of the sample. This exclusion restricted the scope of data obtained, primarily because the insights and perspectives of these specific project managers, crucial for a comprehensive understanding, were not incorporated. This limitation may have impacted the depth and richness of the data analysis, as the firsthand experiences and insights of these project managers could have provided valuable context and nuances to the research findings.

In addition to the previously mentioned limitations, several other factors are identified that affect the robustness of the research's findings. Time and resource constraints have influenced the depth of data collection and participant inclusion. Furthermore, the focus on a single organization or industry limits the generalizability of the results, hindering broader applicability. There's also the potential for response bias in interviews, where participants might shape their responses to align with organizational goals, impacting the accuracy of the collected data. Moreover, variations in the interpretation of assessment tools and the lack of longitudinal data could affect the consistency and the dynamic nature of the project management maturity assessment.



**Significance of the study**

The findings from this research have potential significance for organizations with PMOs, aiding in refining their methods to amplify the benefits derived from increased PMMM. Additionally, these outcomes could assist organizations aiming to set up PMOs or similar structures for project management by offering benchmarking insights. They also serve as a resource for academics and researchers to conduct comprehensive assessments of project management maturity across different organizations. The research project also served as a means for the researcher to observe the real-world application of theoretical knowledge gained during their course.

### 3. DATA ANALYSIS

The aim of this chapter is to discuss and interpret the data gathered from the eight interview respondents regarding the organizational challenges they encounter as they aspire to improve their project management maturity. Our analysis is based on the Kerzner's Maturity model which serves as a metric for evaluating the maturity levels of the interviewed organizations.

The chapter is divided into two core sections; the first section deals with the specific challenges identified in growing project management maturity of the respective organizations and the second section presents an analysis of the corresponding challenges in overall trends and patterns.

It should be noted that some of the challenges identified are concurrent with those described in the theoretical part of this research. Nevertheless, it is worth noting that, unique challenges have also been identified during the interviews and these challenges also need to be addressed. The following *Section 1* will therefore dive into a more in-depth and detailed account of both the recurring as well as the newly discovered issues pointed out by the respondents.

By analyzing these empirical findings against the established literature in the field, it will be possible to provide a broader understanding of the real-time difficulties organizations face in their quest to improve project management maturity. They will provide a more profound understanding of the dynamics and challenges within organizations seeking growth in project management maturity will be provided, enabling managers and program leaders to see a more nuanced understanding of where they stand, what they face and how they can navigate this crucial journey. Ultimately, insights from the research could guide future organizational transformations, educate decision-makers and inspire further academic discussions on the subject.

**Respondents` background Information.** In the first part of the Data Analysis chapter, we will look closely at the professional backgrounds of the respondents, their current roles within respective organizations and the number of years they've been engaged in project management. The aim is to find patterns or groupings which may directly or indirectly affect their perspectives on the organization's project management maturity. This first level assessment is crucial as it sets the context, highlights the variances in their circumstances, while also shedding light on shared experiences. The analysis thus involves a comparative study of roles, years of experience, and overall impact in project management. Derived insights is visually represented through *table 3* for ease of understanding and interpretation.

**Table 3.***General information about Respondents*

<b>Respondents</b>	<b>Role</b>	<b>Years of Experience</b>	<b>Relevant Credentials</b>	<b>Company's Project Management Maturity Level</b>
<b>Respondent 1</b>	Project Manager in Start-up Service Industry	7	PMP Certification	Level 1
<b>Respondent 2</b>	Project Manager in Marketing Services	5	PMI-ACP Certification	Level 2
<b>Respondent 3</b>	Program Manager in Digital Transformation Services	15	PgMP Certification	Level 3, Level 4
<b>Respondent 4</b>	Director of PMO in Tech Company	12	PMP, PgMP, PMI-ACP Certifications	Level 4
<b>Respondent 5</b>	Chief of Project Logistics Development in Service Industry	20	PMI-RMP Certification	Level 5
<b>Respondent 6</b>	Project Manager in Financial Services	10	Certified Scrum Master (CSM)	Level 3
<b>Respondent 7</b>	Project Manager in IT Services	12	ITIL v3 Foundation certification	Level 4
<b>Respondent 8</b>	Project Coordinator in Outsourcing Services	4	CompTIA Project+ Certification	Level 1

*Source:* compiled by the author

**Project Management Processes and Methodologies.** This section primarily revolves around understanding the unique internal processes and methodologies that guide project management operations in the respondents' respective organizations. The discussions revealed that the different organizations interviewed adopt both *Traditional and Agile project* management methodologies, depending on the specific project scope and requirements. For example, the start-up companies often deployed Agile methodologies due to their flexibility. In contrast, the larger, more established companies often employed traditional waterfall methodologies, allowing for more structured and sequenced project execution.

**Table 4.**

*Overview of Project Management Processes and Methodologies in Respondents' Organizations*

<b>Respondents</b>	<b>Methodologies Adopted</b>	<b>Effectiveness</b>	<b>Years of Implementation</b>	<b>Team's Compliance Percentage</b>
<b>Respondent 1</b>	Agile (Scrum & Kanban)	High	3 years	75%
<b>Respondent 2</b>	Traditional (Waterfall) & Some Agile	Moderate	4 years	65%
<b>Respondent 3</b>	Hybrid (Waterfall & Agile)	High	5 years	90%
<b>Respondent 4</b>	Waterfall, Agile & Lean Six Sigma	High	6 years	85%
<b>Respondent 5</b>	Waterfall & Agile, PMBOK Guide compliant	High	10 years	95%
<b>Respondent 6</b>	Agile (Scrum)	High	2 years	80%
<b>Respondent 7</b>	ITIL framework & Agile	High	6 years	85%

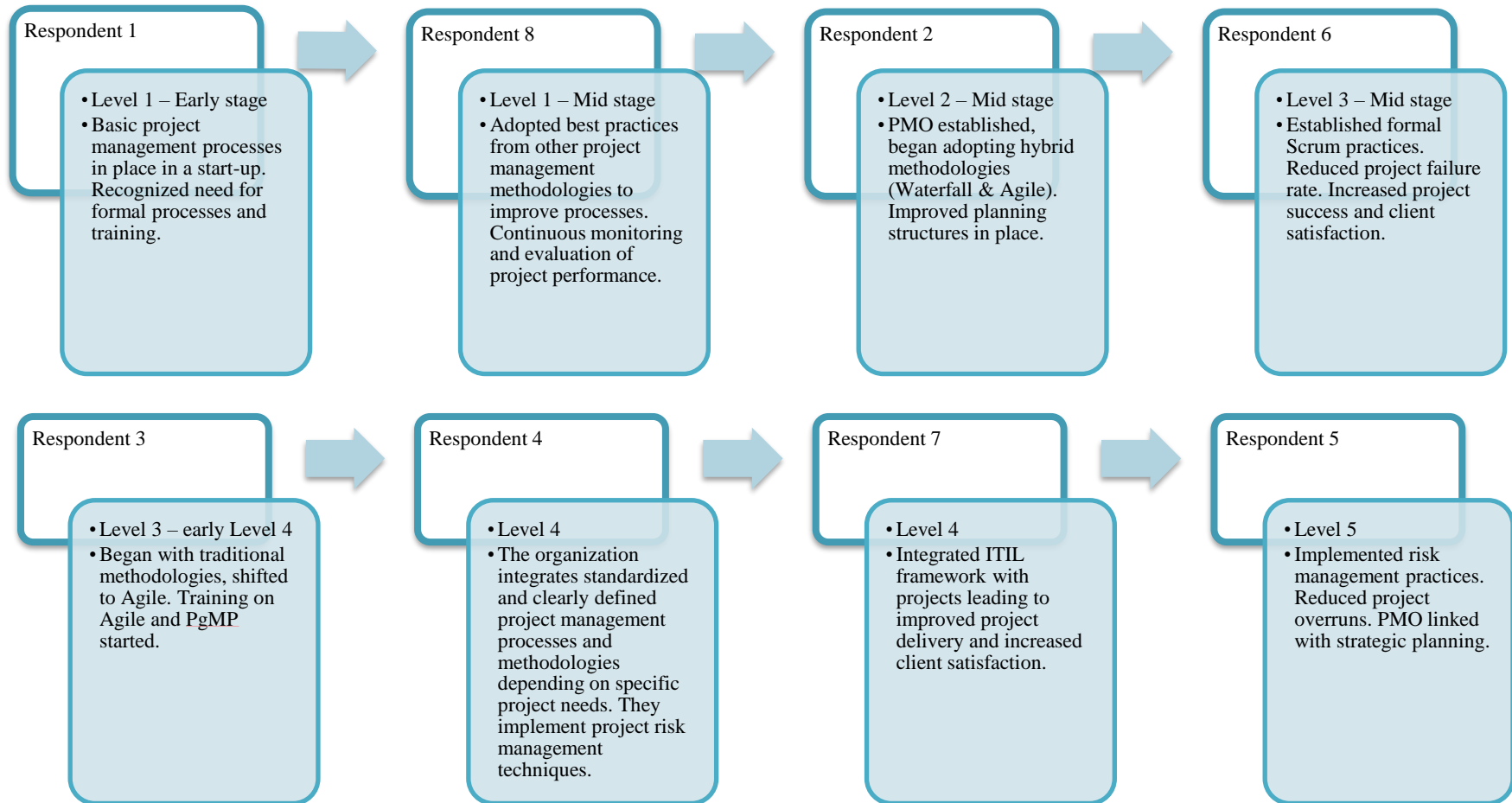
<b>Respondent 8</b>	Informally Adopted Project Management Techniques	Low	1 year	50%
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*Source:* compiled by the author

**Organizational Approach to Project Management.** Through the respondents' insights, it became clear that how respective organizations' approaches to project management have evolved over time. Most organizations increased their focus on more structured project management methodologies, shifting from ad hoc processes to systematic and standardized procedures. This evolution generally coincides with the organization's growth, as larger project scopes necessitate more robust project management practices.

**Figure 4.**

*Detailed Project Management Maturity of respective organizations*



*Source: compiled by the author*

Each respondent in this graph represents a certain stage of project management maturity, with each stage representing a higher level of maturity in their project management practices. The sequence of respondents tells the story of an evolving and maturing project management function, moving from basic practices to highly sophisticated and strategic planning-linked project management operations.

All respondents show progression in adopting project management methodologies, understanding their importance, and implementing them in their project management operations. An overall pattern is observed where the growth passes from recognizing the need for formal processes, integrating methodologies, improving and standardizing those methods, focusing on more advanced practices like risk management, and finally, linking project management with strategic planning.

The chart begins with Respondent 1 and Respondent 8, both at Level 1, each at a different stage (Early and Mid). This suggests that the maturity level may remain the same for a while but progression still occurs within that level- from understanding the need for sound processes to actually starting to improve them.

Respondent 2 discusses the transition into a more structured approach to project management (Level 2), depicting the advantages of an established PMO and hybrid methodologies.

Moving to Level 3, Respondent 6 shows the effectiveness of systematic methodologies like Scrum in reducing project failures, while Respondent 3 is at the very beginning of Level 4, demonstrating the benefits of continuous learning and shifting methodologies.

The improvement continues with Respondent 4 and Respondent 7 at Level 4 maturity. They follow standardized processes, incorporate risk management techniques, implement benchmarking and integrate comprehensive frameworks like ITIL for better project delivery.

Finally, there's Respondent 5, who is at Level 5 and shows the highest level of project management maturity, with noteworthy reduction in project overruns and strategic alignment of PMO due to continuous improvement practices.

### **3.1. Specific project management challenges at each level**

The primary aim of section one is to identify the various challenges that organizations face in their quest for improving their project management maturity. This analysis is based on the

detailed responses obtained from our selected group of respondents working in project management and dealing with these challenges first-hand. These experts have different viewpoints, discussing a mix of stories that together paint a clear picture of the tough situations organizations face. Some of these challenges are expected and match what is existing in literature, while others are new and not widely discussed. By exploring these challenges thoroughly, this section aims to bring attention to the complicated challenges organizations deal with, adding valuable insights to the ongoing discussions about improving project management maturity.

Answers from respondents working in organizations with the same project management maturity level have been combined to get more thorough outlook into the level.

**Level 1.** According to the Respondent 1 and 8's answers and assessment results, their organizations align with Level 1 of the Project Management Maturity Model (PMMM), indicating a lack of formal processes and strategies for project initiatives. As stated by the respondents during the interviews, this level of maturity is characterized by challenges such as *unstructured communication, undefined project scopes, unclear objectives, and ad-hoc resource allocation*.

As per the respondents' statements, **communication** emerges as a critical challenge at Level 1 maturity. The Respondent 1 highlighted the risks associated with informal communication, including misinterpretation and confusion, hindering the understanding and achievement of project goals. The respondent emphasized that a well-designed communication plan, with clearly defined channels and regular updates, is vital to enhance transparency and clarity during project execution.

Furthermore, according to the Respondent 8, Level 1 maturity organizations face obstacles related to **poorly defined project scopes and objectives**. The Respondent 8 pointed out that ambiguous objectives and ill-defined project scopes contribute to issues such as scope creep, increased project costs, and reduced efficiency. To address these challenges, the respondent recommended detailed articulation of objectives and project scope from the outset, allowing for future adjustments within defined boundaries.

As stated during the interviews, another significant challenge at Level 1 maturity is **resource allocation**, which tends to be reactive rather than pre-planned based on project requirements. Inefficient resource allocation, as highlighted by both Respondents, can impact project costs and timeliness negatively. The recommendation is to initiate planned resource management from the project's outset, ensuring regular adjustments throughout the project lifecycle.



In conclusion, the Respondents' insights highlight that Level 1 maturity organizations face considerable challenges that can undermine project performance. Overcoming these challenges necessitates the establishment of a more formal project management system. By improving communication protocols, detailing project scope and objectives, and planning resources more efficiently, organizations can lay the groundwork for progressing to higher maturity levels and enhance their capacity for more effective project management.

**Level 2.** Aligned with the insights provided by Respondent 2 and based on assessment results from Kerzner's Project Management Maturity Model, it is clear that Respondent 2's organization currently stands at Level 2 maturity. As mentioned during the interview, this stage, known as the 'Structured Processes and Standards' stage, is marked by the formalization and standardization of project management processes.

In Level 2, *financial constraints* emerged as a key factor affecting project management maturity initiatives. The respondent highlighted that due to these constraints, the organization faces limitations in allocating a specific *budget for extensive training programs, specialized project management tools, or external consultants*. Despite these constraints, Respondent 2 emphasized that organizations operating within tight budgets can derive significant benefits from refined project management practices.

Another challenge mentioned by Respondent 2 is the *lack of full senior leadership buy-in* as it poses a challenge to advancing project management maturity. The interviewee pointed out that the organization's focus on immediate, short-term results may overshadow the long-term benefits of improving project management maturity.

Another challenge highlighted is the absence of *dedicated project management roles* at Level 2 maturity. The transition to formal and standardized project management practices necessitates the establishment of dedicated project management roles to minimize confusion and enhance project clarity.

Respondent 2, similar to Respondent 1, identifies challenges in *measuring project success* within their organization. The interviewee pointed out that metrics such as schedule compliance, budget adherence, scope fulfillment, and effective Risk Management is challenging to establish and measure consistently.

*Resistance to change* is a notable challenge for their organization during the transition from Level 2 to Level 3 maturity. The interviewee emphasized that cultural shifts, process

adaptation, and the implementation of structured methodologies lead to resistance, impacting the pace of project management maturity growth and the success of implementation.

Although the organization has yet to fully formalize its project management processes, as characteristic of Level 2 maturity, the acknowledgment of the need to do so is evident in Respondent 2's answers. The shared understanding of the benefits of developing project management maturity indicates that the organization's leadership and team are prepared to navigate the path to Level 2 maturity. The experiences shared by Respondent 2 highlighted the importance of acknowledging and addressing these challenges to successfully implement project management best practices and eventually enhance project management maturity, as per the information obtained during the interview.

In general, the challenges identified by Respondent 2 are common among organizations operating at a Level 2 project management maturity. This is primarily because Level 2 marks the transition from an informal, often ad hoc project management approach to a more structured and standardized one. It's the stage where organizations begin to recognize the value of project management and start formalizing their processes.

**Level 3.** Reflecting on the answers from Respondent 3 and Respondent 6, and considering their field experience in project management and leadership roles at respective organizations, it became clear that these organizations have navigated challenges to reach their current state in project management maturity. Both organizations are at Level 3, with Respondent 3's organization progressing towards early Level 4, operating in dynamic sectors where quick adaptation to change is vital.

One shared experience between both organizations is the effort to *institutionalize adherence to standardized project management processes*. This is prevalent in organizations at Level 3, including theirs, because of the shift from ad hoc processes to more formalized, standardized ones. This challenge is further amplified when these standardized practices need to be scaled across large organizations with diverse teams, which Respondent 3's organization particularly seems to be grappling with.

Both Respondent 3's organization, which operates in the digital transformation sector, and Respondent 6's organization in a sector where client satisfaction is highly important, have sought to *balance standardization with flexibility*. This balance is vital as it gives standardized project

management processes room to adapt to specific project needs and dynamic business environments.

Another challenge identified by the Kerzner's assessment pertains to *organizational silos*, which pose a roadblock to cross-functional collaboration and communication. Both respondents emphasized their organizations' commitment towards open communication and knowledge sharing, implying an acknowledgment of this challenge and proactive strategization to overcome it.

These challenges align naturally with those experienced in other organizations at the Level 3 maturity stage. Overcoming challenges related to adhering consistently to these processes, scaling them across larger organizations, maintaining a balance between standardization and flexibility, and mitigating organizational silos all mark key milestones in successfully navigating this stage. Implementing best practices, leveraging seasoned guidance like that of Respondents 3 and 6, and using structured assessment methods like Kerzner's framework, organizations can effectively navigate these issues and progress in their project management maturity.

**Level 4.** Reviewing the insights collected from Respondent 4 and Respondent 7, it became clear that they have completed transition into Level 4 maturity. The heightened emphasis on refining and tailoring project management processes to align with specific project needs is evident in both responses. This degree of adaptation stems from their desire for ongoing process improvement and is a marker of Level 4 maturity, however it also introduces the challenge of *constant process improvement*.

This process improvement goes hand-in-hand with advanced *risk management*. As noted by Respondent 4's company, the application of project risk management techniques has been critical in strengthening project execution. However, maintaining alignment with industry-standard risk management practices and ensuring widespread understanding and utilization across the team presents its unique challenges.

On the other hand, Respondent 7's organization's successful integration of the Information Technology Infrastructure Library (ITIL) framework into their project management methodologies has improved project delivery dramatically and increased client satisfaction. However, such integration is not without its difficulties. It requires careful *technological management, dedicated staff training, and an intensive familiarization process* to ensure everyone is on board with the new systems.

At this Level 4 maturity, *efficient resource optimization* becomes crucial as projects often become more complex. Efficient planning and flawless project execution can be challenging, given the multifaceted nature of tasks involved.

Furthermore, another unique challenge mentioned by Respondents operating at this level is the *measurement and demonstration of value*. Level 4 organizations need to go beyond just tracking project outputs. They are called to systematically measure the realized benefits from projects to prove their project management prowess. Establishing and implementing such measurement mechanisms often present complex issues and can be subject to varied interpretation within the organization.

In conclusion, as affirmed by Kerzner's Project Management Maturity Model, Respondent 4 and Respondent 7's organizations have made clear progress to attain Level 4 maturity. Yet, the painstaking task of refining and innovating upon established practices, implementing advanced risk measures, integrating complex technologies, and demonstrating the true value of their projects present the new wave of challenges this maturity level presents.

**Level 5.** Upon interview with Respondent 5, several prominent challenges associated with achieving level 5 project management maturity were identified.

The initial challenge conveyed by Respondent 5 pertained to the *optimization of process performance*. With an aim to consistently meet project objectives at this maturity level, organization had to quantitatively manage their processes. However, applying statistical process control techniques and tools necessitates comprehensive understanding and expertise, along with significant investment in resources. These factors, particularly when dealing with time, cost, and resource constraints, pose a considerable challenge.

The second difficulty pinpointed by Respondent 5 involved *creating and sustaining a culture of continuous improvement*. Even with a firm understanding of project lifecycles and competences, organizations may find it difficult to foster an environment that learns from past projects and integrally incorporates this acquired knowledge into prospective practices. Furthermore, *internal resistance to change* is an obstacle identified as constraining the development of an adaptive and learning-oriented culture.

High-maturity practice management was another challenge emphasized by Respondent 5. In spite of having a structured and systematic process improvement framework in place, maintaining the requisite discipline and rigor to competently manage high-maturity practices is an

obvious task. This includes, for example, overcoming struggles in managing procedures such as "causal analysis and resolution", or implementing "decision analysis and resolution" at a strategic level.

Finally, according to Respondent 5, *aligning organizational processes with the project management maturity* constitutes a significant challenge. This involves ensuring that all projects conform to a uniform set of processes while mitigating extant project uncertainties such as size, complexity, technological requirements, and customer expectations. Balancing adherence to standardized processes with customizing these to meet unique project demands is another task identified.

In essence, based on the insights provided by Respondent 5, although progressing to level 5 project management maturity presents several advantages, it also brings forth integral challenges including process optimization, fostering continuous improvement culture, managing high-maturity practices, and achieving bespoke process alignment that warrant effective addressing.

The table below illustrates the different challenges faced by organizations at various levels of project management maturity, as outlined by the respondents' experiences.

**Table 5.**

*Challenges identified through Respondent`s answers.*

Level	Challenges
Level 1	<ol style="list-style-type: none"> <li>1. Unstructured communication,</li> <li>2. Undefined project scopes,</li> <li>3. Unclear objectives,</li> <li>4. Ad-hoc resource allocation</li> </ol>
Level 2	<ol style="list-style-type: none"> <li>1. Financial constraints,</li> <li>2. Lack of full senior leadership buy-in,</li> <li>3. Absence of dedicated project management roles,</li> <li>4. Difficulty in measuring project success,</li> <li>5. Resistance to change</li> </ol>

Level 3	<ol style="list-style-type: none"> <li>1. Adhering to standardized project management processes,</li> <li>2. Scaling standardized practices across large organizations,</li> <li>3. Balancing standardization with flexibility,</li> <li>4. Mitigating organizational silos</li> </ol>
Level 4	<ol style="list-style-type: none"> <li>1. Constant process improvement,</li> <li>2. Advanced risk management,</li> <li>3. Intelligent integration of complex technologies,</li> <li>4. Efficient resource optimization,</li> <li>5. Measurement and demonstration of value</li> </ol>
Level 5	<ol style="list-style-type: none"> <li>1. Optimization of process performance,</li> <li>2. Creating and sustaining continuous improvement culture,</li> <li>3. Managing high-maturity practices,</li> <li>4. Aligning organizational processes with the project management maturity</li> </ol>

*Source:* compiled by the author

### **3.2. Overall trends and patterns in project management challenges**

In this section, the focus shifts towards identifying the broader trends and patterns synonymous with project management challenges, as evidenced by organizations aiming for higher levels of project management maturity. Instead of viewing challenges as isolated incidents, we'll recognize them as part of broader patterns observed across various project management scenarios.

Understanding these patterns helps anticipate challenges and, ideally, prevent some of them. Moreover, awareness of these commonly occurring difficulties also enables organizations to explore and propose specific solutions. Thus, equipping organizations with the right tools and strategies ensures they are well-armed to navigate their maturity journey more smoothly.

The next section will delve into these encountered trends, the challenges they bring, and propose solutions. Drawing from the discussions in Section 1, this section identifies overarching trends and patterns in project management maturity challenges across all five levels, subsequently proposing solutions to these shared challenges.

**Communication Challenges.** The common trend across all the mentioned maturity levels pertains to the pivotal role of effective, clear, and structured communication in successful project management. As organizations aim for higher maturity, the communication challenges become more complex, but the fundamental need for clear and effective communication stays consistent, tying all these challenges together.

More detailed explanation into this trend of evolving communication needs is given below:

**Level 1 - Absence of Structured Communication:** In the initial stage of project management maturity, organizations often lack formal, structured communication channels. This can yield misinterpretation, confusion and frequent information gaps, hampering the overall project execution. To combat this, organizations can focus on developing well-defined communication protocols and hierarchies and on establishing regular touchpoints.

**Level 2 - Limited Senior Leadership Buy-in:** At this level, an organization's inability to communicate effectively with its senior executives may lead to insufficient buy-in, which may affect resource allocation and project outcomes. This emphasizes the significance of crafting precise communication strategies targeting the senior leadership, including detailed project reports, regular updates, and visible project milestones.

**Level 3 - Overcoming Organizational Silos:** As project management matures, organizations may face challenges in cross-functional communication due to existing silos. This highlights the necessity of fostering a culture of collaboration and openness, using tools and platforms that enable cross-departmental communication, and investing in team-building measures to break down these silos.

**Level 4 - Integrating Advanced Techniques:** With the incorporation of advanced risk management techniques, organizations need to ensure that these strategies are properly communicated to all stakeholders to ensure seamless implementation. This underlines the importance of comprehensive training programs, clear guidelines, and expert mentors to facilitate understanding and application of complex processes.

**Level 5 - Optimizing Process Performance:** At the apex of project management maturity, clear and precise communication becomes a prerequisite for process optimization. This level calls for a deep understanding of communication strategies, the ability to adhere to them religiously, and the capacity to tweak them as per the project demands.

In conclusion, as is evident from the above statements, the core trend is that effective communication is an everlasting necessity, irrespective of the maturity level. It is through persistent refining of communication strategies and adaptable implementation that organizations can successfully navigate heightened complexities as they progress in their maturity journey.

**Recommended solutions.** Effectively addressing communication challenges at different project management maturity levels requires practical and actionable solutions. Establishing a centralized communication platform can enhance clarity and reduce misinterpretation, overcoming challenges at Level 1. Implementing regular training sessions for senior leadership on the benefits of project management ensures their buy-in and active support, can resolve issues at Level 2. Encouraging cross-functional collaboration through the use of digital collaboration tools would help to break down silos at Level 3. Creating detailed communication plans for advanced techniques and providing accessible resources, such as online guides, can improve understanding and implementation at Level 4. Implementing a feedback loop and continuous improvement process ensures that communication strategies evolve effectively to optimize process performance at Level 5.

**Leadership Buy-In as a Persistent Challenge.** Leadership buy-in is indeed a key challenge that resonates across different project management maturity levels, pointing to a common trend of the significant role leadership plays in the success of project management initiatives. This issue persists throughout, albeit in varied forms, demonstrating its complex nature and importance.

**Level 1 -** At this level, obtaining leadership buy-in can be hampered by an absence of formalized processes and systems. Leaders may not see the value or understand the necessity of structured project management, thus hindering institution of the formal processes. Achieving this buy-in at this stage requires a clear communication of the benefits and importance of project management, backed by evidence or case studies.

**Level 2 -** At the more refined stage of the maturity model, the challenge could be to convince leadership about the financial viability and returns from investing in project management enhancements. Allocating financial and human resources to standardizing project management may seem like a significant and risky investment to some leaders. Clear, lucid demonstration of potential returns, savings, and efficiency gains would constitute the way forward at this level.



**Level 3 and Level 4** - As organizations achieve higher levels of PMMM, the complexity of the challenge surmounts. The focus shifts towards securing leadership backing to maintain and continually refine standardized processes. Emphasizing the long-term benefits of persistent adherence and improvement of these processes becomes the crux at these levels.

Leadership plays a critical role in influencing the project management culture within an organization and its commitment towards enhancing its maturity level. Their buy-in serves as an essential catalyst to garner support and willingness from the rest of the organization and to drive project management initiatives. Leadership buy-in is not a one-time accomplishment but a persistent endeavor that needs to be cultivated over time. Therefore, encouraging a culture that values and supports project management across all levels, including senior leadership, is vital to successfully address this ubiquitous challenge.

There are several common patterns in the challenge of ensuring leadership buy-in:

- **Strategic recognition:** At each level, the challenge revolves around securing recognition from leadership of the strategic value embedded in effective project management. This involves not only gaining acknowledgment but ensuring that leadership perceives project management as integral to organizational success.
- **Long-Term vision:** The persistent nature of this challenge highlights the need for leadership to adopt a long-term vision. Even as organizations progress through maturity levels, obtaining support is not a one-time effort but an ongoing process that requires foresight and commitment from leadership.
- **Cultural integration:** The challenge is not only about convincing leaders of the importance of project management but also fostering a culture that inherently recognizes and values these practices. This cultural integration becomes increasingly crucial as organizations mature, emphasizing the need for leadership to champion a project management mindset throughout the organizational hierarchy.

This dynamic patterns reflects the evolving nature of organizational needs, demanding a nuanced approach to project management practices as they progress through Levels 1 to 5.

**Recommended solutions.** To address leadership buy-in challenges, organizations should implement a multifaceted strategy. This includes creating compelling communication materials tailored to each level, such as informative presentations, case studies, and reports. Demonstrating the direct link between project management initiatives and positive outcomes, such as cost savings

and improved efficiency, is crucial. Additionally, fostering a project management culture from the top-down involves ongoing education for leaders about the strategic value of project management. Establishing channels for open dialogue and feedback ensures leaders remain engaged and committed to supporting project management efforts across all maturity levels.

**Balancing standardization and flexibility.** Transition from ad-hoc project management process and procedures to standardized system (Levels 2 and 3) begins with Levels 2 and 3. This transition necessitates a careful balance. At Level 2, the initiation of standardized processes requires organizations to establish a baseline, ensuring consistency and repeatability. Level 3, with its focus on navigating organizational complexities, introduces a simultaneous need for flexibility. While standardization provides stability, flexibility becomes imperative to adapt to the dynamic business environments encountered at this stage.

Progressing to Level 4 introduces a new challenge—the need to refine and tailor processes to meet specific project needs while upholding alignment with industry standards. This stage demands a heightened level of adaptability. While the foundation of standardized processes remains, organizations must now customize these frameworks to address the unique intricacies of individual projects. Striking the right balance becomes critical to maintain efficiency and effectiveness.

The culmination of maturity at Level 5 brings forth the challenge of aligning organizational processes with project management maturity. This requires a delicate equilibrium between adherence to standardized processes and customization to meet the unique demands of each project. Here, the challenge is not just about flexibility but about tailoring standardized processes to align seamlessly with the distinctive requirements of each endeavor.

There are several common patterns identified in the challenge of balancing standardization and flexibility:

- **Strategic Adaptation:** The pattern emphasizes the strategic nature of this balance. It's not merely about implementing standardized processes or embracing flexibility but strategically adapting these elements to the organizational context and project requirements at each maturity level.
- **Dynamic Response to Complexity:** As organizations progress through maturity levels, the complexity of projects and organizational dynamics evolves. The need for both standardization and flexibility arises from this dynamic environment, reflecting the

organization's ability to respond to changing complexities with a versatile and adaptive project management approach.

- **Continuous assessment and adjustment:** The pattern highlights the iterative nature of this balancing act. Organizations must continuously assess the effectiveness of their approach, adjust their strategies based on project requirements and industry standards, and refine their processes to align with the evolving organizational landscape.

In conclusion, as the organizational project management maturity grows, the complexity of maintaining a balance between flexibility and standardization also escalates. By identifying this trend, organizations can arm themselves with methods and strategies to address this balance aptly, helping them to climb the maturity ladder more effectively.

***Recommended solutions.*** Addressing the evolution of standardization and flexibility involves adopting a strategic and iterative approach. Organizations can implement robust project management frameworks that allow for the gradual transition from ad-hoc to standardized processes. This includes establishing clear baselines, fostering a culture of adaptability, and incorporating feedback loops for continuous improvement. At Level 4, organizations should invest in flexible frameworks that accommodate customization without compromising alignment with industry standards. For Level 5, a holistic approach involves developing tailored processes that seamlessly integrate with unique project requirements while upholding the benefits of standardized practices. Ongoing training and knowledge-sharing initiatives ensure teams understand the importance of this balance and can apply it effectively.

**Resource Management.** The progressive trend in resource management, specifically revolving around allocation and optimization, demands strategic handling and practical insight at various project management maturity levels.

At level 1, organizations often struggle with adequate resource allocation due to a definitive lack of planning, typically managing resources reactively instead of proactively. This reactive approach often stems from a lack of structured processes and can lead to several project management challenges, such as over-resourcing or under-resourcing. Adopting a proactive stance, which entails meticulously identifying and mapping out resource needs in advance, can transcend this hindrance and establish a foundation for efficient resource allocation.

As maturity increases to level 4, the challenges associated with resource management intensify. With the project's complexity escalating, optimal allocation and utilization of resources to achieve project goals can prove to be strenuous. Forecasting resource needs becomes more intricate, and deviations from planned resource allocation could significantly impact project outcomes. To streamline this scenario, organizations would require fortified planning strategies, comprehensive forecasting models, and robust project management tools allowing for real-time tracking and adjustments.

Successful resource management involves shifting strategies at different project management maturity levels. Initial maturity stages face the task of improving resource allocation methodologies, while higher stages grapple with identifying the best ways to optimize resources amidst the growing complexity of projects. Regardless of the level, making sure that resources are appropriately and efficiently managed is a constant, defining feature of mature project management.

*Recommended solutions.* A practical solution for resource management involves implementing a phased strategy that evolves with maturity levels. At the initial stages, organizations should focus on improving resource allocation methodologies by introducing structured processes and planning frameworks. This includes training teams on proactive resource identification and allocation practices. As maturity progresses, emphasis shifts to optimizing resources amidst growing project complexity. Adopting advanced forecasting models, investing in comprehensive planning strategies, and utilizing real-time tracking tools can help organizations navigate resource challenges at higher maturity levels. Continuous training and adaptation ensure that resource management remains a defining feature of mature project management, contributing to overall project success.

The implementation of success metrics and measuring project value forms another predominant challenge, especially in high maturity levels. The complexity of proving the value delivered by a project beyond the immediate deliverables, such as meeting deadlines, staying within the budget, and fulfilling the project scope becomes an increasingly daunting challenge at the later stages of maturity (Levels 4 and 5).

At Level 4, organizations often deal with establishing a robust framework to effectively measure the success parameters that go beyond the traditional metrics. Not only must they track and measure the core project delivery elements, but they must also evaluate the direct and indirect

impact of the project on the business, such as its influence on business processes, efficiency, and customer satisfaction.

Progressing to Level 5, organizations are expected not just to track the project's performance but also to demonstrate the long-term value it brings to the business. This may include the realization of benefits, strategic alignment, or enhancement in organizational capabilities.

Addressing this challenge requires the development and refinement of appropriate mechanisms that measure and truly portray both sustained benefits and immediate output. This involves crafting a balanced scorecard of metrics that can holistically assess project success, combining both traditional elements and the more nuanced influences of the project on business and strategic objectives.

**Benchmarking challenge.** For organizations at the lower stages of maturity, the focus is often on developing internal benchmarks, such as using past project performance to set standards for future projects. The challenge at this level can be establishing an initial set of benchmarks when consistent and standardized data is lacking.

However, as organizations approach higher maturity levels, they are expected to align their benchmarks not just with their past performance but also with industry standards and best practices. This necessitates a broader perspective, incorporating learnings from external sources, and adapting them to the specific context of the organization. Thus, the challenge magnifies into aligning organizational practices with external industry standards while catering to the unique demands of each project.

**Fostering Continuous Improvement.** As organizations progress towards higher levels of project management maturity, the responsibility of fostering continuous improvement becomes increasingly significant and challenging. Continuous improvement, which involves consistent evaluation and enhancement of project management processes, is pivotal in driving maturity and achieving project success.

At the earlier stages of maturity, continuous improvement largely revolves around identifying and correcting obvious inefficiencies and defects in project management practices. The challenge lies in the establishment of processes that can facilitate such detection and remediation.

However, as an organization advances to the higher stages of maturity, the objective of continuous improvement intensifies into finding innovative ways to enhance and fine-tune already efficient and standardized processes. This requires proactively investing in areas such as advanced

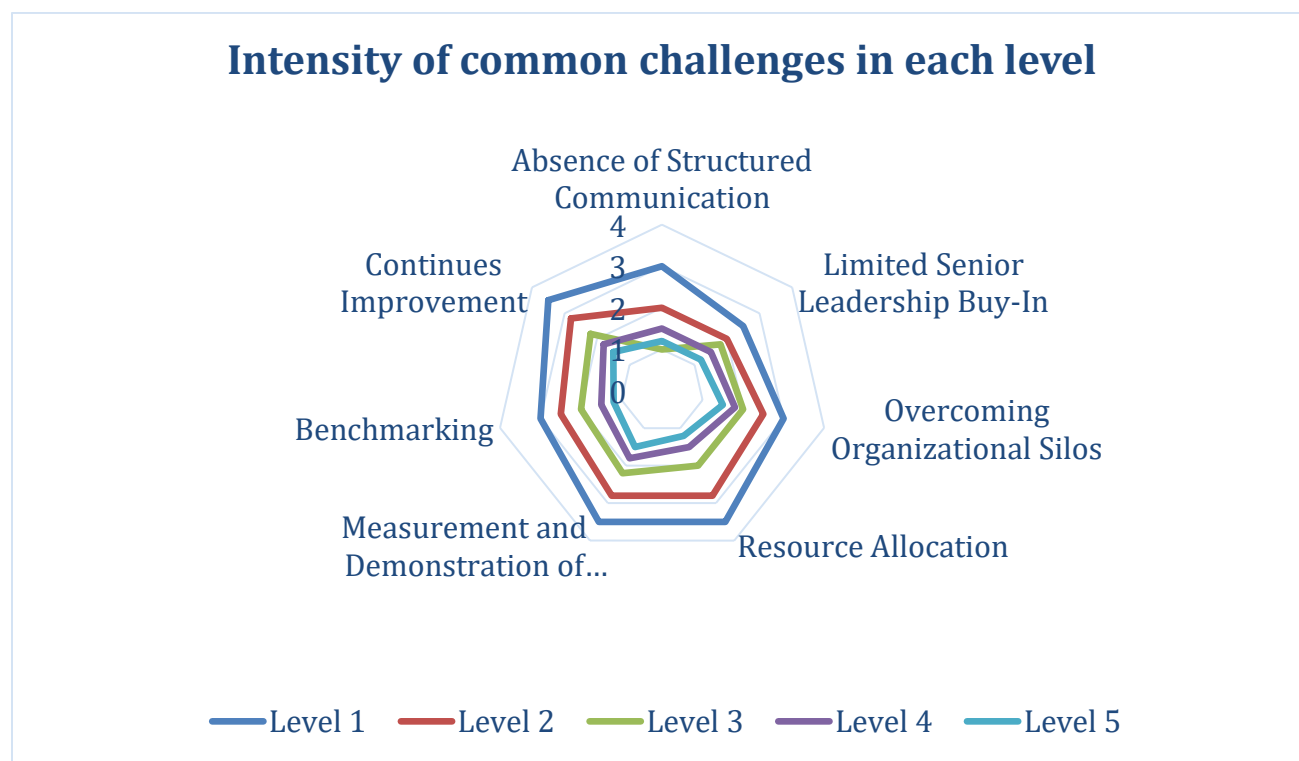
technologies, upskilling, and knowledge management, to systematically find room for further enhancements — a task that can be a significant challenge given the complexities associated with it.

**Summarizing the findings.** Further, the same Respondents, working on organizations with PMMM ranging from Level 1 to Level 5, have been asked to rate the intensity or magnitude of specific challenges at the end of the interview. The survey methodology ensures a diverse and inclusive representation, providing a holistic view of the challenges faced by organizations at various stages of their project management maturity journey.

The spider chart covers a nuanced view of project management challenges across five maturity levels, revealing distinct patterns, trends, and comparative insights. Each spoke on the chart represents a specific challenge, while the concentric circles shows the maturity levels from 1 to 5. The proximity of the data points to the outer edge signifies a higher intensity or magnitude of the challenge at that maturity level.

**Figure 5.**

*Intensity of common challenges in each level*



*Source:* compiled by the author

**1. Communication Challenges.** At Level 1, the absence of structured communication is evident, depicted by a data point closer to the center. As maturity progresses, the challenges evolve, with Level 2 showcasing limited senior leadership buy-in, Level 3 facing organizational silos, and Levels 4 and 5 emphasizing the need for precise communication in advanced contexts. The chart vividly illustrates the escalating complexity of communication challenges with increasing maturity.

**2. Leadership Buy-In.** Leadership buy-in challenges are visibly prominent at Level 1, gradually shifting and gaining complexity at higher maturity levels. The chart illustrates the journey from convincing leaders of the value of project management (Level 1) to sustaining support for standardized processes (Levels 3 to 5). The data points convey the evolving nature of this challenge, emphasizing the strategic recognition, long-term vision, and cultural integration required.

**3. Balancing Standardization and Flexibility.** The delicate balance between standardization and flexibility unfolds through the spider chart. At Levels 2 and 3, the emphasis on establishing baseline processes and introducing flexibility is evident. The challenge intensifies at Level 4, where customization becomes crucial. The chart visualizes the strategic adaptation and dynamic response needed to navigate this intricate interplay, emphasizing the iterative nature of the balance.

**4. Resource Management.** Resource management challenges transition from inadequate allocation at Level 1 to optimization challenges at Level 4. The chart portrays a strategic shift, showcasing the phased strategy of improving allocation methodologies in the initial stages and focusing on optimization as maturity progresses. The evolving focus on resource management strategies is clearly depicted, guiding organizations to navigate challenges effectively.

**5. Measurement and Demonstration of Value.** The spider chart illustrates the maturing complexity of measurement challenges. At Level 4, the data point extends outward, signifying the need for a robust framework to measure sustained benefits beyond traditional metrics. Level 5 emphasizes demonstrating long-term value, highlighting the broader impact on business processes. The chart visually conveys the increasing intricacies of measuring project value at higher maturity levels.

**6. Benchmarking.** Benchmarking challenges are prominently depicted, especially at the initial stages (Level 1), where internal benchmarks dominate due to a lack of standardized data. As maturity progresses, the chart illustrates the shift towards aligning benchmarks with industry standards. The decreasing intensity of challenges reflects a smoother transition, showcasing the adaptability and learning curve of organizations.

**7. Fostering Continuous Improvement.** The spider chart captures the increasing significance of fostering continuous improvement. At early maturity levels, the focus is on identifying and rectifying inefficiencies, depicted by the data points moving outward. The chart visually conveys the shift towards innovative enhancement at higher stages, emphasizing investments in advanced technologies, upskilling, and knowledge management.

**General Trends:**

- Challenges generally decrease with maturity, reflecting overall improvement.
- Level 4 stands out with increased challenges, indicating complexities in tailoring processes and demonstrating value.
- Resource management challenges evolve from allocation-focused to optimization-focused.
- Measurement challenges become more pronounced at Levels 4 and 5.

In conclusion, the proximity, patterns, and trends depicted provide organizations with valuable insights to navigate challenges strategically, fostering a more effective and mature project management landscape.



## CONCLUSIONS AND SUGGESTIONS FOR FURTHER RESEARCH

The concluding chapter, "Conclusions and Suggestions for Further Research," stands as the summary of the extensive exploration into "Organizational challenges in growing project management maturity." This chapter synthesizes the information covered in the preceding chapters, including the theoretical review, research methodologies, data collection tools, and data analysis.

**Theoretical review** has provided methodological support and contributed to the assessment of key project management maturity models. This has enabled the comparison of distinctive features among these models. Additionally, the literature has shed light on challenges within Project Management Maturity Models (PMMM) and organizational challenges, reflecting the evolution of project management methods over the years. This emphasizes the research's significance in scientific output, as mature organizations are more likely to attain success in projects.

Based on the research findings, it is evident that project management maturity is an evolutionary process, characterized by challenges that evolve in complexity and nature.

**Research Methodologies.** Building upon the detailed examination of the previous literature, the chosen approach is qualitative analysis through semi-conducted *interviews*. In order to addressing the central research question and sub-research questions, eight respondents were chosen with non-random convenience sampling aimed at identifying the main organizational challenges associated with project management maturity levels. The central research question, "What are the primary challenges faced by organizations in adapting to and managing the increasing maturity within a dynamic business landscape?", served as the guiding compass for this research.

The relevance of the *PMMM model by Kerzner* to the research study is underscored by its alignment with interview questions and structure. The model, consisting of a book and an online assessment tool, provided participants and organizations with a breakdown of maturity levels, facilitating meaningful comparisons and offering a high-level action plan for improvement. This strategic alignment ensured that the research study is not only theoretically robust but also practically applicable, contributing valuable insights to the field of project management maturity.

**Data Analysis chapter** delves into two core sections. First examining specific challenges identified by analyzing respondent answers and Kerzner's assessment tool, second section finding

overall trends and patterns in PMMM challenges. Notably, some challenges align with theoretical foundations, while unique difficulties surfaced in interviews also require dedicated attention.

The challenges identified through respondents' answers are outlined across different maturity levels, providing a comprehensive understanding of the obstacles encountered. Each level presents distinct challenges, emphasizing the evolving nature of difficulties as organizations advance in project management maturity.

To summarize identified challenges, they can be grouped as below:

Organizations at Level 1 have difficulties in foundation, including unstructured communication, undefined project scopes, unclear objectives, and ad-hoc resource allocation. These issues underscore the need for clarity, structure, and strategic planning in the early stages of project management maturity.

Transitioning to Level 2 introduces challenges such as financial constraints, incomplete senior leadership buy-in, absence of dedicated project management roles, difficulty in measuring project success, and resistance to change. Overcoming these challenges emphasizes financial optimization, leadership support, role clarity, effective measurement, and change management strategies.

At Level 3, challenges involve adhering to standardized processes, scaling practices across large organizations, balancing standardization with flexibility, and mitigating organizational silos. These complexities highlight the need for consistency, scalability, adaptability, and collaboration as organizations mature in their project management practices.

Level 4 organizations focus on constant process improvement, advanced risk management, intelligent integration of complex technologies, efficient resource optimization, and the measurement and demonstration of value. These challenges highlight the need for continuous refinement, sophisticated risk mitigation, technological integration, strategic resource management, and comprehensive value measurement.

Level 5 organizations strive for optimization of process performance, creating and sustaining a continuous improvement culture, managing high-maturity practices, and aligning organizational processes with project management maturity. These challenges signify a commitment to excellence, innovation, effective management, and strategic alignment at the highest level of project management maturity.

Common trends across maturity levels include communication challenges, leadership buy-in dynamics, the keeping balance between standardization and flexibility, a strategic shift in resource management focus, maturing complexity in measurement challenges, adapting benchmarking practices, and emphasizing continuous improvement. These trends provide valuable insights into the evolving landscape of project management challenges.

Identifying these challenges provides organizations with clear insight and enable them to take actions according to their needs. Moreover, some practical recommendations for the organizations with PMM challenges are compiled and indicated in the table below:

**Table 6.**

*Practical recommendations for organizations.*

Challenges	Solutions	Term	Executives in Charge
Communication, Leadership buy-in, Resource management, Benchmarking	Implement structured strategies for communication, convincing leaders of the value of PM, improving resource allocations, establishing internal benchmarks	4 months	Business Strategy Director, HR Director
Limited senior leadership buy-in, Balancing standardization & flexibility, Benchmarking	Seek sustained support for establishing standard processes, promote flexibility within standards, and commence alignment with industry benchmarks	3 months	Team Coordinator, Operations Managers
Organizational silos, Balancing standardization & flexibility, Fostering continuous improvement	Develop inter-departmental communication, maintain balance between standards and customization, identify and rectify inefficiencies	11 months	Head of Strategy Department
Need for precise communication, Customization, Resource management, Measurement and demonstration of value, Fostering continuous improvement	Implement advanced communication strategies, promote customization in processes, optimize resource management, establish robust measurement framework, invest in advanced technologies and upskilling	18 months	Head of Strategy Department, HR Director, Team Coordinator, Operations Managers

Need for precise communication, Demonstrating long-term value, Benchmarking, Fostering continuous improvement	Maintain refined communication strategies, demonstrate long-term project value, align closely with industry benchmarks, focus on continuous process improvement and knowledge management	6 months	Head of Strategy Department, Operations Managers
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*Source:* compiled by the author

This strategic action plan is designed to help organizations with outlining a roadmap for improving their project management maturity, addressing prevalent challenges at each level of Kerzner's Project Management Maturity Model (PMMM).

At Level 1, the initial problem lies in communication, leadership buy-in, resource management, and benchmarking. The action plan targets these issues by implementing structured communication strategies, highlighting the value of project management to the leaders, improving resource allocation methodologies, and beginning the process of benchmarking internally.

Progressing to Level 2, the maturity increases, but so does the difficulty in convincing senior leadership, harmonizing standards and flexibility, and aligning benchmarks with industry standards. The strategy now calls for sustained support for the standardization of processes, promotion of flexibility within these standards, and gradual alignment with industry benchmarks.

Level 3 sees another shift, tackling organizational silos, achieving a balance between standardization and flexibility, and fostering continuous improvement. Here, the focus is on creating open lines of communication between departments, maintaining a balance between standards and customization, and identifying and rectifying inefficiencies.

The complexity intensifies at Level 4 due to the need for precise communication, customization, resource management, measurement of value, and continuous enhancement. The approach here involves implementing advanced communication strategies, encouraging customization in processes, optimizing resource management, establishing a robust measurement framework, and investing in advanced technologies and upskilling.

At the last stage, Level 5, the organization needs to manage precise communication, demonstrate long-term value, align closely with industry benchmarks, and foster continuous improvement. The organization, at this point, should maintain refined communication strategies, demonstrate the long-term value of projects, align fully with industry benchmarks, and continue improving processes and managing knowledge.

In summary, this research sheds light on the organizational challenges associated with the growing project management maturity levels, providing insights into the unique obstacles faced at each stage of Kerzner's Project Management Maturity Model (PMMM). By systematically addressing issues such as communication, leadership buy-in, resource management, and benchmarking, organizations can navigate the complexities of advancing maturity levels. The findings contribute to a nuanced understanding of the specific challenges inherent in the project management maturity journey, offering valuable guidance for organizations striving to enhance their project management practices and navigate the intricacies of a dynamic business landscape.

**Suggestions for further research.** Building on this study, there are several potential directions for future research that can enhance the understanding of challenges in project management maturity and their solutions:

**1. Long-Term Impact of Solutions:**

- Explore how the solutions recommended in this study affect organizations' project management maturity over an extended period.
- Conduct studies that track the lasting effects of implemented strategies and how organizations adapt to long-term changes.

**2. Industry-Specific Strategies:**

- Investigate how industry-specific factors influence the effectiveness of strategies used to tackle project management challenges.
- Explore whether different sectors need customized approaches based on their unique characteristics.

**3. Comparative Implementation Studies:**

- Compare organizations that successfully implemented solutions with those that faced challenges during implementation.
- Identify key factors that contribute to success and obstacles faced by organizations at different maturity levels.

**4. Role of Emerging Technologies:**

- Examine how emerging technologies, like AI and data analytics, help address project management challenges.
- Assess how organizations can use technology to improve project management efficiency across different maturity stages.

### **5. Cultural Factors in Standardized Processes:**

- Investigate how organizational culture influences the acceptance of standardized processes at various maturity levels.
- Explore how cultural factors impact the adoption of project management methodologies.

By exploring these areas, future research can provide more insights into project management maturity. This expanded understanding will help refine existing strategies and empower organizations to navigate challenges with greater adaptability, fostering continuous improvement in project management practices.

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## **ANNEX 1. Information Sheet**

Date: DD/MM/YYYY

Project Name: "Organizational challenges with growing project management maturity"

Contact Person: Gulnar Abasova

Phone: +370 63596264

Email: gulnar.abasova10@gmail.com

### **Research description:**

This research, titled "Organizational Challenges by growing Project Management Maturity," explores the strategic importance of Project Management Maturity Models in achieving successful project outcomes and overall business objectives in today's dynamic business landscape. The study aims to analyze existing Project Management Maturity Models (PMMs), compare them, and provide insights for selecting and constructing a model to assess organizational project management maturity. The focus is on understanding the complexities and challenges faced by organizations in enhancing their project management maturity, with the overarching goal of offering recommendations for overcoming challenges and leveraging a mature PMO for increased business value.

Keywords: Project management; Maturity models; Comparison of Project Management Maturity Models; Organizational challenges

### **Procedure:**

We're conducting a research and your participation in semi-constructed interview is highly valued, and your insights will contribute to advancing our understanding of project management maturity in organizational settings. Your consent to record the interview is appreciated, and rest

assured, your data will be treated with the utmost confidentiality. You have full control over the interview, and your valuable insights will contribute to our understanding of organizational project success.

Thank you for considering our invitation.

## **ANNEX 2. Interview questions**

**General Questions about Respondent`s background and organization.** The following questions are designed to capture a comprehensive view of the respondents' professional journeys, organizational dynamics, and the strategic alignment of project management activities within their workplaces.

1. Can you please provide a brief overview of your professional background in project management and your current role within the organization?
2. How would you describe the overall organizational culture and structure in your current workplace?
3. Can you share any notable projects you have been involved in recently and their impact on the organization? Can you outline any existing processes or methodologies that guide project management activities?
4. How has your organization historically approached project management, and have you observed any changes over time? To what extent is the concept of project management maturity understood within your organization?
5. Have there been efforts to connect project management goals with broader organizational objectives? What specific methodologies or frameworks related to project management has your organization adopted or considered adopting?

**Specific Questions about Challenges in Growing Project Management Maturity.** Through targeted questions, the aim is to get insights from respondents about specific challenges within their respective organizations.



6. What challenges, if any, have you encountered during the implementation of project management practices in your organization?
7. Have you observed any resistance among team members to changes in project management processes? How does the organization manage change and address potential resistance when implementing new project management practices?
8. What role does leadership play in driving and supporting the enhancement of project management maturity levels within your organization? How does your organization engage stakeholders in the project management process, and what challenges have been encountered in stakeholder management? Is there a structured approach to involving stakeholders in decision-making related to project management?
9. What challenges does the organization face in allocating resources, both in terms of personnel and funding, for project management maturity initiatives? How committed is the organization to investing in the personnel, time, and funding required for maturing project management practices?
10. How does your organization currently measure the success or effectiveness of its projects, and how is this linked to project management maturity? Are there challenges in establishing meaningful Key Performance Indicators (KPIs) for project success?
11. How do changes in project management maturity levels impact the organizational culture, and how has your organization adapted to these changes?
12. Have you observed any challenges related to knowledge transfer or the institutionalization of best practices as your organization matures in project management? How does the organization integrate industry best practices and standards, such as those from PMI, into its project management processes? Have there been challenges in aligning project management practices with recognized standards?

13. How does the organization address the need for continuous learning and adaptation as it strives to improve project management maturity? Are there formalized programs or initiatives in place to facilitate ongoing learning and improvement in project management practices?
  
14. Looking forward, what recommendations do you have for organizations aiming to enhance project management maturity, based on your experiences and observations?