

UNIVERSITETI I EVROPËS JUGLINDORE
УНИВЕРЗИТЕТ НА ЈУГОИСТОЧНА ЕВРОПА
SOUTH EAST EUROPEAN UNIVERSITY



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FACULTY OF BUSINESS AND ECONOMICS

POST GRADUATE STUDIES - SECOND CYCLE

THESIS:

**THE APPLICATION OF PROJECT MANAGEMENT PRINCIPLES
IN THE PROPOSAL MANAGEMENT PROCESS**

CANDIDATE:
Mimoza Musliu

MENTOR:
Assoc. Prof. Gadaf Rexhepi

Tetovo, March, 2019

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Table of Contents

Chapter 1. Introduction	8
1.1 Introduction.....	8
1.2 Significance of the Research	9
1.3 Aim and Objectives of the Research	10
1.3.1 Aim of the Research.....	10
1.3.2 Objectives of the Research	10
1.4 Research Methodology	11
1.5 Summary of Research Achievements.....	12
1.6 Organization of the Thesis	12
1.7 Summary	13
Chapter 2. Research Methodology	15
2.1 Introduction.....	15
2.2 General Approach to Literature Review	15
2.3 Methods of Data collection.....	16
2.4 Types of Research	18
2.4.1 Quantitative Research	18
2.4.2 Qualitative Research.....	18
2.4.3 Combining Quantitative and Qualitative Research	19
2.4.4 Strategy Adopted for this Research	20
2.5 Summary	26
Chapter 3. Literature Review	27
3.1 Introduction.....	27
3.2 The importance of Project Management.....	28
3.3 Project Lifecycle	30
3.3.1 Project Phases.....	30
3.3.2 Project initiation	31
3.3.3 Project planning	31
3.3.4 Project execution	32

3.3.5	Project closure	32
3.4	The components of effective project management	32
3.5	Project Management Practices	33
3.5.1	Most useful Project Management Practices.....	34
3.5.2	.Project Management Improving Initiatives relating to Project Management Processes, Techniques and Tools	35
3.6	Proposal Management Process.....	38
3.6.1	Business Development Lifecycle	39
	The importance of the Business Development End-to-End Process.....	41
	Common Pitfalls and Misconceptions of the Business Development End-to-End Process ..	44
3.6.2	Proposal Planning and Development Phases	44
3.6.2.1	Proposal Planning Phase	44
3.6.2.2	Proposal Development Phase	49
3.7	Application of Project Management Principles to Proposal Management	55
3.7.1	Integrate and align your Business Development and Proposal Management processes	56
3.7.2	Adopt an integrated project lifecycle and make PM products an integral part of your offer document	57
3.7.3	Establish a controlled environment for your BD project(s)	58
3.7.4	Monitor the business case of your BD project.	59
3.7.5	Build lessons learned into your project approach and plans	61
3.7.6	Construct a functional organization for each project based on defined roles and responsibilities.....	62
3.7.7	Empower the project team to manage within defined limits.	63
3.7.8	Focus on deliverables, not activities.....	65
3.7.9	Common Pitfalls and Misconceptions related to the application of Project Management principles to Proposal Management.....	66
3.8	Summary	68
Chapter 4.	Research Results.....	69
4.1	Introduction.....	69
4.2	Case Study Company.....	70
4.2.1	Business Development Lifecycle within Ecolog	73

Accounting Planning and Positioning	73
Opportunity Assessment	73
Opportunity Planning	74
Proposal Planning	74
Proposal Development	74
Negotiation and Post-Submittal Activity	75
Delivery and Ongoing Customer Relationships	75
Proposal Planning Process within Ecolog	76
4.2.2 Proposal Development Process within Ecolog	79
4.3 Questionnaire Response	81
4.3.1 Types of Respondents and Proposals	81
4.3.2 Proposal Management Process	82
4.4 Case Interview Response	100
4.5 Summary	104
Chapter 5. Framework Development	105
5.1 Introduction.....	105
5.2 Development of the Framework.....	105
5.3 Description of the Framework	106
5.4 Mapping the Proposal Management Process	109
5.5 Key Characteristics of the Process Map	109
5.6 Implementing Tools in the Proposal Management Process	112
5.7 Validation of the Framework	113
5.7.1 Evaluation of the Framework	113
5.7.2 Objectives and basis for evaluating the framework	113
5.7.3 Results of the framework validation.....	114
Chapter 6. Conclusion and Recommendation	117
6.1 Introduction.....	117
6.2 Contributions to the Research	118
6.2.1 Proposal Management Process Map	119
6.2.2 Limitations to the current Proposal Management Process and areas for improvement	120

6.3	Limitations and Further Research	121
6.4	Recommendations	121
6.5	Research Benefits.....	122
6.5.1	Direct Benefits.....	122
•	It provides step by step review by the introduction of review gates.....	122
References		123
Appendix A. Questionnaire on approach to Proposal Management Process		130
Appendix B. Framework Validation Questionnaire		135

List of Figures

Figure 1. Flow diagram of research methodology.....	11
Figure 2. The Project Lifecycle. Meredith and Mantel (2009)	30
Figure 3. Characteristics of Project-focused environment	32
Figure 4. The Business Development Lifecycle. Discipline at each of these phases improves win rates and leads to sustainable processes that fuel ongoing success APMP Body of Knowledge (2018)	39
Figure 5. The Business Development Lifecycle, Newman (2013).....	40
Figure 6. Generic End-to-End Process.....	41
Figure 7. Alignment of Portfolio Management with Business Acquisition, APMP Body of Knowledge (2018)	57
Figure 8. Integrated Project Lifecycle, APMP Body of Knowledge (2018).....	58
Figure 9. A Controlled Project Environment, APMP Body of Knowledge (2018)	59
Figure 10. Qualification as a Continuous Process, APMP Body of Knowledge (2018)	60
Figure 11. Project Functional Organization, APMP Body of Knowledge (2018).....	63
Figure 12. Setting Limits and Tolerances, APMP Body of Knowledge (2018).....	64
Figure 13. Basic Tools of Product-Based Planning, APMP Body of Knowledge (2018)	65
Figure 14. Questionnaire Respondent's roles within the Case Study Company	81
Figure 15. Types of Proposals the respondents have been involved	82
Figure 16. Bid/ No bid Decision is distributed in a systemized and timely manner	83
Figure 17. Proposal Team member task definition.....	84
Figure 18. Proposal Major Milestones usefulness	85
Figure 19. Kick off Meeting Productivity.....	85
Figure 20. Compliance Checklist usefulness	86
Figure 21. Site Visit Report usefulness	87

Figure 22. Work Breakdown Structure (WBS) usefulness	87
Figure 23. Proposal Outline responsiveness.....	88
Figure 24. Proposal Input provided on time	89
Figure 25. Benchmarking usefulness	89
Figure 26. Red Review Meeting usefulness	90
Figure 27. Proposal Library usefulness	91
Figure 28. Proposal Management Process Framework	108

List of Tables

Table 1. Comparison between quantitative and qualitative research (Blaxter et al., 2001)	20
Table 2. The 70 Tools identified by Besner and Hobbs (2006) in decreasing order of level of usage	35
Table 3. Major Activities included in the Business Development Phases APMP Body of Knowledge (2018)	42
Table 4. Build lessons learned into the project approach, APMO Body of Knowledge (2018) ...	61
Table 5. Overall response rate (Proposal Management Process Usefulness and Effectiveness). 92	
Table 6. Overall response rate (Limitations to the Proposal Management Process)	94
Table 7. Overall response rate (Aligning Proposal Objectives)	97
Table 8. Overall response rate (Usefulness of Tools)	98
Table 9. Results of the Framework Validation	115

Abstract

In the recent years the society is changing. As heavy industry and resource production decrease, the service sector is growing in importance – and so grows the significance of the proposal development. Proposals have become one of the main tools of modern business. This has been reflected in the Book of Tammemagi (2010), stating that without the ability to develop winning proposals, many companies would cease to operate.

The main incentives for the study have been the potential implications of the study to streamlining and improving the proposal management process, the combination of various dynamic study disciplines, and the novelty of the subject. In addition, despite the importance of a structured Proposal Management process, the topic has been subject to little examination and attention in research.

The primary aim of the research is to develop a framework for improving the Proposal Management Process and act as a comprehensive tool to help solve problems that occur during the proposal stage. This could be achieved by developing a structured proposal management process and providing a mechanism and tools to guide this process.

In order to achieve the aim, the research focuses mainly on the following objectives:

- Provide a clear understanding on the current Proposal Management Processes;
- Determine the key activities performed and the key issues involved;
- Examine how the Project Management principles are applied in the Proposal Management Process;
- Identify the Project Management tools that are utilized in the proposal management process;
- Identify the factors that inhibit winning proposals;
- Define the role of Proposal Management Process in ensuring project success;
- Define the alignment of corporate organization and its contribution in the proposal management process;
- Develop a framework for improving the Proposal Management Process.

The uniqueness of this study is the empirical study on the proposal management process that is currently being implemented at the Case study Company - Ecolog International to identify the following points, but not limited to:

- Implications or pitfalls in the proposal management process;
- Strengths and weaknesses in the proposal management process;
- The tools, methodologies and principles used in the proposal management process;
- The development of a framework/ model;
- Define whether the same framework can be applied to other companies, industries or sectors.

The thesis presents a framework for improving the Proposal Management Process. The methodology adopted to conduct the research involved a comprehensive literature review. Critical Proposal Management process functions have been presented and tested through the questionnaire survey and case interviews to determine how the Proposal Management Process was performed within the Case study company. The Framework was validated and found to be useful and applicable by the Proposal Team members of the Case study company through questionnaire interview.

The main achievements of the research are:

- The development of a structured Proposal Management Process Map that could assist the clients better conduct Proposal Management activities;
- The identification of Project Management tools that can be implemented in the Proposal Management Process to overcome issues and increase the effectiveness;
- The identification of how the Project Management principles are applied in the Proposal Management Process;
- The identification of tools to guide and solve problems that occur during the Proposal Management Process;
- The Identification of factors that inhibit winning proposals and ensuring project success.

Chapter 1. Introduction

1.1 Introduction

This chapter introduces the research reported in this thesis and describes the background, aim, objectives, methodology, and significance of the research. It also presents a summary of findings of the research and organization of the thesis.

Society is changing. As heavy industry and resource production decrease, the service sector is growing in importance — and so grows the significance of the proposal. Virtually all parts of the service sector use the formal, competitive proposal as the means of soliciting and offering work. Proposals have become one of the main tools of modern business. A proposal is both a sales presentation and a marketing tool.

Without the ability to write winning proposals, many companies would cease to operate Tammemagi (2010). The proposal management process can vary from company to company, but the guidelines and methodology behind the development of proposals are based upon a universally-agreed best practice model.

The main incentives for the study have been the potential implications of the study to streamlining and improving the proposal management process, the combination of various dynamic study disciplines, and the novelty of the subject. In addition, despite the importance of a structured Proposal Management process, the topic has been subject to little examination and attention in research.

This research emphasizes the importance of Proposal management and stresses that improved proposal management process should lead to winning projects and achievement of the project objectives. The research examines the proposal management process and the activities associated with it. A framework for improving proposal management process will be developed.

1.2 Significance of the Research

This research is based on secondary research methods and an empirical study within Ecolog International, which is an International Company that operates in the Supply Chain, Construction, Technology, Facility Management and Environmental services Industry. The company employs more than 12,000 employees and provides turnkey and customized solutions to governments and defense, humanitarian organization and commercial clients in the sectors of Oil & Gas, Mining, Energy and Infrastructure projects in numerous locations worldwide.

Ecolog International have established the PSC (Proposal Solution Center) to improve the efficiency of the proposal and proposal activity by following a unified approach, established methods, processes and tools necessary to win business. The unique characteristics for the PSC is that for each service group a tailored framework and business process is followed. Therefore, this company was selected to serve as a benchmark for conducting empirical studies that will contribute in the observation of practical implementation of the theoretical and industry-best practice models of the proposal management process.

The uniqueness of this study is the empirical study on the proposal management process that is currently being implemented at Ecolog International to identify the following points, but not limited to:

- Implications or pitfalls in the proposal management process
- Strengths and weaknesses in the proposal management process
- The tools, methodologies and principles used in the proposal management process
- The development of a framework/ model
- Define whether the same framework can be applied to other companies, industries or sectors

The core aim of the thesis is to contribute in the existing literature in the field of Proposal Management Process. The scope of the thesis includes a broad range of Proposal Management techniques and processes in place required to manage an end-to-end Proposal development. The sections outlined in the Literature Review describe the Proposal Management Process from the market analysis through the stages of submission as well as outlining the procedures to assist in the continuous improvement of the bid quality.

Much of the material will be relevant to private enterprises in the service industry that are engaged in preparing bids with the aim of getting new business or contracts. The techniques described in this thesis are within the reach of everyone, whether firms or consultants.

1.3 Aim and Objectives of the Research

1.3.1 Aim of the Research

The primary aim of the research is to develop a framework for improving the Proposal Management Process and act as a comprehensive tool to help solve problems that occur during the proposal stage. This could be achieved by developing a structured proposal management process and providing a mechanism and tools to guide this process.

1.3.2 Objectives of the Research

This framework is a way to improve the relationship of proposal management team to a more cooperative team relationship through a structured process and tools that facilitate communication between proposal participants and improves the interface to other departments involved in the proposal development. In order to achieve the aim, the research focuses mainly on the following objectives:

- Provide a clear understanding on the current Proposal Management Processes;
- Determine the key activities performed and the key issues involved;
- Examine how the Project Management principles are applied in the Proposal Management Process;
- Identify the Project Management tools that are utilized in the proposal management process;
- Identify the factors that inhibit winning proposals;
- Define the role of Proposal Management Process in ensuring project success;
- Define the alignment of corporate organization and its contribution in the proposal management process;
- Develop a framework for improving the Proposal Management Process.

1.4 Research Methodology

To meet the requirements of the objectives, the research methodology proceeded as follows:

- comprehensive literature review;
- questionnaire survey;
- interviews;
- framework development and validation.

The research methodology utilized in this thesis is discussed in further detail in Chapter Two. Research Methodology. The figure provided below illustrates the Flow diagram of research methodology.

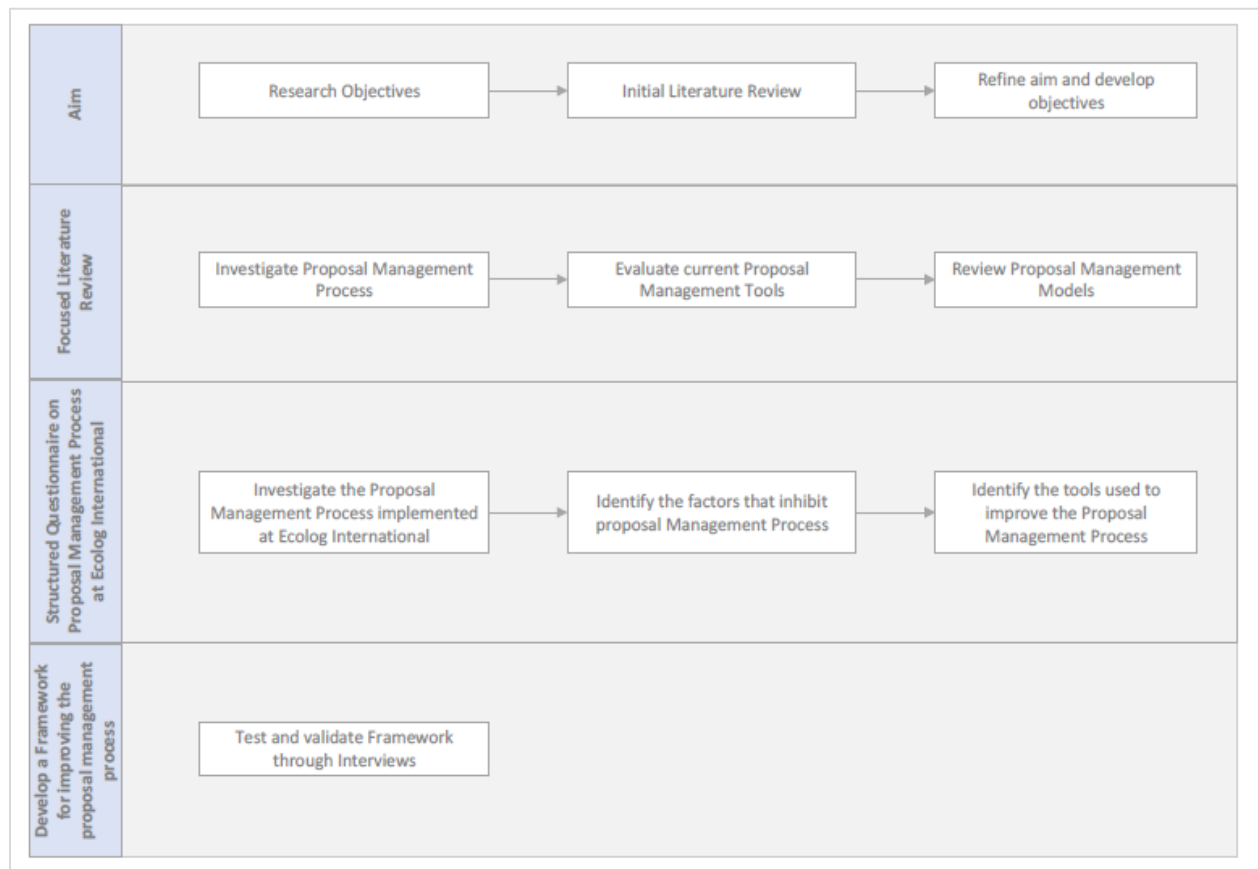


Figure 1. Flow diagram of research methodology

1.5 Summary of Research Achievements

This research has identified the need to pay more attention to improve the Proposal Management process in order to promote improvement in the performance and achieve client satisfaction. The main achievements of this research include the following:

- The development of a structured Proposal Management Process Map that could assist the clients better conduct Proposal Management activities;
- The identification of Project Management tools that can be implemented in the Proposal Management Process to overcome issues and increase the effectiveness;
- The identification of how the Project Management principles are applied in the Proposal Management Process;
- The identification of tools to guide and solve problems that occur during the Proposal Management Process;
- The Identification of factors that inhibit winning proposals and ensuring project success.

1.6 Organization of the Thesis

In order to report the research activities undertaken to deliver the objective of the research a structure is developed for the thesis. The thesis is organized into six (6) chapters. Summaries of these chapters are provided below.

Chapter One: Introduction - This chapter describes the background, aim, objectives, methodology, and significance of the research. It also presents a summary of findings of the research and organization of the thesis.

Chapter Two: Research Methodology - This chapter discusses the general approach to the literature review and presents an overview of the main research methods available. Indeed, it describes the process of carrying out the research and framework development in order to achieve the project aim and its objectives in addition to the case study approach adopted in the research.

Chapter Three: Literature Review - This chapter highlights the general Project Management Principles, factors that contribute on the project performance, general risks associated, benchmarking and value management. It explores the proposal management process in terms of its definition and significance. It addresses the key process issues and best practices associated with this very important process as well as investigating the existing models that have been developed. In addition, this chapter focuses on the proposal win strategy, contract

strategy, corporate organization, alignment and other steps in the proposal stage that lead to winning proposals and improving project performance.

Chapter Four: Research Results - This chapter begins with an introduction of the Company on which the Case Study is based on. It presents the analysis and discussion of the data that have been collected from the questionnaire survey and case interviews and presents the qualitative data that have been elicited and discusses the documents that have been provided by the company.

Chapter Five: Framework Development and Validation - This chapter introduces the framework that has been developed based on the review of literature and the data collected from the questionnaire. The chapter provides full description of how the framework works and how the tools are implemented to improve the proposal management process. The chapter also presents analysis and discussion of the data that have been collected for validating the framework.

Chapter Six: Conclusion and Recommendations - This chapter presents the conclusion derived from the research and the recommendations for further study in this area.

Appendices - consist of additional information relevant to this research. This includes questionnaire, data outputs, and a list of papers that resulted from this research. Appendixes included at the back of the thesis include:

Appendix A. Questionnaire on approach to Proposal Management Process

Appendix B. Framework Validation Questionnaire

1.7 Summary

This chapter provided an introduction of the research. Significance and justification of undertaking this research is further given and layout of the thesis structure outlining the content of the chapters and how they relate to each other.

Despite the importance of a structured Proposal Management process, the topic has been subject to little examination and attention in research. There have few attempts to improve this important process and few models have been developed. However, these models lack the tools to facilitate communication and deal with the problems that occur during the proposal management process. The development of a framework for improving the proposal management process is aimed to act as a comprehensive tool to help solve problems that occur

during the proposal stage. This could be achieved by developing a structured proposal management process and providing a mechanism and tools to guide this process.

Chapter 2. Research Methodology

2.1 Introduction

This chapter discusses the general approach to the literature review and presents an overview of the main research methods available. Indeed, it describes the process of carrying out the research and framework development in order to achieve the project aim and its objectives in addition to the case study approach adopted in the research.

The chapter is divided into four sections. The first section examines the general approach to literature review concerning the subject of interest. The second section provides an overview of the different research methodologies available for collecting data. The third section describes the specific methodology applied in this research. The final section examines the theory behind developing the framework and the approach used for its validation.

2.2 General Approach to Literature Review

The review of literature has helped to build up a theoretical background of the research and provide a foundation for addressing the research problems and objectives. The literature has also helped in establishing the foundation of the research in providing the background required to carry out the work throughout this thesis. In addition, has aided in developing a complete picture of the best industry practices with regard to Proposal Management Process and establishing a framework for the research questions and methodology.

A comprehensive literature review covering various related areas to the subject of interest was undertaken, namely:

- Importance of Project Management;
- Project Characteristics;
- The components of effective Project Management;
- Project Management Practices;
- Review of Project Management Tools;
- Business Development Lifecycle;
- Proposal Management Process;
- The Nature of Proposal Management;

- The Significance of Proposal Management;
- Proposal Management and Project Success;
- Key Activities in the Proposal Management Process;
- The need for an improved Proposal Management Process;
- Key Issues of Proposal Management;
- Proposal Management Process Model;
- Application of Project Management Principles to Proposal Management.

Although there is a profusion of literature available on the importance of proposal management and development, there is very little in which concentrated on the process aspect. Much of the literature seemed to focus on the functional side and little attention was directed toward improving the proposal management process which can lead to winning projects and achievement of project objectives.

Also, few attempts have been made to model proposal management process, apart from the APMP work which has been discussed in detail in Chapter 3 along with other models.

2.3 Methods of Data collection

Most research is a process of enquiry or examination designed to prove or disprove information. Research methodology is a crucial aspect of any research and it follows that the success of research relies heavily on the right choice of research method. The inappropriate selection of research method can lead to severe consequences on the outcome of the research and invalidate the results.

An overview of the available research strategies is first presented before discussion on the specific methodology adopted for this research.

The following section will review the different methods of data collection and highlight their weakness and strengths in order determine the most appropriate research method that helps the objectives set for this research to be achieved and research questions answered.

As stipulated within Chapter One. Introduction, this study aims to answer the following key Research Questions:

- Which are the key activities and key issues involved in the Proposal Management Process?

- How the Project Management Principles are applied in the Proposal Management Process?
- Which factors inhibit winning proposals?
- What is the role of Proposal Management Process in ensuring project success?
- How the developed framework can contribute to an improved Proposal Management Process?

The research questions directs the research to investigate the key issues involved in the proposal management process and study the application of Project Management principles in the Proposal Management Process to develop Proposals that Win and Projects that succeed. These subjects have been comprehensively discussed in the literature review in Chapter Three. Literature Review.

Research has its special significance in solving various operational and planning problems of business and industry Jahoda & Selltiz (1977). A variety of data collection techniques are available and each has been designed to elicit different types of information. Literature concerning data collection methods imply that there are several ways of collecting data. Kothari (2014) implies that primary data can be collected wither through experiment of through survey. In case of a survey, data can be collected by any one or more of the following ways Kothari (2014):

- **By observation:** This method implies the collection of information by way of investigator's own observation, without interviewing the respondents.
- **Through personal interview:** The investigator follows a rigid procedure and seeks answers to a set of pre-conceived questions through personal interviews. This method of collecting data is usually carried out in a structured way where output depends upon the ability of the interviewer to a large extent.
- **Through telephone interviews:** This method of collecting information involves contacting the respondents on telephone itself.
- **By mailing of questionnaires:** The researcher and the respondents do come in contact with each other if this method of survey is adopted. Questionnaires are mailed to the respondents with a request to return after completing the same.
- **Through schedules:** Under this method the enumerators are appointed and given training. They are provided with schedules containing relevant questions. These enumerators go to respondents with these schedules. Data are collected by filling up the schedules by enumerators on the basis of replies given by respondents.

The specific methodology adopted for collecting data for this research is survey. The following section will present discussion on types of research involved in social science, which includes quantitative and qualitative research.

2.4 Types of Research

There are two major methods generally used in questionnaire survey and interviews, they are namely: quantitative and qualitative methods. Qualitative and quantitative research have several advantages and disadvantages, depending upon the researcher's aim and area of focus.

2.4.1 Quantitative Research

Quantitative research is based on the measurement of quantity or amount. It is applicable to phenomena that can be expressed in terms of quantity Kothari (2014).

Advantages

Quantitative research allows the researcher to measure and analyze data. The relationship between an independent and dependent variable is studied in detail. This is advantageous because the researcher is more objective about the findings of the research. Quantitative research can be used to test hypotheses in experiments because of its ability to measure data using statistics Dr. (2018).

Disadvantages

The main disadvantage of quantitative research is the context of the study or experiment is ignored. Quantitative research does not study things in a natural setting or discuss the meaning things have for different people as qualitative research does. Another disadvantage is that a large sample of the population must be studied; the larger the sample of people researched, the more statistically accurate the results will be Dr. (2018).

2.4.2 Qualitative Research

Qualitative research, on the other hand, is concerned with qualitative phenomenon, i.e.,

phenomena relating to or involving quality or kind. This type of research aims at discovering the underlying motives and desires, using in depth interviews for the purpose. Other techniques of such research are word association tests, sentence completion tests, story completion tests and similar other projective techniques. Through such research we can analyse the various factors

which motivate people to behave in a particular manner or which make people like or dislike a particular thing Kothari (2014).

Advantages

Qualitative research is useful during the early stages of a study when the researcher may be unsure of exactly what will be studied or what to focus on. This type of research does not need a strict design plan before it begins. This gives the researcher freedom to let the study unfold more naturally. Another advantage to qualitative research is the researcher gains more detailed and rich data in the form of comprehensive written descriptions or visual evidence, such as photographs. This type of research looks at context and social meaning and how it affects individuals, which is advantageous particularly in the social sciences Dr. (2018).

Disadvantages

The researcher of a study using qualitative research is heavily involved in the process, which gives the researcher a subjective view of the study and its participants. The researcher interprets the research according to his or her own biased view, which skews the data gathered. Another disadvantage is that this research method is very time consuming and can last for months or even years Dr. (2018).

2.4.3 Combining Quantitative and Qualitative Research

Mixed methods involves the collection and mixing or integration of both quantitative and qualitative data in a study Creswell (2014). The basic premise of this methodology is that such integration permits a more complete and synergistic utilization of data than do separate quantitative and qualitative data collection and analysis Wisdom & Creswell (2013).

The table provided on the page overleaf presents a comparison of quantitative and qualitative research Blaxter, Hughes, & Tight (2001).

Table 1. Comparison between quantitative and qualitative research (Blaxter et al., 2001)

<u>The Differences between qualitative and quantitative research</u>	
Qualitative paradigms <ul style="list-style-type: none"> • Concerned with understanding behavior from actors' own frames of reference • Naturalistic and uncontrolled observation • Subjective • Close to the data: the 'insider' perspective • Process oriented • Valid: real, rich, deep data • Ungeneralizable: single case studies • Holistic • Assumes a dynamic reality 	Quantitative paradigms <ul style="list-style-type: none"> • Seeks the facts/ causes of social phenomena • Obtrusive and controlled measurement • Objective • Removed from the data: the 'outsider' perspective • Ungrounded, verification oriented, reductionist, hypethetic-deductive • Outcome oriented • Reliable: hard and replicable data • Generalizable: multiple case studies • Particularistic • Assumes a stable reality
<u>The similarities between qualitative and quantitative research</u>	
<ul style="list-style-type: none"> • While quantitative research may be used mostly for testing theory, it can also be used for exploring an area of generating hypotheses and theory • Similarly, qualitative research can be used for testing hypotheses and theories, even though it is mostly used for theory generation • Qualitative data often includes quantification (e.g, statements such as more than, less than, most, as well as specific numbers). • Quantitative approaches (e.g. large-scale surveys) can collect qualitative (non-numeric) data through open-ended questions. • The underlying philosophical positions are not necessarily as distinct as the stereotypes suggest 	

2.4.4 Strategy Adopted for this Research

During the process of selecting a suitable research method for the research, several methodologies were considered. Selecting the most suitable research method is driven by the intention, research objectives and the type of data needed for the research. To meet the requirements of the objectives defined for this research, the following approach was adopted:

- Comprehensive literature review;
- Questionnaire Survey;
- Interviews;
- Framework Development and Validation

A. Comprehensive literature review

The review of literature would help to build up a theoretical background of the research and provide a foundation for addressing the research problems and objectives. The literature also helps in establishing the foundation of the research in providing the background required to carry out the work throughout this thesis. The literature aims on developing a complete picture of the best industry practices with regard to Proposal Management Process and establishing a framework for the research questions and methodology.

According to Kohari (1990), the researcher must examine all available literature to get himself acquainted with the selected problem. He may review two types of literature—the conceptual literature concerning the concepts and theories, and the empirical literature consisting of studies made earlier which are similar to the one proposed. The basic outcome of this review will be the knowledge as to what data and other materials are available for operational purposes which will enable the researcher to specify his own research problem in a meaningful context. After this the researcher rephrases the problem into analytical or operational terms i.e., to put the problem in as specific terms as possible Kothari (2014).

B. Questionnaire Survey

A questionnaire is a form prepared and distributed to respondents secure responses to certain questions. It is a device for securing answers questions by using a form which the respondent fills by himself. It is a systematic compilation of questions that are submitted to a sample drawn the population from which information is desired. It is an important instrument in normative survey research, being used to gather information from widely scattered sources. The questionnaire procedure normally comes into use where one cannot readily see personally all of the people from whom he desires responses or where there is no particular reason to see them personally Questionnaires: Meaning and Types (n.d.).

Types of Questionnaire

There are diverse forms of questionnaire used in research. These are discussed briefly here.

- **Structured and Non-structured Questionnaires:** The structured questionnaire contains definite, concrete and direct questions, whereas non-structured questionnaire may consist of partially completed questions or statements. A non-structured questionnaire is often used as the interview guide, which is non-directive. The interviewer possesses only a blueprint of the enquiries and he is largely free to arrange the form or statements of the questions. The enquiries framed in a general form beforehand are giving a specific form during the actual process of interview Questionnaires: Meaning and Types (n.d.).
- **Closed Form and Open Form:** The questions that call for short or check responses are known as restricted or closed form type. This provide for making a yes or no, a short response, or checking an item from a list of given responses. It restricts the choice of response for the respondent. He has simply to select a response out of supplied responses and has not to frame his response in his own way. It is easy to fill out, takes less time, keeps the respondent on the subject, is relatively more objective, more acceptable and convenient to the respondent, and is fairly easy to tabulate and analyze.

The open form, open-end or unrestricted type questionnaire calls for a free response in the respondent's own words. The respondent – frames and supplies his own response. No clues are provided. It probably provides for greater depth of response. The subject reveals his mind, gives his frame of reference and possibly the reasons for his responses. This type of item is sometimes difficult to interpret, tabulate and summarize in the research report. When the respondent is allowed freedom of response his expressions may take any unique direction which may not find any uniformity with other responses Questionnaires: Meaning and Types (n.d.).

- **The mixed questionnaire:** The mixed questionnaire consists of both close-end and open-end type questions. For social research, this method is very useful. Many questionnaires include both open and closed type items. Each type has its specific merits and limitations and the research worker has to decide which type is more likely to supply the information he wants Questionnaires: Meaning and Types (n.d.).
- **Fact and Opinion Questionnaires:** Questionnaire are also classified as: (1) Questionnaire of fact, which requires certain information of facts from the respondent without any reference to his opinion or attitude about them, and (2) Questionnaire of opinion and attitude in which the informant's opinion, attitude or preference regarding some phenomena is sought Questionnaires: Meaning and Types (n.d.).
- **Pictorial and Verbal Questionnaires:** In the pictorial questionnaire, pictures are used to promote interest in answering questions. It is used extensively in studies of social attitudes and prejudices in children or illiterate persons. In a pictorial questionnaire, the selected alternative answers in the form of pictures are given and the respondent is required to tick the picture concerned. This questionnaire may be very useful for collecting data in a developing country like India, specially from the rural masses who are mostly illiterate and less knowledgeable. The serious limitation of this questionnaire is that it is lengthy in form. Also it is highly expensive. Verbal questionnaire uses words and numbers only. It is the usual form meant for literate respondents Questionnaires: Meaning and Types (n.d.).

Aims of the Questionnaire

The main aim of the Questionnaire survey was to establish a perspective on the company approach to proposal management process and the tools used to improve it. This relied on the frequency of the phenomenon under observation as an indicator of common behavior. The aims of the Questionnaire was to:

- Define the nature of respondents (their role within the proposal process);
- Gain a clear understanding of the proposal management approach in place within the Company;

- Determine the extent to which the project management principles are utilized in the proposal management process;
- Validate the concepts for developing the framework;
- Validate the concepts and terminology and processes associated with proposal management obtained from the literature review;
- Identify areas of improvements that may have in place a formal structure.

Design of the Questionnaire

An important aspect when designing any questionnaire is to ensure meaningful data required for the analysis. A well designed questionnaire is essential to a successful survey. However, the researcher must develop his/her own intuition with respect to what constitutes 'good design' since there is no theory of questionnaires to guide him/her.

A good questionnaire is one which help directly achieve the research objectives, provides complete and accurate information; is easy for both interviewers and respondents to complete, is so designed as to make sound analysis and interpretation possible and is brief Crawford (1997).

According to Crawford (1997) there are at least nine distinct steps to be followed while designing the questionnaire:

- Decide on the information required;
- Define the target respondents,
- Select the method(s) of reaching the respondents;
- Determine question content;
- Word the questions; sequence the questions;
- Check questionnaire length;
- Pre-test the questionnaire and
- Develop the final questionnaire.

Content of the Questionnaire

The questionnaire essentially included the following information:

- Section One included Personal details of the respondent, the position of the respondent within the company;

- Section Two included questions related to the approach utilised in the Proposal development process;
- Section Three included questions regarding the application of project management principles in the proposal development process;
- Section Four included questions regarding the proposed concept for developing the framework;
- Section Five included questions related to the identification of areas of improvement.

C. Interviews

The second phase of data collection was the use of personal interviews. The decision to use personal interviews is made purely because it is most suitable in collecting comprehensive and detailed information that can not be obtained from the questionnaire alone. The Interviews also provide means for validating the data collected from the questionnaire survey. The interviewees have added significant value and provided detailed information that otherwise would be impossible to be obtained from the questionnaires solely.

Research texts typically highlight three types of interviews used in educational research:

- standardised;
- open-ended;
- semi structured;
- and structured Fontana & Frey (2000), depending on the nature of the event as determined by the researcher who initiates the interview Greeff (2011).

For the purposes of this research, interviews were conducted according to a semi-structured interview schedule, as proposed by Greeff (2011). This specifies predetermined questions and sequences for the interviewer.

Semi structured interviews

Interviews can yield rich material unobtainable in any other way, which can support or be supported by other data from questionnaires and standardized test responses. The interview is wonderfully adaptable and flexible Verma & Mallick (1999).

For this research, the semi-structured interviews were chosen as they allow the flow of information as much as possible and enable in-depth discussions be held freely, which indeed would encourage the interviewee to contribute in his maximum ability.

Aims of the Interviews

The interviews were conducted with the aim to develop an in depth understanding of the attitudes and perceptions of the people involved in the proposal development process. The interviews were mainly focused to achieve the following:

- Provide insight into the company's proposal management process and clarify some aspects of the questionnaire;
- Identify additional information on specific areas of the questionnaire;
- Assist in the development of the framework.

Content of the Interviews

The Interviews essentially included the following types of questions:

- Background information aimed at collecting details over the experience of the interviewee (experience in developing proposals, experience in the industry and similar);
- Proposal Development concept of the organisation;
- Identify the Project Management principles and tools utilised in the proposal development process;
- Limitations of the current process;
- Actions for improvement;
- Define valuable ideas and insights required for the framework development.

D. Framework Development and Validation

Three options were taken into consideration for validating the framework.

The first option considered was to conduct a case study with the Company to compare the framework to its actual processes undertaken in the development of its proposals. To perform this approach, face to face interviews with specialized people was required so that the framework is thoroughly explained in details.

The second option considered was to meet with a group of professionals from the Company who have knowledge concerning the subject to discuss with them the framework. This would include Reviewing and comparing the framework to specific proposals.

The third option considered was to develop structured questionnaires for interviews to evaluate the effectiveness of the framework using a 5 point scale.

The approach that was selected to validate the developed framework was to meet with specialised individuals from the company and demonstrate to them how the framework works. The framework consist of three sections:

- **Section One:** Proposal development process
- **Section Two:** Assessment tools for measuring the utilisation of project management tools in the proposal development process;
- **Section Three:** Assessment tools for measuring the factors that inhibit improvement in the proposal development process.

The Validation of the framework is presented in Chapter Five: Framework Development and Validation.

2.5 Summary

This Chapter has reviewed and presented an overview of the available research methodologies and outlined the research methodology adapted for this research. This chapter has described how the research was undertaken and justified the reasons why such methodologies has been selected.

Combined methods enable a deeper understanding of how the project management principles are implemented within the Proposal development process and help identify the factors that inhibit the improvement of the proposal development process. The Questionnaires were mainly used to verify the findings of the literature review and provided information on the extent to which the company approached the proposal development process. On the other hand, the interviews were utilized to get more detailed insight about the degree of formality behind the proposal development process.

It was decided to use comprehensive literature review, questionnaire survey and semi-structured interviews to elicit information on how project management tools are practiced within the proposal development process by the company.

Chapter 3. Literature Review

3.1 Introduction

This chapter highlights the general Project Management Principles, factors that contribute on the project performance, general risks associated, benchmarking and value management. It explores the proposal management process in terms of its definition and significance. It addresses the key process issues and best practices associated with this very important process as well as investigating the existing models that have been developed. In addition, this chapter focuses on the proposal win strategy, contract strategy, corporate organization, alignment and other steps in the proposal stage that lead to winning proposals and improving project performance.

The review of literature has helped to build up a theoretical background of the research and provide a foundation for addressing the research problems and objectives. The literature has also helped in establishing the foundation of the research in providing the background required to carry out the work throughout this thesis. In addition, has aided in developing a complete picture of the best industry practices with regard to Proposal Management Process and establishing a framework for the research questions and methodology.

A comprehensive literature review covering various related areas to the subject of interest was undertaken, namely:

- Importance of Project Management
- Project Lifecycle
- The components of effective Project Management
- Project Management Practices
- Proposal Management Process
- Application of Project Management Principles to Proposal Management

Although there is a profusion of literature available on the importance of proposal management and development, there is very little in which concentrated on the process aspect. Much of the literature seemed to focus on the functional side and little attention was directed toward improving the proposal management process which can lead to winning projects and achievement of project objectives.

3.2 The importance of Project Management

In order to understand the importance of Project Management, the definition of a project has to be explained first. There is no universal agreement on a single definition of a project. Kerzner (2017) defines the project as any series of activities and tasks that:

- Have a specific objective, with a focus on the creation of business value, to be completed within certain specifications
- Have defined start and end dates
- Have funding limits (if applicable)
- Consume human and nonhuman resources (i.e, money, people, equipment)
- Are multifunctional (i.e, cut across several functional lines)

Westland (2006) implies that projects are different from standard business operational activities as they:

- Are unique in nature. They do not involve repetitive processes. Every project undertaken is different from the last, whereas operational activities often involve undertaking repetitive (identical) processes.
- Have a defined timescale. Projects have a clearly specified start and end date within which the deliverables must be produced to meet a specified customer requirement.
- Have an approved budget. Projects are allocated a level of financial expenditure within which the deliverables are produced, to meet a specified customer requirement.
- Have limited resources. At the start of a project an agreed amount of labor, equipment and materials is allocated to the project.
- Involve an element of risk. Projects entail a level of uncertainty and therefore carry business risk.
- Achieve beneficial change. The purpose of a project is typically to improve an organization through the implementation of business change.

Project Management is an application of knowledge, skills and tools necessary to achieve the project's requirements. The knowledge skills and tools are usually grouped into activities or processes Kerzner (2017). PMI's PMBOK Guide identifies five process groups as shown below:

- Project initiation
- Project planning
- Project execution
- Project monitoring and control

- Project closure

The project management process involves planning the work and then working the plan. Gido, Clements, and Baker (2017).

Project Management is finding dramatically expanding application. More and more organizations are embracing Project Management practice. Kwak and Anbari 2009; Zhai and Chaosheng (2009). Project Management is now the dominant model in many organizations for new product development, strategy implementation, business transformations and continuous improvement. Winter et al. (2006).

The factors that have led to an increase in utilization of Project Management include: competitive pressures (external pressures), increasing projects, greater project complexity, or compliance with international standards or regulatory requirements (Martinsuo, Hensman, Artto, Kujalo, & Jaafari, 2006) and importantly, managerial fads and fashions (Abrahamson, 1991; Abrahamson & Fairchild, 1999).

According to Kerzner (2017) a successful project management is defined as achieving a continuous stream of project objectives within time, within cost, at the desired performance/ technology level, while utilizing the assigned resources effectively and efficiently and having the results accepted by the customer and/or stakeholders.

Kerzner (2017) defines the following potential benefits of an effective project management:

- Clear identification of functional responsibilities to ensure all activities are accounted for, regardless of personnel turnover
- Minimizing the need for continuous reporting
- Identification of time limits for scheduling
- Identification of a methodology for trade-off analysis
- Measurement of accomplishments against plans
- Early identification of problems so that corrective actions may follow
- Improved estimating capability for future planning
- Knowing when objectives cannot be met or will be exceeded

Project-based management brings several benefits to organizations, from a survey questionnaire to 111 Australian companies representing a variety of industries, Martinsuo et al. (2006) conclude that it brings: greater entrepreneurship, more knowledge management and know-how transfer, more client satisfaction, more effective communication, better multi-project coordination, improved project control, greater project transparency, and better project performance.

3.3 Project Lifecycle

Most projects go through similar stages on the path from origin to completion. These stages, shown in Figure 2, are defined as the project's life cycle. The project is born (its start-up phase) and a manager is selected, the project team and initial resources are assembled, and the work program is organized. Then work gets under way and momentum quickly builds. Progress is made. This continues until the end is in sight. But completing the final tasks seems to take an inordinate amount of time, partly because there are often a number of parts that must come together and partly because team members “drag their feet” for various reasons and avoid the final steps.(Meredith & Mantel, 2009).

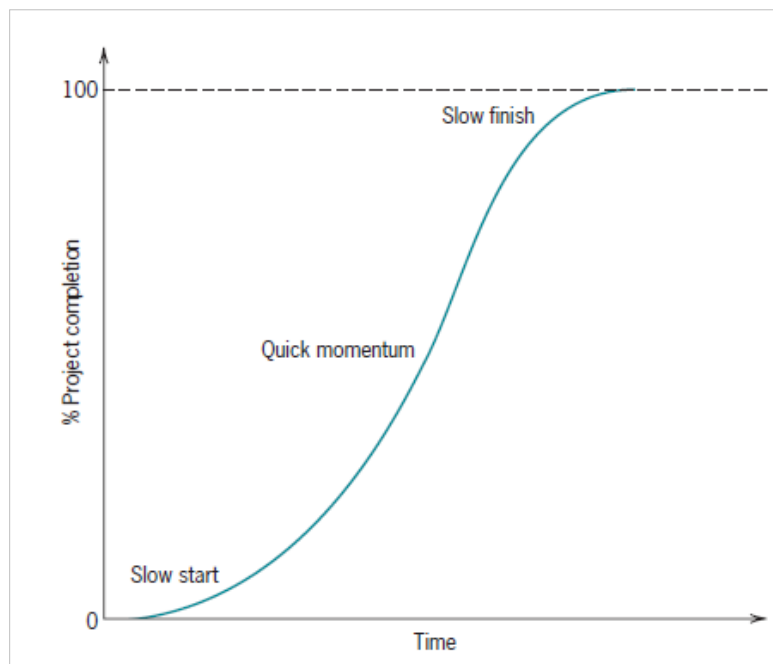


Figure 2. The Project Lifecycle. Meredith and Mantel (2009)

3.3.1 Project Phases

Project Management Institute (2013) implies that a project phase is a collection of logically related project activities that culminates in the completion of one or more deliverables.

According to Westland (2006) the Project lifecycle consists of four phases:

- Project initiation
- Project planning
- Project execution
- Project closure

3.3.2 Project initiation

The first phase of a project is the initiation phase. During this phase a business problem or opportunity is identified and a business case providing various solution options is defined. Next, a feasibility study is conducted to investigate whether each option addresses the business problem and a final recommended solution is then put forward. Once the recommended solution is approved, a project is initiated to deliver the approved solution. Terms of reference are completed outlining the objectives, scope and structure of the new project, and a project manager is appointed. The project manager begins recruiting a project team and establishes a project office environment. Approval is then sought to move into the detailed planning phase. Westland (2006).

3.3.3 Project planning

The planning process determines what needs to be done (scope, deliverables), how it will get done (activities, sequence), who will do it (resources, responsibility), how long it will get done (durations, schedule), and how much it will cost (budget). Gido, Clements, and Baker (2017). According to Gido, Clements, and Baker (2017), the project plan should include:

- The start and completion dates for each activity
- The amounts of the various resources that will be needed during each time period
- The budget for each time period, as well as the cumulative budget from the start of the project through each time period

Once the scope of the project has been defined in the terms of reference, the project enters the detailed planning phase. This involves creating a:

- Project plan outlining the activities, tasks, dependencies and timeframes;
- Resource plan listing the labor, equipment and materials required;
- Financial plan identifying the labor, equipment and materials costs;
- Quality plan providing quality targets, assurance and control measures;
- Risk plan highlighting potential risks and actions to be taken to mitigate those risks;
- Acceptance plan listing the criteria to be met to gain customer acceptance;
- Communications plan describing the information needed to inform stakeholders;
- Procurement plan identifying products to be sourced from external suppliers.

At this point the project will have been planned in detail and is ready to be executed. Westland (2006).

3.3.4 Project execution

This phase involves implementing the plans created during the project planning phase. While each plan is being executed, a series of management processes are undertaken to monitor and control the deliverables being output by the project. This includes identifying change, risks and issues, reviewing deliverable quality and measuring each deliverable produced against the acceptance criteria. Once all of the deliverables have been produced and the customer has accepted the final solution, the project is ready for closure. Westland (2006).

3.3.5 Project closure

Project closure involves releasing the final deliverables to the customer, handing over project documentation to the business, terminating supplier contracts, releasing project resources and communicating the closure of the project to all stakeholders. The last remaining step is to undertake a post-implementation review to quantify the level of project success and identify any lessons learnt for future projects Westland (2006).

3.4 The components of effective project management

According to Roberts (2013) for a project to thrive, it must exist within surroundings that are congenial to its commissioning, management, funding, specification, building, testing and delivery. Projects launched in the wrong environment rarely succeed. The characteristics of a project-focused environment are illustrated in the figure below.

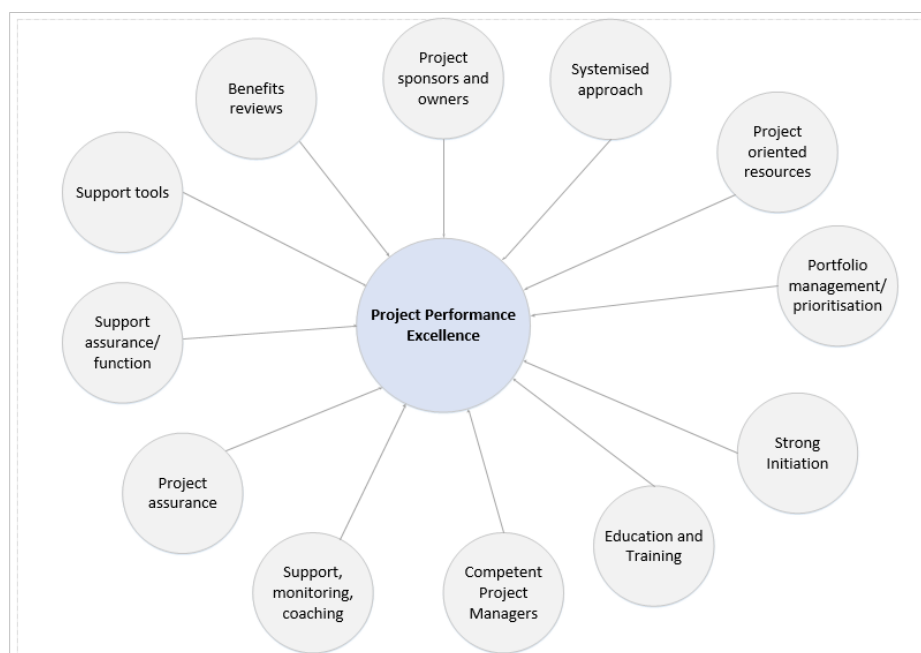


Figure 3. Characteristics of Project-focused environment

The extent to which any of the components shown in the figure above already exist is a measure of an organization's maturity in project management. It follows that there will be not only different levels of competence in different organizations, but also a path from one level of maturity to the next which will depend very much on the culture and needs of the organization Roberts (2013).

The Project Management Institute (2013) imply that in order for a project to be successful the project team should:

- Select appropriate processes required to meet the project objectives;
- Use a defined approach that can be adapted to meet requirements;
- Establish and maintain appropriate communication and engagement with stakeholders;
- Comply with requirements to meet stakeholder needs and expectations; and
- Balance the competing constraints of scope, schedule, budget, quality, resources, and risk to produce the specified product, service, or result.

3.5 Project Management Practices

Most experienced project management practitioners know there is no single way to manage a project. They apply project management knowledge, skills, and required processes in a preferred order and with varying rigor to achieve the desired project performance Project Management Institute (2013).

Project Management Practices can be considered as tools and techniques, which are mechanisms by which Project Management processes within the organization are delivered and supported. This includes, besides Project Management techniques (e.g. work breakdown structure or earned value management) the various guidelines in which the processes of the organization are defined, including the ease of procedure documents, checklists, job aids and templates, as well as, the use of software packages and various databases Fernandes (2014).

PMI's PMBOK® Guide Project Management Institute (2013) identifies an extensive set of project management tools and techniques, all of which are generally considered valuable and applicable to most projects most of the time. Tools and techniques are closer to the day-today practice, closer to the things people to, closer to their tacit knowledge Besner and Hobbs (2008).

3.5.1 Most useful Project Management Practices

Projects are generally perceived to be unique, therefore it cannot be expected that the same set of methods, tools and techniques will foster the success of each and every project. Instead, project managers need to determine which methods, tools and techniques are appropriate in specific situations Ahlemann, Teuteberg, and Vogelsang (2009).

White and Fortune (2002) conducted a survey that was designed to determine the extent to which those involved in the management of projects actually make use of the methods and techniques that are available and how effective the methods and techniques used are felt to be. The authors listed 44 methods, tools and techniques and asked the respondents to indicate which had been used in the project being considered to participate in the survey. The options chosen to be included in the list were those found in selection of standard text books of Project Management (e.g (Kerzner, 1998)). From an analysis of 236 completed responses to their survey, White and Fortune (2002) found that although 28% of respondents did not use any method or methodology, over 95% of respondents used at least one Project Management tool. 54% used their own in-house Project Management method or methodology. The mode number of tools used was 3. The most commonly used tools identified were: 'off the shelf' software (77% of the respondents); Gantt charts (64%); cost benefit analysis (37%); work breakdown structure (32%) and critical path method (30%).

A major study conducted by Besner and Hobbs (2006) examined which tools and techniques possess the greatest potential for improving performance through more extensive or better use. The identification of the most valued practices can identify priorities for individual practitioners and individual firms in the development of their project management competencies Besner and Hobbs (2006). A more recent questionnaire survey undertaken in 2004 by Besner and Hobbs (2006), surveyed views of 70 tools and techniques with 753 respondents. They found that the tools and techniques usage levels varied considerably, from 1.4 to 4.1 based on a scale ranging from 1 (not used) to 5 (very extensive use). Table 2 lists the 70 tools and techniques included in the (Besner & Hobbs, 2006) survey in decreasing order by the level of usage, from top to bottom and left to right.

As Fernandes (2014) analyzed in her doctoral dissertation, Besner and Hobbs (2006) findings are consistent with the results from White and Fortune (2002). Although (Besner & Hobbs, 2006) selected a larger number of tools and techniques, the 3 most used tools identified from White and Fortune (2002) are also in the top list of Besner and Hobbs - highlighted in bold in Table 2 shown overleaf.

Table 2. The 70 Tools identified by Besner and Hobbs (2006) in decreasing order of level of usage

1. Progress Report	27. Critical path method analysis	50. Database for cost estimating
2. Kick-off meeting	28. Bottom-up estimating	51. Database for lessons learned
3. PM Software to task Scheduling	29. Team member performance appraisal	52. Product breakdown structure
4. Gantt chart	30. Team building event	53. Bidders conferences
5. Scope Statement	31. Work authorisation	54. Learning Curve
6. Milestone Planning	32. Self directed work teams	55. Parametric Estimating
7. Change Request	33. Ranking of risks	56. Graphic presentation of risk information
8. Requirements analysis	34. Financial measurement tools	57. Life cycle cost (LCC)
9. WBS	35. Quality plan	58. Database of contractual commitment data
10. Statement of Work	36. Bid documents	59. Probabilistic duration estimate (PERT)
11. Activity list	37. Feasibility study	60. Quality function deployment
12. PM software to monitoring schedule	38. Configuration review	61. Value analysis
13. Lessons Learned/ Post-mortem	39. Stakeholder analysis	62. Database of risks
14. Baseline plan	40. PM software for resources levelling	63. Trend chart or S-curve
15. Client acceptance form	41. PM software to monitoring of cost	64. Control charts
16. Quality inspection	42. Network diagram	65. Decision tree
17. PM software for resources scheduling	43. Project communication room (war room)	66. Cause-and-effect diagram
18. Project charter	44. Project Web site	67. Critical chain method and analysis
19. Responsibility assignment matrix	45. Bid/ seller evaluation	68. Pareto Diagram
20. Customer satisfaction surveys	46. Database of historical data	69. PM software for simulation
21. Communication plan	47. PM software multiproject scheduling/levelling	70. Monte-Carlo analysis
22. Top-down estimating	48. Earned value	
23. Risk management documents	49. PM software Cost estimating	
24. Contingent plans		
25. Re-baselining		
26. Cost/ benefit analysis		

3.5.2 Project Management Improving Initiatives relating to Project Management Processes, Techniques and Tools

Fernandes (2014) implies that under the theme 'process, techniques and tools' two key Project Management Improving Initiatives were identified from the literature: standardization of Project Management processes and standardization of Project Management techniques and tools. As argued by Dai and Wells (2004) organizations that standardize their Project Management practices are more likely to have stronger project performance. Generally, when an organization makes efforts toward the corporate standardization of Project Management processes, it also gives steps in the standardization of tools and techniques, since tools and techniques are the mechanisms to implement Project Management processes Besner and Hobbs (2006). As implied by Milosevic and Patanakul (2005), Project management tools and

techniques ideally should be integrated with the standardized Project Management process, each process deliverable is supported by specific standardized Project Management tools.

Standardization of Project Management Processes

Andersen and Vaagaasar (2009); Loo (2002); Milosevic and Patanakul (2005); Shi (2011); Thomas and Mullaly (2008) had identified the standardization of Project Management processes as one of the most important improvements that had the greatest impact on project performance.

Nonetheless, Thomas and Mullaly (2008) had also identified the uniformisation or standardization of PM procedures, processes and systems as an improvement that had been mentioned rather frequently as the one with the least impact. This might happen in cases where the standardized Project Management processes were not sufficiently flexible, which clearly encourages and states how to adjust the standardized process to account for specificities of projects with significantly different size and complexity.

The efficiency and effectiveness of processes depend on the nature and quality of the process employed Ward (2004). Consequently, much of Project Management literature focuses on the nature and content of the generic Project Management process.

The scope of Project Management has been, in the last twenty years, defined by an emergence of multiple BoKs/ standards, such as: PMBoK Project Management Institute (2013); APM BOK Association for Project Management (2012); ICB3.0 Gaupin and International Project Management Association (2006); and P2M Ohara (2005). These attempts to systematize the knowledge required to manage projects are largely based on the underlying assumption that identifiable patterns and generalizations are possible and useful Fernandes (2014). These BoKs/ standards are developed to give guidance to organizations to develop their standardized Project Management Processes. As argued by Ahlemann, Teuteberg, and Vogelsang (2009), PM BoKs are generally accepted and are regarded as an appropriate instrument to improve the Project Management practice in general.

However, the organization should put in question 'Which standard is the best for us now and which standard will be the best in long term?' Grau (2013). From the researcher's professional experience one of the reasons organizations appear 'disoriented and confused' about Project Management processes, tools and techniques to use to improve Project management practice, is the existence of several BoKs Grau (2013). It is even particularly reasonable for organizations to investigate industry-specific or project type-specific standards that are frequently more easily applicable and contain more specific 'best practices'. It is also a good practice to analyze which parts of the BoK/ standard are useful to the organization. For example, a complex

resource management, including resource management assignment processes, resource levelling and time recording will not be appropriate in every circumstance Ahlemann, Teuteberg, and Vogelsang (2009).

Unfortunately, there is no consensus among researches and practitioners on a single PM BoK. As argued by Morris, Patel, and Wearne (2000) 'If the professional project management societies cannot agree the elements of a project management body of knowledge, how credible is the idea of professionalism in project management?'. However, as argued by Winter et al. (2006) as a result of rethinking Project Management project, seeking a unitary BoK, before Project Management community develop a better understanding of the boundaries and requirements of the profession would be premature.

Standardization of Project Management Tools and Techniques

Milosevic and Patanakul (2005) from an exploratory multiple case study research using quantitative and qualitative methods identified the standardization of Project Management tools and techniques as also one of the most important improvements that had the greatest impact on project performance. Shi (2011) on the other side argues that organizations should use systematic Project Management techniques including procedures, templates and software in Project Management.

Morris (2002) implies that today there is a reasonable agreement on most of the formal techniques and tools used for managing projects. Beyond the PM BoKs and standards number of studies have identified the most used Project Management tools and techniques (Table 2 - 70 tools), which organizations could use as guidance on what probably, are the most useful tools and techniques for the organization. There are many reasons why an organization would aim to standardize according to Clarke (1999):

- it sets out what the organization regards as 'best practice';
- it can improve communication, ensuring that everyone is talking the 'same language' in Project Management;
- it also minimizes duplication of effort and waste, for example, by having common resources, documentation and training.

In addition, Project Management standardization in organizations secures a common approach to project work, makes it easier to control progress, and makes progress less dependent on specific individuals Andersen and Vaagaasar (2009). Nevertheless, Project Management standardization has also negative effects based on some researches. Project Management standardization in the organization can often end up with several checklists, guidelines and mandatory reports Hodgson (2002), not allowing a certain level of flexibility, which is important

for project managers not to feel as 'slaves' of Project Management methodology as implied by Milosevic and Patanakul (2005). Therefore, it is important to customize Project Management Processes, tools and techniques to the specific context of the organization. A Project Management methodology may not 'fit' all projects, some organizations may find necessary to maintain more than one methodology Kerzner (2009).

3.6 Proposal Management Process

A Business Proposal is a solicited or unsolicited offer document that is created by the supplier who intends to provide a product, service or solution to the buyer Sinha (2016).

Proposal management is an integrative activity that leads, directs and coordinates the teams who must collaborate as a bid team. Creating the bid documents, deciding the solution to be proposed and agreeing the commercial strategy are all complex and interdependent tasks. Bid Management keeps these tasks synchronized so that suppliers can develop their best bid, tender or proposal Smith (2017).

Smith (2017) further implies that proposal management integrates all the essential activities to be completed when developing a bid response for an RFP (Request for Proposal) or preparing a proactive proposal.

When you have to coordinate material from other professionals as well as writing your own input and at the same time keeping fee-earning work going, or if the bid is likely to be a complex document, it becomes clear that bid preparation is a procedure needing to be managed as strategically as any other business activity. How you go about this procedure can be critical to success.

The key is to have it planned out well beforehand and to follow an approach that is **systematic** – leaving nothing to chance; **cohesive** – bringing the document together as an integrated effort; and **deliberate** – progressing in a confident and fully considered direction. Bid management on these lines enables you to make the best use of resources and improve quality and consistency while cutting preparation costs. In short, it brings higher productivity and greater success Lewis (2007).

Various Proposal Management principles, approaches, tools and methodologies have been suggested by various institutions, authors and researchers. However, this study will mainly analyze and further describe the Proposal Management principles, tools and techniques implied by the APMP (Association of Proposal Management Professionals).

The APMP Body of Knowledge (BOK) represents the collected wisdom of the world’s leading professionals in proposal, bid, and opportunity management and business development. The APMP BOK was authored and reviewed by more than 80 industry experts using 70 research-based publications.

3.6.1 Business Development Lifecycle

APMP best practices suggest that the business development lifecycle consists of eight basic phases. However, each phase and its associated decision gates, steps, and reviews should be tailored to an individual organization and market environment. No one phase is more important than the other; they must all work together to identify and advance the best opportunities APMP Body of Knowledge(2018).

The business development lifecycle includes activities and phases that focus on planning and performing (executing). The End-to-End Process section further details the best practices associated with the process APMP Body of Knowledge (2018).

Figure 4 shows how the phases and activities of the business development lifecycle work together to win business. Each element is dependent on the others—all requiring input and ongoing updates.



Figure 4. **The Business Development Lifecycle.** Discipline at each of these phases improves win rates and leads to sustainable processes that fuel ongoing success APMP Body of Knowledge (2018)

Newman (2013) describes a business development process comprising 96 steps divided into seven phases:

- Phase 0: Market Segmentation
- Phase 1: Long Term Positioning
- Phase 2: Opportunity Assessment
- Phase 3: Capture Planning
- Phase 4: Proposal Planning
- Phase 5: Proposal Development
- Phase 6: Post-submittal activities



Figure 5. The Business Development Lifecycle, Newman (2013)

As shown within Figure 5, Phases 0 and 1 link to strategic planning. Phases 2 through 6 align with specific opportunities, and the cycle is repeated for each opportunity. Decision gate reviews delineate the end of one phase and the beginning of the subsequent phase. However, a pursuit might be ended at any decision gate review Newman (2013).

Newman (2013) argues that organizations with effective business development process gain the following benefits:

- Reduced costs and risks of capturing business
- Increased productivity and staff morale
- Improved sales forecasting
- Increased management visibility and control
- More competitive solutions and proposals

The most successful organizations in any market or selling environment innovate and improve framework processes based upon fundamental principles. Less effective organizations follow tightly defined processes, but limited understanding of the fundamental principles reduces their flexibility to adapt to market and customer shifts. The least effective organizations lack consistent processes and fail to understand fundamental principles Newman (2013).

The importance of the Business Development End-to-End Process

An end-to-end process is a systematic series of actions or steps directed toward a specific end. Organizations that consistently follow a defined business development process win more business and use fewer investment resources APMP Body of Knowledge (2018).

An end-to-end business development (BD) process is like a roadmap. It allows teams of business developers to know where they are, where they are going, and what path to follow to reach their goals APMP Body of Knowledge (2018).

APMP Body of Knowledge (2018) imply that every organization should design its own end-to-end BD process suited to its organization and customers—and gain senior executive buy-in and support. Proven principles and best practices can be adopted, or adapted, in designing an end-to-end process for any organization.

Figure 6 depicts the elements of a generalized BD process aligned with the phases, decisions, reviews, and outputs APMP Body of Knowledge (2018). APMP Body of Knowledge (2018) defines the following common features that will pertain to most end-to-end processes:

- Defined BD selling phases aligned with the customer’s buying cycle;
- A series of structured bid decisions providing executive visibility and control of targets to be pursued;
- Team reviews to provide objective recommendations for improvement;
- Defined outputs supporting a winning offer.

PHASES	BID DECISIONS	TEAM REVIEWS	MAJOR OUTPUTS
MARKET IDENTIFICATION	Market Entry Decision	Market Assessment – An analysis of market potential and requirements vs. corporate capabilities	Strategic Plan (Input) ▪ Market Strategy
ACCOUNT PLANNING	Opportunity Qualification Decision	Account Review – Periodic reviews of opportunity potential within targeted accounts	▪ Account Plan
OPPORTUNITY ASSESSMENT	Bid Pursuit Decision	Competitor Review – An assessment and analysis of competitors’ likely strategies and solutions	▪ Competitive Assessment
OPPORTUNITY PLANNING	Bid / No-Bid Decision	Opportunity Plan Review – An assessment of the opportunity plan and validation of the win strategy and required actions documented in the opportunity plan	▪ Opportunity Plan ▪ Pricing Strategy
PROPOSAL PLANNING	Bid Validation Decision	Proposal Strategy Review – A review of the content plan to validate the execution of the bid strategy for writers and verify compliance with customer requirements	▪ Proposal Strategy Plan ▪ Proposal Responsibility Matrix ▪ Proposal Outline ▪ Response Matrix ▪ Style Sheet ▪ Content Plan ▪ Proposal Budget ▪ Executive Summary ▪ Proposal Plan ▪ Proposal
PROPOSAL DEVELOPMENT	Final Review	Final Document Review – A comprehensive review of the proposal by independent reviewers who emulate the customer’s evaluation team Business Case Review / Senior Management Review – Includes all the internal milestones and approvals (internal governance) required to sign off on the solution, pricing, and legal requirements	
NEGOTIATION		Lessons Learned Review – An assessment of the proposal development/ management process and results, conducted after completion of a proposal to identify areas for improvement on subsequent projects	▪ Best and Final Offer (BAFO)
DELIVERY		Project Review – Periodic status reports and performance reviews with customer	▪ Products and Services

Figure 6. Generic End-to-End Process

The figure above explains the business development process spans the time from deciding to enter a market through identifying a specific opportunity, proposing, winning, and delivering a product or service. Progress is marked by iterative decisions to continue, team reviews, and the production of defined outputs APMP Body of Knowledge (2018).

The major activities undertaken in each phase of the Business Development Lifecycle are shown in the table 3 below APMP Body of Knowledge (2018).

Table 3. Major Activities included in the Business Development Phases APMP Body of Knowledge (2018)

Phases	Activities
Market Identification	Separating a market (at the macro level) into distinct, differentiated segments to target your offers according to the specific attributes of each segment
Account Planning	Maintaining a sales plan specific to each major customer, covering multiple opportunities with that customer.
Opportunity Assessment	Researching specific opportunities to determine if they match your organization's interests, capabilities, and resources available to bid on and implement.
Opportunity Planning	Preparing an opportunity plan specific to the opportunity and identifying actions and strategies to position your organization to be the customer's preferred bidder.
Proposal Planning	Planning a bid or proposal effort based on an opportunity plan and concurrent with the positioning and sales effort.
Proposal Development	Preparing, reviewing, and approving a bid or proposal.

Negotiation	Preparing for and performing final negotiations with the customer after the proposal has been submitted.
Delivery	Implementing delivery of the negotiated solution to the customer and maintaining an ongoing positive relationship with the customer

According to APMP Body of Knowledge (2018), organizations with a defined end-to-end BD Process realize significant benefits:

- Higher win rates and capture ratios;
- Lower BD costs;
- Higher productivity and morale;
- More accurate forecasting;
- Increased management visibility, direction, and control.

In the absence of a defined BD process, APMP Body of Knowledge (2018) identifies the following typically experience problems the organizations face:

- Confusion on what to do, when to do it, and who is responsible;
- Wasted effort in reinventing or justifying a process rather than focusing on winning;
- Inability to build upon past success, as doing it differently every time precludes continuous improvement;
- Overreliance on individuals who are called upon to make heroic efforts to salvage false starts;
- Lack of team competencies—without a defined process and defined roles, training and professional development is not possible;
- Executive involvement that is too late and sometimes counterproductive.

APMP Body of Knowledge (2018) suggests that organizations follow the following best practices related to the implantation of an end to end BD Process:

- Create a documented, unified process;
- Align with the customer's buying cycle;
- Make the process flexible and scalable;
- Clearly define roles;
- Develop needed staff competencies;
- Ensure consistent, disciplined use.

Common Pitfalls and Misconceptions of the Business Development End-to-End Process

APMP Body of Knowledge (2018) identifies the following common pitfalls and misconceptions with regard to the Business Development end-to-end process:

1. Lack of discipline and accountability

Defining an end-to-end process is a necessary but insufficient element in achieving higher levels of BD capability maturity. To realize the benefits of a process, an organization must have the discipline to “walk the walk” and not just “talk the talk.”

2. Lack of support with tools and training

The very best BD process will not be successful if it is not supported with appropriate tools and training. When faced with implementing a new way of doing things, individuals will resist and revert to old ways, unless they have the competencies required by the new process.

3. Corporate inertia and changing priorities

Most organizations readily agree that an end-to-end BD process is necessary. However, the tempo of daily operations frequently overshadows the will to begin improvement. Changing priorities frequently sidetrack BD reengineering efforts that are underway. Unfortunately, a crisis is often the catalyst that produces improvement.

3.6.2 Proposal Planning and Development Phases

While all the Business development phases are important for gaining a better understanding of the entire Proposal Management Process, this study will focus more on the direct-related Proposal Management sub-processes, the Proposal Planning and the Proposal Development Processes.

3.6.2.1 Proposal Planning Phase

If done effectively, planning a proposal will save time, resources, and money. Before the bid request arrives, organizations should assemble a core proposal team to prepare a proposal management plan focused on the five proposal planning activities. These activities are essential to transferring customer issues and needs identified during opportunity planning into proposal strategies, solutions, a price-to-win, and mitigations APMP Body of Knowledge (2018).

APMP Body of Knowledge (2018) suggest to focus on the following five key proposal planning activities:

- Migrating data from the opportunity plan to a proposal plan or to proposal planning tools;
- Extending the opportunity strategy into the proposal strategy. A proposal strategy consists of statements of an organization's position and how it plans to make each point in its proposal. Organizations can capture this transfer by preparing a draft executive summary;
- Refining the solution and price-to-win;
- Engaging the right staff for the proposal team and securing the right executive support;
- Holding a proposal kickoff meeting to share planning activities with the proposal team.

In completing these activities, an organization should conduct a review to validate and suggest improvements to its proposal strategy. The opportunity plan review team reviews the technical, management, and pricing solution against the customer's needs and requirements, alignment with the opportunity strategy, and competitive focus APMP Body of Knowledge (2018).

Adjustments made at this time, especially before the bid request comes out, help to maintain the alignment between pre-proposal activities and solutions and the proposal's description of these solutions. Often, organizations use mockups and content plans as proposal planning tools that make proposal development and writing more customer focused APMP Body of Knowledge (2018).

In this phase it is planned how the proposal team will write a winning proposal upon release of a bid request Newman (2013).

Market Research and Intelligence

According to Newman (2013), the extending of customer contacts and intelligence gathering shall start as early as possible.

In many markets, costumers restrict direct communication with sellers after the bid request is released. Therefore, marketing, sales and field representatives; technical and management people; and other numbers of capture planning team might be involved in a series of on site visits coordinated by the Capture manager. These site visits are used to better understand the customer's needs, hot button issues and views on potential solutions and requirements Newman (2013).

Developing the Proposal Strategy

According to Newman (2013) the Capture Strategy has to be extended into the proposal strategy. Proposal strategy consists of a series of statements that state the point or position on how you plan to make that point in your proposal.

Defining proposal tasks and schedule

The Proposal managers develop the proposal project schedule to manage proposal contributors within a defined process. Deadlines drive proposals schedules, with minimal influence from the size of the task . By setting a schedule, the Proposal Manager can allocate the resources effectively, foresee and respond to challenges before they arise Newman (2013).

Scheduling the proposal is essential to visualize the task ahead and monitor progress. Common scheduling principles apply equally to proposals. Preparing a realistic schedule requires a clear understanding of each task and the capability of the individuals assigned. The task of developing a schedule clarifies the understanding of the proposal preparation project. The complexity of the schedule depends on the size of the proposal and the number, expertise, and location of contributors (Newman, 2000).

Newman (2013) identifies six major milestones associated with proposal development regardless of their duration or complexity:

- RFP Release
- Bid Decision
- Kickoff Meeting
- Pink Team
- Red Team
- Proposal Submission

Developing draft WBS and Dictionary

Led by the cost volume manager, the proposal core team, including the proposal, technical volume, and management volume managers begins developing the Work Breakdown Structure (WBS) and WBS dictionary. The WBS identifies and links the hardware, services, and data elements of your solution to the supplier. The WBS dictionary defines the hardware, service, and data elements Newman (2013).

Developing the Proposal Management Plan

The Proposal Management Plan (PMP) documents the roles, responsibilities, tasks and deadlines before writers start developing proposal sections, volumes and ultimately the complete proposal (Newman, 2000). The PMP includes the elements to manage proposal development and guide contributors. The content, form and medium vary by proposal, organization, process and resources Newman (2013).

Newman (2013) further suggests that the PMP has to be kept current and complete in order to:

- Give the team the big picture;
- Keep management and contributors current on daily progress;
- Convey daily tasks, expectations and quality standards;
- Expose contributors to the same information while reducing misleading rumors.

Define cost drivers and update target price in competitive range

Costing in support of the targeted price to win is complex, and if not done well, can sink the project. Normally, the objective is to minimize or balance price against capability; therefore, cost drivers need to be identified early to improve your flexibility in achieving the price to win Newman (2013).

Newman (2013) suggests that the cost volume leader and technical personnel shall identify those elements that tend to drive costs and determine if alternate solutions would yield acceptable results at lower cost.

Initiating the preparation of PDWs

The proposal manager and the technical and management proposal leads initiate the Proposal Development Worksheets (PDWs), or storyboards, to guide proposal writers. Proposal management completes as much as possible of the PDW to clearly define writers' assignments Newman (2013).

Preparing estimating guidelines

The cost volume manager establishes the cost estimating guidelines for estimators. Estimating guidelines enhance the consistency of estimates, estimating rationale improves, and contract negotiations will be faster and less contentious. The estimating guidelines and assumptions are summarized and included in the cost proposal. Estimators should work closely with technical and management contributors so that the task description and estimate are consistent Newman (2013).

Proposal Kickoff Meeting

The capture manager and proposal manager use the kickoff meeting to accomplish several objectives. The capture manager discusses the customer, competitors, capture strategy, discriminators, solution, teaming arrangements, and win themes. The proposal manager discusses the preparation process, schedule, roles, quality standards, and how the capture strategy will be implemented in the proposal. A program manager or technical lead might elaborate on the proposed solution. The proposal manager must build a proposal team focused on preparing a clear, compliant, and persuasive proposal given the time and resources available Newman (2013).

Proposal Pink Team Review

Newman (2013) implies that a Pink Team review has to be held to ensure compliance with the customer's requirements, implementation of agreed-upon strategy and consistency of volumes. Pink Team reviews are an invaluable project control—a means of solving problems before they occur. A high-level Pink Team review assesses how well the proposal strategy is implemented in the PDWs and mockups.

Customer Solicitation Breakdown

The proposal core team, consisting of the proposal manager, volume leads, and perhaps the proposal coordinator, analyzes the bid request. The proposal manager should read the RFP carefully (several times) to understand the requirements and determine how to respond. The proposal manager should read the RFP with the core team and verify that they share the same interpretation.

Review and Validation of the Bid decision

Newman, 2013) implies that the customer's issuance of the final bid request precipitates the Bid Validation Decision Gate review. Furthermore, he suggest that the preliminary bid decision has to be reviewed by considering the following questions:

- Does the final RFP reflect your input to the draft RFP?
- Did the customer incorporate many or a few of your recommendations?
- Were the most significant changes suggested by you or competitors?
- If the RFP contains significant new language and requirements, what was the source?

3.6.2.2 Proposal Development Phase

As the opportunity matures and a formal bid request is released, proposal development kicks into high gear. If the opportunity is still viable, then the planning documents prepared in the previous phase now become working proposal development documents APMP Body of Knowledge (2018).

The Proposal Development is the phase where you prepare a persuasive sales document or presentation. The Proposal Development phase begins promptly after receiving the RFP and a positive bid validation decision Newman (2013).

At this stage, bid planning activities, including changes to the solution, strategy, teaming partners, proposal organization, proposal schedule, and workshare, should stop. Ongoing changes result in wasted time and resources and can lead to a mediocre proposal that is frustrating to prepare APMP Body of Knowledge (2018).

APMP Body of Knowledge (2018) imply that organizations should use compliance tracking tools, such as compliance checklists, response matrices, and writers' assignments, to ensure that they are meeting the requirements of the bid request. They should also use communication tools to validate progress, troubleshoot proposal content, and address concerns. Finally, they should conduct short check-ins to monitor progress and status to ensure that deliverables and schedules are met.

When Proposal Managers are satisfied with section drafts, they should submit them for final review. A team should review a complete draft proposal beginning with the executive summary, all volumes (including cost), and other items required at submittal. A final document review team evaluates the draft proposal from the customer's perspective APMP Body of Knowledge (2018).

The review team makes recommendations for improvement. After completing changes and receiving final approval, the proposal is submitted to the customer. Organizations vary in how they execute the proposal development process based on the nature of their business and the complexity of bid they submit APMP Body of Knowledge (2018).

Similarly to the Proposal Planning Phase, the Proposal Development phase includes several activities that have to be undertaken by the proposal team, which are thoroughly described within this section.

Creating the compliance checklists

Newman (2013) suggests that the compliance checklist has to be built from the RFP and as such it shall capture every requirement. He implies that the compliance checklist has to be then used during proposal planning, writing, and reviewing to verify that section authors properly address assigned requirements.

Compliance checklists help ensure complete responsiveness by identifying each requirement and relating each requirement to the appropriate RFP paragraph. They are the basis for the proposal outline and response matrix Newman (2013).

The compliance checklist is a must-have planning document. Always create a compliance matrix when a customer has provided requirements, regardless of the bid size or timeline. For unsolicited proposals, white papers, and RFI (Request for Information) responses, use the executive summary, introductions, and section summaries to demonstrate your understanding of requirements and compliance APMP Body of Knowledge (2018).

APMP Body of Knowledge (2018) suggests that the compliance checklist has to be developed early in the planning process, before writing begins, and update it throughout the proposal process, following solicitation amendments, customer responses to clarification questions, and proposal outline changes.

Finalizing the Proposal Management Plan

According to Newman (2013) all information relevant to planning, managing, and producing the proposal goes into the PMP. Therefore, he suggests that the PMP is kept current to reduce confusion and the need for revisions.

While the PMP is referred to as if it were a single document, it typically consists of multiple documents that are often posted on a protected, intra-company web site. When contributors and managers are in multiple locations and working on multiple projects, a web-accessible solution is preferable to a single planning document. Newman (2013) suggests that the following information are included when updating the PMP:

- Additional background data on the program, customer, and competition gathered since the preliminary plan was drafted;
- Adjusted dates, times, resources, and activities on the schedule;
- Specific dates for the various project deadlines; use Gantt charts to show the project's overall chronology and overlapping functions;

- Brief discussions of major milestones and key events, including kickoff meeting, status, and proposal reviews;
- Proposal strategy;
- Compliance checklists;
- Proposal outline;
- Individual writing assignments, page limitations, and deadlines;
- Proposal style sheet, including customer and in-house requirements;
- Links or references to supporting documents and plans. Some customer mandated plans will be required at proposal submittal or by a specified date.

Proposal Update Kickoff Meeting

Newman (2013) implies that the proposal manager should run the kickoff meeting, with support from the capture and program managers. The Proposal update kickoff meeting is held to announce, confirm, and coordinate changes in the following items:

- Proposal strategy and win themes;
- Proposal outline;
- Page allocations;
- Program organization, resumes, and Integrated Product and Process Teams (IPPT);
- Costing strategy and estimating guidelines;
- Task descriptions and BOE procedures
- Writer assignments;
- Proposal development schedule milestones;
- Proposal operations;
- Teammate or vendor assignments;
- File transfers, graphics, and data flow to production;
- Security controls;
- Editing, proofreading, and publication operations;
- Technical or management solutions;
- Cost as an Independent Variable (CAIV) approach;
- Program selections for Past Performance;
- Re-use or boilerplate material;
- Coordination among writers/volume managers and teammates.

Developing Proposal text/ visuals or script/ presentation/ video

Newman (2013) argues that proposal evaluators repeatedly say that they are drawn to the visual elements of a proposal first; then they read the text if needed to answer questions and score the response. Therefore, he suggests that the writers create at least one primary visual

for each proposal section. If a section is lengthy and has several major subsections, each subsection should have a key visual. The purpose of the primary section visual should be to convey the section's central theme or selling point. Essentially, the primary section visual states the section theme statement in visual form.

The bid specification will normally state how the bid is to be structured and the categories of information that bidders are required to provide within this structure. Some clients may want bidders to set out information in a particular sequence, under standardized section headings; others may instruct bidders to use particular formats or templates in presenting their work plan, cost estimates, contract experience, CVs and so forth Lewis (2007).

If the structure of the bid is specified by the client, follow it exactly. This cannot be emphasized too strongly. Do not ignore any instructions the client may give about either structure or information content. Your bid is likely to be rejected if it fails to supply fully the information the client has asked for Lewis (2007).

Lewis (2007) suggests that if the structure is left open to your judgement, bear in mind that the bid is a functional document produced not for your benefit but to serve the client's needs. According to him, there are categories of information that clients will expect as a minimum to find in every bid:

- A statement of the purpose and origin of the bid;
- A summary of your background as a contractor, your credentials for the assignment and your experience of comparable or related work;
- An outline of your proposed technical approach;
- A work plan and timetable – for example, a bar chart indicating timescale and completion dates for each part of the work;
- Outputs and deliverables;
- The personnel to be assigned to the work and their individual responsibilities;
- Details of management arrangements;
- An estimate or confirmation of the fees and expenses likely to be incurred.

APMP Body of Knowledge (2018) imply that proposal evaluators often scan rather than carefully read proposals to find the answers they need. For this reason, information should be easy to locate and understand. This BOK lists the following benefits of a well-organized proposal:

- Higher evaluation scores;
- Improved customer confidence in your ability to deliver;

- Proposals that are easier to write.

Furthermore, the APMP Body of Knowledge (2018) argue that proposals that are well organized and easy to understand have the following attributes:

- They provide a roadmap to how the proposal is organized;
- They make key points easy for evaluators to identify and understand;
- They are written from the customer's point of view, evidenced in the organization scheme;
- They tell customers what is important to them;
- They use multiple highlighting techniques (headings, roadmaps, graphics, etc.) to enable evaluators to scan the document and locate the information they need.

Roll-up and reviewing costing figures

Price-to-win combines customer and competitor intelligence with careful attention to the balance of capabilities and cost. It is an assessment that helps vendors arrive at prices that customers will value APMP Body of Knowledge (2018).

Price-to-win is a process for analyzing competitor and customer data to determine how other bidders are likely to position their solution and bid price with their understanding of the customer's budget and their assessment of value. It is an assessment that shows how competitors' pricing is likely to be derived. Price-to-win is an external examination that defines where your business should target your offering APMP Body of Knowledge (2018).

APMP Body of Knowledge (2018) suggests that price-to-win analysis is used to develop winning bid strategies. When price-to-win analysis is done (this may be an iterative process driven by uncertainties), you can develop and implement internal tactics to construct a successful bid and address the customer's selection criteria.

Cost is the total range of expenses the offeror expects to spend to deliver the requirements. Price is the monetary payment for the offeror to deliver the requirements APMP Body of Knowledge (2018).

Each organization's costing process is based on their cost estimating software, so the exact approach varies. The cost volume or estimating manager reviews individual estimates for credibility, rationale, compliance, and completeness. They roll-up costs for program components, and sanity check these totals against prior similar programs. They note unusual differences, probe for an explanation, and correct assumptions or errors Newman (2013).

The APMP Body of Knowledge (2018) suggests the following Best Price-to-Win Practices:

- Understand the characteristics of a mature, successful price-to-win capability;
- Engage price-to-win as early as possible and update as new information comes to light;
- Employ information systems and analysis tools;
- Gain as much customer intelligence as possible;
- Gain as much competitor intelligence as possible;
- Maintain strong opportunity activities parallel to price-to-win analysis;
- Focus pricing on value to the customer;
- Align pricing strategy with your sales strategy.

Status and Compliance Review Meetings

Newman (2013) suggests that status and compliance meetings are held every morning for a major undertaking or weekly for smaller projects. He implies that the primary focus shall be on the near-term or inch-stone task but within the broad context of major milestones. Newman (2013) further implies that the status meeting shall accomplish these objectives:

- Monitor each volume, section, and subsection;
- Keep team members informed of the project's status;
- Discover problems early before they grow;
- Check compliance with organization and customer requirements.

Preparing proposal drafts/ presentation and costs for Red Team Review

Newman (2013) suggests that the Red Team should review a complete draft proposal beginning with the executive summary, all volumes including cost, and other items required at submittal.

Based on the results of the cost review, the section writers and cost analysts revise their cost and task descriptions. The cost volume manager assembles the cost volume using the mockup, the RFP requirements, and all the material developed for the cost volume Newman (2013).

Red Team Review

A Red Team is an in-house proposal review team that reads and evaluates the draft proposal from the customer's perspective. The Red Team conducts a mock evaluation of the proposal, applying the same scoring methods evaluators would use. The Red Team also checks inter-volume compatibility Newman (2013).

The Red Team verifies the validity of each volume and related claims among the volumes. After reviewing and scoring the proposal, the Red Team typically debriefs the proposal team, offering

suggestions for improvements to the overall proposal and specific proposal sections Newman (2013).

Final Compliance Check and Publish Proposal Deliverables

Newman (2013) implies that the core team should check the compliance of the entire proposal. He further advises that the compliance checklist and cross-reference matrix shall be used to verify 100-percent compliance unless it has been deliberately opted to submit a non-compliant solution.

Final Legal, Cost and Management Reviews

A proposal involves more than just setting forth the design for the finest widget the customer could ever hope to find. Depending on the customer, proposals in the competitive range or the winning proposal will be the basis for negotiations that lead to a legally binding contract. Every proposal shall be submitted for a legal review unless you are proposing standard products and services with pre-approved terms and conditions Newman (2013).

Proposal Submission

Newman (2013) suggests that the proposal has to be submitted on time. He also advises that there shall be a backup plan for the delivery method in case something goes awry. For electronic submissions, have an IT (Information Technology) expert available to help with potential transmission glitches. Get a time stamp on electronic submittals. When using couriers, insist on a receipt of delivery with a time stamp. Couriers will get these for you if asked. When delivering in person, have one made that the receiving individual can sign Newman (2013).

3.7 Application of Project Management Principles to Proposal Management

Proposal teams share many similarities with project teams, so it's no surprise that project management principles can also benefit the business development process APMP Body of Knowledge (2018). This section outlines the basics of project management methodologies that can improve the selling quality of bids, create smoother handovers and reduce risk.

In many ways, bid are like projects. They are executed by temporary organizations—bid teams—that are established to achieve a specific goal, such as winning new business or gaining a competitive position within an account. And just as with a project, a bid that is pursued with a sound business case and governed by a clear set of strategies is more likely to achieve success—both in terms of contract wins and in the efficient use of resources APMP Body of Knowledge (2018).

For these reasons, many principles of project management (PM), as defined by the Project Management Institute, can be applied to the business development (BD) process APMP Body of Knowledge (2018). The BOK implies that applying PM principles improves the selling quality of bid, creates smoother handovers, and reduces risk by:

- Providing a structure and common tools that embed predictability and build on successful strategies;
- Creating a consistent process that provides better insight into bid/no-bid decisions, captures lessons learned, and uses resources more effectively;
- Aligning bid with organizational strategy to optimize the return on investment.

The APMP Body of Knowledge (2018) suggests the following best practices related to the application of Project Management Principles to Proposal Management:

- Integrate and align your Business Development and Proposal Management processes;
- Adopt and integrated project lifecycle and make Proposal Management products an integral part of your offer document;
- Establish a controlled environment for your BD project(s);
- Monitor the business case of your BD project;
- Build lessons learned into your project approach and plans;
- Construct a functional organization for each project based on defined roles and responsibilities;
- Empower the project team to manage within defined limits;
- Focus on deliverables, not activities.

The upcoming section will describe in details each of the best practices outlined above.

3.7.1 Integrate and align your Business Development and Proposal Management processes

Projects can be thought of as a portfolio of investments that an organization must manage to gain returns. Integrating PM best practices into the proposal management process provides a more comprehensive approach to managing this portfolio. Rather than viewing proposal management as a stand-alone process or, worse, a wheel that must be recreated with every new bid, BD teams work with PM teams to create a sustainable, streamlined, and integrated approach to proposal development APMP Body of Knowledge (2018).

APMP Body of Knowledge (2018) imply that this integration provides BD and PM teams with a common language and similar tools, which benefits both teams:

- BD can handle the detailed planning and move into execution more quickly and accurately, with fewer disruptions
- PM and BD teams benefit from lessons learned captured during execution, especially for future, similar projects

Figure 7 illustrates the integration between BD and PM, Portfolio management processes provide a framework for integrating BD and delivery processes APMP Body of Knowledge (2018).

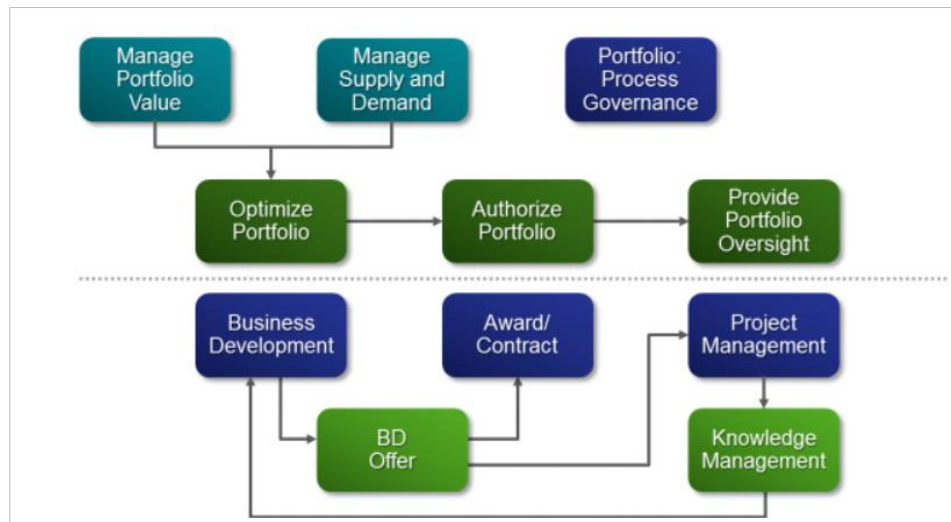


Figure 7. Alignment of Portfolio Management with Business Acquisition, APMP Body of Knowledge (2018)

3.7.2 Adopt an integrated project lifecycle and make PM products an integral part of your offer document

To use PM tools most effectively in the proposal process, organizations should aim to execute integrated projects, rather than emerging or lagging projects. Planning for an integrated project starts at lead/inception and ends at handover and clearance, passing through the phases of BD and project execution as shown in Figure 8. Conversely, planning for lagging or emerging projects often starts later in the project lifecycle. These projects tend to be response driven, which can result in cut corners and questionable outcomes APMP Body of Knowledge (2018).

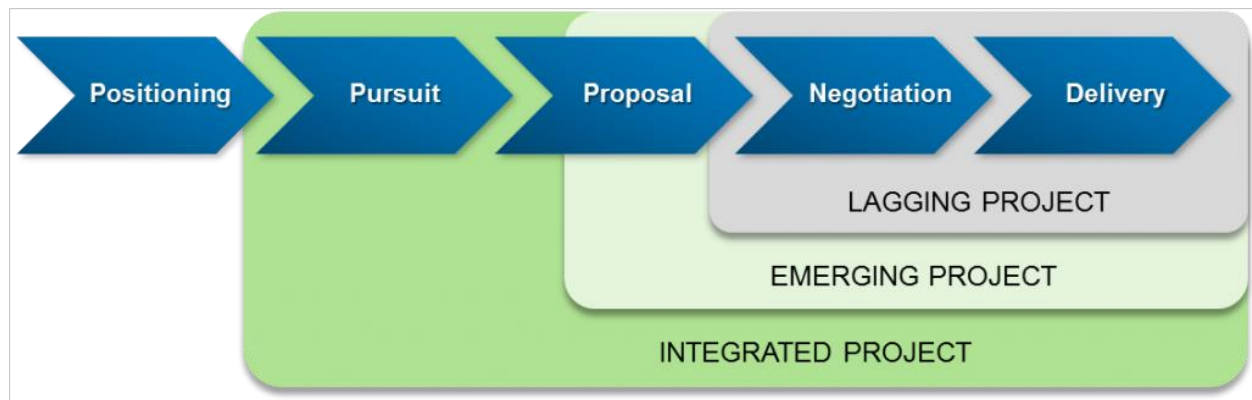


Figure 8. Integrated Project Lifecycle, APMP Body of Knowledge (2018)

Mature organizations use an integrated project lifecycle, where decisions made at the pursuit stage benefit from earlier lessons learned. Contrast this with the more typical situation, lagging or emerging projects, in which consideration for delivery of the project starts late in the business development cycle APMP Body of Knowledge (2018).

An integrated project limits conflicts between the proposal and the contract by providing an early execution strategy that can be incorporated into both the proposal and contract. An integrated project mitigates these conflicts by generating a more thorough understanding of the project lifecycle at the beginning of the proposal process APMP Body of Knowledge (2018).

The proposal details how the project will be managed, reducing the potential for “surprises” during project execution. The contract’s statement of work can focus on what has to be delivered (the products) and their quality attributes (including time and cost). In this arrangement, some project definition documents are actually created as part of the proposal process. Working arrangements can be captured in the project initiation documentation that forms the joint basis for collaboration APMP Body of Knowledge (2018).

3.7.3 Establish a controlled environment for your BD project(s)

APMP Body of Knowledge (2018) imply that competitive bidding environments provide enough uncertainty to challenge the most talented Project Managers and Proposal Writers. This uncertainty can be partly managed by introducing controls. Controls foster an “all team” culture by ensuring that everyone is operating on the same page, with the same goals and expectations. Controls also help proposal teams make informed bid/no-bid decisions by defining success on a project-by-project basis APMP Body of Knowledge (2018).

APMP Body of Knowledge (2018) further argue that controls can be based on many factors, including risk, cost, timing, quality, benefits, and scope, as shown in Figure 9. They should be

tailored to fit the size and nature of each project. They should also be flexible, clear, and applied consistently.

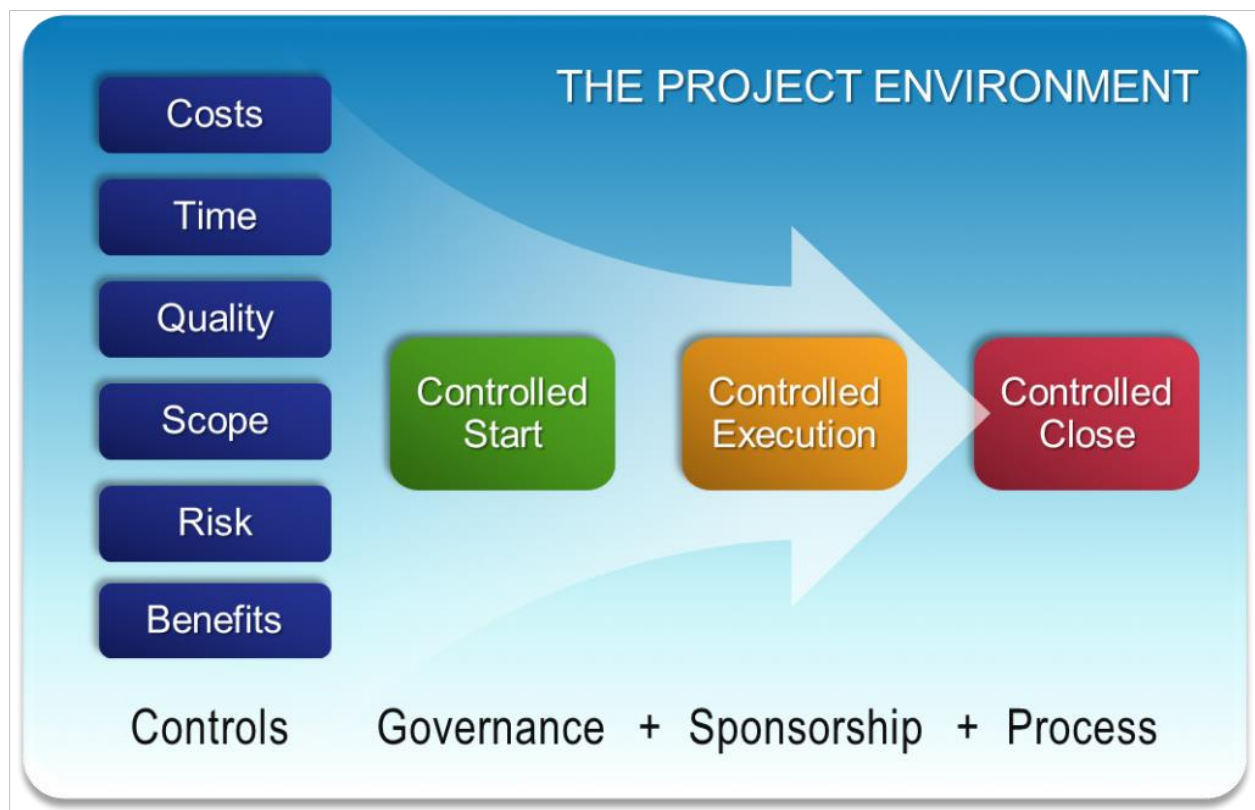


Figure 9. A Controlled Project Environment, APMP Body of Knowledge (2018)

Establishing a controlled environment for your BD projects provides your pursuit teams with the conditions they need to win. They can focus on the opportunity, rather than on managing the internal organization APMP Body of Knowledge (2018).

3.7.4 Monitor the business case of your BD project.

Every project requires a purpose, also known as a business case. Bids are no different. The business case doesn't need to be financial, but it must be valid because it drives the project APMP Body of Knowledge (2018).

It's not enough to establish a business case. It must also be constantly evaluated. As you learn more about the project's requirements, costs, and risks, you should re-evaluate the business case to see if it is still viable. If controls are exceeded or unmet, or if the situation changes, a project's business case may no longer be justified APMP Body of Knowledge (2018).

How is this determined? Through qualification, a testing process equivalent to the decision gate process in BD. It is perhaps the most important management theme in the BD process because it goes to the heart of business justification for bidding. It should be a continuous process documented in a live business case, as shown in Figure 10 APMP Body of Knowledge (2018).

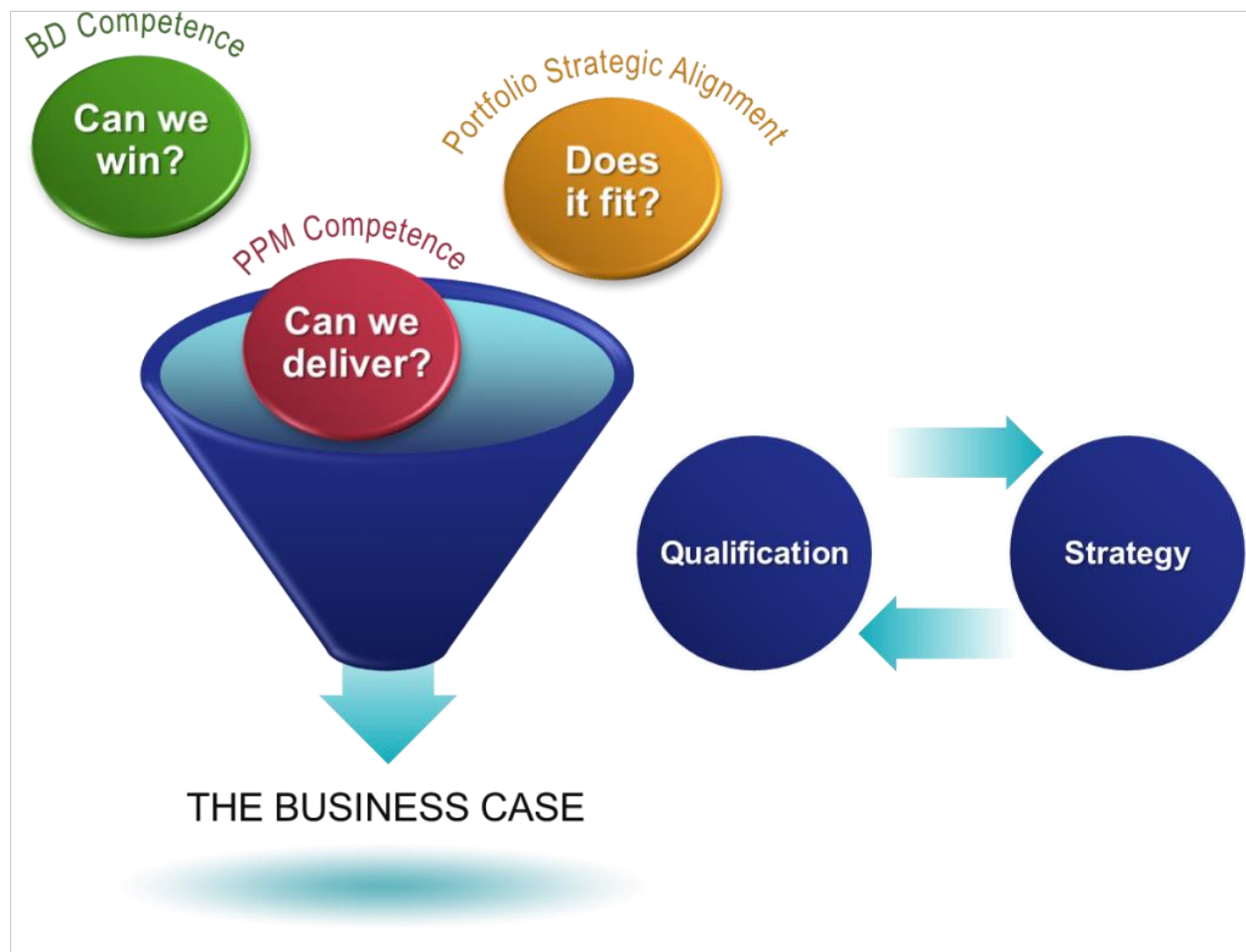


Figure 10. Qualification as a Continuous Process, APMP Body of Knowledge (2018)

Qualification and the business case are continuously tested as the situation and your knowledge of it develops. The focus is on whether the business case is still valid and whether you still have a strategy that can win. The Project Manager maintains the business case as a live document and checks that it is still within approval limits APMP Body of Knowledge (2018).

APMP Body of Knowledge (2018) imply that qualification can be conducted in many ways. The win strategy, or project approach, should be tested to ensure that it is still competitive. Similarly, costs and risks (everything from pre-sale costs to delivery estimates) can be compared to ensure that there will still be a profit if the bid is successful. This ties back to the strengths of

an integrated project lifecycle: this level of qualification, with the visibility it requires of both BD and PM activities, demands an integrated approach to project planning and execution.

3.7.5 Build lessons learned into your project approach and plans

Whether a bid is successful or not, capturing lessons learned is essential. Knowledge capture is not easy, especially with separate teams and processes. But when BD and PM teams have an integrated standard to follow, it is much easier to track estimates for specific activities. By tracking details in a consistent fashion, BD can compare estimates to actual results and use this knowledge to inform future bid, especially for similar projects. This also creates a better assessment for risks: with this knowledge, you can lower your prices to gain a more competitive position, or you can increase your margin APMP Body of Knowledge (2018).

According to APMP Body of Knowledge (2018) these benefits require a standardized, integrated, and governed project management lifecycle that starts with BD, as shown in the following table.

Table 4. Build lessons learned into the project approach, APMP Body of Knowledge (2018)

Business Development	Project Planning	Project Execution
Scope as bid	Scope during planning	Final delivered scope
Bid estimates	Contract estimates	Variation during delivery
Initial estimate of resources	Required resources	Actual resources
Estimated cost and overhead	Planned cost and overhead	Actual cost and overhead
Contingency identified in bid	Contingency identified in project planning	Actual spent contingency
Price	Budget at completion	Actual spent budget

It is easier to manage project details across functions, from proposal creation through PM, when the method, process, and structure are similar. For example, BD and PM teams should use the same work breakdown structure, scope/technical specifications, quality standards, resources, initial estimates, prices/durations, master schedule, vendors and subcontractors, constraints, assumptions, stakeholders, and risks APMP Body of Knowledge (2018).

APMP Body of Knowledge (2018) suggest that in order to support this process, management can:

- Implement a common process across BD and project delivery so that common products and artifacts are created;
- Make reviewing lessons learned a required step in each planning process and at the start of each major step in the project lifecycle;
- Have “lessons learned incorporated in this plan” as a required section in each plan document (plans here include those created as part of the bid process);
- Support the process with training, accessible guidance, and helpful templates.

3.7.6 Construct a functional organization for each project based on defined roles and responsibilities

A bid team, like a project, is a temporary organization. It typically cuts across organizational and functional boundaries and has reporting lines in addition to team members’ normal lines of management. The Project Manager, therefore, must establish a clear functional organization and reporting structure for the project. This tells project members who is doing what and who they should go to for direction APMP Body of Knowledge (2018). Figure 11 is an example of a typical functional organization.

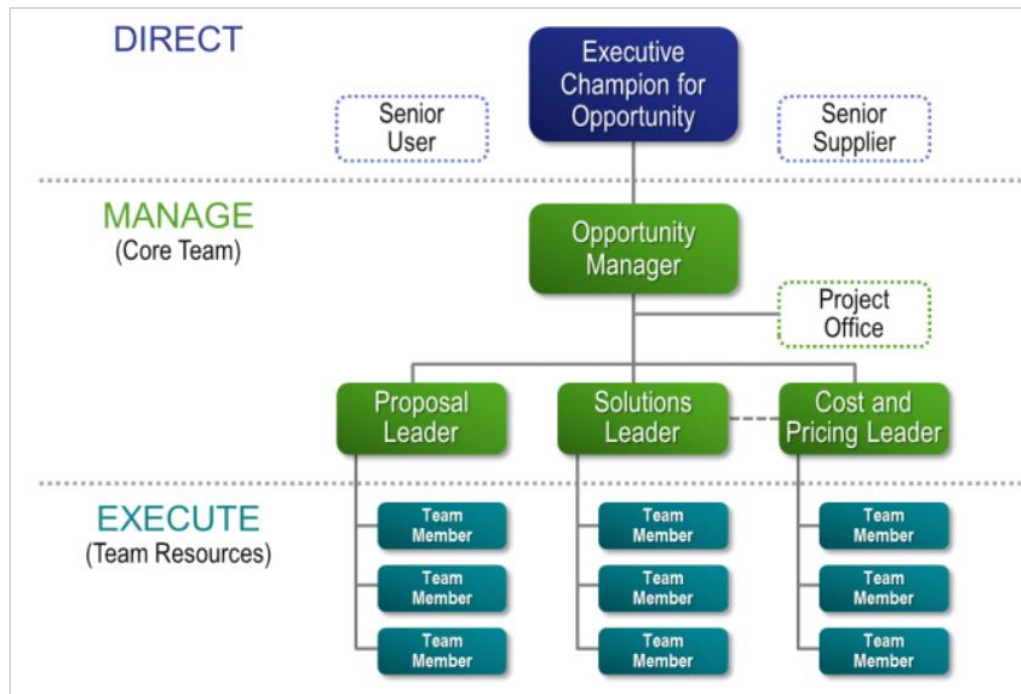


Figure 11. Project Functional Organization, APMP Body of Knowledge (2018)

The project functional organization establishes a clear reporting structure for the project. The design is based on roles that define accountabilities and skills required APMP Body of Knowledge (2018).

The organization of the bid team must be scaled in size and complexity according to the needs of the project. Roles can be combined to reduce organizational size, or they can be split across resources when size demands it APMP Body of Knowledge (2018). The BOK further suggest that to support the process of effective organizational design, organizations should:

- Maintain a clear set of individual and organizational roles (see Individual and Organizational Roles for more information);
- Identify the competencies required for each role;
- Provide suggested mapping of roles to jobs within the organization.

The project functional organization should address all levels of management, including direction, management, and execution APMP Body of Knowledge (2018).

3.7.7 Empower the project team to manage within defined limits.

The project team must be empowered to manage. Constantly asking management for permission or authorization is a recipe for paralysis. For this reason, management should

establish a sound framework for delegation. The key concepts for effective delegation are management by stages and management by exception APMP Body of Knowledge (2018).

Manage by stages

There are practical limits to the time spent on detailed, high-confidence planning. Project Managers limit their planning time to what is realistic for detailed planning. Beyond this, they make outline plans that are based on realistic assumptions but essentially contain more uncertainty. For bid projects, it makes sense to manage by the eight phases of BD, as outlined in the Introduction to the Business Development Lifecycle section APMP Body of Knowledge (2018).

The length of a management stage is determined by the time over which detailed planning is sensible, which depends on the project and the business environment APMP Body of Knowledge (2018).

Manage by exception

When managing by exception, the Project Manager is empowered to lead the project, provided that it stays within approved limits that are set by management on a stage-by-stage basis. Limits can be set on scope, cost, risk, benefits, quality, and progress. For each of these, management may define a degree of tolerance that provides a level of discretion to the Project Manager APMP Body of Knowledge (2018). The application of limits and tolerances is illustrated in Figure 12.

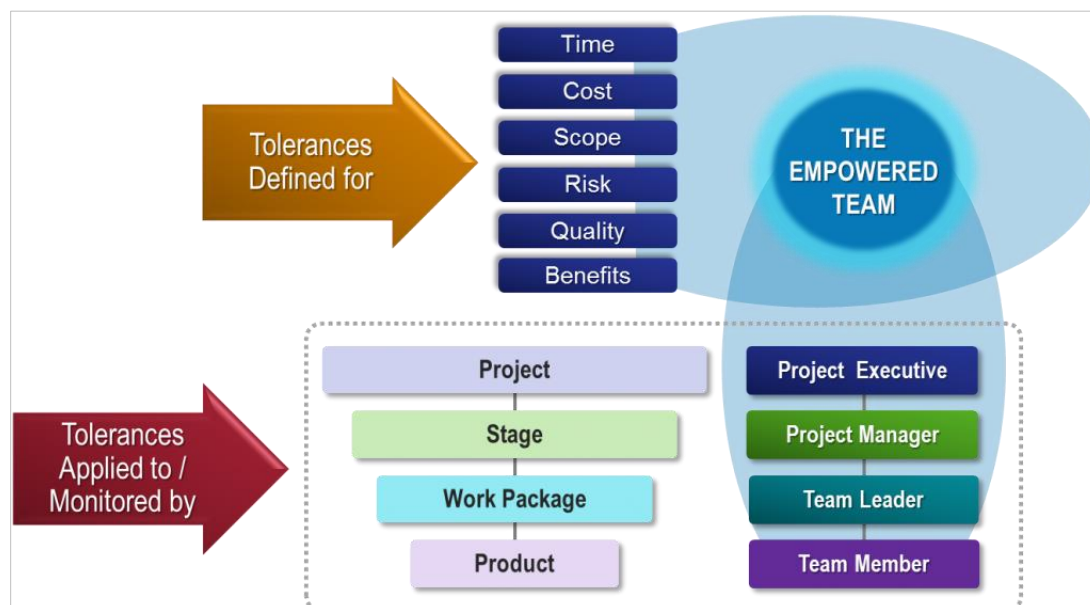


Figure 12. Setting Limits and Tolerances, APMP Body of Knowledge (2018)

The model of defined limits and tolerances and management by exception provides the environment in which the team is empowered to manage at all levels of the organization APMP Body of Knowledge (2018).

3.7.8 Focus on deliverables, not activities

To manage a project effectively, focus on what must be produced (products or deliverables) rather than on what has to be done (activities) to create the deliverables. Products are visible: they are either finished or not APMP Body of Knowledge (2018).

APMP Body of Knowledge (2018) imply that technique and processes (the activities) are the framework of PM. A good Project Manager works within this framework to stay focused on the goal (product): a successful project or a profitable contract. Figure 13 shows the basic components of a product-based approach.

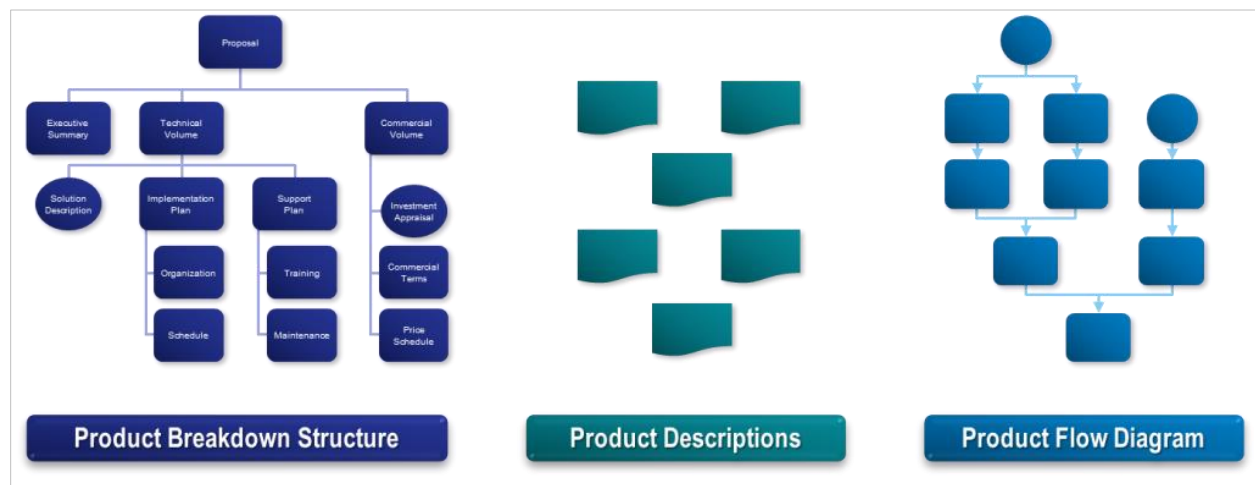


Figure 13. Basic Tools of Product-Based Planning, APMP Body of Knowledge (2018)

The product breakdown structure allows you to analyze the scope and completeness of what has to be produced. Product descriptions provide the purpose, composition, and quality criteria for each product, while the product flow diagram identifies dependencies and the sequence in which products need to be created APMP Body of Knowledge (2018).

In proposal management, this means validating the compliance and responsiveness of content against requirements and strategy, and not just focusing on completing the work by its deadline APMP Body of Knowledge (2018). The BOK numbers the following advantages deriving from Basing plans around deliverables or products:

- Proposal Managers will be able to see the status of the project in terms of what it needs to deliver. A product status register tracks what is finished and what is not;
- Acceptance or quality criteria can be established for each deliverable or product. This allows quality assurance (QA) activities to be planned around deliverables and to define their fitness;
- Using a product-based approach to QA scales the process appropriately. Product quality criteria provide a basic checklist for selecting appropriate quality methods, which range from simple inspection to formal review;
- For each product, ownership can be assigned to the person or team that is producing it. This provides a simple mechanism to control progress. Each responsible owner reports on expected delivery and current status.

Analyzing what the project must produce in terms of a product breakdown structure and then documenting this in product descriptions will provide the means of control. Product descriptions form the basis of a “contract” between the Proposal Manager and the Producer. The Proposal Manager defines what is needed, what it should contain, how it should be presented, and the standards by which it will be accepted. The Producer agrees to produce what was asked for, to the standards required, at a given time and cost APMP Body of Knowledge (2018).

Tools and templates are particularly useful here, including checklists, model statements, proposal themes, proposal strategies, value propositions, decision tools, and review criteria APMP Body of Knowledge (2018).

3.7.9 Common Pitfalls and Misconceptions related to the application of Project Management principles to Proposal Management

The APMP Body of Knowledge (2018) identifies the following common pitfalls and misconceptions related to the application of Project Management principles to Proposal Management:

Rigid Implementation

APMP Body of Knowledge (2018) imply that by their nature, PM methodologies are heavy duty and capable of supporting high-value, high-risk activities. The documentation and processes that enable these methodologies are similarly comprehensive. According to the BOK this can lead to two possible negative outcomes:

- An organization imposes a heavyweight process on every opportunity, regardless of size or complexity. The effort devoted to managing small projects or proposals is disproportionate to their value;
- Project and proposal teams find workarounds for perceived overly bureaucratic processes and use lighter approaches based on their own view of what's appropriate. Consistency is lost as documented processes are abandoned.

PM methodologies provide a framework for consistent processes. This framework must be tailored to every opportunity to ensure success and adoption APMP Body of Knowledge (2018).

Too much focus on the process

Technique and process are the framework for PM principles, not the end goal. Rather than endlessly refining plans and documentation, Project Managers need to ask the right questions at the right times and make sure that their teams have what they need to win. It's no different for the proposal team. The team needs to focus on creating value for the customer by using PM tools, rather than spending all their time refining those tools APMP Body of Knowledge (2018).

Reluctance to engage with Project Managers

Project Managers want realistic, achievable plans with budgets that cover a project's real costs and risks. Sometimes this behavior is viewed as negative or overly rigorous, leading some to avoid engaging with Project Managers until late in the cycle APMP Body of Knowledge (2018).

APMP Body of Knowledge (2018) imply that Project Managers can avoid this by addressing all stakeholder concerns early in project development. They can also share the efficiencies and process improvements that PM principles can bring with their proposal development teams.

Anti-patterns

APMP Body of Knowledge (2018) imply that just as there are good patterns of behavior, there are also anti-patterns that should be avoided. The BOK identifies the following familiar PM anti-patterns with equivalents in the proposal world:

- **Analysis paralysis.** Similar to focusing too much on the process, a team spends its time arguing about the best solution or requesting further information before committing. When the time comes to deliver, the team is not ready. This is why it is essential to focus on deliverables and have a sound business case already established;
- **Death march project.** Sometimes known as the "old man syndrome," this situation occurs when the CEO has signed off on a doomed project and expects the team to win. The team knows it is hopeless, but carries on to the bitter end. This is where controls

and qualification can result in a more effective use of resources. Backed by sound data, BD can approach management with a business case as to why the project is not worth the effort or resources.

3.8 Summary

- According to APMP Body of Knowledge (2018), by applying PM best practices in BD projects, proposal professionals will:
 - Gain sustainable competitive advantage for organizations
 - Increase the probability of successful outcomes for bid
 - Reduce the risk to profits and reputation resulting from poor handover
 - Improve the selling quality of proposals
 - Gain insight in evolving the best practices of the organization
- Organizations should strive to execute integrated projects, rather than emerging or lagging projects. Integrated projects are planned ahead and are more likely to achieve strategic objectives APMP Body of Knowledge (2018);
- Integrated projects can help limit conflicts between the proposal and contract APMP Body of Knowledge (2018);
- Projects (and proposals) should continually be monitored for business justification APMP Body of Knowledge (2018);
- Project Managers should construct functional organizations for each project APMP Body of Knowledge (2018);
- Teams will be more successful if they focus on deliverables (products) rather than activities APMP Body of Knowledge (2018).

Chapter 4. Research Results

4.1 Introduction

This chapter begins with an introduction of the Company on which the Case Study is based on. It presents the analysis and discussion of the data that have been collected from the questionnaire survey and case interviews and presents the qualitative data that have been elicited and discusses the documents that have been provided by the company.

One of the main objectives of this research is to examine the client's approach to proposal management process and develop tools to improve the process. Chapter 2. discussed various research methods for data collection; outlined the specific strategy for collecting data for this research and the methodology for collecting data. As explained in Chapter 2, the specific research methodology adopted for this research was questionnaire survey and case interviews. This chapter analysis the responses to the questionnaire and case interview questions addressed to the company's employees involved in the Proposal Management process.

As case study approach was employed in the research to capture the subject of study from the existing literature and business practice. In order to achieve this, qualitative and quantitative research techniques were adopted throughout the stages of the research.

As described within Chapter 2. Research Methodology, to meet the requirements of the objectives defined for this research, the researcher has adopted the following research methods:

- Comprehensive Literature Review;
- Questionnaire Survey;
- Interviews; and
- Framework Development and Validation.

4.2 Case Study Company

This research is based on secondary research methods and an empirical study within Ecolog, which is an International Company that operates in the Supply Chain, Construction, Technology, Facility Management and Environmental services Industry. The company employs more than 12000 employees and provides turnkey and customized solutions to governments and defense, humanitarian organization and commercial clients in the sectors of Oil & Gas, Mining, Energy and Infrastructure projects in numerous locations worldwide.

Ecolog have established the PSC (Proposal Solution Center) to improve the efficiency of the proposal and proposal activity by following a unified approach, established methods, processes and tools necessary to win business. The unique characteristics for the PSC is that for each service group a tailored framework and business process is followed. Therefore, this company was selected to serve as a benchmark for conducting empirical studies that will contribute in the observation of practical implementation of the theoretical and industry-best practice models of the proposal management process.

The uniqueness of this study is the empirical study on the proposal management process that is currently being implemented at Ecolog to identify the following points, but not limited to:

- Implications or pitfalls in the proposal management process;
- Strengths and weaknesses in the proposal management process;
- The tools, methodologies and principles used in the proposal management process;
- The development of a framework/ model;
- Define whether the same framework can be applied to other companies, industries or sectors.

Working within the PSC department during the last 3 years, the researcher had the chance to be involved in the entire cycle of systematization of the Proposal Management Process, starting from the initiation and deciding which standards to apply and follow up to the step-by-step implementation and testing of these principles and techniques within Ecolog's PSC department. In this period, the researcher has been engaged in the development of the three PSC Concepts which indeed represents as internal guidance document that describes the unique concept that PSC unit follows with detailed description on the systemized Proposal Management methods,

tools and techniques implemented within PSC. The first PSC Concept was published in 2015, to be followed by an updated Concept in 2016 and 2017 the most up-to-date Business Development for Service Industry Book was published in 2018.

PSC transformation from a Functional organization to a process-oriented organization was conceptualized through three main stages. These stages represent the three generations of PSC:

- Mobilization
- Organization
- Systematization

During the Mobilization phase PSC had processes for individual parts of the department supported mainly by the Shared Service Unit. The organization phase was a start for harmonizing the different business processes across PSC and the beginning of a system landscape that supports these processes. The systematization phase is leading PSC into an agile department creating reliable solutions supported and organized entirely by the system.

The key highlights of the PSC (Systematization) Concept published in 2017 include:

- Fully integrated proposal solutions concept, incorporating proposal management, estimating/costing, and technical solutions, in a single department, which is unique in the industry;
- Fully implemented our custom PSC business process driven by Association of Proposal Management;
- Professionals (APMP) and Business Process Management (BPM) standards;
- Systemized interface to internal stakeholders, including Business Development, Operations, Supply Chain, Logistics and Human Resources;
- Systemized interface to external stakeholders, including consultancy firms, senior consultants, and experts.

The empirical study within Ecolog is based on the analysis of the proposal management approach explained within the PSC Concepts and the questionnaires and case interviews with individuals engaged in the Proposal Management process within Ecolog.

The PSC Concept and associated processes, procedures and tools are based on numerous standards and BOKs (Body of Knowledge) including the following:

- Association of Proposal Management Professionals Body of Knowledge (APMP BoK) & Shipley Associates;
- Project Management Body of Knowledge (PMBOK) - Project Management Institute (PMI);
- GAO Cost Estimating - US Government Accountability Office;
- SAP.

As already explained within Chapter 3. Literature Review, the Business Development is about winning business. The Business Development for Service Industry Book covers the end-to-end Business Development process developed and tailored to the specific market needs and competitive position in the Life Support industry for the B2B business.

Through effective marketing, opportunity and sales activities including product development, PSC have endeavored to advance to an improved position with the customer and ultimately be the solution of choice in a favored position.

Defining, documenting, and implementing an effective business development lifecycle is a core part of strategic planning for any business. In PSC, this is done through:

- Scaling and tailoring the cycle to specific markets and competitive positions;
- Clearly defining roles and responsibilities within the cycle;
- Secure leadership buy-in and support for implementing the cycle;
- Documenting all successes and failures to learn from experience;
- Enhancing the customer relationship across the cycle at each phase and as part of each activity.

The Business Development Lifecycle is business process oriented and overarches all the units involved in Marketing, Sales and Proposal Development. This Book describes the eight phases of the business development lifecycle.

4.2.1 Business Development Lifecycle within Ecolog

Clear decisions must be done about the markets we intend to pursue and penetrate. The market risk assessment is a valuable tool for assessing the risk and investment tolerance for selling to new or existing markets with new or existing products or services.

Markets must be constantly assessed and reevaluated by identifying new market segments and validating current markets. Whether to enter a specific market is a key decision gate at this phase of the business development lifecycle.

Accounting Planning and Positioning

An account can be a prospective customer, an existing customer, an entire organization, or a single buying unit within a large company. Account planning involves long-term positioning with a potential customer and is an ongoing activity across the business development lifecycle. Account plans are adjusted as opportunities progress through the sales pipeline or as new opportunities arise. This phase includes marketing activities that position an organization in the market and with specific target customers.

The account planning data are stored and kept up-to-date within our in-house developed PSC Customer Relationship Management (CRM) system.

Opportunity Assessment

A key decision gate at the opportunity assessment phase of the business development lifecycle is a preliminary bid/no-bid decision on a specific opportunity. Sales opportunities are identified through many channels, including marketing campaigns, traditional prospecting, social media efforts, and lobbying strategies. Qualifying opportunities is a key step to improving overall win rates.

Opportunity Planning

Opportunity planning starts early in the lifecycle and continues through proposal submission. This planning involves customer interaction and effective sales to understand customer needs and issues. Critical aspects of opportunity planning include knowledge of portfolio management and the 4Cs: Customer, Competition, Cost, Company and Solution.

Proposal Planning

Proposal Planning activities are essential to transferring customer issues and needs identified during opportunity planning into proposal strategies, solutions, a price-to-win, and mitigations.

The key proposal planning activities include:

- Migrating data from the opportunity plan to a proposal plan or to proposal planning tools;
- Extending the opportunity strategy into the proposal strategy;
- Organizations can capture this transfer by preparing a draft executive summary;
- Refining the solution and price-to-win;
- Engaging the right staff for the proposal team and securing the right executive support;
- Holding a proposal kickoff meeting to share planning activities with the proposal team.

Proposal Development

As the opportunity matures and a formal bid request is released, proposal development kicks into high gear. If the opportunity is still viable, then the planning documents prepared in the previous phase now become working proposal development documents.

Compliance tracking tools, such as compliance checklists, response matrices, and writers' assignments are utilized to ensure that they are meeting the requirements of the bid request. Communication tools are used to validate progress, troubleshoot proposal content, and

address concerns. Finally, short check-ins are done to monitor progress and status to ensure that deliverables and schedules are met.

The proposal team reviews the complete draft proposal beginning with the executive summary, all volumes (including cost), and other items required at submittal. The review team makes recommendations for improvement. After completing changes and receiving final approval, the proposal is submitted to the customer.

Negotiation and Post-Submittal Activity

Submittal of a proposal does not signal the end of the business development lifecycle. On the contrary, this is the phase where business decisions become intense and real. Many customers request clarifications or have discussions with bidders before making a final decision. These may lead to proposal modifications. While interacting with the customer, opportunity plan information are refined and plans are done for customer meetings and live discussions.

Conducting a lessons-learned review on each major bid opportunity is a critical best practice. Lessons learned are documented and stored within the PSC system for others to access and reference on future sales opportunities.

Delivery and Ongoing Customer Relationships

Effective business development activities continue throughout the solution delivery phase. This happens through ongoing interaction with the customer. Winning the contract is an opportunity to prove value and position the organization for additional opportunities.

Executing effectively on a contract is the best way to position for future business with an account or client organization. Account management techniques are applied such as regular customer contact, product demonstrations and upgrades, social marketing, and participation in relevant industry and trade events.

Proposal Planning Process within Ecolog

As described within the Business Development for Service Industry Book, the key proposal planning activities include:

- Migrating data from the opportunity plan to a proposal plan or to proposal planning tools;
- Extending the opportunity strategy into the proposal strategy;
- Organizations can capture this transfer by preparing a draft executive summary;
- Refining the solution and price-to-win;
- Engaging the right staff for the proposal team and securing the right executive support;
- Holding a proposal kickoff meeting to share planning activities with the proposal team.

The following section outlines the Planning tools that are utilized in the Proposal Planning Process by the PSC Team.

1. Proposal Pipeline

Once a positive bid decision has been made, the Proposal Pipeline process is initiated. Every proposal has a Proposal Room created in the PSC Virtual Room and in E-Project (in-house developed system) which allows the Proposal Team to schedule, maintain documents and collaborate with the assigned team.

2. Assigning the Proposal Team

Once the Preliminary Bid/ no-Bid decision is made, the Customer Documents are distributed to the pre-defined channels for Bid Distribution and the Proposal Center. The Proposal manager is focused on proposal development, including maintaining schedules, coordinating inputs, conducting reviews, implementing strategy, and resolving internal problems.

The Estimating Manager reviews individual cost estimates for credibility, rationale, compliance, and completeness. He/she rolls-up the costs for proposal components, and further checks these totals against prior similar programs. The Technical Solution Manager is responsible for delivering a successful solution to the customer that results in quality past performance reviews and additional work.

3. Defining Major Proposal Milestones

Major Proposal Milestones are defined at an early stage in the Proposal Planning process to improve the communication and task organization among the team members, increase the work transparency and focus on the project goals. The Major Proposal Milestones used by the PSC Team include:

- Pre-Kick off Meeting;
- Kick-off Meeting;
- Initial Solution Design Meeting;
- Solution Freeze Meeting;
- Red Review Meeting;
- Gold Review Meeting.

4. Developing the Compliance Checklist

Compliance Checklists are lists of RFP requirements and customer questions that must be answered in the proposal. The Compliance Checklist is used for creating story board, estimation, benefits, features and discriminators.

A list including all the Forms and documents that have to be submitted with the Proposal is created by the Proposal Manager, after carefully reading and analyzing the RFP. This list will then serve to the Proposal Manager, Solution Manager, Estimating Manager and the proposal team as a reference on what forms have to be filled and what documents shall be submitted as per the RFPs requirements.

5. Define Proposal Strategy

The Proposal Strategy consists of a series of statements that state the organizations position and how they plan to emphasize the position within the proposal. Initially capture strategy statements are translated into proposal strategy statements, and then each statement is assigned to one or more proposal sections via the writers' packages. As a result, the Proposal Strategy is developed.

6. Define Proposal Tasks and Schedule

The Proposal Manager develops deadline-driven Proposal Schedules to avoid last minute challenges and allocate resources and estimate drop-dead dates for final proposal submission. The Proposal Schedules enable the Proposal Team to plan and monitor proposal activity progress on each task and deliverables.

7. Develop Solution WBS

The Customer Pricing Template is used as a reference when developing the 1st Level of WBS. Task lists are created for each WBS within the e-Sales system of PSC.

8. Initiate Proposal Input Request

Upon defining the proposal tasks and requirements, the Proposal team initiate the Proposal Input Request from the Key users of each department within the organization involved in the Proposal development.

9. Hold Proposal Kick-off Meeting

As a culmination of the core team's preparation, the proposal kick-off meeting is held. The draft Proposal Management Plan is used to explain and get buy-in for the strategy, schedule, format, outline and baseline design of the offering.

Kick-off meetings are mainly held to initiate contributors' proposal efforts, answer questions related to the opportunity, make writing assignments, coordinate upcoming activities and create a cohesive team.

All members of the core team, key management, key marketers, key engineers and selected members of the extended proposal team are invited to attend the Proposal Kick- Off Meeting.

4.2.2 Proposal Development Process within Ecolog

1. Hold Solution Freeze Meeting

The team present the solution at the Solution Freeze Meeting. The proposal team implement recommended refinements and freeze the solution to focus on preparing a clear, concise and persuasive proposal.

During the Solution Freeze Meeting the Estimating Manager extracts from system the list of manpower, materials, equipment and tools and maps them to the respective fields within the Estimating template to further conduct analysis, benchmark and profitability analysis. While the Proposal Manager extracts the required input in the pre-defined template from the Proposal Room.

2. Develop Proposal Text/ Visuals

The Proposal Manager is responsible for developing and finalizing the Proposal write-up sections along with the graphic designer. The team review progress on section drafts to help ensure consistency with other sections, responsiveness, strategy implementation effectiveness, clear communication and persuasive messages.

3. Hold Red Team Review

The review begins with the executive summary, all volumes including cost and other items required at submittal. The sections are edited and proofread following this review. Furthermore, the team reviews the drafts and visuals and assigns review dates in the project plan.

The Red Team is an in-house proposal review team that reads and evaluates the draft proposal from our customer's perspective. By nurturing customer relations, gathering good intelligence and carefully analyzing RFP sections, the scoring system evaluators will employ can be identified. The Red Team conducts an evaluation of the proposal, applying the same scoring methods evaluators would use. The Red Team also checks inter-volume compatibility and verifies the validity of each volume and related claims among the volumes since the proposal is not credible when facts and messages conflict.

After reviewing and scoring the proposal, the Red Team debriefs the proposal team, offering suggestions for improvements to the overall proposal and specific proposal sections.

Whereas, the Proposal Manager briefs the Red Team on the strategy and solution. The conflicting recommendations are minimized by overlapping color team reviewers.

4. Address red Team comments

Following the Red Team review, the Proposal Manager decides what recommendations will be accepted, specifies, the changes and determines who will make the proposal revision. This decision depends on the amount and type of revision the Red Team specifies.

5. Proposal Submission

Upon finalizing all the reviews, the Proposal Manager prepares the Proposal packages for submission to the client for electronic or hardcopy submission, as required by the client, by following the strict instructions given by the client.

4.3 Questionnaire Response

4.3.1 Types of Respondents and Proposals

In Total 18 Respondents responded to the Questionnaire developed for this thesis. Figure 14 provides a description of roles of respondents within the Case Study Company that have been engaged in the Proposal Management Process.

- Proposal Team Lead
- Director of Estimating
- Proposal Manager
- Senior Estimating Manager
- Estimating Manager
- Bid Writer
- Subject Matter Expert (Civil Engineering)
- Subject Matter Expert (Catering Services)
- Subject Matter Expert (Facilities Maintenance)
- Subject Matter Expert (Life Support Services)

Figure 14. Questionnaire Respondent's roles within the Case Study Company

Figure 15 shows that eighty three percent of the respondents have been involved in the development of Engineering & Construction and Life Support Services proposals, sixty one percent of the respondents have been involved in the development of Catering and Environmental Services proposals, fifty five percent of the respondents have been involved in

the development of Food Logistics Services and five percent of the respondents have been involved in the development of other types of proposals (Labor Supply, Fuel Supply, Fuel Distribution and Management Services).

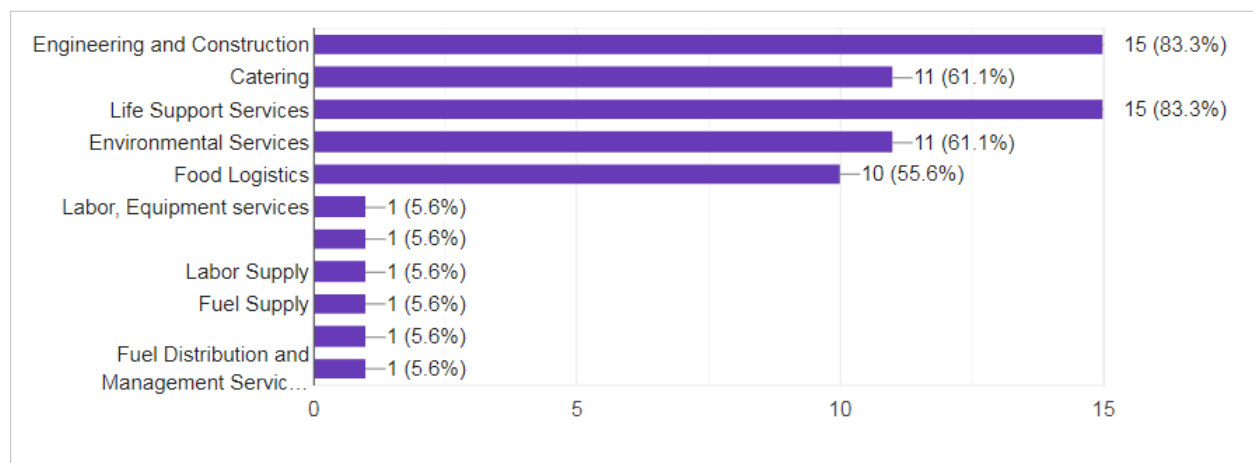


Figure 15. Types of Proposals the respondents have been involved

4.3.2 Proposal Management Process

Respondents were asked to respond to questions about the way they conduct the proposal management process within the Case Study Company, the tools they most often use as well as the problems they frequently encounter when developing the proposals and the areas of improvement in the proposal management process.

Degree of formality behind proposal management process

Figure 16 shows the extent to which the respondents considered that the Bid/No Bid Decision is distributed in a systemized and timely manner to the Proposal Team. Thirty two percent of the respondents consider that the Bid/ no bid decision is always distributed in a systemized and timely manner to the proposal team. The Majority of the respondents (thirty seven percent) indicated that the Bid/no bid decision is distributed very often in a systemized and timely manner. Twenty one percent of the respondents consider that the Bid/ no bid decision is sometimes distributed in a systemized and timely manner. Only ten percent of the respondents

consider that the Bid/ No bid decision is rarely distributed in a systemized and timely manner to the proposal team.

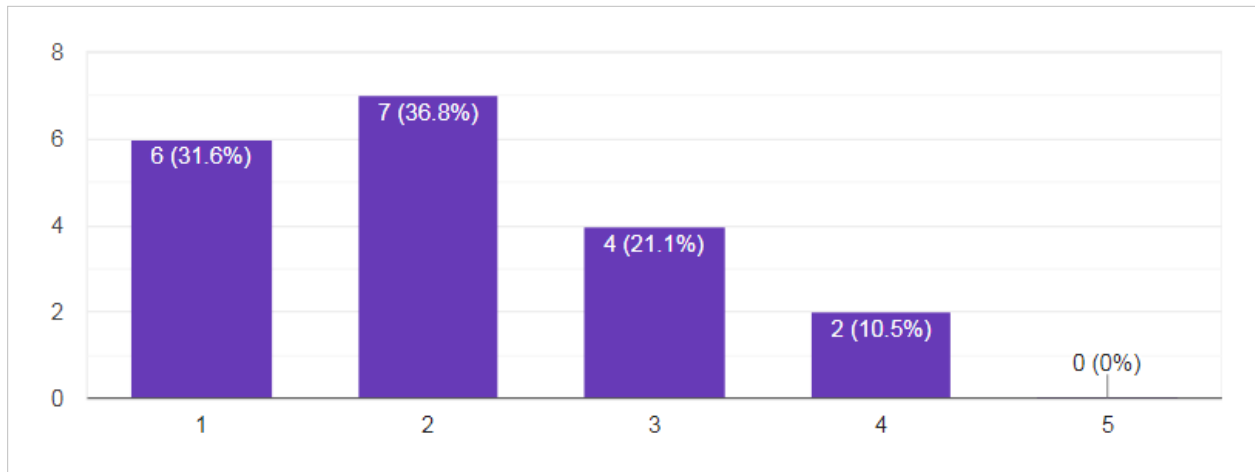


Figure 16. Bid/ No bid Decision is distributed in a systemized and timely manner

(* 1-always, 2-very often, 3-sometimes, 4-rarely, 5-never)

Figure 17 shows that sixty three percent of the respondents consider that the Proposal Team members tasks are always defined properly. Twenty one percent indicated that the proposal team member tasks are very often defined properly. Five percent of the respondents consider that the proposal team members tasks are sometimes defined properly. Five percent of the respondents claim that the proposal team member tasks are rarely defined properly. And only five percent indicated that the proposal team member tasks are never defined properly.

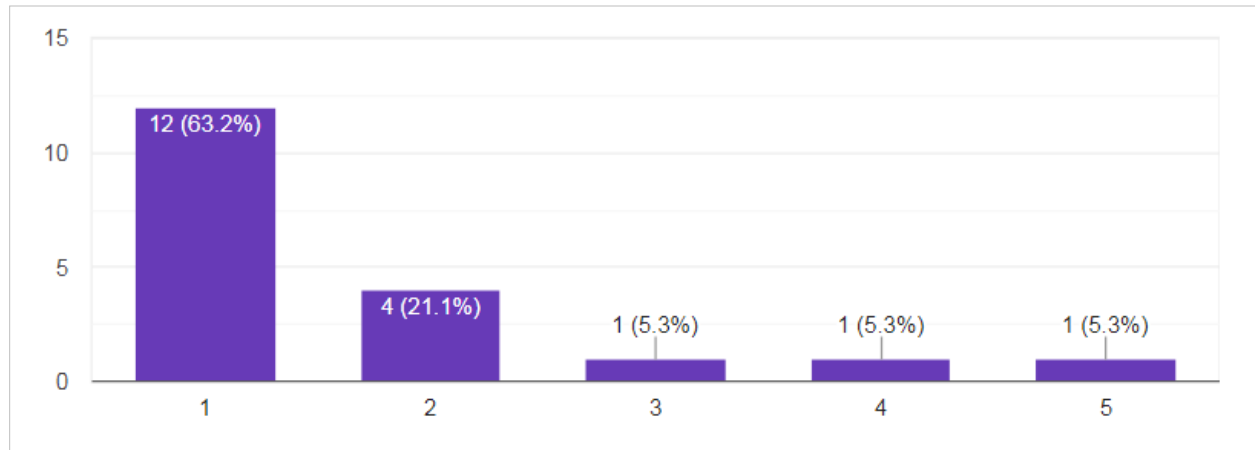


Figure 17. Proposal Team member task definition

(* 1-always, 2-very often, 3-sometimes, 4-rarely, 5-never)

Figure 18 shows that majority of the respondents (forty seven percent) consider that the Proposal Major milestones are always realistic and followed by the Proposal Team. Thirty seven percent of the respondents indicate that the Proposal Major Milestones are very often realistic and followed by the proposal team. While fifteen percent of the respondents consider that the Proposal Major Milestones are sometimes realistic and followed by the proposal team.

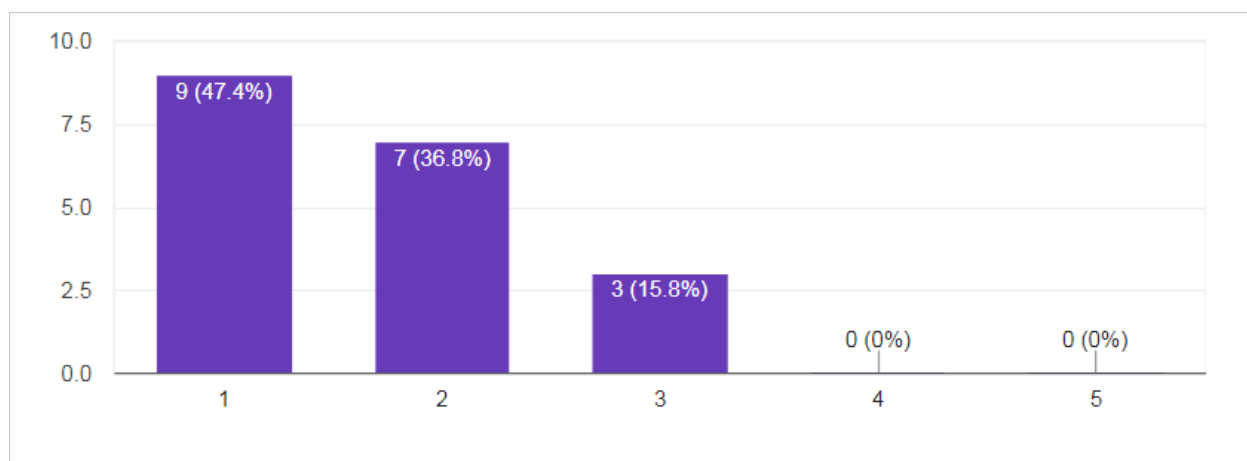


Figure 18. Proposal Major Milestones usefulness

(* 1-always, 2-very often, 3-sometimes, 4-rarely, 5-never)

Figure 19 indicate that majority of the respondents (Seventy nine percent) consider that Kick off Meetings are always productive and organized in a professional manner. Fifteen percent of the respondents indicate that the Kickoff Meetings are very often productive and organized in a professional manner. Only five percent of the respondents consider that Kickoff Meetings are sometimes productive and organized in a professional manner.

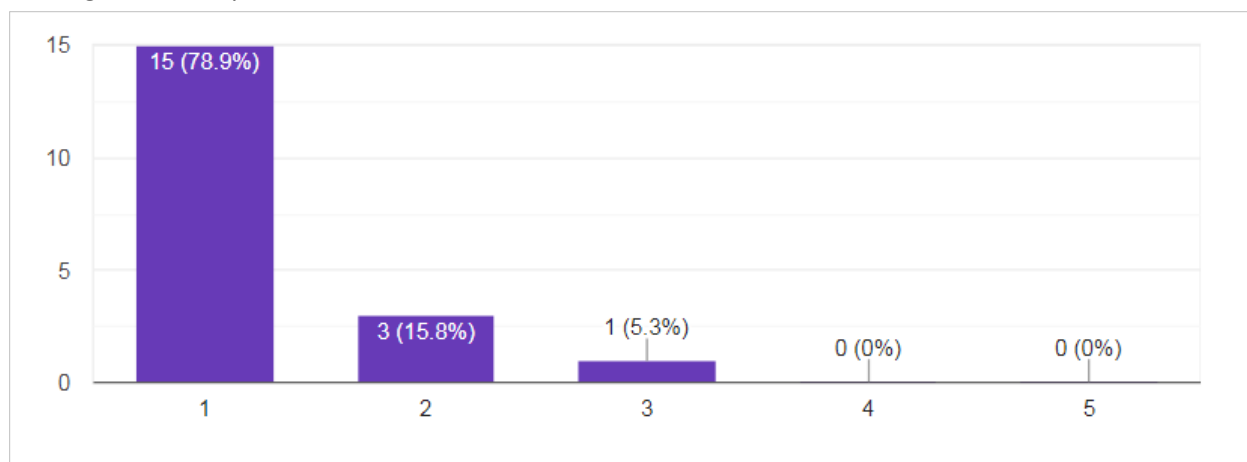


Figure 19. Kick off Meeting Productivity

(* 1-always, 2-very often, 3-sometimes, 4-rarely, 5-never)

Figure 20 indicates that seventy four percent of the respondents consider that the Compliance Checklist always includes enough information and instructions. Only ten percent of the respondents consider that the Compliance Checklist very often includes enough information and instructions. Only fifteen percent of the respondents consider that the Compliance Checklist sometimes includes enough information and instructions.

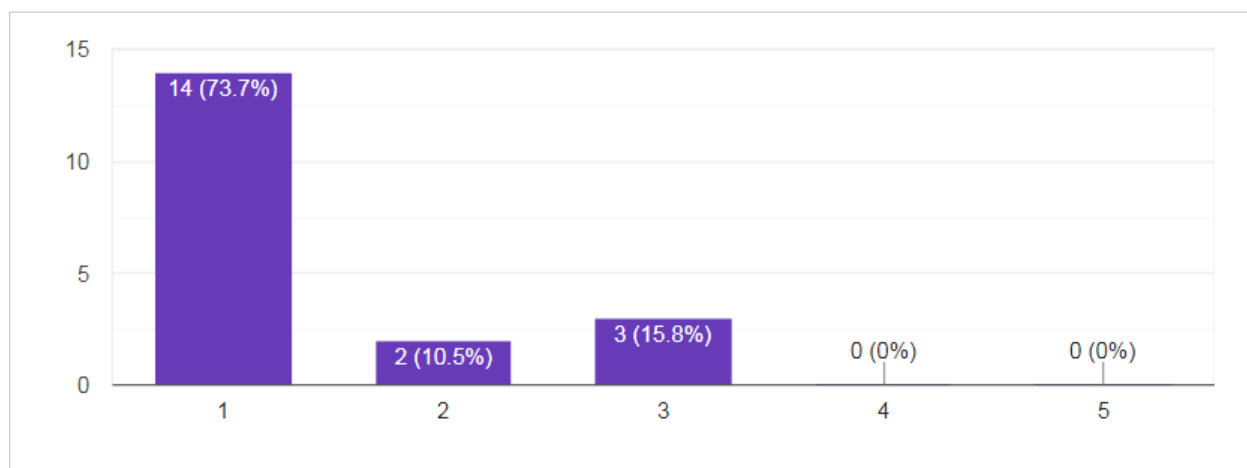


Figure 20. Compliance Checklist usefulness

(* 1-always, 2-very often, 3-sometimes, 4-rarely, 5-never)

Figure 21 indicates that majority of the respondents (forty two percent) consider that the Site visit reports provided always answer all questions included in the Site Visit Questionnaire template. Thirty one percent of the respondents indicate that the Site visit reports provided very often answer all questions included in the Site Visit Questionnaire template. While Twenty one percent of the respondents consider that Site Visit reports sometimes answer all questions included in the Site Visit Questionnaire template. Only five percent of the respondents consider that the Site Visit Reports rarely answer all questions included in the Site Visit Questionnaire template.

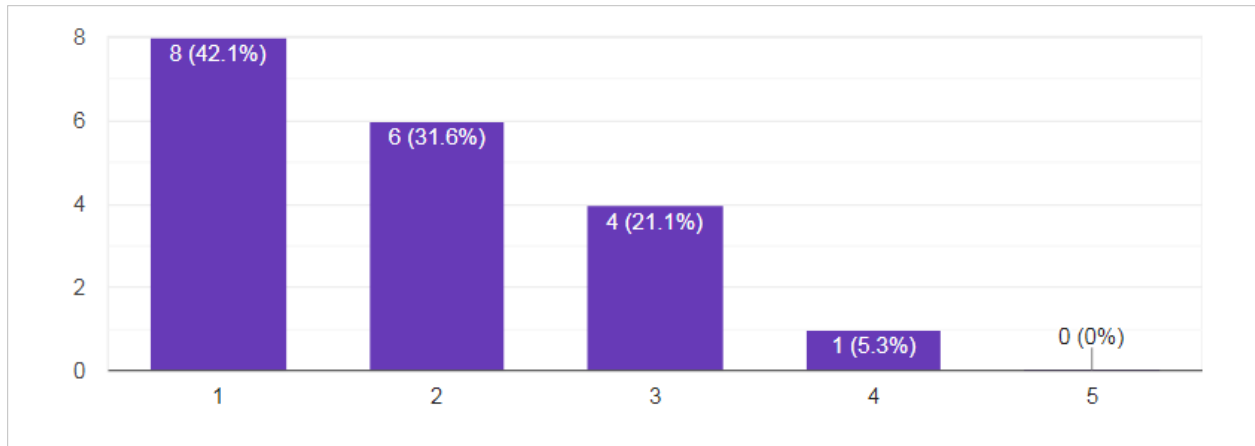


Figure 21. Site Visit Report usefulness

(* 1-always, 2-very often, 3-sometimes, 4-rarely, 5-never)

Figure 22 indicates that the majority of the respondents (sixty nine percent) consider that Work Breakdown Structures (WBS) are always developed for each proposal. Twenty one percent of the respondents indicate that Work Breakdown Structures (WBS) are very often developed for each proposal. Only ten percent of the respondents consider that Work Breakdown Structures (WBS) are sometimes developed for each proposal.

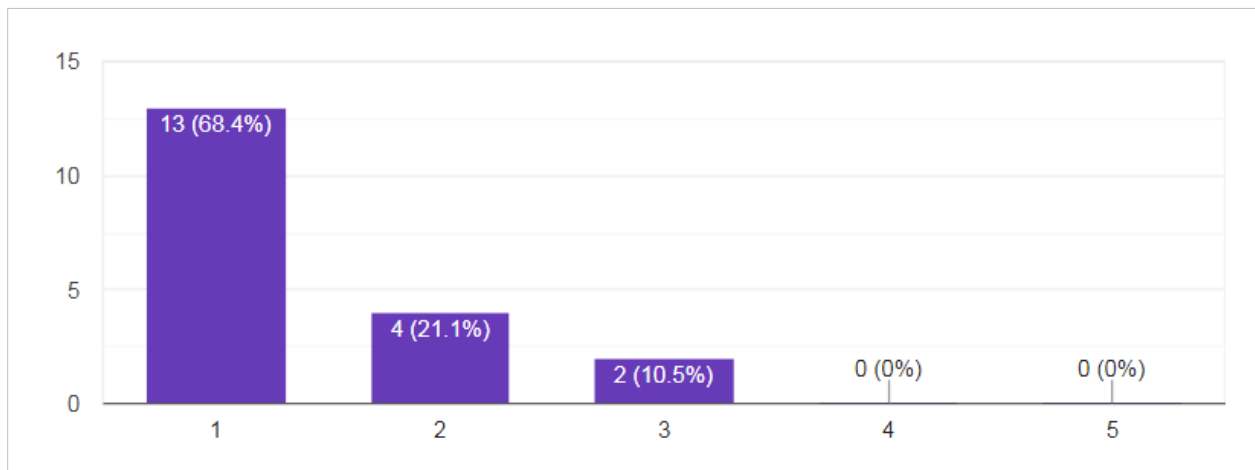


Figure 22. Work Breakdown Structure (WBS) usefulness

(* 1-always, 2-very often, 3-sometimes, 4-rarely, 5-never)

Figure 23 shows that the majority of the respondents (seventy four percent) consider that the Proposal Outline always matches the client's instructions. While twenty one percent of the respondents indicate that the Proposal Outline very often matches the client's instructions. Only five percent of the respondents consider that the Proposal Outline sometimes matches the client's instructions.

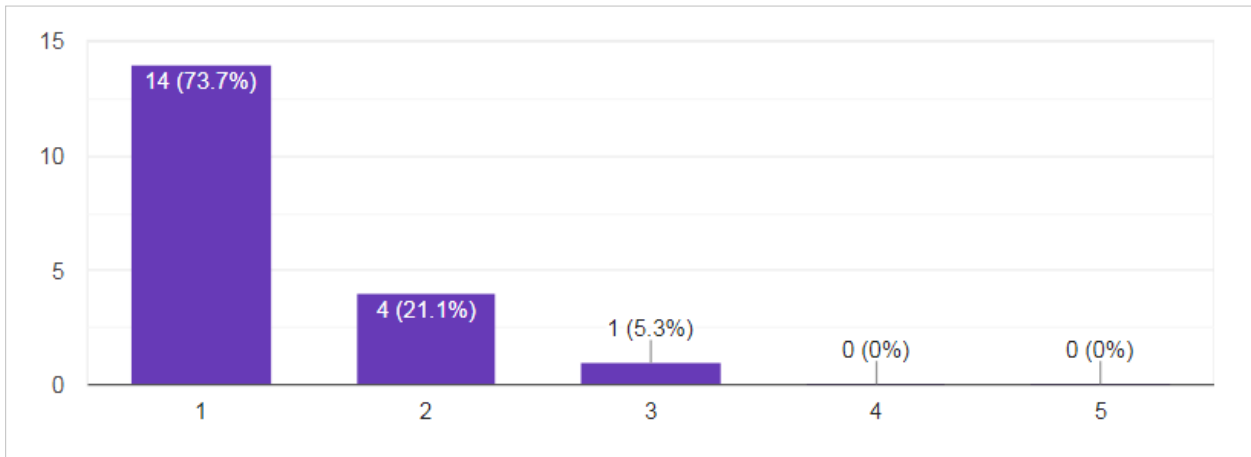


Figure 23. Proposal Outline responsiveness

(* 1-always, 2-very often, 3-sometimes, 4-rarely, 5-never)

Figure 24 shows that thirty seven percent of the respondents indicate that the Proposal Input is always provided as per the agreed schedule dates. thirty seven percent of the respondents consider that the Proposal Input is very often provided as per the agreed schedule dates. Twenty one percent of the respondents consider that the Proposal Input is sometimes provided as per the agreed schedule dates. Only five percent of the respondents indicate that the Proposal Input is rarely provided as per the agreed schedule dates.

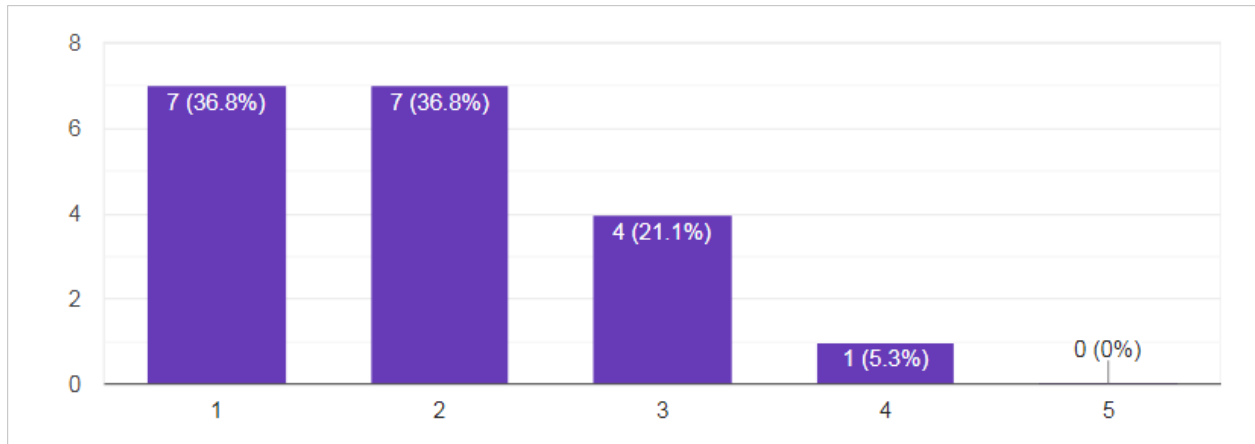


Figure 24. Proposal Input provided on time

(* 1-always, 2-very often, 3-sometimes, 4-rarely, 5-never)

Figure 25 indicates that majority of the respondents consider that sixty eight percent of the respondents consider that Benchmarking is always used as a tool in the proposal development. Twenty six percent of the respondents consider that Benchmarking is very often used as a tool in the proposal development. Only five percent of the respondents consider that Benchmarking is used sometimes as a tool in the proposal development.

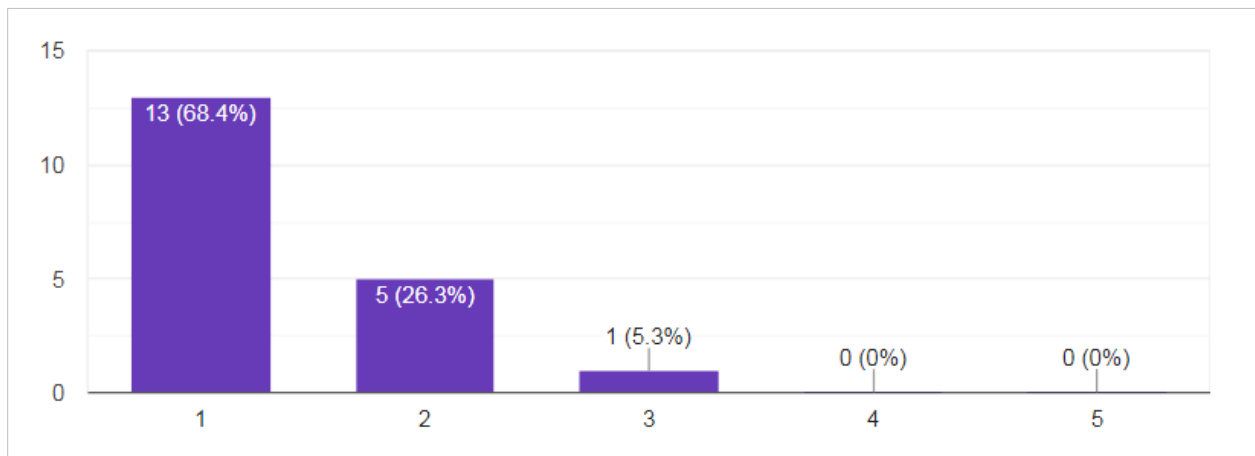


Figure 25. Benchmarking usefulness

(* 1-always, 2-very often, 3-sometimes, 4-rarely, 5-never)

Figure 26 shows that majority of the respondents (sixty three percent) consider that the Red Review Meetings are always done during the proposal development. Twenty six percent of the respondents consider that the Red Review Meetings are done very often done during the proposal development. Only ten percent of the respondents consider that Red Review Meetings are sometimes done during the proposal development.

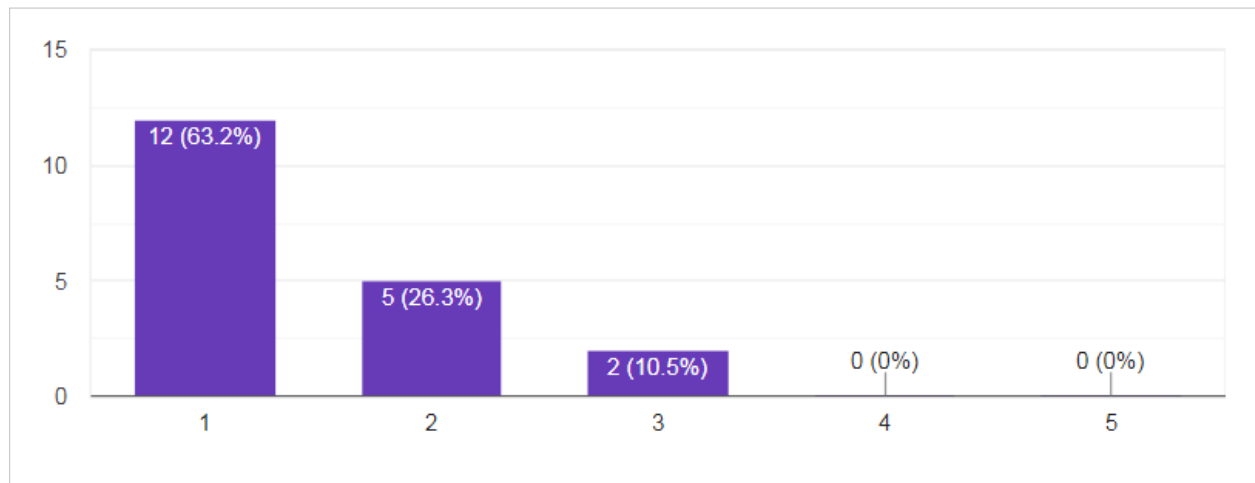


Figure 26. Red Review Meeting usefulness

(* 1-always, 2-very often, 3-sometimes, 4-rarely, 5-never)

Figure 27 shows that the majority of the respondents (seventy nine percent) consider that proposal documentation is always organized and properly maintained. Fifteen percent of the respondents consider that the Proposal documentation is very often organized and properly maintained. Only five percent of the respondents consider that the Proposal documentation is ometimes organized and properly maintained.

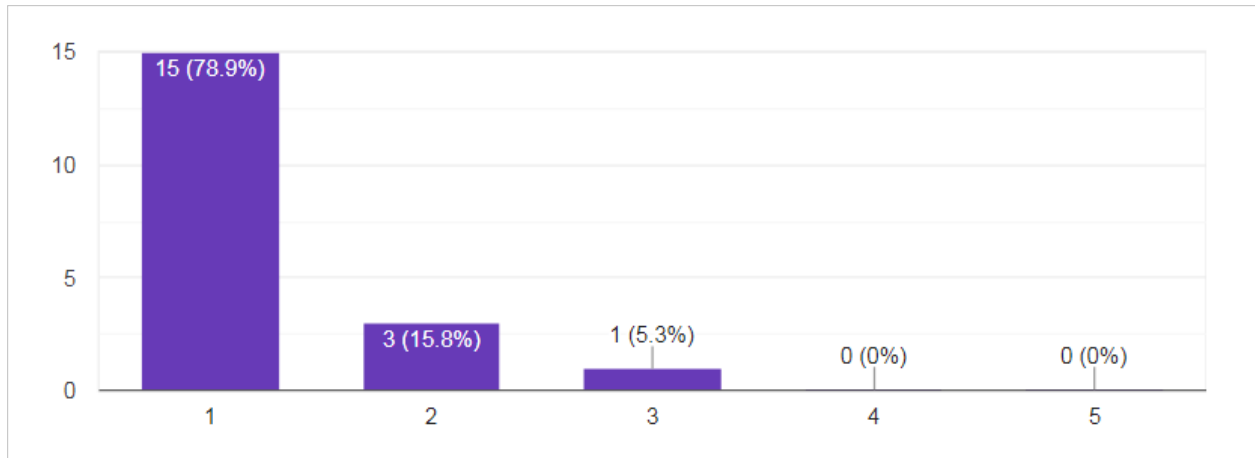


Figure 27. Proposal Library usefulness

(* 1-always, 2-very often, 3-sometimes, 4-rarely, 5-never)

Based on the given responses, it can be concluded that the proposal management process within the Case Study Company is organized and follows the pre-defined process steps. Majority of respondents (90-100 percent) of the respondents consider that the processes and tools utilized in the proposal management process are useful and effective.

Table 5. Overall response rate (Proposal Management Process Usefulness and Effectiveness)

	Frequency per cent					Combined per cent	
	Always	Very Often	Sometimes	Rarely	Never	Sometimes to always	Never to rarely
	1	2	3	4	5		
Bid/ No bid decision is distributed in a systemized and timely manner	31.6 %	36.8 %	21.1 %	10.5 %	0 %	89.5 %	10.5 %
Proposal Team Members tasks are defined properly	63.2 %	21.1 %	5.3 %	5.3 %	5.3 %	89.6 %	10.6 %
Proposal Major milestones are realistic and followed by the Proposal Team	47.4 %	36.8 %	15.8 %	0 %	0 %	100 %	0 %
Kickoff meetings are productive and organized in a professional manner	78.9 %	15.8 %	5.3 %	0 %	0 %	100 %	0 %
The Compliance Checklist includes enough information and instructions	73.7 %	10.5 %	15.8 %	0 %	0 %	100 %	0 %

Site Visit Reports provided answer all questions included in the Site Visit Questionnaire	42.1 %	31.6 %	21.1 %	5.3 %	0 %	94.8 %	5.3 %
Work Breakdown Structures (WBS) are developed for each proposal	68.4 %	21.1 %	10.5 %	0 %	0 %	100 %	0 %
The Proposal Outline matches the client's instructions	73.7 %	21.1 %	5.3 %	0 %	0 %	100.1 %	0 %
The Proposal input is provided as per the agreed schedule dates	36.8 %	36.8 %	21.1 %	5.3 %	0 %	94.7 %	5.3 %
Benchmarking is used as a tool in the proposal development	68.4 %	26.3 %	5.3 %	0 %	0 %	100 %	0 %
The Red Review Meetings are done for each proposal	63.2 %	26.3 %	10.5 %	0 %	0 %	100 %	0 %
The proposal documentation is organized and properly maintained	78.9 %	15.8 %	5.3 %	0 %	0 %	100 %	0 %

Limitations to the Proposal Management Process

Respondents were asked how often certain situations were encountered during the Proposal Management Process. The aim was to identify which were the main limitations or issues encountered in the Proposal Management Process.

As shown within Table 6, the major concern of the respondents (eighty four percent) consider that one of the major concerns in the proposal management process is the insufficient time for developing the proposal. The second ranked concern that the respondents revealed in the questionnaire (twenty six percent) is the lack of experience with new technology. Due to the low rating given on the other factors, it can be concluded that the given factors do not represent significant concern/ limitation to the proposal management process.

Table 6. Overall response rate (Limitations to the Proposal Management Process)

	Frequency per cent					Combined per cent	
	Always	Very Often	Sometimes	Rarely	Never	Sometimes to always	Never to rarely
	1	2	3	4	5		
Insufficient time for developing the proposal	0.0%	10.5%	73.7%	5.3%	10.5%	84.20%	15.80%
Unclear Definition of the team members' roles	0.0%	0.0%	15.8%	31.6%	52.6%	15.80%	84.20%

Lack of Team Skills	0.0%	0.0%	21.1%	21.1%	57.9%	21%	79.00%
Poor Communication between team members	0.0%	0.0%	15.8%	36.8%	47.4%	15.80%	84.20%
Lack of clear process	0.0%	0.0%	10.5%	21.1%	68.4%	10.50%	89.50%
Poorly established priorities between proposal objectives	0.0%	0.0%	21.1%	26.3%	52.6%	21%	78.90%
Lack of experience with new technology	0.0%	5.3%	21.1%	31.6%	42.1%	26.40%	73.70%
The scope of the project is out of the team's expertise and area of knowledge	0.0%	0.0%	15.8%	52.6%	31.6%	15.80%	84.20%

Alignment of Proposal Objectives

Respondents were asked how they dealt with alignment of proposal objectives. Table 7 shows that the use of proposal management tools, regular meetings, assessing and identifying potential areas of disagreement were ranked first among the respondents as means of alignment of proposal objectives (ninety five - one hundred percent). Teamwork and team building programs and the use of consultants/ specialists are among tools that respondents use regularly to align their objectives.

Table 7 shows that regular meetings and assessment and identification of potential areas of disagreement are the most common tools used to align project objectives with all the respondents indicated that they use them between sometimes to always. More than Ninety four percent of the respondents indicated that they use proposal tools to ensure the team is focused on the proposal objectives.

According to eight four percent of the respondents the second ranked tool was the use of teamwork and team building programs as initiatives to align with the proposal objectives. While seventy three percent of the respondents consider that the use of specialists or consultants has a significant impact on aligning the proposal tasks to the proposal objectives. Eighty four percent of the respondents indicated that they use teamwork and teambuilding programs. Nearly seventy four percent of respondents indicated use of consultants and other specialists to help align proposal objectives.

Table 7. Overall response rate (Aligning Proposal Objectives)

	Frequency per cent					Combined per cent	
	Always	Very Often	Sometimes	Rarely	Never	Sometimes to always	Never to rarely
	1	2	3	4	5		
Use of tools to ensure the team is focused on the proposal objectives	31.6%	57.9%	5.3%	0.0%	5.3%	94.77%	5.30%
Regular meetings to keep lines of communications open	63.2%	36.8%	0.0%	0.0%	0.0%	99.95%	0.00%
Assess and identify potential areas of disagreement	47.4%	26.3%	26.3%	0.0%	0.0%	99.96%	0.00%
Use teamwork and teambuilding programs	36.8%	26.3%	21.1%	15.8%	0.0%	84.24%	15.80%
Use of consultants/ specialists	10.5%	15.8%	47.4%	26.3%	0.0%	73.72%	26.30%

Usefulness of tools utilized in the Proposal Management Process

Respondents were asked to rate the usefulness of the tools currently utilized in the proposal management process within the Case Study Company. The aim was to identify whether the tools currently in place were considered as useful or not.

As indicated in Table 8, majority of the respondents (sixty eight - eighty four percent) consider that all tools listed in the table are very useful. Fifteen to Thirty percent consider that the tools listed in the table below are useful. Only five percent of the respondents considered that the following tools were not useful: Compliance Checklist and Proposal Library.

Table 8. Overall response rate (Usefulness of Tools)

	Frequency per cent		
	Very Useful	Useful	Not Useful
	1	2	3
Compliance Checklist	78.9%	15.8%	5.3%
Milestone Planning	84.2%	15.8%	0.0%
Proposal Schedules	68.4%	31.6%	0.0%
Kickoff Meeting	84.2%	15.8%	0.0%
Proposal Library	73.7%	21.1%	5.3%

Work Breakdown Structure (WBS)	68.4%	31.6%	0.0%
Database for Cost Estimating	73.7%	26.3%	0.0%
Cost Calculation System	73.7%	26.3%	0.0%
Red Team Review	73.7%	26.3%	0.0%

Implications to the current Proposal Management Process

Respondents were asked to list the major implications to the current Proposal Management Process. The major implications to the current Proposal Management Process include:

- Well defined process for the development of winning and compliant proposal;
- Proper input tracking tools;
- Structured proposal libraries;
- Not enough business intelligence on competitors;
- Not sufficient resources to cover the wide range of proposals;
- Use of additional tools for Proposal Development - Engineering Software and additional Courses: Autodesk Courses, Quality Courses;

Areas of improvement to the current Proposal Management Process

Respondents were asked to list the areas of improvement to the current Proposal Management Process. The key areas of improvement to the current proposal management process as suggested by the respondents include:

- Frequent involvement of field experts in the development and review process;
- Provision of updates and feedback from clients for each proposal outcome;
- Timely planning, methods to enforce accountability, methods to enforce adherence to internal deadlines etc.;
- Systemized creation of technical proposal and setting up similar processes with external stakeholders in the process such as suppliers, subcontractors or consultants;
- RACI charting and analysis;
- Adherence to agreed schedules;
- Continuous training and repetition of Proposal Management Process established Standard Operating Procedures (SOPs).

4.4 Case Interview Response

Nature of Case Interview respondents

Personal interviews were selected to get feedback and more details about the Proposal Management Process practice. The interviews included five individuals working in the PSC - Proposal Solution Center Department within the Case Study Company, namely, the Head of Proposal Center, the Head of Estimating, two Bid Managers and the Estimating Manager.

Despite this limited number of interviews, the ideas expressed and amount of information along with the documents provided by the interviewees added valuable and useful information of the Case Study Company's approach to Proposal Planning and was fruitful in further developing and assessing the framework.

The Head of Proposal Center has managed more than 250 proposals within the last 5 years working within the PSC department of the Case study company. He has managed all types of proposals for various military, commercial, governmental and non-governmental organizations and all types of services that the Case Study company provides including Engineering and Construction, Environmental Services, Catering, Food Supply, Life Support and other services.

The Head of Estimating has more than six years of experience within the PSC department of the Case study company. Prior to working for the Case study company, he has worked for other military and commercial organizations as an Estimating Manager for more than 9 years. During

his career, he has managed more than 800 proposals for various military, commercial, governmental and non-governmental organizations.

The two Bid Managers have more than 4 years experience working within the PSC department of the Case Study Company. Same as the other two interviewees, the two Bid Managers have been engaged in managing more than 200 proposals for all types of clients and services that the Case study company is involved with.

The Estimating Manager The Estimating Manager have been engaged in managing more than 200 proposals for all types of clients and services that the Case study company is involved with.

Objectives of the Case Interviews

As indicated within Chapter 2. Research Methodology, the interviews were conducted with the aim to develop an in depth understanding of the attitudes and perceptions of the people involved in the proposal development process. The interviews were mainly focused to achieve the following:

- Provide insight into the company's proposal management process and clarify some aspects of the questionnaire;
- Identify additional information on specific areas of the questionnaire;
- Assist in the development of the framework.

The Interviews essentially included the following types of questions:

- Background information aimed at collecting details over the experience of the interviewee (experience in developing proposals, experience in the industry and similar);
- Proposal Development concept of the organisation;
- Identify the Project Management principles and tools utilised in the proposal development process;
- Limitations of the current process;
- Actions for improvement;

- Define valuable ideas and insights required for the framework development.

This information provided a clear picture of the samples specific details.

Case Interview Results

The questionnaire survey results indicated that the Case Study company performs and has implemented a formal and organized Proposal Management Process. The Case study interviews underpinned the Questionnaire survey and clarified the issues raised in the questionnaire.

The findings of both the questionnaire survey and case study interviews indicated that although there is a systemized Proposal Management Process in place and certain tools and mechanisms are utilized by the Proposal management team, there are certain limitations to the current Proposal Management process and areas for improvement as described below.

- **Prioritization of Bids** - The respondents suggested that there should be adopted a mechanism/ tool for prioritizing the bids upon their decision to bid. They indicate that an approach of prioritizing the bids by scale (1-5) shall be adopted in order to ensure that the resources and given tools are utilized effectively and efficiently. Given the large number of bids that are being developed, the tool for prioritizing the bids would substantially enhance the appropriate resource allocation and better responsiveness to the bids.
- **Systemized Resource allocation** - The respondents suggested the implementation of an atomized resource allocation and reporting tool. This would measure the resources availability and optimize the scheduling and proper allocation of proposal team members effectively to avoid possible overload and stress.
- **System for measuring the quality of work** - This system was suggested as an assessment tool of each proposal team member's effort and output quality. This would derive to better quality proposals and increase the chance of delivering winning proposals.
- **Matrix for evaluating the proposal success** - According to the respondents a proposal can not be considered as successful by taking into consideration only one factor - the contract award. The respondents suggested an implementation of a matrix for evaluating the proposal success by checking for certain patterns and consistency. This

matrix would compare the overall project success during operation versus the solution that was planned during the proposal development. A successful proposal is considered as the one that is also executed successfully within the planned project constraints such as: time, resources, quality and budget. This matrix would also contribute in avoiding repetitive mistakes during proposal development that would lead to issues during project execution. In addition, it would serve as a reliable benchmarking tool to better understand and consider all operational related issues and factors that would serve to the proposal team as planning factors to be considered while developing the solution plan and the concept of operation during the bidding stage. Hence, ensure proposals turn into optimal performance projects by meeting the pre-defined project KPI's and perform under budget.

- **Use of resources from other departments** - The respondents indicated that another limitation to the current proposal management process was the approach of Centralized Proposal team within the Case study Company. There are difficulties encountered in engaging other resources/ specialists from other departments within the case study company to work on certain proposals. Given that the PSC department have implemented a very organized system with various management and working tools used in each step of the process, its is very difficult to integrate people/ specialist from other department without appropriate training. This indeed reduces the availability of additional resources when required. The respondents, therefore suggested that a decentralized operational approach of proposal development should be implemented within the Case study company, allowing representatives from other departments/ specialists working in the Case study company be easily integrated in the proposal development process. This would substantially increase the number of available resources in the company that would contribute in the proposal development process. Hence increasing the overall capacity and capability of the Case Study company with regard to proposal development and capturing more business opportunities.
- **Automatized Proposal Text** - The respondents indicated that although there is a comprehensive database of Proposal write-up sections and Storyboards available to the PSC team that can be utilized and adopted for each bid specifically, a software/ tool for generating automatic proposal text from the database would substantially reduce the time of producing the bids. Hence enable the proposal team be more focused in the commercial elements and address the hot buttons of the client.

4.5 Summary

The questionnaire survey was used to elicit information in the extent the Proposal management team within the Case study company use the Proposal Management tools and the factors that inhibit improvement. The Case interviews complemented the questionnaire survey results and provided more details on how the Proposal Management Process was performed within the Case study Company. Both the questionnaire and case interviews results along with findings from the literature review contributed to the development of the framework which is discussed in Chapter Five.

Chapter 5. Framework Development

5.1 Introduction

Chapter 3 highlighted the general Project Management Principles, factors that contribute on the project performance, general risk associated and Value Management. In addition, it explored the Proposal Management Process and it addressed the key processes issues and best practices associated with this process by investigating the existing models that have been developed. Chapter 4 provided an overview of the Proposal Management Process implemented within the Company where the Case study was based on. Findings, analysis and discussion over the data collected from this Company are presented within the same chapter.

This Chapter presents the framework that has been developed based on the researcher's experience, review of literature and the data collected from the questionnaire survey and case interviews. This chapter is divided into five sections that are mainly:

- Description of the framework developed and its elements;
- Presentation of the Proposal Management Process Map;
- Presentation of the tools;
- Implementation of the tools for guiding the process;
- Validation of the framework.

5.2 Development of the Framework

The Framework was developed from the examination of literature presented in Chapter 3 and the results of the questionnaire survey and case interviews presented in Chapter 4. The literature concerning Proposal Management Process has revealed that the Proposal Management Process is an important Process in the Business Development Lifecycle, however only few attempts were made to model it. In addition, the existing literature implies that the utilization of Project Management principles and tools in the Proposal Management Process significantly improves the Proposal Management Process, leading to winning projects and further achievement of project goals and objectives.

The need for an effective and improved Proposal Management Process was discussed in Chapter 4. This was based on the following:

- Proposal Management is a key phase in the Business Development Lifecycle;
- A structured approach can enhance the Proposal Management Process.

A need for a framework to clearly link the Proposal Management Process to activities within these phases is very important, this can be achieved by following a structured process and using tools to guide process and improve team alignment.

5.3 Description of the Framework

The Framework is a practical comprehensive tool aimed at helping clients improve the Proposal Management Process by improving the relationship between project participants through tools that take into account process issues. The framework is an acknowledgment that improvement is related to good practices. The Framework that has been developed comprises of the following three main components:

- Proposal Planning Process Map with the accompanying tools and gates that guide this process;
- Proposal Development Process Map with the accompanying tools and gates that guide this process; and
- Post-Submittal Activities Process Map with the accompanying tools and gates that guide this process.

The Framework encompasses a structured process, tools and gates to guide the process and validate the activities associated with the process.

The first component of the framework is mapping the Proposal Planning Process and defines the tools and gates that help guide the process. This component is divided in two phases:

- Phase 1. Develop Proposal Management Strategy and Plan

- Phase 2. Implement the Proposal Management Strategy and Plan

The tools utilized in the first component include the Proposal Pipeline, Milestone Matrix, Compliance Checklist, Milestones List, Proposal Schedules, WBS, Solution Map and the Proposal Outline. While the decision/ review gates include: Bid/ No Bid Decision, Hold Pink Team Review, Hold Kick-off Meeting and Bid/ No Bid Validation.

The second component of the framework is mapping the Proposal Development Process and defines the tools and gates that help guide the process. This component is divided in two phases:

- Phase 3. Develop the Proposal
- Phase 4. Finalize and Submit the Proposal

The tools utilized in the second component include the Storyboard Template and the Library Database. While the decision/ review gates include: Hold Solution Freeze, Hold Red Team Review, Hold Gold Team Review and Submit the Proposal.

The third component of the framework is mapping the Post-Submittal Process and defines the tools and gates that help guide the process. This component includes only one phase the Proposal Assessment and Negotiation. The only tool utilized in this component is the Library Database.

The Conceptual representation of the Proposal Process Management Framework is provided on the page overleaf.

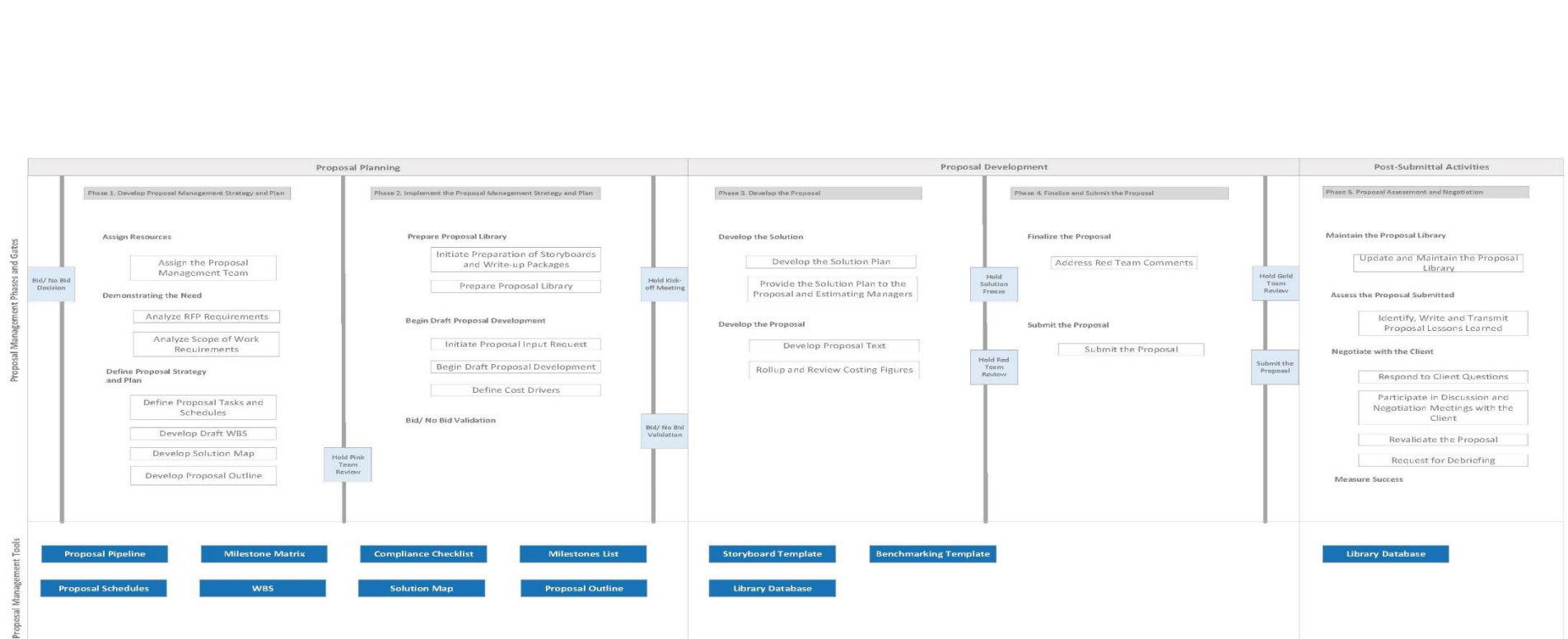


Figure 28. Proposal Management Process Framework

5.4 Mapping the Proposal Management Process

A model that states which activities must be performed is helpful, as it can ensure that no important activities will be forgotten. Thus, the Proposal Management Process describes the functions or activities that need to be undertaken as well as the tools required to effectively manage the proposal and solve the problems that might arise between team members involved in the process.

The Proposal Management Process consist of Processes and sub-processes that are performed to complete the activities associated with it. The model describes fully how it works within the framework supplemented with tools to guide its activities. The tools assist the proposal management process and help in making decisions that are taken along this process through review gates.

Mapping the Proposal Management Process could give the organizations and team members an understanding of the amount of effort required from its representatives and enable decision to be made at end of each phase with review gates. In this way the Proposal Management Process will act as a communication tool to benefit all participants involved in the Proposal Management Process.

5.5 Key Characteristics of the Process Map

The Proposal Management Process Map functions as a communication and guiding tool to enable the Organizations make the key decisions throughout the process with review gates and help the proposal team understand the amount of work required from its representatives. It is decided to divide the Key Phases of the Proposal Management Process into the following phases:

- Phase One. Develop Proposal Management Strategy and Plan
- Phase Two. Implement the Proposal Management Strategy and Plan
- Phase Three. Develop the Proposal
- Phase Four. Finalize and Submit the Proposal
- Phase Five. Proposal Assessment and Negotiation

The above stated phases are further broken down into sub-processes as presented in Figure 28.

The Proposal Management Process is organized around stages, which are normally followed by a phase review meeting (decision gates). Before explaining the process map, it is important to define the two very important elements that are namely: Stages and Gates. According to (Buttrick, 1997), Stages are specific periods which work on the project takes place. These are when the information is collected and outputs are created. While Gates are the decision points that precede every stage (Buttrick, 1997). They serve as points to:

- Check the project is required and risks are acceptable;
- Confirm the priorities of the project
- Agree the plan by participants; and
- Make a decision regarding carrying on to the next stage.

(Buttrick, 1997) suggested treating gates as entry points to the next stage. In this way the user can start the next (provided that relevant criteria and checks have been completed) as soon as the user is ready even when the previous stage is not fully completed.

This research divides the Proposal Management Process into five phases as presented in the section below.

PHASE ONE: Develop Proposal Management Strategy and Plan

The Proposal Management Strategy and Plan is divided into the following sub-processes:

- Assign Resources;
- Demonstrating the Need;
- Define Proposal Strategy and Plan.

PHASE TWO: Implement the Proposal Management Strategy and Plan

The Assessment of the Proposal Management Strategy and Plan is divided into the following sub-processes:

- Prepare the Proposal Library;
- Begin Draft Proposal Development;
- Bid/ No Bid Validation.

PHASE THREE: Develop the Proposal

The Development of the Proposal is divided into the following sub-processes:

- Develop the Solution;
- Develop the Proposal.

PHASE FOUR: Finalize and Submit the Proposal

The Finalization and Submission of the Proposal is divided into the following sub-processes:

- Finalize the Proposal;
- Submit the Proposal.

PHASE FIVE: Proposal Assessment and Negotiation

The Proposal Assessment and Negotiation is divided into the following sub-processes:

- Assess the Proposal Submitted;
- Negotiate with the Client;
- Measure Success.

The Proposal Management Process with review gates could help facilitate better communications between the proposal management team and the other stakeholders engaged.

5.6 Implementing Tools in the Proposal Management Process

This Section describes the approach of applying the Proposal Management Process tools, the mechanisms and how and when the Proposal Management tools are implemented during the process. At each phase there are gates, where decisions concerning the Proposal are made.

1. Before Phase One. Develop Proposal Management Strategy and Plan, the Business Development team takes the decision of Bid/ No Bid decision based on the outcome generated from the Capture Plan and the Company's strategy and position.
2. At the end of Phase One. Develop Proposal Management Strategy and Plan, the Proposal Team Hold the Pink Team Review, where the review team assesses the Proposal Management Plan and strategy to determine whether the proposal is on track. The proposal team holds the Pink Team review to assess how well the proposal plan and strategy are developed to ensure compliance with the client's requirements, implementation of the agreed strategy and consistency of volumes.
3. At the end of the Sub-process (Prepare Proposal Library), the Proposal Team Hold the Kick-off Meeting, where the team discusses about the customer, competitors, proposal strategy, outline solution, proposal requirements, task and responsibility allocation, Costing approach and other details. The main purpose of the meeting is to ensure the team is aligned and agrees on the further actions to be undertaken in order to prepare a compliant and responsive proposal.
4. At the end of the Sub-process (Bid/ No Bid Validation), the Team present the solution at the Bid Validation Decision Gate Review. The preliminary bid decision is reviewed to consider whether the draft solution and proposal answer the RFP requirements and ensure compliance to the stipulated requirements.
5. At the end of the Sub-process (Develop the Solution), the Solution Freeze Meeting is held, where the Solution Manager presents the Solution Plan to the Proposal and the Estimating Manager and provides them with all the required technical and costing related input regarding the solution
6. At the end of the Sub-process (Develop the Proposal), the Red Team Review meeting is held, where the Reviewers evaluate the proposal by applying the same scoring methods the client evaluators would do checking for the compliance, costing elements and

overall solution plan. After reviewing and scoring the Proposal, the Red Team Reviewers debrief the proposal team, offering suggestions for improvements.

7. At the end of the Sub-process (Finalize the Proposal), the Gold Team Review meeting is held, where the Reviewers check for the high level win themes and discriminators that are considered as key to winning the award and to ensure that the proposal is priced to win.
8. At the end of the Sub-Process (Submit the Proposal), the proposal team makes the final adjustments based on the comments and feedback given in the Gold Team Review Meeting and submits the proposal to the client as per the given submission instructions and methods.

5.7 Validation of the Framework

The validation of the framework developed in this research was achieved by means of responses of the representatives from the Case Study Company – Ecolog that are working in the PSC (Proposal Solution Center) department, who indeed were in a position to provide an overview of the whole Proposal Management Process within the organization.

Questionnaire documents for evaluating the framework are shown in Appendix B. Framework Validation Questionnaire. The documents contain questions for evaluating the framework and the proposal management process map.

5.7.1 Evaluation of the Framework

Six representatives working in the PSC department within Ecolog were selected to evaluate the framework. The selection of the representatives was based mainly on their position and their knowledge about the framework as the same respondents were used in the Case Interviews (discussed in Chapter Four). Table 9 provides average rankings of the effectiveness of the framework with respect to specific questions in the questionnaire.

5.7.2 Objectives and basis for evaluating the framework

The main objective of evaluating the framework include was to assess the effectiveness of the Proposal Management Process in terms of the following:

- To extent to which it represents the proposal management activities;
- The extent to which the proposal management process could assist in making better decisions concerning the project;
- Its ability to facilitate communication of proposal team members;
- Its usefulness to overall proposal management process;
- The ease with which it can be used.

To achieve the objective, it was decided to demonstrate the framework to the Ecolog's representatives and provide them with a questionnaire for evaluation requesting them to complete it which will allow them to indicate their opinion on the various aspects of the framework being evaluated. It was decided that the respondents of the case interviews (case interviews discussed in Chapter 4), could be used for evaluation as they were familiar with the framework.

5.7.3 Results of the framework validation

The respondents were asked to complete the structured questionnaire for evaluating the framework recording their assessment to the statements based on a rating system scale from 1 to 5, where 1 is very poor and 5 is excellent. The responses and average scores and percentages are presented in Table 9.

Table 9. Results of the Framework Validation

Questions		Individuals Scores 1 is poor and 5 is excellent					Rating (out of 5)	
							Avg.	Avg %
		Individual Scores					Score	Score
1	The extent to which the Process Map represents the Proposal Management Process	5	5	5	5	5	5	100%
2	The extent to which the activities in the Process could assist in making better decisions concerning the proposal	5	4	4	5	5	4.6	92%
3	The ability of the Process Map to help in making key decisions regarding proposal management	4	5	4	4	5	4.4	88%
4	The ability of the Process Map to facilitate communication of proposal objectives	4	5	5	5	4	4.6	92%
5	The usefulness of the Process Map to the overall Proposal Management Process	5	5	5	4	4	4.6	92%
6	The ease to understand the aspects of the gates	5	5	5	5	5	5	100%
7	How easy the framework is to use?	4	4	5	4	5	4.4	88%
8	Is the framework cost effective?	4	4	4	5	4	4.2	84%
9	Your overall assessment to the framework	5	5	4	4	5	4.6	92%

There is a general agreement among the interviewees that the framework is an effective tool that could help in improving the proposal management process. The key comments included the following:

- The process is applicable to the complex multi perspective problems where there is a dynamic change (large organizations); and
- Size of the proposal where the information is more fragmented and therefore problems are more complex.

Chapter 6. Conclusion and Recommendation

6.1 Introduction

The previous Chapter presented the development of the framework and presented data for evaluation. This chapter presents the conclusion, recommendations and suggests further study on this area. The need for an effective framework for improving the Proposal Management Process cannot be overemphasized for implementing the principles of Proposal Management. Many of the problems encountered in the later stages of the project have their origin in the Proposal development phase. These problems are frequently attributed to poor planning and poor proposal management process, which act as contributory factors to poor project performance. The Proposal Management Process is an important phase in the Business life cycle because:

- Early consideration of key issues affecting the outcome of the project;
- Vital for the success of the proposal.

The primary aim of the research was to develop a framework for improving the Proposal Management Process and act as a comprehensive tool to help solve problems that occur during the proposal stage. This could be achieved by developing a structured proposal management process and providing a mechanism and tools to guide this process.

Furthermore, the framework comprises of Proposal Planning, Proposal Development and Post-Submittal Process Maps and accompanying tools and gates that would contribute to an improved overall Proposal Management Process, leading to winning projects and further achievement of project goals and objective. To achieve this aim, the objectives of the research were to:

- Provide a clear understanding on the current Proposal Management Processes;
- Determine the key activities performed and the key issues involved;
- Examine how the Project Management principles are applied in the Proposal Management Process;
- Identify the Project Management tools that are utilized in the proposal management process;

- Identify the factors that inhibit winning proposals;
- Define the role of Proposal Management Process in ensuring project success;
- Define the alignment of corporate organization and its contribution in the proposal management process;
- Develop a framework for improving the Proposal Management Process.

These objectives were achieved through a comprehensive literature review, a questionnaire survey and five case study interviews (described within Chapter Three and Chapter Four). The subsections below list the achievement of the research objectives.

6.2 Contributions to the Research

One of the main problems that inhibit the Proposal Management Process improvement is the lack of tools that guide the Proposal Management Process and measure its progress and performance. The research contributed to the Proposal Management Body of Knowledge by linking the improved Proposal Management Process to winning proposals and achievement of project objectives.

The main aim of this research was to develop a framework to improve the Proposal Management Process. The framework provides a comprehensive tool that helps solve problems that occur during the Proposal Management process with respect to proposal objectives and goals.

The framework comprises three element, namely the Proposal Planning Process Map with the accompanying tools and gates that guide this process; the Proposal Development Process Map with the accompanying tools and gates that guide this process; and the Post-Submittal Activities Process Map with the accompanying tools and gates that guide this process.

The framework was validated and found to be useful and applicable by five representatives working within the PSC department at the Case Study Company through questionnaire interview.

The research examined the Proposal Management process through an extensive literature review. Critical Proposal Management functions have been presented and tested through the questionnaire survey and case interviews to determine how the Proposal Management Process was performed within the Case Study Company.

This research developed a framework for improving the Proposal Management Process that can be used by Service industry clients to improve their approach to proposal management and contribute to the Proposal Management Body of Knowledge.

6.2.1 Proposal Management Process Map

The first contribution of this research is the development of the Proposal Management Process Map that enables clients perform its activities and make critical decisions by developing and implementing Proposal Management Strategy and Plan and achieve proposal objectives.

Such a process either has been lacking the details in the existing literature or the appropriate usage of tools. The Proposal Planning Process Map functions as a communication tool to enable clients make key decisions throughout the process with review gates and help the proposal team understand the amount of work and approach required from its representatives. The Proposal Management Process Map comprises of four key phases namely:

- Phase 1. Develop Proposal Management Strategy and Plan
- Phase 2. Implement the Proposal Management Strategy and Plan
- Phase 3. Develop the Proposal
- Phase 4. Finalize and Submit the Proposal
- Phase 5. Proposal Assessment and Negotiation

Mapping the Proposal Management Process could give the organizations and team members an understanding of the amount of effort required from its representatives and enable decision to be made at end of each phase with review gates. In this way the Proposal Management Process will act as a communication tool to benefit all participants involved in the Proposal Management Process.

6.2.2 Limitations to the current Proposal Management Process and areas for improvement

As described within Chapter Four, the findings of both the questionnaire survey and case study interviews indicated that although there is a systemized Proposal Management Process in place and certain tools and mechanisms are utilized by the Proposal management team, there are certain limitations to the current Proposal Management process and areas for improvement as described below.

- **Prioritization of Bids** - adoption of a mechanism/ tool for prioritizing the bids upon their decision to bid to enhance the appropriate resource allocation and better responsiveness to the bids.
- **Systemized Resource allocation** - implementation of an atomized resource allocation and reporting tool to measure the resources availability and optimize the scheduling and proper allocation of proposal team members effectively to avoid possible overload and stress.
- **System for measuring the quality of work** - implementation of an assessment tool of each proposal team member's effort and output quality to enhance better quality proposals and increase the chance of delivering winning proposals.
- **Matrix for evaluating the proposal success** - implementation of a matrix for evaluating the proposal success to compare the overall project success during operation versus the solution that was planned during the proposal development to serve as a reliable benchmarking tool to turn the proposals into optimal performance projects by meeting the project KPI's and perform under budget.
- **Use of resources from other departments** - implementation of a decentralized operational approach of proposal development allowing representatives from other departments/ specialists working in the Case study company be easily integrated in the proposal development process, to increase the overall capacity and capability with regard to proposal development and capturing more business opportunities.
- **Automatized Proposal Text** - Utilization of a software/ tool for generating automatic proposal text from the database to reduce the time of producing the bids.

6.3 Limitations and Further Research

The main limitation of this research was the applicability of the results based on the Case Study Interviews and Research that have been conducted only within One Case Study Company- Ecolog. Ecolog is an International Company that operates in the Supply Chain, Construction, Technology, Facility Management and Environmental services Industry. The company provides turnkey and customized solutions to governments and defense, humanitarian organization and commercial clients in the sectors of Oil & Gas, Mining, Energy and Infrastructure projects in numerous locations worldwide.

The following recommendations are made for further research into the Proposal Management Process:

- Validation of the framework through a wide questionnaire to include different clients/ case study companies;
- The use of the framework on a wide range of proposals to further test its applicability to different proposal types;
- Extend the research to include assessment tools to measure the progress achieved during the Proposal development stage;
- Extend the research to include alignment tools to deal with alignment issues and scope definition during the Proposal development stage;
- Extend the research to include Contractor's approach to Proposal Management Process.

6.4 Recommendations

Several issues have been identified from the findings of this research to improve the effectiveness of Proposal Management Process approach. These recommendations include the following:

- A structured Proposal Management Process will enhance the performance and encourage communication between proposal team members;
- Emphasis should be placed on implementing systemized Proposal Management Process efforts using formal business processes and appropriate tools. Organizations that

consistently follow a defined business development process win more business and use fewer investment resources;

- Every organization should design its own Proposal Management process suited to its organization and customers—and gain senior executive buy-in and support. Proven principles and best practices can be adopted, or adapted, in designing an end-to-end process for any organization.

6.5 Research Benefits

The benefits of the framework can be summarized as follows:

- The development of a structured Proposal Management Process Map that could assist the clients better conduct Proposal Management activities;
- The identification of Project Management tools that can be implemented in the Proposal Management Process to overcome issues and increase the effectiveness;
- The identification of how the Project Management principles are applied in the Proposal Management Process;
- The Identification of factors that inhibit winning proposals and ensuring project success;

6.5.1 Direct Benefits

The direct benefits of the framework derived from its use in the Proposal Management activities in a structural manner. The following benefits are achieved:

- It helps the client and proposal team to focus on proposal objectives and strategy;
- It ensure the Proposal Management activities are performed and assessed throughout the process;
- It facilitates communication among proposal team members;
- It minimizes alignment barriers;
- It aligns the proposal team members toward the same objectives; and
- It provides step by step review by the introduction of review gates.

References

- Abrahamson, E. (1991). The Diffusion and Rejection of Innovations. *The Academy of Management Review*, 16(3), 586–612.
- Abrahamson, E., & Fairchild, G. (1999). Management Fashion: Lifecycles, Triggers, and Collective Learning Processes. *Administrative Science Quarterly*, 44(4), 708–740.
- Ahlemann, F., Teuteberg, F., & Vogelsang, K. (2009). Project Management Standards - Diffusion and application in Germany and Switzerland. *International Journal of Project Management*, 27(3), 292–303.
- Andersen, E. ., & Vaagaasar, A. . (2009). Project Management Improvement Efforts - Creating Project Management Value by uniqueness or mainstream thinking. *Project Management Journal*, 40(1), 19–27.
- APMP Body of Knowledge. (2018). Retrieved from <http://bok.apmp.org/>
- Association for Project Management (Ed.). (2012a). *APM body of knowledge* (Sixth edition). Princes Risborough, Buckinghamshire: Association for Project Management.
- Association for Project Management (Ed.). (2012b). *APM body of knowledge* (Sixth edition). Princes Risborough, Buckinghamshire: Association for Project Management.
- Besner, C., & Hobbs, J. B. (2006). The perceived value and potential contribution of project management practices to project success: a critical engagement. *Project Management Journal*, 37(3), 37–48.
- Besner, C., & Hobbs, J. B. (2008). Project Management Practice, Generic or Contextual: A reality check. *Project Management Journal*, 39(1), 16–34.

- Bittner, E., Gregorc, W., & Siemens Aktiengesellschaft. (2010a). *Experiencing Project Management Best Practices, Challenges and Lessons Learned*. Erlangen: PUBLICIS. Retrieved from <http://nbn-resolving.de/urn:nbn:de:101:1-201408081114>
- Bittner, E., Gregorc, W., & Siemens Aktiengesellschaft. (2010b). *Experiencing Project Management Best Practices, Challenges and Lessons Learned*. Erlangen: PUBLICIS. Retrieved from <http://nbn-resolving.de/urn:nbn:de:101:1-201408081114>
- Blaxter, L., Hughes, C., & Tight, M. (2001). *How to research* (2nd ed). Buckingham ; Philadelphia: Open University Press.
- Clarke, A. (1999). A practical use of key success factors to improve the effectiveness of project management. *International Journal of Project Management*, 17(3), 139–145.
- Crawford, I. M. (1997). *Marketing research and information systems*. Rome: Food and Agriculture Organization of the United Nations.
- Creswell, J. W. (2014a). *Research design: qualitative, quantitative, and mixed methods approaches* (4th ed). Thousand Oaks: SAGE Publications.
- Creswell, J. W. (2014b). *Research design: qualitative, quantitative, and mixed methods approaches* (4th ed). Thousand Oaks: SAGE Publications.
- Dai, C., & Wells, W. G. (2004). An exploration of project management office features and their relationship to project performance. *International Journal of Project Management*, 22(7), 523–532.
- Dr., M. (2018, June). Advantages & Disadvantages of Qualitative & Quantitative Research. Synonym. Retrieved from <http://classroom.synonym.com/advantages-disadvantages-of-qualitative-quantitative-research-12082716.htm>

Duggleby, R. G., & Kaplan, H. (1975). A competitive labeling method for the determination of the chemical properties of solitary functional groups in proteins. *Biochemistry*, 14(23), 5168–5175.

Fernandes, A. (2014). Doctoral dissertation: Improving and Embedding Project Management Practice in Organisations. University of Southampton, Faculty of Management.

Fontana, A., & Frey, J. H. (2000). The interview: From structured questions to negotiated text. In *Handbook of qualitative research* (2nd ed.). Thousand Oaks.

Fontana, A., & Frey, J. H. (n.d.). The interview: From structured questions to negotiated text. *Handbook of Qualitative Research*.

Gaupin, G., & International Project Management Association (Eds.). (2006). *ICB: IPMA competence baseline ; Version 3.0*. Nijkerk: IPMA.

Gido, J., Clements, J., & Baker, R. (2017). *Successful Project Management*. Cengage Learning. Retrieved from <https://books.google.mk/books?id=Z2odDgAAQBAJ>

Grau, N. (2013). Standards and Excellence in Project Management – In Who Do We Trust? *Procedia - Social and Behavioral Sciences*, 74, 10–20. <https://doi.org/10.1016/j.sbspro.2013.03.005>

Greeff, M. (2011). *Information collection: interviewing*. In: DE VOS, A.S., STRYDOM, H., FOUCHÉ, C.B. & DELPORT, C.S.L. *Research at grass roots for the social sciences and human service professions* (4th ed.). Pretoria: Van Schaik Publishers.

Hodgson, D. (2002). Disciplining the Professional: The Case of Project Management. *Journal of Management Studies (UK)*, 39(6), 803–821.

Jahoda, M., & Selltitz, C. (1977). *Research methods in social relations: Claire Selltitz, Marie Jahoda, Morton Deutsch, Stuart W. Cook. Ed. readers Isidor Chein, Harold M. Proshansky*. Methuen. Retrieved from <https://books.google.mk/books?id=WrkDcgAACAAJ>

Kerzner, H. (1998). *Project Management: A systems approach to planning, scheduling and controlling* (6th ed.). USA: Van Nostrand Reinold.

Kerzner, H. (2009). *Project management: a systems approach to planning, scheduling, and controlling* (10th ed). Hoboken, N.J: John Wiley & Sons.

Kerzner, H. (2017). *Project management: a systems approach to planning, scheduling, and controlling* (Twelfth edition). Hoboken, New Jersey: Wiley.

Kothari. (2014a). *Research methodology methods and techniques*. New Delhi: New Age International.

Kothari. (2014b). *Research methodology methods and techniques*. New Delhi: New Age International.

Kwak, Y. H., & Anbari, F. T. (2009). Availability-Impact Analysis of Project Management Trends: Perspectives From Allied Disciplines. *Project Management Journal*, 40(2), 94–103.

Lewis, H. (2007). *Bids, tenders & proposals: winning business through best practice* (Rev. 2nd ed). London ; Philadelphia: Kogan Page Ltd.

Lientz, B. P. (2013a). *Project management: a problem-based approach*. Houndmills, Basingstoke; New York, NY: Palgrave Macmillan. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=1523227>

Lientz, B. P. (2013b). *Project management: a problem-based approach*. Houndmills, Basingstoke; New York, NY: Palgrave Macmillan. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=1523227>

Loo, R. (2002). Working towards best practices in project management: a Canadian study. *International Journal of Project Management*, 20(2), 93–98.

Martinsuo, M., Hensman, N., Artto, K., Kujalo, J., & Jaafari, A. (2006). Project-based management as an organizational innovation: Drivers, changes and benefits of adopting project-based management. *Project Management Journal*, 37(3), 87–97.

Meredith, J. R., & Mantel, S. J. (2009). *Project management: a managerial approach* (7th ed). Hoboken, NJ: Wiley.

Milosevic, D., & Patanakul, P. (2005). Standardized project management may increase development project success. *International Journal of Project Management*, 23(3), 181–192.

Morris, P. W. ., Crawford, L., Hodgson, D., Shepherd, M. M., & Thomas, J. (2006). Exploring the role of formal bodies of knowledge in defining a profession - The case of project management. *International Journal of Project Management*, 24(8), 710–721.

Morris, P. W. ., Patel, M. ., & Wearne, S. H. (2000). Research into revising the APM project management body of knowledge. *International Journal of Project Management*, 18(3), 155–164.

Morris, P. W. G. (2002). Science, objective knowledge and the theory of project management. *Proceedings of the Institution of Civil Engineers - Civil Engineering*, 150(2), 82–90.
<https://doi.org/10.1680/cien.2002.150.2.82>

Newman, L. (2000). *Shipley Proposal Guide*. Cork: BookBaby.

Newman, L. (2013). *Shipley Business Development Lifecycle Guide*. Cork: BookBaby.

Ohara, S. (2005). *P2M: a guidebook of project & program management*. Project Management Association of Japan. Retrieved from <https://books.google.mk/books?id=AJAwMwEACAAJ>

Project Management Institute (Ed.). (2013). *A guide to the project management body of knowledge (PMBOK guide)* (Fifth edition). Newtown Square, Pennsylvania: Project Management Institute, Inc.

Pullarkat, R. K., & Reha, H. (1975). Stearyl coenzyme A desaturase activities in rat brain microsomes. *Journal of Neurochemistry*, 25(5), 607–610.

Questionnaires: Meaning and Types. (n.d.). MBA Knowledge BAse. Retrieved from <https://www.mbaknol.com/research-methodology/questionnaires-meaning-and-types/>

Roberts, P. (2013a). *Guide to project management: getting it right and achieving lasting benefit* (Second edition). Hoboken, New Jersey: John Wiley & Sons, Inc.

Roberts, P. (2013b). *Guide to project management: getting it right and achieving lasting benefit* (Second edition). Hoboken, New Jersey: John Wiley & Sons, Inc.

Shi, Q. (2011). Rethinking the implementation of project management: A value adding path map approach. *International Journal of Project Management*, 29(3), 295–302.

Sinha, G. (2016). *A beginners guide for Business Proposal Management*. Notion Press.

Smith, J. N. (2017). *Managing bids, tenders and proposals: introducing the Bid.Win.Deliver framework*.

Tammemagi, H. Y. (2010a). *Winning proposals*. Vancouver, B.C.; Brighton: Self-Counsel ; Roundhouse [distributor].

Tammemagi, H. Y. (2010b). *Winning proposals*. Vancouver, B.C.; Brighton: Self-Counsel ; Roundhouse [distributor].

Thomas, J., & Mullaly, M. (2008). *Researching the value of project management*. Newtown Square, Pa: Project Management Institute.

Verma, G. K., & Mallick, K. (1999a). *Researching education: perspectives and techniques*. London ; Philadelphia, PA: Falmer Press.

Verma, G. K., & Mallick, K. (1999b). *Researching education: perspectives and techniques*. London ; Philadelphia, PA: Falmer Press.

Ward, S. (2004). Developing risk management capability, IN, Risk Management organization and context. *Witherbys Publishing*, 10.1-10.16.

Westland, J. (2006). *The project management life cycle: a complete step-by-step methodology for initiating, planning, executing & closing a project successfully*. London ; Philadelphia, PA: Kogan Page.

White, D., & Fortune, J. (2002). Current practice in project management - an emprirical study. *International Journal of Project Management*, 20(1), 1–11.

Winter, M., Smith, C., Morris, P., & Cicmil, S. (2006). Directions for future research in project management: The main findings of a UK government-funded research network. *International Journal of Project Management*, 24(8), 638–649.

Wisdom, J., & Creswell, J. W. (2013). Mixed Methods: Integrating Quantitative and Qualitative Data Collection and Analysis While Studying Patient-Centered Medical Home Models. *AHQR*, (13-0028-EF).

Zhai, L. Y., & Chaosheng, C. (2009). Understanding the Value of Project Management from a Stakeholder's Perspective: Case Study of Mega-Project Management. *Project Management Journal*, 40(1), 99–109.

Appendix A. Questionnaire on approach to Proposal Management Process

Master Thesis Questionnaire

Questionnaire

1. Please define your position within the Company

2. Please describe the types of projects/ proposals you were involved within Ecolog
Check all that apply.

- ☐ Engineering and Construction
☐ Catering
☐ Life Support Services
☐ Environmental Services
☐ Food Logistics
☐ Other: _____

3. The Bid/ No Bid Decision is distributed in a systemized and timely manner to the Proposal Team

Mark only one oval.

	1	2	3	4	5	
Always	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Never

4. The Proposal Team members tasks are defined properly

Mark only one oval.

	1	2	3	4	5	
Always	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Never

5. The Proposal Major milestones are realistic and followed by the Proposal Team

Mark only one oval.

	1	2	3	4	5	
Always	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Never

6. The Kickoff Meetings are productive and organized in a professional manner

Mark only one oval.

	1	2	3	4	5	
Always	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Never

7. The Compliance Checklist includes enough information and instructions

Mark only one oval.

	1	2	3	4	5	
Always	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Never

8. Site Visit Reports provided answer all questions included in the Site Visit Questionnaire template

Mark only one oval.

	1	2	3	4	5	
Always	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Never

9. Work Breakdown Structures (WBS) are developed for each proposal

Mark only one oval.

	1	2	3	4	5	
Always	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Never

10. The Proposal Outline matches the client's instructions

Mark only one oval.

	1	2	3	4	5	
Always	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Never

11. The Proposal input is provided as per the agreed schedule dates

Mark only one oval.

	1	2	3	4	5	
Always	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Never

12. Benchmarking is used as a tool in the proposal development

Mark only one oval.

	1	2	3	4	5	
Always	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Never

13. The Red Review Meetings are done for each proposal

Mark only one oval.

	1	2	3	4	5	
Always	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Never

14. The Proposal documentation is organized and properly maintained

Mark only one oval.

	1	2	3	4	5	
Always	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Never

15. Please indicate how often the following occur during the Proposal Management Process

Mark only one oval per row.

	Always	Very often	Sometimes	Rarely	Never
Insufficient time for developing the proposal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unclear Definition of the team members' roles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of Team Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Poor Communication between team members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of clear process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Poorly established priorities between proposal objectives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of experience with new technology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The scope of the project is out of the team's expertise and area of knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. Please indicate how often you use the following when aligning proposal objectives

Mark only one oval per row.

	Always	Very often	Sometimes	Rarely	Never
Use of tools to ensure the team is focused on the proposal objectives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regular meetings to keep lines of communications open	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assess and identify potential areas of disagreement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use teamwork and teambuilding programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use of consultants/ specialists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. Please score the level of usefulness of the tools currently in place

Mark only one oval per row.

	Very Useful	Useful	Not Useful
Compliance Checklist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Milestone Planning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proposal Schedules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kickoff Meeting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proposal Library	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WBS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Database for Cost Estimating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cost Calculation System	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Red Team Review	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. Please define the implications to the current Proposal Management Process

19. What actions can be taken to improve the Proposal Management Process

Appendix B. Framework Validation Questionnaire

Framework Validation Questionnaire

Questions		Individuals Scores 1 is poor and 5 is excellent					Rating (out of 5)	
							Avg.	Avg %
		Individual Scores					Score	Score
1	The extent to which the Process Map represents the Proposal Management Process							
2	The extent to which the activities in the Process could assist in making better decisions concerning the proposal							
3	The ability of the Process Map to help in making key decisions regarding proposal management							
4	The ability of the Process Map to facilitate communication of proposal objectives							
5	The usefulness of the Process Map to the overall Proposal Management Process							
6	The ease to understand the aspects of the gates							
7	How easy the framework is to use?							
8	Is the framework cost effective?							
9	Your overall assessment to the framework							