



Daniel Bernal Pavon

Contract Management Optimization in an International Financial Institution

Metropolia University of Applied Sciences

Master of Business Administration

Procurement

Thesis

Date: 11th April 2025

Abstract

Author: Daniel Bernal Pavon
Title: Contract Management Optimization in an International Financial Institution
Number of Pages: 85 pages + 3 appendices
Date: 11.04.2025

Degree: Master of Business Administration
Degree Programme: Procurement
Supervisor: Kaija Haapasalo, M. Sc. (Econ.), Senior Lecturer

This thesis aimed to optimize the contract management of consultancy services within an international financial institution through the application of action research principles. Contract management is a critical business function whose successful performance facilitates the achievement of strategic objectives in any organization.

With the purpose of developing a plan to enhance the contract management performance, the thesis explored the theoretical background for identifying and utilizing different approaches in contract management and success factors of change management. Moreover, specialized guides and tools from other public institutions were revised in order to provide ideas for the case organization.

The current state analysis mostly relied on the internal interviews, internal document analysis, and data provided by the organization's IT systems, as well as was extended with web-based surveys for project managers and professionals from other organizations, which provided solid foundation to assess the existing practices and identify their strengths and weaknesses. This approach also helped to refine the research problem. According to the findings, the quality of the data registered in the management system by the project managers implementing the contracts affected several business areas, such as compliance with regulations, budget planning, lifecycle monitoring, reporting and risk control. Therefore, the research objectives sought to raise awareness and knowledge, improve communication and establish a strategy for the case organization's contract management.

The development work, although only partially completed, resulted in a draft contract management strategy and a set of activities that targeted the identified weaknesses, namely training sessions, revised guidance material, and a communication plan that established new working dynamics. The impact of the intervention was measured against the selected KPIs that demonstrated the optimization of two key elements of contract management in the case organization, data quality and communication efficacy.

Keywords: contract management, procurement optimization, change management, action research

The originality of this thesis has been checked using Turnitin Originality Check service.

Contents

1	Introduction	1
1.1	Background to the thesis topic	1
1.2	Case organization	2
1.3	Procurement processes in the case organization	3
2	Research design	5
2.1	Research problem statement	5
2.2	Research scope, questions and objectives	7
2.3	Research metrics	8
3	Methodology	9
3.1	Research approach and timeframe	9
3.2	Overview of data collection and analysis methods	13
3.2.1	Document analysis	14
3.2.2	Participant observation	15
3.2.3	Questionnaires	16
4	Theoretical background	18
4.1	Contract management	19
4.2	Contract management strategy	28
4.2.1	Proactive contract management	31
4.2.2	Maturity development of contract management	34
4.3	Change management	37
4.3.1	Success factor model of change management	39
4.3.2	Communication in change management	42
5	Current state analysis	45
5.1	Analysis of prior communication efficacy	45
5.2	Root causes of communication efficacy problems	49
5.2.1	Background to prior attempts to improve the situation	49
5.2.2	Analysis with the help of 5 Whys technique	51
5.2.3	Ishakawa diagram	53
5.3	Conclusions	54

6	Results of the surveys to project managers	56
6.1	Research results of the survey to project managers	56
6.1.1	Results related to the use of the IT system	57
6.1.2	Results related to general awareness	60
6.1.3	Results related training and communication needs	61
6.1.4	Results related to budget knowledge and roles	63
6.2	Results of the survey to project managers in other organizations	64
7	Suggestions for Improved Contract Management	67
7.1	Contract management strategy	69
7.2	Activities planned and undertaken	73
8	Conclusions	79
8.1	Evaluation of the results	79
8.2	Limitations and validity of research	83
8.3	Lessons learned	85
	References	86
	Appendices	94
	Questionnaire A: Contract management and the current working methods	94
	Questionnaire B: Contract management and working methods	104
	Timeframe of the research design and the work development	114

Glossary

CM Contract Management Unit

CM Approach Contract Management Approach

IFI International Financial Institution

PU Procurement Unit

1 Introduction

1.1 Background to the thesis topic

This thesis analyzes the contract management function developed by a specific unit of an international financial institution (IFI) with the purpose of optimizing the quality performance in the execution of contracts for the provision of consultancy services.

In general, contract management is understood as defined by Van Weele and Van Der Puil (2014: 55):

The process which ensures that all parties to a contract fully meet their obligations, in order to satisfy the operational objectives of the contract and the strategic business goals of the customer.

However, the theoretical perspective applied to the case study mainly combines the principles of action research with the contractual management approach developed by Schuhmann and Eichhorn (2019). Specifically, while contract management focuses primarily on the contract lifecycle as the central subject (contract-centred), contractual management conceived the contract as a means of management (management-centred) since it is concerned with management through the help of contract by using it to aid an enterprise, business unit, transaction or business cooperation in achieving its goals (Schuhmann and Eichhorn, 2019: 25).

Although contract management covers multiple activities as a phase of the procurement cycle, the scope of this research is narrowed to the post-award stages of the contracting cycle, from the signature to the contract completion. The early phases of the procurement process, such as determining specifications, selecting suppliers and contracting (Weele, 2018: 8), play a fundamental role in contract management, but they remain merely contextual elements of this research.

Regarding the relational interactions inside and outside an organization, the scope of this research focuses on the internal business processes and the cooperation of the contract management unit with other teams within the institution. On the contrary, collaborations with contractors, beneficiaries, and other external stakeholders are outside the object of this thesis's study.

I had the privilege to conduct this research within the case organization, with the main goal of generating specific knowledge by applying an action research approach to improve the performance of the contract management function. Thus, during the elaboration of the research, a learning process was developed through interaction with key actors across the organization to ultimately promote a positive change in the business practices of contract management.

1.2 Case organization

The case organization is an international financial institution (IFI), operating in over 160 countries, that provides project funding, guarantees and advisory services to the public and private sectors. These activities focus on priority policy areas such as climate and environment, economic and social cohesion, sustainable cities, innovation and small and medium-sized companies, among many others. Its workforce consists of some 4,000 professionals based in headquarters and multiple offices around the globe.

The IFI is regulated by its own statute. It has four statutory bodies; three of them are the decision-makers: the Board of Governors, the Board of Directors and the Management Committee. The fourth, the Audit Committee, acts as the control body. Its organizational structure consists of a General Secretariat, ten Directorates composed of Departments, an Inspector General, and an independent Internal Audit Department.

Procurement as a business function is decentralized across the organization, both in its direct and indirect dimensions. Still, there is a common regulatory framework for procurement derived from the voluntary adoption of the European

Directive 2014/24/EU on public procurement, which significantly defines the internal rules and procedures.

The thesis is based on the activities of a division in charge of the procurement of consultancy services, budget management, communication, and training, whose name will remain undisclosed for confidentiality reasons. In particular, the procurement function studied henceforth is realised by two units, renamed for this research as the Procurement Unit (PU), in charge of the procurement stages before the contract signature, and the Contract Management Unit (CM), focused on the post-signature stages.

1.3 Procurement processes in the case organization

Before October 2023, PU and CM units composed a single team covering the entire procurement process of consultancy services. However, an internal reorganization transferred the function to a different division and separated it into two units to optimize the procurement and contract management performance. Currently, the PU Unit conducts the procurement of consultancy services requested by other divisions of the institution to support its own needs or the specific advisory activities delivered to external clients within the European Union (e.g., ministries, regional governments, municipalities and private companies). The most common consulting services procured are *ad hoc* pre-feasibility studies, project preparation and capacity-building programmes in the above-mentioned priority areas that may originate future lending projects.

The procurement of such consultancy services requires the involvement of several internal stakeholders throughout a regulated process. At the initiative of the requesting team, the project manager contacts the Procurement Unit (PU) to organize the procurement of consultancy services that will be provided to an external beneficiary (e.g., a public institution). Once the terms of reference and all the relevant tender documents are approved, PU carries out the procurement stages, from planning to the award and the signature of contracts (see Figure 1). Following that, the Contract Management Unit (CM) and the project manager

from the user division collaborate throughout the contract term through several methods, including a contract management solution.

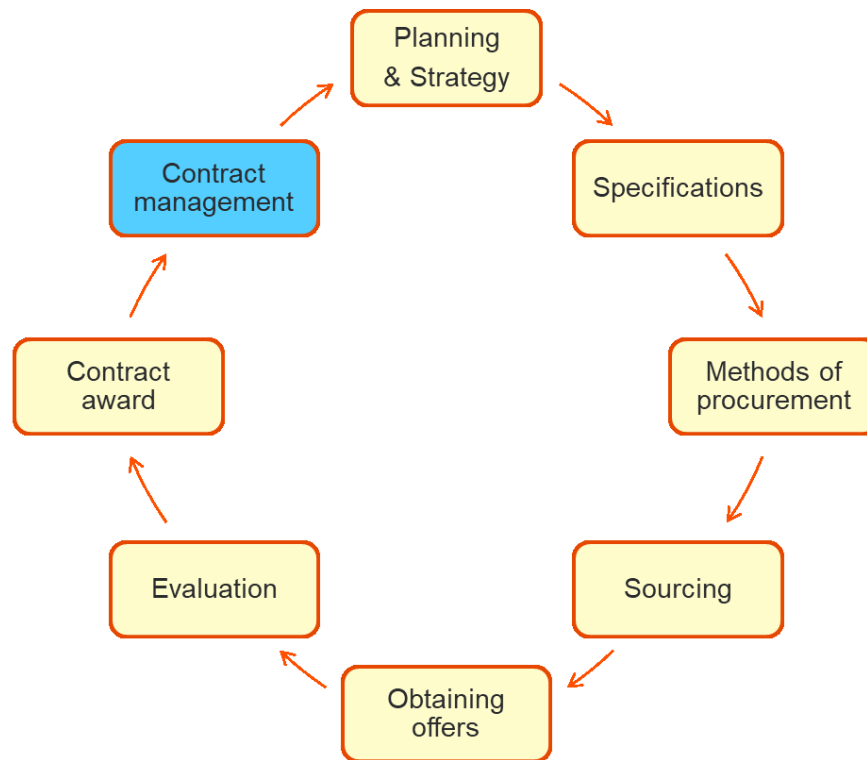


Figure 1. Procurement process of consultancy services within the case organization.

As depicted in Figure 2, project managers and their teams lead the technical implementation of consultancy contracts on the field, given their professional specialization in the relevant sector, and build relationships with the service providers and the beneficiaries of the services. In parallel, the Contract Management Unit (CM) undertakes an oversight function in order to monitor and ensure contract compliance with internal regulations, including budget and delivery time alignments. CM also completes the purchasing cycle related to service contracts on behalf of the user divisions, including the booking of budgets and the operationalization of payments. In this regard, CM works closely with the Budget Management Unit as the latter keeps permanent control of budget consumption forecast and actual spending. Finally, CM prepares

contract modifications (i.e., addenda) on behalf of project managers, cooperates with the audit function, and closes out the contracts upon their completion.

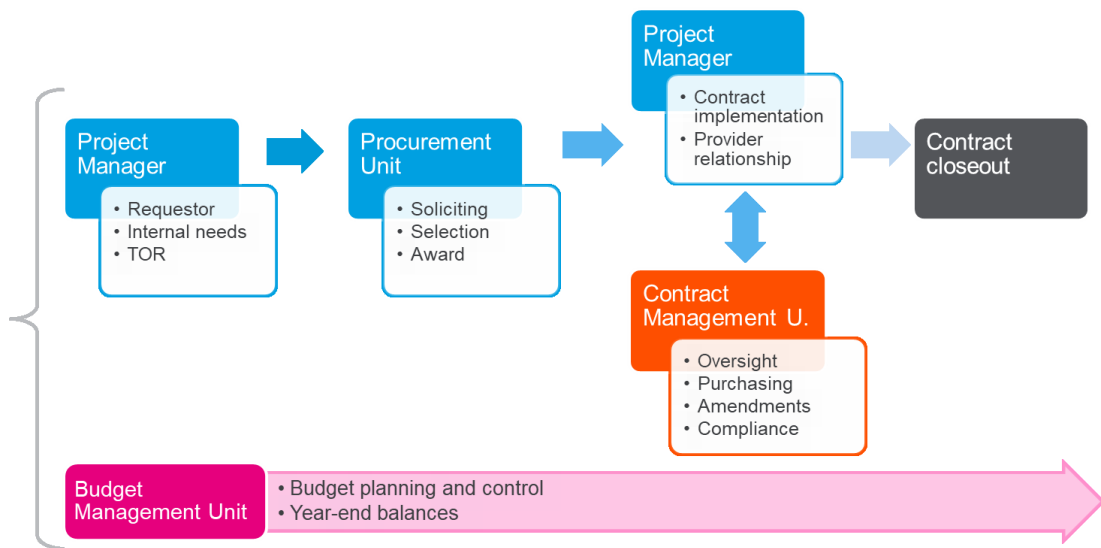


Figure 2. Procurement process of consultancy services and interaction between the main internal stakeholders.

At the time of writing, the CM Unit is consolidating the remit of its function and split of responsibilities. Overall, it aims to strengthen the strategic management and the operational administration of such contracts, enhancing the risk mitigation and compliance culture, particularly for providing consultancy services. In this transitional context, I focused my research on the CM Unit and the role of contract management administrator.

2 Research design

2.1 Research problem statement

After conducting the literature review and current state research and analysis and developing the root cause analysis described in Chapter 5.2, I defined together with the Contract Management Unit the business problem as stated below:

- The current contract governance, on the entrustment of most of contract management's activities to front-line teams (project managers), adversely affects critical areas across business functions, such as ensuring compliance with regulations, budget planning, payments, lifecycle monitoring, data and reporting, risk control, transparency and contract modifications; which consequently, reduces the potential for contract completion success.

In an attempt to hierarchically relate the main areas involved in the research problem, I created the mind map presented in Figure 3.

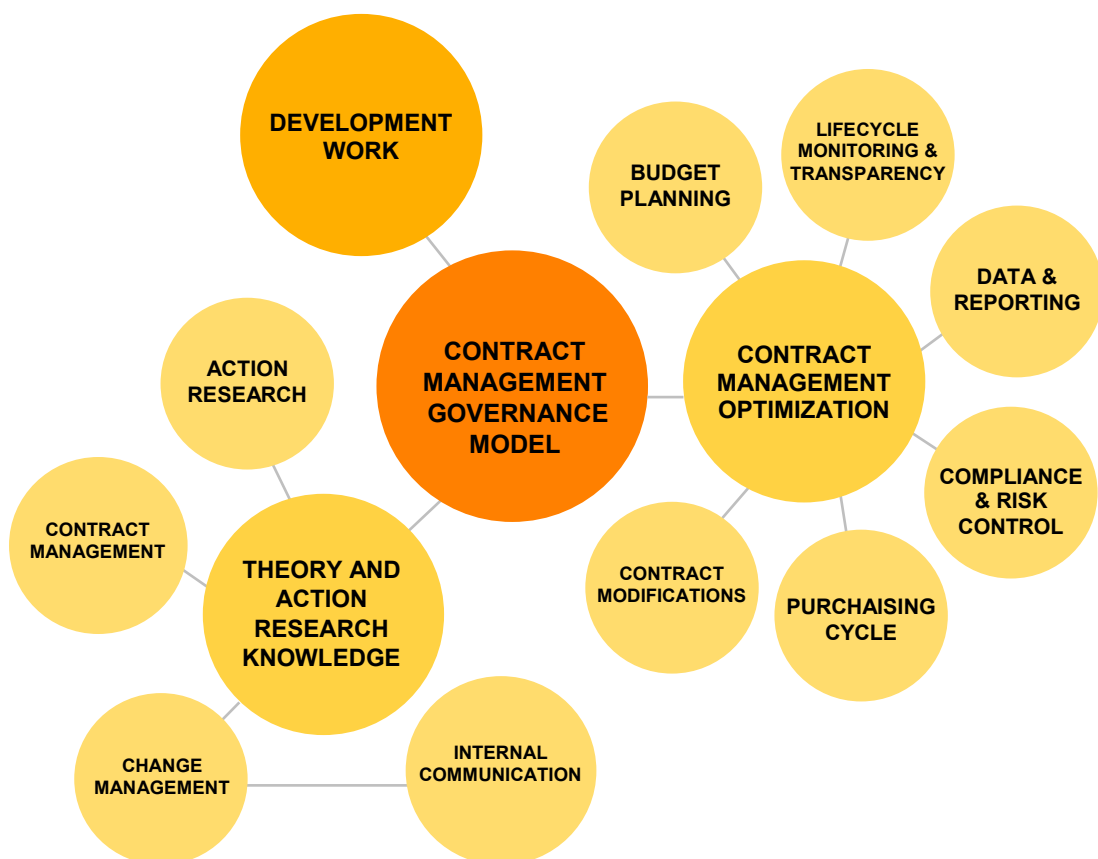


Figure 3. Basic mind map of concepts related to the research problem.

As depicted in the web map, the contract management governance model represents the main topic of this research and develops through two main sub-topics: theory and action research, and contract management optimization.

2.2 Research scope, questions and objectives

This thesis research aims to enhance the current contract management performance within the organization by exploring the areas described in the business problem through action research principles. To frame the scope, the business problem led to the following derived research questions:

- 1) How to raise awareness about the implications of contract management among project managers (group of 50 officials leading contract implementation) and increase their knowledge of the contract management system's functionalities and the budget fundamentals (purchase orders, receipts, payments and invoices)?
- 2) How to improve cooperation and communication among the teams involved in contract management?
- 3) How to define and adopt a contract management approach in the case organization encompassing critical areas to enhance contract compliance?

In response to the research questions, the CM Unit held two meetings and a permanent dialogue for one week in November 2023 to discuss the new objectives that would eventually improve the situation. Due to some degree of resistance to change, the final agreement required an extra effort to explain the potentiality of the development project to convince and reach a group consensus. Finally, the result of those additional discussions led to the following goals:

- 1) Design a communication plan to raise awareness about the impact of contract management across business functions for project managers.
- 2) Organize a training program for project managers to increase their literacy skills in the contract management system and the essentials of contract cycle including budget.

- 3) Introduce new working practices to improve cooperation between project managers (user divisions) and contract managers (CM Unit).
- 4) Define the key aspects of a new contract management strategy and elaborate a general contract management guide.

To sum up, the research objectives are focused on the internal development of contract management capacity and the collaboration across professionals, mainly between the project managers in the user divisions and the CM Unit.

2.3 Research metrics

To define metrics to measure the success of the research and work I reviewed key performance indicators (KPI) commonly used in contract management and business change. Based on the review and the research questions the following metrics were defined:

1. Communication efficacy in terms of awareness and knowledge among project managers.

According to Meng and Berger (2012: 342), this aspect of internal communication is conceptualized as “increased awareness and understanding”. Their analysis of a survey with 740 companies worldwide concluded that 91.1% of highly effective organizations measure this area. The target scores for success were the number of emails and days required to complete the following two tasks:

- Update deliverables dates in the IT system: ≥ 2 emails and ≥ 5 days.
- Create a purchase order: ≥ 2 emails and ≥ 5 days.

2. Communication efficacy in terms of improved job performance

In their study, Meng and Berger (2012: 343) indicated that 66.1% of highly effective organizations measure this aspect. In this thesis, the method to measure this target relies on the data from the contract management system, where critical key performance indicators can be applied.

The metric for this aspect was the percentage of the ongoing contracts whose end dates are in the past in the contract management system. The target score is to reach a rate lower than 15%.

3. Effectiveness of the training

The impact of the training delivered to the project managers in October 2024 in the use of the contract management system was evaluated. The selected metric was the percentage of contracts that were not updated in the platform before and one week after providing a session dedicated to the system functionalities. The target score is to obtain a rate lower than 15%.

4. The awareness about the budget implications of the deliverables status in the contract management system will be measured. For that, the metric used is the percentage of deliverables triggering a payment with an expected delivery date in the past (overdue submission). The target score is a rate above 15%.

3 Methodology

3.1 Research approach and timeframe

This thesis employs action research methodology, where the researcher engages as an organizational insider concerned with self-transformation and organizational development (Elg et al., 2020: 2). In this study, as McNiff (2013: 90) describes, both action and research are equally important since the practitioner's research seeks to improve practice, and simultaneously

researches the practice and its improvement to explain and ground the changes resulting from the enquiry.

Although the conception of action research introduced by Lewin (1946) has kept its basic features until today, many other scholars have brought about multiple contributions since then. In this sense, Nunes and McPherson (2015: 2) cites Coghlan and Brannick's (2001) interpretation of Lewin's model of action research, which is reproduced in Figure 4 as a spiral framework based on the iterative cyclic process "diagnosis, action planning, action taking and action evaluation".

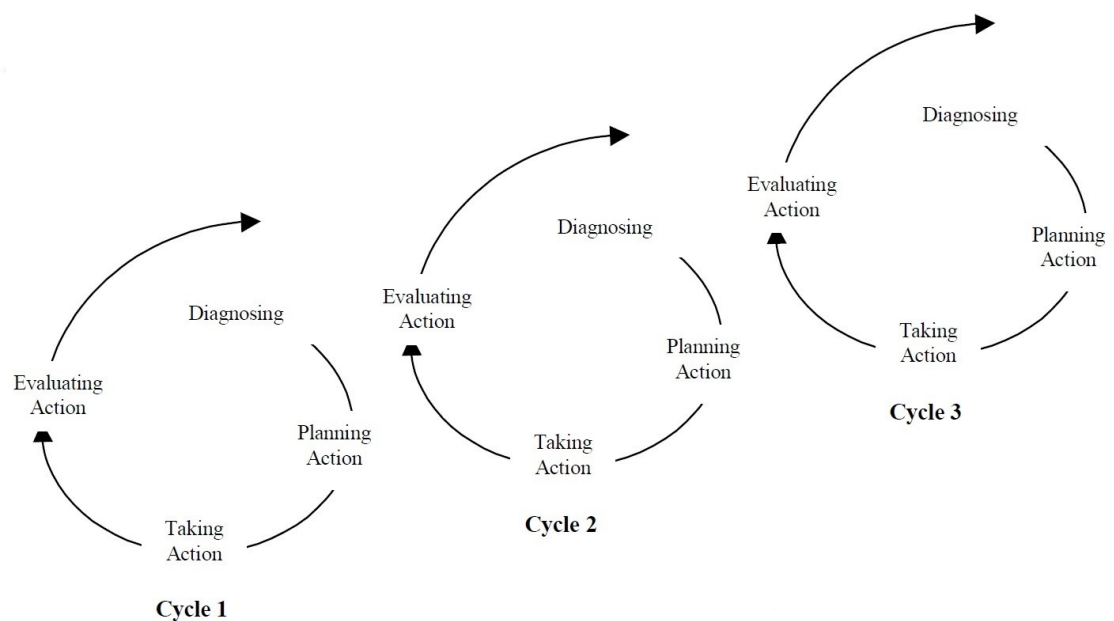


Figure 4. Spiral of Action Research Cycles (Coghlan and Brannick, 2001:19) as cited by Nunes & McPherson (2015).

In this research, the synthetic cyclic process considered the view of Elg et al. (2020: 89) on the need to balance practice and theory in action research. In their analytical framework, reproduced in Figure 5, the authors relate two dimensions and four elements as fundamental in action research undertakings. First, research and practice represent two systems that are interconnected and need to be developed in parallel during action research. The second dimension is the dichotomy composed of problem and solution. While the problem

identification is based on the reality evidenced in the practice system, its study requires theoretical knowledge to interpret the facts. On the other hand, the process of defining a solution to a specific problem creates new theoretical models and concepts that enable the researcher to conduct the intervention in the particular organizational environment.

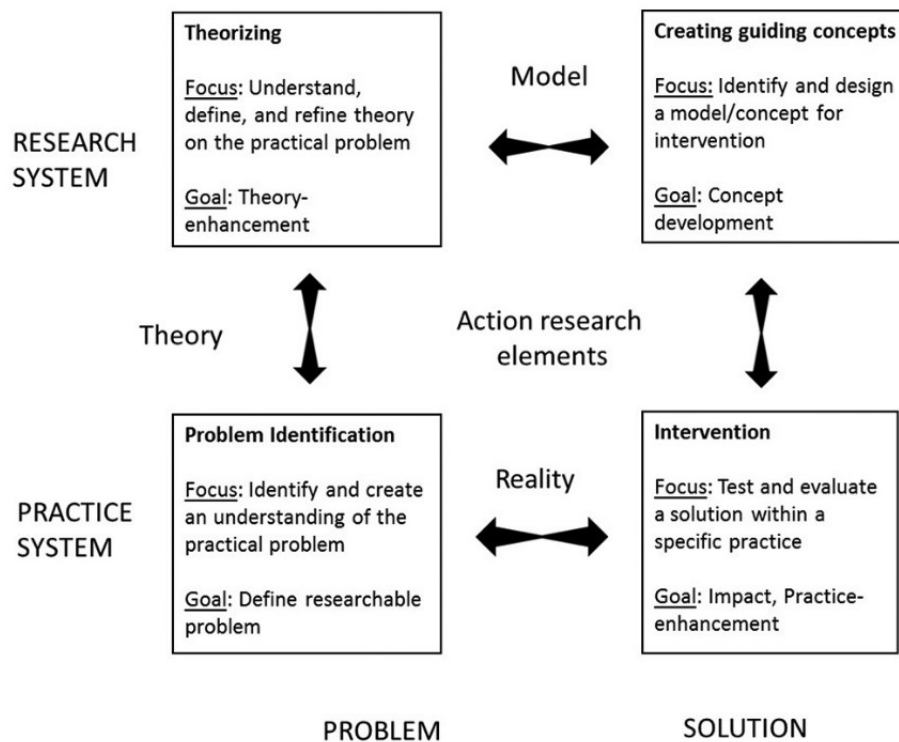


Figure 5. Analytical framework: components and relations in action research (Elg et al., 2020: 89).

The present research follows the iterative loop process, starting by collecting and finding out the needed information from the knowledge of practice. For that purpose, the interaction with several stakeholders, particularly the project managers, is brought into sharp focus. Moreover, the creation of change finds theoretical grounds and guidance in contract management, change management, internal communication and training, as described in Chapter 4.

Therefore, both the practice and the research of theoretical systems served to plan and refine the intervention aiming to improve the contract management

compliance in the case organization as demonstrated in the conceptual model of action research thesis in Figure 6.

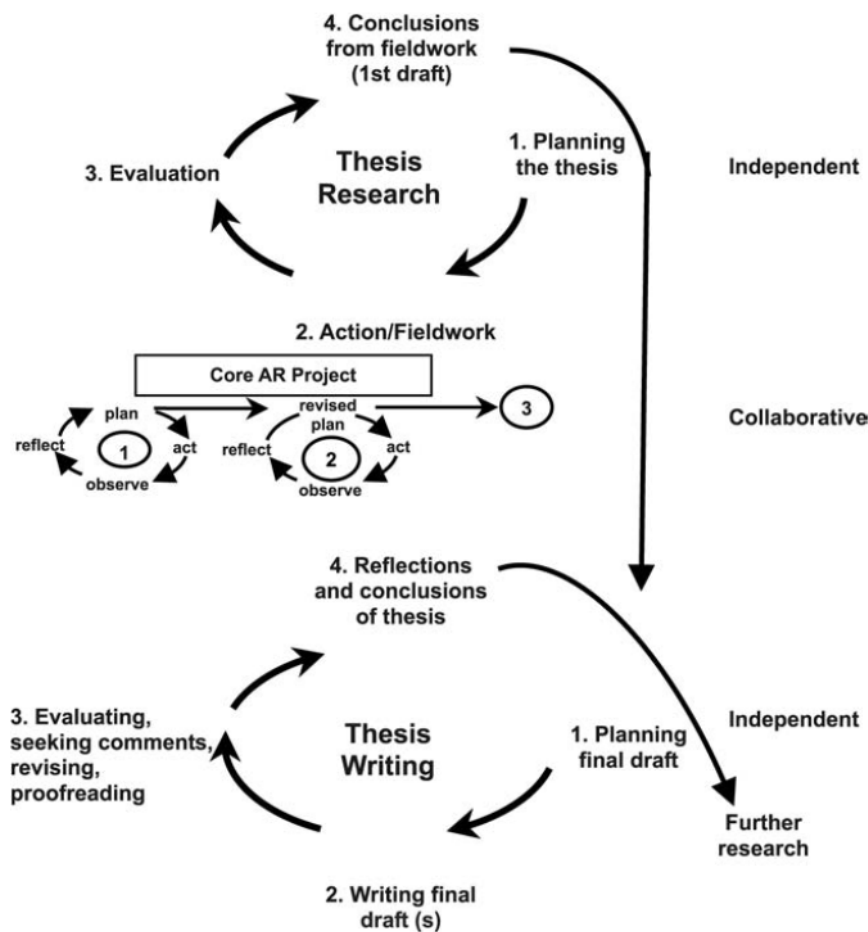


Figure 6. Conceptual model of an action research thesis adapted by Zuber-Skerritt and Fletcher (2007: 421) from Zuber-Skerritt and Perry (2002: 177).

As depicted in Figure 7, this thesis was conducted in three main phases. In the first phase of this thesis, a current-state analysis of contract management's performance was conducted. Then, for the second phase, a development plan was designed, including a set of activities to address the identified deficiencies and improve contract management compliance in line with the research objectives. A further developed view of the thesis process can be seen in Appendix 3.

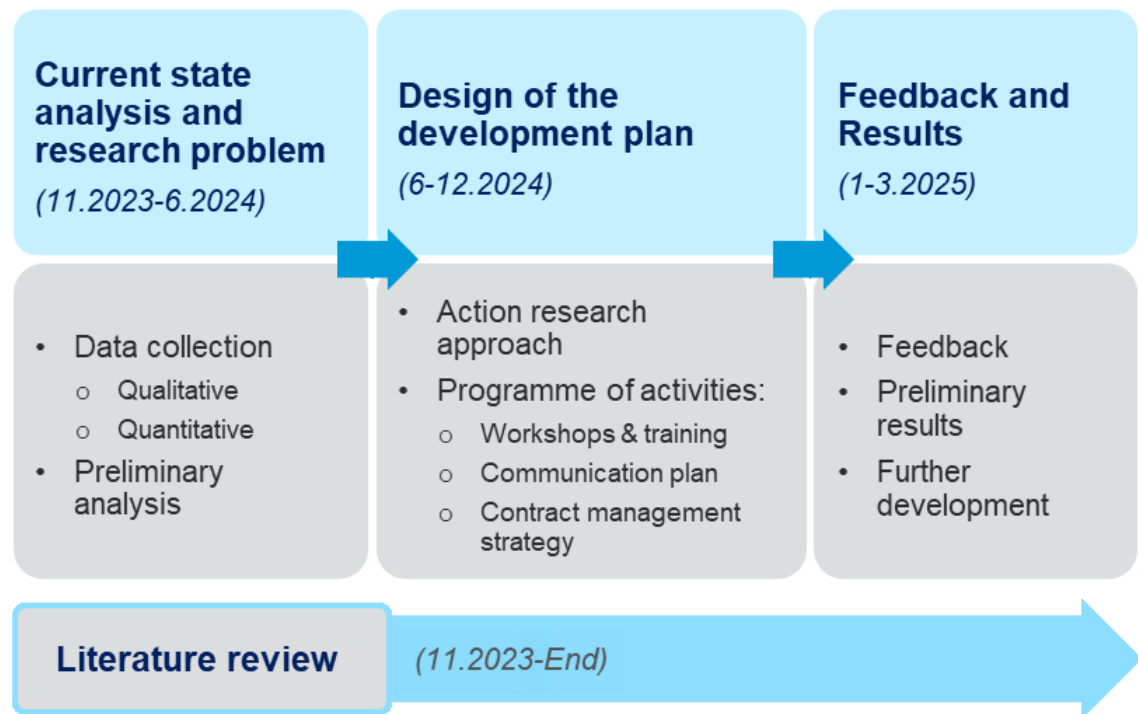


Figure 7. Research design and timeframe.

After that, the actual intervention was partially implemented, and the evaluation was limited to the results in the relevant areas (i.e., data quality in the system, internal communication, and knowledge). Finally, the research concludes with recommendations for further development in the case organization.

3.2 Overview of data collection and analysis methods

McNiff (2013: 104) explains that in order to gather data in action research, the researcher needs to monitor one and other people's practices. This process implies observing the reality within the organization, keeping records of the action as data, analyzing and, lately, interpreting them to create evidence, and always following ethical conduct for others and self.

Most authors argue that action research is, by definition, predominantly qualitative. In this sense, Elg et al. (2020: 92) concluded that the methods generally applied to gather information fell under the qualitative category. However, quantitative methods are also applied in action research in order to

obtain data complementarity and enable triangulation, as studied by Wisniewska (2011: 69).

In this research, as McNiff (2013: 106) argues although many authors distinguish between quantitative and qualitative forms those distinctions are to be considered flexible, and sometimes, the categories result blurred. In her view, quantitative data is useful primarily to obtain insights through trends.

The data collection methods employed in this research include:

As quantitative research methods:

- Data and document analysis: a study of reports generated by the contract management system and quantitative analysis to measure the number of emails between the CM Unit and project managers needed to complete a given task (e.g., update of deliverables dates in the IT solution, creation of a purchase order and request of an invoice).

As qualitative research methods:

- Participant observation
- Discussions: regular unit meetings
- Questionnaires

Further details on the convenience and the application of these collection methods are provided below.

3.2.1 Document analysis

Following McNiff (2013: 111), this research first considered quantitative analysis and then moved to qualitative. On a regular basis, the Contract Management Unit analyzes the critical aspects of the entire portfolio of consultancy contracts

using a set of reports generated by the IT software as their primary source of information for monitoring purposes.

For this research, those reports constitute a valuable source of secondary data that reflects the status of the existing contracts at a certain time. In essence, the reports contain contractual dates (estimated and realised); budget availability and actual consumption; deliverables status, due dates, submissions and approvals; and payments.

Given the nature of the monitoring reports, the method applied was document analysis, which according to Bowen (2009: 27) is defined as “a systematic procedure for reviewing or evaluating documents – both printed and electronic (computer-based and Internet-transmitted) material”. In this case, as Bowen described (2009: 30), the specific function of the documents serves the research to track change and development of projects over time.

The document analysis of those reports was considered convenient to interpret the a priori and a posteriori situation of the contract portfolio. For that, it generated key findings about budget consumption, deliverable time adherence and compliance. For further reference, the initial and final results are provided in Chapters 5 and 7, respectively.

3.2.2 Participant observation

As Kimber and Maertens (2023: 33) state, participant observation refers to the method through which the researcher creates data by being embedded into the specific setting and actively participating in the activities to understand better the reality the actors usually experience. In this thesis, the method was primarily applied inside the Contract Management Unit to gain insight into the business functioning and culture, emphasizing everyday practices and interactions with other stakeholders.

Following the role categories of Gold (1958, cited in Rose, Spinks and Canhoto, 2024:), the observation conducted under this research corresponded to the

practice of a complete participant, given that the research was conducted directly within the case organization. Moreover, the form of observation conducted in this research can be considered overt only to the extent that the members of the CM Unit knew the research was underway. Nevertheless, it was generally a covert observation since most project managers and other stakeholders had scarce notice of the research process until the questionnaires were administered when they received general information on the nature of the research.

Therefore, the observation occurred in a natural working environment where actors usually perform their activities. Last, this method was mainly applied in an unstructured manner, with the focal point determined by the actual workflow of the CM Unit. Specifically, participant observation allowed the generation of foundational knowledge of working procedures, dynamics, and interactions mostly between the CM Unit and project managers.

3.2.3 Questionnaires

According to Egger and Beerli (2023: 70), the use of questionnaires in international organizations [such as the case organization] is quite recent and rare, because scholars in this field hardly study the individuals who represent or work for them. However, they find questionnaires particularly useful and advocate for their use in this type of setting.

For clarity, given the multiple concepts of questionnaire in science research, under this thesis, the method applied corresponds to the definition of Rose et al. (2024):

A particular type of data collection instrument that uses a standardized, structured set of questions to measure variables, such as respondent attitudes, that are of interest to the researcher.

Foremost, it should be remarked that research questionnaires rely on two premises. The first considers that the behaviours and attitudes of respondents can be analyzed through questions (de Leew, Hox and Dillman, 2008, cited in

Egger and Beerli, 2023: 69). Secondly, Egger and Beerli. (2023: 69) point out the generalization of the findings obtained from a representative part of the population as a key principle, what emphasizes the relevance of sampling.

In this research, three web-based questionnaires were planned to two types of respondents as a method to collect primary data. The first and main group was composed of ten project managers as essential actors in contract management, since they undertake service contracts in the field and develop critical activities for the business cycle (as described in Chapter 1.3).

Project managers responded to the initial questionnaire at the beginning of the research and a second one was planned to be administered after the development project. This second questionnaire was intended to be administered after the actual intervention in the contract management function. Its purpose was the analysis of the impact of the activities. However, time constrains ultimately impede its completion.

The third questionnaire targeted a group of four practitioners in contract management from three international institutions with the purpose of obtaining insight into different approaches and best practices applied to similar business activities. In summary, the questionnaires were designed as follows:

- Questionnaire A: administered to 10 project managers from four divisions of the organization who were implementing consultancy contracts from February to March 2024 (see Appendix 1).
- Questionnaire B: administered to 4 practitioners in the field of procurement and contract management who were working for other organizations from May to June 2024 (see Appendix 2).

The aim of the three questionnaires was to gather typically quantitative data that could be analyzed to answer the research questions (Rose et al., 2024).

Moreover, this research follows McNiff's (2013: 108-109) view of questionnaires as artefacts to be used in action research only to obtain an idea of trends, while

a deep analysis of reality requires the use of more qualitative methods. To bridge that gap, the questionnaires (Appendices 1 and 2) included open-ended questions that allowed respondents (project managers and contract management professionals) to explain their professional experience in contract management using their own words.

Among the advantages of this data collection method Rose et al. (2024) identify a moderate speed of collection as some respondents required being reminded; notable flexibility due to the inclusion of multiple variables; the anonymity of the respondents that enabled data confidentiality; large reach, since project managers from several locations could participate; and reduced interviewer effects that granted more freedom to reply.

The convenience of the questionnaire relies on its usefulness to gather situational data, but also to measure the influence of the intervention intended to improve contract management success in the case organization. In particular, as McNiff and Whitehead (2001: 208) suggest, a first questionnaire was used for the initial episode of data-gathering and a second one after the training for project managers was planned to analyse any possible behavioural changes, however, it was not implemented during the timeframe of this thesis.

Additionally, a questionnaire to contract management professionals sought to benchmark new perspectives and effective business practices to deal with the research problems identified in Chapter 5. The results of the questionnaires are analyzed in Chapter 6.

4 Theoretical background

This research relies on a comprehensive theoretical review to understand regular activity in the work setting. First, contract management was studied as part of procurement to contextualize the research. Moreover, the relevant literature on performance and internal communication was analyzed to learn the

essential elements for designing an effective and impactful intervention towards the research problem.

4.1 Contract management

In general, most scholars and practitioners, such as Khan (2018: 30), understand contract management as a stage of the procurement process that follows the contract award to the selected supplier. Previously, the process goes through other necessary phases: the planning, the determination of the procurement method and the selection of the supplier or provider (as depicted in Figure 8). Contract management constitutes, therefore, an essential element of procurement that comprises all the strategic activities over the delivery of the products or services until the contract ends.

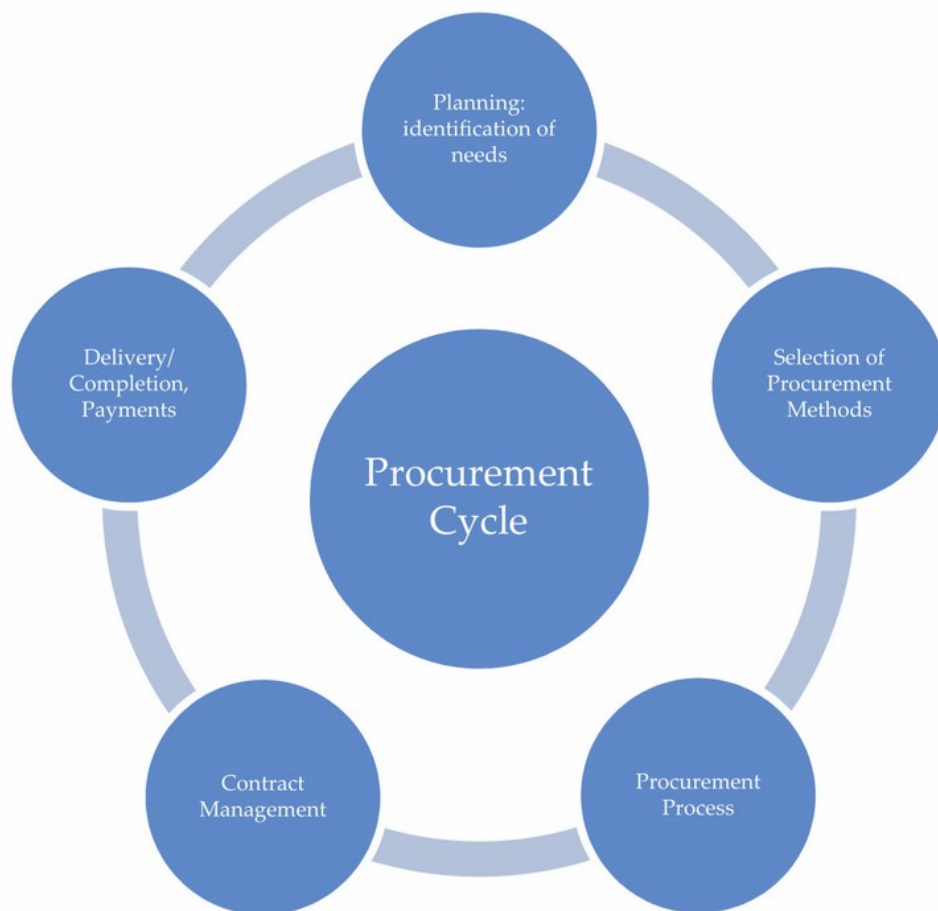


Figure 8. Contract management as a stage of the procurement cycle, according to Khan (2018: 30).

As mentioned in Chapter 1, Van Weele and Van Der Puil (2014: 55) provide the following definition of contract management:

The process which ensures that all parties to a contract fully meet their obligations, in order to satisfy the operational objectives of the contract and the strategic business goals of the customer.

Similarly, Khan (2018: 63) defines contract management as follows:

The process for the procuring entity to ensure that the contractor performs according to the schedules, conditions, and specifications included in the contract.

These definitions reflect a commonly accepted conceptualization of contract management whose approach mainly focuses on the relationship between the employer and the supplier, their conflict of interest and the achievement of the parties' objectives. In the end, this approach leads to the classic agency theory (Eisenhardt, 1989: 57-74), centred on the principal-agent problem, which remains inapplicable to this research. As explained earlier, this thesis focuses on the internal processes of contract management.

In the aforementioned definitions, many areas of contract management receive limited attention, such as the internal management activities that a contracting authority requires to achieve the project's goals while complying with multiple regulations and internal processes. In this regard, Sammons (2017: 2) provides a more suitable definition for the purpose of this thesis. In his words, contract management is:

A strategic management task to achieve:
Planning, stakeholder engagement (and ongoing management), commercial and contract strategy development, alignment with business strategy and objectives, risk appreciation, negotiation and execution. In addition, contract administration including through-life monitoring and exception reporting with remedial actions, controlling, problem resolution, and ultimate closure of liabilities between the contracting parties, as well as ensuring that all commercial objectives and planned business benefits are achieved and all expenditure is justified on commercial grounds.

In contrast to the previous definitions, Sammons' broad concept embraces several critical elements to understand and deepen the scope of this research, its problem and the definition of the development plan. The references to aspects such as contract strategy, through-life monitoring, reporting and controlling shine a light on internal activities affected by the research problem. In fact, Sammons (2017: 32) refers to six foundation stones of contract management to cover all the aspects involved, as depicted in Figure 9.



Figure 9. Foundations of contract management. Sammons (2017: 33).

However, Sammons (2017:33) work focuses on foundations 5 and 6, which are limited to an operational level, and foundation 2, which envisages the strategic commercial objectives. Therefore, although Sammons provides an enriching analysis far beyond the agency theory, his proposal does not offer a theoretical background to understand and articulate a solid response to the research problem located in the internal dimensions of contract management of the case organization. This theoretical gap is mainly overcome for the purpose of this research with the Contractual Management Approach developed by Schuhmann and Eichhorn (2019).

Firstly, a conceptual distinction becomes necessary. For Schuhmann and Eichhorn (2019: 12) contract management can be defined as “the creation, execution and analysis of the contract”. It primarily concentrates on the management of the contract lifecycle as the central subject (contract-centred) and the activities related to each phase.

Based on the contractual enterprise risk management of Keskitalo (2006), Schuhmann and Eichhorn (2019: 14) introduced the concept of contractual management, which conceives the contract as a means of management (management-centred) rather than the object of management. Thus, from this approach contractual management is “concerned with management through the help of contract by using it to aid an enterprise, business unit, transaction or business cooperation in achieving its goals” (Schuhmann and Eichhorn, 2019: 25).

To a great extent, these authors develop the concept of enterprise contract management, described by Keskitalo (2006: 22) as the evolution of the contract management discipline that covers the organization’s entire contracting activity. For Keskitalo (2006: 22-24), this development responds to the multiple problems of many organizations in managing their contracts. The first and most visible manifestation of this trend was the generation of dedicated IT systems, which are merely platforms to enable the actual enterprise contract management.

In their development, Schuhmann and Eichhorn (2019: 14) delineate the main management processes within an organization that are impacted by contracts or intervenes in their lifecycle. As shown in Figure 10, their contribution offers an overview of such internal processes grouped into three main units: enterprise, relationship and functional unit. In this research, the most relevant contract-related management processes identified in Figure 3 can be interpreted in light of Figure 10 as part of a complex corporate system.



Figure 10. Contract-related management processes according to Schuhmann and Eichhorn (2019: 15).

Ultimately, the interconnections among processes such as corporate governance, contract management, compliance management (including contract compliance), finance & accounting, project management and IT management facilitate the understanding of the research problem, its analysis and the definition of solutions.

Concerning the causes of the main deficiencies in contract handling, Schuhmann and Eichhorn (2019: 19-22) point out five structural obstacles:

- 1) Lack of contract strategy: in general, the business practice of contracts scarcely serves to transaction and strategic goals.

- 2) Emphasis on legal issues: the focus on legal risks diminishes the relevance of specific transaction risks. This legal preoccupation also hinders parties' negotiations and relationships.
- 3) Adequacy of contracts for their users: the structure and legal wording of contracts usually are not understandable for practitioners implementing them in the frontline.
- 4) Managerial constraints of contracts: the concentration of the contract itself limits the management of other areas presented in Figure 10, which finally affects contract performance compliance.
- 5) Conflict between corporate and transaction governance: while the customization of contracts may obtain more influence and control over a transaction, the paradigm of efficiency seeks centralization and standardization.

For Schuhmann and Eichhorn (2019: 24) these current challenges and future ones require a “concept at hand which ensures a full-fledged use of contract’s management potentials as well as optimal support processes for contract handling”. In reply, they propose the so-called Contractual Management Approach and the Contractual Management Model, which essential elements are presented in Figure 11 due to its applicability to this research.

The purpose of the Contractual Management Approach (CM Approach) is to promote the use of the intrinsic potential of contracts to manage organizations and business relationships (Schuhmann and Eichhorn, 2018: 24). In this sense, the CM Approach has among its primary goals the capacity to answer contract-related questions from a business point of view.

The CM Approach seeks to ease the comprehension of contracts for practitioners working with them. Thus, it fosters a holistic understanding of contract reach beyond the legal dimension by integrating the business

economic, organizational and technical dimensions (Schuhmann and Eichhorn, 2018: 25).

Moreover, Schuhmann and Eichhorn (2019: 25) argue that their approach:

Enables an analysis and structuring of decision scenarios by identifying all relevant aspects to be considered, aligning them with the given company processes and assessing them according to corporate decision criteria.

In view of the CM Approach by Schuhmann and Eichhorn (2019: 31), the contract impacts four main management areas: corporate management, management of relationships, risk management and knowledge management.

In sum, the identification of these areas and the analysis of their functions generate valuable insights to understand the elements involved in the research problem. Following Schuhmann and Eichhorn (2019: 31-33) interpretation, the four management fields can be briefly described as follows:

- 1) Corporate management refers to business cooperation, and requirements, including internal norms, processes and compliance management.
- 2) Management of relationships concerns only the external relationships that an organization establishes through contracts.
- 3) Risk management conceives the contract as a source of risk and also as a risk treatment device. Thus, contracts shall serve to assess and diminish any potential adversarial effect in the elements it aims to regulate.
- 4) Knowledge management boosts the interconnection between the management processes related to contracts and other elements, such as business cooperation and transactions. On this basis, knowledge is collected and distributed in a twofold flow. The input dimension aims to

collect all data during each phase of the contract cycle and store them in a knowledge management system or subsystems. The output dimension is a process-oriented function that provides specific information, previously gathered, to generate reports, conduct strategic analyses, and therefore support decision-making.

Overall, Schuhmann and Eichhorn (2019: 34) emphasize the critical influence of risk and knowledge management, arguing that they are per se involved in multiple contract activities. This reach makes them an integrative function for contractual management. In practice, IT systems are one of the essential materializations of such knowledge integration thanks to their capacity to promote the exchange of data and information throughout the contracts' lifecycle.

The CM Approach is operationalized through the Contractual Management Model. As depicted in Figure 11, Schuhmann and Eichhorn (2019: 35) integrated into the model all contract-related management processes of an enterprise in three dimensions: the enterprise and the external relationship targets; the contractual management cycle; and the four fields of management. Everything considered, the CM Model "serves to enable the user to systematically approach any contract-related task arising in business practice" (Schuhmann and Eichhorn (2019: 36)).

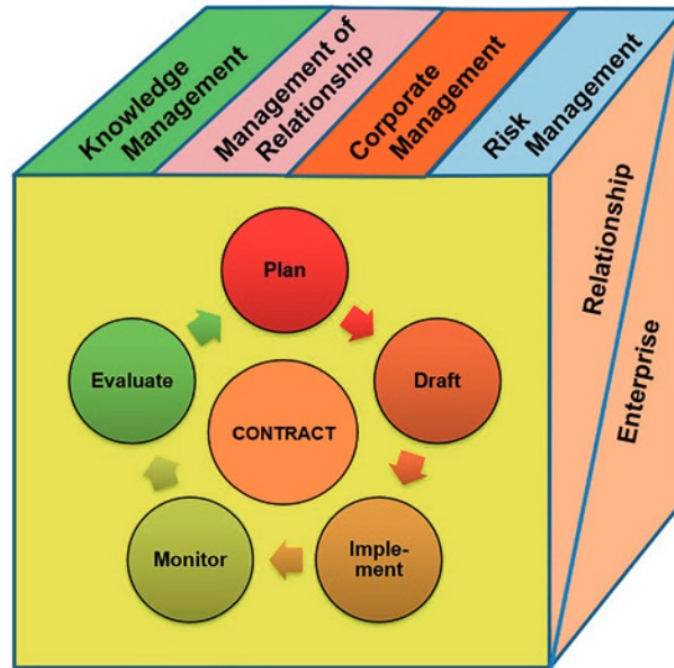


Figure 11. Contractual Management Model presented by Schuhmann and Eichhorn (2019: 37)

In the frame of this thesis, out of the two subjects of management in an organization (right side of the cube in Figure 11), enterprise covers most contract-related processes, such as compliance management, enterprise risk management, contract management & finance and accounting.

From the upper side of the CM Model (Figure 11), the fields of management that constitute the core scenarios of this research are knowledge, corporate and risk management. First, they enable the identification of the research problem with the support of the data updated and not updated in the IT system and the analysis of the related risks. Second, the three dimensions underpin the decision-making and design of the action development. Last, regarding the contractual cycle on the front side of the model, both the research and the development action of this thesis are restricted to the implementation and monitoring phases.

4.2 Contract management strategy

Organizations base their business on self-governance principles and guidelines that determine the underlying areas' strategies. In the context of public procurement, governance is a system by which procuring entities are directed and controlled (Khan, 2019: 73). It comprises rules, procedures, and practices of mandatory application that seek to achieve business goals while respecting compliance and accountability.

The governance framework is underpinned by a procurement strategy (Victoria State Government: 2024). In this sense, Mena (2021: 54) states that a procurement strategy should convey both internally and externally the aspirations and objectives of the function and outline the methods to achieve them. It delineates priorities at the category level, the relationship approaches with suppliers, the necessary capabilities, and the management systems essential for operating and enhancing these capabilities.

As part of the same value chain, according to the Procurement Cycle of the Chartered Institute of Procurement and Supply (CIPS: 2025), it is essential that the contract strategy aligns with the organization's procurement strategy. From a practice perspective, the Victoria State Government (2024), from Australia, goes further and embeds the concept of contract management strategy as one of the four elements a procurement strategy should encompass:

- Supplier engagement plan
- Capability development plan
- Contract management planning strategy, and
- Procurement activity plan

In this sense, the Victoria State Government (2024) defines contract management planning strategy (CMPS) as a guiding document that outlines in advance the management approach for procurement categories and specific procurements at the contract stage, depending on their complexity. In this

sense, its documents “Contract management planning strategy tool” (Victoria State Government, 2012) and the “Procurement strategy template” (Victoria State Government, 2018) have provided a baseline to define the contract management strategy for the case organization.

According to CIPS (2025), a contract management strategy should reach the following goals:

- Manage the organization’s responsibilities during the contract
- Ensure the supplier meets the minimum performance criteria, such as compliance
- Allows the achievement of both short and long-term supplier performance objectives

Although CIPS does not explicitly refer to the internal dimension of contract management, a holistic understanding of the first goal implies not only the organization’s responsibilities towards the contractual counterparty but also towards the organization itself, its internal processes and compliance.

Moreover, CIPS (2025) emphasizes the importance of defining the following factors before developing a contract strategy:

- Identify the nature, scale, and relevance of the need for the organization
- Recognize the value of need
- Describe the type of specification
- Assess the difficulties associated to the need
- Estimate the potential interest of the market
- Evaluate the existing market capacity to cover the need
- Set the estimated duration and phasing
- Consider the knowledge of the need by stakeholders and possible provider

The guidance document “Good practice contract management framework” of the British National Audit Office (2016) serves to identify the main areas a strategy shall cover and distinguish those that are the most relevant for this research. Despite the general overview of contract management strategy from a theoretical and practical view, to what concerns this thesis and its scope remain restricted to the internal perspective, as explained in Chapter 1.1.

As presented in Figure 12, the contract management framework defines four blocks - structure and resources, delivery, development and strategy. Subsequently, these blocks are composed of 11 areas related to post-award contract activities. Those related to the internal dimension of contract management mainly form the right and down sections of the circle.



Figure 12. The good practice contract management framework (National Audit Office, 2016: 6).

However, the research problem of this thesis and the proposed intervention described in Chapter 7 later rely on the following core areas:

- People
- Administration
- Relationships (internally)
- Risk

Furthermore, after defining the concept of contract management strategy and identifying its goals, factors and areas of activity, it is required to further integrate action principles. In this sense, proactivity and maturity development have been theoretically discussed as business drivers to improve business success.

4.2.1 Proactive contract management

Henschel, Sorsa and Salmi-Tolonen (2011: 260) identify that the main barrier to sourcing success is an absence of internal and external standardised management practices concerning the contract. Thus, one of the significant obstacles to success within client organizations is the lack of steering and preparation to manage and control contracts. In the external dimension, inefficient communication and inappropriate interfaces between client and provider also constitute major impediments to success.

To improve the business functioning, Henschel et al. (2011: 262) advocate for the adoption of what they name proactive contract management, which they define as:

A series of processes that involve communicating business models and creating a shared vision, establishing the right contract content to support the business outcomes, developing the right governance structures that enable insight and oversight, and finally, possessing the right management and relational capabilities to secure the business outcomes to be delivered as agreed or according to the circumstances if the contract and the parties so allow.

In their analysis, Henschel et al. (2011: 261) emphasize the benefits of IT tools, such as dedicated contract management software, to implement a proactive contract management approach. The potential of this type of systems serves as

critical platforms for communication and collaboration among business stakeholders both internally and externally.

However, before developing and adopting a proactive contract management strategy it is necessary to identify the key features of business proactiveness. In this sense, Sorsa (2011: 21) points out four competencies required to develop proactive behaviour within an organization:

1. Creative thinking: The skill to create innovative ideas and concepts that address needs, issues and challenges, resulting in an original outcome that did not exist before.
2. Cross-professional communication and networking: The skill to operate independently while also collaborating, sharing information, and resolving conflicts within interdisciplinary groups in different professional environments.
3. Multidisciplinary analysis: The skill to recognize the essential elements for success and potential opportunities through required scientific evaluation, which includes interdisciplinary examination and analysis of best business practices.
4. Outcome orientation: The skill to set objectives and make informed and reliable choices to execute the key strategies, ensuring success and the generation of new possibilities.

The practical application of these foundational competencies in the definition of a management strategy implies several challenges. According to Camacho and García (2011: 281-282), the process of designing and undertaking a strategy faces challenges such as uncertainty, complexity and organizational conflicts.

In general, the strategic management process consists of two main phases: the formulation of the strategy, and its implementation and monitoring. The

formulation phase, depicted in Figure 13, encompasses several sub-phases that are summarised by Camacho and García (2011: 282-284) as follows:

1. "The intelligence": it covers the diagnosis of the problem, the definition of the general objectives and the identification and analysis of the strategic gap.
2. Conception: based on the previous, several feasible solutions for the organization are proposed.
3. Selection: the assessment of the options according to criteria of usefulness for the objectives, organization's resources and capabilities, and associated risks.

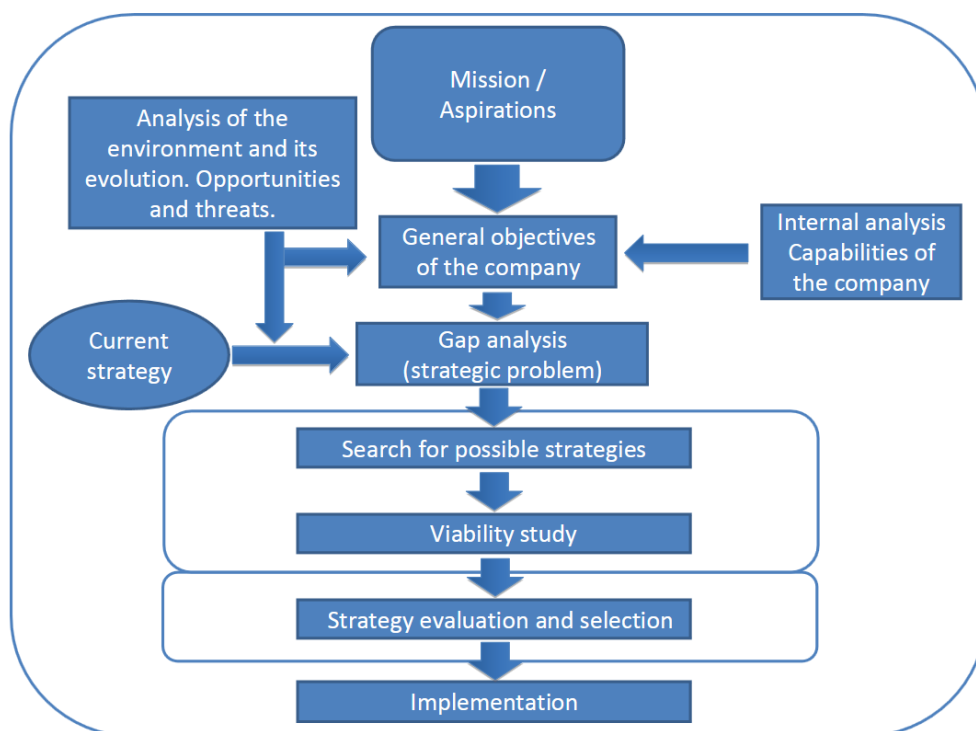


Figure 13. Strategic Management Process as described by Amparo Camacho & Enrique García (2011: 285).

The strategy implementation phase allows the organization to execute the selected strategy effectively. According to Camacho and García (2011: 286), it deploys in three areas:

1. Planning: It translates the general strategic approach into tactical plans, programmes and measures to actually operationalize the strategy in the corresponding business functions.
2. Monitoring: It serves to follow up on the implementation of the strategic activities and the achievement of the objectives. In addition, it helps to deploy corrective measures on time.
3. Organization: It refers to the general coordination within the organization in terms of collaboration (roles and responsibilities), communication (information and channels) and staff training (skills, motivation and culture).

In sum, the principles of proactive contract management may be integrated into a contract management strategy to enhance business success. For that purpose, the adoption of proactive behaviour across the organization is crucial to boost the formulation and execution of a strategic management process.

4.2.2 Maturity development of contract management

Further to the definition and implementation of a proactive contract management strategy, maturity models offer a pragmatic methodology to enhance business performance. Moore (2010, cited in Sorsa and Salmi-Tolonen, 2011: 263) states that maturity refers to development and growth and the associated evolution from an initial state to an advanced level. In this regard, maturity models apply mapping techniques to measure the status of key process areas in a given programme or business function, such as contract management.

Precisely, according to Moore (2010, cited in Sorsa and Salmi-Tolonen, 2011: 263), an effective maturity model enables an organization to:

- Map current capabilities;
- Create a baseline for measuring improvement;
- Document the need for change;
- Provide a common language;
- Foster a culture of excellence;
- Set the stage for organizational change;
- Give top leadership insight into day-to-day practices;
- Help make informed decisions on workforce development and training;
- Focus attention on specific capabilities to be retained;
- Decide what new initiatives need to be developed or launched;
- Communicate to suppliers and customers the development of the organization.

Sorsa and Salmi-Tolonen (2011: 264) refer to the pioneering development of Garret and Rendon (2005) in systematizing a contract management maturity model (CMMM) and developed their own model (see Table 1). According to Rendon (2015: 1507), this model deploys in two axes. The horizontal axis contains five levels of maturity: ad hoc, basic, structured, integrated and optimized. The vertical axis includes six areas of contract management under analysis: procurement planning, solicitation planning, solicitation, source selection, contract management and contract closeout, the last two being the only ones relevant to this thesis.

In the context of benchmarking research in contract management maturity at the American Department of Defence, Rendon (2015: 1498) points out that the implementation of a maturity programme in contract management supports the integration of its processes with other organizational core processes, such as requirements management, financial management, schedule management, performance management, and risk management.

As part of the assessment results, Rendon (2015: 1500) concludes that the promotion of training and knowledge-sharing culture and initiatives foster the improvement of contract management maturity level. Besides their impact on the current staff, Rendon considers them also particularly valuable in view of the retirement of experienced personnel and their replacement by junior professionals.

Table 1. Contracting Capabilities Maturity Model as reproduced by Sorsa (2011: 268) from Sorsa and Salmi-Tolonen (2009).

KPA	Ad hoc	Repeatable	Functional	Integrated	Optimized
CON-TENTS	All contracts drafted ad hoc	Offer - acceptance and standardized templates for repeated transactions	Standardized, modular templates; modules selected according to project type	Contract structure sensitive to project flexibility	Contract contents are developed proactively and tailored according to customer needs
	Sporadic use of guidelines or GTCs	Guidelines for drafting complex or high visibility contracts	Some GTCs in use	Contract templates, models and GTCs in use for all contracts	Contracts designed with full understanding of their contribution to mutual business needs
PRO-CESS	Reactive approach to legal risks	Observes legal norms and self-regulation rules	Requirements of corporate social responsibility are recognized and reflected in contract contents	CSR goals are explicitly expressed	Advance proactive measures of CSR
	No alignment between productizing, sales, business and contracting	While a proactive approach may be evolving, most of the activity still reactive	Process plan in use	CM processes fully integrated with other organizational processes e.g. cost mgt, schedule mgt.	CM processes streamline initiatives as part of its continuous process improvement program
RELA-TIONAL	Focus on result metrics only	Some level of tracking and reporting initiated	Processes are measured, metrics in use for proactive monitoring	Both results and process metrics are in place to track performance	Systematic use of performance metrics to measure the quality and evaluate the efficiency of the process
	Transaction based	Based on operative cooperation	Based on tactical cooperation Aims at new value generation via sharing knowledge and modus operandi in some sections	Based on strategic cooperation	Based on shared value generation
ORGANIZATIONAL	Aims according to own specs	Aims at cost effectiveness	Interaction in addition to well-documented roles	Aims at strategic advantage for all parties	Contract viewed as manuscript for creating value for all parties; exchange of info on processes and practices open and free
	Written contracts rare	Roles and products well-documented in contract	Parties understand commitments and comply in collaboration	Beginnings of a collaborative relationship	Consequences of noncompliance well operationalized
ORGANIZATIONAL	Parties unaware of existing commitments or whether execution is in line with them	Parties aware of roles and commitments and try to comply with them	Documentation on contingency handling	Proactive approach to contingency management	An in-built incentive system for performance excellence
	Conflicts are resolved ad hoc	Need for conflict mgt is acknowledged but not in use Dedicated team formed to develop contract models, processes, procedures, tools systems and metrics	Contracting is fully established, institutionalized, and mandated throughout the organization	View to rationalize and align policies, procedures and processes across the business	Contingency management an integral part of the management
ORGANIZATIONAL	No company specific contract tools	Contract managers hired or assigned to lead contracting and business organization to drive change	Senior management provides guidance direction and approval of key contracting strategy, decisions and tools	In addition to representatives from other organizational offices, other contracting parties are integral members of contract teams	Policies, procedures and processes are optimized and comparable to ISO or other standards
	Managers and contract personnel not held accountable for adhering to any contracting processes or standards	Contract managers hired or assigned to lead contracting and business organization to drive change	Senior management provides guidance direction and approval of key contracting strategy, decisions and tools	In addition to representatives from other organizational offices, other contracting parties are integral members of contract teams	Established lessons learned and best practices programs to improve contracting contents and process standards

Rendon (2015: 1502) advocates for the use of maturity models as a tool for outlining a roadmap for generating process improvement initiatives. In this sense, for the purpose of this action research, the Contract Management Maturity Model developed by Sorsa and Salmi-Tolonen (2011: 268) is adopted, as an integrative pillar of the contract management strategy, due to its usefulness to seek optimization through continuous improvement.

4.3 Change management

In general, Lauer (2021: 3-5) identifies change management as a term associated with the special management techniques to control the processes involved in the change an organization needs to face. In his analysis, Lauer emphasizes that change management does not relate to the definition of a particular organizational goal, regardless of the relevant area, but to the definition of the path that will lead the organization to reach that goal. Precisely, Lauer states that change management “is about achieving an optimal design of the path from the starting point to the goal”. In addition, Lauer identifies the key features of change management that can be summarized as follows:

- Seeks to internally implement an appropriate adaptation to external changes resulting from strategic management.
- Combines characteristics of a social technique and a specific philosophy of corporate management to deal with complex and dynamic contexts.
- Involves a multi-layered set of methods and techniques.
- Primarily directed inwards, towards the members of the organization.
- Requires the active support of employees, the recognition of their needs, ideas and experiences and the knowledge of the associated formal and informal social structures.

Regarding the subjects change management covers, Lauer (2021: 6-7) points out that the type of change processes may vary from a major corporate change, such as mergers or acquisitions, changes at divisions or departmental levels and the introduction of new technologies and processes, such as a CRM system. Furthermore, Lauer explains the three critical areas to consider when planning and applying change management into an organization, as presented in Figure 14.

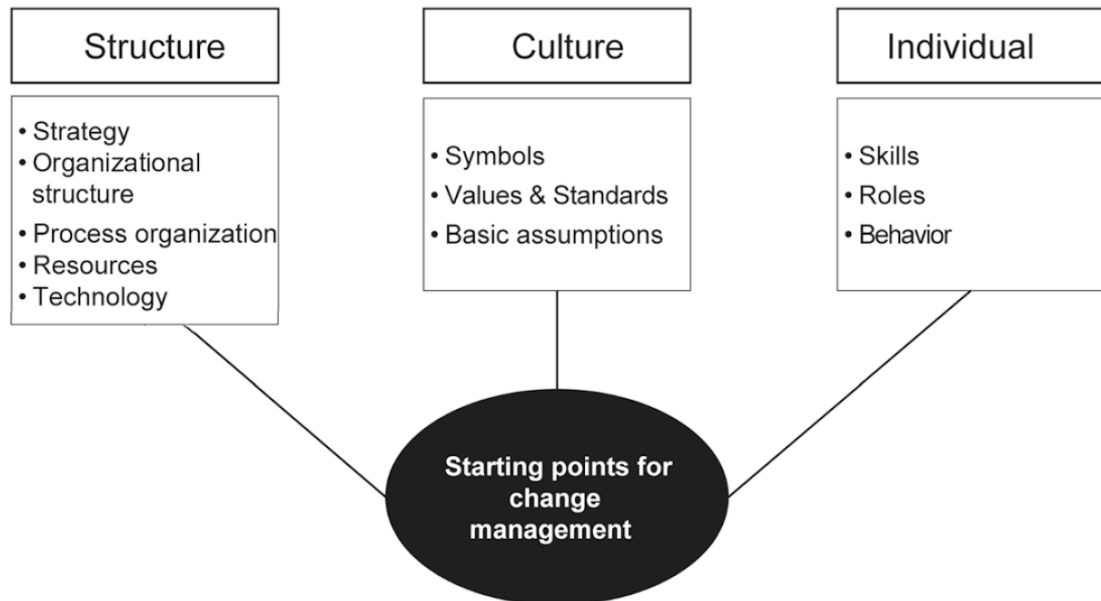


Figure 14. Starting points for change management according to Staehle (1999) and Kostka and Mönch (2002), as cited by Lauer (2021: 7).

First, the active participation of individuals is paramount for change success in so far as they need to develop new skills and attitudes to achieve the goals. Besides, the organization structure refers to the organigram, strategies, resources and processes on which the change relies and operates. Last, the understanding of the corporate culture becomes necessary for change management as it encompasses the informal structures that shape the values, attitudes and behaviors that mark the actual functioning of the organization.

Nevertheless, change projects confront multiple challenges. Lauer (2021: 45-52) based on a study conducted by Hernstein Institute (cited from Schott and Wick, 2005: 196) and states that employee resistance is “at the top of the list of causes”, while other causes are associated to an inadequate control of the process, an excessive speed of change and unclear objectives. Precisely, Lauer follows the analysis of Doppler and Lauterburg (2002: 339) and their distinction of four resistance forms:

- **Opposition:** when resistance is manifested verbally as counter-arguments, accusations or threats.

- Discomposure: resistance remains almost latent in the workplace and is not verbally transmitted to the promoters of the change.
- Evasion: episodes of verbal resistance happen without directly addressing the real concern.
- Listlessness: when resistance produces passivity and low engagement among the staff but scarce verbal expression.

4.3.1 Success factor model of change management

To overcome the obstacles, such as resistance, Lauer (2021: 63-79) proposes a success factor model for change management reproduced in Figure 15. It covers the three phases of change -initial situation, change process and objective achievement- and presents four blocks related to nine success factors to be implemented in each phase, depending on the type of the change and the nature of the organization.

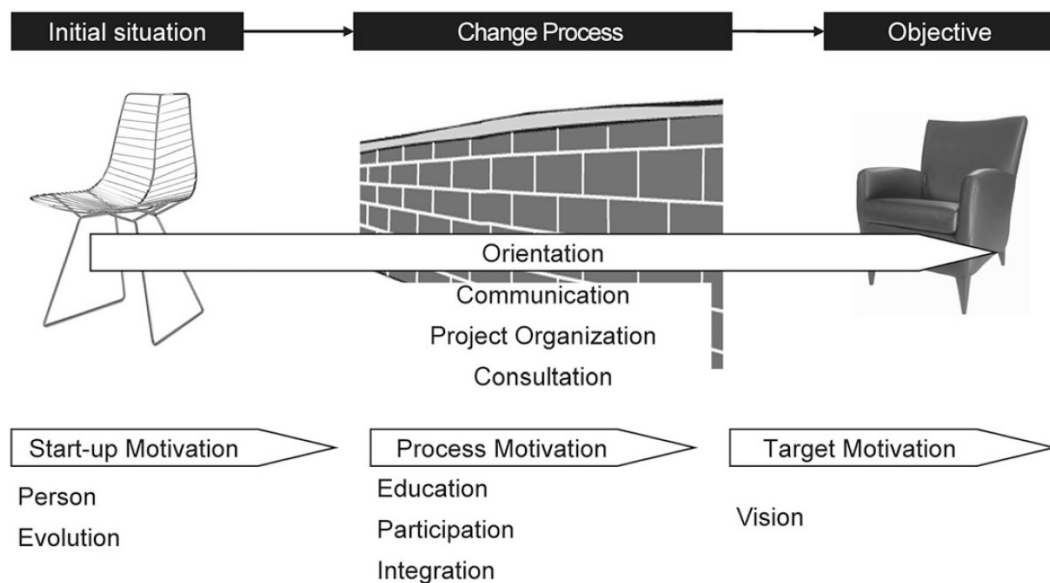


Figure 15. Success factors model of change management according to Lauer (2021: 76).

The model assumes that the people involved in the change require orientation throughout the entire process to achieve the goals. In parallel, the model

conceives motivation as a continuum that supports most of the success factors from the beginning until the end of the change process. Basically, Lauer (2021: 69-70) understands orientation as a method to reduce uncertainty and generate security. In his view, orientation relies on two factors: structure and information. The first, structure, enables humans to establish principles and patterns that facilitate the understanding of a given context, the development of related knowledge and ultimately the realization of action. The second element of orientation, information, allows participants in a change process to understand the main goals and the purposes of individual actions as part of a collective endeavor. Intrinsically, information also serves to increase motivation.

For Lauer (2021: 69-70), the operationalization of orientation relies on three success factors. The first is project organization, which founds change on project management's principles. The integration of consultation as a key factor depends on the involvement of external consultants into the organization dynamics. In essence, their function is to act as moderators among all groups participating in the change. Last, communication represents the third success factor in so far as it disseminates information and emotions that promote alignment and motivation across the participant groups.

In parallel to each phase of the change process Lauer (2021: 70-75) defines three motivational stages. Timely aligned with the initial situation of the organization, Lauer lays the foundation of change on the so-called block start-up motivation. In this incipient step, Lauer emphasizes the role of a group or at least a person who demands change. To prosper, this unit of change promoters, named as the person factor in the model, should have enough power to exert leadership and ensure the prevalence of acceptance over any type of conflicts naturally created around the idea of change. However, this first factor in essence depends on the existence of an organizational culture that not only facilitates but also promotes change and continuous learning. As a result, the concept of evolution arises as the second success factor in the start-up motivation stage, which relies on an open culture and a permanent aspiration to adapt to overcome new challenges.

Next, Lauer (2021: 71-72) describes the central block of process motivation as particularly intense. The longer duration of this stage demands a sustained effort to maintain the staff motivation over time stronger than any element of resistance that may arise. For this purpose, Lauer points out that the process design must produce satisfaction in itself. To achieve such self-satisfaction Lauer argues that the motivation of the involved people must be genuinely intrinsic. In contrast to extrinsic motivation, which instrumentally follows an external impulse such as material revenues, intrinsic motivation originates in reply to a more complex psychological rooted in the perception of individuals as competent, autonomous and socially integrated in their activities within the organization implementing change.

According to Lauer (2021: 72-73), the assurance of the three self-perceptions against potential risks may be sought through the implementation of three success factors of change. First, to overcome competence weaknesses Lauer puts forward education and training, also named "re-education". Second, autonomy may be underpinned through an early and permanent participation of individuals during the change process. Last, social integration as a decisive element of intrinsic motivation requires the creation of a cohesive environment where individuals may cooperate efficiently.

The success factors model of change management of Lauer (2021: 73-75) concludes with the success building block of target motivation. In this analysis, Lauer states that motivation is ultimately triggered by an objective that is not only desirable but also considered achievable for the majority of participants.

In conclusion, the view of Lauer provides a holistic approach to understand the dimensions of change management and plan the implementation of the necessary changes in the contract management of the research organization. Among all the factors Lauer reflects, communication and education constitute the pillars of the intervention planned to enhance contract management compliance.

4.3.2 Communication in change management

In his theory, Lauer (2021: 119-122) argues that communication is “undoubtedly one of the decisive success factors” of change management as it acts as a kind of critical catalyst of change. In his view, communication helps the organization to achieve the following goals:

- Creation of informational transparency: Every involved individual must know the reasons, the needs and the goals of the change so that they can act in consequence.
- Identifying and mitigating resistance: Communication helps define obstacles and the methods to overcome them.
- Reinforcement of the process in the sense of positive feedback: Sharing even initial and small change successes creates a positive and motivating effect.
- Promotion of social inclusion: Thanks to enhanced interactions, involved actors have the opportunity to meet and collaborate closely.

Furthermore, Lauer (2021: 122-124) points out a set of five fundamental conditions for effective communication within an organization that seeks to promote any type of business change:

- Communication should be target group-oriented: The messages are to be adapted to effectively convey the points of interest for each group and delivered in an appropriate style for them.
- The most relevant communication method is the interpersonal discussion: Face-to-face interactions facilitate mutual understanding, including verbal and non-verbal communication, and generates an atmosphere of trust and constructive dialogue.
- The information should be disseminated in a timely manner and simultaneously to all stakeholders concerned: Despite possible limitations, sharing information quickly or simultaneously to all stakeholders diminishes the generation of rumors, strengthens the

position of the team leading the change and helps build up a constructive atmosphere.

- Communication should be originated at the appropriate hierarchical level: When the source announcing the change is a manager, the target groups receive the message more serious and respectfully. Afterwards, middle managers share the details and articulate the operationalization of the change at a lower level.
- Success should be communicated as fast as possible: The transmission of positive progress among the involved groups increases their motivation to achieve the change objectives.

In his analysis, Lauer (2021: 131-132) advises the creation of a communication plan following his model (see Table 2). It proposes a planned communicational intervention differentiating each phase and a set of parameters, namely the goals, the methods and media, the sender and recipients, and the frequency of the action. Lauer (2021: 132-134) also advocates for the analysis of the stakeholders as a method to increase communication effectiveness.

Table 2. Model communication plan for change management projects according to Lauer (2021: 132).

Phase	Communication goals	Method and media	Sender	Recipient group	Period or frequency
Before starting the project	Vision	Personally at the works meeting	Management board	All employees	October 2020
...

In this sense, beyond the identification of the stakeholder groups, the analysis also provides an assessment of their power and influence within the organization and the general climate of support or resistance towards the change. Based on the previous, the communication measures can be effectively defined.

In the context of contract management, the Australian Government Contract Management Guide (2019: 18) states that a contract communication plan “formally defines who should be given what information, when that information should be delivered and what communication channels will be used to deliver the information”. Furthermore, contract communication management within an organization outlines the most relevant steps to perform its activities (Australian Government, 2019: 22):

- Select the communication channels for all the stakeholders, depending on the contract problems.
- Set appropriate response timeframes for contract communications (e.g. the receipt of emails should be acknowledged in one day and replied to within one or three days, depending on the issue’s complexity).
- Organize contract meetings and reporting calendars.
- Create a correspondence log to follow up on key contractual dates and intervene in a timely manner.
- Specify the communication activities in the contract management plan.

Based on this theoretical background on communication as a key factor of change management and the practical approach of the Australian Government in the field of contract management, a contract management communication plan for the study organization has been proposed as part of the thesis development in Chapter 7.

5 Current state analysis

5.1 Analysis of prior communication efficacy

The *status quo* of contract management practices was partially determined in April 2022, when most of the contract management activities were entrusted to project managers within the front-line divisions (internal clients), who are responsible for the technical implementation of the consultancy services. More than two years after the transfer of responsibilities, it was proved that contract compliance could be improved in critical areas, such as budget planning, deadline achievements, data availability and reporting, internal transparency, supporting administrative tasks and, as a result, risk control.

As described in Chapter 1.3, the Budget Management Unit monitors the total annual budget of the existing portfolio of contracts. Firstly, they control that the total amount does not exceed the annual envelope reserved for consultancy costs. Secondly, they oversee that the actual amount of budget committed under consultancy cost aligns with the expected spending. Its main goal is to minimize budget misalignments and comply with the forecasts. In parallel, the budget commitment depends on the expected approval of deliverables based on the forecasted delivery date(s). Those dates allow the Contract Management and the Budget Management Unit to monitor and ensure that the consumption under consultancy contracts is going as expected.

At the end of October 2023, the analysis of the critical data in the main reports extracted from the IT system indicated the following:

- 31% of consultancy contracts were not timely updated in the management system.
- 18.12% of the consultancy contracts in the system were expired.
- 17.90% of the deliverables triggering a payment had an expected delivery date in the past and were overdue.

In general, these three rates demonstrate that project managers need to update the contract management system more frequently and timely as the current situation has serious consequences for the business value chain in terms of budget, compliance and risk control, as described in Chapter 3.3. Thus, the CM Unit should design some measures to improve the use of the IT system, which is intended to serve as a tool for all the internal stakeholders to share the current situation of contracts, enabling each team to act in consequence.

Additionally, I conducted a quantitative analysis to measure the efficacy of the communication via email between the CM Unit and the project managers. From a sample of five project managers and three contracts randomly selected from their portfolios, I measured the number of emails the CM Unit had sent them in 2023 to complete the following tasks: updating deliverables dates in the IT solution and creating a purchase order. The results are summarised in Tables 3 and 4.

Table 3. Communication efficacy to update deliverables in the IT solution

Activity: Updating deliverables dates in the IT solution	Number of emails (including reminders)	Time in days between sending the initial and the final email
Project manager 1	2.66	21.6
Project manager 2	3.33	24.33
Project manager 3	2	3
Project manager 4	2.66	17.66
Project manager 5	2.66	122.66
Average	2.66	37.85

Although the number of emails needed to update the status of a given deliverable is not high (2.66), the average required time (37.85 days) from the

first email to the completion of the update reflects a general lack of efficacy. As a result, it is identified that the communication method should be changed in terms of means (email) and or content.

Table 4. Communication efficacy to create a purchase order

Activity: Creating a purchase order	Number of emails (including reminders)	Time in days between sending the initial and the final email
Project manager 1	1.33	11.66
Project manager 2	2.33	31.33
Project manager 3	3	7.33
Project manager 4	2	12.66
Project manager 5	2	22.33
Average	2.13	17.06

Similarly to the previous task, the average number of emails required to create a purchase order is low (2.13), but the time to collect the information necessary for creating a purchase order is excessive (17.06 days). Therefore, it is required to implement a new communication approach to streamline this process. This basic knowledge served as the starting point for further research through other methods, such as the questionnaires for project managers.

Moreover, the participant observation generated valuable insights into the current working practices and threats to contract management compliance. First, during the daily interaction with the group of 50 projects managers it was observed that some of them were not fully aware of the importance of data quality and their role as recorders of inputs in the IT system for the internal stakeholders and the entire value chain. Despite the previous efforts, a

considerable number of project managers prioritize the external activities under contracts with the providers and beneficiaries and leave aside their involvement in internal coordination and monitoring. Thus, many of them required reminders to update the IT system with the delivery dates of reports and the upload of the related files, for instance.

It was also noticeable that some working practices were not well known and shared among all project managers, particularly those who had assumed the role recently. This lack of knowledge was detected in the use of the contract management system functionalities. For example, some new project managers had difficulties browsing through the contract module, finding the existing information in it and identifying the section where their input is required. Regarding the contract budget, in some cases, the creation of purchase orders and receipts was unclear and sometimes confused with the total price of the contract and the number of invoices, respectively. Consequently, reiterative and individual communication efforts were required to explain the budgetary practices involved in contract management.

In terms of contract interpretation, the observation allows us to identify that some project managers had a different understanding of contractual dates, such as the effective start date of the project, which should be respected to avoid early commencement and associated risks. Similarly, other frequent issues concern the end date of the project, the scope of the assignment and the elements of the contract that are subject to modifications. Therefore, participant observation allowed the researcher to identify a tendency among some project managers to prevail project goals over internal practices necessary for monitoring and coordination functions, which ultimately underpins compliance.

5.2 Root causes of communication efficacy problems

5.2.1 Background to prior attempts to improve the situation

As a reaction to the confronting situation, the newly created Contract Management Unit (CM) was expected to reinforce new contract management oversight and compliance. For that purpose, we held several internal meetings to identify the problem and its causes through brainstorming. Although at the first stage, the problem seemed to correspond to a lack of awareness among the internal clients, so-called project managers, about the critical role of contract management, further reasoning and analysis changed the initial premise into a different approach.

In April and May 2023, the former procurement and contract management division delivered training to the group of project managers involved in the implementation of consultancy services. The scope of the training was the methodology of the procurement process and the contract management requirements to undertake a compliant project implementation. The latter emphasized the importance of contract monitoring, early detection of potential issues and keeping the contract management system up to date according to the contract lifecycle. In addition, the training covered the essential elements of the contract budget and the purchasing cycle.

In the next few days, the training had a positive impact on the data quality in the IT solution. Some project managers started updating their contracts, adding the actual expected delivery days, and promptly requested the extension of some contracts that deviated from their initial schedule. However, the effect of these training sessions gradually decreased in the following months.

In the frame of that training, the former Unit in charge of procurement and contract management presented an updated version of an existing outsourcing guide designed to support internal clients, covering the critical stages of the contract lifecycle. The document drew the attention of project managers, but the new Contract Management Unit observed in autumn 2023 that project

managers rarely consult this document from a shared storage space. Therefore, the new Contract Management Unit started a root cause analysis in mid-October 2023 through internal discussions among its members, who shared the same level of concern about the decreasing contract compliance rates. The outcomes of those meetings were several proposals to overcome the situation, which focused on identifying areas for improvement.

Given the context of year-end closure, the Budget Management Unit needed to receive estimates on yearly budget consumption per contract. In early November 2023, the head of the Contract Management Unit agreed with the heads of the internal client divisions that an email campaign addressing each project manager would be launched. The aim was to receive reliable information about the current status of those service contracts that seemed untracked in the contract management software. In short, the emailing campaign implemented in November 2023 focused on the following actions:

- Request to update the expected delivery dates of the contractual deliverables in the contract management system according to the contract status.
- Ask for estimates of annual budget consumption, depending on the deliverables to be validated before the end of the year.
- When applicable, alert the procurement officer of eventual contract modifications (e.g. contract extensions) and the need to contact them promptly.

Although the results of this communication activity exceeded our expectations in terms of responsiveness, we realised that a personalised emailing campaign served as a temporary solution but was not sustainable in the long term. The exercise to review the status of every single contract and draft *ad hoc* emails raising pertinent questions was effective in terms of results but lacked efficiency due to the amount of time and resources the Unit consumed. Consequently, the internal debate remained open to new ideas and approaches.

Next, in early December 2023, the CM Unit held a productive workshop with the Procurement and Budget Management Units and a representative of project managers' teams. Under the guidance of a team of external consultants, the three units analyzed the stages of the procurement process, identifying the "pain points" and the best existing practices. Furthermore, the discussions led to possible solutions to overcome the current problems. In sum, the conclusions of the workshop pointed to the same direction: first, defining a new strategy to optimise the cooperation between the three units involved in the budget and the procurement functions, including the post-signature events (contract management); and second, boosting the use of existing digital tools to maximize their benefits.

5.2.2 Analysis with the help of 5 Whys technique

The first method applied to explore the reasons behind the business problem was the analysis through the 5 Whys technique. This method provided valuable insights to identify and confirm the grounds of the business problem, opening a starting point to research and building an ad hoc solution. As Smith (2017: 16) suggests, the members of the Contract Management Unit asked enough questions to avoid a temporary solution and instead found a corrective action that appears to be a permanent fix.

In particular, the successive inquiries to find the root causes deployed as follows:

1. Why do 31% of contracts seem to be non-updated in the contract management system (CMS)?

The project managers for such contracts do not update the expected submission dates of deliverables and milestones in the system.

2. Why do some project managers not update contracts in the system?

Some project managers find updating the system a burdening activity that offers low benefits for their daily work. In some cases, they need support to learn how to use the platform.

3. Why do some project managers consider updating the contract lifecycle in the system as a burdening activity without benefits for themselves?

Some project managers think so because they are unaware of the implications that providing updated information on the contract status through the management system implies for other teams in the organization and other contract stakeholders in terms of budget, lifecycle monitoring, data and reporting, payments, eventual contract modifications and transparency.

4. Why are some project managers unaware of the business implications of updating the contract management system (CMS) for other stakeholders and the organization?

Despite the previous effort to raise awareness, teach and support them (e.g., outsourcing guide), further guidance, training and team cooperation are still required.

5. Why are further guidance, training and team cooperation still required to raise awareness and instruct some project managers about the relevance of keeping the contract management system updated?

The current contract management strategy lacks emphasis on such areas. Consequently, the CM Unit needs to redefine it by integrating new working methods to enhance knowledge sharing, transparency and team cooperation, including significant involvement of the heads of the relevant divisions and units.

At the end of the 5 Whys process, the CM Unit concluded that the real problem was not only related to a lack of awareness among some project managers but

also to the contract management strategy. In other words, the contract implementation practice, based on the entrustment of most of contract management's activities to user divisions (project managers), negatively impacts critical areas across business functions, such as compliance with internal regulations, budget planning, payments, lifecycle monitoring, data tracking and reporting, transparency, and contract modifications. As a result, the current working method reduces the potential for contract completion success.

5.2.3 Ishakawa diagram

In addition, we selected the cause-and-effect diagram (CED), also named "Ishikawa diagram" and "the Fishbone", as a second root-cause analysis method to confirm the preliminary findings with the help of a different approach. When applying this technique, the CM Unit followed the main steps pointed out by Suarez-Barraza and Rodriguez-Gonzalez (2019: 306), who revised the original contribution of Dr Kaoru Ishikawa and other authors to provide straightforward guidance to build the diagram.

CM Unit defined the problem or the negative result as the first step of the process and continued by stating the primary or first-level causes previously obtained through the 5 Whys method. A deeper reflection on each primary cause allowed us to find minor elements named second-level causes. At this stage, since the analysis of the relationships among causes appeared to be evident enough, CM Unit's members declined to build a third level of causes. The information in the diagram (see Figure 16) described the same "critical line cause" that had already been inferred through the 5 Whys technique.

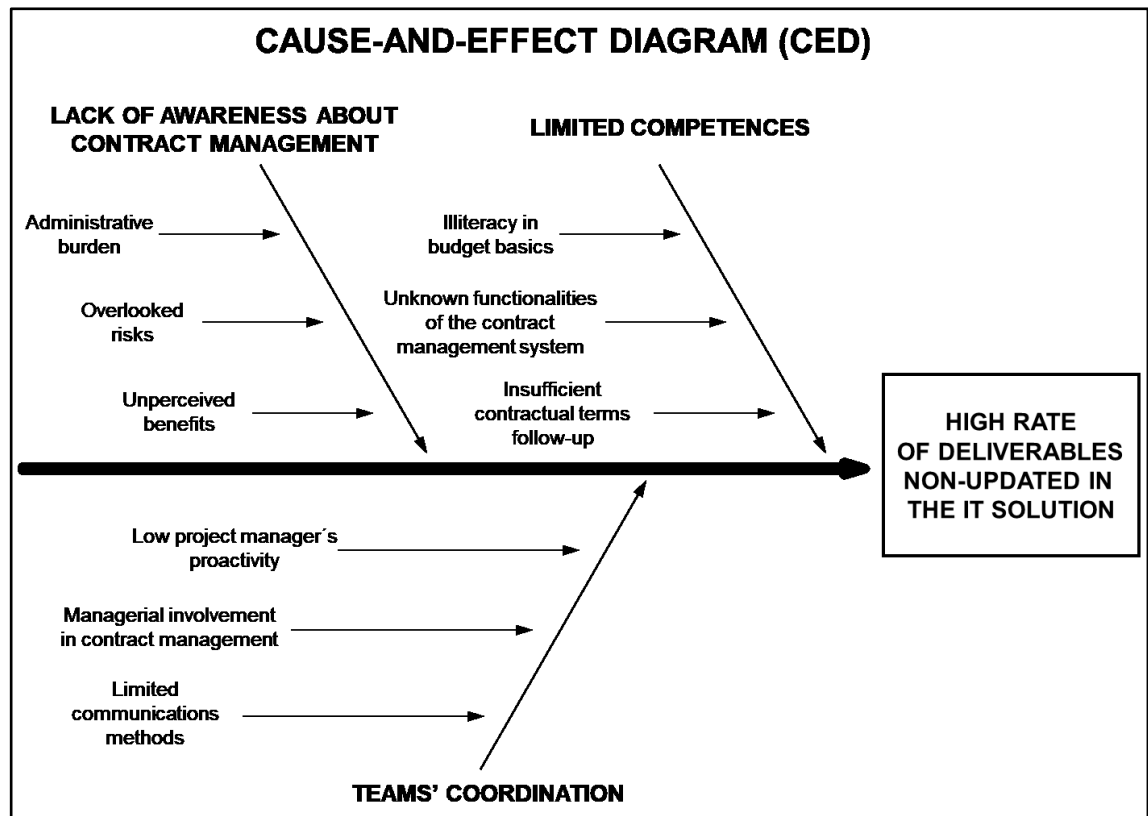


Figure 16. Result of the cause-and-effect diagram (CED) application to the case organization.

Therefore, the second analysis led us to a similar conclusion on the root causes behind the high rate (31%) of contracts that were not updated in the IT solution and its impact on contract management compliance. After the root-cause analysis, the members of the CM Unit committed to improving contract compliance through further research and planned intervention. Following the words of McNiff et al. (2013: 96), "doing action research means you consciously hope that something is going to change."

5.3 Conclusions

In particular, as can be seen, a preliminary analysis of the data available in October 2023 concludes that 31% of active service contracts registered in the management system did not seem to be updated in a timely manner. The initial hypothesis pointed to a low involvement of certain project managers in updating

the contract management system. This generates an adverse effect in cascade to the referred critical areas. In short, a key date for the management of contracts is the expected submission date of deliverables registered in the IT solution. This date appears in regular reports created from the information available in the system and its interpretation allows the organization to make major decisions.

Firstly, the expected submission date of deliverables is a critical variable for budget management since it marks the budget commitment forecast in monthly, quarterly and yearly reviews. Thus, the higher the number of contracts that are not updated in the system the higher the monetary amount that cannot be monitored for a given period (month, quarter and year). For the Budget Management Unit, this uncertainty represents a serious challenge since the organization approves the allocation of budget on an annual basis, considering the estimated amounts to be committed over the year.

Secondly, the accuracy of the data available in the contract management systems serves all internal stakeholders to monitor project assignments. For the Contract Management Unit, the data input by project managers about their contracts provides the main reliable information not only on budget but also on in-time delivery of consultancy reports, related payments and contract completion.

In this regard, one of the main challenges for contract management has been the signature of contract extensions in time, before the expiry of the initial contract duration. Due to the lack of reliable information in the system and the low responsiveness from some project managers, the timely signature of addenda was challenging in the last three years leading to cases of formalisation of prolongation with retroactive effect. According to the internal procedures, this practice constitutes an operational risk that should be addressed through preventive and mitigation measures.

Consequently, the situation required a planned intervention to first analyse the organizational practices and then propose solutions. At this point, action research represented a suitable approach to creating knowledge from practice and reaching evaluable goals with a positive impact on the organization.

6 Results of the surveys to project managers

6.1 Research results of the survey to project managers

To deepen the analysis of the current situation, I designed and prepared a web-based questionnaire (Appendix 1) according to the methodology described in Chapter 3.2. The purpose was to obtain valuable input on contract management from project managers, who undertake the technical implementation of contracts in the field. Their views provided valuable data and insights to complement the preliminary analysis the CM Unit conducted at an earlier stage.

In total, a sample of 10 project managers out of a population of 48 participated between the last week of February and the first of April 2024. For the sampling, I sought balance in terms of respondents' experience in the specific position of project managers, gender and nationality. Although any type of bias was avoided and the survey was anonymous, the results are obviously based on the replies of the 10 project managers who wanted to participate out of a total of 13 that were contacted.

The questionnaire sought to cover the main aspects of the research questions through four sections:

- Contract management system;
- Cooperation and communication between project managers and the Contract Management Unit;
- Contract and budget management;
- Contract implementation and modifications.

6.1.1 Results related to the use of the IT system

In Section A, I addressed the level of knowledge, usefulness and satisfaction of the contract management system. In general, project managers affirmed to use the IT solution frequently: six almost every day, one between two and three days a week, and one only once a week. In contrast, two respondents rarely use the system, as they indicated to do so only every other week.

A preliminary analysis of the frequency rate of usability leads to the conclusion that two project managers perform contract management with low reliance on the system. For instance, monitoring of deliverables' submission dates is not regularly based on the system. This inference can reply to the research question on the number of deliverables whose expected delivery dates were not updated in the system by project managers. Therefore, the low frequency of use may cause the high percentage of expected submission dates of deliverables not updated in the contract management solution (31% in the initial analysis). Consequently, the implications of this specific date for the full contract management cycle also affected the results, as described in Chapter 5.1.

The respondents were asked about their level of satisfaction with the IT solution in use. As can be seen in Figure 17, five project managers agree and two strongly agree that the IT solution currently responds to their needs. However, the other three disagree on this premise. Therefore, this fact represents a critical issue firstly to be transferred to the team in charge of the IT solutions, and secondly to be tackled during the development project.

Moreover, the responses to the open question about satisfaction with the IT system provided valuable feedback on project managers' concerns. In general, the system is considered rigid, complicated and not very efficient in terms of approvals.

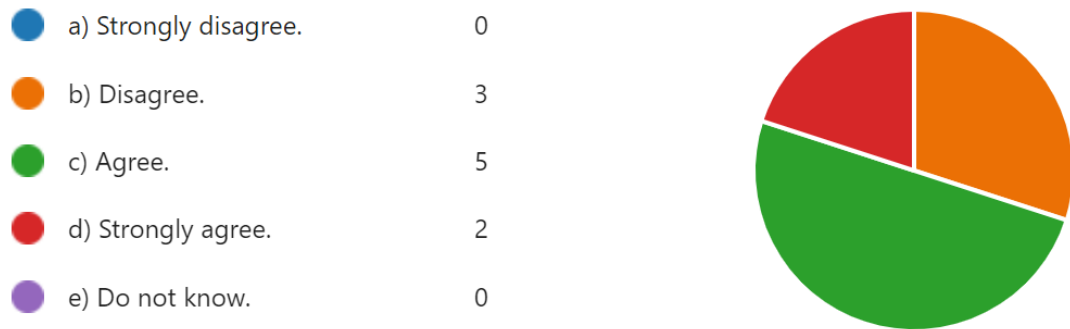


Figure 17. Survey replies to the question if the IT solution responds to the project managers' needs as recorded in Microsoft Forms.

In terms of budget, respondents miss the automatization of some data inputs and demand a “better overview on [sic] the committed budget, real-time budget control” and “more intuitive contract budget consumption tracking”.

Nevertheless, the system does provide granularity on contract budget utilization in a specific section. Thus, these replies point to the need for training in this aspect.

One of the respondents provided insightful feedback on the type of issues confronted when using the management system:

I need more training. My lack of familiarity with the system and my obligations, and the timing of those obligations causes errors on my part and frustrations. When I interact with the system it seems to work quite logically but the “pathway” for undertaking an assignment in the contract management system is not clear to me - from the commencement of a project, through routine contract administration, through to closure of a project.

The questionnaire revealed that most project managers rarely (six) or never (two) face technical glitches while using the system. In contrast, the other two declared that they find software bugs occasionally. Therefore, it can be stated that the contract management system itself presents a high degree of reliability. This conclusion drastically reduces the probability of potential causation between low engagement with the system and recurrent technical errors.

In addition, four project managers strongly agreed and three agreed that the IT solution is useful to monitor and manage their portfolio of projects. The remaining three disagree on the usefulness of the system. Among the reasons for disagreement, one respondent argued that “the system does not reflect modern needs of the business”, such as invoice processing. Other project managers indicated that “the system requires the input of a lot of information focusing on reporting” but missed “having a clear view of the committed budget”. Similarly, further critical comments referred to the system as “an administrative burden” instead of a management tool that supports their work. About the purpose of the software, other respondents reasoned that “it seems like users are serving the system rather than the other way around”.

This criticism provides relevant points to be addressed during training and awareness sessions. First, the training needs to raise awareness of data quality and the role of project managers’ manual input over the contracts’ lifecycle. Secondly, the section of the management system, which is dedicated to the contract financial information, requires further explanation, including its interface with a different platform that operationalises the purchasing cycle (contract - purchase order – receipt registration – invoice - payment).

Moreover, almost all respondents indicate that they seldom or never encounter difficulties when updating and approving deliverables in the system. On the contrary, five of them find the functionality of adding financial data challenging and three have problems when registering receipts. Thus, there is still a need for further training on how to use these features. One of the project managers responded:

Onboarding into the system was complicated, the system helpdesk was able to help with IT steps but not with business processes nor how they should relate to business needs.

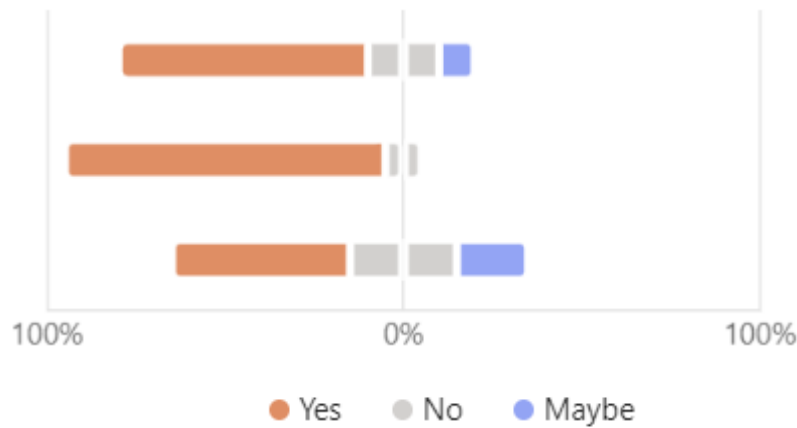
Regarding the monitoring of deliverables due dates in the system, most respondents (eight) recognized that as project managers they are expected to reflect in the system the actual “expected delivery date” when there is a

deviation from the original submission set in the contract. Nevertheless, this high demand for knowledge differs from the actual situation in the system, as was described in the current state analysis (Chapter 5). Hence, it is noticeable that the training and the communication activities of the Contract Management Unit must stress the relevance of this date for the contract cycle and all internal stakeholders, as referred in Chapter 1.3.

6.1.2 Results related to general awareness

The survey also captured what each respondent thinks about the general level of awareness among project managers of different aspects. None of the project managers considered the awareness of the lifecycle monitoring to be high, but low by six responses and medium by four. The awareness of data quality and reporting was estimated to be low by three and medium by seven. Conversely, budget is an aspect that the project managers think their colleagues' awareness is on a higher level (four responses). Three considered it to be on a medium level and only three on a low level.

In addition, when asked about the existing guidance material on the IT solution (Figure 18), most project managers (seven) affirmed that they know where to retrieve it. Nine of ten respondents confirmed they knew how to contact the dedicated support team for the contract management system. However, only 50% indicated that they knew where to find a document named "IT Guide for Project Managers" (the "Guide"). This document was created at the end of 2022 expressly to explain the key elements of procurement and contract management for project managers, emphasizing their activities and accountabilities in the application.



a) Guidance material on the contract management system.

b) Contact the support team on the contract management system.

c) Outsourcing guide for Project Managers.

Figure 18. Survey replies recorded in Microsoft Forms to the question on the knowledge about the existing guidance material.

The analysis of the reply to this question allows the Contract Management Unit to infer that the Guide needs to be promoted among project managers. A practical solution to improve its visibility is the inclusion of a reference with a hyperlink to the Guide in the regular emails the Contract Management Unit sends to project managers.

6.1.3 Results related training and communication needs

Regarding whether more training about the contract management system should be offered, six project managers were in favour of training for all of them. Two indicated that it is needed only for the less experienced ones. On the contrary, only two refused the idea of organizing more training sessions. This division of opinions is shown in Figure 19. Consequently, the Contract Management Unit obtained confirmation that more training should be provided, not only based on the analysis of the current performance but also on the demand of project managers.

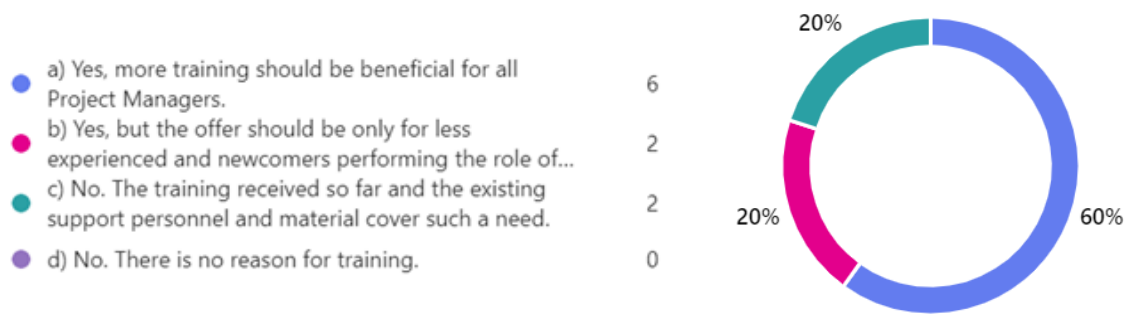


Figure 19. Survey replies as recorded in Microsoft Forms.

On the contrary, the survey revealed that project managers perceive the cooperation with the Contract Management Unit as very good (eight) or good (two). In addition, nine considered the communication between project managers and the Contract Management Unit as very good and one as good. This general positivity differs when deepening into several areas of collaboration.

On the one hand, seven project managers were satisfied, and one was very satisfied with the number of emails received on contract management. Moreover, three respondents indicated being very satisfied and six satisfied with the responsiveness of the Contract Management Unit to their demands and questions. Conversely, only three were satisfied with the convenience of the messages received on the contract management system updates. Similarly, five respondents were satisfied with the clarity of those messages, while four remained neutral and one was very dissatisfied.

The interpretation of these replies helps when identifying the key elements to be improved through the communication plan integrated into the development work of this thesis. Along the same lines, the survey provided valuable inputs on the preferred communication methods among project managers. In general, the preferences were balanced; three favouring face-to-face short calls instead of emails and three were keen on organizing periodical meetings between each project manager and the Contract Management Unit. Likewise, two preferred to hold meetings between their Divisions and the Contract Management Unit. To

the same extent, two project managers thought assistants should coordinate the communication flow between all project managers per team instead of having an individual and regular interaction with the Contract Management Unit.

Furthermore, one respondent provided a thorough answer on the methods to improve communication and cooperation:

In person meetings from time to time / discussions & brainstorming on lessons learnt from the implementation / management of various services contracts once finalised as a way forward to improve the overall contract management system.

Although the Contract Management Unit has been organizing monthly meetings with the heads of front-line teams of project managers since March 2024, they have rarely been held in person. The purpose of these regular meetings is to follow up on the contract portfolio from budgetary and project implementation perspectives. Without prejudice to its overall objective, the meeting could be the forum to discuss and exchange lessons learnt from previous contracts. The survey results supported the need for a communication plan and for this kind of informal discussions to be added to the monthly meetings' agenda.

6.1.4 Results related to budget knowledge and roles

The survey questions on budget as an element of contract management also provided valuable information for this research. In general, the project managers think their knowledge of budget aspects is very high (five) or high (three). However, four of them strongly disagree and two disagree with the assumption that most project managers know the purchasing cycle in the context of contracts. Namely, the purchasing cycle refers to the following sequence: 1. requisition, 2. purchase order, 3. deliverable validation, 4. receipt registration, and 5. Invoice approval and payment).

In addition, one of the survey conclusions is that all respondents agree on the fact that more training is needed on basic budgetary aspects. Six considered training would be beneficial for all project managers, while the other four

thought training would be beneficial only for those less experienced and the newcomers.

Another significant insight of the survey was the level of knowledge about the different roles participating in contract management: project manager, sector expert, contract administrator and budget officer. Thus, six of the ten project managers strongly disagreed or disagreed with the assumption that roles' responsibilities and accountabilities are clearly defined and understood. On the contrary, only two agreed on that sentence, while two remained neutral.

Last, the survey provided useful information on contract modifications. Nine out of ten respondents provided a positive answer about the current process of amending a contract. In addition, also nine project managers agreed that more training should be offered on the procedure to modify a signed contract.

In conclusion, the survey served as an effective data collection method for analysing project managers' views on the current situation as professionals on the front line of contract implementation. Their impressions, challenges, and needs constituted a pillar for this action research. Among the identified needs, improving communication with the Contract Management Unit and additional training of key elements were highlighted. The results supported the target of enhancing contract management compliance in the case organization with the help of this thesis development work.

6.2 Results of the survey to project managers in other organizations

A second questionnaire was conducted to benchmark best practices in other entities with characteristics similar to the case organization. A total of six contract management practitioners participated in this study. Four were from various offices of an entity affiliated with the European Commission, while two were from the procurement unit of a Directorate General within the European Commission.

In terms of roles, one participant was head of a purchasing unit, three were professionals specialised in technical implementation, one was involved both in the administration and the implementation of contracts, and one was a legal officer mainly involved in the early stages of procurement.

The questionnaire (Appendix 2) combined closed and open-ended questions to collect data about general professional practices, on one side and elaborated descriptions to understand how they operate in critical areas of contract management defined in the research problem statement, on the other.

In general, the allocation of activities in contract management among teams is similar in those organizations and the case study (as depicted in Chapter 1.3, Figure 2).

The role of a project manager initiates the process in cooperation with a procurement team. After the contract signature, the project manager and a technical team start the technical execution of the contract. In parallel, another team manages the purchasing cycle on behalf of the project manager, while a finance team monitor the budget consumption. Finally, an internal control team audits the process.

For most of the respondents (four) the roles, responsibilities and accountabilities are well defined and understood by all the staff involved in contract management. Conversely, only two disagreed with that statement. This differs from the replies obtained in the case organization to the same question, where six of the ten project managers considered the functions to be unclear. Therefore, the Contract Management Unit must emphasise this aspect in the training and communication with the other teams.

In terms of cooperation and communication, respondents pointed out several ideas that may be replicated. For instance, one of the practitioners stressed the benefits for the users of having a procurement and contract management team. Others indicated that the most effective communication methods in this context are periodical emails, group meetings and also monthly reports with more

extended meetings every six or seven months, depending on the contract or project.

Regarding the guidance material on contract management (Figure 20), four professionals indicated counting on video tutorials and training on contract management, and three have a dedicated guide or handbook. In the case organization such support also exists, but some material, as the guide requires a holistic update.

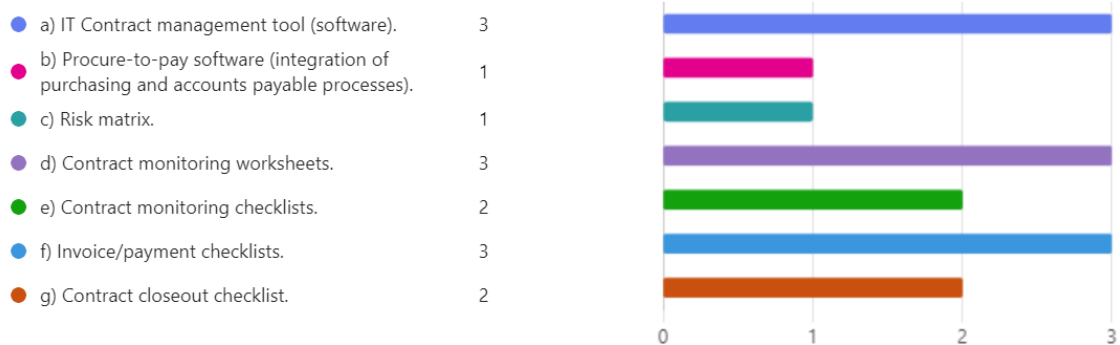


Figure 20. Survey replies recorded in Microsoft Forms to a question regarding the existing guidance and supporting material for contract management.

To face challenges in the use of the IT system, respondents indicated that their organizations delivered training (three), improved the software (three), and held meetings (two), among other measures.

Contract monitoring was described as paramount by some respondents to ensure that contract extensions (amendments) are completed on time. In this sense, one practitioner indicated this can be achieved with “communication of time requirements, planning”. Likewise, a second respondent pointed out that on-time amendments can be completed “by following the contract during the implementation”. For a third one, it is essential to undertake a “contract follow-up during implementation to check that the initial purpose is aligned with the contract development”.

In conclusion, the second questionnaire revealed that the Contract Management Unit needs to raise awareness among project managers about their roles, responsibilities and accountabilities, and increase their knowledge of the management system and the purchasing cycle.

7 Suggestions for Improved Contract Management

The development work conducted during the thesis span started in January 2024, when the then recently created CM Unit launched the first activity to optimize the contract management performance and has been carried out until March 2025. However, part of the intervention presented below has only been planned, remaining its adoption and implementation requires further discussion within the case organization. A clear distinction is made in this sense.

The development work that has been completed is shown in chronological order in Figure 21. Most of the activities relates to the communication and coordination efforts to promote the adoption of change, by adopting aligned procedures and work practices. To a lower extent the CM Unit has strived for the development of competences among the group of project managers.

Figure 21. Visualization of the development work over the thesis span.



In early 2024, a few months after the creation of the CM Unit, a first initiative to strengthen the coordination was decided at the level of Head of Divisions. Thus, the assistants of each team were entrusted the centralization of the general interactions with the CM Unit. The goal was to streamline communication and increase the alignment among the project managers. Soon, the CM Unit undertook the first centralized mailing campaign addressed to the assistants of the team to which the 48 projects managers belong to. The objective was to collect the data input for the creation of the first set of purchase orders for 2024.

Shortly after, the main activity of the new approach for contract management started: the monthly meeting with the Head of front-line teams. Certainly, this activity allowed the CM Unit to strengthen the coordination with the different groups by conducting a close monitoring of the existing situation in terms of contracts implementations, data quality, budget consumption and, consequently, compliance. Other routine activities, such as regular emails and calls with project managers have also served to support the operationalization of contract management. Finally, the intervention remains open to further development that will prolong the logic of action research applied in this thesis of permanently collecting information, analyzing it and promoting change in consequence.

In the following pages the above-mentioned activities receive further attention. However, firstly a contract management strategy sets the principles, objectives, initiatives and processes that pave the way for the improvement of contract management. Lastly, an elementary communication gathers the different actions and is presented as a key factor of change management.

7.1 Contract management strategy

7.1 Proposal of a contract management strategy

This contract management strategy has been designed based on the initiatives already undertaken, the current state analysis of the case organization and the literature review. Overall, its structure follows the guides developed by the Australian Victoria State Government referred in Chapter 4.2. For the sake of clarity, the strategy includes initiatives that have been realized and others that have only been planned.

7.1.1 Organizational contract management objectives

The general objectives that set the direction and drive the planning of the strategy for the Contract Management Unit (CM)

- a) Increase compliance of consultancy contracts.
- b) Improve the coordination with the heads of Units and Teams of the project managers in the follow-up of contract management.
- c) Build a close collaboration with project managers in charge of contract execution.
- d) Reduce risks during the implementation of contracts.
- e) Seek optimization through continuous improvement by applying the Contracting Capabilities Maturity Model as described in Chapter 4.2.2.

7.1.2 Contract management targets

The performance expectations of the contract management function are the following:

- a) Improve communication effectiveness and awareness with project managers on the use of the IT system and the utilization of the budget. The metrics to apply in this regard are:

- Update deliverables dates in the IT system: average of 2 emails.
 - Create a purchase order: average of 2 emails.
- b) Enhance communication effectiveness in terms of improved job performance. The metric for this aspect was the percentage of the ongoing contracts whose end dates are in the past in the contract management system. The target score is to reach a rate lower than 15%.
- c) Establish a mandatory training in contract management for project managers. The metric will be delivered/not delivered.
- d) Deliver a training session on the IT system functionalities to project managers. The metric for this target is the percentage of contracts that were not updated in the platform before and one week after providing the training. The target score is to obtain a rate of non-updated contracts lower than 15%.
- e) Deliver a training session on the fundamentals of contract budget. The knowledge about the contract budget will be focus on the consumption forecast and the actual expenditure. For that, the metric use was the percentage of change orders created per purchase orders. The target score was lower than 5%.
- f) Introduce the following new working practices to improve cooperation between project managers (user divisions) and contract managers (CM Unit):
- Monthly meetings with the head of each team, assistants and, when needed, also some project managers.
 - Address general emails to team assistants instead of individually to project managers (e.g. data request for the creation of purchase orders in the beginning of the year).

7.1.3 Analysis of the contract portfolio spend

The analysis of spend will be conducted monthly based on the information provided by the IT system. The focus will be on the forecast spend of contracts and the actual spend per each project managers' team. In short, the analysis will consist of:

- Running a report from the IT system to compare forecast and actual spend.
- Present the analysis result to the each team's head during the monthly coordination meeting; showing data anomalies and contrasting forecast and actual spend.

7.1.4 Risk analysis

To increase contract management performance, it is necessary to integrate the following risks into the decision-making process of the CM Unit:

- a) Data quality degradation in the contract management system for monitoring and cross-functional purposes (contract compliance, budget overseeing, etc.). Mitigation measure: maintain and strengthen the coordination with management of the project managers.
- b) Knowledge loss due to internal mobility: departure of experienced ones to other teams and onboarding of newcomers to the role with less specific contract management knowledge. Mitigation measure: organize regular training sessions and encourage a knowledge-sharing culture among project managers during calls, meetings and other frequent interactions.
- c) Gap between forecast on budget consumption and reality (estimation versus actual spend). Mitigation measure: undertake a monthly review and a quarterly budget adjustment in the purchasing system.
- d) Operational incidents due to lack of understanding of contract monitoring and inconsistent practices. Mitigation measure: monthly monitoring of

data accuracy in the system to ensure contract compliance (expiration dates, overdue deliverables, on-time reply to contractual amendments).

7.1.6 Capability development initiatives

The capability of project managers shall be reinforced to guarantee an appropriate understanding and knowledge of the internal responsibilities of project managers.

- a) Develop a training for project managers with modules dedicated to the following areas:
 - a.1) fundamental elements of contract management and possible modifications
 - a.2) budget cycle in contract management
 - a.3) contract management system and its functionalities
- b) Introduce the completion of the training as mandatory for the role of project manager (including yearly refresher versions).

7.1.7 Processes and IT systems initiatives

- a) Participate in the regular stakeholder meeting organized by the IT team in charge of the contract management system.
- b) Keep a log of issues and enhancements related to the contract management needs and transfer them to the IT team.
- c) Oversee technical changes and evaluate their impact from a compliance perspective (e.g., editing permissions of data per role) and communicate them to the IT team.

7.1.8 Performance management and monitoring

For internal purposes, the compliance and performance of contract management will be carried out through the metrics previously indicated in point 7.1.2 Contract management targets. The CM Unit will perform at least a monthly monitoring exercise of the existing portfolio of contracts. This exercise consists of the following steps:

- The review of the data in the reports provided by the IT system.
- The identification of overdue items: expected delivery date of deliverables in the past and contract end dates closed to its expiration, among others.
- Requesting information to the relevant project managers about the status of their contract portfolio, the deliverables and the possible needs for contractual amendments.

As previously indicated, this strategy is still under development and its actual implementation requires further discussion and consultation with internal stakeholders. Nevertheless, it gathers the essential elements of concern of the CM Unit and the principles, objectives and potential initiatives to enhance the contract management function.

7.2 Activities planned and undertaken

7.2.1 Regular meetings with the management of each team

Since March 2024, the Contract Management Unit has held monthly meetings with the management of the project managers to discuss the procurement pipeline and the current situation of contract under implementation. The main point of the agenda usually is the review of the status of contracts and deliverables, and budget consumption, based on a report generated in the IT system. The goal of the meetings was to enhance the coordination between the CM Unit and the front-line management on their team exposure and subsequently enhance contract management across the organization.

Thanks to this initiative, the heads of the different teams obtain an overview of the existing projects and their development. Specifically, the meetings enable the CM Unit to highlight good practices and point out the weaknesses to be tackled. In this sense, the main tool used in the meeting is a report generated by the IT system that provides key elements of the active portfolio and an overview of those deliverables that are overdue in the system and those contracts that are close to their end. When needed, the teams discuss specific issues with some contracts so that each team can address a given issue internally.

The cornerstone of the meeting is the review of the budget allocated to the portfolio of each team. The CM Unit shows the forecast figures versus actual spend per quarter to seek their alignment or address deviations. In this analysis, the CM Unit reminds project managers about the importance of adhering to the approved budget and the incurrence of the costs according to the scheduled plan. Other of the recurrent topics is the need to keep the data quality in the IT system and, overall, the expected delivery dates in the deliverables module due to its connection with budget and contractual terms. The CM Unit regularly identifies those contracts that appear as delayed in the IT system and need the quick attention of the corresponding project manager.

Because of the regular meetings with the management of the project managers (in charge of the contracts implementation) the data quality in the system and the number of emails required to complete several actions has evolved over the span of this thesis. Further details are presented in Chapter 8.

7.2.2 Training sessions

In October 2024, Contract Management Unit (CM Unit) organized and delivered two training sessions to two teams of project managers, being the total attendance of over 40 people, including the heads of the teams, project managers and assistants. Although the format was on-site, a small group of participants attended remotely. The main purpose of the training was to

address, for one hour, the deficiencies identified during the research, particularly through the online questionnaire and the working interaction with project managers that affect contract compliance.

The specific goals of the training were to improve knowledge on the fundamentals of contract management and the distribution of tasks and responsibilities between the CM Unit and the project managers. Besides, special emphasis was made on raising awareness about the most common risks and the application of the internal procedures to ensure contract management compliance.

In short, the contents of the training were the following:

- Presentation of the Contract Management Unit, its function, remit of activities, responsibilities and interrelations with other teams, including compliance, legal, financial and technical areas.
- The role and responsibilities of the project manager in contract implementation within the contract management lifecycle.
- The fundamental elements of a contract.
- The budget and the purchasing cycle.
- The contractual modifications after signature (addendum) and the compliance with the procurement principles.
- The risks associated to contract implementation (non-compliance, legal and financial aspects).
- The contract management system and its core functionalities.

In general, participants showed a genuine interest during the two trainings and enriching debates during the followed the presentation. The questions of project managers revealed their concerns about the duration of contracts and the elements subject to modification and the existing procedures, specifically about the increase of contract budgets. The open forum also created the opportunity for the CM Unit to stress risks and the need to avoid certain situations. For instance, contract signature and the effective start of service delivery and the

continuation of the services performance after a contract has reached its expiration. Regarding the contract management system, a special emphasis was placed on the critical role of project manager in updating the deliverables dates, according to the real situation, to facilitate the organization stakeholders perform their activities based on reliable data, such as the budget and compliance.

To measure the impact of the training on the data quality registered in the contract management system, new reports were generated and analyzed two weeks after the sessions, showing a slightly improvement. Further details are presented in Chapter 8.

7.2.3 Guide for project managers

In the frame of the intervention to improve contract management compliance, the existing guide on contract management for project managers was restructured and incorporated into the material used during the training, in October 2024. The primary objective was to address the shortcomings detected during the research. For that, it is intended to reinforce the effect of the training sessions and provide project managers with a comprehensive guidance document to be consulted while they perform their role. For confidentiality reasons, the guide itself remains undisclosed, but its essential contents are presented below.

The document describes the project manager as the professional within the organization who leads the technical implementation of service contracts. The guide summarizes its function in managing the relationship and the collaboration with the service provider's team during the contract span. Thus, the critical activities concerning the follow-up of the work plan are delineated with an emphasis on the adherence to the contractual terms. Among others, it describes the responsibility of project manager to review and approve deliverables in terms of specifications, contents and quality, including the scrutiny of the experts' timesheets and expenses eligible for reimbursement.

The guide also describes the contract management system and the key functionalities for project managers. The section dedicated to the management of contractual deliverables is also explained with supporting images. First, it underlines the obligation of keeping updated the expected submission dates of the deliverables for data quality. Second, with regard to the budgetary aspects, the document indicates the steps that project managers must complete to validate deliverables and register a related receipt for a given amount under the corresponding purchase order in the system. As a final point, project managers can consult the process and the requirements for approving invoices and the final checks to perform before the contract is closed out in the IT solution.

Nevertheless, the guide for project managers needs further development. On one hand, it must broaden its scope to cover more aspects of contract management that require frequent attention. Among others, the document could be enriched by including the requirements for the most common contract modifications, such as a time extension, the creation of purchase orders and the content requirements of an invoice and the formal elements of valid timesheets. Moreover, the guide could present more details about the most common risks, their consequences and the methods to mitigate them.

7.2.4 Communication plan

In reply to the findings during the research and based on the change management model of Lauer (2021: 119), an elementary communication plan has been designed as part of the action research intervention to respond to the problem identify during the research phase, particularly to the results of the surveys administered to project managers (Table 5). Although most communication initiatives have been carried out, the communication presented hereby has not been officially approved *sensu stricto* by the organization.

Table 5. Communication plan based on Lauer's communication model for change projects (2021: 132).

Communication goals	Method and media	Messages	Sender / Recipient group	Period or frequency
<p>Improve the follow-up of the existing contract portfolio in terms of timely implementation, budget consumption and contract compliance. For all that, data quality in the IT tool is fundamental.</p>	<p>Meeting via Teams and/or on-site.</p>	<ul style="list-style-type: none"> - Compliance: Need for data quality in the IT tool, on-time submission of deliverables and execution of the related budget. - Collaboration: Accessibility of the CM Unit for assist project managers in contract matters (e.g. IT updates, contract modifications, implementation concerns and purchasing cycle). 	<p>CM Unit / project managers and corresponding head of teams.</p>	<p>Monthly</p>
<p>Enable the regular operationalization of cross-team collaboration</p>	<p>Email</p>	<ul style="list-style-type: none"> - Routine messages on budget activities (e.g. requisitions, purchase orders and change orders). - Validation of deliverables in the IT system and payments. - Others as required. 	<p>CM Unit / project managers (individually) and vice versa.</p>	<p>When needed</p>
<p>Effective monitoring of the implementation of the existing contract portfolio</p>	<p>Email</p>	<ul style="list-style-type: none"> - Status assessment of contracts close to its end. - Ensure submission of upcoming deliverables. - Identify early needs for contract modifications. 	<p>CM Unit / project managers (individually)</p>	<p>Monthly</p>

		- Boost accuracy of expected submission dates of deliverables in the IT system.		
Provide tailored attention to specific cases	Call / Video-call	- <i>Ad hoc</i> replies to consults on contract modifications, budget, use of the IT system, among others.	CM Unit / project managers (individually)	When needed
Give promptly response and input to collaboration needs	Teams instant messaging	- Send reminders on pending actions - Response short and simple questions	CM Unit / project managers	When needed

Table 5 schematically gathers the essential elements of the communication activity currently maintained in the collaboration between the CM Unit, the project managers and their teams. The overall objective is to keep a good balance of interactions against the number of inputs to request information or action. Some additional initiatives might be undertaken to streamline the interactions, such as the creation of a repository of templates to consolidate recurrent emails and its key contents. The plan remains open for the exploration of other practices that could streamline cooperation and, subsequently, improve the optimization of the contract management function.

8 Conclusions

8.1 Evaluation of the results

After the development work described in Chapter 7, the impact of the main initiatives has been evaluated against the target scores set for the metrics in Chapter 2.3. To conduct this analysis the information was obtained from two main sources. Primarily, the data recorded in the contract management system was extracted through the relevant report at the times indicated in the tables

headers. Secondly, the email application also known as email client (Outlook) provided the information on the number of emails required for each type of action. For that purpose, it was helpful the storage treatment of the CM Unit of the prolific email exchanges. The separation by folders and the use of keywords in the search tool facilitated the work of the researcher in the identification of the concerned messages per topic. As in the initial analysis (Chapter 5.1), a sample of five project managers and three of their contracts were randomly selected from their portfolios to calculate the individual average. The total average is calculated on the sum of the individual percentages.

Regarding communication efficacy, Table 6 displays the evolution of the number of emails required for a project manager to update in the IT system a deliverable whose expected delivery date is in the past. It also shows the number of days necessary to complete the action between the first email and the completion of the update. In general, it is observed that the target score of ≥ 2 emails has been reached since the average in February 2025 is 1.13 emails, half of the needed in October 2023. The target of the number of days (≥ 5 days) has also been drastically reduced from 37.85 to 4.33 days in the same period.

Table 6. Communication efficacy to update deliverables in the IT solution

Activity: Updating deliverables dates in the IT solution	Number of emails (including reminders)		Time in days between sending the initial and the final email	
	10/2023	02/2025	10/2023	02/2025
Project manager 1	2.66	1	21.6	0
Project manager 2	3.33	1	24.33	1
Project manager 3	2	1.33	3	7
Project manager 4	2.66	1.33	17.66	12.66
Project manager 5	2.66	1	122.66	1
Average	2.66	1.13	37.85	4.33

Similarly, communication efficacy to create a purchase order has improved as shown in Table 7. The target score of ≥ 2 emails to complete the action has been achieved, with a new average of 1.33 emails in February 2025. In this sense, it is also noticeable that the number of emails sent to project managers has diminished since January 2025 after the CM Unit decided to create the purchase orders without asking via email whenever all the required data is available in the IT tool. However, the selected sample of interactions provides a clear reduction. The efficacy has also improved regarding the target of number of days (≥ 5), being 5.19 days on average in February 2025 against 17.06 days needed in October 2023, when the CM Unit started was created.

Table 7. Communication efficacy to create a purchase order

Activity: Creating a purchase order	Number of emails (including reminders)		Time in days between sending the initial and the final email	
	10/2023	02/2025	10/2023	02/2025
Project manager 1	1.33	1.33	11.66	0.33
Project manager 2	2.33	2	31.33	11.33
Project manager 3	3	1.33	7.33	10.66
Project manager 4	2	1	12.66	3
Project manager 5	2	1	22.33	0.66
Average	2.13	1.33	17.06	5.19

The impact of the development work on communication efficacy in terms of improved job performance has also been measured. The target score was to obtain a rate lower than 15% of contracts whose end dates are in the past, according to the contract management system. Table 8 offers the evolution of these metrics over one year of active collaboration with the project managers

and their management, starting with 18.12% in October 2023 and ending with no contracts with their end date in the past.

The effectiveness of the training delivered in October 2024 was measured with the rate of contract in the existing portfolio that is not timely updated in the IT tool. As Table 8 shows, the target score of 15% has not been reached. The training itself had a minor effect, as the reduction was 0.87%. Nevertheless, the situation since the starting point (31%) in October 2023 has been improved over the months, being in February only 20.22%. A further analysis has identified slow progress since October 2024. If future reviews indicate stagnation, the CM Unit should seek new initiatives to continue the improvement.

Table 8. Data quality in the contract management system.

Period	October 2023	October 2024 (one week before the training)	November 2024 (2 weeks after the training)	February 2025
Contracts with its end dates in the past	18.12%	2.30%	1.15%	0.00%
Contracts non-updated in the system	31.00%	21,75%	20.88%	20.22%
Deliverables triggering payments with an expected delivery date in the past (overdue submission)	17.90%	14.29%	13.30%	10.75%

Finally, the awareness of the overall budget implications linked to the deliverables registered in the system was measured. As explained in Chapter

5.1, the expected delivery date of deliverables is critical for budget management, as it marks the estimated incurrence of cost. Against a target score of 15%, the intervention of the CM Unit has produced a noticeable reduction, achieving the objective since only 10.75% of the deliverables that trigger a payment are overdue.

The general outcome of the development work points to a positive effect of the activities undertaken so far. It can be concluded that the creation of a new unit expressly dedicated to contract management at the end of 2023 has significantly enhanced the optimization of the function. Moreover, the insights and understanding gained during the action research phase of this thesis enabled the design and execution of some initiatives with effective results.

Nonetheless, more research efforts are yet to be completed, such as a second survey for project managers to obtain their current opinions, level of awareness and knowledge in the different areas of concern. A current risk associated to the optimization of the function is the appointment of a growing number of professionals as new project managers. Consequently, the CM Unit needs to reinforce its change management process (as referred in Chapter 5.2), by providing new training and instructive communication.

8.2 Limitations and validity of research

In general, the action research conducted in this thesis was performed following the classic iterative process (diagnosis, planning, acting and evaluating). Thus, the research design and the selected methodology adjusted to the action research principles. The data collection methods provided a factual basis for understanding the research problem from multiple perspectives. The fact that the Unit counts on a contract management system with a reliable reporting tool enhanced the possibilities of exploring and analyzing the effects of the research problem on measurable information over time. In my role of researcher embedded in the CM Unit allowed me to perform participant observation in the interactions with the project managers, the focus group of this research, and the

CM Unit itself. Moreover, the first round of questionnaires administered to a sample of project managers generated a valuable source of information for understanding their attitudes, concerns, knowledge and work experiences regarding the subject of the research. In terms of representativity, the sample of 1/5 of the existing population of project managers, which in principle meets the requirements to be considered significant to generally reflect the thoughts and attitudes of the group¹.

This action research cycle has been backed by an extensive theoretical review in action research and other areas, such as procurement, contract management and change management. Furthermore, manuals, guidance documents and templates from several institutions have been consulted and, when convenient, adopted and applied to the case organization with the aim to add good practices to the research.

Among other fields, the limitations materialized in the completion of some of the planned activities. In particular, the second round of questionnaires to the project managers was not realised due to the time required to obtain the consent of a representative group of them and gather all the replies. Next, the results obtained from the questionnaires for practitioners in contract management from other institutions were positive but limited. In similar circumstances, the lesson learnt for future opportunities is to opt for the interview format with open questions, where the natural exchange may lead to dig into the pain points and the most relevant topics for the research.

To conclude, the research provides measurable results that have demonstrated the general achievement of the objectives. Therefore, it has been proven that the current contract management function has been optimized. Nevertheless, the research remains open to explore the implementation of a maturity model in contract management following the theoretical approaches presented in

¹ While is representative for the purpose of this research, the data collected, the analysis, the views and conclusions expressed in this document are those of the author and do not reflect the official stance of the Institution.

Chapter 4.2.2 as part of an enhanced strategy. The onboarding of newcomers and the development of new technological enhancements also leave the path for future developments.

8.3 Lessons learned

The performance of a function such as contract management within an International Financial Institution offers diverse and complex challenges. This thesis explored some methods to optimize of post-signature events of contracts within a recently created Unit that obtained some insightful and proven results. In that endeavour, I had the opportunity to learn not only about procurement and contract management but also about people.

Beyond procedures, methods and rules, the value of personal interaction serves as a cornerstone in the working environment, enabling collaboration and mutual understanding. Action research sheds light on that direction in its determination towards transformative change. Against today's tendency to communicate via message, the experience of my daily work during the development of this thesis showed me that better interactions lead to better results. The monthly meetings described earlier are proof of it.

Conducting this thesis as a researcher embedded in a recently created Unit gave me the opportunity to experience how the new head of the team promotes change. I participated in the process of setting new practices based on an analytical approach (e.g. use of reports) and developed new competencies in procurement counting in combination with the knowledge acquired during the courses of this master's degree.

Finally, I also learned about the importance of identifying when one needs to look for support and being supported by the right people. In this regard, I am very grateful to the team and the management for the opportunities to learn and grow, and to my tutor at Metropolia, Kaija Haapasalo, for her invaluable guidance and patience during this long journey.

References

- Akkermans, H., Oppen, W., Wynstra, F. & Voss, C., 2019. Contracting outsourced services with collaborative key performance indicators. *Journal of operations management*, 65(1), pp. 22-47. Available at: <https://metropolia.finna.fi/PrimoRecord/pci.cdi_proquest_journals_2288799467?sid=3464993239> [Accessed 21 November 2023].
- Australian Government, Department of Finance, 2019. Australian Government Contract Management Guide, January 2020. Available at: <<https://www.finance.gov.au/sites/default/files/2019-12/Contract%20Management%20Guide%20January%202020.pdf>> [Accessed 25 February 2025].
- Bowen, G. A. 2009. Document Analysis as a Qualitative Research Method. *Qualitative research journal*, 9(2), pp. 27-40. Available at: <https://metropolia.finna.fi/PrimoRecord/pci.cdi_gale_infotracademiconefile_A218450363?sid=4896417072> [Accessed 10 December 2024]
- Camacho, A., & García, E., 2011. IV Proactive management and business ethics. In Sorsa, K. 2021. *Proactive management and proactive business law: a handbook*. pp. 263-269. Turku: Turku University of Applied Sciences. Available at: <<https://www.theseus.fi/bitstream/handle/10024/821180/isbn9789522162458.pdf?sequence=2#page=276>> [Accessed 31 January 2025]
- Chomchaiya, S. & Esichaikul, V., 2016. Consolidated performance measurement framework for government e-procurement focusing on internal stakeholders. *Information technology & people (West Linn, Or.)*, 29(2), pp. 354-380. Available at: <https://metropolia.finna.fi/PrimoRecord/pci.cdi_emerald_primary_10_1108_ITP-12-2013-0210?sid=3464757208> [Accessed 15 November 2023].

Dhone, M. Y. & Sarwoko, E., 2022. Internal communication and employee performance: The mediating role of motivation. *Jurnal ekonomi modernisasi (Malang)*, 18(2), pp. 255-263. Available at:
 <https://metropolia.finna.fi/PrimoRecord/pci.cdi_doaj_primary_oai_doaj_org_article_4bec0f9e16ef495391d9ac146bad9132?sid=3464421175> [Accessed 10 November 2023].

Egger, C. & Beerli, M. J.. 2023. Chapter 4: Surveys. In Badache, F., Kimber L.R. & Maertens L., 2023. *International organizations and research methods*. Michigan: University of Michigan Press, p. 69-77. Available at:
 <https://metropolia.finna.fi/PrimoRecord/pci.cdi_jstor_books_10_3998_mpub_11685289_20?sid=4893607194> [Accessed 9 October 2023].

Eisenhardt, K. M.. 1989. Agency Theory: An Assessment and Review. *The Academy of Management review*, 14(1), p. 57-74. Available at:
 <https://www.jstor.org/stable/pdf/258191.pdf?refreqid=fastly-default%3Af91409156267be7845403f861726e4d5&ab_segments=&origin=&initiator=&acceptTC=1> [Accessed 15 December 2023].

Elg, M., Gremyr, I., Halldórsson, Á. & Wallo, A. 2020. Service action research: Review and guidelines. *The Journal of services marketing*, 34 (1), p. 87-99. doi:10.1108/JSM-11-2018-0350. Available at:
 <https://metropolia.finna.fi/PrimoRecord/pci.cdi_proquest_journals_2499043231?sid=4767380924> [Accessed 10 July 2024].

European Commission, Directorate-General for International Partnerships, 2023. 20. *The implementation of service contracts – A user's guide*. Available at: <https://wikis.ec.europa.eu/pages/viewpage.action?pageId=95551593#id-20.Theimplementationofservicecontracts%E2%80%93Ausers%E2%80%99guide-#_Toc20.15.> [Accessed 10 November 2023].

Gutterman, Alan, 2023. Contract Management. *Social Science Research Network (SSRN)*. Available at:

<https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4523035> [Accessed 01 July 2024]

Henschel, R. F., Sorsa, K., & Salmi-Tolonen, T., 2011. 6 Proactive contract management. In Sorsa, K. 2021. *Proactive management and proactive business law: a handbook*. pp. 255-273. Turku University of Applied Sciences. Available at:

<<https://www.theseus.fi/bitstream/handle/10024/821180/isbn9789522162458.pdf?sequence=2#page=256>> [Accessed 31 January 2025]

Keskitalo, P., 2006. Contracts + Risk + Management = Contractual risk management? *Nordic Journal of Commercial Law*, 2006(2), 1–32. Available at: <<https://journals.aau.dk/index.php/NJCL/article/view/3040/2564>> [Accessed 01 December 2024]

Khan, N., 2018, *Public Procurement Fundamentals: Lessons from and for the Field*. Bingley: Emerald Publishing Limited. Available from:

<https://metropolia.finna.fi/PrimoRecord/pci.cdi_proquest_ebookcentral_EBC5144930?sid=4993876226> [Accessed 15 December 2024].

Kimber, L. R. & Maertens, L., 2023. Chapter 2: Participant Observation. In Badache F., Kimber, L. R. & Maertens, L. 2023. *International Organizations and Research Methods: An Introduction*. Michigan: University of Michigan Press.

Available at:

<https://metropolia.finna.fi/PrimoRecord/pci.cdi_oopen_primary_oai_library_oopen_org_20_500_12657_64038?sid=4798504328> [Accessed 07 July 2024].

Lauer, T. 2021. *Change management: Fundamentals and success factors*.

Springer Berlin Heidelberg. Available at:

<<https://metropolia.finna.fi/Record/nelli15.31385938600041?sid=4994047919>> [Accessed 12 March 2024]

Lewin, K., 1946. *Action Research and Minority Problems*. Available at:

<http://www.fionawangstudio.com/ddcontent/Instructions/action_research/readi

ngs/Lewin_1946_action%20research%20and%20minority%20problems.pdf>
[Accessed 05 July 2024].

McNiff, J., 2013. *Action Research: Principles and practice*. 3rd edition. New York: Routledge. Available at:
<https://metropolia.finna.fi/PrimoRecord/pci.cdi_informaworld_taylorfrancisbooks_9780203112755> [Accessed 02 November 2023].

McNiff, J. & Whitehead, J., 2001. *Action Research in Organizations*. New York: Routledge. Available at:
<https://metropolia.finna.fi/PrimoRecord/pci.cdi_informaworld_taylorfrancisbooks_9780203184646> [Accessed 4 November 2023].

Mena, C., 2021. The strategic procurement cycle. In Mena, C., van Hoek and R. Christopher, M., 2021 *Leading Procurement Strategy: Driving Value Through the Supply Chain*. London: Kogan Page, 45-62. Available at:
<https://metropolia.finna.fi/PrimoRecord/pci.cdi_askewsholts_vlebooks_9781398601598?sid=4928715431> [Accessed 15 January 2025].

Meng, J. & Berger, B. K., 2012. Measuring return on investment (ROI) of organizations' internal communication efforts. *Journal of communication management (London, England)*, 16(4), pp. 332-354. Available at:
<https://metropolia.finna.fi/PrimoRecord/pci.cdi_proquest_journals_1125427802?sid=3464045251> [Accessed 21 November 2023].

National Audit Office. 2016. *Good practice contract management framework*. Available at: <https://www.nao.org.uk/wp-content/uploads/2016/12/Good_practice_contract_management_framework.pdf> [Accessed 06 November 2024].

Nunes, M. B. & McPherson, M. 2003. An Action Research Model for the Management of Change in Continuing Professional Distance Education. *Innovations in teaching and learning in information and computer sciences*, 2(1), pp. 1-6. Available at:

<https://metropolia.finna.fi/PrimoRecord/pci.cdi_crossref_primary_10_11120_itai_2003_02010003?sid=4767576371> [Accessed 05 July 2024].

Nunes, M., Bagnjuk, J., Abreu, A., Cardoso, E., Smith, J. & Saraiva, C., 2022. Creating Actionable and Insightful Knowledge Applying Graph-Centrality Metrics to Measure Project Collaborative Performance. *Sustainability*, 14(8), p. 4592.

Available at:

<https://metropolia.finna.fi/PrimoRecord/pci.cdi_proquest_journals_2653031384?sid=4993863560> [Accessed 17 November 2023].

Rendon, R. G., 2015. Benchmarking contract management process maturity: A case study of the US Navy. *Benchmarking: an international journal*, 22(7), pp. 1481-1508. Available at:

<https://metropolia.finna.fi/PrimoRecord/pci.cdi_proquest_journals_1716903571?sid=3198689946> [Accessed 15 October 2023].

Rose, S., Spinks, N. & Canhoto, A. I. 2024. *Management Research: Applying the Principles of Business Research Methods*. Routledge. Available at:

<https://metropolia.finna.fi/PrimoRecord/pci.cdi_informaworld_taylorfrancisbooks_10_4324_9781003381006_version2?sid=4798504328> [Accessed 07 January 2025].

Sammons, P., 2017. *Contract Management: Core Business Competence*.

Kogan Page. Available at: <<https://www.koganpage.com/logistics-supplychain-operations/contract-management-9780749480646>> [Accessed 29 December 2024].

Smith, J. L., 2017. Solving problems effectively: Resolving root cause is as fundamental as ABC. *Quality (Wheaton)*, vol. 56, no. 2, p. 16. Available at

<https://metropolia.finna.fi/PrimoRecord/pci.cdi_gale_infotraccademiconefile_A491459742> [Accessed 05 November 2023].

Sorsa, K., & Salmi-Tolonen, T., 2011. 6.4 Contract management maturity. In Sorsa, K. 2021. *Proactive management and proactive business law: a*

handbook. pp. 263-269. Turku: Turku University of Applied Sciences. Available at:
<<https://www.theseus.fi/bitstream/handle/10024/821180/isbn9789522162458.pdf?sequence=2#page=256>> [Accessed 31 January 2025]

Suárez-Barraza, M. F. & Rodríguez-González, F. G., 2019. Cornerstone root causes through the analysis of the Ishikawa diagram, is it possible to find them?. *International journal of quality and service sciences*, vol. 11, no. 2, pp. 302-316. Available at:
<https://metropolia.finna.fi/PrimoRecord/pci.cdi_emerald_primary_10_1108_IJQSS-12-2017-0113> [Accessed 06 November 2023].

Schuhmann, R. & Eichhorn, B. 2019. *Contractual Management: Managing Through Contracts*. Available at:
<https://metropolia.finna.fi/PrimoRecord/pci.cdi_skillsoft_books24x7_bkb000154934?sid=4727609586> [Accessed 05 June 2024]

State Government of Victoria, Department of Government Services, 2012. *Contract management planning strategy – goods and services procurement guide*. Available at:
<<https://www.buyingfor.vic.gov.au/contract-management-planning-strategy-goods-and-services-procurement-guide-0>> [Accessed 06 November 2024].

State Government of Victoria, Department of Government Services, 2018. *Procurement strategy template*. Available at:
<<https://www.buyingfor.vic.gov.au/contract-management-planning-strategy-goods-and-services-procurement-guide-0>> [Accessed 06 November 2024].

State of Texas, 2023. *Procurement and contract management guide*. Available at: <<https://comptroller.texas.gov/purchasing/publications/procurement-contract.php>> [Accessed 06 November 2023].

Touboulic, A. & Walker, H. 2016. A relational, transformative and engaged approach to sustainable supply chain management: The potential of action

research. *Human relations* (New York), 69(2), pp. 301-343. Available at:
https://metropolia.finna.fi/PrimoRecord/pci.cdi_unpaywall_primary_10_1177_0018726715583364?sid=4767941324 [Accessed 04 July 2023].

Uher, T. & Davenport, P, 2002. *Fundamentals of Building Contract Management*. Sydney: NewSouth Publishing. Available at :
https://metropolia.finna.fi/PrimoRecord/pci.cdi_proquest_ebookcentral_EBC533791?sid=4924462233 [Accessed 5 January 2025].

United Nations, Joint Inspection Unit, 2014. *Contract management and administration in the United Nations system*. Available at:
https://www.unjiu.org/sites/www.unjiu.org/files/jiu_document_files/products/en/reports-notes/JIU%20Products/JIU_REP_2014_9_English.pdf [Accessed 15 October 2023].

Van Weele, A. & Van Der Puil, J. *International Contracting: Contract Management in Complex Construction Projects*, World Scientific Publishing Company, 2013. *ProQuest Ebook Central*. Available at:
<https://ebookcentral.proquest.com/lib/metropolia-ebooks/detail.action?docID=1561225> [Accessed 05 June 2024]

Winiewska, D. 2011. Mixed Methods and Action Research: Similar or different? *Glottodidactica (Poznań)*, 37, pp. 59-72. Available at:
https://metropolia.finna.fi/PrimoRecord/pci.cdi_proquest_miscellaneous_1417555564?sid=4993850066 [Accessed 15 January 2024]

World Bank, 2017. *Contract Management General Principles*. Available at:
<https://thedocs.worldbank.org/en/doc/531561507743080555-0290022017/original/ContractManagementGuidance2017.pdf> [Accessed 07 October 2023].

World Bank, 2018. *Procurement Contract Management Guidance*. Available at:
<https://thedocs.worldbank.org/en/doc/277011537214902995->

0290022018/Procurement-Contract-Management-Guidance> [Accessed 07 October 2023].

Zuber-Skerritt, O. & Fletcher, M. 2007. The quality of an action research thesis in the social sciences. *Quality assurance in education*, 15(4), pp. 413-436. doi:10.1108/09684880710829983. Available at: <https://metropolia.finna.fi/PrimoRecord/pci.cdi_proquest_miscellaneous_31027671?sid=4769793839> [Accessed 20 June 2024]

Appendices

Questionnaire A: Contract management and the current working methods

You are invited to participate in this survey on your organization's current working methods in service contract management. For confidentiality reasons, both participants and the organization are anonymised.

The survey is part of an action research project conducted by Daniel Bernal Pavon as a thesis for the Master's Degree in Procurement at Metropolia University of Applied Sciences (Helsinki, Finland). The expected outcome of the research is to propose improvements in the overall contract management performance. In this context, your professional input will provide meaningful information for the analysis phase.

The thesis is done in a personal capacity and does not represent the views of the student's employer or the institution(s) under analysis.

Participation and confidentiality: Participation in the research study is completely voluntary and anonymous. Your name, IP address or any information that might personally identify you will not be shared. You maintain the right to withdraw from the survey at any stage up to the moment of data submission. Then, your replies will be collated with other participants' replies and can no longer be retracted.

Thank you for your participation!
Daniel Bernal Pavon

Please do not hesitate to contact me should you have questions about the research at daniel.bernalpavon@metropolia.fi.

1. By giving my consent to participate, I agree and confirm that:

- I have read and understood the purpose of the information stated above.
- I am participating in the study voluntarily.

Yes, I consent.

No, I do not consent.

Section A: Contract management system

2. How long have you been using our contract management system?

- a) More than two years.
- b) Between one and two years.
- c) Less than one year.
- d) Less than six months.
- e) I have never used it.

3. How often do you use the contract management system in your daily work?

- a) Very frequently (almost every day).
- b) Frequently (between three and twice a week).
- c) Occasionally (once a week).
- d) Rarely (every other week).
- e) Never.

4. Overall, the contract management system responds to my needs as a Project Manager to manage my portfolio of service contracts.

- a) Strongly disagree.
- b) Disagree.
- c) Agree.
- d) Strongly agree.
- e) Do not know.

5. If any, which is/are the need/s the contract management system does not respond to?

(Maximum 600 characters).

6. How often do you have technical glitches (bugs) in the contract management system?

- a) Very frequently (more than once a week).
- b) Frequently (between one and two weeks).
- c) Occasionally (between two and four weeks).
- d) Rarely (once in more than a month).
- e) Never.

7. How often do you encounter the following difficulties when using the contract management system? *Please mark with an "X" in the appropriate column.*

Type of difficulties in The contract management system / Frequency	Most of the time	Some of the time	Seldom	Never
1) Adding the financial information into the system (e.g. financing source, cost center, PR code, etc.).				
2) Drafting receipts: selecting the correct purchase order (PO), inserting the relevant PO line and editing the milestone's amount (if necessary).				
3) Updating the expected delivery dates of the contractual deliverables, including the milestones.				
4) Starting the validation process of a milestone.				
5) Getting a milestone validated by the list of approvers.				

8. If you want to add any difficulty not listed in question 8), please describe it and precise its frequency here:

(Maximum 600 characters).

9. Do you think the contract management system is useful to monitor and manage the implementation of your portfolio of service contracts?

- a) Strongly disagree.
- b) Disagree.
- c) Agree.
- d) Strongly agree.
- e) Do not know.

10. Please explain the reasons of your answer to the previous question.

(Maximum 600 characters).

11. If any, what improvement would you make to the contract management system to ease your work as Project Manager?

(Maximum 600 characters).

12. If during the implementation of a contract you know that a given deliverable or milestone will be submitted later than expected, how do you react?

- a) I do not change the initial expected delivery in the contract management system as it is according to the contractual terms.
- b) I update the expected delivery date to the new intended date in the Deliverables Section of the contract management system. If applicable, I contact the Procurement Unit to request a time extension (an amendment).
- c) I request my teams's assistants to update the expected delivery date.
- d) I change the expected delivery date only if an amendment to the contract has been signed.
- e) None of the above.

13. Do you know where to find the following?

Functional aspects / Level of awareness	Yes	No	Maybe
a) Guidance material on the contract management system.			
b) Support Team on the contract management system.			
c) Outsourcing guide for Project Managers.			

14. Based on your own experience, do you think the Project Manager role should be offered more training in the contract management system?

- a) Yes, more training should be beneficial for all Project Managers.
- b) Yes, but the offer should be only for less experienced and newcomers performing the role of Project Manager.
- c) No. The training received so far and the existing support personnel and material cover such a need.
- d) No. There is no reason for training.

15. As an IT solution, the contract management system is intended to allow all internal stakeholders² keep track of contracts to operate proactively. In general, what is your perception of the level of awareness among the Project Managers of the following aspects? *Please mark with an "X" in the appropriate column.*

Functional aspects / Level of awareness	Low	Medium	High
a) Budget implications.			
b) Data quality and reporting.			
c) Lifecycle monitoring.			
d) Visibility and transparency.			
e) Compliance and auditing.			
f) Auditing.			

Section B: Cooperation and communication between Project Managers and the Contract Management Unit

16. How do you describe your work cooperation with the Contract Management Unit?

- a) Very good.
- b) Good.
- c) Acceptable.
- d) Poor.
- e) Very poor.

² The main stakeholders are Head of Teams and Units, Reporting Teams, Project Managers, Budget Management Unit, Contract Management Unit, Internal Control and Audit Department, among others.

17. Please mark the best choice in the following elements of collaboration with the Contract Management Unit based on your own experience:

(Insert X in the relevant box per aspect:

1. Very dissatisfied. 2. Moderately dissatisfied. 3. Slightly dissatisfied. 4. Neutral. 5. Slightly satisfied. 6. Moderately satisfied. 7. Very satisfied).

Collaboration aspects	1	2	3	4	5	6	7
a) Number of emails received from the Contract Management Unit.							
b) Responsiveness to the Project Manager's demands sent via emails, messages, and calls.							
c) Clarity of the messages received about budget (purchase orders, change orders, receipts, etc).							
d) Clarity of the messages received about contractual terms (invoicing, end date, eventual addendum, etc.).							
e) Clarity of the messages received about the contract management system updates.							
f) Convenience of the messages received about the contract management system updates.							
g) Effectiveness in raising requisitions to create purchase orders (contract budget envelope) and change orders.							
h) Effectiveness in processing invoices.							
i) Effectiveness in providing certificates of contract completion and implementation.							

18. How do you value the existing communication flow between Project Managers and the Contract Management Unit?

- a) Very good.
- b) Acceptable.
- c) Poor.
- d) Very poor.

19. Which types of communication methods do you think would improve contract compliance, if any? *Please select your choice(s).*

- a) Periodical group meetings between Project Managers of the same Division and the Contract Management Unit.
- b) Periodical meetings between each individual Project Manager and the Contract Management Unit.
- c) Appointing assistants as focal point per Division to coordinate and centralise the information flow to support Project Managers.
- d) Using more short calls to reduce the number of emails.
- e) None of the above.

20. If any, which is/are other method/s of communication that could improve communication and/or cooperation between Project Managers and the Contract Management Unit? (*Optional reply*).

(Maximum 600 characters).

Section C: Contract and budget management

21. Once a contract is signed, the Project Manager recognizes the budget available for the execution of the contract over its duration. How do you consider your level of knowledge about budget aspects?

- a) Very high.
- b) High.
- c) Moderate.
- d) Low.
- e) Very low.

22. In the frame of a contract, is it clear for you when a purchase order must be created?

- a) Yes, always.
- b) Yes, almost always.
- c) No, only in some cases.
- d) No, it is never clear.

23. Is the difference between requisition and purchase order clear for you?

- a) Yes.
- b) Yes. There is no difference between them.
- c) No.

24. In our case, does the approval of a requisition automatically imply the payment of an invoice?

- a) Yes.
- b) Sometimes.
- c) No.

25. Do you think the purchasing process *requisition>purchase order>milestone validation>receipt>invoice payment* is known by most of Project Managers?

- a) Strongly disagree.
- b) Disagree.
- c) Agree.
- d) Strongly agree.
- e) Do not know.

26. The service provider for a time and materials contract submits invoices accompanied with timesheets. In general, how confident do you find yourself when reviewing and approving timesheets?

- a) Confident. I know what the essential elements to verify are.
- b) Somewhat confident. I know almost all the essential elements.
- c) Slightly confident. I know I may overlook some elements to check.
- d) Not at all confident. I do not know if I review timesheets properly.

27. Do you think the Project Manager role should receive more training in basic budget aspects?

- a) Yes, more training should be beneficial for all Project Managers.
- b) Yes, but the offer should be only for less experienced and newcomers performing the role of Project Manager.
- c) No. The training received so far and the existing support personnel and material cover such a need.
- d) No. There is no reason for training.

Section D: Contract implementation and modifications

28. In general, are the contract management roles, responsibilities and accountabilities clearly defined and understood among all the members of the Advisory Team (project manager, sector contract, contract manager, etc.)?

- a) Strongly agree.
- b) Agree.
- c) Neutral.
- d) Disagree.
- e) Strongly disagree.

29. Overall, do you think contract implementation activities have sufficient human resources?

- a) Strongly agree.
- b) Agree.
- c) Neutral.
- d) Disagree.
- e) Strongly disagree.

30. During the implementation of a contract, it could be necessary to modify some aspects according to the procurement procedures and regulations (e.g., extension in time, additional activities, etc.). In general, how do you consider the current process to amend a contract?

- a) Very good. The process to complete a contract amendment is streamlined and its steps are clear.
- b) Good. The process is well understood and provides expected contract modifications in a reasonable timeframe.
- c) Acceptable. The process to modify a contract works but could be improved.
- d) Poor. The process is not effective.
- e) None of the above.

31. If you selected e) in the previous question, please explain how you consider the current process to amend a contract.

(Maximum 600 characters).

32. Do you think the Project Manager role should be offered a training session on when and how a contract can be modified, the aspects subject to modification and the formalities to complete?

- a) Yes, but the offer should be only for less experienced and newcomers performing the role of Project Manager.
- b) No. The training received so far and the existing support personnel and material cover such a need.
- c) No. There is no reason for training.

33. When a service contract is signed and transferred to you to start the assignment implementation, how do find the structure and the wording to interpret and follow-up on the contract implementation?

0	1	2	3	4	5	6	7	8	9	10
Extremely easy					Extremely difficult					

34. Based on your own experience, what are the main challenges during the implementation of a service contract?

(Maximum 600 characters).

35. In general, what is your level of satisfaction with your role as Project Manager?

- a) Very satisfied.
 - b) Satisfied.
 - c) Neutral.
 - d) Dissatisfied.
 - e) Very dissatisfied.
-

Questionnaire B: Contract management and working methods

Procurement and contract management practitioners from other organizations

You are invited to participate in this survey on your organization's working methods in service contract management.

The survey is part of an action research project conducted by Daniel Bernal Pavon as a thesis for the Master's Degree in Procurement at Metropolia University of Applied Sciences (Helsinki, Finland). The expected outcome of the research is to find out and propose improvements in the overall contract management performance. In this context, your professional input will provide meaningful information for the analysis phase.

The thesis is done in a personal capacity and does not represent the views of the student's employer or the institution(s) under analysis.

Participation and confidentiality: Participation in the research study is completely voluntary and anonymous. Your name, IP address or any information that might personally identify you will not be shared. You maintain the right to withdraw from the survey at any stage up to the moment of data submission. Then, your replies will be collated with other participants' replies and can no longer be retracted.

Thank you for your participation!
Daniel Bernal Pavon

Please do not hesitate to contact me should you have questions about the research at daniel.bernalpavon@metropolia.fi.

1. By giving my consent to participate, I agree and confirm that:

- I have read and understood the purpose of the information stated above.
- I am participating in the study voluntarily.

Yes, I consent.

No, I do not consent.

2. Please indicate the name of your organization and business unit (e.g. department/division/unit):

(Maximum 200 characters).

Section A: Advisory services and contract management

3. Does your organization procure consultancy or advisory services to undertake or support technical projects and studies?

- a) Yes.
- b) No.

4. If any, which services are the most similar to consulting that your organization procures?

(Maximum 600 characters).

5. Since you selected a) in Q3, which types of consultancy services are frequently procured in your organization (e.g. pre-feasibility studies in transport, project preparation in finance, capacity-building programmes and strategic support for policy making or specific programmes)?

(Maximum 600 characters).

Section B: Team cooperation and communication

5. Could you briefly explain if your role is involved in the technical implementation of contracts, in the administrative management of contracts or both.

(Maximum 600 characters).

6. In your organization, are the roles, responsibilities and accountabilities clearly defined and understood among all the staff involved in contract management (e.g. project manager, sector contract, contract manager, etc.)?

- a) Strongly disagree.
- b) Disagree
- c) Agree.
- d) Strongly agree.
- e) Do not know.

7. Please name the teams and roles involved in procurement and contract management within your organization and briefly describe their functions. For example, identify if there is a distinction between a role leading the technical implementation of contracts and an administrative role performing budget, payment, oversight and compliance and other back-office activities.

(Maximum 600 characters).

8. How is the front-line interaction with service providers?

- a) A single role interacts as the focal point with the service provider for all contractual matters (e.g. technical implementation of the project, deliverables feedback, payments).
- b) Interactions for the technical implementation and payments and other subjects are divided between two or more roles.
- c) Other.

9. Since you selected c) in Q9, could you please indicate how is the front-line interaction with the service providers?

(Maximum 600 characters).

10. Are the professionals in charge of the project implementation and the purchasing process involved in the contract draft during the procurement phase (before the award)?
- a) Yes, both roles are involved.
 - b) Only the professional leading the project implementation is involved.
 - c) Only the professional in charge of the purchasing process is involved.
 - d) No, they are not involved.
 - e) I do not know.
11. In general, how do you describe the work cooperation between the different professionals and/or teams involved in contract management inside your organization?
- a) Very good.
 - b) Good.
 - c) Acceptable.
 - d) Poor.
 - e) Very poor.
12. How is the cooperation between different professionals or teams involved in the following areas of contract management?

Areas	Very good	Good	Acceptable	Poor	Very poor
a) Budget management.					
b) Contract monitoring.					
c) Approvals of deliverables.					
d) Payments.					
e) Contract modifications.					
f) Contract closeout.					

13. Based on your experience, which practices or processes used in your organization could be exported to other organizations to improve team cooperation in the above areas?

(Maximum 600 characters).

14. How do you value the effectiveness of the communication flow between the different roles involved in contract management in your organization?

- a) Very good.
- b) Good.
- c) Acceptable.
- d) Poor.
- e) Very poor.

15. Based on your experience, which types of communication methods effectively used in your organization could be exported to other organizations as best practices to improve contract management performance? For example, recurrent short calls to reduce the number of emails and periodical group meetings.

(Maximum 600 characters).

16. Which types of guidance resources are available in your organization for contract management? *(More than one choice possible).*

- a) Guide or handbook on contract management.
- b) Guide on the IT solution used for contract management.
- c) Video tutorials.
- d) Training.
- e) Workshops or meetings.
- f) Web-based collaborative platform (wiki).

17. Which type of material and tools are used for contract management in your organization? *(More than one choice possible).*

- a) IT Contract management tool (software).

- b) Procure-to-pay software (integration of purchasing and accounts payable processes).
- c) Risk matrix.
- d) Contract monitoring worksheets.
- e) Contract monitoring checklists.
- f) Invoice/payment checklists.
- g) Contract closeout checklist.

Section C: Contract management system

18. If your organization uses a contract management system (IT solution), can you please indicate which activities are integrated into the system? (*More than one choice possible*).

- a) Procurement (from initiation to contract award).
- b) Contract management, including contractual modifications, budget aspects, monitoring (deliverables and payments) and closeout.
- c) Communication (internal exchanges).
- d) None of the above.
- e) My organization does not use that type of tool.

19. If the contract management system of your organization covers activities not mentioned above, please briefly describe them:

(Maximum 600 characters).

20. If your organization uses a contract management system, who is/are in charge of keeping the contract management system up-to-date? For example, if assistants input basic data and officers/seniors set main contractual milestones and complete approvals.

(Maximum 600 characters).

21. Do you think the contract management system used in your organization is efficient to monitor and manage the implementation of contract portfolios?

- a) Strongly disagree.
- b) Disagree.
- c) Agree.
- d) Strongly agree.
- e) My organization does not use that type of tool.

22. As an IT solution, the contract management system is intended to allow all internal stakeholders to keep track of contracts to operate proactively. In general, what is your perception of the level of awareness across professionals updating the system about the following aspects?

Functional aspects / Level of awareness	Low	Medium	High
a) Budget implications.			
b) Data quality and reporting.			
c) Lifecycle monitoring.			
d) Visibility and transparency.			
e) Compliance with regulations.			
f) Auditing.			

23. What are the major challenges presented by the use of an IT solution for contract management? For example, lack of training, system usability, low users' awareness of keeping it updated, etc. (*Skip this question if your organization does not use that type of tool*).

(Maximum 600 characters).

24. Do you remember any action that your organization undertook to solve the challenges mentioned above regarding the use of contract management system? (*More than one answers possible*).

- a) Training.
- b) Service level agreements (SLA) between teams.
- c) Regular meetings.
- d) New guidance material.
- e) New allocation of tasks related to the IT software among staff.
- f) Improvement of the IT tool.
- g) Enhancement of the user support team's capacity.

- h) Specific messages via internal communication.
- i) My organization does not use that type of tool.
- j) Other.

25. If you selected *j) Other* in Q25, which were those activities?

(Maximum 600 characters).

Section D: Contract and budget management

26. Once a contract is signed, who is in charge of reserving the contract budget?

(Maximum 600 characters).

27. How is the process required to book the budget for a contract? For example, when a contract is signed the contract manager requests the operation to a budget officer via email.

(Maximum 600 characters).

28. Based on your experience, do you think purchasing process (eg. requisition>purchase order>milestone validation>receipt>invoice payment) is well known among all professionals involved in contract management?

- a) Strongly disagree.
- b) Disagree.
- c) Agree.
- d) Strongly agree.
- e) Do not know.

29. Based on your experience, which practices do you think are the most effective to optimise the purchasing process?

(Maximum 600 characters).

Section E: Contractual modifications

30. In general, do professionals implementing service contracts in your organization know which aspects of a contract can be modified and when?

- a) Strongly disagree.
- b) Disagree.
- c) Agree.
- d) Strongly agree.
- e) Do not know.

31. On average, how long does a contractual modification take from the internal request until the signature of the amendment?

- a) Less than one week.
- b) Between one and two weeks.
- c) Between two and three weeks.
- d) More than one month.

32. How does your organization monitor that amendments to extend the duration of a contract are prepared in advance the initial contract end date?

(Maximum 600 characters).

33. Based on your experience, would you recommend any best practice to streamline the process of amending contracts?

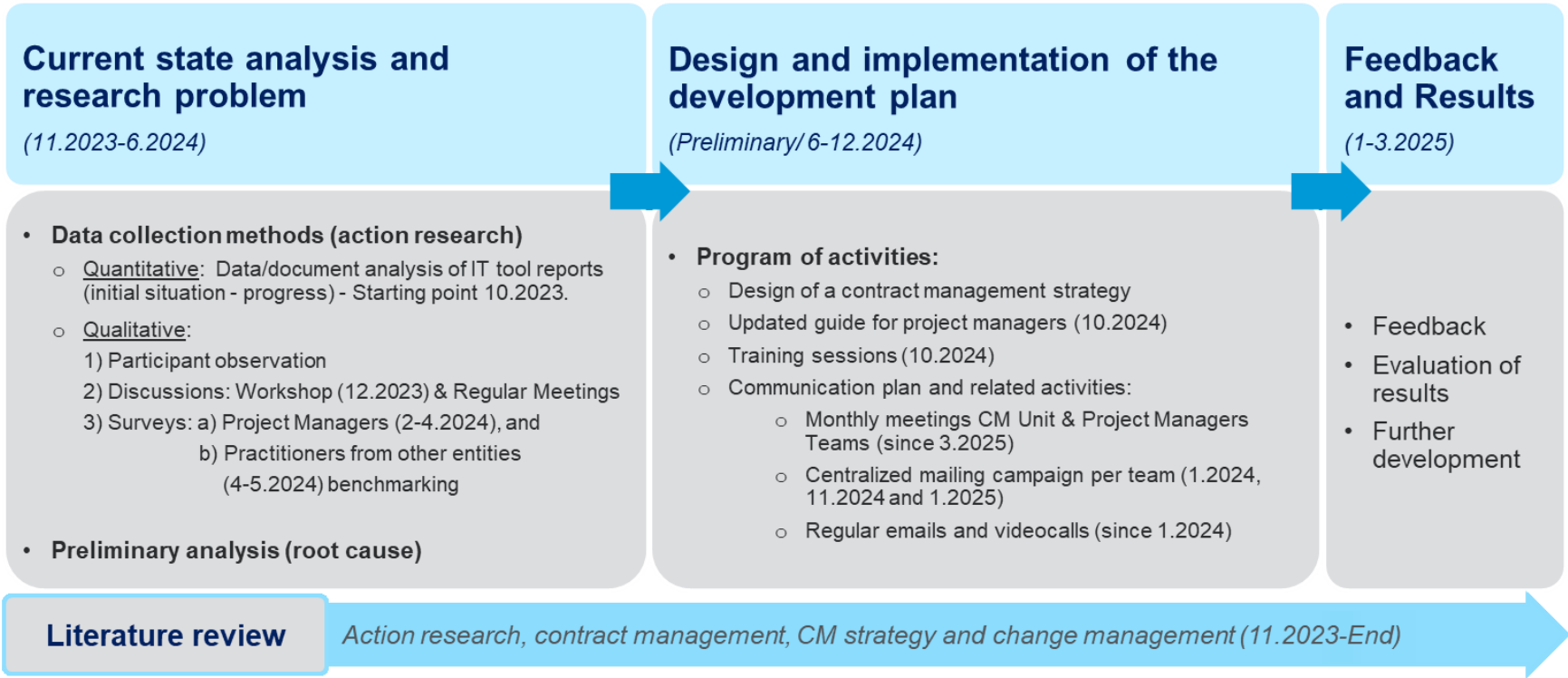
(Maximum 600 characters).

--

34. In general, what is your level of satisfaction with your involvement in contract management?

- a) Very satisfied.
 - b) Satisfied.
 - c) Neutral.
 - d) Dissatisfied.
 - e) Very dissatisfied.
-

Timeframe of the research design and the work development.



[This page is blank]

[This page is blank]